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December 2, 2019

VIA ELECTRONIC FILING

Ms. Kimberley A. Campbell
Chief Clerk
North Carolina Utilities Commission
430 N. Salisbury Street, Dobbs Building
Raleigh, North Carolina 27603

Re: Docket No. G-40, Sub 150

Dear Ms. Campbell:

Pursuant to G. S. § 62-133.4(c) and Commission Rule R1-17(k)(6), I have enclosed the Direct Testimony and Exhibits of Taylor B. Younger attesting to the prudence of Frontier Natural Gas Company's ("Frontier") gas purchasing practices and the accuracy of Frontier's gas cost accounting for the twelve month period ended September 30, 2019.

The required fifteen copies of these documents are being sent to the Commission's office via FedEx Overnight.

Thank you for your assistance with this matter. If you have any questions regarding this filing, you may reach me at the number shown above.

Sincerely,

/s/ James H. Jeffries IV
James H. Jeffries IV

JHJ/sko

Enclosures

cc: Elizabeth Culpepper
Fred Steele
Al Harms

State of North Carolina
North Carolina Utilities Commission
Raleigh

Docket No. G-40, Sub 150

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION:

In the Matter of)
)
Application of Frontier Natural Gas)
Company for Annual Review of)
Gas Costs Pursuant to G.S. 62-133.4(c))
and Commission Rule R1-17(k)(6))

DIRECT TESTIMONY

OF

Taylor Younger

December 2, 2019

Q. Please state your name, business address, by whom you are employed, and in what capacity.

A. My name is Taylor B. Younger. My business address is 110 PGW Drive, Elkin North Carolina, North Carolina, 28621. I am employed by Frontier Natural Gas Company ("Frontier"), as Regulatory Compliance Engineer.

Q. Mrs. Younger, how long have you been associated with Frontier?

A. I began working with Frontier in August 2017.

Q. Mrs. Younger, what are your current responsibilities with Frontier related to gas supply planning?

A. I am responsible for the management and oversight of natural gas supply planning and purchases for Frontier. Specifically, my responsibilities include oversight of procurement and optimization of pipeline transportation, and supply assets, system demand forecasting, administration of Frontier's hedging plans, state and federal regulatory issues concerning supply and capacity, asset and risk management, and transportation administration.

Q. Mrs. Younger, please summarize your educational and professional background.

A. I am a graduate of North Carolina State University with a B.S. degree in Industrial and Systems Engineering and a minor in Business Administration. I have also been accepted into NC State's Jenkins MBA program, where I will begin classes with a focus on financial management in January 2020. Since beginning my career at Frontier, I have had the opportunity to attend various training sessions to enhance my professional development. I have obtained certifications focused around leadership, system design and modeling, and pipeline integrity.

- Q. In Docket No. G-40, Sub 149 the North Carolina Utilities Commission Ordered “That Frontier and the Public Staff shall work together collaboratively to address future gas purchasing practices by Frontier, including hedging and other price mitigation practices, in order to reduce or eliminate concerns over customer exposure to potential gas cost volatility while maintaining reasonable up-front charges to customers for the right to call on gas under high demand scenarios. Please summarize the steps taken by Frontier to address this point in the order.
- A. The most significant updates to Frontier’s Gas Supply Procurement Policy are under guidelines for hedging. FNGC may procure hedges in winter strips being any period within the months of November through March. On June 4, 2019, Frontier Natural Gas Company met with NC Public Staff and NCUC Pipeline Safety Section to discuss with them Frontier’s updated Gas Supply Procurement Policy. The main purpose of this meeting was to share how we plan to utilize our revised Procurement Policy to prepare for winter 2019-2020. The PowerPoint shared on June 4 is included in Exhibit A. The revised Gas Supply Procurement Policy is included in Exhibit B.
- Briefly summarizing our policy, under a contract with Marquette Energy Analytics, Frontier will be provided with an annual report updating a monthly forecast for the upcoming year. This forecast includes an expected daily average flow and an expected daily maximum flow for each month of the upcoming year. This report provided by Marquette is derived from actual historical usage, historical weather patterns, and projected customer growth. We receive this report each March to help us make hedging decisions throughout the months of April to September for the upcoming winter.

FNGC anticipates it will hedge 50% of expected average daily flow for each winter month. Frontier will subtract out current capacity of 8,613dth from the expected max daily flow for each month to conclude how much of the forecasted Zone 5 purchase gas should be hedged for that month. A reasonable percentage of this amount shall be hedged, while the rest of Zone 5 purchases shall be executed with FOM pricing, to minimize the likelihood of the need to purchase volatile Zone 5 daily priced gas. Exhibit C provides an analysis showing the hedge amounts that were determined for each upcoming winter month. This sheet also shows Marquette's expected average and max daily flows for the year.

As stated above, Frontier revised and updated its Gas Supply Procurement Policy during the review period and met with Public Staff as required in the Order. Frontier did not utilize the policy for this review period, but has initiated hedges for the 2019 – 2020 winter. Exhibit C is attached to quantify how we will utilize this updated policy going forward.

- Q. In Docket No. G-40, Sub 149 the North Carolina Utilities Commission concluded that Frontier should examine options for bolstering its gas supply planning. Please summarize the steps taken by Frontier to address this point in the order.
- A. Frontier has made a conscious effort to engage the Hearthstone Utilities Risk and Supply Committee in all aspects of our gas supply planning by providing committee members with not only our weekly usage updates, but also more insight into our hedging plan and purchases. Exhibit D details the Risk and Supply Committee Meeting minutes. This creates a more collaborative approach to gas supply planning by giving committee members a chance to offer their opinions. Additionally, Frontier has sought to seek outside expertise for all gas supply endeavors by utilizing Hearthstone's gas supply consultants, Al Harms and Len Gilmore. Frontier now includes Mr. Harms and Mr. Gilmore in all internal gas

supply planning meetings. These consultants gave insight in revising our Gas Supply Procurement Plan. They are also helping guide us through the process of rationalizing and choosing our Gas Supply Asset Manager for the period of April 1, 2020 - March 31, 2023.

Q. It is known that Frontier does not have firm transportation capacity sufficient to cover winter peak days. How did Frontier handle this during the review period?

A. Frontier reached out to our Gas Supply Asset Manager, UGI, to talk through the best strategy to make sure we were not subject to the volatile Z5 daily market. It was concluded that we would enter into a peaking supply contract to protect ourselves. The peaking contract is shown in Exhibit E. Frontier had several meetings and conversations with UGI to tailor the peaking contract to meet our exact needs. It was determined that the contract offered 3232 dth a day for any 20 days throughout January or February and the contract would work as no notice supply, meaning anything over and above our nominated FOM quantity would automatically be classified as peaking supply, and as soon as the seasonal quantity for peaking service had expired, any additional supply would be priced at GDA Transco Zone 5 South. Exhibit F shows meeting minutes summarizing this information. Frontier locked in a strike price of \$3.072 for all peaking contract gas used. Analysis attached in Exhibit G was completed to prove the peaking contract offering coverage of 3232 dth a day for 20 days throughout January and February was sufficient for coverage. It is shown that using January 2018 bundled usage with an additional allowance for growth and marketer shortages, our peaking contract of 3232 dth a day would cover us on days where we were expected to use above our January FOM nomination of 10,000 dth a day. This analysis also shows that we anticipated only using the peaking service on 11 days in January, for a total of 20,184 dth of the available 64,640. From this information and the

fact that historical and anticipated weather forecast for February indicated it would be a warmer month than January, we were able to conclude the peaking service would be sufficient for both January and February 2019.

Q. Does that conclude your testimony?

A. Yes, at this time.

Exhibit A



Procurement Policy Update

June 4th, 2019

Gas Supply Procurement Policy Update

- ▶ Modifications to overall plan to better fit current FNGC Gas Procurement Practices
 - ▶ A copy of the plan is provided
- ▶ Most significant updates are the Guidelines for Hedging
 - ▶ FNGC may procure hedges in winter strips (any period within the months of November through March)
 - ▶ FNGC will hedge 50% of expected average daily flow for each winter month of Nov- Mar at Z3 pricing
 - ▶ The remainder of the 8,613 dth capacity will be priced at the Z3 FOM and/or Z3 Daily, based upon considerations of the current market prices and the most current weather forecast at the time FOM nominations are due, with a portion held for daily balancing to be priced at Z3 Daily
 - ▶ FNGC will subtract out current capacity of 8,613 dth from the expected max daily flow for each month to conclude how much Z5 gas should be purchased for that month
 - ▶ A reasonable percentage should be hedged, while the rest of Z5 purchases should be executed with FOM pricing
- ▶ The quantities established in the Annual Plan for Forward Hedging will be equally divided into 6 parts with one part hedged each month from April to September
 - ▶ Each month's hedge will be executed between the 10th and 25th of that month

Marquette Energy Analytics Forecast for Hedging Purposes

- Marquette Energy Analytics performed a Design Day Study (DDS) for us in 2017
 - Typically clients ask for in depth DDS every 3-5 years
 - FNGC will ask for one again in 2022- Full DDS not needed annually with current contract
- Current contract with Marquette requires them to send an annual report updating us on Monthly Forecast for the upcoming year
 - This report is based on actual historical usage, historical weather patterns, and projected customer growth
 - We have asked to receive the report every March to show expected max flow and average flow each month for the upcoming year to help us make hedging decisions
 - A summary of the Marquette annual report is below:

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Expected Max Flow	6,134	3,788	2,808	2,453	2,719	3,296	5,971		8,580	10,906	12,412	11,065	9,141	6,511	3,943
Expected Average Flow	3,390	2,619	2,153	1,938	2,073	2,478	3,488		5,085	6,927	7,931	7,033	5,223	3,553	2,715
1-in-30 load (from 2017 DDS)	7,304	4,703	2,441	1,897	2,247	4,090	6,471		8,489	11,792	12,964	12,152	10,272	7,304	4,703

Executed Hedge Example

➤ Total Amount to Hedge Over 6 Months, April - September

Zone 3 Capacity	8613											
	Max	Average	% Hedged	Z3 Forward Hedge	Z3 FOM or Daily	Z3 Daily Balancing	Short of Max	Z5 Purchase Max	Z5 Forward Hedge	Up to Z5 FOM	Total Fixed	Z5 Daily Protected to
November	8,580	5085	50%	2542	5571	500	-33	0	0	0	8113	8613
December	10,906	6927	50%	3463	4150	1000	2293	2293	1200	1093	9906	10906
January	12,412	7931	50%	3965	3648	1000	3799	3799	1200	2599	11412	12412
February	11,065	7033	50%	3517	4096	1000	2452	2452	1200	1252	10065	11065
March	9141	5223	50%	2612	5502	500	528	528	0	0	8113	8613

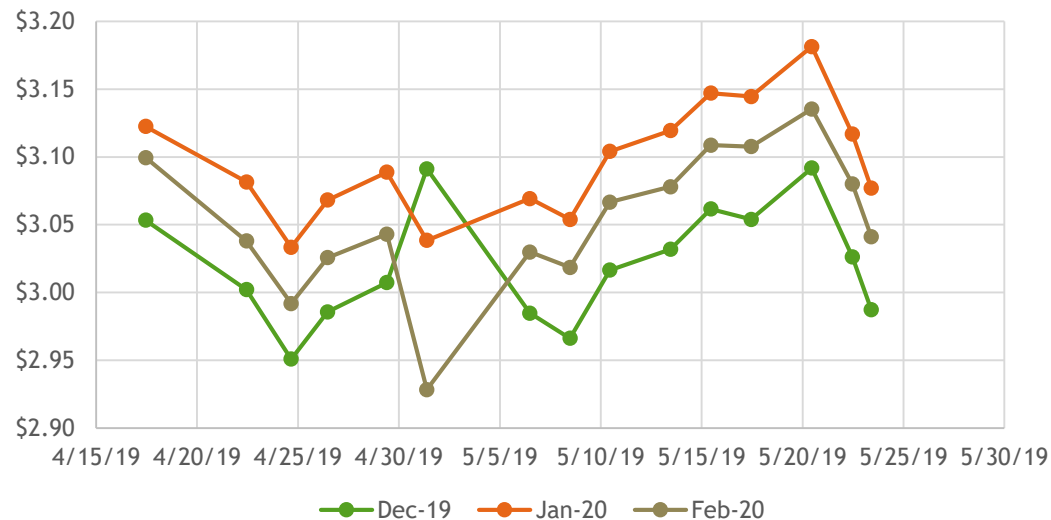
➤ April Hedge Amounts and Pricing

Days	Month	Daily Volume Zone 3	Monthly Volume Zone 3				2.42%	\$ 0.03631	\$ 0.04000	Executed Fixed Price Total
				NYMEX	Z3 Basis	Fuel Cost	Commodity Cost	Scheduling Fee		
30	Nov-19	424	12,720	\$ 2.707	\$ (0.0400)	\$ 0.06454	\$ 0.03631	\$ 0.04000	\$	2.808
31	Dec-19	577	17,887	\$ 2.863	\$ (0.0400)	\$ 0.06832	\$ 0.03631	\$ 0.04000	\$	2.968
31	Jan-20	661	20,491	\$ 2.944	\$ (0.0400)	\$ 0.07028	\$ 0.03631	\$ 0.04000	\$	3.051
29	Feb-20	586	16,994	\$ 2.894	\$ (0.0400)	\$ 0.06907	\$ 0.03631	\$ 0.04000	\$	2.999
31	Mar-20	435	13,485	\$ 2.784	\$ (0.0400)	\$ 0.06640	\$ 0.03631	\$ 0.04000	\$	2.887
	Master Deal	9109								
	Fixed Price									
	Sale to Frontier									
Days	Month	Daily Volume Zone 5	Monthly Volume Zone 5					\$ 0.11500	Executed Fixed Price Total	
				NYMEX	Z5 Basis	Fuel Cost	Commodity Cost	Scheduling Fee		
30	Nov-19	0	0						\$	-
31	Dec-19	200	6,200	\$ 2.863	\$ 0.6800	\$ -	\$ -	\$ 0.11500	\$	3.658
31	Jan-20	200	6,200	\$ 2.944	\$ 3.1950	\$ -	\$ -	\$ 0.11500	\$	6.254
29	Feb-20	200	5,800	\$ 2.894	\$ 3.0100	\$ -	\$ -	\$ 0.11500	\$	6.019
31	Mar-20	0	0						\$	-

Tracking Hedge Quotes

- ▶ Starting in April of each year, Frontier will request various fixed price quotes for the quantities it has designated to hedge over the winter period
- ▶ All pricing information will be archived and a summary will be reported at each weekly Risk and Supply Meeting to include an assessment of any potential market event that would impact forward market prices

Z3 NYMEX + Basis



Z5 NYMEX + Basis

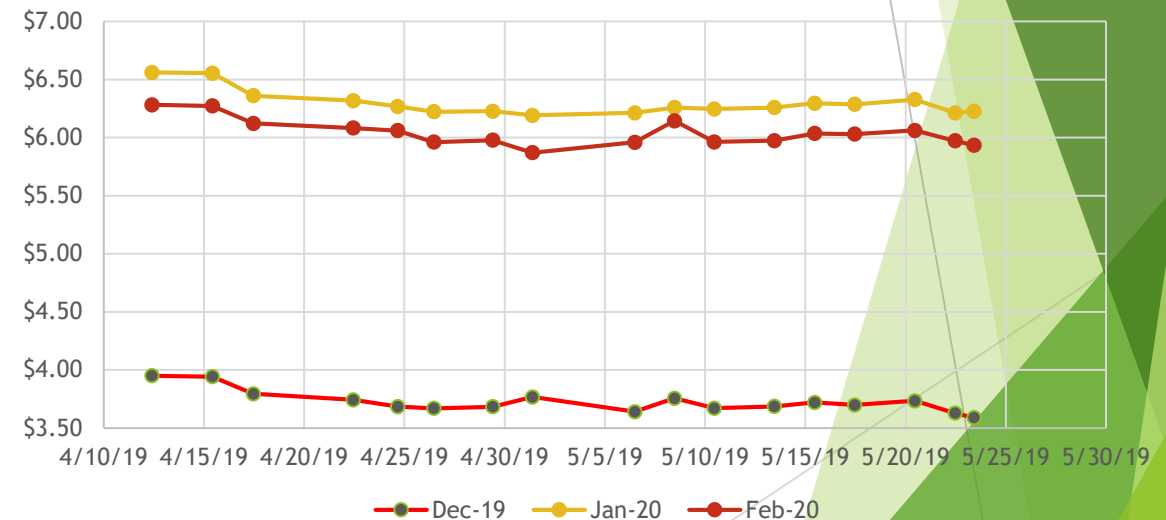


Exhibit B

Frontier Natural Gas Company

Policy and Practice of:

Gas Supply Procurement

Purpose:

It is the Frontier Natural Gas Company (Frontier) mission to provide safe and reliable natural gas service at a reasonable price to our customers. The purpose of this policy is to provide direction for the procurement of natural gas for resale and to establish financially sound, responsible, and prudent guidelines for the procurement of natural gas from available sources for the operation of the natural gas utility system.

Objective:

The Gas Supply Procurement policy of Frontier seeks supply adequacy, reliability, diversity, and minimization of the associated costs while stabilizing prices. This begins with an accurate estimation of customer usage requirements and a plan to meet them in an efficient manner. This is accomplished through a diligent effort to assess available supply options to meet system and customer requirements in an organized approach.

Regulatory Authority:

Frontier is a natural gas local distribution company and is as a public utility under the laws and regulations of the State of North Carolina pursuant to Chapter 62 of the North Carolina General Statutes. Frontier is also regulated per the rules and regulations set forth by the North Carolina Utilities Commission (Commission).

Policy:

Frontier's Gas Supply Planning Committee (Committee) has been established and maintained to pursue this objective. External Information evaluated by the Planning Committee will include, but is not limited to, market indicators, seasonal weather forecasts, periodicals and forecasts of natural gas prices, and all available intelligence on the direction of natural gas and pipeline capacity availability and prices.

Each year the Committee will review the natural gas historic sales volumes of bundled customers and forecasts of future load requirements, based on added process and heat load to supply new bundled customers, in a Gas Supply Annual Budget to senior management. The Gas Supply Annual Budget in combination with the gas purchasing practices stated in this Gas Supply Procurement Plan will be referred to as the Annual Plan.

The Annual Plan will estimate the segmented monthly and daily quantity based on the historic loads and the projected additional daily volume added to the system by rate class as well as firm and interruptible customers. Statistical-based forecasts and estimates will be formulated using heating degree days, usage per heating degree

day, customer additions or losses and other trends and correlations that appear to drive natural gas consumption. Engineering concerns regarding system pressure during peak periods and the challenges of skewed growth will be addressed in the Annual Plan. The Annual Plan will delineate the estimated supply requirements under a most likely winter scenario as well as a one in 30-years (or heating degree-day equivalent) winter scenario, and thus will project reasonably expectable demand for firm service under North Carolina Utilities Commission Rule R6-23 for adequacy of supply.

To best pair identified supply requirements with available gas supply capacity, Frontier will review estimated monthly, seasonal and peak demand day requirements for full service customers to resources available to meet these requirements. Upstream resources may include peaking and storage services, supplies that are base load, swing, seasonal supply and/or spot purchases. Long-term planning for peak period resources to be considered will include, but not be limited to, air-propane plants, liquefied natural gas (LNG) plants and on-system storage. Per Commission, Rule R6-23 - Adequacy of Supply, there will be an assessment of the production and/or storage capacity of the utility's plant, supplemented by the gas supply regularly available from other sources, to determine if there is sufficient supply to meet all reasonably expectable demands for firm service.

"Suppliers" shall mean any entity which locates, aggregates, produces, purchases, sells, stores and/or transports natural gas or its equivalent to, for or on behalf of Frontier. Suppliers may include, but not be limited to, interstate or intrastate pipeline transmission companies, producers, brokers, marketers, associations, joint ventures, providers of Liquefied Natural Gas, Liquefied Petroleum Gas, Synthetic Natural Gas and other hydrocarbons used as feed stock, other local gas distribution companies and end-users.

In annually evaluating and determining the proper resources to procure for the system, the Company will consider other important factors such as, but not limited to, current supply and capacity portfolio, adequacy, price, security, flexibility and deliverability. In some instances, requests for quotes or requests for proposals may be necessary to acquire price or cost data. In such instances, Frontier will not discriminate against any qualified entity.

The general strategy is to serve current and incremental base load and peak period usage following a best-cost dispatch strategy. Frontier uses a "Best Evaluated Cost" supply strategy to achieve Gas Supply Procurement objectives and goals. This strategy entails seeking adequacy, flexibility, and security/creditworthiness of supplier, reliability/dependability of supply, cost of gas, stability of costs incurred and quality of supplier. The Committee will consider the resources available to accomplish this task. Typically, Frontier compares the price at which it can acquire bundled supply and capacity versus the cost of other alternatives. A determination of what type of resource(s) can be reasonably acquired or developed for meeting the Company's deliverability needs is necessary in deciding whether the Company should acquire pipeline transportation capacity; peaking service; acquire liquefied or compressed natural gas plant (LNG or CNG) and facilities; acquire a propane air plant and facilities; acquire a storage service; develop additional on-system storage deliverability or any other supply options. The Committee will evaluate available alternatives each year for their appropriateness in the context of its long-term strategy, portfolio and Annual Plan, and will produce a gas procurement plan that best meets the Frontier system demand for both capacity and supply.

A reconciliation analysis between the previous year's approved Annual Plan and actual performance will be provided in the current Annual Plan. The Annual Plan will provide an explanation of significant variations from the approved plan, adherence to policy, and areas in which methods can be improved. The Annual Plan will contain or cite supporting documents for its conclusions and recommendations.

The Annual Plan shall contain an action plan with a time table to implement the Annual Plan recommendations. The Committee head will be responsible to initiate the Annual Plan, its updates and delivery to senior management in a timely manner. Senior management will direct staff to implement the accepted plan and any modifications in a timely manner.

Suppliers will be notified of individuals that can execute instructions and orders on behalf of Frontier. Instructions and orders will be counter-signed by another individual familiar with the Annual Plan. Document or notation will be made at this time if significant deviation from the Annual Plan is instructed or ordered. Suppliers will provide written confirmation of instructions and orders via fax or electronic communication to appointed individuals as documentation.

Supply Contracting Practice

It is Frontier's current practice to employ one supplier to centralize purchasing and reliability of gas deliveries under a full requirements contract. It is Frontier's policy to evaluate this and different strategies and tactics to promote reliability, price stability and cost efficient purchasing in the Annual Plan or as opportunities arise.

The core of Frontier's current strategy is to obtain supply reliability and price stability by fixing components of the gas cost, including fixing commodity costs and/or transportation costs of the commodity for physical delivery to the Company.

Supply Pricing Practice

Frontier has a three part pricing strategy in gas purchasing: 1) Hedging, 2) First of the month and 3) Daily. The objective behind the weighted average approach is to reduce the risk of gas cost volatility by purchasing gas priced at diverse times reflective of market-based gas price indexes. Execution of the Pricing Strategy will be for the purpose of creating a hedge against market volatility, both seasonal and daily, and not for price speculation

Frontier may procure hedges in winter strips (any period within the months of November through March) . During the summer months, Frontier will seek to obtain reliable and stable commodity prices by fixing forward commodity prices for high demand periods. Although these hedges may be purchased at a premium to average supply rates during this period, bundled customers will be insulated from extremely volatile price swings that have been characteristic to Transco Zone 5.

Guidelines for Hedging Quantities:

Frontier will undertake the best alternative to hedge the market area price, using fixed forward hedges, or fixed options based on the regional index price that coincides with Frontier's gas supply agreement in effect at the time. Frontier will obtain periodic price quotes from its firm service provider to best evaluate the condition of the forward natural gas market.

Frontier will employ a dollar-cost averaging technique when buying the forecasted throughput for each forward hedge position. The intent of this approach is to reduce the variability on the purchases made on each hedge position. The quantity of supply to be hedged will depend on the Annual Plan. Forward hedges will be made for:

November: 50% of Expected Average Flow at Z3
December: 50% of Expected Average Flow at Z3
January: 50% of Expected Average Flow at Z3
February: 50% of Expected Average Flow at Z3
March: 50% of Expected Average Flow at Z3

The remainder of the 8,613 capacity will be priced at the Z3 FOM and or Z3 Daily, based upon considerations of the current market prices and the most current weather forecast at the time FOM nominations are due, with a portion held for daily balancing to be priced at Z3 Daily.

The minimum quantity of Z5 gas to be Forward Hedged will depend on the expected max day flow for each winter month. Current firm Z3 transportation capacity of 8,613 dth should be subtracted from the expected max day flow to conclude how much Z5 gas should be purchased for that month. A reasonable percentage should be hedged, while the rest of Z5 purchases should be executed with FOM pricing. When the current estimated peak day requirements for a month indicate that no Zone 5 purchases are anticipated, there will be no required Z5 hedge volume. Z5 Forward Hedged quantity will be reviewed annually and re-established based on changes in system needs. Z5 FOM purchase quantity will be based upon considerations of the current market prices and the most current weather forecast at the time FOM nominations are due.

The quantities established in the Annual Plan for Forward Hedging will be equally divided into 6 parts with one part hedged each month from April to September. Each month's hedge will be entered into between the 10th and 25th of that month.

Schedule of Actions Required before Hedging:

Frontier will follow a schedule of items each year leading up to the beginning of its winter or summer seasons. These time-driven items will constitute a consistent mechanism for Frontier to complete in order to accomplish the stated objectives of the Annual Plan.

- Starting in March, Frontier will reevaluate the Annual Plan by completing its load forecast of anticipated throughput for the next twelve months. Each twelve month period will run from April through March of the

following year. The forecast will determine the quantities necessary to secure to meet the requirements of each hedge position.

- Starting in April, Frontier will request various fixed price quotes for the quantities it has designated to hedge over the winter period. All pricing information will be archived and a summary will be reported at each weekly Risk and Supply Meeting to include an assessment of any potential market event that would impact forward market prices.

- During the winter period Frontier will secure the necessary first-of-month (“FOM”) or spot purchases necessary to complete the supply pricing strategy for the month.

Any deviation from the Guidelines for Hedging Quantities will be identified and reported to the Gas Supply Policy Committee. The report will identify the variation, the event or events that lead to the variation and an explanation discussing how the variation addressed the events that lead to the variation.

Exhibit C

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Expected Max Flow	6,134	3,788	2,808	2,453	2,719	3,296	5,971		8,580	10,906	12,412	11,065	9,141	6,511	3,943
Expected Average Flow	3,390	2,619	2,153	1,938	2,073	2,478	3,488		5,085	6,927	7,931	7,033	5,223	3,553	2,715
1-in-30 load (from 2017 DDS)	7,304	4,703	2,441	1,897	2,247	4,090	6,471		8,489	11,792	12,964	12,152	10,272	7,304	4,703

Zone 3 Capacity **8613**

	Max	Average	% Hedged	Z3 Forward Hedge	Z3 FOM or Daily	Z3 Daily Balancing	Short of Max	Z5 Purchase Max	Z5 Forward Hedge	Up to Z5 FOM	Total Fixed	Z5 Daily Protected to
November	8,580	5085	50%	2542	5571	500	-33	0	0	0	8113	8613
December	10,906	6927	50%	3463	4150	1000	2293	2293	1200	1093	9906	10906
January	12,412	7931	50%	3965	3648	1000	3799	3799	1200	2599	11412	12412
February	11,065	7033	50%	3517	4096	1000	2452	2452	1200	1252	10065	11065
March	9141	5223	50%	2612	5502	500	528	528	0	0	8113	8613

Exhibit D

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
April 4, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

April Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,147/day	35/day	115/day
DEO	5,000/day	1,150/day	100/day
OTP		1,000/day	
TGP	135/day		

Orwell and NEO are burning off their respective imbalances with Cobra first ten days and then Orwell will re-evaluate

Blended cost per DTH

NEO	\$2.566
Orwell	\$2.620
Brainard	\$2.592

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.485 Dominion \$2.455 and MichCon \$2.575

Oct19-Mar20 Futures: TCO (\$.292), DEO (\$0.368), MichCon, (\$0.177)

Orwell imbalances: OTP 41,556 DTH, Cobra 10,023 DTH, Spellman (689) DTH,

Brainard Imbalances: OTP (284) DTH, Cobra (527) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 29,809/dkt (7,218/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**

- Imbalance 119,207/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.
- **Spellman Pipeline**
- Imbalance (26,063)/dth

Gas Natural Resources:

GNR Weekly Risk Report for **April 4, 2019**: No Changes from last week.

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of February 28, 2018, is (6,295) dth [Cobra at 7,052, OTP at (12,081), ONG at +1,100, and Spelman at (2,366)], which is an increase of 374 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for March is 50,500 mcf. The corresponding supply plan for March is made up of 45,000 dth from North Coast Gas Transmission, 10,100 dth from Columbia Gas Transmission, 4,500 dth from local production, 7,300 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline of 13,500 mcf as of February 28, 2019.
- 2) GNR purchases for **April**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 367 dth/d delivered into North Coast for Lake Hospitals in April – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in April at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in April at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in April at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 500 dth/d into North Coast to serve customer requirements on OTP in April at NYMEX settle plus \$0.085/dth. (basis down \$0.105/dth from March)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in April at NYMEX settle minus \$0.01/dth. (basis down \$0.01/dth from March)

- g. 1-month purchase with Direct Energy - GNR purchasing 125 dth/d delivered into multiple TCO interconnects in April at NYMEX settle plus \$0.00/dth. (basis down \$0.10/dth from March)
- 3) Customer issues; (no changes from last week)
 - a. Due to the volatile gas market we saw this past winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. The NYMEX settle price for April dropped to \$2.713 for April, down \$0.142 from March, so GNR will see another improvement in margin in April on its fixed priced contracts.
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update April 4, 2019

March Rev Budget – 265,141

March Actual – 261,865

March HDD – 1,140, compared to 10 Year Avg 1,058

April Rev Budget – 160,908

Usage to date – 22,826

April Forecast – 160,000

Bangor is currently nominating 5,000/day for Veazie and using approx. 7,500/day. Renee is able to use some of the long imbalance on the pipe of approx. -47,859.

Today's Cash Price – \$2.695 (Algonquin)

Average monthly cash price to date - \$2.84 (Algonquin)

April Filed Gas Cost - \$9.51 (Energy \$7.35, PGC \$2.16)

Per Bangor's Supply Agreement, they have 1,000/d of baseload for April at the Algonquin City Gates Index price of \$X.XX, the price will be posted in the "Platts" Price guide around the 7th of the month.

Bangor has 40% of their April forecast hedged at an average of \$10.25

*Renee sent out their firm Gas Supply RFP for the upcoming period of May 1, 2019 – April 30, 2020. Proposals were due back by March 29th. She sent the RFP to Repsol, Emera Energy, DTE Energy and XNG. Bangor's current contract with Repsol ends April 30th. They received proposals back from Repsol and Emera. Jerry and Renee are evaluating the proposals. They will make a decision by tomorrow the 5th.

Capacity Updates... Bangor has received the fully executed PA's back from TransCanada, Enbridge and PNGTS. They are working on their application that they will be filing with the MPUC for approval later this month.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

MARCH SUMMARY

Budget: 155,996

Usage to Date: 168,185

Daily Avg Usage: 5,425

Avg Daily Cash Price:

Zone 3: \$2.84

Zone 5: \$2.97

FOM Price:

Zone 3: \$2.81

Zone 5: \$3.02

HDD Budget: 505

HDD to Date: 652

HDD Projected: 652

HDD this time last Year: 657

APRIL SUMMARY

Budget: 106,573

Usage to Date: 17,801

Daily Avg Usage: 5,934

Avg Daily Cash Price:

Zone 3: \$2.62

Zone 5: \$2.69

FOM Price:

Zone 3: \$2.66

Zone 5: \$2.73

HDD Budget: 231

HDD to Date: 74

HDD Projected: 329

HDD this time last Year: 28

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 23 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$2.31	\$2.18	\$2.41	\$2.02
AECO	\$0.35	\$0.87	\$1.57	\$0.97
NYMEX	\$2.642- May 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 200/dkt/d – Imbalance (2,600)/dkt as of 3/1/19

- GD5 dropped Glacier nomination to 150/d

Retail – north pool

4008 – Noming 5,450/dkt/d, flowing 4,155/dkt/d, imbalance 10,433/dkt with a tolerance of 12,847/dkt, storage balance is 0/dkt

- GD5 dropped Weyerhaeuser nomination to 1,600/d

EWR Customer Updates:

- **Hill Top Colony** – Renewed their contract for five months at Aeco 7(a), plus \$0.60
- **Fireband Hotel, Whitefish** – asking for a proposal on hotel. Northwestern Energy is currently their supplier.
- Dan is working with potential producers to get additional gas. Mountain View Gathering currently has their wells shut in, but will evaluate whether it is economical to start flowing again. EWR gave John Brown a proposal for their gas. He did not respond to the offer.
- LNG Equipment has been moved off the City of Bangor property. Jerry will assist in getting the lease cancelled.
- Dan had a meeting with Weyerhaeuser on Tuesday, 4/2/19 to discuss how the Carway capacity curtailments affects pricing. They are leaning toward going out for a two-month extension (May & June) to wait out the pricing uncertainties.

Energy West Montana:

2008 – Noming 19,700/dkt/d, flowed 17,517/dkt yesterday, imbalance 13,811/dkt, tolerance of 65,954/dkt, inventory balance 0/dkt

- Deferring storage injections until May to try to pay the line of credit down to zero

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone:

West Yellowstone received three loads from Merit in March. There are seven out of ten scheduled for April at the current contracted price.

The purchase between North Shore and Merit has not been finalized which explains the uncertainties of Merit's supply.

West Yellowstone is reaching out for alternative contracts for future deliveries.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
April 11, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

April Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,147/day	35/day	115/day
DEO	5,000/day	1,150/day	100/day
OTP		1,000/day	
TGP	135/day		

Blended cost per DTH

NEO	\$2.566
Orwell	\$2.620
Brainard	\$2.592

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.49 Dominion \$2.435 and MichCon \$2.615

Oct19-Mar20 Futures: TCO (\$.278), DEO (\$0.350), MichCon, (\$0.168)

Orwell imbalances: OTP 31,882 DTH, Cobra (6,270) DTH, Spellman 171 DTH,

Brainard Imbalances: OTP (901) DTH, Cobra (2,373) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 38,830/dkt (16,239/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 79,754/dth
- **Spellman Pipeline**
 - Imbalance (30,274)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **April 11, 2019**:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of March 31, 2018, is 4,987 dth [Cobra at 8,213, OTP at (3,008), ONG at +520, and Spelman at (738)], which is an increase of 11,282 dth from last month.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. **GNR's customer sales projection for March was 50,500 mcf. Actual customer sales came in at 50,909 mcf, a difference of less than 1% above the forecast.**
 - d. **GNR's customer sales projection for April is 46,800 mcf. The corresponding supply plan for April is made up of 28,000 dth from North Coast Gas Transmission, 5,800 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,000 dth from Tennessee Gas Pipeline (TGP). The balance of 1,400 dth will be made up from the current positive imbalance on Cobra.**
- 2) GNR purchases for **April**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 367 dth/d delivered into North Coast for Lake Hospitals in April – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in April at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in April at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in April at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 500 dth/d into North Coast to serve customer requirements on OTP in April at NYMEX settle plus \$0.085/dth. (basis down \$0.105/dth from March)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in April at NYMEX settle minus \$0.01/dth. (basis down \$0.01/dth from March)
 - g. 1-month purchase with Direct Energy - GNR purchasing 125 dth/d delivered into multiple TCO interconnects in April at NYMEX settle plus \$0.00/dth. (basis down \$0.10/dth from March)

- 3) Customer issues; (no changes from last week)
 - a. **Due to the volatile gas market we saw this past winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. The NYMEX settle price for April dropped to \$2.713 for April, down \$0.142 from March, so GNR will see another improvement in margin on its fixed priced contracts for April business. The market for May gas has remained steady and is currently trading at \$2.69/dth.**
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update April 11, 2019

April Rev Budget – 160,908

Usage to date – 74,125

April Forecast – 165,000

April HDD to date – 290, compared to last year same period 316

Currently nominating 5,000/day for Veazie, using approx. 7,300/day. Bangor is currently long on the pipe of about -32,074.

Today's Cash Price – \$2.725 (Algonquin)

Average monthly cash price to date - \$2.775 (Algonquin)

Per Bangor's Supply Agreement, they have 1,000/d of baseload for April at the Algonquin City Gates Index price of \$2.93, the price was posted in the "Platts" Price guide that came out the 5th of the month.

Bangor has 40% of their April forecast hedged at an average of \$10.25

*Renee sent out their firm Gas Supply RFP for the upcoming period of May 1, 2019 – April 30, 2020. Proposals were due back by March 29th. She sent the RFP to Repsol, Emera Energy, DTE Energy and XNG. Bangor's current contract with Repsol ends April 30th. They received two firm supply proposals back one from Repsol and the other Emera. They awarded their Gas Supply RFP to Emera Energy.

Capacity Updates...

Bangor has received the fully executed PA's back from TransCanada, Enbridge and PNGTS. They are working on their application that they will be filing with the MPUC for approval later this month.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

APRIL SUMMARY

Budget: 106,573

Usage to Date: 38,286

Daily Avg Usage: 3,829

Avg Daily Cash Price:

Zone 3: \$2.60

Zone 5: \$2.64

FOM Price:

Zone 3: \$2.66

Zone 5: \$2.73

HDD Budget: 231

HDD to Date: 128

HDD Projected: 267

HDD this time last Year: 152

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 25 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$2.26	\$2.20	\$2.45	\$2.04
AECO	\$0.78	\$0.95	\$1.60	\$0.98
NYMEX	\$2.694- May 2019			

South Pool

7008 – Noming 150/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 150/dkt/d, flowing 150/dkt/d – Imbalance (2,600)/dkt as of 3/1/19, working off imbalance

Retail – north pool

4008 – Noming 4,208/dkt/d, flowing 4,795/dkt/d, imbalance 12,754/dkt with a tolerance of 11,717/dkt, storage balance is 0/dkt

- Three Forks Production down for maintenance GD9-12 (500/dkt/d lost volumes).

EWR Customer Updates:

- LNG Equipment has been moved off the City of Bangor property. EWR has given the City a 30-day cancellation notice for the Lease.

- Dan gave Weyerhaeuser an indicative offer of pricing for the two month extension (May19-Jun19) would be AECO 5A +\$0.80. They have not responded to the offer.
- Great Falls Sand & Gravel and Pasta Montana have contracts expiring on 4/30/19. EWR will send them an indicative offer.

Energy West Montana:

2008 – Noming 18,200/dkt/d, flowed 22,291/dkt yesterday, imbalance 19,512/dkt, tolerance of 58,100/dkt, inventory balance 0/dkt

- Deferring storage injections until May to try to pay the line of credit down to zero
- Dan continues to communicate with Northwestern Energy on getting additional primary receipt capacity.

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone:

No change from last week. The loads are keeping up with contractual obligations.

West Yellowstone is exploring alternative contracts for future deliveries.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
April 18, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas by email.

April Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,147/day	35/day	115/day
DEO	5,000/day	1,150/day	100/day
OTP		1,000/day	
TGP	135/day		

Orwell made two purchases this week:

7,000 DTH for OTP @ \$2.60 per and 10,000 DTH for Cobra @ \$2.70 per

Blended cost per DTH

NEO	\$2.566
Orwell	\$2.634
Brainard	\$2.592

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.29 Dominion \$2.23 and MichCon \$2.40

Oct19-Mar20 Futures: TCO (\$.28), DEO (\$0.369), MichCon, (\$0.171)

Orwell imbalances: OTP 45,111 DTH, Cobra (6,270) DTH, Spellman 171 DTH,

Brainard Imbalances: OTP (901) DTH, Cobra (2,373) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 46,451/dkt (23,860/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 81,084/dth

- **Spellman Pipeline**
 - Imbalance (30,274)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for April 18, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of March 31, 2018, is 4,987 dth [Cobra at 8,213, OTP at (3,008), ONG at +520, and Spelman at (738)], which is an increase of 11,282 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for April is 46,800 mcf. The corresponding supply plan for April is made up of 28,000 dth from North Coast Gas Transmission, 5,800 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,000 dth from Tennessee Gas Pipeline (TGP). The balance of 1,400 dth will be made up from the current positive imbalance on Cobra.
- 2) GNR purchases for **April**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 367 dth/d delivered into North Coast for Lake Hospitals in April – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in April at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in April at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in April at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 500 dth/d into North Coast to serve customer requirements on OTP in April at NYMEX settle plus \$0.085/dth. (basis down \$0.105/dth from March)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in April at NYMEX settle minus \$0.01/dth. (basis down \$0.01/dth from March)

- g. 1-month purchase with Direct Energy - GNR purchasing 125 dth/d delivered into multiple TCO interconnects in April at NYMEX settle plus \$0.00/dth. (basis down \$0.10/dth from March)
- 3) Customer issues; (changes from last week are in bold)
 - a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for April dropped to \$2.713 for April, down \$0.142 from March, so GNR will see another improvement in margin on its fixed priced contracts for April business. **The market for May gas has been moving down and is currently trading around \$2.52/dth.** These agreements are mostly month-to-month deals, so hedging is not an option.
 - b. **GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. April basis prices out of Chicago were \$0.085/dth, so GNR's margin on its variable rate agreements was a minimum of \$0.235/dth, an improvement of \$0.105 over March sales.**
 - c. **NYMEX market rates for summer gas is currently trading about \$0.20/dth below corresponding prices for this time last year (\$2.60/dth vs \$2.80/dth). Actual monthly settle prices averaged \$2.88/dth last summer. This looks like it could be an opportunity to hedge some gas for the summer period, but unfortunately, GNR's month-to-month customer base makes this strategy a risky option.**
 - d. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update April 18, 2019

April Rev Budget – 160,908

Usage to date – 108,200

April Forecast – 165,000

April HDD to date – 431, compared to last year same period 501

Currently nominating 3,200/day for Veazie, Bangor is using approx. 6,400/day, currently long on the pipe of about -33,071.

Today's Cash Price – \$2.40 (Algonquin)

Average monthly cash price to date - \$2.702 (Algonquin)

Per Bangor's Supply Agreement, they have 1,000/d of baseload for April at the Algonquin City Gates Index price of \$2.93, the price was posted in the "Platts" Price guide that came out the 5th of the month.

Bangor has 40% of their April forecast hedged at an average of \$10.25

Bangor awarded their Gas Supply RFP to Emera Energy for the upcoming period of May 1, 2019 – April 30, 2020.

Capacity Updates...

Bangor has received the fully executed PA's back from TransCanada, Enbridge and PNGTS. They are working on their application that they will be filing with the MPUC for approval later this month.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

APRIL SUMMARY

Budget: 106,573

Usage to Date: 58,478

Daily Avg Usage: 3,440

Avg Daily Cash Price:

Zone 3: \$2.58

Zone 5: \$2.61

FOM Price:

Zone 3: \$2.66

Zone 5: \$2.73

HDD Budget: 231

HDD to Date: 181

HDD Projected: 251

HDD this time last Year: 221

Fred gave the Committee a pricing overview for Frontier. A winter supply Procurement Plan has been submitted to the staff for review. Frontier has been working with Dr. Brown to establish a new peak day.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 92 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.53	\$2.08	\$2.38	\$2.01
AECO	\$1.17	\$0.89	\$1.53	\$1.00
NYMEX	\$2.508- May 2019			

South Pool

7008 – Noming 150/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 150/dkt/d, flowing 200/dkt/d – Imbalance (3,681)/dkt as of 4/1/19, working off imbalance

Retail – north pool

4008 – Noming 4,750/dkt/d, flowing 4,252/dkt/d, imbalance 7,782/dkt with a tolerance of 10,906/dkt, storage balance is 0/dkt

- Three Forks Production back up
- GD19 zeroed out sales on Pool 7008 to work off imbalance
- Management approved storage injections for EWR

EWR Customer Updates:

- Weyerhaeuser is now requesting an executable bid for May19-Oct19. Dan gave them the following proposal with Management's approval. **Volumes:** Actual consumption plus fuel – estimated 1,600/d, **Price:** 5A daily average plus \$0.80/dkt **Special Conditions:** If Carway is curtailed (by either TCPL or NorthWestern) at 50% or greater, the price would be CIG Rocky Mountain (simple daily average) plus \$0.34/dkt.
- Montana Resources – Dan will try to get MRI to commit early. Their contract expires 10/31/19.
- Great Falls Sand & Gravel and Pasta Montana have contracts expiring on 4/30/19. EWR will sent them an indicative offer.
- Hexion, Missoula has filed for Bankruptcy – EWR will try to get a deposit and split out Northwestern Energy charges.

Energy West Montana:

2008 – Noming 19,200/dkt/d, flowed 17,225/dkt yesterday, imbalance 8,916/dkt, tolerance of 54,886/dkt, inventory balance 0/dkt

- Deferring storage injections until May to try to pay the line of credit down to zero

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone:

The loads are keeping up with contractual obligations, 100% of the loads are from Merit.

West Yellowstone is exploring alternative contracts for future deliveries.

- They reached out to Intermountain Gas informally. They were interested but were unsure of staffing and pricing.
- Evan will reach out to Prometheus Energy

Scheduling for May will be earlier next week.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
April 25, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

May Baseload Purchases:

	TCO	DEO	TGP	OTP
Orwell	70/day	425/day		250/day
NEO	1,770/day	1,060/day	30/day	
Brainard	10/day	45/day		

NEO is injecting 1,377 / day into storage and Orwell 500/day

Blended cost of gas:

Orwell	\$2.406 per DTH
Brainard	\$2.309 per DTH
NEO	\$2.298 per DTH

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.365 Dominion \$2.195 and MichCon \$2.495

Oct19-Mar20 Futures: TCO (\$.297), DEO (\$0.432), MichCon, (\$0.192)

Orwell imbalances: OTP 45,111 DTH, Cobra (6,270) DTH, Spellman 171 DTH,

Brainard Imbalances: OTP (901) DTH, Cobra (2,373) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 35,961/dkt (13,370/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 81,084/dth
- **Spellman Pipeline**

- Imbalance (30,274)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for **May 2, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of March 31, 2018, is 4,987 dth [Cobra at 8,213, OTP at (3,008), ONG at +520, and Spelman at (738)], which is an increase of 11,282 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to ever repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for April is 46,800 mcf. The corresponding supply plan for April is made up of 28,000 dth from North Coast Gas Transmission, 5,800 dth from Columbia Gas Transmission, 4,600 dth from local production, and 7,000 dth from Tennessee Gas Pipeline (TGP). The balance of 1,400 dth will be made up from the current positive imbalance on Cobra.
 - d. **GNR's customer sales projection for May is 35,800 mcf. The corresponding supply plan for May is made up of 20,100 dth from North Coast Gas Transmission, 5,500 dth from Columbia Gas Transmission, 5,700 dth from local production, and 7,400 dth from Tennessee Gas Pipeline (TGP).**
- 2) GNR purchases for May; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in May – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in May at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in May at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in May at \$3.125/dth.**
 - e. **1-month purchase with Elevation Energy – GNR purchasing 325 dth/d into North Coast to serve customer requirements on OTP in May at NYMEX settle minus \$0.055/dth. (basis down \$0.14/dth from April)**
 - f. **1-month purchase with Elevation Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in May at NYMEX settle minus \$0.11/dth. (basis down \$0.10/dth from April)**

- g. **1-month purchase with Elevation Energy - GNR purchasing 145 dth/d delivered into multiple TCO interconnects in May at NYMEX settle minus \$0.12/dth. (basis down \$0.12/dth from April)**
- 3) Customer issues; (changes from last week are in bold)
 - a. **GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for May dropped to \$2.566 for May, down \$0.147 from April, so GNR continues to see margin improvement on its fixed priced contracts. The monthly NYMEX settle has steadily dropped each month this year from a high of \$3.642/dth in January.**
 - b. **GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.055/dth, so GNR's margin on its variable rate agreements should be at least \$0.375/dth, an improvement of \$0.14 over April sales.**
 - c. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas by email.

Jerry and Renee are attending the Northeast Gas Association "NGA" Regional market trends forum.

Bangor Supply Update April 25, 2019

April Rev Budget – 160,908

Usage to date – 141,145

April Forecast – 173,000

April HDD to date – 570, compared to last year same period 657

Currently nominating 3,200/day for Veazie, we are currently long on the pipe of about -25,427.

Today's Cash Price – \$2.43 (Algonquin)

Average monthly cash price to date - \$2.586 (Algonquin)

Per Bangor's Supply Agreement, they have 1,000/d of baseload for April at the Algonquin City Gates Index price of \$2.93, the price was posted in the "Platts" Price guide that came out the 5th of the month.

Bangor has 40% of their April forecast hedged at an average of \$10.25

Capacity Updates...

Bangor has received the fully executed PA's back from TransCanada, Enbridge and PNGTS. They are working on their application that they will be filing with the MPUC for approval later this month.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

APRIL SUMMARY

Budget: 106,573

Usage to Date: 77,428

Daily Avg Usage: 3,226

Avg Daily Cash Price:

Zone 3: \$2.53

Zone 5: \$2.55

FOM Price:

Zone 3: \$2.66

Zone 5: \$2.73

HDD Budget: 231

HDD to Date: 248

HDD Projected: 277

HDD this time last Year: 299

Frontier's winter Procurement Plan has been submitted to the staff for review. They will meet with the staff on June 4th to review the plan.

In compliance with Frontier's Procurement plan, they purchased fixed priced volumes from Zone 3 and Zone 5 yesterday (see attached purchases).

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 123 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.97	\$2.09	\$2.41	\$2.00
AECO	\$1.23	\$0.87	\$1.56	\$0.97
NYMEX	\$2.572 - June 2019 May closed @ \$2.53			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance (3,681)/dkt as of 4/1/19

Retail – north pool

4008 – Noming 4,836/dkt/d, flowing 6,033/dkt/d, imbalance 77/dkt with a tolerance of 10,282/dkt, injecting 1,600/dkt/d into storage, balance is 17,400/dkt

EWR Customer Updates:

- Montana Resources – Dan contacted MRI and they are willing to do a fixed price; However, MCR sold their fixed price gas to Commercial. Dan will continue to track down supply and pricing for MRI.
- Great Falls Sand & Gravel
- Pasta Montana have contracts expiring on 4/30/19. EWR sent them both an indicative offer.
- Hexion, Missoula has filed for Bankruptcy – EWR will read the NAESB for to find out their options.
- Great Falls Airport – EWR sent them a one and two year proposal
- MT Tunnels' financing is moving forward for the mine, anticipating it to close by the end of April. They are working with Dan and Northwestern Energy to give them specifications on what sort of natural gas flow they could receive at Montana Tunnels. As part of our financing plan, they are looking at some new equipment where natural gas would become a much larger component.

Energy West Montana:

2008 – Noming 24,000/dkt/d, flowed 23,885/dkt yesterday, imbalance 14,089/dkt, tolerance of 50,066/dkt, injecting 5,000/dkt/d into storage, inventory balance 5,000/dkt

West Yellowstone:

No changes from last week

The loads are keeping up with contractual obligations, 100% of the loads are from Merit.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
August 1, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Ken Oostman, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill, Calvin Johnson and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas by email.

August Baseload Purchases:

	TCO	Dominion	OTP	TGP
NEO	2,000/day	1,700/day		5/day
Orwell	105/day	145/day	450/day	
Brainard	15/day	15/day		

Blended Cost of Gas for July 2019:

NEO	\$1.873/ DTH
Orwell	\$2.063 / DTH
Brainard	\$1.931 / DTH

Daily Price Index: TCO Appalachia \$2.00 Dominion \$1.94 and MichCon \$2.08

Oct19-Mar20 Futures: TCO (\$.278), DEO (\$0.349), MichCon, (\$0.131)

Orwell imbalances: OTP & NC: 39,709 DTH, Cobra (8,155) DTH, Spellman (707) DTH,

Brainard Imbalances: OTP & NC: 548 DTH, Cobra 1,366 DTH

GTS TCO Storage Balance: 91,302/dth

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 200,795/dkt (77,454/dth GTS & 123,341/dth FSS)
 - Goal to get to 140,000/dth in FSS storage
- **Cobra Pipeline**
 - Imbalance 59,668/dth
- **Spellman Pipeline**
 - Imbalance (11,711)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for August 1, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance position as of June 30, 2019, is +10,300 dth [Cobra at +1,754 dth, OTP at +8,677 mcf, Spelman at (41) dth and ONG at (90) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, was +6,590 dth so this represents an increase of 3,710 dth from May's position.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's original customer sales projection for July was 35,100 mcf. The mid-month forecast for July customer sales has been reduced slightly to 34,300 mcf.
 - d. GNR's customer sales projection for August is 33,600 mcf. The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.
- 2) GNR purchases for **August**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in August – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in August at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in August at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 10 dth/d into North Coast to serve Lake Co. YMCA in August at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 320 dth/d into North Coast to serve customer requirements on OTP in August at NYMEX settle minus \$0.04/dth. (basis up \$0.04/dth from July)
 - f. 1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in August at NYMEX settle minus \$0.18/dth. (no change in basis from July)

- g. 1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in August at NYMEX settle minus \$0.16/dth. (basis up \$0.025/dth from July)
 - h. **3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.**
- 3) Customer issues; (changes from last week are in bold)
- a. **GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for August is \$2.141/dth, down \$0.15 from July, so GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.**
 - b. **GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in July was NYMEX minus \$0.04/dth, so GNR's margin on its variable rate agreements should be at least \$0.36/dth, a \$0.04/dth decrease from last month.**
 - c. **GNR signed a contract with Landis Farms to fix the price on 50% of their gas supply needs for the fall drying season. The margin for this deal is approximately \$1.79 per mcf. Landis Farms consumed 2,300 mcf last drying season.**
 - d. **Lake Forest Village, a long time GNR account, has announced that they are switching from the Orwell Natural Gas System to the Dominion system. In addition to losing the customer, Lake Forest owes a past due amount of over \$20,000 on their transportation account, which appears unlikely to be paid.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update August 1, 2019

July Rev Budget - 37,025

Usage to date – 34,141

July Forecast – 35,300

August Rev Budget – 33,750

August Forecast – 36,000

Nominating 1,000/day for Veazie,

Today's Cash Price – \$2.215 (Algonquin)

Bangor has no hedged volumes or baseload requirements for August

Natural Gas Intelligence "NGI" July 25, 2019 Forward winter Strip for Algonquin City Gates \$6.081

Capacity Updates...

Bangor had their first technical conference yesterday the July 23rd. docket # 2019-00105. They filed the Data requests this week from the tech Conf.

Bangor secured another 7 % of their bundled forecast for Oct through April at \$7.42; they plan to secure another 7 percent each week over the next 4 weeks to get them to their first hedge position of 40 % by the end of August.

Emera Price Quote July 30, 2019

1. Fixed price weighted for the volumes and month below **\$7.42**
2. Strip price for 50,000/month November - March **\$ 7.60**
3. Basis quote for Weighted for below volumes Nymex + **\$4.985**
4. Monthly fixed prices:

Oct 2019 – 7,782	\$3.96
Nov 2019 – 13,738	\$5.15
Dec 2019 – 20,194	\$7.54
Jan 2020 – 24,007	\$9.77
Feb 2020 – 20,701	\$9.64
Mar 2020 – 17,320	\$6.62
Apr 2020 – 11,668	\$4.62

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

JULY SUMMARY

Budget: 55,134
 Usage to Date: 52,739
 Daily Avg Usage: 1,701
 Avg Daily Cash Price:
 Zone 3: \$2.26
 Zone 5: \$2.35
 FOM Price:
 Zone 3: \$2.23
 Zone 5: \$2.34
 HDD Budget: 2
 HDD to Date: 18
 HDD Projected: 18
 HDD this time last year: 16

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 65 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.76	\$1.69	\$2.12	\$1.73
AECO	\$0.81	\$1.04	\$1.55	\$1.10
NYMEX	\$2.218 - Sep 2019 Aug 2019 closed @ \$2.134			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance (1.553)/dkt as of 7/1/19

- Resuming Glacier nominations, 200/dkt/d on August 1st.

Retail – north pool

4008 – Noming 4,385/dkt/d, flowing 5,935/dkt/d, imbalance -3,461/dkt with a tolerance of 5,719/dkt, injecting 2,500/dkt/d into storage, balance is 168,650/dkt

- Beginning August with 2,000/dkt/d swing and 1,000/dkt/d Weyerhaeuser

EWB Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80.
- **Croft Petroleum** – renewed their contract for one year, Aug19-Jul20, at the higher of \$1.80/dkt and Aeco 7(A).
- Dan is working with Jetco to secure winter peaking supply
- Montana Resources – Dan is working a fixed price deal for MRI.

Energy West Montana:

2008 – Noming 17,475/dkt/d, flowed 17,585/dkt yesterday, imbalance 702/dkt, tolerance of 30,897/dkt, injecting 8,000/dkt/d into storage, inventory balance 857,500/dkt

- Northwestern Energy held a formal long-term planning meeting on July 31, 2019. Kevin, Jed, Dan and Mary attended.
- The Carway curtailment will start next week. Management approved filling storage for both EWR and EWM over plan to allow for the curtailments.

West Yellowstone:

Tyler gave the Committee a supply update.

Tyler, Evan and Jed are in the process of working through the draft supply contract with Prometheus. They have a meeting today to finalize the contract. Once the contract is finalized, they will give Merit a 30-day notice to terminate.

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
August 8, 2019
11:30 A.M.

Activities Performed

Present were:

- Mary Stanich
- Dan Hickman, Mike Zappitello, Tyler Muzzana, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill, Calvin Johnson and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

August Baseload Purchases:

	TCO	Dominion	OTP	TGP
NEO	2,000/day	1,700/day		5/day
Orwell	105/day	145/day	450/day	
Brainard	15/day	15/day		

Blended Cost of Gas for July 2019:

NEO	\$1.873/ DTH
Orwell	\$2.063 / DTH
Brainard	\$1.931 / DTH

Daily Price Index: TCO Appalachia \$1.935 Dominion \$1.875 and MichCon \$2.025

Oct19-Mar20 Futures: TCO (\$.263), DEO (\$0.344), MichCon, (\$0.107)

Orwell imbalances: OTP & NC: 39,709 DTH, Cobra (8,155) DTH, Spellman 447 DTH,

Brainard Imbalances: OTP & NC: 548 DTH, Cobra 1,366 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 210,987/dkt (78,798/dth GTS & 132,189/dth FSS)
- **Cobra Pipeline**
 - Imbalance 59,668/dth
- **Spellman Pipeline**
 - Imbalance (11,931)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for August 8, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance position as of June 30, 2019, is +10,300 dth [Cobra at +1,754 dth, OTP at +8,677 mcf, Spelman at (41) dth and ONG at (90) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, was +6,590 dth so this represents an increase of 3,710 dth from May's position.
 - b. **GNR's original customer sales projection for July was 35,100 mcf, with a mid-month forecast reduced slightly to 34,300 mcf. Actual sales for July were 31,959, a difference of 9.2% below the original forecast.**
 - c. GNR's customer sales projection for August is 33,600 mcf. The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.
- 2) GNR purchases for **August**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in August – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in August at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in August at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 10 dth/d into North Coast to serve Lake Co. YMCA in August at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 320 dth/d into North Coast to serve customer requirements on OTP in August at NYMEX settle minus \$0.04/dth. (basis up \$0.04/dth from July)
 - f. 1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in August at NYMEX settle minus \$0.18/dth. (no change in basis from July)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in August at NYMEX settle minus \$0.16/dth. (basis up \$0.025/dth from July)
 - h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.

- 3) Customer issues; (changes from last week are in bold)
 - a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for August is \$2.141/dth, down \$0.15 from July, so GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in July was NYMEX minus \$0.04/dth, so GNR's margin on its variable rate agreements should be at least \$0.36/dth, a \$0.04/dth decrease from last month.
 - c. **Lake Forest Village, a long time GNR account, has announced that they are switching from the Orwell Natural Gas System to the Dominion system. This customer has traditionally been slow to pay, and last week there was some concern that Lake Forest might make the switch to Dominion without paying the \$20,000 that was past due on their transportation account. Fortunately, we received a payment of \$3,800 last Friday with a commitment of a weekly payment schedule, so it now appears the customer does intend to pay their account in full.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update August 8, 2019

August Rev Budget – 33,750

Usage to date – 7,602

August Forecast – 36,000

Nominating 1,500/day for Veazie,

Today's Cash Price – \$2.04 (Algonquin)

Average Cash Price to date - \$2.024 (Algonquin)

Bangor has no hedged volumes or baseload requirements for August

Natural Gas Intelligence "NGI" August 8, 2019 Forward winter Strip for Algonquin City Gates \$6.011

Capacity Updates...

No new updates

*Bangor secured another 7 % of their bundled forecast for Oct through April at \$7.40, which brings them to 20% hedged. They plan to secure another 7% each week over the next 3 weeks to get them to their first hedge position of 40 % by the end of August.

Emera Price Quote August 7, 2019

1. Fixed price weighted for the volumes and month below **\$7.40**
2. Strip price for 50,000/month November - March **\$ 7.54**
3. Basis quote for Weighted for below volumes - Nymex + **\$5.00**
4. Monthly fixed prices:

Oct 2019 – 7,782 **\$3.92**
 Nov 2019 – 13,738 **\$5.08**
 Dec 2019 – 20,194 **\$7.60**
 Jan 2020 – 24,007 **\$9.73**
 Feb 2020 – 20,701 **\$9.61**
 Mar 2020 – 17,320 **\$6.59**
 Apr 2020 – 11,668 **\$4.58**

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

AUGUST SUMMARY

Budget: 65,115
 Usage to Date: 17,663
 Daily Avg Usage: 2,523
 Avg Daily Cash Price:
 Zone 3: \$2.12
 Zone 5: \$2.23
 FOM Price:
 Zone 3: \$2.08
 Zone 5: \$2.18
 HDD Budget: 4
 HDD to Date: 5
 HDD Projected: 5
 HDD this time last year: 0

Frontier has plans to send out their supply RFP early to stay in compliance with their prudence review. They have sent it to management for review. Their current supply contract ends March 31, 2020.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 55 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.84	\$1.52	\$2.00	\$1.65
AECO	\$1.15	\$1.10	\$1.54	\$1.10
NYMEX	\$2.149 - Sep 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance (1.553)/dkt as of 7/1/19

Retail – north pool

4008 – Noming 2,171/dkt/d, flowing 2,750/dkt/d, imbalance -5,771/dkt with a tolerance of 5,646/dkt, injecting 0/dkt/d into storage, balance is 179,150/dkt

- Not taking any swing gas at this time, plans to nom again on Monday

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80. Dan has a conference call scheduled on Wednesday, August 14, 2019 to discuss pricing options.
- Dan is working with Jetco to secure winter peaking supply
- **Montana Resources** – Dan is working to secure a fixed price deal for MRI.

Energy West Montana:

2008 – Noming 13,600/dkt/d, flowed 12,916/dkt yesterday, imbalance 1,808/dkt, tolerance of 27,299/dkt, injecting 3,500/dkt/d into storage, inventory balance 893,500/dkt, over plan by design

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone.

August loads were one short of the nine scheduled from Merit.

Both parties have agreed upon the revisions to the pricing variable on the Prometheus contract. Energy West is now waiting for a signature from Prometheus. Once the contract is finalized, they will give Merit a 30-day notice to terminate.

HEARTHSTONE UTILITIES, INC. RISK COMMITTEE MEETING

MINUTES
August 15, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Jed Henthorne, Dave Cerotzke and Mary Stanich
- Dan Hickman, Mike Zappitello, Renee Huff and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

August Baseload Purchases:

	TCO	Dominion	OTP	TGP
NEO	2,000/day	1,700/day		5/day
Orwell	105/day	145/day	450/day	
Brainard	15/day	15/day		

Blended Cost of Gas for July 2019:

NEO	\$1.873/DTH
Orwell	\$2.063/DTH
Brainard	\$1.931/DTH

Daily Price Index: TCO Appalachia \$1.905 Dominion \$1.785 and MichCon \$2.000

Oct19-Mar20 Futures: TCO (\$.263), DEO (\$0.350), MichCon, (\$0.123)

Orwell imbalances: OTP & NC: 39,709 DTH, Cobra (9,831) DTH, Spellman 447 DTH,

Brainard Imbalances: OTP & NC: 548 DTH, Cobra 1,455 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 218,708/dkt (77,671/dth GTS & 141,037/dth FSS)
- **Cobra Pipeline**
 - Imbalance 52,900/dth
- **Spellman Pipeline**
 - Imbalance (11,931)/dth

Gas Natural Resources:

Nothing new to report

GNR Weekly Risk Report for **August 15, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance position as of June 30, 2019, is +10,300 dth [Cobra at +1,754 dth, OTP at +8,677 mcf, Spelman at (41) dth and ONG at (90) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, was +6,590 dth so this represents an increase of 3,710 dth from May's position.
 - b. GNR's original customer sales projection for July was 35,100 mcf, with a mid-month forecast reduced slightly to 34,300 mcf. Actual sales for July were 31,959, a difference of 9.2% below the original forecast.
 - c. GNR's customer sales projection for August is 33,600 mcf. The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.
- 2) GNR purchases for **August**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in August – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in August at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in August at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 10 dth/d into North Coast to serve Lake Co. YMCA in August at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 320 dth/d into North Coast to serve customer requirements on OTP in August at NYMEX settle minus \$0.04/dth. (basis up \$0.04/dth from July)
 - f. 1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in August at NYMEX settle minus \$0.18/dth. (no change in basis from July)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in August at NYMEX settle minus \$0.16/dth. (basis up \$0.025/dth from July)
 - h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.
- 3) Customer issues; (changes from last week are in bold)

- a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for August is \$2.141/dth, down \$0.15 from July, so GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
- b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in July was NYMEX minus \$0.04/dth, so GNR's margin on its variable rate agreements should be at least \$0.36/dth, a \$0.04/dth decrease from last month.
- c. Lake Forest Village, a long time GNR account, has announced that they are switching from the Orwell Natural Gas System to the Dominion system. This customer has traditionally been slow to pay, and last week there was some concern that Lake Forest might make the switch to Dominion without paying the \$20,000 that was past due on their transportation account. Fortunately, we received a payment of \$3,800 last Friday with a commitment of a weekly payment schedule, so it now appears the customer does intend to pay their account in full.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update August 15, 2019

August Rev Budget – 33,750

Usage to date – 16,416

August Forecast – 34,000

Nominating 1,500/day for Veazie,

Today's Cash Price – \$2.09 (Algonquin)

Average Cash Price to date - \$1.994 (Algonquin)

Bangor has no hedged volumes or baseload requirements for August

Natural Gas Intelligence "NGI" August 15, 2019 Forward winter Strip for Algonquin City Gates \$5.963

Capacity Updates...

No new updates

*Bangor secured another 7 % of their bundled forecast for Oct through April at \$7.51, which brings them to 27% hedged at an average of 7.45. They plan to secure another 7% each week over the next 2 weeks to get them to their first hedge position of 40 % by the end of August.

Emera Price Quote August 15, 2019

1. Fixed price weighted for the volumes and month below **\$7.51**
2. Strip price for 50,000/month November - March **\$ 7.63**
3. Basis quote for Weighted for below volumes - Nymex + **\$5.01**
4. Monthly fixed prices:
Oct 2019 – 7,782 **\$4.05**

Nov 2019 – 13,738 **\$5.21**
 Dec 2019 – 20,194 **\$7.77**
 Jan 2020 – 24,007 **\$9.82**
 Feb 2020 – 20,701 **\$9.70**
 Mar 2020 – 17,320 **\$6.68**
 Apr 2020 – 11,668 **\$4.63**

Frontier Natural Gas:

Fred gave the Committee a supply update for Frontier Natural Gas.

AUGUST SUMMARY

Budget: 65,115
 Usage to Date: 28,063
 Daily Avg Usage: 2,159
 Avg Daily Cash Price:
 Zone 3: \$2.12
 Zone 5: \$2.23
 FOM Price:
 Zone 3: \$2.08
 Zone 5: \$2.18
 HDD Budget: 4
 HDD to Date: 8
 HDD Projected: 8
 HDD this time last year: 1

Frontier is on the docket Monday to get approval for their new proposed rate class (transportation tariff).

Taylor has completed Frontier's supply RFP. Fred will review it before circulating it.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 49 Bcf from the previous week. Nymex prices were up around 10 cents.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.81	\$1.63	\$2.05	\$1.66
AECO	\$0.47	\$1.12	\$1.51	\$1.15
NYMEX	\$2.257 - Sep 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 200/dkt/d – Imbalance (1.553)/dkt as of 7/1/19

Retail – north pool

4008 – Noming 4,435/dkt/d, flowing 4,093/dkt/d, imbalance -6,165/dkt with a tolerance of 5,692/dkt, injecting 1,300/dkt/d into storage, balance is 180,450/dkt, slightly below plan

- Cascade production is down – 600/dkt/d

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80. Dan has a conference call scheduled on Thursday, August 22, 2019 to discuss pricing options.
- Dan is working with Jetco to secure winter peaking supply
- **Montana Resources** – Dan is working to secure a fixed price deal for MRI.
- **Hill Top Colony** – requested a price proposal, contract expires 8/31/19

Energy West Montana:

2008 – Noming 13,600/dkt/d, flowed 12,740/dkt yesterday, imbalance 3,226/dkt, tolerance of 27,088/dkt, injecting 3,500/dkt/d into storage, inventory balance 918,000/dkt, over plan by design

- Dan, Mary and EWST management met on Wednesday to discuss long-term supply planning for Energy West Montana. The focus was on getting additional capacity and supply availability.

West Yellowstone:

Jed gave the Committee a supply update for West Yellowstone.

Both parties have executed the Prometheus 5-year supply contract. Energy West has given Merit a 30-day notice to terminate their contract.

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
August 22, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Ken Oostman, Jerry Livengood, Renee Huff, Taylor Younger, Ted Gambill and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

August Baseload Purchases:

	TCO	Dominion	OTP	TGP
NEO	2,000/day	1,700/day		5/day
Orwell	105/day	145/day	450/day	
Brainard	15/day	15/day		

Blended Cost of Gas for August 2019:

NEO	\$1.873/DTH
Orwell	\$2.063/DTH
Brainard	\$1.931/DTH

Daily Price Index: TCO Appalachia \$1.965 Dominion \$1.795 and MichCon \$2.08

Oct19-Mar20 Futures: TCO (\$.269), DEO (\$0.353), MichCon, (\$0.111)

Orwell imbalances: OTP & NC: 42,445 DTH, Cobra (9,831) DTH, Spellman 447 DTH,

Brainard Imbalances: OTP & NC: 543 DTH, Cobra 1,455 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 226,536/dkt (76,651/dth GTS & 149,885/dth FSS, 93% full)
- **Cobra Pipeline**
 - Imbalance 52,900/dth
- **Spellman Pipeline**
 - Imbalance (11,931)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for August 22, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance position as of July 31, 2019, is +8,694 dth [Cobra at +1,721 dth, OTP at +7,093 mcf, Spelman at (62) dth and ONG at (58) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of June 30, 2019, was +10,300 dth so this represents a decrease of 1,606 dth from June's position.**
 - b. **Actual sales for July were initially reported as 31,959, which was 9.2% below the original forecast. A correction to a meter reading error made the actual sales for July 32,927 mcf, which was only 6.4% below the original July forecast.**
 - c. **GNR's original customer sales projection for August was 33,600 mcf. The updated mid-month forecast has been lowered to 32,800 mcf, due to a forecasted reduction for Painesville Schools. In previous years, the school system ran their hydronic boilers in the summer to improve indoor air comfort. This year in a cost savings effort, the boilers were not operated.** The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.
- 2) GNR purchases for **August**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in August – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in August at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in August at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 10 dth/d into North Coast to serve Lake Co. YMCA in August at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 320 dth/d into North Coast to serve customer requirements on OTP in August at NYMEX settle minus \$0.04/dth. (basis up \$0.04/dth from July)
 - f. 1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in August at NYMEX settle minus \$0.18/dth. (no change in basis from July)

- g. 1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in August at NYMEX settle minus \$0.16/dth. (basis up \$0.025/dth from July)
 - h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.
- 3) Customer issues; (no changes from last week)
- a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for August is \$2.141/dth, down \$0.15 from July, so GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in July was NYMEX minus \$0.04/dth, so GNR's margin on its variable rate agreements should be at least \$0.36/dth, a \$0.04/dth decrease from last month.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update August 22, 2019

August Rev Budget – 33,750

Usage to date – 23,200

August Forecast – 34,000

Nominating 1,500/day for Veazie,

Today's Cash Price – \$2.185 (Algonquin)

Average Cash Price to date - \$2.088 (Algonquin)

Bangor has no hedged volumes or baseload requirements for August

Natural Gas Intelligence "NGI" August 22, 2019 Forward winter Strip for Algonquin City Gates \$5.987

Capacity Updates...

Bangor received Intervener Testimony and Bench Analysis and are preparing their responses.

*Bangor secured another 7 % of their bundled forecast for Oct through April at \$7.48, which brings them to 33% hedged at an average of 7.46. They plan to secure another 7% next weeks to get them to their first hedge position of 40 % by the end of August.

Emera Price Quote August 21, 2019

- 1. Fixed price weighted for the volumes and month below **\$7.48**
- 2. Strip price for 50,000/month November - March **\$ 7.66**
- 3. Basis quote for Weighted for below volumes - Nymex + **\$5.02**
- 4. Monthly fixed prices:
Oct 2019 – 7,782 **\$4.00**

Nov 2019 – 13,738	\$5.18
Dec 2019 – 20,194	\$7.75
Jan 2020 – 24,007	\$9.8
Feb 2020 – 20,701	\$9.68
Mar 2020 – 17,320	\$6.65
Apr 2020 – 11,668	\$4.58

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

AUGUST SUMMARY

Budget:	65,115
Usage to Date:	45,466
Daily Avg Usage:	2,165
Avg Daily Cash Price:	
Zone 3:	\$2.14
Zone 5:	\$2.25
FOM Price:	
Zone 3:	\$2.08
Zone 5:	\$2.18
HDD Budget:	4
HDD to Date:	10
HDD Projected:	12
HDD this time last year:	4

On July 23, 2019, FNGC filed a notice regarding proposed Rate Schedule 132 – Intermediate General Transportation Service. The matter was presented to the Commission at its Regular Staff Conference on August 19, 2019. Based upon review of the notice and the recommendation of the Public Staff, the Commission approved the new FNGC Rate Class for transportation customers as filed.

Frontier has a meeting scheduled with the Public Staff on October 1, 2019 to discuss how to allocate Lost and Unaccounted for Gas. They are proposing to do a reallocation of all customers not just bundled. Al Harms will be attending this meeting.

Fred is reviewing the supply RFP for circulation today. Their current supply contract ends March 31, 2019.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 59 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.81	\$1.66	\$2.09	\$1.67
AECO	\$0.72	\$1.17	\$1.55	\$1.20
NYMEX	\$2.167 - Sep 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 0/dkt/d – Imbalance 1,249/dkt as of 8/1/19

- Glacier is down, moving nominations to zero

Retail – north pool

4008 – Noming 4,435/dkt/d, flowing 3,804/dkt/d, imbalance -3,121/dkt with a tolerance of 6,200/dkt, injecting 1,300/dkt/d into storage, balance is 189,550/dkt, slightly below plan

- Cascade production is still down – 600/dkt/d, expected to be back up soon

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80. Dan has a conference call scheduled for September 4th to discuss pricing options.
- Dan is working with Jetco to secure winter peaking supply. He will review their numbers and provide feedback to management.
- **Montana Resources** – Dan is working to secure a fixed price deal for MRI.
- **Hill Top Colony** – requested a price proposal, contract expires 8/31/19

Energy West Montana:

2008 – Noming 14,200/dkt/d, flowed 13,308/dkt yesterday, imbalance 9,154/dkt, tolerance of 26,458/dkt, injecting 4,000/dkt/d into storage, inventory balance 944,000/dkt, over plan by design

- EWST continues to focus on their Long-term supply planning for Energy West Montana. They are in the process of setting up a conference call with TransCanada to discuss capacity options.

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone by email.

Energy West has moved forward with Prometheus contract and will be scheduling loads with them for September.

The Cut bank wells are still going well, producing about 40 to 50 mcf/day.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC. RISK COMMITTEE MEETING

MINUTES

August 29, 2019

11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Taylor Younger, Ted Gambill and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

September Baseload Purchases:

	NEO	Orwell	Brainard
TCO	500/day	290/day	0/day
DEO	730/day	165/day	25/day
OTP	0/day	225/day	0/day
TGP	5/day	0/day	0/day

September blended Cost per DTH

NEO	\$1.807
Orwell	\$1.986
Brainard	\$1.751

Daily Price Index: TCO Appalachia \$1.94 Dominion \$1.74 and MichCon \$2.025

Oct19-Mar20 Futures: TCO (\$.293), DEO (\$0.394), MichCon, (\$0.144)

Orwell imbalances: OTP & NC: 42,445 DTH, Cobra (9,831) DTH, Spellman 447 DTH,

Brainard Imbalances: OTP & NC: 543 DTH, Cobra 1,455 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 234,040/dkt (75,287/dth GTS & 158,753/dth FSS, 93% full)
- **Cobra Pipeline**
 - Imbalance 52,900/dth
- **Spellman Pipeline**
 - Imbalance (11,931)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for August 29, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance position as of July 31, 2019, is +8,694 dth [Cobra at +1,721 dth, OTP at +7,093 mcf, Spelman at (62) dth and ONG at (58) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of June 30, 2019, was +10,300 dth so this represents a decrease of 1,606 dth from June's position.
 - b. GNR's original customer sales projection for August was 33,600 mcf. The updated mid-month forecast has been lowered to 32,800 mcf, due to a forecasted reduction for Painesville Schools. In previous years, the school system ran their hydronic boilers in the summer to improve indoor air comfort. This year in a cost savings effort, the boilers were not operated. The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.
- 2) GNR purchases for **September**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in September – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in September at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in September at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 15 dth/d into North Coast to serve Lake Co. YMCA in September at \$2.695/dth.
 - e. **1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in September at NYMEX settle minus \$0.06/dth. (basis down \$0.02/dth from August)**
 - f. **1-month purchase with Elevation Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in September at NYMEX settle minus \$0.225/dth. (basis down \$0.045/dth from August)**
 - g. **1-month purchase with Elevation Energy - GNR purchasing 315 dth/d delivered into the TCO/Cobra North Trumbull interconnect and multiple grain dryer meters in September at NYMEX settle minus \$0.25/dth. (basis down \$0.09/dth from August)**

- h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.
- 3) Customer issues; (changes from last week are in bold)
 - a. **GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for September is \$2.251/dth, up \$0.11 from August, but GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.**
 - b. **GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in September was NYMEX minus \$0.06/dth, so GNR's margin on its variable rate agreements should be at least \$0.38/dth, a \$0.02/dth increase from last month.**
 - c. **Grain drying season will be starting up in September, although indications are that drying will start a little later this year than normal, due to the wet spring and early summer, which delayed planting for many farmers.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update August 29, 2019

August Rev Budget – 33,750

Usage to date – 32,125

August Forecast – 35,000

Nominating 1,500/day for Veazie,

Today's Cash Price – \$2.05 (Algonquin)

Average Cash Price to date - \$2.034 (Algonquin)

Bangor has no hedged volumes or baseload requirements for August

Natural Gas Intelligence "NGI" August 29, 2019 Forward winter Strip for Algonquin City Gates \$5.957

Capacity Updates...

No new updates

*Bangor secured another 7 % of their bundled forecast for Oct through April at \$7.66, which brings them to their first hedge position of 40% at an average of \$7.49.

Emera Price Quote August 29, 2019

1. Fixed price weighted for the volumes and month below **\$7.66**
2. Strip price for 50,000/month November - March **\$ 7.78**
3. Basis quote for Weighted for below volumes Nymex + **\$5.16**
4. Monthly fixed prices:
 - Oct 2019 – 7,782 **\$4.21**
 - Nov 2019 – 13,738 **\$5.37**

Dec 2019 – 20,194 **\$7.92**
 Jan 2020 – 24,007 **\$9.98**
 Feb 2020 – 20,701 **\$9.89**
 Mar 2020 – 17,320 **\$6.85**
 Apr 2020 – 11,668 **\$4.81**

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

AUGUST SUMMARY

Budget: 65,115
 Usage to Date: 63,177
 Daily Avg Usage: 2,256
 Avg Daily Cash Price:
 Zone 3: \$2.14
 Zone 5: \$2.24
 FOM Price:
 Zone 3: \$2.08
 Zone 5: \$2.18
 HDD Budget: 4
 HDD to Date: 12
 HDD Projected: 12
 HDD this time last year: 15

FNGC has entered into a consulting agreement for the purpose of defining a Scope of Work for a Lost and Unaccounted for (LAUF) natural gas audit and to assist in evaluating the information collected from FNGC processes and field collected data.

Fred made some revisions to the supply RFP and has sent it to Len Gilmore for review. Their current supply contract ends March 31, 2019.

The Committee had a discussion regarding whether Frontier should lock in more for January and February out of the scope of the procurement plan. FNGC made the decision to follow its natural gas procurement policy that was presented to the NC Staff on June 4, 2019.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 60 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.60	\$1.67	\$2.11	\$1.69
AECO	\$0.17	\$1.17	\$1.53	\$1.21
NYMEX	\$2.259 - Oct 2019 Sep 2019 closed at \$2.232			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance 1,249/dkt as of 8/1/19

- Glacier is down, moving nominations to zero GD28, reinstating nominations on September 1st.

Retail – north pool

4008 – Noming 4,435/dkt/d, flowing 3,975/dkt/d, imbalance 1,012/dkt with a tolerance of 6,092/dkt, injecting 1,300/dkt/d into storage, balance is 198,650/dkt

- Cascade production back on GD26, nom GD28

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80. Dan has a conference call scheduled for September 4th to discuss pricing options.
- Dan is working with Jetco to secure winter peaking supply. He will review their numbers and provide feedback to management.
- **Montana Resources** – Dan is working to secure a fixed price deal for MRI.
- **Hill Top Colony** – requested a price proposal, contract expires 8/31/19

Energy West Montana:

2008 – Noming 14,200/dkt/d, flowed 13,891/dkt yesterday, imbalance 10,929/dkt, tolerance of 26,466/dkt, injecting 4,000/dkt/d into storage, inventory balance 972,000/dkt, over plan by design

- EWST continues to focus on their Long-term supply planning for Energy West Montana. They have a conference call today with TransCanada to discuss capacity options.
- Dan is managing swing purchases to fill storage

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone.

Energy West has moved forward with Prometheus contract and will be scheduling loads with them for September. The Termination letter has been sent to Merit.

Jetco/Northshore reached out to West Yellowstone regarding their supply plans going forward.

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
December 6, 2018
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Mike Zappitello, Jerry Livengood, Renee Huff, Amy Brown, Fred Steele, Drew Waravdekar, Taylor Younger and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

December Baseload Purchases:

	TCO	DEO	TGP	OTP
NEO	6,435 / day	5,325 / day	190 / day	
Brainard	150 / day	70 / day		
Orwell	1,175 / day	785 / day		3,000 / day

Blended cost for December:

NEO	\$3.501 per DTH
Orwell	\$3.678 per DTH
Brainard	\$2.849 per DTH

Mike furnished the Committee the YTD Heat Degree Days.
 December forecast is 967 HDD

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$4.46 Dominion \$4.285 and MichCon \$4.475

Nov18-Mar19 Futures: TCO (\$.220), DEO (\$0.377), MichCon, 0.033

Orwell imbalances: OTP 8,275 DTH, Cobra (6,092) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 788 DTH, Cobra 1,844 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 213,745/dkt (87,707/dkt GTS & 126,038/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (16,709)/dth
- **Spellman Pipeline**

- Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for **December 6, 2018**:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of October 31, 2018, is (5,800) dth [Cobra at (12,600), OTP at +7,000, ONG at +340, and Spelman at (640)], which is a decrease of 5,200 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest.
 - c. The customer sales projection for December is 54,500 mcf. The corresponding supply plan for December is made up of 28,000 dth from North Coast Gas Transmission, 15,400 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,300 dth from Tennessee Gas Pipeline.
- 2) GNR purchases for **December**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 452 dth/d delivered into North Coast for Lake Hospitals in December – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 65 dth/d delivered into Cobra North Trumbull for Breckenridge in December at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in December at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in December at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 390 dth/d into North Coast to serve customer requirements on OTP in December at NYMEX settle plus \$0.32/dth.
 - f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in December at NYMEX settle plus \$0.05/dth.
 - g. 1-month purchase with Elevation Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in December at NYMEX settle plus \$0.123/dth.
- 3) Customer issues; (changes from last week are in bold)

- a. Bowerston Shale – One benefit to the cold early season weather and rising winter gas prices was that Bowerston Shale agreed to a two-year deal with GNR to help offset some of the impact of \$4.50 gas this winter. The 24-month gas supply purchased for Bowerston Shale was at \$3.125 per dth.
- b. **CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. No response from the customer at this time.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update December 6, 2018

November Rev Budget – 183,809

November Actual – 224,534

November 2018 HDD 971, compared to 10 Year Average 818

December Rev Budget – 267,324

Usage to Date – 32,650

December Forecast – 288,000

December HDD to date 174, compared to last year same period 156

Today's Cash Price – \$6.90 (Algonquin)

Average Cash Price for the month - \$7.35 (Algonquin)

December Filed Gas Cost - \$11.98 (Energy \$11.54, PGC \$0.44)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for December at the Algonquin City Gates Index price of \$X.XX, the price was posted in the "Platts" Price guide around the 7th of the month.

Bangor has 60% of their December forecast hedged at an average of \$10.92

Capacity Updates...

- Yesterday Bangor received an Acceptance Letter regarding their bid in the TransCanada New Capacity Open Season commencing in 2021 and 2022. TransCanada will be sending them a Precedent Agreement shortly and Bangor will have 30 days to execute the PA and Financial Assurances Agreement.
- Bangor is waiting to hear back on the Union Gas Bid

*Ben is reviewing the Precedent Agreement from PNGTS. They have sent Bangor a draft for review and edits

Frontier Natural Gas:

Amy gave the Committee a supply update for Frontier Natural Gas.

NOVEMBER SUMMARY FINAL

Budget: 139,488

Usage to Date: 149,662

Daily Avg Usage: 4,989

Avg Daily Cash Price:

Zone 3: \$4.00

Zone 5: \$4.23

FOM Price:

Zone 3: \$3.17

Zone 5: \$5.94

HDD Budget: 515

HDD to Date: 647

HDD Projected 647

DECEMBER SUMMARY

Budget: 179,308

Usage to Date: 19,685

Daily Avg Usage: 4,921

Avg Daily Cash Price:

Zone 3: \$4.45

Zone 5: \$4.88

FOM Price:

Zone 3: \$4.72

Zone 5: \$5.94

HDD Budget: 701

HDD to Date: 72

HDD Projected 860

Energy West Resources:

Mary gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 63 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$4.27	\$3.69	\$2.04	\$2.32
AECO	\$1.19	\$1.03	\$0.89	\$1.26
NYMEX	\$4.339 Jan 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance 1,786/dkt as of 11/1/18

Retail – north pool

4008 – Noming 5,730/dkt/d, flowing 6,229/dkt/d, imbalance -7,171/dkt with a tolerance of 12,842/dkt, storage withdrawals 1,500/dkt/d, balance is 184,500/dkt

- GD7 – bumped by Weyerhaeuser to 2,200/dkt/d, swing to 1,500/dkt/d

- GD7 – bumped up south pool sales to 300/dkt/d

EWR Customer Updates:

- **Seaboard Foods** – Contract expires 2/28/19 – EWR has sent them contracts for management approval – Mar19-Feb20 (evergreen month-to-month) at Aeco 7(A), plus \$0.47.

Energy West Montana:

2008 – Noming 25,500/dkt/d, flowed 34,265/dkt yesterday, imbalance 37,067/dkt, tolerance of 68,818/dkt, storage withdrawals 7,500/dkt/d, inventory balance 936,500/dkt.

Prepared by: Mary Stanich

**HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
December 13, 2018
11:30 A.M.**

Activities Performed

Present were:

- Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff and Amy Brown (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

December Baseload Purchases:

	TCO	DEO	TGP	OTP
NEO	6,435 / day	5,325 / day	190 / day	
Brainard	150 / day	70 / day		
Orwell	1,175 / day	785 / day		3,000 / day

Blended cost for December 2018:

NEO	\$3.626 per DTH
Orwell	\$3.723 per DTH
Brainard	\$3.163 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$3.975 Dominion \$3.965 and MichCon \$3.99

Nov18-Mar19 Futures: TCO (\$.258), DEO (\$0.347), MichCon, (\$0.008)

Orwell imbalances: OTP 9,975 DTH, Cobra (4,564) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 2,084 DTH, Cobra (1,169) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 200,545/dkt (74,507/dkt GTS & 126,038/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (52,174)/dth - Purchased extra gas to work off imbalance, pushing up NEO blended cost of gas for December.
- **Spellman Pipeline**
 - Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **December 13, 2018:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of November 30, 2018, is +1,330 dth [Cobra at (11,340), OTP at +12,150, ONG at +710, and Spelman at (1,290)], which is an increase of 7,130 dth from last month.**
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest.
 - c. The customer sales projection for December is 54,500 mcf. The corresponding supply plan for December is made up of 28,000 dth from North Coast Gas Transmission, 15,400 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,300 dth from Tennessee Gas Pipeline.
 - d. **November sales for GNR were 63,658 mcf, an 11.5% increase over GNR's initial November forecast of 57,100 mcf and a 5% increase over GNR's mid-month forecast of 60,600 mcf. Most of the added sales were due to the colder than normal temperatures experienced throughout the month.**
- 2) GNR purchases for **December**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 452 dth/d delivered into North Coast for Lake Hospitals in December – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 65 dth/d delivered into Cobra North Trumbull for Breckenridge in December at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in December at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in December at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 390 dth/d into North Coast to serve customer requirements on OTP in December at NYMEX settle plus \$0.32/dth.

- f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in December at NYMEX settle plus \$0.05/dth.
- g. 1-month purchase with Elevation Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in December at NYMEX settle plus \$0.123/dth.
- 3) Customer issues; (changes from last week are in bold)
 - a. Bowerston Shale – One benefit to the cold early season weather and rising winter gas prices was that Bowerston Shale agreed to a two-year deal with GNR to help offset some of the impact of \$4.50 gas this winter. The 24-month gas supply purchased for Bowerston Shale was at \$3.125 per dth.
 - b. **CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update December 13, 2018

December Rev Budget – 267,324

December Usage to Date – 108,140

December Forecast – 288,000

December HDD to date 512, compared to last year same period 405

Today's Cash Price – \$7.15 (Algonquin)

Average Cash Price for the month - \$7.664 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for December at the Algonquin City Gates Index price of \$10.53, the price was posted in the "Platts" Price guide the 7th of the month.

Bangor has 60% of their December forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received Acceptance Letters regarding their bids in the TransCanada New Capacity Open Season commencing in 2021 and 2022 and on Union's. They are waiting on the Precedent Agreements from both.

*Ben is reviewing the Precedent Agreement from PNGTS. They have sent Bangor a draft for review and edits

Frontier Natural Gas:

Amy gave the Committee a supply update for Frontier Natural Gas.

DECEMBER SUMMARY

Budget: 179,308

Usage to Date: 70,576

Daily Avg Usage: 6,416

Avg Daily Cash Price:

Zone 3: \$4.46

Zone 5: \$6.05

FOM Price:

Zone 3: \$4.72

Zone 5: \$5.94

HDD Budget: 701

HDD to Date: 309

HDD Projected 833

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 77 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.80	\$3.46	\$1.96	\$2.25
AECO	\$1.12	\$1.07	\$0.83	\$1.15
NYMEX	\$4.142 Jan 2019			

South Pool

7008 – Noming 300/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 275/dkt/d, flowing 275/dkt/d – Imbalance 1,786/dkt as of 11/1/18

Retail – north pool

4008 – Noming 6,427/dkt/d, flowing 6,064/dkt/d, imbalance -9,997/dkt with a tolerance of 12,963/dkt, storage withdrawals 1,500/dkt/d, balance is 174,500/dkt

- GD14 – bumped up storage withdrawals to 2,500/dkt/d and EWM nomination to 2,000/dkt/d

EWR Customer Updates:

- **Seaboard Foods** – Contract expires 2/28/19 – EWR has sent them contracts for management approval
- **Missoula Airport** – Contract expires 12/31/18 – asking for a 24-month fixed price proposal

Energy West Montana:

2008 – Noming 25,500/dkt/d, flowed 24,355/dkt yesterday, imbalance 25,557/dkt, tolerance of 69,823/dkt, storage withdrawals 7,500/dkt/d, inventory balance 884,000/dkt.

- GD14 – dropped swing purchase to zero and storage withdrawals 2,500/dkt/d

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
December 20, 2018
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

December Baseload Purchases:

	TCO	DEO	TGP	OTP
NEO	6,435 / day	5,325 / day	190 / day	
Brainard	150 / day	70 / day		
Orwell	1,175 / day	785 / day		3,000 / day

Mike bid on January 2019 baseload today.

Blended cost for December 2018:

NEO	\$3.635 per DTH
Orwell	\$3.762 per DTH
Brainard	\$3.163 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$3.26 Dominion \$3.22 and MichCon \$3.31

Nov18-Mar19 Futures: TCO (\$.255), DEO (\$0.325), MichCon, (\$0.045)

Orwell imbalances: OTP 9,975 DTH, Cobra (4,564) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 2,084 DTH, Cobra (1,169) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 196,531/dkt (70,493/dkt GTS & 126,038/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (52,174)/dth
- **Spellman Pipeline**
 - Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **December 20, 2018**:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of November 30, 2018, is +1,330 dth [Cobra at (11,340), OTP at +12,150, ONG at +710, and Spelman at (1,290)], which is an increase of 7,130 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest.
 - c. The customer sales projection for December is 54,500 mcf. The corresponding supply plan for December is made up of 28,000 dth from North Coast Gas Transmission, 15,400 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,300 dth from Tennessee Gas Pipeline.
- 2) GNR purchases for **December**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 452 dth/d delivered into North Coast for Lake Hospitals in December – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 65 dth/d delivered into Cobra North Trumbull for Breckenridge in December at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in December at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in December at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 390 dth/d into North Coast to serve customer requirements on OTP in December at NYMEX settle plus \$0.32/dth.
 - f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in December at NYMEX settle plus \$0.05/dth.
 - g. 1-month purchase with Elevation Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in December at NYMEX settle plus \$0.123/dth.
- 3) Customer issues; (changes from last week are in bold)

- a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
- b. **Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth. With current NYMEX rates around \$3.80/dth, Painesville Schools, with a breakeven price of \$3.75 per dth, is the only customer in danger of creating a negative impact on the bottom line in January. A breakdown of the fixed-rate agreements was attached for review.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update December 20, 2018

December Rev Budget – 267,324

December Usage to Date – 166458

December Forecast – 288,000

December HDD to date 791, compared to last year same period 751

Today's Cash Price – \$3.845 (Algonquin)

Average Cash Price for the month - \$6.76 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for December at the Algonquin City Gates Index price of \$10.53, the price was posted in the "Platts" Price guide the 7th of the month.

Bangor has 60% of our December forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received Acceptance Letters regarding their bids in the TransCanada New Capacity Open Season commencing in 2021 and 2022 and on Union's. They are waiting on the Precedent Agreements from both.

*Ben is reviewing the Precedent Agreement from PNGTS they have sent us a for review and edits

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas by email.

DECEMBER SUMMARY

Budget: 179,308

Usage to Date: 121,923

Daily Avg Usage: 6,417

Avg Daily Cash Price:

Zone 3: \$4.72

Zone 5: \$5.94

FOM Price:

Zone 3:	\$4.72
Zone 5:	\$5.94

HDD Budget:	701
HDD to Date:	499
HDD Projected	833

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 141 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.00	\$3.17	\$1.99	\$2.30
AECO	\$1.42	\$1.22	\$0.90	\$1.31
NYMEX	\$3.734 - Jan 2019			

South Pool

7008 – Noming 300/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 275/dkt/d, flowing 275/dkt/d – Imbalance 1,304/dkt as of 12/1/18

Retail – north pool

4008 – Noming 7,430/dkt/d, flowing 5,468/dkt/d, imbalance -2,851/dkt with a tolerance of 12,755/dkt, storage withdrawals 2,500/dkt/d, balance is 158,500/dkt

- GD20 – Dropped 7(a) purchases to 2,000/dkt/d

EWR Customer Updates:

- **Missoula Airport** – Accepted EWR's offer, Jan19-Dec20 at \$2.30
- **Horizon Colony** – Contract expires 12/31/18 – EWR furnished them with a two-year price proposal

Energy West Montana:

2008 – Noming 18,700/dkt/d, flowed 20,545/dkt yesterday, imbalance 2,570/dkt, tolerance of 69,389/dkt, storage withdrawals 2,500/dkt/d, inventory balance 861,500/dkt.

- Northwestern is updating their Database – using estimated numbers on reports
- GD20 – increased swing purchases to 4,000/dkt/d
- Nova Capacity – Putting Tenaska's Temporary assignments in place through the length of their contract

➤ Winter Supply

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

Prepared by: Mary Stanich

**HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
December 27, 2018
11:30 A.M.**

Activities Performed

Present were: Meeting was cancelled – updates by email

Orwell Natural Gas:

No new updates reported

December Baseload Purchases:

	TCO	DEO	TGP	OTP
NEO	6,435 / day	5,325 / day	190 / day	
Brainard	150 / day	70 / day		
Orwell	1,175 / day	785 / day		3,000 / day

Blended cost for December 2018:

NEO	\$3.635 per DTH
Orwell	\$3.762 per DTH
Brainard	\$3.163 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appalachia \$3.26 Dominion \$3.22 and MichCon \$3.31

Nov18-Mar19 Futures: TCO (\$.255), DEO (\$0.325), MichCon, (\$0.045)

Orwell imbalances: OTP 9,975 DTH, Cobra (4,564) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 2,084 DTH, Cobra (1,169) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 196,531/dkt (70,493/dkt GTS & 126,038/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (52,174)/dth
- **Spellman Pipeline**
 - Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **December 27, 2018:**

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of November 30, 2018, is +1,330 dth [Cobra at (11,340), OTP at +12,150, ONG at +710, and Spelman at (1,290)], which is an increase of 7,130 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest.
 - c. The customer sales projection for December is 54,500 mcf. The corresponding supply plan for December is made up of 28,000 dth from North Coast Gas Transmission, 15,400 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,300 dth from Tennessee Gas Pipeline.
- 2) GNR purchases for **January**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 484 dth/d delivered into North Coast for Lake Hospitals in January – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 129 dth/d delivered into Cobra North Trumbull for Breckenridge in January at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in January at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in January at \$3.125/dth.**
 - e. **1-month purchase with Direct Energy – GNR purchasing 455 dth/d into North Coast to serve customer requirements on OTP in January at NYMEX settle plus \$0.16/dth. (basis down \$0.16/dth from December)**
 - f. **1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in January at NYMEX settle minus \$0.05/dth. (basis down \$0.10/dth from December)**
 - g. **1-month purchase with Elevation Energy – GNR purchasing 645 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in January at NYMEX settle plus \$0.092/dth.**
- 3) Customer issues; (changes from last week are in bold)
 - a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed

price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.

- b. **Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth and that is Painesville Schools with a breakeven rate around \$3.75 per dth. With current January NYMEX rates around \$3.50/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in January.**

Bangor Gas:

No new updates reported

Bangor Supply Update December 20, 2018

December Rev Budget – 267,324

December Usage to Date – 166458

December Forecast – 288,000

December HDD to date 791, compared to last year same period 751

Today's Cash Price – \$3.845 (Algonquin)

Average Cash Price for the month - \$6.76 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for December at the Algonquin City Gates Index price of \$10.53, the price was posted in the "Platts" Price guide the 7th of the month.

Bangor has 60% of our December forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received Acceptance Letters regarding their bids in the TransCanada New Capacity Open Season commencing in 2021 and 2022 and on Union's. They are waiting on the Precedent Agreements from both.

*Ben is reviewing the Precedent Agreement from PNGTS they have sent us a for review and edits

Frontier Natural Gas:

No new updates reported

DECEMBER SUMMARY

Budget: 179,308

Usage to Date: 121,923

Daily Avg Usage: 6,417

Avg Daily Cash Price:

Zone 3: \$4.72

Zone 5: \$5.94

FOM Price:

Zone 3: \$4.72

Zone 5: \$5.94

HDD Budget: 701
HDD to Date: 499
HDD Projected 833

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 48 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.91	\$2.99	\$2.06	\$2.33
AECO	\$1.49	\$1.18	\$0.93	\$1.30
NYMEX	\$3.31 – Feb 2019 Jan 2019 Close \$3.649			

South Pool

7008 – Noming 300/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 275/dkt/d, flowing 275/dkt/d – Imbalance 1,304/dkt as of 12/1/18

Retail – north pool

4008 – Noming 7,204/dkt/d, flowing 6,229/dkt/d, imbalance 1,818/dkt with a tolerance of 12,784/dkt, storage withdrawals 2,500/dkt/d, balance is 141,000/dkt

- GD28 – Dropped 7(a) purchases to 1,500/dkt/d

EWR Customer Updates: No updates to report

Energy West Montana:

2008 – Noming 35,200/dkt/d, flowed 29,624/dkt yesterday, imbalance -19,130/dkt, tolerance of 72,515/dkt, storage withdrawals 15,000/dkt/d, inventory balance 831,500/dkt.

In absence of the Risk Meeting, Dan provided the Committee with the EWST supply picture for the Risk Meeting minutes and management review.

From the 16th through the 25th, we were flying blind as NorthWestern was upgrading their measurement system and daily volume information was not available. As a result, EWR storage inventory will be slightly below the planned volume and EWM's will be slightly above. Dan maxed out EWM's storage withdrawal rates on the 26th to reverse a negative imbalance and help get closer to the storage target. Weyerhaeuser's 7A imbalance was higher than he would have liked it, but he made a nom change on the 28th, which should trend it much lower by the end of the month (depending up on their usage).

Starting January, EWM will only be purchasing 2,000/d of swing as Commercial and Shell are over nominating to correct imbalances and we get our storage back on track w/ the plan. The warm weather in the middle of next week will temporarily hinder the EWM balancing effort.

➤ **Winter Supply**

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

Prepared by: Mary Stanich

**HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
February 7, 2019
11:30 A.M.**

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Fred Steele, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas, along with a degree-day update for Ohio.

February Baseload Purchases:

	TCO	DEO	TGP	OTP	Spelman
NEO	6,725/day	8,500/day	270/day		
Orwell	1,690/day	1,475/day		4,400/day	150/day
Brainard	220/day	105/day			

Blended cost per DTH for February

NEO	\$2.812
Orwell	\$3.004
Brainard	\$2.882

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.40 Dominion \$2.355 and MichCon \$2.575

Oct19-Mar20 Futures: TCO (\$.309), DEO (\$0.406), MichCon, (\$0.182)

Orwell imbalances: OTP 23,228 DTH, Cobra (14,268) DTH, Spellman (3,040) DTH,

Brainard Imbalances: OTP 1,456 DTH, Cobra (2,221) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 54,024/dkt (13,233/dkt GTS & 40,791/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (4,602)/dth
- **Spellman Pipeline**
 - Imbalance (20,356)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for February 7, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of December 31, 2018, is (8,120) dth [Cobra at (6,950), OTP at (400), ONG at +620, and Spelman at (1,390)], which is a decrease of 9,450 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - c. The customer sales projection for February is 52,600 mcf. The corresponding supply plan for February is made up of 44,000 dth from North Coast Gas Transmission, 3,000 dth from Columbia Gas Transmission, 4,300 dth from local production, 6,700 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline as of January 31, 2019.
 - d. Gas deliveries into Orwell-Trumbull Pipeline from Cobra North Trumbull pipeline can be limited during colder than normal temperatures in the winter. GNR had 15,000 dth scheduled into the North Trumbull system for January for delivery to OTP, but Cobra failed to move any gas through the Middlefield gate during the first half of January when milder temperatures would have allowed the gas to flow. The second half of January has been much colder and only about 3,000 dth has been moved across the Middlefield gate so far this month. This is creating a positive imbalance on Cobra, which I am projecting to be around 10,000 dth at the end of January and a projected negative imbalance on Orwell-Trumbull Pipeline of about 13,000 dth. The concern here is having a positive imbalance on Cobra, due to their questionable financial situation.
- 2) GNR purchases for **February**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 429 dth/d delivered into North Coast for Lake Hospitals in February – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 107 dth/d delivered into Cobra North Trumbull for Breckenridge in February at \$3.07/dth.

- c. 2-year deal with Elevation - GNR purchasing 71 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in February at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in February at \$3.125/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 1,070 dth/d into North Coast to serve customer requirements on OTP in February at NYMEX settle plus \$0.32/dth. (basis up \$0.16/dth from January)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in February at NYMEX settle minus \$0.05/dth. (basis down \$0.05/dth from January)
- 3) Customer issues; (no changes from last week)
- a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. Since CresCor's one-year fixed-rate agreement has expired and are now on a month-to-month contract, they now have the lowest monthly breakeven rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas by email.

Bangor Supply Update February 7, 2019

January Rev Budget – 352,621

January Actual – 352,802

January 2019 HDD – 1,433, compared to 10 year average 1,413

February Rev Budget – 280,582

February Usage to date – 58,900

February Forecast – 290,000

February HDD to date – 287, compared to last year same period 317

Today's Cash Price – \$2.685 (Algonquin)

Average Cash price to date - \$4.026 (Algonquin)

February filed Cost of Gas - \$10.80 (\$9.07 energy, \$1.73 PGC)

Per Bangor's Supply Agreement, they have 3,000/d of their baseload for February at the Algonquin City Gates Index price of \$7.53, the price was posted in the "Platts" Price guide on the 7th of the month.

Bangor has 60% of their February forecast hedged at an average of \$10.92

Jerry and Renee attend the “Key ISO-NE Electricity and Gas Market Catalysts” this conference was put on by Eventbrite. Below are some of the topics discussed:

- *Major Trends Shaping ISO-NE in 2019
- *Electricity and Natural Gas Price Forecast
- *Analysis of recent price spikes and the risk of repeat
- *Natural gas pipeline constraints and regional gas supply adequacy
- *How natural gas prices impact electricity prices paid by large energy consumers

Capacity Updates...

- Bangor has received draft PA’s from Enbridge, TransCanada and PNGTS. They are working through making edits on the draft PA’s and have had several calls with each pipeline during this process discussing the PA’s and Financial Assurance. Next week, Bangor has another call scheduled with TransCanada and their risk department. Jerry and Renee met with Enbridge to discuss what they need in order to secure capacity on their piece of the path. Bangor would be looking to hold capacity from Beverly MA to Baileyville ME. Until Atlantic Bridge is complete, they will not have firm Capacity available but once completed they will have approximately 300,000 of unsubscribed capacity available South to North on MNE US up for bid. However, in the mean time they do have secondary firm capacity available. Enbridge will send us a letter explaining how the process will work.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

FEBRUARY SUMMARY

Budget: 143,935

Usage to Date: 28,799

Daily Avg Usage: 5,760

Avg Daily Cash Price:

Zone 3: \$2.59

Zone 5: \$2.82

FOM Price:

Zone 3: \$2.89

Zone 5: \$4.76

HDD Budget: 691

HDD to Date: 106

HDD Projected 684

- FERC held a staff and intervenor conference on February 5, 2019 before the Judge in the Transco rate case. Personal appearances were made by Len Gilmore, Lorraine Cross and James Jeffries and telephonically by Taylor Badgett and Fred Steele on behalf of Frontier Natural Gas Company.

- Frontier is completing Data Request #4 for its annual cost of gas review due on February 8, 2019. The hearing date is scheduled for March 5, 2019.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 237 Bcf from the previous week. Prices were down around 9 cents.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.77	\$2.33	\$2.08	\$2.47
AECO	\$2.13	\$1.41	\$1.41	\$1.54
NYMEX	\$2.573 - Mar 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance 671/dkt as of 1/1/19

- Glacier line was down, but back up today

Retail – north pool

4008 – Noming 8,429/dkt/d, flowing 7,380/dkt/d, imbalance 4,468/dkt with a tolerance of 13,709/dkt, storage withdrawals 3,169/dkt/d, balance is 78,781/dkt

- GD7- bringing in 1,600/dkt/d peaking gas from Jetco

EWR Customer Updates:

- **Darigold, Bozeman** – Contract expires 2/28/19

Energy West Montana:

2008 – Noming 46,500/dkt/d, flowed 42,082/dkt yesterday, imbalance 36,693/dkt, tolerance of 80,633/dkt, storage withdrawals 15,000/dkt/d, inventory balance 306,500/dkt.

- GD7 – EWR increased nomination to EWM to 2,500/dkt/d

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up, expecting to be back up the first week of February.

- Intermountain (Sister Utility) agreed to deliver LNG if needed as a third backup
- Jed will keep the Committee updated on the supply status

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
February 14, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

February Baseload Purchases:

	TCO	DEO	TGP	OTP	Spelman
NEO	6,725/day	8,500/day	270/day		
Orwell	1,690/day	1,475/day		4,400/day	150/day
Brainard	220/day	105/day			

Blended cost per DTH for February

NEO	\$2.812
Orwell	\$3.004
Brainard	\$2.882

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.42 Dominion \$2.42 and MichCon \$2.57

Oct19-Mar20 Futures: TCO (\$.309), DEO (\$0.406), MichCon, (\$0.182)

Orwell imbalances: OTP 60,023 DTH, Cobra 8,132 DTH, Spellman (10,796) DTH,

Brainard Imbalances: OTP 661 DTH, Cobra (132) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 39,677/dkt (7,986/dkt GTS & 31,691/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (51,250)/dth
- **Spellman Pipeline**
 - Imbalance (35,526)/dth

Mike is working to reduce the imbalances.

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for February 14, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of January 31, 2018, is (6,669) dth [Cobra at 9,661, OTP at (17,158), ONG at +1,653, and Spelman at (825)], which is an increase of 1,451 dth from last month.**
 - b. **The positive imbalances on Cobra and the negative imbalance on OTP were expected and had been discussed in previous risk meetings. Gas deliveries into Orwell-Trumbull Pipeline from Cobra North Trumbull pipeline can be limited during colder than normal temperatures in the winter. GNR had 15,000 dth scheduled into the North Trumbull system for January for delivery to OTP, but Cobra failed to move any gas through the Middlefield gate during the first half of January when milder temperatures would have allowed the gas to flow. The second half of January was much colder and Cobra was able to deliver less than 2,000 dth into Orwell-Trumbull Pipeline for the month, which created the positive imbalance on Cobra and the corresponding negative imbalance on Orwell-Trumbull Pipeline. Because of Cobra's questionable financial situation, GNR is hoping to eliminate most of the positive imbalance on Cobra during the March billing cycle.**
 - c. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - d. **The customer sales for January were 63,338 mcf, right on target of the forecasted sales of 63,000 mcf for the month.** The customer sales projection for February remains at 52,600 mcf. The corresponding supply plan for February is made up of 44,000 dth from North Coast Gas Transmission, 3,000 dth from Columbia Gas Transmission, 4,300 dth from local production, 6,700 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline as of January 31, 2019.
- 2) GNR purchases for **February**; (no changes from last week)

- a. 2-year deal with Elevation - GNR purchasing 429 dth/d delivered into North Coast for Lake Hospitals in February – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 107 dth/d delivered into Cobra North Trumbull for Breckenridge in February at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 71 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in February at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in February at \$3.125/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 1,070 dth/d into North Coast to serve customer requirements on OTP in February at NYMEX settle plus \$0.32/dth. (basis up \$0.16/dth from January)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in February at NYMEX settle minus \$0.05/dth. (basis down \$0.05/dth from January)
- 3) Customer issues; (no changes from last week)
- a. Due to the volatile gas market we saw this winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February.
 - b. **Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update February 14, 2019

February Rev Budget – 280,582

February Usage to date – 123,677

February Forecast – 290,000

February HDD to date – 549, compared to last year same period 589

Today's Cash Price – \$3.75 (Algonquin)

Average Cash price to date - \$4.165 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for February at the Algonquin City Gates Index price of \$7.53, the price was be posted in the "Platts" Price guide on the 7th of the month.

Bangor has 60% of their February forecast hedged at an average of \$10.92

Platt's Article:

Record LNG send-out targets New England gas prices... LNG imports to New England and New Brunswick are helping to keep a lid on the region's notoriously high gas prices this winter, as send out increasingly targets the coldest, peak-demand days. In late January, bitterly cold temperatures lifted Northeast gas demand to its highest on record at 42.4 Bcf/d, zooming past demand levels seen last winter and even outperforming a decade-old record. Despite that, gas prices at Boston's Algonquin city-gates hub have reached an annual high at just \$13.56/MMBtu this year, down dramatically from last winter's peak settlement price at \$78.88/MMBtu, S&P Global Platts data showed.

This winter's smaller, but more targeted LNG send-out appears to be working to contain prices. At Algonquin city-gates, cash-market prices have averaged just over \$6.20/MMBtu this year, down sharply from last year's January-to-date average at nearly \$13.40/MMBtu.

Capacity Updates...

- Bangor has received draft PA's from Enbridge, TransCanada and PNGTS. They are working through making edits on the draft PA's and have had several calls with each pipeline during this process discussing the PA's and Financial Assurance. They had a call with TransCanada and their risk department and have a follow up scheduled for next Wednesday. They hope to have a letter from Enbridge regarding the MNE US piece of the path by the end of the week.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

FEBRUARY SUMMARY

Budget: 143,935

Usage to Date: 72,197

Daily Avg Usage: 5,554

Avg Daily Cash Price:

Zone 3: \$2.58

Zone 5: \$2.78

FOM Price:

Zone 3: \$2.89

Zone 5: \$4.76

HDD Budget: 691

HDD to Date: 274

HDD Projected: 684

HDD this time last Year: 315

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 78 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.47	\$2.252	\$2.10	\$2.47
AECO	\$2.35	\$1.46	\$1.02	\$1.57
NYMEX	\$2.577- Mar 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance 671/dkt as of 1/1/19

Retail – north pool

4008 – Noming 6,960/dkt/d, flowing 6,487/dkt/d, imbalance 10,732/dkt with a tolerance of 14,515/dkt, storage withdrawals 1,500/dkt/d, balance is 58,267/dkt

EWR Customer Updates:

- **Darigold, Bozeman** – Contract expires 2/28/19
- **Weyerhaeuser** is conducting their RFP for a one or two-year deal – bids are due February 20th.
- **Direct Energy** – Dan reported that Direct Energy indicated to one of EWR's customers that they had Capacity available to purchase.

Energy West Montana:

2008 – Noming 35,000/dkt/d, flowed 40,076/dkt yesterday, imbalance 49,866/dkt, tolerance of 92,064/dkt, storage withdrawals 10,000/dkt/d, inventory balance 211,500/dkt.

➤ **Winter Supply 2019-2020**

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up, expecting to be back up the first week of March.

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
February 21, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

February Baseload Purchases:

	TCO	DEO	TGP	OTP	Spelman
NEO	6,725/day	8,500/day	270/day		
Orwell	1,690/day	1,475/day		4,400/day	150/day
Brainard	220/day	105/day			

Blended cost per DTH for February

NEO	\$2.812
Orwell	\$2.998
Brainard	\$2.882

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.495 Dominion \$2.43 and MichCon \$2.68

Oct19-Mar20 Futures: TCO (\$.285), DEO (\$0.358), MichCon, (\$0.157)

Orwell imbalances: OTP 39,176 DTH, Cobra 8,132 DTH, Spellman (10,796) DTH,

Brainard Imbalances: OTP 661 DTH, Cobra (132) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 16,153/dkt (-6,798/dkt GTS & 22,951/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 140,878/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.
 - In addition, the Orwell imbalance with OTP is down. This is caused by gas not flowing off North Coast. They currently owe Orwell 20,000/dkt

➤ **Spellman Pipeline**

- Imbalance (35,526)/dth

Mike is making purchases for March, paying less for TCO than DEO.

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for February 21, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of January 31, 2018, is (6,669) dth [Cobra at 9,661, OTP at (17,158), ONG at +1,653, and Spelman at (825)], which is an increase of 1,451 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - c. **The original customer sales projection for February of 52,600 mcf has been increased to 54,300 mcf based on the most recent weather forecast for the month, along with production changes at some of the metered facilities.** The corresponding supply plan for February is made up of 44,000 dth from North Coast Gas Transmission, 3,000 dth from Columbia Gas Transmission, 4,300 dth from local production, 6,700 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline as of January 31, 2019.
- 2) GNR purchases for **February**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 429 dth/d delivered into North Coast for Lake Hospitals in February – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 107 dth/d delivered into Cobra North Trumbull for Breckenridge in February at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 71 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in February at \$3.23/dth.

- d. 2-year deal with Elevation – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in February at \$3.125/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 1,070 dth/d into North Coast to serve customer requirements on OTP in February at NYMEX settle plus \$0.32/dth. (basis up \$0.16/dth from January)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in February at NYMEX settle minus \$0.05/dth. (basis down \$0.05/dth from January)
- 3) Customer issues; (changes from last week are in bold)
- a. Due to the volatile gas market we saw this winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February. **NYMEX prices for March are currently running in the \$2.65 per dth range, so March should continue to see an improvement in margin.**
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Jerry gave the Committee a supply update for Bangor Gas.

Bangor Supply Update February 20, 2019

February Rev Budget – 280,582

February Usage to date – 200,868

February Forecast – 290,000

February HDD to date – 820, compared to last year same period 818

Today's Cash Price 20th – \$3.58 (Algonquin)

Average Cash price to date - \$4.017 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for February at the Algonquin City Gates Index price of \$7.53, the price was be posted in the "Platts" Price guide on the 7th of the month.

They have 60% of their February forecast hedged at an average of \$10.92

Capacity Updates...

- o Jerry and Renee are still working through final edits on the PA's, Enbridge and TransCanada have extended the due dates until February 28th. They had a call today with TransCanada and their risk department to discuss credit requirements.

Frontier Natural Gas:

Fred gave the Committee a supply update for Frontier Natural Gas.

FEBRUARY SUMMARY

Budget: 143,935

Usage to Date: 100,776

Daily Avg Usage: 5,554

Avg Daily Cash Price:

Zone 3: \$2.57

Zone 5: \$2.76

FOM Price:

Zone 3: \$2.89

Zone 5: \$4.76

HDD Budget: 691

HDD to Date: 388

HDD Projected: 597

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 177 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.65	\$2.31	\$2.15	\$2.42
AECO	\$2.32	\$1.62	\$0.98	\$1.60
NYMEX	\$2.68- Mar 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance (649)/dkt as of 2/1/19

Retail – north pool

4008 – Noming 6,960/dkt/d, flowing 6,984/dkt/d, imbalance 13,592/dkt with a tolerance of 14,637/dkt, storage withdrawals 1,500/dkt/d, balance is 47,767/dkt

- GD20 dropped 7(A) nomination to 2,100/dkt/d, dropped storage to 1,000/dkt/d
- GD23 increased storage nomination to 2,000/dkt/d

EWR Customer Updates:

- **Darigold, Bozeman** – Contract expires 2/28/19 – renewed contract one year, Mar19-Feb20 at \$2.20

- **Weyerhaeuser** is conducting their RFP for a one or two-year deal – bids were due on February 20th.
 - EWR submitted 'notional' bids for a 12-month term, priced 7A at +\$0.52 and 5A at +\$0.49. Dan felt their loads had a little too much swing when doing a Full Requirements at 7(A) pricing. There are significant unknowns at this time regarding firm receipt capacity (transportation, storage, & production) that are currently out of EWR's control. EWR expects these issues to be resolved, or at least better understood, sometime later this month or in early March. Dan will continue to communicate with Weyerhaeuser regarding the supply issues.

Energy West Montana:

2008 – Noming 30,500/dkt/d, flowed 32,615/dkt yesterday, imbalance 49,517/dkt, tolerance of 97,653/dkt, storage withdrawals 6,000/dkt/d, inventory balance 143,500/dkt.

- GD 23 increased swing to 15,000/dkt/d, storage to 10,000/dkt/d
- Due to extreme weather conditions, Northwestern Energy has sent out a notice that **the Constrained Operating Time will remain in effect through Thursday 2/22 and will end at 8:00 a.m. Friday 2/23** at which time we will return to normal operating conditions.

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up, expecting to be back up the first week of March. Evan will get a firm date by next week's meeting.

Prepared by: Mary Stanich

**HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
February 28, 2019
11:30 A.M.**

Activities Performed

Present were:

- Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

March Baseload Purchases:

	NEO	Orwell	Brainard
TCO	5,800/day	875/day	125/day
DEO	6,750/day	1,410/day	100/day
OTP		2,690/day	
TGP	185/day		

Blended cost per DTH

NEO	\$2.711
Orwell	\$2.904
Brainard	\$2.816

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.75 Dominion \$2.74 and MichCon \$2.945

Oct19-Mar20 Futures: TCO (\$.287), DEO (\$0.363), MichCon, (\$0.205)

Orwell imbalances: OTP 39,176 DTH, Cobra 8,132 DTH, Spellman (10,796) DTH,

Brainard Imbalances: OTP 661 DTH, Cobra (132) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 12,054/dkt (-10,897/dkt GTS & 22,951/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 140,878/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.

- **Spellman Pipeline**
 - Imbalance (35,526)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for February 28, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spellman and Orwell Natural Gas as of January 31, 2018, is (6,669) dth [Cobra at 9,661, OTP at (17,158), ONG at +1,653, and Spellman at (825)], which is an increase of 1,451 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - c. The original customer sales projection for February of 52,600 mcf has been increased to 54,300 mcf based on the most recent weather forecast for the month, along with production changes at some of the metered facilities. The corresponding supply plan for February is made up of 44,000 dth from North Coast Gas Transmission, 3,000 dth from Columbia Gas Transmission, 4,300 dth from local production, 6,700 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline as of January 31, 2019.
- 2) GNR purchases for **March**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 419 dth/d delivered into North Coast for Lake Hospitals in March – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 97 dth/d delivered into Cobra North Trumbull for Breckenridge in March at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in March at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in March at \$3.125/dth.**

- e. 1-month purchase with Elevation Energy – GNR purchasing 970 dth/d into North Coast to serve customer requirements on OTP in March at NYMEX settle plus \$0.19/dth. (basis down \$0.13/dth from February)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in March at NYMEX settle plus \$0.00/dth. (basis up \$0.10/dth from February)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 230 dth/d delivered into multiple TCO interconnects at NYMEX settle plus \$0.10/dth.
- 3) Customer issues; (changes from last week are in bold)
- a. Due to the volatile gas market we saw this winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February. **The NYMEX settle price for March ended up at \$2.855 per dth, so GNR will see an improvement in margin in March on its fixed priced contracts.**
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update February 28, 2019

February Rev Budget – 280,582

February Usage to date – 289,092

February Forecast – 301,000

February HDD to date – 1,184, compared to last year same period 1,054

Today's Cash Price 20th – \$5.705 (Algonquin)

Average Cash price to date - \$4.20 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for February at the Algonquin City Gates Index price of \$7.53, the price was be posted in the "Platts" Price guide on the 7th of the month.

Bangor has 60% of their February forecast hedged at an average of \$10.92

Capacity Updates...

The BNG board will be voting on signing the Precedent Agreements today for TransCanada, Enbridge and Portland Natural gas. Jerry and Renee had a meeting this morning, Via Conference call to review all the required documents and any final questions the group had.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

FEBRUARY SUMMARY

Budget: 143,935

Usage to Date: 158,761

Daily Avg Usage: 5,880

Avg Daily Cash Price:

Zone 3: \$2.61

Zone 5: \$2.79

FOM Price:

Zone 3: \$2.89

Zone 5: \$4.76

HDD Budget: 691

HDD to Date: 592

HDD Projected: 603

HDD this time last Year: 480

Fred updated the Committee on the status of the prudence review. The hearing date is scheduled for Tuesday, March 5, 2019.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 166 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.85	\$2.23	\$2.51	\$1.92
AECO	\$2.87	\$1.02	\$1.70	\$1.06
NYMEX	\$2.811- Apr 2019		Mar19 Closed @ \$2.845	

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance (649)/dkt as of 2/1/19

Retail – north pool

4008 – Noming 7,073/dkt/d, flowing 7,672/dkt/d, imbalance 6,812/dkt with a tolerance of 15,665/dkt, storage withdrawals 2,000/dkt/d, balance is 36,767/dkt

- Baseload deal expires 2/28/19, adding 500/dkt/d to peaking gas
- GD27 increased 7(A) purchases to 2,500/dkt/d
- GD27 bumped up EWM nomination to 2,678/dkt/d

EWB Customer Updates:

- **Weyerhaeuser** conducted their RFP for a one or two-year deal – bids were due on February 20th. EWB submitted a notional bid because of all of the supply uncertainties. Weyerhaeuser has elected to wait until March and seek bids again through the auction process, based on EWB's comments and recommendations.

Energy West Montana:

2008 – Noming 34,678/dkt/d, flowed 36,105/dkt yesterday, imbalance 18,282/dkt, tolerance of 106,102/dkt, storage withdrawals 1,000/dkt/d, inventory balance 96,500/dkt.

- Northwestern Energy has sent out a notice that **the Constrained Operating Time will remain in effect through Monday March 4th until further notice**

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up, expecting to be back up the first week of March. Evan will get a firm date by next week's meeting.

- Jed updated the Committed on the supply.
 - West Yellowstone has had difficulties getting supply because of the weather related road closures. Two loads finally came through Pocatello and they are expecting a couple of loads per week.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC. RISK COMMITTEE MEETING

MINUTES

January 3, 2019

11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

January Baseload Purchases:

	Orwell	Brainard	Northeast Ohio
TCO	1,500 / day	280 / day	4,575 / day
DEO	1,350 / day	110 / day	8,000 / day
TGP			250 / day
OTP	4,400 / day		
Spelman	130 / day		

NEO also expects to withdraw an additional 3,200 / day from TCO storage in January

Blended cost per DTH for January 2019

Orwell	\$3.223 per DTH
Brainard	\$2.931 per DTH
NEO	\$2.997 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$2.555 Dominion \$2.505 and MichCon \$2.64

Nov18-Mar19 Futures: TCO (\$.272), DEO (\$0.349), MichCon, (\$0.167)

Orwell imbalances: OTP 9,975 DTH, Cobra (4,564) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 2,084 DTH, Cobra (1,169) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 182,610/dkt (58,850/dkt GTS & 123,760/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (52,174)/dth
- **Spellman Pipeline**

- Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **January 3, 2019**:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of November 30, 2018, is +1,330 dth [Cobra at (11,340), OTP at +12,150, ONG at +710, and Spelman at (1,290)], which is an increase of 7,130 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest.
 - c. **The customer sales projection for January is 63,000 mcf. The corresponding supply plan for January is made up of 31,100 dth from North Coast Gas Transmission, 24,000 dth from Columbia Gas Transmission, 4,100 dth from local production, 7,400 dth from Tennessee Gas Pipeline.**
- 2) GNR purchases for **January**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 484 dth/d delivered into North Coast for Lake Hospitals in January – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 129 dth/d delivered into Cobra North Trumbull for Breckenridge in January at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in January at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in January at \$3.125/dth.**
 - e. **1-month purchase with Direct Energy – GNR purchasing 455 dth/d into North Coast to serve customer requirements on OTP in January at NYMEX settle plus \$0.16/dth. (basis down \$0.16/dth from December)**
 - f. **1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in January at NYMEX settle minus \$0.05/dth. (basis down \$0.10/dth from December)**

- g. **1-month purchase with Elevation Energy – GNR purchasing 645 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in January at NYMEX settle plus \$0.092/dth.**
- 3) Customer issues; (changes from last week are in bold)
 - a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. **Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth and that is Painesville Schools with a breakeven rate around \$3.75 per dth. With the January NYMEX settle of \$3.642/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in January. Current market rates for the balance of the winter are now under \$3.00 per dth, so GNR's fixed priced contracts appear to be okay for the near future.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update January 3, 2019

December Rev Budget – 267,324

December Actual – 298,802

December HDD to date 1,263, compared to 10 year average 1,216

January Rev Budget – 352,621

January Forecast – 330,000

Today's Cash Price – \$2.965 (Algonquin)

January Filed Gas Cost - \$9.57 (\$9.34 Energy, \$0.23 PGC)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for January at the Algonquin City Gates Index price of \$X.XX, the price will be posted in the "Platts" Price guide around the 7th of the month.

Bangor has 60% of their December forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received Acceptance Letters regarding their bids in the TransCanada New Capacity Open Season commencing in 2021 and 2022 and on Union's. They are still waiting on the draft Precedent Agreements from both Union Gas and TransCanada.
 - Ben is reviewing the Precedent Agreement from PNGTS

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas by email.

DECEMBER SUMMARY

Budget: 179,308
 Usage to Date: 185,457
 Daily Avg Usage: 5,982
 Avg Daily Cash Price:
 Zone 3: \$4.72
 Zone 5: \$5.94
 FOM Price:
 Zone 3: \$4.72
 Zone 5: \$5.94
 HDD Budget: 701
 HDD to Date: 801
 HDD Projected 801

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 20 Bcf from the previous week, released January 4th.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.59	\$2.31	\$1.82	\$2.20
AECO	\$0.88	\$0.99	\$0.81	\$1.08
NYMEX	\$2.912 - Feb 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 200/dkt/d – Imbalance 1,304/dkt as of 12/1/18

Retail – north pool

4008 – Noming 6,730/dkt/d, flowing 7,375/dkt/d, imbalance 422/dkt with a tolerance of 13,134/dkt, storage withdrawals 2,500/dkt/d, balance is 123,500/dkt

EWR Customer Updates: Nothing to report**Energy West Montana:**

2008 – Noming 26,150/dkt/d, flowed 26,213/dkt yesterday, imbalance -15,431/dkt, tolerance of 74,916/dkt, storage withdrawals 7,500/dkt/d, inventory balance 741,500/dkt.

- Nova Capacity – Putting Tenaska's Temporary assignments in place through the length of their contract

➤ Winter Supply

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
January 10, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Jerry Livengood, Renee Huff, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike was not able to participate – no changes from last week reported.

January Baseload Purchases:

	Orwell	Brainard	Northeast Ohio
TCO	1,500 / day	280 / day	4,575 / day
DEO	1,350 / day	110 / day	8,000 / day
TGP			250 / day
OTP	4,400 / day		
Spelman	130 / day		

NEO also expects to withdraw an additional 3,200 / day from TCO storage in January

Blended cost per DTH for January 2019

Orwell	\$3.223 per DTH
Brainard	\$2.931 per DTH
NEO	\$2.997 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$2.555 Dominion \$2.505 and MichCon \$2.64

Nov18-Mar19 Futures: TCO (\$.272), DEO (\$0.349), MichCon, (\$0.167)

Orwell imbalances: OTP 9,975 DTH, Cobra (4,564) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 2,084 DTH, Cobra (1,169) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 182,610/dkt (58,850/dkt GTS & 123,760/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (52,174)/dth
- **Spellman Pipeline**

- Imbalance 7,646/dth

Gas Natural Resources:

Greg was not able to participate.

GNR Weekly Risk Report for **January 10, 2019: (No changes from previous week)**

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of November 30, 2018, is +1,330 dth [Cobra at (11,340), OTP at +12,150, ONG at +710, and Spelman at (1,290)], which is an increase of 7,130 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest.
 - c. **The customer sales projection for January is 63,000 mcf. The corresponding supply plan for January is made up of 31,100 dth from North Coast Gas Transmission, 24,000 dth from Columbia Gas Transmission, 4,100 dth from local production, 7,400 dth from Tennessee Gas Pipeline.**
- 2) GNR purchases for **January**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 484 dth/d delivered into North Coast for Lake Hospitals in January – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 129 dth/d delivered into Cobra North Trumbull for Breckenridge in January at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in January at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in January at \$3.125/dth.**
 - e. **1-month purchase with Direct Energy – GNR purchasing 455 dth/d into North Coast to serve customer requirements on OTP in January at NYMEX settle plus \$0.16/dth. (basis down \$0.16/dth from December)**
 - f. **1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in January at NYMEX settle minus \$0.05/dth. (basis down \$0.10/dth from December)**

- g. **1-month purchase with Elevation Energy – GNR purchasing 645 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in January at NYMEX settle plus \$0.092/dth.**
- 3) Customer issues; (changes from last week are in bold)
 - a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. **Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth and that is Painesville Schools with a breakeven rate around \$3.75 per dth. With the January NYMEX settle of \$3.642/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in January. Current market rates for the balance of the winter are now under \$3.00 per dth, so GNR's fixed priced contracts appear to be okay for the near future.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update January 10, 2019

January Rev Budget – 352,621

January Usage to date – 86,722

January Forecast – 340,000

January HDD to date – 374, compared to last year same time-period 519

Today's Cash Price – \$6.60 (Algonquin)

Average Cash price to date - \$3.51 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for January at the Algonquin City Gates Index price of \$9.35, the price was be posted in the "Platts" Price guide on the 8th of the month.

Bangor has 60% of their January forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received Acceptance Letters regarding their bids in the TransCanada New Capacity Open Season commencing in 2021 and 2022 and on Union's. They are still waiting on the draft Precedent Agreements from both Union Gas and TransCanada.
- Ben is reviewing the Precedent Agreement from PNGTS

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas by email.

JANUARY SUMMARY

Budget: 230,234

Usage to Date: 51,721

Daily Avg Usage: 5,747

Avg Daily Cash Price:

Zone 3: \$2.78

Zone 5: \$3.28

FOM Price:

Zone 3: \$3.61

Zone 5: \$7.31

HDD Budget: 858

HDD to Date: 173

HDD Projected 865

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 91 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.50	\$2.32	\$2.00	\$2.38
AECO	\$1.34	\$1.13	\$0.97	\$1.31
NYMEX	\$3.007 - Feb 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance 1,304/dkt as of 12/1/18

- Glacier line down for repairs

Retail – north pool

4008 – Noming 6,230/dkt/d, flowing 6,017/dkt/d, imbalance 944/dkt with a tolerance of 12,801/dkt, storage withdrawals 1,500/dkt/d, balance is 110,000/dkt

- GD9 - Zeroed out 7008 sales
- GD11 - Dropped EWM nomination to 1,000/dkt/d

EWR Customer Updates:

- **Double Tree, Missoula** – Contract currently on month-to-month. They are looking for a thirteen-month proposal.
- **Darigold, Bozeman** – Contract expires 2/28/19
- **EWR Fixed Price Exposure** - A separate meeting with Energy West Management was held to discuss the EWR fixed price exposure. It was determined that the volumes were covered and a financial hedge would not be necessary at this time.

Energy West Montana:

2008 – Noming 23,250/dkt/d, flowed 22,631/dkt yesterday, imbalance -20,219/dkt, tolerance of 73,354/dkt, storage withdrawals 7,500/dkt/d, inventory balance 689,000/dkt.

➤ **Winter Supply 2019-2020**

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
January 17, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

January Baseload Purchases:

	Orwell	Brainard	Northeast Ohio
TCO	1,500 / day	280 / day	4,575 / day
DEO	1,350 / day	110 / day	8,000 / day
TGP			250 / day
OTP	4,400 / day		
Spelman	130 / day		

Dominion reallocation for December 2018 – purchased 64,000/dkt at \$4.45

Blended cost per DTH for January 2019

Orwell	\$3.222 per DTH
Brainard	\$2.931 per DTH
NEO	\$2.997 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$3.435 Dominion \$3.415 and MichCon \$3.515

Nov18-Mar19 Futures: TCO (\$.232), DEO (\$0.246), MichCon, (\$0.057)

Orwell imbalances: OTP 23,228 DTH, Cobra (14,268) DTH, Spellman (3,040) DTH,

Brainard Imbalances: OTP 1,456 DTH, Cobra (2,221) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 153,938/dkt (62,070/dkt GTS & 91,868/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (4,602)/dth
- **Spellman Pipeline**

- Imbalance (20,356)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **January 17, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of December 31, 2018, is (8,120) dth [Cobra at (6,950), OTP at (400), ONG at +620, and Spelman at (1,390)], which is a decrease of 9,450 dth from last month.**
 - b. **Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.**
 - c. The customer sales projection for January is 63,000 mcf. The corresponding supply plan for January is made up of 31,100 dth from North Coast Gas Transmission, 24,000 dth from Columbia Gas Transmission, 4,100 dth from local production, 7,400 dth from Tennessee Gas Pipeline (TGP).
 - d. **Elevation Energy, one of GNR's main gas suppliers, made a clerical error in December and the first half of January and failed to deliver gas on TGP that GNR had purchased. Elevation has agreed to pay for any penalties that GNR may experience related to the imbalance created.**
- 2) GNR purchases for **January**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 484 dth/d delivered into North Coast for Lake Hospitals in January – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 129 dth/d delivered into Cobra North Trumbull for Breckenridge in January at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in January at \$3.23/dth.

- d. 2-year deal with Elevation – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in January at \$3.125/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 455 dth/d into North Coast to serve customer requirements on OTP in January at NYMEX settle plus \$0.16/dth. (basis down \$0.16/dth from December)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in January at NYMEX settle minus \$0.05/dth. (basis down \$0.10/dth from December)
 - g. 1-month purchase with Elevation Energy – GNR purchasing 645 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in January at NYMEX settle plus \$0.092/dth.
- 3) Customer issues; (changes from last week are in bold)
- a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth and that is Painesville Schools with a breakeven rate around \$3.75 per dth. With the January NYMEX settle of \$3.642/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in January. **Current market rates for February gas are around \$3.50 per dth, so GNR's fixed priced contracts appear to be okay, but with colder weather on the horizon prices could spike at any time.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update January 17, 2019

January Rev Budget – 352,621

January Usage to date – 162,783

January Forecast – 360,000

January HDD to date – 718, compared to last year same time-period 803

Today's Cash Price – \$11.375 (Algonquin)

Average Cash price to date - \$4.961 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for January at the Algonquin City Gates Index price of \$9.35, the price was be posted in the "Platts" Price guide on the 8th of the month.

Bangor has 60% of their January forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received the following documents this week from Enbridge Gas (Union Gas)....
 - Hub Contract
 - Transportation Agreement (M12) & Precedent Agreement
 - Financial Backstopping Agreement
 - Tax Declarations for both the Hub and M12 contracts
 - Template Letter of Credit
- Bangor has a meeting next week with Enbridge Gas Inc. on the 23rd. They will be coming to Bangor to go over the documents and discuss them with Jerry and Renee. Ben Smith will also be joining them and Len Gilmore will be calling into the meeting. Kevin Degenstein will also be joining the call.
- Bangor is still waiting on the draft Precedent Agreement from TransCanada.
- Ben is reviewing the Precedent Agreement from PNGTS

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas by email.

JANUARY SUMMARY

Budget: 230,234
 Usage to Date: 111,663
 Daily Avg Usage: 6,979
 Avg Daily Cash Price:
 Zone 3: \$2.92
 Zone 5: \$3.53
 FOM Price:
 Zone 3: \$3.61
 Zone 5: \$7.31

HDD Budget: 858
 HDD to Date: 399
 HDD Projected 888

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 81 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.34	\$2.92	\$2.17	\$2.49
AECO	\$1.68	\$1.27	\$1.03	\$1.43
NYMEX	\$3.429 - Feb 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance 1,304/dkt as of 12/1/18

- Glacier line down for repairs

Retail – north pool

4008 – Noming 5,580/dkt/d, flowing 6,216/dkt/d, imbalance -2,671/dkt with a tolerance of 13,194/dkt, storage withdrawals 850/dkt/d, balance is 102,750/dkt

- GD16 – increased 7(a) purchases to 2,500/dkt/d
- ML#1 production is apparently up and running – Dan will add 200/dkt/d to nominations– waiting on confirmation from Croft.

EWR Customer Updates:

- **Double Tree, Missoula** – Contract currently on month-to-month. They are looking for a thirteen-month proposal, along with their Whitefish facilities.
- **Darigold, Bozeman** – Contract expires 2/28/19

Energy West Montana:

2008 – Noming 25,100/dkt/d, flowed 28,501/dkt yesterday, imbalance -28,690/dkt, tolerance of 75,346/dkt, storage withdrawals 10,000/dkt/d, inventory balance 621,500/dkt.

- GD17 – bumped up storage withdrawals to 15,000/dkt/d

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

Jed reported that the main source of LNG supply to the West Yellowstone customers went down. They are temporarily buying gas from Exxon until their main supply is back up.

- Intermountain (Sister Utility) agreed to deliver LNG if needed as a third backup
- Trucking costs will increase with new suppliers

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
January 24, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne, Tyler Muzzana and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

January Baseload Purchases:

	Orwell	Brainard	Northeast Ohio
TCO	1,500 / day	280 / day	4,575 / day
DEO	1,350 / day	110 / day	8,000 / day
TGP			250 / day
OTP	4,400 / day		
Spelman	130 / day		

Additional Purchases:

10,000/dth at \$4.12 - OTP Day Gas for Orwell

Blended cost per DTH for January 2019

Orwell	\$3.287 per DTH
Brainard	\$2.931 per DTH
NEO	\$2.997 per DTH

The balance of the GTS TCO storage account is 61,503/dth

Daily Price Index: TCO Appalachia \$2.885 Dominion \$2.725 and MichCon \$3.11

Nov18-Mar19 Futures: TCO (\$.256), DEO (\$0.329), MichCon, (\$0.10)

Orwell imbalances: OTP 23,228 DTH, Cobra (14,268) DTH, Spellman (3,040) DTH,

Brainard Imbalances: OTP 1,456 DTH, Cobra (2,221) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 118,972/dkt (46,350/dkt GTS & 72,622/dkt FSS)
- **Cobra Pipeline**

- Imbalance (4,602)/dth
- **Spellman Pipeline**
 - Imbalance (20,356)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for January 24, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of December 31, 2018, is (8,120) dth [Cobra at (6,950), OTP at (400), ONG at +620, and Spelman at (1,390)], which is a decrease of 9,450 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - c. The customer sales projection for January is 63,000 mcf. The corresponding supply plan for January is made up of 31,100 dth from North Coast Gas Transmission, 24,000 dth from Columbia Gas Transmission, 4,100 dth from local production, 7,400 dth from Tennessee Gas Pipeline (TGP).
 - d. **Gas deliveries into Orwell-Trumbull Pipeline from Cobra North Trumbull pipeline can be limited during colder than normal temperatures in the winter. GNR had 15,000 dth scheduled into the North Trumbull system for January for delivery to OTP, but Cobra failed to move any gas through the Middlefield gate during the first half of January when milder temperatures would have allowed the gas to flow. The second half of January has been much colder and only about 3,000 dth has been moved across the Middlefield gate so far this month. This is creating a positive imbalance on Cobra, which I am projecting to be around 10,000 dth at the end of January and a projected negative imbalance on Orwell-Trumbull Pipeline of about 13,000 dth. The concern here is having a positive imbalance on Cobra, due to their questionable financial situation.**
- 2) GNR purchases for **January**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 484 dth/d delivered into North Coast for Lake Hospitals in January – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.

- b. 3-year deal with Constellation - GNR purchasing 129 dth/d delivered into Cobra North Trumbull for Breckenridge in January at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in January at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in January at \$3.125/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 455 dth/d into North Coast to serve customer requirements on OTP in January at NYMEX settle plus \$0.16/dth. (basis down \$0.16/dth from December)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in January at NYMEX settle minus \$0.05/dth. (basis down \$0.10/dth from December)
 - g. 1-month purchase with Elevation Energy – GNR purchasing 645 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in January at NYMEX settle plus \$0.092/dth.
- 3) Customer issues; (changes from last week are in bold)
- a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth and that is Painesville Schools with a breakeven rate around \$3.75 per dth. With the January NYMEX settle of \$3.642/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in January. **Current market rates for February gas have dropped to around \$3.00 per dth, so GNR's fixed priced contracts appear to be okay, but with colder weather on the horizon, prices could spike at any time.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update January 24, 2019

January Rev Budget – 352,621

January Usage to date – 253,231

January Forecast – 350,000

January HDD to date – 1,083, compared to last year same time-period 1,075

Today's Cash Price – \$3.52 (Algonquin)

Average Cash price to date - \$6.507 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for January at the Algonquin City Gates Index price of \$9.35, the price was be posted in the "Platts" Price guide on the 8th of the month.

Bangor has 60% of our January forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received the following documents this week from Enbridge Gas (Union Gas)...
 - Hub Contract
 - Transportation Agreement (M12) & Precedent Agreement
 - Financial Backstopping Agreement
 - Tax Declarations for both the Hub and M12 contracts
 - Template Letter of Credit
- They met with Enbridge (Union gas) yesterday and reviewed the agreements with them, Ben was here for the meeting and Kevin and Len called in.
- Bangor is still waiting on the draft Precedent Agreement from TransCanada.
- Ben is reviewing the Precedent Agreement from PNGTS; they sent an updated agreement yesterday.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

JANUARY SUMMARY

Budget: 230,234

Usage to Date: 170,400

Daily Avg Usage: 7,409

Avg Daily Cash Price:

Zone 3: \$3.01

Zone 5: \$4.23

FOM Price:

Zone 3: \$3.61

Zone 5: \$7.31

HDD Budget: 858

HDD to Date: 629 - 780 Last year

HDD Projected 887

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 163 Bcf from the previous week. Prices move up around 15 cents.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.80	\$2.53	\$2.12	\$2.49
AECO	\$1.49	\$1.33	\$1.05	\$1.47
NYMEX	\$3.132 - Feb 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance 671/dkt as of 1/1/19

Retail – north pool

4008 – Noming 6,285/dkt/d, flowing 5,970/dkt/d, imbalance -2,069/dkt with a tolerance of 13,694/dkt, storage withdrawals 850/dkt/d, balance is 96,800/dkt

- Resuming South Pool Purchases GD25
- Mainline #1 production is up

EWR Customer Updates:

- **Double Tree, Missoula** – Contract currently on month-to-month. They are looking for a thirteen-month proposal, Feb19-Feb20.
- **Darigold, Bozeman** – Contract expires 2/28/19
- **Weyerhaeuser** – Dan gave them an indicative price proposal of Aeco, plus \$0.50, beginning date of 4/1/2019.

Energy West Montana:

2008 – Noming 30,100/dkt/d, flowed 31,918/dkt yesterday, imbalance -11,233/dkt, tolerance of 75,845/dkt, storage withdrawals 15,000/dkt/d, inventory balance 516,500/dkt.

- GD17 – bumped up storage withdrawals to 15,000/dkt/d
- Nominating Baseload 5,000/dkt/d, no swing gas
- Updating the Letter of Credit for NGTL – Nova Capacity

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up.

- Intermountain (Sister Utility) agreed to deliver LNG if needed as a third backup
- Jed will keep the Committee updated on the status of the supply

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
January 24, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne, Tyler Muzzana and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

January Baseload Purchases:

	Orwell	Brainard	Northeast Ohio
TCO	1,500 / day	280 / day	4,575 / day
DEO	1,350 / day	110 / day	8,000 / day
TGP			250 / day
OTP	4,400 / day		
Spelman	130 / day		

Additional Purchases:

10,000/dth at \$4.12 - OTP Day Gas for Orwell

Blended cost per DTH for January 2019

Orwell	\$3.287 per DTH
Brainard	\$2.931 per DTH
NEO	\$2.997 per DTH

The balance of the GTS TCO storage account is 61,503/dth

Daily Price Index: TCO Appalachia \$2.885 Dominion \$2.725 and MichCon \$3.11

Nov18-Mar19 Futures: TCO (\$.256), DEO (\$0.329), MichCon, (\$0.10)

Orwell imbalances: OTP 23,228 DTH, Cobra (14,268) DTH, Spellman (3,040) DTH,

Brainard Imbalances: OTP 1,456 DTH, Cobra (2,221) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 118,972/dkt (46,350/dkt GTS & 72,622/dkt FSS)
- **Cobra Pipeline**

- Imbalance (4,602)/dth
- **Spellman Pipeline**
- Imbalance (20,356)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for January 24, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of December 31, 2018, is (8,120) dth [Cobra at (6,950), OTP at (400), ONG at +620, and Spelman at (1,390)], which is a decrease of 9,450 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - c. The customer sales projection for January is 63,000 mcf. The corresponding supply plan for January is made up of 31,100 dth from North Coast Gas Transmission, 24,000 dth from Columbia Gas Transmission, 4,100 dth from local production, 7,400 dth from Tennessee Gas Pipeline (TGP).
 - d. **Gas deliveries into Orwell-Trumbull Pipeline from Cobra North Trumbull pipeline can be limited during colder than normal temperatures in the winter. GNR had 15,000 dth scheduled into the North Trumbull system for January for delivery to OTP, but Cobra failed to move any gas through the Middlefield gate during the first half of January when milder temperatures would have allowed the gas to flow. The second half of January has been much colder and only about 3,000 dth has been moved across the Middlefield gate so far this month. This is creating a positive imbalance on Cobra, which I am projecting to be around 10,000 dth at the end of January and a projected negative imbalance on Orwell-Trumbull Pipeline of about 13,000 dth. The concern here is having a positive imbalance on Cobra, due to their questionable financial situation.**
- 2) GNR purchases for **January**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 484 dth/d delivered into North Coast for Lake Hospitals in January – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.

- b. 3-year deal with Constellation - GNR purchasing 129 dth/d delivered into Cobra North Trumbull for Breckenridge in January at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in January at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in January at \$3.125/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 455 dth/d into North Coast to serve customer requirements on OTP in January at NYMEX settle plus \$0.16/dth. (basis down \$0.16/dth from December)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in January at NYMEX settle minus \$0.05/dth. (basis down \$0.10/dth from December)
 - g. 1-month purchase with Elevation Energy – GNR purchasing 645 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in January at NYMEX settle plus \$0.092/dth.
- 3) Customer issues; (changes from last week are in bold)
- a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. After a review, only one month-to-month agreement has a breakeven point below \$4.00 per dth and that is Painesville Schools with a breakeven rate around \$3.75 per dth. With the January NYMEX settle of \$3.642/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in January. **Current market rates for February gas have dropped to around \$3.00 per dth, so GNR's fixed priced contracts appear to be okay, but with colder weather on the horizon, prices could spike at any time.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update January 24, 2019

January Rev Budget – 352,621

January Usage to date – 253,231

January Forecast – 350,000

January HDD to date – 1,083, compared to last year same time-period 1,075

Today's Cash Price – \$3.52 (Algonquin)

Average Cash price to date - \$6.507 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for January at the Algonquin City Gates Index price of \$9.35, the price was be posted in the "Platts" Price guide on the 8th of the month.

Bangor has 60% of our January forecast hedged at an average of \$10.92

Capacity Updates...

- Bangor received the following documents this week from Enbridge Gas (Union Gas)...
 - Hub Contract
 - Transportation Agreement (M12) & Precedent Agreement
 - Financial Backstopping Agreement
 - Tax Declarations for both the Hub and M12 contracts
 - Template Letter of Credit
- They met with Enbridge (Union gas) yesterday and reviewed the agreements with them, Ben was here for the meeting and Kevin and Len called in.
- Bangor is still waiting on the draft Precedent Agreement from TransCanada.
- Ben is reviewing the Precedent Agreement from PNGTS; they sent an updated agreement yesterday.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

JANUARY SUMMARY

Budget: 230,234

Usage to Date: 170,400

Daily Avg Usage: 7,409

Avg Daily Cash Price:

Zone 3: \$3.01

Zone 5: \$4.23

FOM Price:

Zone 3: \$3.61

Zone 5: \$7.31

HDD Budget: 858

HDD to Date: 629 - 780 Last year

HDD Projected 887

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 163 Bcf from the previous week. Prices move up around 15 cents.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.80	\$2.53	\$2.12	\$2.49
AECO	\$1.49	\$1.33	\$1.05	\$1.47
NYMEX	\$3.132 - Feb 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance 671/dkt as of 1/1/19

Retail – north pool

4008 – Noming 6,285/dkt/d, flowing 5,970/dkt/d, imbalance -2,069/dkt with a tolerance of 13,694/dkt, storage withdrawals 850/dkt/d, balance is 96,800/dkt

- Resuming South Pool Purchases GD25
- Mainline #1 production is up

EWR Customer Updates:

- **Double Tree, Missoula** – Contract currently on month-to-month. They are looking for a thirteen-month proposal, Feb19-Feb20.
- **Darigold, Bozeman** – Contract expires 2/28/19
- **Weyerhaeuser** – Dan gave them an indicative price proposal of Aeco, plus \$0.50, beginning date of 4/1/2019.

Energy West Montana:

2008 – Noming 30,100/dkt/d, flowed 31,918/dkt yesterday, imbalance -11,233/dkt, tolerance of 75,845/dkt, storage withdrawals 15,000/dkt/d, inventory balance 516,500/dkt.

- GD17 – bumped up storage withdrawals to 15,000/dkt/d
- Nominating Baseload 5,000/dkt/d, no swing gas
- Updating the Letter of Credit for NGTL – Nova Capacity

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up.

- Intermountain (Sister Utility) agreed to deliver LNG if needed as a third backup
- Jed will keep the Committee updated on the status of the supply

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
January 31, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

February Baseload Purchases:

	TCO	DEO	TGP	OTP	Spelman
NEO	6,725/day	8,500/day	270/day		
Orwell	1,690/day	1,475/day		4,400/day	150/day
Brainard	220/day	105/day			

Blended cost per DTH for January

NEO	\$3.02
Orwell	\$3.496
Brainard	\$2.931

Purchased additional gas for 2-3 days due to cold weather

Blended cost per DTH for February

NEO	\$2.812
Orwell	\$3.004
Brainard	\$2.882

The balance of the GTS TCO storage account is 51,803/dth

Daily Price Index: TCO Appalachia \$2.875 Dominion \$2.94 and MichCon \$4.995

Nov18-Mar19 Futures: TCO (\$.233), DEO (\$0.258), MichCon, (\$0.077)

Orwell imbalances: OTP 23,228 DTH, Cobra (14,268) DTH, Spellman (3,040) DTH,

Brainard Imbalances: OTP 1,456 DTH, Cobra (2,221) DTH

Northeast Ohio (NEO):

- TCO System (Columbia Transmission Co)

- Balance of two storage accounts is 82,205/dkt (29,379/dkt GTS & 52,826/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (4,602)/dth
- **Spellman Pipeline**
 - Imbalance (20,356)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **January 31, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of December 31, 2018, is (8,120) dth [Cobra at (6,950), OTP at (400), ONG at +620, and Spelman at (1,390)], which is a decrease of 9,450 dth from last month.
 - b. Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Production gas on Cobra Churchtown has not flowed since November 4, 2017. If it happens at all, it now appears that it will be spring before any production gas flows into the TCO system and becomes available to GNR. Aspire Energy (formerly Gatherco) is working with Cobra to take the Churchtown gas into their system and on to Dominion. If this materializes then the producers could begin flowing gas again and Cobra could charge their \$0.50/dth transport fee. This could also mean Cobra has less incentive to repair the stripping station.
 - c. **The customer sales projection for February is 52,600 mcf. The corresponding supply plan for February is made up of 44,000 dth from North Coast Gas Transmission, 3,000 dth from Columbia Gas Transmission, 4,300 dth from local production, 6,700 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline as of January 31, 2019.**
 - d. Gas deliveries into Orwell-Trumbull Pipeline from Cobra North Trumbull pipeline can be limited during colder than normal temperatures in the winter. GNR had 15,000 dth scheduled into the North Trumbull system for January for delivery to OTP, but Cobra failed to move any gas through the Middlefield gate during the first half of January when milder temperatures would have allowed the gas to flow. The second half of January has been much colder and only about 3,000 dth has been moved across the Middlefield gate so far this month. This is creating a positive imbalance on Cobra, which I am projecting to be around 10,000 dth at the end of January and a projected negative imbalance on Orwell-Trumbull Pipeline of about 13,000 dth. The concern here is having a positive imbalance on Cobra, due to their questionable financial situation.

- 2) GNR purchases for **February**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 429 dth/d delivered into North Coast for Lake Hospitals in February – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 107 dth/d delivered into Cobra North Trumbull for Breckenridge in February at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 71 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in February at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in February at \$3.125/dth.**
 - e. **1-month purchase with Direct Energy – GNR purchasing 1,070 dth/d into North Coast to serve customer requirements on OTP in February at NYMEX settle plus \$0.32/dth. (basis up \$0.16/dth from January)**
 - f. **1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in February at NYMEX settle minus \$0.05/dth. (basis down \$0.05/dth from January)**
- 3) Customer issues; (changes from last week are in bold)
 - a. CresCor – GNR notified CresCor that their 1-yr fixed price agreement was expiring at the end of December. GNR also proposed a new 1-yr fixed price offer that incorporated the increased market rates currently in effect. Still no response from the customer at this time.
 - b. **Due to the volatile gas markets, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. Since CresCor’s one-year fixed-rate agreement has expired and are now on a month-to-month contract, they now have the lowest monthly breakeven rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update January 31, 2019

January Rev Budget – 352,621

January Usage to date – 326,142

January Forecast – 352,000

January HDD to date – 1,374, compared to last year same time-period 1,371

Today’s Cash Price – \$9.21 (Algonquin)

Average Cash price to date - \$6.946 (Algonquin)

Per Bangor’s Supply Agreement, they have 3,000/d of baseload for January at the Algonquin City Gates Index price of \$9.35, the price was be posted in the “Platts” Price guide on the 8th of the month.

Bangor has 60% of their January forecast hedged at an average of \$10.92

Capacity Updates...

- o Bangor has received draft PAs from Enbridge, TransCanada and PNGTS. Jerry, Ben Smith, Len Gilmore and Renee have had a call with each Pipeline this week to discuss their draft PAs and now they are in the process of making edits. Jerry and Renee plan to reach out to MNE this week in hopes to schedule a time to meet with them next to discuss what they need in order to secure Capacity on their piece of the path.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

JANUARY SUMMARY

Budget: 230,234

Usage to Date: 231,525

Daily Avg Usage: 7,718

Avg Daily Cash Price:

Zone 3: \$3.01

Zone 5: \$4.31

FOM Price:

Zone 3: \$3.61

Zone 5: \$7.31

HDD Budget: 858

HDD to Date: 854

HDD Projected 889

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 173 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.67	\$2.67	\$2.21	\$2.57
AECO	\$1.66	\$1.48	\$1.20	\$1.53
NYMEX	\$2.804 - Mar 2019		\$2.962 - Feb 2019 Close	

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance 671/dkt as of 1/1/19

Retail – north pool

4008 – Noming 6,391/dkt/d, flowing 5,917/dkt/d, imbalance 1,912/dkt with a tolerance of 13,430/dkt, storage withdrawals 850/dkt/d, balance is 90,850/dkt

- GD30 Dropped 7A purchases to 1,500/d

EWR Customer Updates:

- **Double Tree, Missoula** – renewed contract for the term of thirteen months, Feb19-Feb20 at \$2.10.
- **Darigold, Bozeman** – Contract expires 2/28/19

Energy West Montana:

2008 – Noming 30,100/dkt/d, flowed 26,146/dkt yesterday, imbalance 619/dkt, tolerance of 73,450/dkt, storage withdrawals 15,000/dkt/d, inventory balance 411,500/dkt.

- Starting February with 10,000/dkt/d swing
- The Letter of Credit for NGTL is back in place, working on the amendments to the LC (name change and dollar is increase).
- Jetco is working through their concerns about next winter's supply. Dan will keep the Committee updated.

➤ Winter Supply 2019-2020

- 12/14/18 – Fixed 3,000/dkt/d, Nov19-Mar20 at \$1.43 (Jetco)

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up, expecting to be back up the first week of February.

- Intermountain (Sister Utility) agreed to deliver LNG if needed as a third backup
- Jed will keep the Committee updated on the supply status

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
July 11, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke and Mary Stanich
- Mike Zappitello, Renee Huff, Fred Steele, Ted Gambill, Calvin Johnson and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

July Baseload Purchases:

	NEO	Orwell	Brainard	
TCO	500/day	10/day	0/day	working off imbalances
Storage	1,500/day	500/day	0/day	
DEO	535/day	155/day	30/day	
NEO is receiving 1,300 / day from Dominion as a pay back				
TGO	10/day	0/day	0/day	
OTP	0/day	115/day	0/day	working off the imbalance

Blended Cost of Gas

NEO	\$2.007 / DTH
Orwell	\$2.044 / DTH
Brainard	\$2.040 / DTH

Daily Price Index: TCO Appalachia \$2.25 Dominion \$2.20 and MichCon \$2.315

Oct19-Mar20 Futures: TCO (\$.282), DEO (\$0.360), MichCon, (\$0.171)

Orwell imbalances: OTP & NC: 39,709 DTH, Cobra (8,155) DTH, Spellman (707) DTH,

Brainard Imbalances: OTP & NC: 548 DTH, Cobra 1,366 DTH

GTS TCO Storage Balance: 81,803/dth

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 151,958/dkt (55,161/dkt GTS & 96,797/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 59,668/dth
- **Spellman Pipeline**

- Imbalance (11,711)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for July 11, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **Final imbalance numbers for June are still not be available; however, GNR's combined imbalance position at the end of June should be approximately +9,600 dth. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, was +6,590 dth [Cobra at (181), OTP at +6,590, ONG at +165, and Spelman at 0], so this would be an increase of approximately 3,000 dth from May's position.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for June is 37,300 mcf. The supply plan for June is consists of 19,000 dth from North Coast Gas Transmission, 7,000 dth from Columbia Gas Transmission, 6,900 dth from Tennessee Gas Pipeline and 5,400 dth from local production.
 - d. Final customer usage numbers are still not in for June. However, weather conditions (rain) for the first half of the month has limited production from the asphalt plants. In addition, production at Bowerston Shale was unexpectedly shut down for three days late in June, reducing their projected usage by about 10% below their initial forecast. As a result, last week's forecast for GNR's customer sales in June of 32,900 Mcf has been reduced to 31,200 Mcf.
- 2) GNR purchases for **July**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in July – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in July at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in July at \$3.125/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 195 dth/d into North Coast to serve customer requirements on OTP in July at NYMEX settle minus \$0.08/dth. (basis down \$0.06/dth from June)

- e. 1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in July at NYMEX settle minus \$0.18/dth. (basis down \$0.08/dth from June)
 - f. 1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in July at NYMEX settle minus \$0.185/dth. (basis down \$0.015/dth from June)
- 3) Customer issues; (changes from last week are in bold)
- a. **GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for July is \$2.291/dth, down \$0.342 from June, so GNR will continue to see a healthy margin on its unhedged fixed priced contracts.**
 - b. **GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in July was NYMEX minus \$0.08/dth, so GNR's margin on its variable rate agreements should be at least \$0.40/dth, a \$0.06/dth increase from last month.**
 - c. **GNR signed a new two-year fixed price deal with the Lake County YMCA beginning August 1st 2019. The final offer price to the YMCA included a flex rate from OTP of \$0.25 off their normal rate of \$0.75/mcf. The YMCA has an annual load of approximately 10,500 Mcf. The supply was purchased from Direct Energy and should provide GNR with a margin of \$0.47 per Mcf.**
 - d. **GNR signed a new two-year fixed price deal with Aexcel Corporation beginning July 1st 2019. Aexcel has an annual load of approximately 3,300 mcf. Even though the load is fairly small, GNR was able to hedge the winter volumes with physical supply (again from Direct Energy) for the months of November through April of each year. This purchase represents 87% of the customer's projected usage. The margin for this deal is approximately \$1.09/Mcf in year one and \$0.89/Mcf in year two.**
 - e. **No response from the new Greenleaf Therapeutic facility that is currently under construction in Middlefield, Ohio, to the indicative price offer GNR made several a week ago. This is a medical marijuana facility that will use gas for a commercial kitchen, as well as for heating. Based on the planned installed equipment, Orwell Natural Gas has estimated the annual load at 7,000 Mcf per year.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update July 11, 2019

June Rev Budget – 40,452

June Actual – 52,492

July Rev Budget - 37,025

Usage to date – 11,413

July Forecast – 37,000

Nominating 1,500/day for Veazie, currently running a long imbalance of approximately -631

Today's Cash Price – \$2.44 (Algonquin)

Average Cash Price for the month - \$2.165

Bangor has no hedged volumes or baseload requirements for July

Natural Gas Intelligence "NGI" July 11, 2019 Forward winter Strip for Algonquin City Gates
\$6.331

Capacity Updates...

Last week Bangor received their first set of data requests and they filed their responses yesterday. Their first Tech conference is scheduled for July 23rd. docket # 2019-00105.

Emera Price Quote July 11, 2019

1. Fixed price weighted for the volumes and month below **\$ 7.61**
2. Strip price for 50,000/month November - March **\$ 7.79**
3. Basis quote for Weighted for below volumes- Nymex + **\$4.91**
4. Monthly fixed prices:

Oct 2019 –11,672	\$4.28
Nov 2019 – 20,607	\$5.37
Dec 2019 – 30291	\$7.84
Jan 2020 – 36,010	\$9.94
Feb 2020 – 31,051	\$9.86
Mar 2020 –25,979	\$6.72
Apr 2020 – 17,501	\$4.68

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

JULY SUMMARY

Budget: 55,134

Usage to Date: 16,740

Daily Avg Usage: 1,674

Avg Daily Cash Price:

Zone 3: \$2.23

Zone 5: \$2.30

FOM Price:

Zone 3: \$2.23

Zone 5: \$2.34

HDD Budget: 2

HDD to Date: 1

HDD Projected: 1

Energy West Resources:

Mary gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 81 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.68	\$1.84	\$2.27	\$1.81
AECO	\$1.54	\$0.99	\$1.69	\$1.01
NYMEX	\$2.447 - Aug 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 300/dkt/d – Imbalance (2,333)/dkt as of 6/1/19

Retail – north pool

4008 – Noming 2,935/dkt/d, flowing 3,020/dkt/d, imbalance 4,714/dkt with a tolerance of 5,918/dkt, injecting 300/dkt/d into storage, balance is 138,050/dkt

- Carway curtailed GD8-21, no storage injections expected

EWR Customer Updates:

- Weyerhaeuser – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80.
- Croft Petroleum – Contract expires 7/31/19 – set up a visit on July 23rd to discuss contract
- Big Stone Colony – renewed their contract for one year, Jul19-Jun20 at \$2.30
- Havre Laundry & Industrial Towel – Contract expires 8/31/19 – sent them a price proposal

Energy West Montana:

2008 – Noming 13,475/dkt/d, flowed 12,895/dkt yesterday, imbalance 22,964/dkt, tolerance of 28,634/dkt, injecting 3,000/dkt/d into storage, inventory balance 715,500/dkt

- Carway curtailed GD8-21, no storage injections expected
- Northwestern Energy is holding a formal long-term planning meeting on July 31, 2019. Kevin, Jed and Dan plan to attend.

West Yellowstone:

Tyler gave the Committee a supply update by email.

Scheduled nine loads for July, all from Merit. The goal is to stay on the Merit contract as long as possible because of the favorable pricing.

Tyler and Evan are currently working on contract language with Prometheus for a new gas supply contract in West Yellowstone. They should have something reviewable within the next few weeks.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
July 25, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill, Calvin Johnson and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

July Baseload Purchases:

	NEO	Orwell	Brainard	
TCO	500/day	10/day	0/day	working off imbalances
Storage	1,500/day	500/day	0/day	
DEO	535/day	155/day	30/day	
TGO	10/day	0/day	0/day	
OTP	0/day	115/day	0/day	working off the imbalance

Blended Cost of Gas

NEO	\$2.007 / DTH
Orwell	\$2.140 / DTH
Brainard	\$2.040 / DTH

Daily Price Index: TCO Appalachia \$1.97 Dominion \$1.95 and MichCon \$2.005

Oct19-Mar20 Futures: TCO (\$.284), DEO (\$0.368), MichCon, (\$0.157)

Orwell imbalances: OTP & NC: 39,709 DTH, Cobra (8,155) DTH, Spellman (707) DTH,

Brainard Imbalances: OTP & NC: 548 DTH, Cobra 1,366 DTH

GTS TCO Storage Balance: 87,879/dth – goal is to get to 90,000/dth

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 184,632/dkt (70,139/dth GTS & 114,493/dth FSS)
 - Goal to get to 140,000/dth in FSS storage
- **Cobra Pipeline**
 - Imbalance 59,668/dth
- **Spellman Pipeline**

- Imbalance (11,711)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **July 25, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance position as of June 30, 2019, is +10,300 dth [Cobra at +1,754 dth, OTP at +8,677 mcf, Spelman at (41) dth and ONG at (90) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, was +6,590 dth so this represents an increase of 3,710 dth from May's position.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. **GNR's original customer sales projection for July was 35,100 mcf. The mid-month forecast for July customer sales has been reduced slightly to 34,300 mcf.**
 - d. **GNR's customer sales projection for August is 33,600 mcf. The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.**
- 2) GNR purchases for **August**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in August – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in August at \$3.07/dth.**
 - c. **2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in August at \$3.125/dth.**
 - d. **2-year deal with Direct Energy – GNR purchasing 10 dth/d into North Coast to serve Lake Co. YMCA in August at \$2.695/dth.**
 - e. **1-month purchase with Elevation Energy – GNR purchasing 320 dth/d into North Coast to serve customer requirements on OTP in August at NYMEX settle minus \$0.04/dth. (basis up \$0.04/dth from July)**
 - f. **1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in August at NYMEX settle minus \$0.18/dth. (no change in basis from July)**

- g. **1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in August at NYMEX settle minus \$0.16/dth. (basis up \$0.025/dth from July)**
- 3) Customer issues; (changes from last week are in bold)
- a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for July is \$2.291/dth, down \$0.342 from June, so GNR will continue to see a healthy margin on its unhedged fixed priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in July was NYMEX minus \$0.08/dth, so GNR's margin on its variable rate agreements should be at least \$0.40/dth, a \$0.06/dth increase from last month.
 - c. **GNR is working with Landis Farms on a deal to fix the price on 50% of their gas supply needs for the fall drying season.**
 - d. Still no response from the new Greenleaf Therapeutic facility that is currently under construction in Middlefield, Ohio, to the indicative price offer GNR made several weeks ago. This is a medical marijuana facility that will use gas for a commercial kitchen, as well as for heating. Based on the planned installed equipment, Orwell Natural Gas has estimated the annual load at 7,000 Mcf per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update July 25, 2019

July Rev Budget - 37,025

Usage to date – 25,434

July Forecast – 35,000

Nominating 900/day for Veazie,

Today's Cash Price – \$2.07 (Algonquin)

Bangor has no hedged volumes or baseload requirements for July

Natural Gas Intelligence "NGI" July 25, 2019 Forward winter Strip for Algonquin City Gates \$6.081

Capacity Updates...

Bangor had their first technical conference yesterday the July 23rd. docket # 2019-00105. They are working on the Data requests from the tech Conf.

Bangor secured 7 % of their bundled forecast for Oct through April at \$7.47. They plan to secure another 7 percent each week over the next 5 weeks to get them to their first hedge position of 40 % by the end of August.

Emera Price Quote July 22, 2019

1. Fixed price weighted for the volumes and month below **\$7.47**
2. Strip price for 50,000/month November - March **\$ 7.79**
3. Basis quote for Weighted for below volumes - Nymex + **\$4.91**
4. Monthly fixed prices:
 - Oct 2019 – 7,782 **\$4.11**
 - Nov 2019 – 13,738 **\$5.20**
 - Dec 2019 – 20,194 **\$7.68**
 - Jan 2020 – 24,007 **\$9.80**
 - Feb 2020 – 20,701 **\$9.72**
 - Mar 2020 – 17,320 **\$6.59**
 - Apr 2020 – 11,668 **\$4.60**

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

JULY SUMMARY

Budget: 55,134
 Usage to Date: 39,610
 Daily Avg Usage: 1,650
 Avg Daily Cash Price:
 Zone 3: \$2.30
 Zone 5: \$2.38
 FOM Price:
 Zone 3: \$2.23
 Zone 5: \$2.34
 HDD Budget: 2
 HDD to Date: 5
 HDD Projected: 5
 HDD this time last year: 10

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 36 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.79	\$1.66	\$2.12	\$1.71
AECO	\$0.54	\$0.95	\$1.51	\$0.98
NYMEX	\$2.228 - Aug 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance (1.553)/dkt as of 7/1/19

Retail – north pool

4008 – Noming 4,385/dkt/d, flowing 4,834/dkt/d, imbalance 6,290/dkt with a tolerance of 5,721/dkt, injecting 2,500/dkt/d into storage, balance is 151,150/dkt, working off imbalance at 500/dkt/d

- Carway curtailed ended

EWR Customer Updates:

- Weyerhaeuser – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80.
- Croft Petroleum – Contract expires 7/31/19 – set up a visit on July 23rd to discuss contract
- Havre Laundry & Industrial Towel – excepted EWR's two year proposal, Sep19-Aug21 at \$2.45
- Dan is working with Jetco to secure winter peaking supply

Energy West Montana:

2008 – Noming 17,475/dkt/d, flowed 17,945/dkt yesterday, imbalance 4,238/dkt, tolerance of 28,229/dkt, injecting 8,000/dkt/d into storage, inventory balance 801,500/dkt

- Carway curtailed ended GD21
- Northwestern Energy is holding a formal long-term planning meeting on July 31, 2019. Kevin, Jed and Dan plan to attend.
- Dan is setting up August business today

West Yellowstone:

Tyler gave the Committee a supply update.

Tyler, Evan and Jed are in the process of working through the draft supply contract with Prometheus. The contract is a five-year deal. The goal is to make the switch from Merit to Prometheus by September 1st.

Tyler explained that there are more benefits to the new contract than just pricing.

- reliability, consistency and reduced liability (ownership of the LNG at the plant)

They are waiting to give Merit a 30-day notice to terminate the current contract until the revisions are finalized with Prometheus.

Cut Bank Gas:

The gas wells are back up and running with three times the flow as before, plans to flow in the summer and shut in in the winter. The last time they flowed was 2016.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
June 6, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein and Mary Stanich
- Dan Hickman, Jerry Livengood, Renee Huff, Fred Steele, Calvin Johnson and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas by email.

June Baseload Purchases:

	TCO	DEO	OTP	TGP
NEO	1,130/day	1,000/day		5/day
Orwell	235/day	220/day	400/day	
Brainard	20/day	35/day		

TCO Storage

NEO	2,017/day
Orwell	500/day

DEO is repaying NEO 1,300/day and Cobra is paying back 250/day in June

Blended cost of gas for June 2019:

Orwell	\$2.469 / DTH
Brianard	\$2.359 / DTH
NEO	\$2.382 / DTH

Additional Purchases:

Brainard has purchased an additional 1,000 DTH at \$2.42 for GD7 through North Coast.

The balance of the GTS TCO storage account is 63,918/dth

Daily Price Index: TCO Appalachia \$2.12 Dominion \$2.075 and MichCon \$2.205

Oct19-Mar20 Futures: TCO (\$.285), DEO (\$.401), MichCon, (\$.183)

Orwell imbalances: OTP & NC: 35,680 DTH, Cobra (22,453) DTH, Spellman (344) DTH,

Brainard Imbalances: OTP & NC: (1,217) DTH, Cobra (23) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 86,222/dkt (27,581/dkt GTS & 58,641/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 58,510/dth
- **Spellman Pipeline**
 - Imbalance (39,039)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for June 6, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's imbalance positions on the various pipelines as of May 31, 2019, have not been finalized, but I am estimating the aggregate imbalance at +8,550 dth [Cobra at +450, OTP at +8,500, ONG at (500), and Spelman at +100], which would be a decrease of 445 dth from last month. The actual imbalance positions should be available next week.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's initial customer sales projection for May was 35,800 mcf. However, the asphalt plants are having a much better season than last year, raising the current sales projection for May to 43,500 Mcf.
 - d. GNR's customer sales projection for June is 37,300 mcf. The supply plan for June is consists of 19,000 dth from North Coast Gas Transmission, 7,000 dth from Columbia Gas Transmission, 6,900 dth from Tennessee Gas Pipeline and 5,400 dth from local production.
- 2) GNR purchases for **June**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in June – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in June at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 33 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in June at \$3.23/dth.

- d. 2-year deal with Elevation Energy – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in June at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in June at NYMEX settle minus \$0.02/dth. (basis up \$0.035/dth from May)
 - f. 1-month purchase with Direct Energy – GNR purchasing 65 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in June at NYMEX settle minus \$0.10/dth. (basis up \$0.01/dth from May)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 200 dth/d delivered into the TCO/Cobra North Trumbull interconnect in June at NYMEX settle minus \$0.17/dth. (basis down \$0.05/dth from May)
- 3) Customer issues; (changes from last week are in bold)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for June is \$2.633/dth, up \$0.067 from May, so GNR will continue to see a healthy margin on its fixed priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.02/dth, so GNR's margin on its variable rate agreements should be at least \$0.34/dth, a slight decrease from last month.

It's still early, but the asphalt plants are off to a slow start in June. Grand River Asphalt plants had a good May, but weather (rain) has limited production so far this month. The plants were shut down on June 5, but both plants are scheduled to run around the clock for 2 days starting on June 6.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update June 6, 2019

May Rev Budget – 65,357

May Actual – 103,946

May HDD - 423, compared to 10 year average 285

June Rev Budget – 40,452

Usage to date – 8,320

June Forecast – 45,000

June HDD – 37, compared to last year same period 45

Nominating 2,000/day for Veazie, currently running a short imbalance of 9,781

Today's Cash Price – \$2.295 (Algonquin)

Average Cash Price for the month - \$2.188

June filed Gas Cost - \$1.96 (energy \$4.12, PGC \$-2.16)

Bangor has no hedged volumes or baseload requirements for June

Capacity Updates...

Bangor filed their Request for Approval of Precedent Agreements on Monday, docket # 2019-00105

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

MAY SUMMARY

Budget:	69,652
Usage to Date:	67,200
Daily Avg Usage:	2,168
Avg Daily Cash Price:	
Zone 3:	\$2.52
Zone 5:	\$2.58
FOM Price:	
Zone 3:	\$2.50
Zone 5:	\$2.53
HDD Budget:	78
HDD to Date:	86
HDD Projected:	86
DD this time last year	53

JUNE SUMMARY

Budget:	58,349
Usage to Date:	10,374
Daily Avg Usage:	2,075
Avg Daily Cash Price:	
Zone 3:	\$2.41
Zone 5:	\$2.47
FOM Price:	
Zone 3:	\$2.57
Zone 5:	\$2.62
HDD Budget:	7
HDD to Date:	15
HDD Projected:	18
DD this time last year	1

FNGC had a meeting with the staff on June 4th to present the revised procurement plan.

FNGC presented a new Rate Schedule 132, Intermediate General Transportation Service for interruptible transportation service to the NC Staff for its comments and consideration.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 119 Bcf from the previous week. Prices were down around 5 cents.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.65	\$1.83	\$2.25	\$1.85
AECO	\$0.51	\$0.90	\$1.48	\$0.97
NYMEX	\$2.334 - July 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance (1,411)/dkt as of 5/1/19

- Glacier line down again, zero nominations on June 1st until imbalance is zero

Retail – north pool

4008 – Noming 5,033/dkt/d, flowing 4,459/dkt/d, imbalance 1,114/dkt with a tolerance of 6,548/dkt, injecting 2,200/dkt/d into storage, balance is 75,650/dkt

EWR Customer Updates:

- Montana Resources – Dan will continue to track down supply and pricing for MRI.
- Hexion, Missoula has filed for Bankruptcy – the deposit for assurance went out on Wednesday, 6/5/19.
- Weyerhaeuser has asked for indicative pricing for Nov-Mar. Dan is working with Jetco on pricing.

Energy West Montana:

2008 – Noming 23,175/dkt/d, flowed 23,798/dkt yesterday, imbalance 33,305/dkt, tolerance of 35,824/dkt, injecting 14,000/dkt/d into storage, inventory balance 295,500/dkt, above plan by design.

- Dan is working on the NWE transportation agreements for EWR & EWM, in regards to primary receipt capacity. He has sent drafts of the agreements to Northwestern Energy for approval.
- Noming 11,000/dkt/d of swing purchases
- Shell dropped their nomination to 6,500/dkt/d yesterday.

Dave asked the Committee to review a DOE report on the expectations that the LNG capacity in the U.S. will double by the end of 2019 and the potential price impact it might have on domestic supply in the future.

West Yellowstone:

Tyler gave the Committee a supply update.

Nothing new from last week

June 2019

Eight of the twelve loads scheduled for West Yellowstone are from Merit. The others are from Prometheus. This is all they are producing. The second train at Merit is not up yet. We are being evaluated by North Shore.

The goal is to stay on the Merit contract as long as possible because of the favorable pricing.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
June 13, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Jed Henthorne and Mary Stanich
- Kevin Degenstein, Tyler Muzzana, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Taylor Younger, Calvin Johnson and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

June Baseload Purchases:

	TCO	DEO	OTP	TGP
NEO	1,130/day	1,000/day		5/day
Orwell	235/day	220/day	400/day	
Brainard	20/day	35/day		

TCO Storage

NEO	2,017/day
Orwell	500/day

OTP Line loss – Mike in investigating problem with UPL (measurement issue)

Blended cost of gas for June 2019:

Orwell	\$2.414 / DTH
Brianard	\$2.382 / DTH
NEO	\$2.332 / DTH

Daily Price Index: TCO Appalachia \$2.095 Dominion \$2.02 and MichCon \$2.175

Oct19-Mar20 Futures: TCO (\$.285), DEO (\$0.38), MichCon, (\$0.172)

Orwell imbalances: OTP & NC: 40,784 DTH, Cobra 11,684 DTH, Spellman (6,043) DTH,

Brainard Imbalances: OTP & NC: (370) DTH, Cobra 329 DTH

GTS TCO Storage Balance: 67,341/dth

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 93,415/dkt (27,564/dkt GTS & 65,851/dkt FSS)
- **Cobra Pipeline**

- Imbalance 57,518/dth
- **Spellman Pipeline**
 - Imbalance (14,393)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for June 13, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spellman and Orwell Natural Gas as of May 31, 2019, is +6,590 dth [Cobra at (181), OTP at +6,590, ONG at +165, and Spellman at 0], which is a decrease of 2,405 dth from last month.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. **GNR's initial customer sales projection for May was 35,800 mcf, but was revised upward mid-month to 43,500 mcf, due to increased usage at the asphalt plants. Actual customer sales were 43,743 mcf, a 22% increase over the original forecast and right on the mid-month forecast.**
 - d. GNR's customer sales projection for June is 37,300 mcf. The supply plan for June is consists of 19,000 dth from North Coast Gas Transmission, 7,000 dth from Columbia Gas Transmission, 6,900 dth from Tennessee Gas Pipeline and 5,400 dth from local production.
- 2) GNR purchases for **June**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in June – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in June at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 33 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in June at \$3.23/dth.
 - d. 2-year deal with Elevation Energy – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in June at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in June at NYMEX settle minus \$0.02/dth. (basis up \$0.035/dth from May)

- f. 1-month purchase with Direct Energy – GNR purchasing 65 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in June at NYMEX settle minus \$0.10/dth. (basis up \$0.01/dth from May)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 200 dth/d delivered into the TCO/Cobra North Trumbull interconnect in June at NYMEX settle minus \$0.17/dth. (basis down \$0.05/dth from May)
- 3) Customer issues; (changes from last week are in bold)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for June is \$2.633/dth, up \$0.067 from May, so GNR will continue to see a healthy margin on its fixed priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.02/dth, so GNR's margin on its variable rate agreements should be at least \$0.34/dth, a slight decrease from last month.
 - c. **GNR's two-year fixed price deal with the Lake County YMCA is expiring at the end of June. Orwell Natural Gas has already met with the customer and offered their new rate proposal for the next two-year period. GNR is waiting on quotes from suppliers before making an offer to the YMCA. In addition, OTP has flexed its transportation rate for this customer in the past and I am waiting on their response to a new rate flex to include in GNR's proposal.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update June 13, 2019

June Rev Budget – 40,452

Usage to date – 19,660

June Forecast – 45,000

June HDD – 55, compared to last year same period 91

Nominating 2,000/day for Veazie, currently running a short imbalance of 7,058

Today's Cash Price – \$2.145 (Algonquin)

Average Cash Price for the month - \$2.14

Bangor has no hedged volumes or baseload requirements for June

Capacity Updates...

Bangor filed their Request for Approval of Precedent Agreements. A case conference to rule on petitions to intervene and discuss schedule for this proceeding will be held on June 21, 2019, docket # 2019-00105.

Dave asked the Committee to review a DOE report on the expectations that the LNG capacity in the U.S. will double by the end of 2019 and the potential price impact it might have on domestic supply in the future.

Jerry reported that the price impact should be positive for Maine. It should push down the Algonquin prices. Renee sent a graph showing the LNG-JKM and Henry Hub futures Settlement Prices for the Committee's review.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

JUNE SUMMARY

Budget:	58,349
Usage to Date:	20,528
Daily Avg Usage:	1,711
Avg Daily Cash Price:	
Zone 3:	\$2.33
Zone 5:	\$2.39
FOM Price:	
Zone 3:	\$2.57
Zone 5:	\$2.62
HDD Budget:	7
HDD to Date:	26
HDD Projected:	32
DD this time last year	10

Fred reported on the LNG price impact, stating that it should not have any impact on Frontier's pricing. They are meeting with GTI on Monday and will discuss any potential price impact.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 102 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.65	\$1.83	\$2.25	\$1.85
AECO	\$0.39	\$0.90	\$1.50	\$0.97
NYMEX	\$2.378 - July 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance (1,411)/dkt as of 5/1/19

- Glacier line down again, zero nominations on June 1st until imbalance is zero

Retail – north pool

4008 – Noming 4,498/dkt/d, flowing 4,180/dkt/d, imbalance -1,121/dkt with a tolerance of 6,455/dkt, injecting 1,800/dkt/d into storage, balance is 89,850/dkt

- ML# turnaround GD10-14 production Purchases down to 1,498, Croft Cascade is down

EWR Customer Updates:

- Montana Resources – Dan will continue to track down supply and pricing for MRI.
- Hexion, Missoula has filed for Bankruptcy – the deposit for assurance was received
- Weyerhaeuser has asked for indicative pricing for Nov-Mar. Dan is working with Jetco on pricing.
- Croft Petroleum – Contract expires 7/31/19

Energy West Montana:

2008 – Noming 23,175/dkt/d, flowed 23,821/dkt yesterday, imbalance 19,331/dkt, tolerance of 34,979/dkt, injecting 14,000/dkt/d into storage, inventory balance 393,500/dkt, above plan by design.

- Dan is working on the NWE transportation agreements for EWR & EWM, in regards to primary receipt capacity. He has sent drafts of the agreements to Northwestern Energy for approval.
- Jed reported on the LNG report and its future price impact for EWM. There should be no impact on the Canadian Aeco index prices.

West Yellowstone:

Tyler gave the Committee a supply update.

June 2019

Eight of the twelve loads scheduled for West Yellowstone are from Merit. The others are from Prometheus. This is all they are producing. North Shore is making repairs on the second train.

The goal is to stay on the Merit contract as long as possible because of the favorable pricing.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
June 20, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne, Tyler Muzzana and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Fred Steele, Taylor Younger, Calvin Johnson and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

June Baseload Purchases:

	TCO	DEO	OTP	TGP
NEO	1,130/day	1,000/day		5/day
Orwell	235/day	220/day	400/day	
Brainard	20/day	35/day		

TCO Storage

NEO	2,017/day
Orwell	500/day

Additional Purchases:

Dominion reallocation – 1,683/dkt at \$2.35

Blended cost of gas for June 2019:

Orwell	\$2.414 / DTH
Brianard	\$2.382 / DTH
NEO	\$2.332 / DTH

Daily Price Index: TCO Appalachia \$2.11 Dominion \$2.04 and MichCon \$2.175

Oct19-Mar20 Futures: TCO (\$.285), DEO (\$0.38), MichCon, (\$0.172)

Orwell imbalances: OTP & NC: 40,784 DTH, Cobra 11,684 DTH, Spellman (6,043) DTH,

Brainard Imbalances: OTP & NC: (370) DTH, Cobra 329 DTH

GTS TCO Storage Balance: 70,764/dth

Northeast Ohio (NEO):

➤ **TCO System (Columbia Transmission Co)**

- Balance of two storage accounts is 106,749/dkt (33,688/dkt GTS & 73,061/dkt FSS)

- **Cobra Pipeline**
 - Imbalance 57,518/dth
- **Spellman Pipeline**
 - Imbalance (14,393)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for June 20, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, is +6,590 dth [Cobra at (181), OTP at +6,590, ONG at +165, and Spelman at 0], which is a decrease of 2,405 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for June is 37,300 mcf. The supply plan for June is consists of 19,000 dth from North Coast Gas Transmission, 7,000 dth from Columbia Gas Transmission, 6,900 dth from Tennessee Gas Pipeline and 5,400 dth from local production.
 - d. **Weather conditions (rain) for much of the month has limited production from the asphalt plants. In addition, Bowerston Shale's usage has been running below their initial forecast. As a result, the mid-month forecast for GNR's customer sales in June has been revised down to 32,900 Mcf.**
- 2) GNR purchases for **June**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in June – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in June at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 33 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in June at \$3.23/dth.
 - d. 2-year deal with Elevation Energy – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in June at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in June at NYMEX settle minus \$0.02/dth. (basis up \$0.035/dth from May)

- f. 1-month purchase with Direct Energy – GNR purchasing 65 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in June at NYMEX settle minus \$0.10/dth. (basis up \$0.01/dth from May)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 200 dth/d delivered into the TCO/Cobra North Trumbull interconnect in June at NYMEX settle minus \$0.17/dth. (basis down \$0.05/dth from May)
- 3) Customer issues; (changes from last week are in bold)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for June is \$2.633/dth, up \$0.067 from May, so GNR will continue to see a healthy margin on its fixed priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.02/dth, so GNR's margin on its variable rate agreements should be at least \$0.34/dth, a slight decrease from last month.
 - c. **GNR's two-year fixed price deal with the Lake County YMCA is expiring at the end of June. GNR has received some indicative price quotes from suppliers but OTP has not yet responded to GNR's request for a flex in their transportation rate. Two years ago, GNR was able to include a \$0.25 rate flex from OTP to serve the YMCA.**
 - d. **GNR has made an indicative price offer to serve the new Greenleaf Therapeutic plant currently under construction in Middlefield, Ohio. This is a medical marijuana facility that will use gas for a commercial kitchen, as well as for heating. Based on the planned installed equipment, Orwell has estimated the annual load at 7,000 Mcf per year.**

Bangor Gas:

Jerry gave the Committee a supply update for Bangor Gas.

Bangor Supply Update June 20, 2019

June Rev Budget – 40,452

Usage to date – 30,286

June Forecast – 45,000

June HDD – 67, compared to last year same period 92

Nominating 2,000/day for Veazie, currently running a short imbalance of 3,579

Today's Cash Price – \$2.17 (Algonquin)

Average Cash Price for the month - \$2.137

Bangor has no hedged volumes or baseload requirements for June

Natural Gas Intelligence "NGI" June 20, 2019 Forward winter Strip for Algonquin City Gates \$6.401

Capacity Updates... Bangor filed their Request for Approval of Precedent Agreements. A case conference to rule on petitions to intervene and discuss schedule for this proceeding will be held on June 21, 2019, docket # 2019-00105.

Emera Price Quote June 19, 2019

1. Fixed price weighted for the volumes and month below **\$ 7.56**
2. Strip price for 50,000/month November - March **\$ 7.91**
3. Basis quote for Weighted for below volumes - Nymex + **\$4.98**
4. Monthly fixed prices:

Oct 2018 – 11,672	\$4.11
Nov 2018 – 20,607	\$5.12
Dec 2018 – 30,291	\$7.78
Jan 2019 – 36,010	\$9.94
Feb 2019 – 31,051	\$9.91
Mar 2019 – 25,979	\$6.81
Apr 2019 – 17,501	\$4.36

The University of Maine renewed their contract for another five years. Their contract expires July 31, 2019

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

JUNE SUMMARY

Budget:	58,349
Usage to Date:	31,656
Daily Avg Usage:	1,666
Avg Daily Cash Price:	
Zone 3:	\$2.32
Zone 5:	\$2.39
FOM Price:	
Zone 3:	\$2.57
Zone 5:	\$2.62
HDD Budget:	7
HDD to Date:	41
HDD Projected:	41
DD this time last year	19

Frontier met with Louis James and Sandeep Kurup from UGI on Monday to discuss potential LNG storage and/or liquefaction sites. During their visit, they met with property owners at potential sites to get letters of intent signed to further gauge interest in selling.

- UGI indicated that the LNG market would probably not have a material impact on the domestic basis market.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 115 Bcf from the previous week. Prices were down around 11 cents.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.67	\$1.69	\$2.11	\$1.80
AECO	\$0.09	\$0.80	\$1.49	\$0.92
NYMEX	\$2.207 - July 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance (1,411)/dkt as of 5/1/19

- Glacier line down again, zero nominations on June 1st until imbalance is zero

Retail – north pool

4008 – Noming 4,498/dkt/d, flowing 4,240/dkt/d, imbalance -418/dkt with a tolerance of 6,132/dkt, injecting 1,800/dkt/d into storage, balance is 102,450/dkt

- ML#1 back on line GD19

EWR Customer Updates:

- Weyerhaeuser – contract expires 10/31/19. Dan gave them indicative prices for the winter Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80.
- Croft Petroleum – Contract expires 7/31/19
- Big Stone Colony – Contract expires 6/30/19

Energy West Montana:

2008 – Noming 23,175/dkt/d, flowed 24,300/dkt yesterday, imbalance 14,446/dkt, tolerance of 29,807/dkt, injecting 14,000/dkt/d into storage, inventory balance 491,500/dkt, above plan by design.

- Sent executed Transportation Agreements for EWR & EWM back to Northwestern Energy.

West Yellowstone:

Tyler gave the Committee a supply update.

West Yellowstone is in the process of evaluating a five-year supply proposal from Prometheus, estimated to be 4 cents a gallon more, \$56,000 impact.

The goal is to stay on the Merit contract as long as possible because of the favorable pricing.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
June 27, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Jeff Heidnik, Greg Slone, Jerry Livengood, and Taylor Younger (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

July Baseload Purchases:

	NEO	Orwell	Brainard	
TCO	500/day	10/day	0/day	working off imbalances
Storage	1,500/day	500/day	0/day	
DEO	535/day	155/day	30/day	
NEO is also receiving 1,300 / day from Dominion as a pay back				
TGO	10/day	0/day	0/day	
OTP	0/day	115/day	0/day	working off the imbalance

Blended Cost of Gas

NEO	\$2.007 / DTH
Orwell	\$2.044 / DTH
Brainard	\$2.040 / DTH

Daily Price Index: TCO Appalachia \$2.035 Dominion \$2.005 and MichCon \$2.095

Oct19-Mar20 Futures: TCO (\$.286), DEO (\$0.369), MichCon, (\$0.168)

Orwell imbalances: OTP & NC: 40,784 DTH, Cobra 11,684 DTH, Spellman (6,043) DTH,

Brainard Imbalances: OTP & NC: (370) DTH, Cobra 329 DTH

GTS TCO Storage Balance: 74,187/dth

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 120,386/dkt (40,115/dkt GTS & 80,271/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 57,518/dth
- **Spellman Pipeline**

- Imbalance (14,393)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for June 27, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **Final imbalance numbers for June will not be available for a couple of weeks, but early calculations indicate that GNR's combined imbalance position at the end of June should be approximately +9,600 dth. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of May 31, 2019, was +6,590 dth [Cobra at (181), OTP at +6,590, ONG at +165, and Spelman at 0], so this would be an increase of approximately 3,000 dth from May's position.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for June is 37,300 mcf. The supply plan for June is consists of 19,000 dth from North Coast Gas Transmission, 7,000 dth from Columbia Gas Transmission, 6,900 dth from Tennessee Gas Pipeline and 5,400 dth from local production.
 - d. **Customer usage continues to slide in June. Weather conditions (rain) for the first half of the month has limited production from the asphalt plants. In addition, production at Bowerston Shale was shut down for three days last week, reducing their projected usage by about 10% below their initial forecast. As a result, last week's forecast for GNR's customer sales in June of 32,900 Mcf has been reduced further to 31,200 Mcf.**
- 2) GNR purchases for July; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in July – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in July at \$3.07/dth.**
 - c. **2-year deal with Elevation Energy – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in July at \$3.125/dth.**

- d. 1-month purchase with Elevation Energy – GNR purchasing 195 dth/d into North Coast to serve customer requirements on OTP in July at NYMEX settle minus \$0.08/dth. (basis down \$0.06/dth from June)
 - e. 1-month purchase with Direct Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in July at NYMEX settle minus \$0.18/dth. (basis down \$0.08/dth from June)
 - f. 1-month purchase with Elevation Energy - GNR purchasing 160 dth/d delivered into the TCO/Cobra North Trumbull interconnect in July at NYMEX settle minus \$0.185/dth. (basis down \$0.015/dth from June)
- 3) Customer issues; (changes from last week are in bold)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for June is \$2.633/dth, up \$0.067 from May, so GNR will continue to see a healthy margin on its fixed priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.02/dth, so GNR's margin on its variable rate agreements should be at least \$0.34/dth, a slight decrease from last month.
 - c. **GNR's two-year fixed price deal with the Lake County YMCA is expiring at the end of June. OTP has not responded to a requested rate flex, so GNR quoted the customer a two year fixed price at assuming no flex from OTP. The YMCA has not yet replied to the offer. The expiring YMCA agreement included a \$0.25 rate flex from OTP.**
 - d. **No response from the new Greenleaf Therapeutic facility that is currently under construction in Middlefield, Ohio, to the indicative price offer GNR made over a week ago. This is a medical marijuana facility that will use gas for a commercial kitchen, as well as for heating. Based on the planned installed equipment, Orwell Natural Gas has estimated the annual load at 7,000 Mcf per year.**

Bangor Gas:

Jerry gave the Committee a supply update for Bangor Gas.

Bangor Supply Update June 27, 2019

June Rev Budget – 40,452

Usage to date – 44,330

June Forecast – 49,000

Nominating 2,000/day for Veazie, currently running a short imbalance of 1,909

Today's Cash Price – \$2.21 (Algonquin)

Average Cash Price for the month - \$2.119

Bangor has no hedged volumes or baseload requirements for June

Natural Gas Intelligence “NGI” June 26, 2019 Forward winter Strip for Algonquin City Gates \$6.347

Bangor is finalizing their Annual Cost of Gas Activates report that is due at the end of the month, for the review period of May 1, 2018 – April 30, 2019

Capacity Updates...

Bangor filed Supplemental Petition Requesting Approval of the issuance of certain Financial Assurances by Hearthstone Utilities, in connection with the Precedent Agreements and any Financial Assurances required by Maritimes & Northeast Pipeline associated with related capacity, and the extensions of Approval from PNGTS and Enbridge. They have a follow up call this morning regarding the ruling on petitions to intervene and discuss schedule for this proceeding, docket # 2019-00105.

Emera Price Quote June 26, 2019

1. Fixed price weighted for the volumes and month below **\$7.52**
2. Strip price for 50,000/month November - March **\$ 7.88**
3. Basis quote for Weighted for below volumes - Nymex + **\$4.96**
4. Monthly fixed prices:

Oct 2019 – 11,672	\$4.09
Nov 2019 – 20,607	\$5.11
Dec 2019 – 30291	\$7.66
Jan 2020 – 36,010	\$9.93
Feb 2020 – 31,051	\$9.90
Mar 2020 – 25979	\$6.79
Apr 2020 – 17,501	\$4.34

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

JUNE SUMMARY

Budget:	58,349
Usage to Date:	41,045
Daily Avg Usage:	1,579
Avg Daily Cash Price:	
Zone 3:	\$2.29
Zone 5:	\$2.37
FOM Price:	
Zone 3:	\$2.57
Zone 5:	\$2.62
HDD Budget:	7
HDD to Date:	45
HDD Projected:	45
DD this time last year	13

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 98 Bcf from the previous week. Prices were up around 5 cents.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.68	\$1.65	\$2.14	\$1.85
AECO	\$0.67	\$0.81	\$1.55	\$0.97
NYMEX	\$2.325 - Aug 2019 Jul19 closed at \$2.292			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance (2,333)/dkt as of 6/1/19

Retail – north pool

4008 – Noming 4,784/dkt/d, flowing 4,564/dkt/d, imbalance -343/dkt with a tolerance of 5,838/dkt, injecting 2,000/dkt/d into storage, balance is 116,450/dkt

- GD27 dropped storage nomination to 1,250/dkt/d to build imbalance to help with curtailments next week.

EWR Customer Updates:

- Weyerhaeuser – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80.
- Croft Petroleum – Contract expires 7/31/19 – Plans to set up a visit to discuss contract
- Big Stone Colony – Contract expires 6/30/19 – Sent a proposal, but had no response
- Albertson/Safeway – sent them indicative pricing, they were not ready to lock in a price

Energy West Montana:

2008 – Noming 24,175/dkt/d, flowed 24,387/dkt yesterday, imbalance 786/dkt, tolerance of 28,816/dkt, injecting 14,000/dkt/d into storage, inventory balance 589,500/dkt, above plan by design.

- GD27 dropped storage nomination to 10,000/dkt/d to build imbalance to help with curtailment next week.

West Yellowstone:

Tyler gave the Committee a supply update.

Scheduled nine loads for July, all from Merit. The goal is to stay on the Merit contract as long as possible because of the favorable pricing.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
March 7, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Tyler Muzzana, Mike Zappitello, Greg Slone, Jeff Heidnik, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

March Baseload Purchases:

	NEO	Orwell	Brainard
TCO	5,800/day	875/day	125/day
DEO	6,750/day	1,410/day	100/day
OTP		2,690/day	
TGP	185/day		

Blended cost per DTH

NEO	\$2.711
Orwell	\$2.904
Brainard	\$2.816

Additional Day Gas Purchased:

5,250/dkt at \$3.55

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.83 Dominion \$2.855 and MichCon \$2.975

Oct19-Mar20 Futures: TCO (\$.269), DEO (\$0.322), MichCon, (\$0.144)

Orwell imbalances: OTP 39,176 DTH, Cobra 8,132 DTH, Spellman (10,796) DTH,

Brainard Imbalances: OTP 661 DTH, Cobra (132) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 21,908/dkt (-683/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**

- Imbalance 140,878/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.
- **Spellman Pipeline**
 - Imbalance (35,526)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for March 7, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of January 31, 2018, is (6,669) dth [Cobra at 9,661, OTP at (17,158), ONG at +1,653, and Spelman at (825)], which is an increase of 1,451 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.**
 - c. GNR's customer sales projection for March is 50,500 mcf. The corresponding supply plan for March is made up of 45,000 dth from North Coast Gas Transmission, 10,100 dth from Columbia Gas Transmission, 4,500 dth from local production, 7,300 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline of 13,500 mcf as of February 28, 2019.**
- 2) GNR purchases for **March**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 419 dth/d delivered into North Coast for Lake Hospitals in March – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 97 dth/d delivered into Cobra North Trumbull for Breckenridge in March at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in March at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in March at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 970 dth/d into North Coast to serve customer requirements on OTP in March at NYMEX settle plus \$0.19/dth. (basis down \$0.13/dth from February)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in March at NYMEX settle plus \$0.00/dth. (basis up \$0.10/dth from February)

- g. 1-month purchase with Elevation Energy - GNR purchasing 230 dth/d delivered into multiple TCO interconnects at NYMEX settle plus \$0.10/dth.
- 3) Customer issues; (changes from last week are in bold)
 - a. Due to the volatile gas market we saw this winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February. The NYMEX settle price for March ended up at \$2.855 per dth, so GNR will see an improvement in margin in March on its fixed priced contracts.
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update March 7, 2019

February Rev Budget – 280,582

February Actual – 302,064

March Rev Budget – 265,141

March Usage to date – 60,771

March Forecast – 260,000

March HDD to date – 277 compared to last year same period 169

March filed gas cost - \$9.16 (Energy \$8.85, PGC \$0.31)

Today's Cash Price – \$6.98 (Algonquin)

Average Cash price to date - \$7.301 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for March at the Algonquin City Gates Index price of \$X.XX, the price will be posted in the "Platts" Price guide around the 7th of the month.

Bangor has 60% of their March forecast hedged at an average of \$10.92

Capacity Updates...

Bangor signed the PA's with TransCanada, Enbridge and Portland Natural gas. They are waiting for the Pipelines to send back the fully executed agreements. Now, they are working on their application that they will be filing with the MPUC for approval.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

FEBRUARY SUMMARY

Budget: 143,935
 Usage to Date: 162,445
 Daily Avg Usage: 5,802
 Avg Daily Cash Price:
 Zone 3: \$2.62
 Zone 5: \$2.80
 FOM Price:
 Zone 3: \$2.89
 Zone 5: \$4.76

HDD Budget: 691
 HDD to Date: 613
 HDD Projected: 613
 HDD this time last Year: 499

MARCH SUMMARY

Budget: 155,996
 Usage to Date: 45,115
 Daily Avg Usage: 7,519
 Avg Daily Cash Price:
 Zone 3: \$3.18
 Zone 5: \$3.60
 FOM Price:
 Zone 3: \$2.81
 Zone 5: \$3.02

HDD Budget: 505
 HDD to Date: 165
 HDD Projected: 653
 HDD this time last Year: 124

Frontier was able to settle their final gas costs prior the Prudency hearing on March 5th.

Energy West Resources:

Mary gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 149 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.86	\$2.31	\$2.53	\$1.92
AECO	\$2.86	\$1.07	\$1.73	\$1.06
NYMEX	\$2.829- Apr 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance (649)/dkt as of 2/1/19

Retail – north pool

4008 – Noming 7,475/dkt/d, flowing 7,882/dkt/d, imbalance 4,158/dkt with a tolerance of 16,274/dkt, storage withdrawals 1,500/dkt/d, balance is 18,591/dkt

- GD7 - dropped storage nominations to 1,000/dkt/d

EWR Customer Updates:

- **Weyerhaeuser** conducted their RFP February 20th. EWR submitted a notional bid because of all of the supply uncertainties. Based on EWR's comments and recommendations, Weyerhaeuser has elected to wait until March and seek bids again through the auction process. Proposals for the new RFP will be Wednesday, March 20th. The flow date is April 1st.
- **Helena Sand & Gravel** - looking at renewing Full Requirements contract for 2019 starting 4/1/19. If possible, would like to view a one-year, a two-year proposal.
- **LNG Assets:** Equipment has not been moved off the property yet. EWR will pay the lease amount for the month of February. The invoice for the container charge will be prorated for the month of January.

Energy West Montana:

2008 – Noming 39,070/dkt/d, flowed 37,105/dkt yesterday, imbalance 36,202/dkt, tolerance of 110,351/dkt, storage withdrawals 7,500/dkt/d, inventory balance 25,500/dkt.

- Northwestern Energy has sent out a notice that **the Constrained Operating Time will be ending Thursday, 7th**.
- GD7 – dropped storage nomination to 1,000/dkt/d
- GD8 – dropped swing purchases to 12,000/dkt/d

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up. All February loads were from Exxon and ETS.

Tyler reported that there are thirteen loads scheduled for March, four will be from Merit. They are hoping to be back to normal by April.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
March 14, 2019
11:30 A.M.

Activities Performed

Present were:

- Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jeff Heidnik, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

March Baseload Purchases:

	NEO	Orwell	Brainard
TCO	5,800/day	875/day	125/day
DEO	6,750/day	1,410/day	100/day
OTP		2,690/day	
TGP	185/day		

Blended cost per DTH

NEO	\$2.711
Orwell	\$2.925
Brainard	\$2.816

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.555 Dominion \$2.475 and MichCon \$2.685

Oct19-Mar20 Futures: TCO (\$.302), DEO (\$0.337), MichCon, (\$0.160)

Orwell imbalances: OTP 41,556 DTH, Cobra 10,023 DTH, Spellman (689) DTH,

Brainard Imbalances: OTP (284) DTH, Cobra (527) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 19,856/dkt (-2,735/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 119,207/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.
- **Spellman Pipeline**

- Imbalance (26,063)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for **March 14, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of February 28, 2018, is (6,295) dth [Cobra at 7,052, OTP at (12,081), ONG at +1,100, and Spelman at (2,366)], which is an increase of 374 dth from last month.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for March is 50,500 mcf. The corresponding supply plan for March is made up of 45,000 dth from North Coast Gas Transmission, 10,100 dth from Columbia Gas Transmission, 4,500 dth from local production, 7,300 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline of 13,500 mcf as of February 28, 2019.
 - d. **GNR's gas sales projection for February was 52,600 mcf and revised mid-month to 54,300 mcf due to weather. The total actual sales for February was 53,700 mcf, which was a variance of approximately 2% from the original forecast and only 1% from the revised mid-month forecast.**
- 2) GNR purchases for **March**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 419 dth/d delivered into North Coast for Lake Hospitals in March – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 97 dth/d delivered into Cobra North Trumbull for Breckenridge in March at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in March at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in March at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 970 dth/d into North Coast to serve customer requirements on OTP in March at NYMEX settle plus \$0.19/dth. (basis down \$0.13/dth from February)

- f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in March at NYMEX settle plus \$0.00/dth. (basis up \$0.10/dth from February)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 230 dth/d delivered into multiple TCO interconnects at NYMEX settle plus \$0.10/dth.
- 3) Customer issues; (no changes from last week)
- a. Due to the volatile gas market we saw this winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February. The NYMEX settle price for March ended up at \$2.855 per dth, so GNR will see an improvement in margin in March on its fixed priced contracts.
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Supply Update March 14, 2019

March Rev Budget – 265,141

March Usage to date – 120,095

March Forecast – 260,000

Currently nominating 8,000/day for Veazie, Bangor currently has a running imbalance of - 37,830 that they can start burning now that MNE has lifted the OFO that has been in place the majority of the winter.

March HDD to date – 581 compared to last year same period 412

Today's Cash Price – \$2.83 (Algonquin)

Average monthly cash price to date - \$5.32 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for March at the Algonquin City Gates Index price of \$4.52, the price was posted in the "Platts" Price guide the 7th of the month. They have 60% of our March forecast hedged at an average of \$10.92

*Renee is working on Bangor's firm Gas Supply RFP for the upcoming period of May 1, 2019 – April 30, 2020; she plans to send it out on Monday the 18th with a due date for bids of March 29th. Their current contract with Repsol ends April 30th.

Capacity Updates...

Renee and Jerry have received the fully executed PA's back from TransCanada and Enbridge, they are still waiting on PNGTS. They are still working on their application that they will be filing with the MPUC for approval.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

MARCH SUMMARY

Budget: 155,996

Usage to Date: 85,934

Daily Avg Usage: 6,610

Avg Daily Cash Price:

Zone 3: \$2.99

Zone 5: \$3.22

FOM Price:

Zone 3: \$2.81

Zone 5: \$3.02

HDD Budget: 505

HDD to Date: 325

HDD Projected: 630

HDD this time last Year: 310

Fred reported that Frontier is exploring the possibility of building a pipeline to Piedmont for the purpose of adding an additional city gate and source of supply for the Frontier natural gas system.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 204 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.60	\$2.32	\$2.52	\$2.01
AECO	\$2.13	\$0.99	\$1.67	\$1.01
NYMEX	\$2.847- Apr 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 250/dkt/d – Imbalance (649)/dkt as of 2/1/19

Retail – north pool

4008 – Noming 6,505/dkt/d, flowing 6,426/dkt/d, imbalance 4,518/dkt with a tolerance of 15,529/dkt, storage withdrawals 1,000/dkt/d, balance is 11,091/dkt

- GD16 - dropped 5(a) +.25 purchases to 0/dkt
- GD16 – dropped 7(A) Purchases to 2,200/dkt/d
- GD16 – Dropped EWM noms to 1,000/dkt/d

- Dropped Pool7008 to 200/dkt/d

EWR Customer Updates:

- **Weyerhaeuser** conducted their RFP February 20th. EWR submitted a notional bid because of all of the supply uncertainties. Based on EWR's comments and recommendations, Weyerhaeuser has elected to wait until March and seek bids again through the auction process. Proposals for the new RFP will be Wednesday, March 20th. The flow date is April 1st.
- **Helena Sand & Gravel** - looking at renewing Full Requirements contract for 2019 starting 4/1/19. If possible, would like to view a one-year, a two-year proposal.
- **Roseburg Forest Products** – EWR sent them a proposal 3/14/19, CIG Flat (Apr19-Mar20). They accepted Jetco's 'summer only' deal at AECO +\$0.70.
- **Cascade County, Clark Fork Manor and Hill Top Colony** – Contracts expire 3/31/19
- **Fireband Hotel, Whitefish** – asking for a proposal on hotel. Northwestern Energy is currently their supplier.

Energy West Montana:

2008 – Noming 29,570/dkt/d, flowed 28,287/dkt yesterday, imbalance 39,558/dkt, tolerance of 101,802/dkt, storage withdrawals 1,000/dkt/d, inventory balance 18,500/dkt.

- GD14 – dropped swing purchases to 7,500/dkt/d
 - GD16 – dropped swing purchases to 5,000/dkt/d
- **Open Season – Northwestern Energy Cobb Firm Storage** - RFP came out for 5,000/dkt/d of storage deliverability. The bid is due March 18, 2019, three-year term, ending March 31, 2022.
- Energy West submitted a proposal on behalf of both EWR and EWM, bidding on maximum rate and maximum term for the entire 5,000/dkt/d of deliverability as detailed in the RFP.

West Yellowstone:

West Yellowstone is temporarily buying gas from Exxon until their main supply is back up.

Tyler reported last week that there are thirteen loads scheduled for March, four will be from Merit. They are hoping to be back to normal by April.

3/14/19 Update – West Yellowstone is starting to receive some loads from painter plant and looking for loads to increase in April. They still only have one train going.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
March 21, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

March Baseload Purchases:

	NEO	Orwell	Brainard
TCO	5,800/day	875/day	125/day
DEO	6,750/day	1,410/day	100/day
OTP		2,690/day	
TGP	185/day		

Dominion reallocation – purchased 21,429/dkt at \$3.30

Blended cost per DTH

NEO	\$2.711
Orwell	\$2.925
Brainard	\$2.816

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.59 Dominion \$2.60 and MichCon \$2.69

Oct19-Mar20 Futures: TCO (\$.292), DEO (\$0.328), MichCon, (\$0.112)

Orwell imbalances: OTP 41,556 DTH, Cobra 10,023 DTH, Spellman (689) DTH,

Brainard Imbalances: OTP (284) DTH, Cobra (527) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 22,284/dkt (-307/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 119,207/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.

➤ **Spellman Pipeline**

- Imbalance (26,063)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for March 21, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of February 28, 2018, is (6,295) dth [Cobra at 7,052, OTP at (12,081), ONG at +1,100, and Spelman at (2,366)], which is an increase of 374 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for March is 50,500 mcf. The corresponding supply plan for March is made up of 45,000 dth from North Coast Gas Transmission, 10,100 dth from Columbia Gas Transmission, 4,500 dth from local production, 7,300 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline of 13,500 mcf as of February 28, 2019.
- 2) GNR purchases for **March**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 419 dth/d delivered into North Coast for Lake Hospitals in March – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 97 dth/d delivered into Cobra North Trumbull for Breckenridge in March at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in March at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in March at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 970 dth/d into North Coast to serve customer requirements on OTP in March at NYMEX settle plus \$0.19/dth. (basis down \$0.13/dth from February)
 - f. 1-month purchase with Direct Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in March at NYMEX settle plus \$0.00/dth. (basis up \$0.10/dth from February)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 230 dth/d delivered into multiple TCO interconnects at NYMEX settle plus \$0.10/dth.

- 3) Customer issues; (no changes from last week)
 - a. Due to the volatile gas market we saw this winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. With the February NYMEX settle of \$2.95/dth, none of the existing fixed rate agreements appears to be in danger of creating a negative impact on the bottom line in February. The NYMEX settle price for March ended up at \$2.855 per dth, so GNR will see an improvement in margin in March on its fixed priced contracts.
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Supply Update March 21, 2019

March Rev Budget – 265,141

March Usage to date – 177,047

March Forecast – 260,000

Currently nominating 8,000/day for Veazie, Bangor currently has a running imbalance of - 31,693.

March HDD to date – 821 compared to last year same period 699

Today's Cash Price – \$2.955 (Algonquin)

Average monthly cash price to date - \$4.584 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for March at the Algonquin City Gates Index price of \$4.52, the price was posted in the "Platts" Price guide the 7th of the month. Bangor has 60% of their March forecast hedged at an average of \$10.92

*Renee sent out their firm Gas Supply RFP for the upcoming period of May 1, 2019 – April 30, 2020. Proposals are due back March 29th. She sent the RFP to Repsol, Emera Energy, DTE Energy and XNG. Bangor's current contract with Repsol ends April 30th.

Capacity Updates...

Bangor has received the fully executed PA's back from TransCanada and Enbridge, still waiting on PNGTS. They should have theirs back to Bangor next week. Jerry and Renee are still working on their application that they will be filing with the MPUC for approval.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

MARCH SUMMARY

Budget: 155,996

Usage to Date: 119,480

Daily Avg Usage: 5,974

Avg Daily Cash Price:

Zone 3: \$2.93
 Zone 5: \$3.10

FOM Price:

Zone 3: \$2.81
 Zone 5: \$3.02

HDD Budget: 505
 HDD to Date: 458
 HDD Projected: 630
 HDD this time last Year: 437

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 47 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$2.44	\$2.37	\$2.54	\$2.02
AECO	\$1.12	\$1.02	\$1.71	\$1.01
NYMEX	\$2.805- Apr 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 200/dkt/d – Imbalance (2,600)/dkt as of 3/1/19

Retail – north pool

4008 – Noming 5,727/dkt/d, flowing 6,200/dkt/d, imbalance -1,180/dkt with a tolerance of 15,638/dkt, storage withdrawals 1,000/dkt/d, balance is 4,091/dkt

EWR Customer Updates:

- **Weyerhaeuser** - agreed upon a one-month extension, 4/1/19 – 4/30-19 at AECO 7A plus \$0.41. This will give EWR time to formulate a new supply plan. Jetco will be sharing in the profits.
- **Helena Sand & Gravel** – Renewed their contract, Apr19-Nov19 at AECO 7A + \$0.70/dkt
- **Cascade County, Clark Fork Manor and Hill Top Colony** – Contracts expire 3/31/19
- **Fireband Hotel, Whitefish** – asking for a proposal on hotel. Northwestern Energy is currently their supplier.
- **Three Forks Resources and Old Shelby Gathering** – Entered into two new supply contracts at the higher of \$1.80/dkt and the Monthly Aeco 7(a) price.
- **Montana Resources** – may have to reevaluate bidding on their supply with all the supply uncertainties.

Energy West Montana:

2008 – Noming 20,570/dkt/d, flowed 21,674/dkt yesterday, imbalance 30,104/dkt, tolerance of 92,291/dkt, storage withdrawals 1,000/dkt/d, inventory balance 11,500/dkt.

- Management made the decision to defer storage injections until May to try to pay the line of credit down to zero in the first part of May.
- **Open Season – Northwestern Energy Cobb Firm Storage** - RFP came out for 5,000/dkt/d of storage deliverability. The bid was due March 18, 2019, three-year term, ending March 31, 2022.
 - Energy West submitted a proposal on behalf of both EWR and EWM, bidding on maximum rate and maximum term for the entire 5,000/dkt/d of deliverability as detailed in the RFP.
 - Northwestern Energy received five max rate, max MDDQ and max capacity bids for the Cobb Storage Open Season. Because all these bids resulted in the same NPV, the tariff requires Northwestern to prorate equally the MDDQ and volumes. We accepted a 1,000 MDDQ and 74K in volumes for each EWM and EWR.

West Yellowstone:

3/21/19 Update – West Yellowstone is starting to receive one load per week from Merit. There is no new information on when they will be fully back up and running.

Tyler informed the Committee that Merit was recently purchased by North Shore, so future supply plans are not clear. Management suggested that they put together a supply strategy and find out who can give them the best deal going forward.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
March 28, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Jeff Heidnik, Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

April Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,147/day	35/day	115/day
DEO	5,000/day	1,150/day	100/day
OTP		1,000/day	
TGP	135/day		

Orwell and NEO are burning off their respective imbalances with Cobra first ten days and then Orwell will re-evaluate

Blended cost per DTH

NEO	\$2.566
Orwell	\$2.620
Brainard	\$2.592

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.46 Dominion \$2.41 and MichCon \$2.52

Oct19-Mar20 Futures: TCO (\$.287), DEO (\$0.333), MichCon, (\$0.155)

Orwell imbalances: OTP 41,556 DTH, Cobra 10,023 DTH, Spellman (689) DTH,

Brainard Imbalances: OTP (284) DTH, Cobra (527) DTH

Northeast Ohio (NEO):

➤ **TCO System (Columbia Transmission Co)**

- Balance of two storage accounts is 26,885/dkt (4,294/dkt GTS & 22,591/dkt FSS)

- **Cobra Pipeline**
 - Imbalance 119,207/dth, large excess is due to a reading error on a big meter in Holmesville, read in CCFs instead of MCFs.
- **Spellman Pipeline**
 - Imbalance (26,063)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **March 28, 2019**: Changes are in **bold**.

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of February 28, 2018, is (6,295) dth [Cobra at 7,052, OTP at (12,081), ONG at +1,100, and Spelman at (2,366)], which is an increase of 374 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for March is 50,500 mcf. The corresponding supply plan for March is made up of 45,000 dth from North Coast Gas Transmission, 10,100 dth from Columbia Gas Transmission, 4,500 dth from local production, 7,300 dth from Tennessee Gas Pipeline (TGP). The supply plan is long in an effort to reduce a forecasted negative imbalance on Orwell-Trumbull Pipeline of 13,500 mcf as of February 28, 2019.
- 2) GNR purchases for **March**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 367 dth/d delivered into North Coast for Lake Hospitals in April – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in April at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in April at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in April at \$3.125/dth.**
 - e. **1-month purchase with Elevation Energy – GNR purchasing 500 dth/d into North Coast to serve customer requirements on OTP in April at NYMEX settle plus \$0.085/dth. (basis down \$0.105/dth from March)**

- f. 1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in April at NYMEX settle minus \$0.01/dth. (basis down \$0.01/dth from March)
 - g. 1-month purchase with Direct Energy - GNR purchasing 125 dth/d delivered into multiple TCO interconnects in April at NYMEX settle plus \$0.00/dth. (basis down \$0.10/dth from March)
- 3) Customer issues; (changes from last week are in bold)
- a. **Due to the volatile gas market we saw this past winter, it has become important to monitor the fixed-rate agreements that are not currently hedged. These agreements are mostly month-to-month deals, so hedging is not an option. The lowest priced fixed-rate agreement has a monthly breakeven NYMEX settle rate of approximately \$3.45/dth. The NYMEX settle price for April dropped to \$2.713 for April, down \$0.142 from March, so GNR will see another improvement in margin in April on its fixed priced contracts.**
 - b. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Supply Update March 28, 2019

March Rev Budget – 265,141

March Usage to date – 229,373

March Forecast – 260,000

Currently nominating 8,000/day for Veazie, Bangor has a long imbalance of -37,867.

March HDD to date – 1,037 compared to last year same period 943

Today's Cash Price – \$2.725 (Algonquin)

Average monthly cash price to date - \$4.24 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for March at the Algonquin City Gates Index price of \$4.52, the price was posted in the "Platts" Price guide the 7th of the month. Bangor has 60% of their March forecast hedged at an average of \$10.92

Bangor sent out their firm Gas Supply RFP for the upcoming period of May 1, 2019 – April 30, 2020. Proposals are due back March 29th. They sent the RFP to Repsol, Emera Energy, DTE Energy and XNG. Their current contract with Repsol ends April 30th.

Capacity Updates...

Bangor has received the fully executed PA's back from TransCanada and Enbridge; they are still waiting on PNGTS. They should have it to them this week. Renee and Jerry are working on their application that they will be filing with the MPUC for approval.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

MARCH SUMMARY

Budget: 155,996

Usage to Date: 153,025

Daily Avg Usage: 5,668

Avg Daily Cash Price:

Zone 3: \$2.87

Zone 5: \$3.01

FOM Price:

Zone 3: \$2.81

Zone 5: \$3.02

HDD Budget: 505

HDD to Date: 601

HDD Projected: 652

HDD this time last Year: 618

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 36 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$2.12	\$2.23	\$2.43	\$1.99
AECO	\$1.38	\$0.95	\$1.65	\$0.99
NYMEX	\$2.725- May 2019 Apr19 closed at \$2.692			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 200/dkt/d – Imbalance (2,600)/dkt as of 3/1/19

Retail – north pool

4008 – Noming 6,002/dkt/d, flowing 5,580/dkt/d, imbalance 1,955/dkt with a tolerance of 14,463/dkt, storage withdrawals 0/dkt/d, balance is 1,091/dkt

- Dan will make nomination to zero out storage by the end of March

EWR Customer Updates:

- **Cascade County** – Renewed their contract for one year, Apr19-Mar20 at Aeco 7(a), plus\$0.75
- **Clark Fork Manor** - Renewed their contract for one year, Apr19-Mar20 at \$2.50
- **Hill Top Colony** – Contracts expire 3/31/19
- **Fireband Hotel, Whitefish** – asking for a proposal on hotel. Northwestern Energy is currently their supplier.

- Dan is working with potential producers to get additional gas - John Brown and Mountain View Gathering
- LNG Equipment has been moved off the City of Bangor property. Jerry will assist in getting the lease cancelled.
- Dan has a meeting scheduled on Tuesday with Weyerhaeuser to discuss how the Carway capacity curtailments affects pricing.

Energy West Montana:

2008 – Noming 15,070/dkt/d, flowed 23,168/dkt yesterday, imbalance 17,485/dkt, tolerance of 79,902/dkt, storage withdrawals 1,000/dkt/d, inventory balance 4,500/dkt

- Management made the decision to defer storage injections until May to try to pay the line of credit down to zero in the first part of May.
- Dan will make nomination to zero out storage by the end of March
- Starting April with 5,000/dkt/d baseload and 11,000/dkt/d swing gas to cover loads

West Yellowstone:

West Yellowstone is starting to receive one load per week from Merit. There is no new information on when they will be fully back up and running.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
May 2, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Tyler Muzzana, Jerry Livengood, Renee Huff, Greg Slone, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

May Baseload Purchases:

	TCO	DEO	TGP	OTP
Orwell	70/day	425/day		250/day
NEO	1,770/day	1,060/day	30/day	
Brainard	10/day	45/day		

Additional Purchases:

1,000/dkt @ \$2.72

NEO is injecting 1,377/day into storage and Orwell 500/day – beginning May 1st.

Blended cost of gas:

Orwell	\$2.406 per DTH
Brainard	\$2.309 per DTH
NEO	\$2.298 per DTH

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.365 Dominion \$2.195 and MichCon \$2.495

Oct19-Mar20 Futures: TCO (\$.297), DEO (\$0.432), MichCon, (\$0.192)

Orwell imbalances: OTP 45,111 DTH, Cobra (6,270) DTH, Spellman 171 DTH,

Brainard Imbalances: OTP (901) DTH, Cobra (2,373) DTH

Northeast Ohio (NEO):

➤ **TCO System (Columbia Transmission Co)**

- Balance of two storage accounts is 35,961/dkt (13,370/dkt GTS & 22,591/dkt FSS)

- **Cobra Pipeline**
 - Imbalance 81,084/dth
- **Spellman Pipeline**
 - Imbalance (30,274)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for May 2, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of March 31, 2018, is 4,987 dth [Cobra at 8,213, OTP at (3,008), ONG at +520, and Spelman at (738)], which is an increase of 11,282 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for April is 46,800 mcf. The corresponding supply plan for April is made up of 28,000 dth from North Coast Gas Transmission, 5,800 dth from Columbia Gas Transmission, 4,600 dth from local production, and 7,000 dth from Tennessee Gas Pipeline (TGP). The balance of 1,400 dth will be made up from the current positive imbalance on Cobra.
 - d. **GNR's customer sales projection for May is 35,800 mcf. The corresponding supply plan for May is made up of 20,100 dth from North Coast Gas Transmission, 5,500 dth from Columbia Gas Transmission, 5,700 dth from local production, and 7,400 dth from Tennessee Gas Pipeline (TGP).**
- 2) GNR purchases for **May**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in May – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in May at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in May at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in May at \$3.125/dth.**
 - e. **1-month purchase with Elevation Energy – GNR purchasing 325 dth/d into North Coast to serve customer requirements on OTP in May at NYMEX settle minus \$0.055/dth. (basis down \$0.14/dth from April)**

- f. 1-month purchase with Elevation Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in May at NYMEX settle minus \$0.11/dth. (basis down \$0.10/dth from April)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 145 dth/d delivered into multiple TCO interconnects in May at NYMEX settle minus \$0.12/dth. (basis down \$0.12/dth from April)
- 3) Customer issues; (changes from last week are in bold)
- a. **GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for May dropped to \$2.566 for May, down \$0.147 from April, so GNR continues to see margin improvement on its fixed priced contracts. The monthly NYMEX settle has steadily dropped each month this year from a high of \$3.642/dth in January.**
 - b. **GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.055/dth, so GNR's margin on its variable rate agreements should be at least \$0.375/dth, an improvement of \$0.14 over April sales.**
 - c. Great Lake Growers has notified GNR that they will be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update May 2, 2019

April Rev Budget – 160,908

April Actual Usage – 171,266

April HDD – 570, compared to 10 year average 639

May Rev Budget – 65,357

May Forecast – 75,000

Currently nominating 3,000/day for Veazie, long on the pipe of about -15,154.

Today's Cash Price – \$2.59 (Algonquin)

May filed Gas Cost \$5.33 (energy \$4.27, PGC \$1.06)

Bangor has no hedged volumes or baseload requirements for May

Capacity Updates...

Bangor is finalizing their application for Capacity that they will be filing with the MPUC in the next couple of weeks.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

APRIL SUMMARY

Budget: 106,573

Usage to Date: 91,191

Daily Avg Usage: 3,040

Avg Daily Cash Price:

Zone 3: \$2.51

Zone 5: \$2.53

FOM Price:

Zone 3: \$2.66

Zone 5: \$2.73

HDD Budget: 231

HDD to Date: 283

HDD Projected: 283

HDD this time last Year: 351

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 123 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.97	\$2.09	\$2.41	\$2.00
AECO	\$1.23	\$0.87	\$1.56	\$0.97
NYMEX	\$2.572 - June 2019 May closed @ \$2.53			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – Imbalance (3,681)/dkt as of 4/1/19

Glacier line back up, nominations will be reinstated on Monday.

Retail – north pool

4008 – Noming 4,836/dkt/d, flowing 6,033/dkt/d, imbalance 77/dkt with a tolerance of 10,282/dkt, injecting 1,600/dkt/d into storage, balance is 17,400/dkt

EWR Customer Updates:

- Montana Resources – Dan contacted MRI and they are willing to do a fixed price. Dan will continue to track down supply and pricing for MRI.
- MCR sold their fixed price gas to Jetco after Commercial Energy backed out of the deal.
- Great Falls Sand & Gravel – Accepted EWR's offer of \$1.80, May19-Nov19.
- Pasta Montana have contracts expiring on 4/30/19. EWR sent them both an indicative offer.
- Hexion, Missoula has filed for Bankruptcy – EWR will file a claim for the March 2019 invoice and get a deposit for assurance during the bankruptcy.
- Great Falls Airport – EWR sent them a one and two year proposal.

- MT Tunnels' financing is moving forward for the mine, anticipating it to close by the end of April. They are working with Dan and Northwestern Energy to give them specifications on what sort of natural gas flow they could receive at Montana Tunnels. As part of our financing plan, they are looking at some new equipment where natural gas would become a much larger component.

Energy West Montana:

2008 – Noming 24,000/dkt/d, flowed 23,885/dkt yesterday, imbalance 14,089/dkt, tolerance of 50,066/dkt, injecting 5,000/dkt/d into storage, inventory balance 5,000/dkt

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone.

Merit had a lightning strike causing another setback in deliveries. There are ten loads scheduled for May, six coming from Merit and four coming from Prometheus Energy.

The North Shore purchase has been delayed until the end of June. West Yellowstone management is waiting out the transition. The Merit contract was entered into in 2014 with a good rate, plans to stay on it as long as they can.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
May 9, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne, Tyler Muzzana and Mary Stanich
- Mike Zappitello, Jerry Livengood, Greg Slone, Amy Brown and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

May Baseload Purchases:

	TCO	DEO	TGP	OTP
Orwell	70/day	425/day		250/day
NEO	1,770/day	1,060/day	30/day	
Brainard	10/day	45/day		

Additional Purchases:

3,500/dkt at \$2.49 – increased asphalt production

NEO is injecting 1,377/day into storage and Orwell 500/day – beginning May 1st.

Blended cost of gas:

Orwell	\$2.406 per DTH
Brainard	\$2.309 per DTH
NEO	\$2.298 per DTH

The balance of the GTS TCO storage account is 50,226/dth

Daily Price Index: TCO Appalachia \$2.285 Dominion \$2.21 and MichCon \$2.37

Oct19-Mar20 Futures: TCO (\$.297), DEO (\$0.432), MichCon, (\$0.192)

Orwell imbalances: OTP 45,111 DTH, Cobra (6,270) DTH, Spellman (344) DTH,

Brainard Imbalances: OTP (901) DTH, Cobra (2,373) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 58,683/dkt (28,882/dkt GTS & 29,801/dkt FSS)
- **Cobra Pipeline**

- Imbalance 81,084/dth
- **Spellman Pipeline**
- Imbalance (39,039)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **May 9, 2019**:

- 1) GNR's current supply and imbalance position; (no changes from last week – still waiting on customer usage numbers)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of March 31, 2018, is 4,987 dth [Cobra at 8,213, OTP at (3,008), ONG at +520, and Spelman at (738)], which is an increase of 11,282 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's customer sales projection for April is 46,800 mcf. The corresponding supply plan for April is made up of 28,000 dth from North Coast Gas Transmission, 5,800 dth from Columbia Gas Transmission, 4,600 dth from local production, and 7,000 dth from Tennessee Gas Pipeline (TGP). The balance of 1,400 dth will be made up from the current positive imbalance on Cobra.
 - d. GNR's customer sales projection for May is 35,800 mcf. The corresponding supply plan for May is made up of 20,100 dth from North Coast Gas Transmission, 5,500 dth from Columbia Gas Transmission, 5,700 dth from local production, and 7,400 dth from Tennessee Gas Pipeline (TGP).
- 2) GNR purchases for **May**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in May – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in May at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in May at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in May at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 325 dth/d into North Coast to serve customer requirements on OTP in May at NYMEX settle minus \$0.055/dth. (basis down \$0.14/dth from April)

- f. 1-month purchase with Elevation Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in May at NYMEX settle minus \$0.11/dth. (basis down \$0.10/dth from April)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 145 dth/d delivered into multiple TCO interconnects in May at NYMEX settle minus \$0.12/dth. (basis down \$0.12/dth from April)
- 3) Customer issues; (changes from last week are in bold)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for May dropped to \$2.566 for May, down \$0.147 from April, so GNR continues to see margin improvement on its fixed priced contracts. The monthly NYMEX settle has steadily dropped each month this year from a high of \$3.642/dth in January.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.055/dth, so GNR's margin on its variable rate agreements should be at least \$0.375/dth, an improvement of \$0.14 over April sales.
 - c. **Great Lake Growers previously notified GNR that they would be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. It now appears the greenhouse will make the switch to Dominion around July 1. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.**
 - d. **Breckenridge Village is nearing the end of a 3-yr fixed rate agreement with GNR that was signed back in 2016. The customer is again considering a 3-yr fixed rate option, which would extend GNR's supply commitment through 2022. Breckenridge Village uses approximately 21,000 mcf per year.**

Bangor Gas:

Jerry gave the Committee a supply update for Bangor Gas.

Bangor Supply Update May 9, 2019

May Rev Budget – 65,357

Usage to date – 24,459

May Forecast – 80,000

May HDD – 114, compared to last year same period 51

Currently nominating 2,500/day for Veazie, long on the pipe of about -6,402.

Today's Cash Price – \$2.355 (Algonquin)

Average Cash Price for the month - \$2.392

Bangor has no hedged volumes or baseload requirements for May

Capacity Updates...

They are finalizing their application for Capacity that they will be filing with the MPUC in the next couple of weeks.

Frontier Natural Gas:

Amy gave the Committee a supply update for Frontier Natural Gas.

MAY SUMMARY

Budget: 69,652

Usage to Date: 19,804

Daily Avg Usage: 2,476

Avg Daily Cash Price:

Zone 3: \$2.50

Zone 5: \$2.55

FOM Price:

Zone 3: \$2.50

Zone 5: \$2.53

HDD Budget: 231

HDD to Date: 283

HDD Projected: 283

HDD this time last Year: 351

Energy West Resources:

Dan gave the Committee a supply update for EWR by email.

EIA Storage number – The EIA storage report showed a net increase of 85 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$2.01	\$2.05	\$2.38	\$2.01
AECO	\$1.98	\$0.80	\$1.55	\$0.95
NYMEX	\$2.574 - June 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance (3,681)/dkt as of 4/1/19

Retail – north pool

4008 – Noming 5,075/dkt/d, flowing 4,975/dkt/d, imbalance (2,450)/dkt with a tolerance of 9,000/dkt, injecting 1,750/dkt/d into storage, balance is 29,650/dkt

- GD8 resumed sales from Pool 7008 200/d
- GD8 dropped Weyerhaeuser to 1,400/d as balance is 1,873/dkt

EWR Customer Updates:

- Montana Resources – Dan will continue to track down supply and pricing for MRI.
- Great Falls Sand & Gravel – Accepted EWR's offer of \$1.80, May19-Nov19.

- Pasta Montana – renewed their contract for one year, May19-Apr20 at Aeco 7(a), Plus \$0.74
- Hexion, Missoula has filed for Bankruptcy – EWR will file a claim for the March 2019 invoice and get a deposit for assurance during the bankruptcy.
- Great Falls Airport – renewed their contract for one year, Jul19-Jun20 at \$2.30
- Montana Tunnels – Dan is working with their consultant on pipeline capacity of their lateral. Trying to get them to talk directly with Northwestern Energy.
- Weyerhaeuser has asked for indicative pricing for Nov-Mar. Dan told them he would digest Northwestern information and provide pricing later.

Energy West Montana:

2008 – Noming 24,000/dkt/d, flowed 21,317/dkt yesterday, imbalance 26,117/dkt, tolerance of 49,651/dkt, injecting 5,000/dkt/d into storage, inventory balance 40,000/dkt

- GD10 - drop swing to 8,000/d
- Given the hot weather coming up, high daily prices, and inventories on or above plan, Dan reduced swing purchases by 3,000/d for GD10.
- Northwestern Energy update
 - NWE had their meeting with the Public Service Commission on the 7th.
 - They have allocated a total 20,000/d of south end capacity to all FT holders. EWM received 2,956/d and EWR 436/d at no incremental cost. EWST will coordinate with Jetco/TMV to determine the most beneficial use of that capacity.
 - Northwestern Energy now wants to update EWM & EWR transmission agreements in regards to primary receipt capacity – Dan will give management his recommendations next week.
- Bank of America – Dan had a call with Mark Chan. He was just touching base to see if we needed anything. He is still trying to understand all Hearthstone entities.

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone

No changes from last week

There are ten loads scheduled for May, six coming from Merit and four coming from Prometheus Energy.

The North Shore purchase has been delayed until the end of June. West Yellowstone management is waiting out the transition. The Merit contract was entered into in 2014 with a good rate, plans to stay on it as long as they can.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
May 16, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne, Tyler Muzzana and Mary Stanich
- Dan Hickman, Mike Zappitello, Jerry Livengood, Greg Slone and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

May Baseload Purchases:

	TCO	DEO	TGP	OTP
Orwell	70/day	425/day		250/day
NEO	1,770/day	1,060/day	30/day	
Brainard	10/day	45/day		

Additional Purchases:

Mike had to make extra purchases due to the unplanned maintenance on TCO.

Spellman 2,500/dkt @ \$2.67

NC 2,500/dkt @ \$2.59

April Reallocation – long, waiting to get pricing on that gas

NEO is injecting 1,377/day into storage and Orwell 500/day as of May 1st.

Blended cost of gas:

Orwell	\$2.406 per DTH
Brainard	\$2.309 per DTH
NEO	\$2.298 per DTH

The balance of the GTS TCO storage account is 53,649/dth

Daily Price Index: TCO Appalachia \$2.32 Dominion \$2.23 and MichCon \$2.33

Oct19-Mar20 Futures: TCO (\$.277), DEO (\$0.412), MichCon, (\$0.195)

Orwell imbalances: OTP & NC: 35,680 DTH, Cobra (22,453) DTH, Spellman (344) DTH,

Brainard Imbalances: OTP & NC: (1,217) DTH, Cobra (23) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 55,571/dkt (18,560/dkt GTS & 37,011/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 58,510/dth
- **Spellman Pipeline**
 - Imbalance (39,039)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for May 16, 2019:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of April 30, 2018, is +8,995 dth [Cobra at +970, OTP at +8,309, ONG at +50, and Spelman at (334)], which is an increase of 4,008 dth from last month.**
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. **GNR's customer sales projections for April totaled 46,800 mcf. Actual customer sales were 39,490 mcf, a 15.6% reduction from forecast. While 2019 production levels were higher at Bowerston Shale and Grand River Asphalt as expected, gas usage at almost all the other customers were lower than projected. Most of GNR's customers are weather sensitive and April 2019 degree-days were down 25% from the previous April.**
 - d. GNR's customer sales projection for May is 35,800 mcf. The corresponding supply plan for May is made up of 20,100 dth from North Coast Gas Transmission, 5,500 dth from Columbia Gas Transmission, 5,700 dth from local production, and 7,400 dth from Tennessee Gas Pipeline (TGP).
- 2) GNR purchases for **May**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in May – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in May at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in May at \$3.23/dth.

- d. 2-year deal with Elevation – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in May at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 325 dth/d into North Coast to serve customer requirements on OTP in May at NYMEX settle minus \$0.055/dth. (basis down \$0.14/dth from April)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in May at NYMEX settle minus \$0.11/dth. (basis down \$0.10/dth from April)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 145 dth/d delivered into multiple TCO interconnects in May at NYMEX settle minus \$0.12/dth. (basis down \$0.12/dth from April)
- 3) Customer issues; (no changes from last week)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for May dropped to \$2.566 for May, down \$0.147 from April, so GNR continues to see margin improvement on its fixed priced contracts. The monthly NYMEX settle has steadily dropped each month this year from a high of \$3.642/dth in January.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.055/dth, so GNR's margin on its variable rate agreements should be at least \$0.375/dth, an improvement of \$0.14 over April sales.
 - c. Great Lake Growers previously notified GNR that they would be switching their gas supply from Orwell-Trumbull Pipeline to Dominion East Ohio Gas around the first of May. It now appears the greenhouse will make the switch to Dominion around July 1. Great Lakes had an annual load of 11,000 with a net margin of approximately \$0.64/mcf so this is a financial hit of over \$7,000 per year.
 - d. Breckenridge Village is nearing the end of a 3-yr fixed rate agreement with GNR that was signed back in 2016. The customer is again considering a 3-yr fixed rate option, which would extend GNR's supply commitment through 2022. Breckenridge Village uses approximately 21,000 mcf per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas By email.

Bangor Supply Update May 16, 2019

May Rev Budget – 65,357

Usage to date – 53,484

May Forecast – 85,000

May HDD – 236, compared to last year same period 140

Currently nominating 2,500/day for Veazie, long on the pipe of about -377

Today's Cash Price – \$2.315 (Algonquin)

Average Cash Price for the month - \$2.374

Bangor has no hedged volumes or baseload requirements for May

Capacity Updates... Bangor is finalizing their application for Capacity that they will be filing with the MPUC in the next couple of weeks.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

MAY SUMMARY

Budget:	69,652
Usage to Date:	36,291
Daily Avg Usage:	2,419
Avg Daily Cash Price:	
Zone 3:	\$2.49
Zone 5:	\$2.54
FOM Price:	
Zone 3:	\$2.50
Zone 5:	\$2.53

HDD Budget:	78
HDD to Date:	36
HDD Projected:	40
HDD this time last Year:	46

Energy West Resources:

Dan gave the Committee a supply update for EWR by email.

EIA Storage number – The EIA storage report showed a net increase of 106 Bcf from the previous week. Prices were down around 4.5 cents.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.91	\$2.06	\$2.41	\$2.01
AECO	\$1.85	\$0.76	\$1.57	\$0.92
NYMEX	\$2.645 - June 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 250/dkt/d – Imbalance (3,681)/dkt as of 4/1/19

Retail – north pool

4008 – Noming 4,875/dkt/d, flowing 4,270/dkt/d, imbalance 1,996/dkt with a tolerance of 8,097/dkt, injecting 1,550/dkt/d into storage, balance is 40,500/dkt

- GD16 dropped Weyerhaeuser purchases to 1,000/d

EWR Customer Updates:

- Montana Resources – Dan will continue to track down supply and pricing for MRI.

- Hexion, Missoula has filed for Bankruptcy – EWR will file a claim for the March 2019 invoice and get a deposit for assurance during the bankruptcy.
- Montana Tunnels – Dan is working with their consultant on pipeline capacity of their lateral. Trying to get them to talk directly with Northwestern Energy.
- Weyerhaeuser has asked for indicative pricing for Nov-Mar. Dan told them he would digest Northwestern information and provide pricing later.

Energy West Montana:

2008 – Noming 21,000/dkt/d, flowed 20,009/dkt yesterday, imbalance 30,918/dkt, tolerance of 44,417/dkt, injecting 9,000/dkt/d into storage, inventory balance 99,000/dkt. The imbalance will be worked off with upcoming weather.

- EWST will coordinate with Jetco/TMV to determine the most beneficial use of the allocated south end capacity.
- Dan is working on the NWE transportation agreements for EWR & EWM, in regards to primary receipt capacity. He will present a recommendation to EWST management next week.
- Kevin suggested meeting with Northwestern to discuss the transportation system and primary receipt points. The transmission agreements will provide a discussion starter with Northwestern. Discussions will include other Northwestern plans, including Carway/TransCanada expansions. The timing of such meeting will be subject to participant schedules. Dan will draft an agenda for that meeting.

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone

There were no changes from last week to the May schedule:

There are ten loads scheduled for May, six coming from Merit and four coming from Prometheus Energy.

An audit is scheduled for West Yellowstone next week. At that time, they will begin setting up their supply schedule for June.

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
May 23, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Jerry Livengood, Renee Huff, Fred Steele, Taylor Younger, Calvin Johnson and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

May Baseload Purchases:

	TCO	DEO	TGP	OTP
Orwell	70/day	425/day		250/day
NEO	1,770/day	1,060/day	30/day	
Brainard	10/day	45/day		

Additional Purchases:

April Reallocation – long, waiting to get pricing on that gas

Blended cost of gas for May:

Orwell	\$2.492 per DTH
Brainard	\$2.413 per DTH
NEO	\$2.298 per DTH

The balance of the GTS TCO storage account is 57,072/dth

Daily Price Index: TCO Appalachia \$2.285 Dominion \$2.16 and MichCon \$2.285

Oct19-Mar20 Futures: TCO (\$.278), DEO (\$0.421), MichCon, (\$0.203)

Orwell imbalances: OTP & NC: 35,680 DTH, Cobra (22,453) DTH, Spellman (344) DTH,

Brainard Imbalances: OTP & NC: (1,217) DTH, Cobra (23) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 64,471/dkt (20,250/dkt GTS & 44,221/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 58,510/dth
- **Spellman Pipeline**

- Imbalance (39,039)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **May 23, 2019**:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of April 30, 2018, is +8,995 dth [Cobra at +970, OTP at +8,309, ONG at +50, and Spelman at (334)], which is an increase of 4,008 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. **GNR's initial customer sales projection for May was 35,800 mcf. However, it appears the asphalt plants are having a much better season than last year, raising the current sales projection for May to 43,500 Mcf. The initial supply plan for May is made up of 20,100 dth from North Coast Gas Transmission, 5,500 dth from Columbia Gas Transmission, 5,700 dth from local production, and 7,400 dth from Tennessee Gas Pipeline (TGP). GNR picked up another 4,800 dth into North Coast Gas Transmission and another 2,400 dth on Columbia Gas Transmission to handle the revised sales projection for May.**
- 2) GNR purchases for **May**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 290 dth/d delivered into North Coast for Lake Hospitals in May – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in May at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in May at \$3.23/dth.
 - d. 2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in May at \$3.125/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 325 dth/d into North Coast to serve customer requirements on OTP in May at NYMEX settle minus \$0.055/dth. (basis down \$0.14/dth from April)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 75 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in May at NYMEX settle minus \$0.11/dth. (basis down \$0.10/dth from April)

- g. 1-month purchase with Elevation Energy - GNR purchasing 145 dth/d delivered into multiple TCO interconnects in May at NYMEX settle minus \$0.12/dth. (basis down \$0.12/dth from April)
 - h. **Mid-mon purchase for 400 dth/d into North Coast Gas Transmission (May 20 – May 31) at \$2.77/dth and 200 dth/d into Cobra North Trumbull (May 20 – May 31) at \$2.72/dth.**
- 3) Customer issues; (no changes from last week)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for May dropped to \$2.566 for May, down \$0.147 from April, so GNR continues to see margin improvement on its fixed priced contracts. The monthly NYMEX settle has steadily dropped each month this year from a high of \$3.642/dth in January.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.055/dth, so GNR's margin on its variable rate agreements should be at least \$0.375/dth, an improvement of \$0.14 over April sales.
 - c. Breckenridge Village is nearing the end of a 3-yr fixed rate agreement with GNR that was signed back in 2016. The customer is again considering a 3-yr fixed rate option, which would extend GNR's supply commitment through 2022. Breckenridge Village uses approximately 21,000 mcf per year.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update May 23, 2019

May Rev Budget – 65,357

Usage to date – 76,924

May Forecast – 95,000

May HDD – 328, compared to last year same period 199

Currently nominating 3,500/day for Veazie

Today's Cash Price – \$2.245 (Algonquin)

Average Cash Price for the month - \$2.345

Bangor has no hedged volumes or baseload requirements for May

Capacity Updates...

Bangor is finalizing their application for Capacity that they will be filing with the MPUC. The docket number for the case is Docket 2019-00105.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

MAY SUMMARY

Budget: 69,652

Usage to Date: 49,395
 Daily Avg Usage: 2,245
 Avg Daily Cash Price:

Zone 3: \$2.51
 Zone 5: \$2.55

FOM Price:

Zone 3: \$2.50
 Zone 5: \$2.53

HDD Budget: 78
 HDD to Date: 80
 HDD Projected: 81

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 100 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.77	\$1.96	\$2.35	\$1.90
AECO	\$1.80	\$0.85	\$1.57	\$0.91
NYMEX	\$2.565 - June 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 250/dkt/d – Imbalance (1,411)/dkt as of 5/1/19

Retail – north pool

4008 – Noming 4,450/dkt/d, flowing 5,111/dkt/d, imbalance -218/dkt with a tolerance of 7,870/dkt, injecting 1,550/dkt/d into storage, balance is 51,350/dkt

EWR Customer Updates:

- Montana Resources – Dan will continue to track down supply and pricing for MRI.
- Hexion, Missoula has filed for Bankruptcy – EWR will get a deposit for assurance during the bankruptcy.
- Weyerhaeuser has asked for indicative pricing for Nov-Mar. Dan is working with Jetco on pricing.

Energy West Montana:

2008 – Noming 23,500/dkt/d, flowed 20,654/dkt yesterday, imbalance 2,844/dkt, tolerance of 46,481/dkt, injecting 6,500/dkt/d into storage, inventory balance 156,500/dkt.

- Dan is working on the NWE transportation agreements for EWR & EWM, in regards to primary receipt capacity. He has sent drafts of the agreements to EWST management

and Northwestern Energy for review. EWST Management approved the documents with some minor edits:

- Have the nomenclature the same in the EWR & EWM documents, e.g.:
 - South Pool vs. South End
 - Consistent MAOP between the documents
 - Identify the volumes as dekatherms per day
 - Kevin Degenstein would sign the EWR document
 - Jed Henthorne would sign the EWM document
-
- Kevin suggested meeting with Northwestern to discuss the transportation system and primary receipt points. Dan will contact Northwestern Energy for a meeting time.

West Yellowstone:

There were no changes from last week to the May schedule:

There are ten loads scheduled for May, six coming from Merit and four coming from Prometheus Energy.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
May 30, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Renee Huff, Fred Steele, Taylor Younger, Calvin Johnson and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

June Baseload Purchases:

	TCO	DEO	OTP	TGP
NEO	1,130/day	1,000/day		5/day
Orwell	235/day	220/day	400/day	
Brainard	20/day	35/day		
TCO Storage				
NEO	2,017/day			
Orwell	500/day			

DEO is repaying NEO 1,300/day and Cobra is paying back 250/day in June

Blended cost of gas for June 2019:

Orwell	\$2.469 / DTH
Brianard	\$2.359 / DTH
NEO	\$2.332 / DTH

The balance of the GTS TCO storage account is 60,495/dth

Daily Price Index: TCO Appalachia \$2.325 Dominion \$2.205 and MichCon \$2.43

Oct19-Mar20 Futures: TCO (\$.278), DEO (\$0.412), MichCon, (\$0.195)

Orwell imbalances: OTP & NC: 35,680 DTH, Cobra (22,453) DTH, Spellman (344) DTH,

Brainard Imbalances: OTP & NC: (1,217) DTH, Cobra (23) DTH

Northeast Ohio (NEO):

- TCO System (Columbia Transmission Co)

- Balance of two storage accounts is 73,841/dkt (22,410/dkt GTS & 51,431/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 58,510/dth
- **Spellman Pipeline**
 - Imbalance (39,039)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **May 30, 2019:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of April 30, 2018, is +8,995 dth [Cobra at +970, OTP at +8,309, ONG at +50, and Spelman at (334)], which is an increase of 4,008 dth from last month.
 - b. Aspire Energy (formerly Gatherco) has worked out an arrangement with Cobra and the Churchtown producers that were formerly under contract with GNR to purchase the Churchtown production gas into their system and on to Dominion. Since Cobra will be receiving their transportation revenue for moving this production gas, Cobra has less incentive to repair the stripping station. It appears this production gas may be permanently lost to GNR.
 - c. GNR's initial customer sales projection for May was 35,800 mcf. However, it appears the asphalt plants are having a much better season than last year, raising the current sales projection for May to 43,500 Mcf.
 - d. **GNR's customer sales projection for June is 37,300 mcf. The supply plan for June is consists of 19,000 dth from North Coast Gas Transmission, 7,000 dth from Columbia Gas Transmission, 6,900 dth from Tennessee Gas Pipeline and 5,400 dth from local production.**
- 2) GNR purchases for **June**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in June – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in June at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 33 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in June at \$3.23/dth.**
 - d. **2-year deal with Elevation Energy – GNR purchasing 165 dth/delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in June at \$3.125/dth.**

- e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in June at NYMEX settle minus \$0.02/dth. (basis up \$0.035/dth from May)
 - f. 1-month purchase with Direct Energy – GNR purchasing 65 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in June at NYMEX settle minus \$0.10/dth. (basis up \$0.01/dth from May)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 200 dth/d delivered into the TCO/Cobra North Trumbull interconnect in June at NYMEX settle minus \$0.17/dth. (basis down \$0.05/dth from May)
- 3) Customer issues; (no changes from last week)
- a. GNR's lowest fixed-rate agreement has a monthly NYMEX settle breakeven rate of approximately \$3.45/dth. The NYMEX settle price for June is \$2.633, up \$0.067 from May, so GNR will continue to see a healthy margin on its fixed priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. May basis price into North Coast Gas Transmission (the bulk of GNR gas) was a negative \$0.02/dth, so GNR's margin on its variable rate agreements should be at least \$0.34/dth, a slight decrease from May sales.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update May 30, 2019

May Rev Budget – 65,357

Usage to date – 95,878

May Forecast – 103,000

May HDD – 405, compared to last year same period 234

Nominating 3,500/day for Veazie, currently running a short imbalance of 6,109

Today's Cash Price – \$2.32 (Algonquin)

Average Cash Price for the month - \$2.325

Bangor has no hedged volumes or baseload requirements for May

Renee will start getting price quotes from Emera for the upcoming winter in the next couple of weeks

Capacity Updates...

Bangor had a meeting this morning to review the final draft of our petition for capacity approval. They hope to have it finalized and filed tomorrow, docket # 2019-00105.

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

MAY SUMMARY

Budget: 69,652

Usage to Date: 59,432

Daily Avg Usage: 2,049

Avg Daily Cash Price:

Zone 3: \$2.52

Zone 5: \$2.57

FOM Price:

Zone 3: \$2.50

Zone 5: \$2.53

HDD Budget: 78

HDD to Date: 81

HDD Projected: 81

Frontier will present their Procurement Plan to the Commission on June 4, 2019. Taylor emailed the plan to management for review.

Additionally, she sent a spreadsheet labeled Summary of Procurement Policy, where you can see exactly how they concluded the percentages to hedge in total for each winter month November through March. They plan to use a combination of hedges, First of Month purchases and daily purchases to cover their forecasted max daily usage for the month. They will buy 1/6 of these total hedge amounts for each winter month during the months of April through September.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 114 Bcf from the previous week. Prices were down around 8 cents.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.75	\$2.02	\$2.41	\$1.89
AECO	\$0.18	\$0.92	\$1.58	\$0.93
NYMEX	\$2.541 - July 2019 Jun19 closed at \$2.638			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 250/dkt/d – Imbalance (1,411)/dkt as of 5/1/19

- Glacier line down again, zero nominations on June 1st until imbalance is zero

Retail – north pool

4008 – Noming 4,450/dkt/d, flowing 4,221/dkt/d, imbalance -4,157/dkt with a tolerance of 7,516/dkt, injecting 1,550/dkt/d into storage, balance is 62,200/dkt, EOM 67,000/dkt.

- GD28 – begin purchases from Three Forks at BC#3 on June 1st

EWR Customer Updates:

- Montana Resources – Dan will continue to track down supply and pricing for MRI.
- Hexion, Missoula has filed for Bankruptcy – the paperwork is in place to receive a deposit for assurance during the bankruptcy.
- Weyerhaeuser has asked for indicative pricing for Nov-Mar. Dan is working with Jetco on pricing.

Energy West Montana:

2008 – Noming 23,500/dkt/d, flowed 20,497/dkt yesterday, imbalance 28,857/dkt, tolerance of 40,653/dkt, injecting 10,000/dkt/d into storage, inventory balance 205,500/dkt, EOM 225,000 (above plan). Management approved increasing storage injections at low prices.

- Dan is working on the NWE transportation agreements for EWR & EWM, in regards to primary receipt capacity. He has sent drafts of the agreements to Northwestern Energy for approval.
- Need to average 9,500/dkt/d in June 2019 to hit storage target

West Yellowstone:

Tyler gave the Committee a supply update by email.

June 2019

Eight of the twelve loads scheduled for West Yellowstone are from Merit. The others are from Prometheus. This is all they are producing. The second train at Merit is not up yet and being evaluated by North Shore.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
November 1, 2018
11:30 A.M.

Activities Performed

Present were:

- Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill and Taylor Badgett (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

November Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,800 / day	625 / day	100 / day
DEO	3,666 / day	375 / day	50 / day
TGP	135 / day	-----	-----
OTP	-----	1,300 / day	-----

Blended cost for November

NEO \$2.802 per DTH

Orwell \$2.971 per DTH

Brainard \$2.841 per DTH

The balance of the GTS TCO storage account is 69,832/dth

Daily Price Index: TCO Appilachia \$2.96 Dominion \$2.685 and MichCon \$3.105

Nov18-Mar19 Futures: TCO (\$.236), DEO (\$0.430), MichCon, 0.009

Orwell imbalances: OTP 1,393 DTH, Cobra 3,613 DTH, Spellman 635 DTH,

Brainard Imbalances: OTP 957 DTH, Cobra 2,322 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 265,254/dkt (102,296/dkt GTS & 162,958/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 25,333/dth
- **Spellman Pipeline**
 - Imbalance 4,355/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **November 1, 2018:**

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of September 30, 2018, is (556) dth [Cobra at (4,326), OTP at +3,198, ONG at +700, and Spelman at (128)], which is a decrease of 5,060 dth from last month.
 - b. The local production from the Cobra Churchtown system, which has been shut in since last November, is still in place. However Cobra has finally received the parts to repair their separation system and is hopeful of having the interconnect with TCO back in operation in November. Cobra previously indicated this would happen in October, so GNR purchased additional gas through TCO to make up for the loss of anticipated local production.
 - c. The current October sales projection has been revised upward from 51,300 Mcf to 56,500 Mcf, due to increased asphalt drying and grain drying. The revised supply plan for October is made up of 23,000 dth from North Coast Gas Transmission, 6,000 dth from local production, 5,000 dth from Tennessee Gas Pipeline, and 22,000 dth from Columbia Gas Transmission.
- 2) GNR purchases for **November**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 333 dth/d delivered into North Coast for Lake Hospitals in November – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in November at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in November at \$3.23/dth.**
 - d. **1-month purchase with Elevation Energy – GNR purchasing 570 dth/d into North Coast to serve customer requirements on OTP in November at NYMEX settle plus \$0.32/dth.**
 - e. **1-month purchase with Direct Energy – GNR purchasing 195 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in November at NYMEX settle plus \$0.05/dth.**
 - f. **1-month purchase with Direct Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in November at NYMEX settle minus \$0.07/dth.**
- 3) Customer issues; (changes from last week are in bold)
 - a. **Grand River Asphalt – the plant is GNR's largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. Grand**

River will continue to operate through the end of November, weather permitting.

- b. GNR Grain Dryers – Grain-drying customers are in full operation. With the wet summer, expectations are for an increase in gas usage over previous years.
- c. **Bowerston Shale - NEO has purchased an existing steel line that it is upgrading, which will connect to the system serving Bowerston Shale with Dominion East Ohio Gas. Marketers currently doing business with Dominion will have access to serve Bowerston Shale once the upgrade is complete, which should be sometime around the first of the year. GNR currently serves Bowerston through Tennessee Gas Pipeline. The basis off TGP was NYMEX plus \$0.05 for November. I understand that the basis of DEO was NYMEX minus \$0.235 for November – almost a \$0.30/dth swing.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update November 1, 2018

October Rev Budget – 103,516

October Usage to Date – 127,518

October Forecast – 133,000

October HDD - 610, compared to October 2017 total 283, and 10 Year Avg 487

November Rev Budget – 183,809

November Forecast – 191,000

Today's Cash Price – \$2.905 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for November at the Algonquin City Gates Index price of \$X.XX, the price will be posted in the "Platts" Price guide around the 7th of the month.

Bangor has 60% of our November forecast hedged at an average of \$10.97

Capacity Evaluations

Len Gilmore with LMG Consulting was here earlier this week, Jerry and Renee sat with him and reviewed their capacity evaluations and reviewed the current open seasons on TransCanada and Union Gas. They also had a couple of calls with PNGTS and MNE while Len was here to discuss securing capacity on their pipelines as well in order to have the entire path secured from Dawn to BNG city gate. Bangor's plan is to bid on both Open Seasons by the third week of November. Union bid due November 16, 2018 and TransCanada bid due November 14, 2018.

The full path is as follows....

*Union Gas - Dawn to Parkway

*TransCanada - Union Parkway Belt to East Hereford

*PNGTS – East Hereford to Westbrook Maine

*MNE – Westbrook to BNG

Next steps... (updates from last week's meeting minutes)

*Contact "PNGTS" Portland Natural Gas Transmission System and request a contract with them – **Jerry and Renee have been in contact with PNGTS, they have sent them a Precedent Agreement for review and edits**

*Prepare a cover letter to submit with each bid and include any requests such as; if capacity is available earlier then in-service date they would like it. Any conditions such as; securing upstream and downstream capacity, Regulatory approval, full rate recovery, corporate approval – **Jerry and Renee have a call scheduled with Ben Smith and Len Gilmore tomorrow to draft the cover Letters**

*TransCanada requires a deposit with all bids

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

OCTOBER SUMMARY

Budget: 109,063

Usage to Date: 104,049

Daily Avg Usage: 3,356

Avg Daily Cash Price:

Zone 3: \$3.18

Zone 5: \$3.27

FOM Price:

Zone 3: \$2.96

Zone 5: \$3.05

HDD Budget: 236

HDD to Date: 270

HDD Projected 270

Meetings scheduled to discuss:

LNG backup

Len Gilmore – capacity

UGI Proposal

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 48 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$2.90	\$2.42	\$1.92	\$2.22

AECO \$0.66 \$1.65 \$1.07 \$1.56
NYMEX \$3.242 Dec 2018 Nov18 close \$3.185

South Pool

7008 – Noming 350/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 350/dkt/d, flowing 350/dkt/d – Imbalance 1,548/dkt as of 9/1/18

Retail – north pool

4008 – Noming 3,830/dkt/d, flowing 4,172/dkt/d, imbalance -435/dkt with a tolerance of 9,430/dkt, injecting 0/dkt/d into storage, balance is 216,500/dkt

- Mainline #1 is expected to be down for 2-3 months 200-300/dkt day
- Effective November 1st, Pool 7008 250/dkt/d, Noming 600/dkt to EWM
- Effective November 1st, Storage w/d 500/dkt/d, 7(A) – 1,700/dkt/d, 5(A) – 1,400/dkt/d

EWR Customer Updates:

- **Hexion Missoula MT** – Accepted proposal, Aeco 7(a), plus \$0.45, Dec18-Oct20
- **Seaboard Foods** – Contract expires 2/28/19 - EWR sent them a proposal, working with them to answer any questions.
- **Shelby Gas** – Sent out proposal on 10/22/18, two year at \$3.40 - they accepted another proposal
- EWR contract renewals for customers expiring 10/31/18 are completed.

Energy West Montana:

2008 – Noming 15,600/dkt/d, flowed 20,909/dkt yesterday, imbalance 31,280/dkt, tolerance of 54,338/dkt, injecting 0/dkt/d into storage, inventory balance is 1,111,500/dkt.

- Effective November 1st, Storage w/d 2,500/dkt/d, swing 2,000/dkt/d

➤ **Winter Supply**

- Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
November 8, 2018
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne, Dan Hickman and Mary Stanich
- Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Drew Waravdekar and Taylor Badgett (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

November Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,800 / day	625 / day	100 / day
DEO	3,666 / day	375 / day	50 / day
TGP	135 / day	-----	-----
OTP	-----	1,300 / day	-----

Additional Purchases:

14,000/dkt \$4.45

Blended cost for November

NEO	\$2.802 per DTH
Orwell	\$3.221 per DTH
Brainard	\$2.841 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appalachia \$3.405 Dominion \$3.295 and MichCon \$3.68

Nov18-Mar19 Futures: TCO (\$.221), DEO (\$0.358), MichCon, 0.112

Orwell imbalances: OTP 8,275 DTH, Cobra 3,613 DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 788 DTH, Cobra 2,322 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 264,690/dkt (101,152/dkt GTS & 163,538/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 25,333/dth

➤ **Spellman Pipeline**

- Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for November 8, 2018:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of October 31, 2018, is (5,800) dth [Cobra at (12,600), OTP at +7,100, ONG at +340, and Spelman at (640)], which is a decrease of 5,200 dth from last month.**
 - b. The local production from the Cobra Churchtown system, which has been shut in since last November, is still in place. However Cobra has finally received the parts to repair their separation system and is hopeful of having the interconnect with TCO back in operation in November. Cobra previously indicated this would happen in October, so GNR purchased additional gas through TCO to make up for the loss of anticipated local production.
 - c. **October sales were 58,600 mcf, slightly above the October forecast of 56,500 Mcf, as grain drying exceeded expectations. The customer sales projection for November is 57,100 mcf. The supply plan for November is made up of 29,100 dth from North Coast Gas Transmission, 15,000 dth from Columbia Gas Transmission, 7,000 dth from local production, 6,000 dth from Tennessee Gas Pipeline.**
- 2) GNR purchases for **November**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 333 dth/d delivered into North Coast for Lake Hospitals in November – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in November at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in November at \$3.23/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 570 dth/d into North Coast to serve customer requirements on OTP in November at NYMEX settle plus \$0.32/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 195 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in November at NYMEX settle plus \$0.05/dth.
 - f. 1-month purchase with Direct Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in November at NYMEX settle minus \$0.07/dth.

- 3) Customer issues; (changes from last week are in bold)
- a. Grand River Asphalt – the plant is GNR’s largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. Grand River will continue to operate through the end of November, weather permitting.
 - b. GNR Grain Dryers – Grain-drying customers are in full operation. With the wet summer, expectations are for an increase in gas usage over previous years.
 - c. **Bowerston Shale – the plant has historically purchased local production gas, which was delivered directly into the facility, to supply a portion of their load. Plant operators recently shut in the local production and their load on Northeast has increased from 180 mcf/d to 260 mcf/d. It is still unclear if this is a permanent change.** NEO has purchased an existing steel line that it is upgrading, which will connect to the system serving Bowerston Shale with Dominion East Ohio Gas. This will allow increased competition from Marketers currently doing business with Dominion once the upgrade is complete, which should be sometime around the first of the year. GNR currently serves Bowerston through Tennessee Gas Pipeline. The basis off TGP was NYMEX plus \$0.05 for November.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update November 8, 2018

November Rev Budget – 183,809

November Usage to Date – 32,800

November Forecast – 191,000

November HDD to Date – 141, compared to last year same period 125

Today’s Cash Price – \$3.755 (Algonquin)

Average Cash Price for the month - \$3.154 (Algonquin)

Per Bangor’s Supply Agreement, they have 3,000/d of baseload for November at the Algonquin City Gates Index price of \$3.68, the price was posted in the “Platts” Price guide on the 7th of the month.

Bangor has 60% of their November forecast hedged at an average of \$10.97

Capacity Evaluations

Union bid due November 16, 2018 and TransCanada bid due November 14, 2018.

The full path is as follows....

*Union Gas - Dawn to Parkway

*TransCanada - Union Parkway Belt to East Hereford

*PNGTS – East Hereford to Westbrook Maine

*MNE – Westbrook to BNG

Bangor is...

- *Finalizing the bid forms and cover letters for Union and TransCanada
- *They will need to get the deposit for TransCanada prepared to submit with the bid
- *Ben is reviewing the Precedent Agreement from PNGTS they have sent us a for review and edits

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

NOVEMBER SUMMARY

Budget: 139,488

Usage to Date: 22,499

Daily Avg Usage: 3,214

Avg Daily Cash Price:

Zone 3: \$3.27

Zone 5: \$3.33

FOM Price:

Zone 3: \$3.17

Zone 5: \$3.34

HDD Budget: 515

HDD to Date: 82

HDD Projected 651

Frontier Meetings:

LNG backup - Monday

Len Gilmore – capacity

UGI Proposal

Piedmont Proposal

Transco

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 65 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.36	\$2.87	\$1.93	\$2.28
AECO	\$2.50	\$1.94	\$1.01	\$1.68
NYMEX	\$3.524 Dec 2018			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 300/dkt/d – Imbalance 1,548/dkt as of 9/1/18

Retail – north pool

4008 – Noming 4,630/dkt/d, flowing 4,790/dkt/d, imbalance -1,833/dkt with a tolerance of 9,661/dkt, storage withdrawals 500/dkt/d, balance is 213,500/dkt

- Mainline #1 is expected to be down for 2-3 months 200-300/dkt day

EWR Customer Updates:

- **Seaboard Foods** – Contract expires 2/28/19 - EWR sent them a proposal, working with them to answer any questions.

Energy West Montana:

2008 – Noming 25,700/dkt/d, flowed 31,235/dkt yesterday, imbalance 10,238/dkt, tolerance of 51,686/dkt, storage withdrawals 5,000/dkt/d, inventory balance 1,089,000/dkt.

- EWM Peaking requirement letters for suppliers

➤ **Winter Supply**

- Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
November 15, 2018
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Drew Waravdekar and Taylor Badgett (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

November Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,800 / day	625 / day	100 / day
DEO	3,666 / day	375 / day	50 / day
TGP	135 / day	-----	-----
OTP	-----	1,300 / day	-----

Blended cost for November

NEO \$2.976 per DTH

Orwell \$3.581 per DTH

Brainard \$2.841 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appalachia \$4.425 Dominion \$4.395 and MichCon \$4.61

Nov18-Mar19 Futures: TCO (\$.228), DEO (\$0.415), MichCon, 0.075

Orwell imbalances: OTP 8,275 DTH, Cobra (6,092) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 788 DTH, Cobra 1,844 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 263,198/dkt (99,660/dkt GTS & 163,538/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (16,709)/dth
- **Spellman Pipeline**
 - Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **November 15, 2018:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of October 31, 2018, is (5,800) dth [Cobra at (12,600), OTP at +7,000, ONG at +340, and Spelman at (640)], which is a decrease of 5,200 dth from last month.
 - b. **Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. It now appears that this will not happen until December, at the earliest. GNR purchased additional gas through TCO to make up for some of the loss of anticipated local production, but the negative imbalance with Cobra continues to grow and additional gas will need to be purchased for the balance of November.**
 - c. **Temperatures have averaged about 10 degrees below normal for most of November and are forecasted to continue that trend for at least the next week. The original customer sales projection for November of 57,100 mcf has been revised to 60,600 mcf to account for the colder weather. The corresponding supply plan for November has been revised to 29,100 dth from North Coast Gas Transmission, 20,300 dth from Columbia Gas Transmission, 5,200 dth from local production, 6,000 dth from Tennessee Gas Pipeline.**
- 2) GNR purchases for **November**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 333 dth/d delivered into North Coast for Lake Hospitals in November – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 67 dth/d delivered into Cobra North Trumbull for Breckenridge in November at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 67 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in November at \$3.23/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 570 dth/d into North Coast to serve customer requirements on OTP in November at NYMEX settle plus \$0.32/dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 195 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in November at NYMEX settle plus \$0.05/dth.

- f. 1-month purchase with Direct Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in November at NYMEX settle minus \$0.07/dth.
- 3) Customer issues; (changes from last week are in bold)
 - a. Grand River Asphalt – the plant is GNR’s largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. Grand River will continue to operate through the end of November, weather permitting.
 - b. GNR Grain Dryers – Grain-drying customers are in full operation. With the wet summer, expectations are for an increase in gas usage over previous years.
 - c. Bowerston Shale – the plant has historically purchased local production gas, which was delivered directly into the facility, to supply a portion of their load. Plant operators recently shut in the local production and their load on Northeast has increased from 180 mcf/d to 260 mcf/d. It is still unclear if this is a permanent change. NEO has purchased an existing steel line that it is upgrading, which will connect to the system serving Bowerston Shale with Dominion East Ohio Gas. This will allow increased competition from Marketers currently doing business with Dominion once the upgrade is complete, which should be sometime around the first of the year. GNR currently serves Bowerston through Tennessee Gas Pipeline. The basis off TGP was NYMEX plus \$0.05 for November.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update November 15, 2018

November Rev Budget – 183,809

November Usage to Date – 86,000

November Forecast – 220,000

November HDD to Date – 355, compared to last year same period 362

Today’s Cash Price – \$10.155 (Algonquin)

Average Cash Price for the month - \$4.32 (Algonquin)

Per Bangor’s Supply Agreement, they have 3,000/d of baseload for November at the Algonquin City Gates Index price of \$3.68, the price was posted in the “Platts” Price guide on the 7th of the month.

They have 60% of their November forecast hedged at an average of \$10.97

Capacity Evaluations

Union bid due November 16, 2018 and TransCanada bid due November 14, 2018.

- Bangor submitted their bid on TransCanada yesterday and also on Union Gas today both for 8,000 dth per day (plus included additional for fuel). Both Pipelines will be awarding capacity in the next couple of weeks.

*Ben is reviewing the Precedent Agreement from PNGTS they have sent us a for review and edits

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

NOVEMBER SUMMARY

Budget: 139,488

Usage to Date: 63,266

Daily Avg Usage: 4,218

Avg Daily Cash Price:

Zone 3: \$3.62

Zone 5: \$3.78

FOM Price:

Zone 3: \$3.17

Zone 5: \$3.34

HDD Budget: 515

HDD to Date: 276

HDD Projected 662

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 134 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$4.53	\$4.30	\$1.99	\$2.28
AECO	\$1.98	\$1.91	\$0.98	\$1.62
NYMEX	\$4.14 Dec 2018			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 300/dkt/d – Imbalance 1,548/dkt as of 9/1/18

Retail – north pool

4008 – Noming 5,130/dkt/d, flowing 5,803/dkt/d, imbalance -6,942/dkt with a tolerance of 10,529/dkt, storage withdrawals 1,000/dkt/d, balance is 209,500/dkt

- Mainline #1 is expected to be down for 2-3 months 200-300/dkt day
- Bumping up 7008 Nominations to 300/dkt/d – GD16
- Bumping up 7(A) purchases to 2,500/dkt/d – GD16

EWR Customer Updates:

- **Seaboard Foods** – Contract expires 2/28/19 - EWR sent them a proposal, working with them to answer any questions.

Energy West Montana:

2008 – Noming 26,450/dkt/d, flowed 19,541/dkt yesterday, imbalance 12,052/dkt, tolerance of 56,127/dkt, storage withdrawals 5,000/dkt/d, inventory balance 1,054,000/dkt.

- EWM Peaking requirement letters for suppliers

➤ **Winter Supply**

- Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
November 29, 2018
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Jeff Heidnik, Greg Slone, Jerry Livengood, Renee Huff and Ted Gambill (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

December Baseload Purchases:

	TCO	DEO	TGP	OTP
NEO	6,435 / day	5,325 / day	190 / day	
Brainard	150 / day	70 / day		
Orwell	1,175 / day	785 / day		3,000 / day

Blended cost for December:

NEO	\$3.501 per DTH
Orwell	\$3.678 per DTH
Brainard	\$2.849 per DTH

The balance of the GTS TCO storage account is 69,903/dth

Daily Price Index: TCO Appilachia \$4.265 Dominion \$4.205 and MichCon \$4.405

Nov18-Mar19 Futures: TCO (\$.209), DEO (\$0.421), MichCon, 0.067

Orwell imbalances: OTP 8,275 DTH, Cobra (6,092) DTH, Spellman 102 DTH,

Brainard Imbalances: OTP 788 DTH, Cobra 1,844 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 232,961/dkt (99,423/dkt GTS & 133,538/dkt FSS)
- **Cobra Pipeline**
 - Imbalance (16,709)/dth
- **Spellman Pipeline**
 - Imbalance 7,646/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for **November 29, 2018:**

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of October 31, 2018, is (5,800) dth [Cobra at (12,600), OTP at +7,000, ONG at +340, and Spelman at (640)], which is a decrease of 5,200 dth from last month.
 - b. **Although Cobra finally has the parts to repair their separation system at the Cobra Churchtown interconnect with TCO, the repair work has not been done and GNR's local production gas is still not flowing on the Churchtown system. Cobra originally expected production gas to flow in October, then November. It now appears that this will not happen until January at the earliest. The lack of local production and colder than normal temperatures in November combined to force GNR to purchase an additional 14,000 dth in November at a price of \$4.87/dth in order to offset the negative imbalance with Cobra.**
 - c. The customer sales projection for December is 54,500 mcf. The corresponding supply plan for December is made up of 28,000 dth from North Coast Gas Transmission, 15,400 dth from Columbia Gas Transmission, 4,600 dth from local production, 7,300 dth from Tennessee Gas Pipeline.
- 2) GNR purchases for **December**; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 452 dth/d delivered into North Coast for Lake Hospitals in December – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 65 dth/d delivered into Cobra North Trumbull for Breckenridge in December at \$3.07/dth.**
 - c. **2-year deal with Elevation - GNR purchasing 65 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in December at \$3.23/dth.**
 - d. **2-year deal with Elevation – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in December at \$3.125/dth.**
 - e. **1-month purchase with Elevation Energy – GNR purchasing 390 dth/d into North Coast to serve customer requirements on OTP in December at NYMEX settle plus \$0.32/dth.**
 - f. **1-month purchase with Elevation Energy – GNR purchasing 70 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in December at NYMEX settle plus \$0.05/dth.**

- g. **1-month purchase with Elevation Energy – GNR purchasing 595 dth/d delivered into multiple TCO interconnects with Cobra Pipeline in December at NYMEX settle plus \$0.123/dth.**
- 3) Customer issues; (changes from last week are in bold)
 - a. **Bowerston Shale – One benefit to the cold early season weather and rising winter gas prices was that Bowerston Shale agreed to a two-year deal with GNR to help offset some of the impact of \$4.50 gas this winter. The 24-month gas supply purchased for Bowerston Shale was at \$3.125 per dth.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update November 29, 2018

November Rev Budget – 183,809

November Usage to Date – 208,037

November Forecast – 224,000

November HDD to Date – 906, compared to last year same period 792

Today's Cash Price – \$5.975 (Algonquin)

Average Cash Price for the month - \$6.105 (Algonquin)

Per Bangor's Supply Agreement, they have 3,000/d of baseload for November at the Algonquin City Gates Index price of \$3.68, the price was posted in the "Platts" Price guide on the 7th of the month.

Bangor has 60% of their November forecast hedged at an average of \$10.97

Capacity Evaluations

- Bangor submitted their bids on TransCanada and Union Gas today both for 8,000 dth per day (and included additional for fuel). They should hear regarding the awarding of Capacity around the first week of December.

*Ben is reviewing the Precedent Agreement from PNGTS. They have sent Bangor a draft agreement for review and edits.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

NOVEMBER SUMMARY

Budget: 139,488

Usage to Date: 140,366

Daily Avg Usage: 5,013

Avg Daily Cash Price:

Zone 3: \$3.99

Zone 5: \$4.21

FOM Price:

Zone 3: \$3.17

Zone 5: \$3.34

HDD Budget: 515
HDD to Date: 603
HDD Projected 653

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net decrease of 59 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$4.17	\$4.14	\$2.08	\$2.32
AECO	\$0.26	\$1.56	\$0.96	\$1.52
NYMEX	\$4.504 Jan 2019		Dec 2018 Close -	\$4.715

South Pool

7008 – Noming 300/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 300/dkt/d, flowing 300/dkt/d – Imbalance 1,786/dkt as of 11/1/18

Retail – north pool

4008 – Noming 5,830/dkt/d, flowing 5,290/dkt/d, imbalance -5,974/dkt with a tolerance of 11,962/dkt, storage withdrawals 1,500/dkt/d, balance is 195,000/dkt

- Effective 12/1, Noming 2,000/dkt/d base for Weyerhaeuser, 500/dkt/d swing, 1,500/dkt/d to EWM and storage 1,500/dkt/d

EWR Customer Updates:

- Seaboard Foods** – Contract expires 2/28/19 – EWR has sent them contracts for management approval – Mar19-Feb20 (evergreen month-to-month) at Aeco 7(A), plus \$0.47.

Energy West Montana:

2008 – Noming 26,450/dkt/d, flowed 21,493/dkt yesterday, imbalance 55,860/dkt, tolerance of 65,345/dkt, storage withdrawals 5,000/dkt/d, inventory balance 984,000/dkt.

- Sent out EWM Peaking requirement letters to suppliers
- Effective 12/1 – swing 3,000/dkt/d and 7,500/dkt/d storage

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC. RISK COMMITTEE MEETING

MINUTES

October 4, 2018

11:30 A.M.

Activities Performed

Present were:

- Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, and Amy Brown (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

October Baseload Purchases:

	Orwell	Brainard	NEO
TCO	422 / day	75 / day	2,085 / day
TGP	---	---	45 / day
DEO	165 / day	25 / day	1,800 / day
OTP	500 / day	---	---

Blended cost per DTH

Orwell	\$2.860 per
Brainard	\$2.863 per
NEO	\$2.690 per

The balance of the GTS TCO storage account is 67,844/dth

Daily Price Index: TCO Appilachia \$3.00 Dominion \$2.085 and MichCon \$3.175

Oct18-Mar19 Futures: TCO (\$.260), DEO (\$0.414), MichCon (0.145)

Orwell imbalances: OTP -1,720 DTH, Cobra 9,241 DTH, Spellman 731 DTH,

Brainard Imbalances: OTP 1,108 DTH, Cobra 2,106 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 257,398/dkt (104,027/dkt GTS & 153,371/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 33,421/dth
- **Spellman Pipeline**
 - Imbalance -5,639/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for October 4, 2018:

- 1) GNR's current imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of July 31, 2018, is +4,504 dth [Cobra at (2,907), OTP at +7,290, ONG at +204, and Spelman at (83)], which is an increase of 6,142 dth from last month.
 - b. The current October sales projection is 51,300 Mcf, which includes a significant amount of gas for GNR's grain dryer customers. The supply plan for October is made up of 23,000 dth from North Coast Gas Transmission, 19,000 dth from local production, 5,000 dth from Tennessee Gas Pipeline, and 1,000 dth from Columbia Gas Transmission.
 - c. The local production from the Cobra Churchtown system, which has been shut in since last November, is still in place. However Cobra is hopeful of having the interconnect with TCO back in operation in October. If this doesn't happen, GNR will be forced to bring in additional gas through TCO to make up about 12,000 dth of anticipated local production.
- 2) GNR purchases for **October**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in October – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in October at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in October at \$3.23/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 450 dth/d into North Coast to serve customer requirements on OTP in October at NYMEX settle plus \$0.05 per dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 160 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in October at NYMEX settle minus \$0.05/dth.
- 3) Customer issues; (changes from last week are in bold)
 - a. Grand River Asphalt – the plant is GNR's largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. Grand River has had a busy summer, requiring them to run both plants several days August and September. This has necessitated close coordination between pipeline supply and the plant's needs.
 - b. Lake Forest Village – still waiting on the customer to sign a new sales agreement at NYMEX plus \$2.04/mcf, although customer is paying the new rate.

- c. **Lake Hospitals – Lake Hospital signed a new 2-yr agreement that will start when the current contract expires December 31, 2018. The deal includes a small rate flex from OTP of \$0.07/Mcf (UPL, who is handling the receivership for OTP, had agreed to a flex rate for Lake Hospitals, but they asked that GNR try to limit the amount of flex). Lake Hospital uses approximately 130,000 mcf per year and is GNR's largest customer.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update October 4, 2018

Sept Rev Budget – 57,466

Sept Final – 47,023

October Rev Budget – 103,516

October Usage to Date – 8,621

October Forecast – 90,000

Today's Cash Price – \$3.255 (Dawn)

October Filed Gas Cost - \$7.02 (energy \$6.54, PGC \$0.48) 40% hedged @\$10.33

Per Bangor's Supply Agreement, they have 1,000/d of baseload for October at the Algonquin City Gates Index price of \$X.XX, the price will be posted in the "Platts" Price guide that comes out around the 7th.

Natural Gas Intelligence "NGI" October 4, 2018 Forward winter Strip for Algonquin City Gates \$8.616

Bangor currently has 40% of their forecasted winter volume October & April secured at an average price of \$10.33 and November through March 50% secured at an average of \$10.68. They will secure another 10% of their forecasted winter volumes November through March by October 31st to bring them to 60% hedge for the winter period. Bangor continues to assess forward market conditions.

Bangor is prepared to bid on the Union Gas Open Season next week, which is due by October 12th, however it is their understanding that TransCanada should be announcing an Open Season downstream of Parkway, and Union Gas is fully prepared to extend their open season if necessary.

1. Union Gas Limited ("Union Gas"), an Enbridge company, announced holding an open season for firm M12 transportation service ("Open Season") for up to 350,000 GJ/d of capacity beginning in 2021 and up to 250,000 GJ/d of capacity beginning in 2022 along the following transportation paths:

(a) Dawn to Parkway; (b) Dawn to Kirkwall; and (c) Kirkwall to Parkway.

Repsol Price update October 4, 2018

1. Fixed price weighted for the volumes and month below **\$12.40**
2. Strip price for 50,000/month November - March **\$ 11.82**

3. Basis quote for Weighted for below volumes - Nymex + **\$9.19**
4. Monthly fixed prices:

Nov 2018 – 9,556	\$7.06
Dec 2018 – 14,405	\$11.50
Jan 2019 – 17,867	\$15.55
Feb 2019 – 14,577	\$15.55
Mar 2019 – 12,822	\$9.45

Frontier Natural Gas:

Amy gave the Committee a supply update for Frontier Natural Gas.

SEPTEMBER SUMMARY

Budget:	88,281
Usage to Date:	82,894
Daily Avg Usage:	2,763
Avg Daily Cash Price:	
Zone 3:	\$2.90
Zone 5:	\$3.03
FOM Price:	
Zone 3:	\$2.85
Zone 5:	\$2.94

HDD Budget:	37
HDD to Date:	11
HDD Projected	11

OCTOBER SUMMARY

Budget:	109,063
Usage to Date:	8,619
Daily Avg Usage:	2,873
Avg Daily Cash Price:	
Zone 3:	\$3.10
Zone 5:	\$3.24
FOM Price:	
Zone 3:	
Zone 5:	

HDD Budget:	236
HDD to Date:	2
HDD Projected	196

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 98 Bcf from the previous week.

Prices	Day	Sum 18	W 18/19	Sum 19
CIG	\$2.87	\$2.46	\$2.47	\$1.95
AECO	\$1.98	\$1.83	\$1.78	\$1.14
NYMEX	\$3.181 Nov 2018			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – imbalance 1,548/dkt as of 9/1/18 – pulling on imbalance.

Retail – north pool

4008 – Noming 3,230/dkt/d, flowing 3,405/dkt/d, imbalance 2,922/dkt with a tolerance of 6,546/dkt, injecting 0/dkt/d into storage, balance is 216,500/dkt

- Mainline #1 still down

EWR Customer Updates:

- **Hexion Missoula MT** – EWR sent a price proposal on August 2nd. Their Current contract expires 10/31/18
- **Montana Rail Link** – Dan continues to work with Van Blakely to convert a portion of MRL's supply from diesel/waste oil fuel to natural Gas.
- **Montana Resources** – Dan has contacted MRI to roll over contract for one more year at Aeco 4(a), plus 0.45. They will be putting out an RFP for MRI, MRL and Washington Corp.
- **Calumet** – Dan contacted Kevin at Calumet to discuss supply options going forward. They are currently in discussions with their current supplier, but have requested an offer from EWR. Dan is in discussions with Jetco to figure out supply options.
- **Seaboard Foods** – Contract expires 2/28/19 – they want to begin discussions on their supply.
- **MT Tunnels** – finalizing their financing to reopen the mine.
- **Shelby Gas** – Sent out RFP, bids are due 10/22/18
- EWR will begin working on contract renewals for customers expiring 10/31/18.
- Dan submitted an indicative bid for Weyerhaeuser, one year Apr19-Mar20 at Aeco 7(a), plus \$0.47

Energy West Montana:

2008 – Noming 19,800/dkt/d, flowed 20,922/dkt yesterday, imbalance 2,811/dkt, tolerance of 37,163/dkt, injecting 0/dkt/d into storage, inventory balance is 1,111,500/dkt.

➤ Winter Supply

- 6/6/18 – Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67 (Jetco)

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
October 11, 2018
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, Fred Steele, Ted Gambill, Taylor Badgett and Drew Waravdekar (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

October Baseload Purchases:

	Orwell	Brainard	NEO
TCO	422 / day	75 / day	2,085 / day
TGP	---	---	45 / day
DEO	165 / day	25 / day	1,800 / day
OTP	500 / day	---	---

Blended cost per DTH

Orwell	\$2.999 per
Brainard	\$2.863 per
NEO	\$2.690 per

Additional Purchases:

1,000/dkt/d for the next 10 days (10,000/dkt) at \$3.49 through NC

The balance of the GTS TCO storage account is 68,341/dth

Daily Price Index: TCO Appalachia \$3.09 Dominion \$2.78 and MichCon \$3.37

Oct18-Mar19 Futures: TCO (\$.266), DEO (\$0.391), MichCon (0.041)

Orwell imbalances: OTP 1,393 DTH, Cobra 3,613 DTH, Spellman 635 DTH,

Brainard Imbalances: OTP 957 DTH, Cobra 2,322 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 259,518dkt (103,763/dkt GTS & 155,755/dkt FSS)
- **Cobra Pipeline**
 - Imbalance 25,333/dth

➤ **Spellman Pipeline**

- Imbalance 4,355/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for October 11, 2018:

- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of September 30, 2018, is (556) dth [Cobra at (4,326), OTP at +3,198, ONG at +700, and Spelman at (128)], which is a decrease of 5,060 dth from last month.**
 - b. **Actual September gas sales ended up at 47,200 Mcf, which was 4,300 Mcf higher than the 42,900 forecast for the month.**
 - c. The current October sales projection is 51,300 Mcf, which includes a significant amount of gas for GNR's grain dryer customers. The supply plan for October is made up of 23,000 dth from North Coast Gas Transmission, 19,000 dth from local production, 5,000 dth from Tennessee Gas Pipeline, and 1,000 dth from Columbia Gas Transmission.
 - d. **The local production from the Cobra Churchtown system, which has been shut in since last November, is still in place. However Cobra has finally received the parts to repair their separation system and is hopeful of having the interconnect with TCO back in operation in November. Cobra previously indicated this would happen in October, so GNR will be forced to purchase additional gas through TCO to make up about 12,000 dth of anticipated local production.**
- 2) GNR purchases for **October**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in October – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in October at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in October at \$3.23/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 450 dth/d into North Coast to serve customer requirements on OTP in October at NYMEX settle plus \$0.05 per dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 160 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in October at NYMEX settle minus \$0.05/dth.
- 3) Customer issues; (changes from last week are in bold)

- a. **Grand River Asphalt** – the plant is GNR’s largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. **Grand River’s busy season is continuing into October as they have been running both plants most of this past week.**
- b. **Lake Forest Village** – still waiting on the customer to sign a new sales agreement at NYMEX plus \$2.04/mcf, although customer is paying the new rate.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update October 11, 2018

October Rev Budget – 103,516

October Usage to Date – 25,700

October Forecast – 105,000

Today’s Cash Price – \$3.36 (Dawn)

Average Cash Price for the month - \$3.177 (Dawn)

Per Bangor’s Supply Agreement, they have 1,000/d of baseload for October at the Algonquin City Gates Index price of \$3.46, the price was posted in the “Platts” Price guide from October 5th.

Natural Gas Intelligence “NGI” October 11, 2018 Forward winter Strip for Algonquin City Gates \$8.407

Bangor has 40% of their forecasted winter volume October & April secured at an average price of \$10.33 and November through March 60% secured at an average of \$10.97. They are continuing to assess forward market conditions.

Union Gas announced yesterday that they are extending their Open Season. All bids are now due by November 16th. Bangor is still waiting on an announcement from TransCanada regarding an Open Season downstream of Parkway.

Jerry and Renee will be meeting with some of the folks from Union Gas on October 23rd. They will continue to update the Committee.

1. Union Gas Limited (“Union Gas”), an Enbridge company, announced holding an open season for firm M12 transportation service (“Open Season”) for up to 350,000 GJ/d of capacity beginning in 2021 and up to 250,000 GJ/d of capacity beginning in 2022 along the following transportation paths:

(a) Dawn to Parkway; (b) Dawn to Kirkwall; and (c) Kirkwall to Parkway.

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

OCTOBER SUMMARY

Budget: 109,063

Usage to Date: 30,938

Daily Avg Usage: 3,094

Avg Daily Cash Price:

Zone 3: \$3.17

Zone 5: \$3.28

FOM Price:

Zone 3: \$2.96

Zone 5: \$3.05

HDD Budget: 236

HDD to Date: 3

HDD Projected 257

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 90 Bcf from the previous week. Prices were down around 12 cents.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.25	\$2.70	\$1.93	\$2.26
AECO	\$1.68	\$1.91	\$1.05	\$1.66
NYMEX	\$3.165 Nov 2018			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – imbalance 1,548/dkt as of 9/1/18 – plans to have imbalance zeroed out by the end of the month.

Retail – north pool

4008 – Noming 3,193/dkt/d, flowing 4,626/dkt/d, imbalance -926/dkt with a tolerance of 7,513/dkt, injecting 0/dkt/d into storage, balance is 216,500/dkt

- Mainline #1 still down
- GD10 bump 7A purchases to 1,700/d – Weyerhaeuser volumes

EWR Customer Updates:

- **Hexion Missoula MT** – EWR sent a price proposal on August 2nd. Their Current contract expires 10/31/18
- **Montana Rail Link** – Dan continues to work with Van Blakely to convert a portion of MRL's supply from diesel/waste oil fuel to natural Gas.
- **Montana Resources** – Dan has contacted MRI to roll over contract for one more year at Aeco 4(a), plus 0.45. They will be putting out an RFP for MRI, MRL and Washington Corp.

- **Calumet** – Dan contacted Kevin at Calumet to discuss supply options going forward. They are currently in discussions with their current supplier, but have requested an offer from EWR. Dan is in discussions with Jetco to figure out supply options.
- **Seaboard Foods** – Contract expires 2/28/19 – they want to begin discussions on their supply.
- **MT Tunnels** – finalizing their financing to reopen the mine.
- **Shelby Gas** – Sent out RFP, bids are due 10/22/18
- EWR is working on contract renewals for customers expiring 10/31/18.
 - Butte Plaza Inn, Grant Creek Inn and Lantis Enterprises, Healthcare Facilities – committed for one-year, Nov18-Oct19 at \$2.35
- Dan submitted an indicative bid for Weyerhaeuser, one year Apr19-Mar20 at Aeco 7(a), plus \$0.47

Energy West Montana:

2008 – Noming 19,300/dkt/d, flowed 21,233/dkt yesterday, imbalance 9,358/dkt, tolerance of 43,226/dkt, injecting 0/dkt/d into storage, inventory balance is 1,111,500/dkt.

- Northwestern Energy's maintenance project will be completed by Saturday. Some TransCanada restrictions will remain in effect.

➤ **Winter Supply**

- 6/6/18 – Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67 (Jetco)

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
October 18, 2018
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Jeff Heidnik, Greg Slone, Renee Huff, Fred Steele, and Drew Waravdekar (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

October Baseload Purchases:

	Orwell	Brainard	NEO
TCO	422 / day	75 / day	2,085 / day
TGP	---	---	45 / day
DEO	165 / day	25 / day	1,800 / day
OTP	500 / day	---	---

Blended cost per DTH

Orwell	\$3.14 per
Brainard	\$2.863 per
NEO	\$2.690 per

Additional Purchases:

1,000/dkt/d for the next 10 days (10,000/dkt) at \$3.49 through NC

10,550/dkt at \$3.75 through NC

5,632/dkt at \$3.25 – September reallocation

The balance of the GTS TCO storage account is 68,838/dth

Daily Price Index: TCO Appalachia \$3.16 Dominion \$3.07 and MichCon \$3.41

Nov18-Mar19 Futures: TCO (\$.237), DEO (\$0.373), MichCon (0.018)

Orwell imbalances: OTP 1,393 DTH, Cobra 3,613 DTH, Spellman 635 DTH,

Brainard Imbalances: OTP 957 DTH, Cobra 2,322 DTH

Northeast Ohio (NEO):

➤ **TCO System (Columbia Transmission Co)**

- Balance of two storage accounts is 259,257/dkt (101,101/dkt GTS & 158,156/dkt FSS)

- **Cobra Pipeline**
 - Imbalance 25,333/dth
- **Spellman Pipeline**
 - Imbalance 4,355/dth

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Greg gave the Committee a supply update for GNR.

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- 1) GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of September 30, 2018, is (556) dth [Cobra at (4,326), OTP at +3,198, ONG at +700, and Spelman at (128)], which is a decrease of 5,060 dth from last month.
 - b. **The local production from the Cobra Churchtown system, which has been shut in since last November, is still in place. However Cobra has finally received the parts to repair their separation system and is hopeful of having the interconnect with TCO back in operation in November. Cobra previously indicated this would happen in October, so GNR purchased additional gas through TCO to make up for the loss of anticipated local production.**
 - c. **The current October sales projection has been revised upward from 51,300 Mcf to 56,500 Mcf, due to increased asphalt drying and grain drying. The revised supply plan for October is made up of 23,000 dth from North Coast Gas Transmission, 6,000 dth from local production, 5,000 dth from Tennessee Gas Pipeline, and 22,000 dth from Columbia Gas Transmission.**
- 2) GNR purchases for **October**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in October – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in October at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in October at \$3.23/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 450 dth/d into North Coast to serve customer requirements on OTP in October at NYMEX settle plus \$0.05 per dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 160 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in October at NYMEX settle minus \$0.05/dth.

- f. **1-month purchase with Elevation Energy – GNR purchasing 1,420 dth/d for gas day 17 through gas day 31 at a price of \$3.37 per dth.**
- 3) Customer issues; (changes from last week are in bold)
 - a. Grand River Asphalt – the plant is GNR’s largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. Grand River’s busy season is continuing into October as they having been running both plants most of this past week.
 - b. **GNR Grain Dryers – Grain-drying customers are in full operation. With the wet summer, expectations are for an increase in gas usage over previous years.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update October 18, 2018

October Rev Budget – 103,516

October Usage to Date – 52,500

October Forecast – 110,000

Today’s Cash Price – \$3.455 (Dawn)

Average Cash Price for the month - \$3.199 (Dawn)

Per Bangor’s Supply Agreement, they have 1,000/d of baseload for October at the Algonquin City Gates Index price of \$3.46, the price was be posted in the “Platts” Price guide from October 5th.

Natural Gas Intelligence “NGI” October 18, 2018 Forward winter Strip for Algonquin City Gates \$8.276

Bangor has 40% of their forecasted winter volume October & April secured at an average price of \$10.33 and November through March 60% secured at an average of \$10.97. They continue to assess forward market conditions.

***Union Gas** announced that they are extending their Open Season. All bids are now due by November 16th

Jerry and Renee will be meeting with some of the folks from Union Gas on October 23rd.

1. Union Gas Limited (“Union Gas”), an Enbridge company, announced holding an open season for firm M12 transportation service (“Open Season”) for up to 350,000 GJ/d of capacity beginning in 2021 and up to 250,000 GJ/d of capacity beginning in 2022 along the following transportation paths:

(a) Dawn to Parkway; (b) Dawn to Kirkwall; and (c) Kirkwall to Parkway.

***TransCanada** announced this week new capacity open season for firm transportation.

Receipt and Delivery Points:

TransCanada is soliciting service requests from the Empress, Dawn, Parkway and Niagara/Chippawa receipt points to any valid delivery point on the Mainline

System. For any alternative paths, please contact your customer account manager.

Estimated New Capacity (GJ/d) and New Service Start Dates:

CDA

Up to approximately 600,000 GJ/d for November 1, 2022, of which up to 325,000 GJ/d is available for November 1, 2021.

EDA / Iroquois

Up to approximately 500,000 GJ/d for November 1, 2022

Energir EDA / East Hereford

Up to approximately 30,000 GJ/d for November 1, 2022

Bids are due November 14, 2018 by 1 pm Eastern Standard time

Repsol Price update October 15, 2018

1. Fixed price weighted for the volumes and month below \$12.35
2. Strip price for 50,000/month November - March \$11.79
3. Basis quote for Weighted for below volumes - Nymex + \$9.05
4. Monthly fixed prices:

Nov 2018 – 28,669	\$7.21
Dec 2018 – 43,216	\$11.51
Jan 2019 – 53,600	\$15.38
Feb 2019 – 43,733	\$15.38
Mar 2019 – 38,467	\$9.46

Frontier Natural Gas:

Drew gave the Committee a supply update for Frontier Natural Gas.

OCTOBER SUMMARY

Budget: 109,063

Usage to Date: 50,724

Daily Avg Usage: 2,984

Avg Daily Cash Price:

Zone 3: \$3.18

Zone 5: \$3.26

FOM Price:

Zone 3: \$2.96

Zone 5: \$3.05

HDD Budget: 236

HDD to Date: 49

HDD Projected 264

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 81 Bcf from the previous week. Prices were down 9 cents.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.14	\$2.79	\$1.96	\$2.28
AECO	\$0.33	\$1.94	\$1.09	\$1.68
NYMEX	\$3.228 Nov 2018			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 0/dkt/d – imbalance 1,548/dkt as of 9/1/18 – plans to have imbalance zeroed out by the end of the month.

Retail – north pool

4008 – Noming 3,530/dkt/d, flowing 3,920/dkt/d, imbalance -3,218/dkt with a tolerance of 8,394/dkt, injecting 0/dkt/d into storage, balance is 216,500/dkt

- Mainline #1 still down
- Bumped up 7(A) purchases to 2,000/dkt/d GD17
- Effective GD20, starting to zero Glacier imbalance. Looks like Glacier just came on line – getting information.

EWR Customer Updates:

- **Hexion Missoula MT** – EWR sent a price proposal on August 2nd. Their Current contract expires 10/31/18
- **Montana Rail Link and Washington Corp** – rolled over contract for one more year, Nov18-Oct19 at Aeco 4(a), plus 0.45.
- **Montana Resources** – rolled over contract for one more year, Nov18-Oct19 at Aeco 4(a), plus 0.45.
- **Seaboard Foods** – Contract expires 2/28/19 – EWR sent them a proposal
- **MT Tunnels** – finalizing their financing to reopen the mine.
- **Shelby Gas** – Sent out RFP, bids are due 10/22/18 – working with Jetco
- EWR is working on contract renewals for customers expiring 10/31/18.
 - Esplanade, Hamilton Schools, Solvay USA, Sun Mountain Lumber, Hilton Garden Inn renewed, Nov18-Oct19
- Dan submitted an indicative bid for Weyerhaeuser, one year Apr19-Mar20 at Aeco 7(a), plus \$0.47

Energy West Montana:

2008 – Noming 19,300/dkt/d, flowed 15,153/dkt yesterday, imbalance 10,172/dkt, tolerance of 48,129/dkt, injecting 0/dkt/d into storage, inventory balance is 1,111,500/dkt.

➤ Winter Supply

- 6/6/18 – Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67 (Jetco)

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
October 25, 2018
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Greg Slone, Jerry Livengood, Renee Huff, and Drew Waravdekar (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

October Baseload Purchases:

	Orwell	Brainard	NEO
TCO	422 / day	75 / day	2,085 / day
TGP	---	---	45 / day
DEO	165 / day	25 / day	1,800 / day
OTP	500 / day	---	---

Blended cost per DTH

Orwell	\$3.225 per
Brainard	\$2.863 per
NEO	\$2.690 per

Additional Purchases:

6,000/dkt at \$3.75 - Orwell

The balance of the GTS TCO storage account is 69,335/dth

Daily Price Index: TCO Appalachia \$3.205 Dominion \$3.17 and MichCon \$3.53

Nov18-Mar19 Futures: TCO (\$.234), DEO (\$0.371), MichCon, 0.105

October HDD to date - 400, last year same time-period 270

Orwell imbalances: OTP 1,393 DTH, Cobra 3,613 DTH, Spellman 635 DTH,

Brainard Imbalances: OTP 957 DTH, Cobra 2,322 DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 257,957/dkt (97,400/dkt GTS & 160,557/dkt FSS)
- **Cobra Pipeline**

- Imbalance 25,333/dth
- **Spellman Pipeline**
- Imbalance 4,355/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for October 25, 2018:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of September 30, 2018, is (556) dth [Cobra at (4,326), OTP at +3,198, ONG at +700, and Spelman at (128)], which is a decrease of 5,060 dth from last month.
 - b. The local production from the Cobra Churchtown system, which has been shut in since last November, is still in place. However Cobra has finally received the parts to repair their separation system and is hopeful of having the interconnect with TCO back in operation in November. Cobra previously indicated this would happen in October, so GNR purchased additional gas through TCO to make up for the loss of anticipated local production.
 - c. The current October sales projection has been revised upward from 51,300 Mcf to 56,500 Mcf, due to increased asphalt drying and grain drying. The revised supply plan for October is made up of 23,000 dth from North Coast Gas Transmission, 6,000 dth from local production, 5,000 dth from Tennessee Gas Pipeline, and 22,000 dth from Columbia Gas Transmission.
- 2) GNR purchases for **October**; (changes from last week are in bold)
 - a. 2-year deal with Elevation - GNR purchasing 258 dth/d delivered into North Coast for Lake Hospitals in October – the price is 50% at \$3.28/dth and 50% at NYMEX plus \$0.23/dth.
 - b. 3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in October at \$3.07/dth.
 - c. 2-year deal with Elevation - GNR purchasing 32 dth/d delivered into North Coast Gas Transmission for the Lake County YMCA in October at \$3.23/dth.
 - d. 1-month purchase with Elevation Energy – GNR purchasing 450 dth/d into North Coast to serve customer requirements on OTP in October at NYMEX settle plus \$0.05 per dth.
 - e. 1-month purchase with Direct Energy – GNR purchasing 160 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in October at NYMEX settle minus \$0.05/dth.
 - f. 1-month purchase with Elevation Energy – GNR purchasing 1,420 dth/d for gas day 17 through gas day 31 at a price of \$3.37 per dth.

- g. 1-month purchase with Elevation Energy – GNR purchasing 120 dth/d for gas day 23 through gas day 31 at a price of \$3.40 per dth.
 - h. Initial offers for November gas indicates a significant increase in the basis on Northcoast. The October basis was \$0.05 per dth, while the November basis has jumped to \$0.34 per dth.
- 3) Customer issues; (no changes from last week)
- a. Grand River Asphalt – the plant is GNR’s largest summer load and can burn over 1,000 mcf/d when both aggregate dryers are utilized. Grand River’s busy season is continuing into October as they having been running both plants most of this past week.
 - b. GNR Grain Dryers – Grain-drying customers are in full operation. With the wet summer, expectations are for an increase in gas usage over previous years.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update October 25, 2018

October Rev Budget – 103,516

October Usage to Date – 90,800

October Forecast – 125,000

October HDD to date - 426, last year same time-period 211

Today’s Cash Price – \$4.18 (Algonquin)

Average Cash Price for the month - \$3.271 (Dawn)

Per Bangor’s Supply Agreement, they have 1,000/d of baseload for October at the Algonquin City Gates Index price of \$3.46, the price was be posted in the “Platts” Price guide from October 5th.

Natural Gas Intelligence “NGI” October 25, 2018 Forward winter Strip for Algonquin City Gates \$7.925

Bangor has 40% of their forecasted winter volume October & April secured at an average price of \$10.33 and November through March 60% secured at an average of \$10.97. They continue to assess forward market conditions.

Capacity Evaluations

Jerry and Renee met with Union Gas on Tuesday and they walked them through their Open Season and bid process. Jerry and Renee also had a call with TransCanada and they provided them with the same information. Bangor’s plan is to bid on both Open Seasons by the third week of November. Union bid is due November 16, 2018 and TransCanada bid is due November 14, 2018.

The full path is as follows....

*Union Gas - Dawn to Parkway

*TransCanada - Union Parkway Belt to East Hereford

*PNGTS – East Hereford to Westbrook Maine

*MNE – Westbrook to BNG

Next steps...

*Contact "PNGTS" Portland Natural Gas Transmission System and request a contract with them.

*Prepare a cover letter to submit with each bid and include any requests such as; if capacity is available earlier then in-service date Bangor would like it. Any conditions such as; securing upstream and downstream capacity, Regulatory approval, full rate recovery, corporate approval.

*TransCanada requires a deposit with all bids

Next week when Len Gilmore from LMG Consulting is here, Jerry and Renee will go over the Open Seasons with him and have him review the documents.

Frontier Natural Gas:

Drew gave the Committee a supply update for Frontier Natural Gas.

OCTOBER SUMMARY

Budget: 109,063

Usage to Date: 77,727

Daily Avg Usage: 3,239

Avg Daily Cash Price:

Zone 3: \$3.20

Zone 5: \$3.28

FOM Price:

Zone 3: \$2.96

Zone 5: \$3.05

HDD Budget: 236

HDD to Date: 153

HDD Projected 266

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 58 Bcf from the previous week.

Prices	Day	W 18/19	Sum 19	W 19/20
CIG	\$3.16	\$2.79	\$1.95	\$2.28
AECO	(\$0.14)	\$1.74	\$1.00	\$1.64
NYMEX	\$3.193 Nov 2018			

South Pool

7008 – Noming 129/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 350/dkt/d, flowing 350/dkt/d

Retail – north pool

4008 – Noming 3,830/dkt/d, flowing 3,504/dkt/d, imbalance -1,114/dkt with a tolerance of 8,906/dkt, injecting 0/dkt/d into storage, balance is 216,500/dkt

- Mainline #1 is expected to be down for seven months 200-300/dkt day
- Effective GD25, dropped 7(a) to 1,700/dkt/d and 5(a) to 1,400/dkt/d
- Effective GD25, resumed flow/sales on Glacier 350/dkt/d

EWR Customer Updates:

- **Hexion Missoula MT** – EWR sent a price proposal on August 2nd, results today
- **Montana Rail Link and Washington Corp** – rolled over contract for one more year, Nov18-Oct19 at Aeco 4(a), plus 0.45.
- **Montana Resources** – rolled over contract for one more year, Nov18-Oct19 at Aeco 4(a), plus 0.45.
- **Seaboard Foods** – Contract expires 2/28/19 – EWR sent them a proposal
- **Shelby Gas** – Sent out proposal on 10/22/18 - results today
- EWR is working on contract renewals for customers expiring 10/31/18.

Energy West Montana:

2008 – Noming 19,600/dkt/d, flowed 14,624/dkt yesterday, imbalance 35,394/dkt, tolerance of 49,867/dkt, injecting 0/dkt/d into storage, inventory balance is 1,111,500/dkt.

➤ **Winter Supply**

- Fixed 3,000/dkt/d, Nov18-Mar19 at \$1.67

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
September 5, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Ken Oostman, Jerry Livengood, Renee Huff, Ted Gambill and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

September Baseload Purchases:

	NEO	Orwell	Brainard
TCO	500/day	290/day	0/day
DEO	730/day	165/day	25/day
OTP	0/day	225/day	0/day
TGP	5/day	0/day	0/day

September blended Cost per DTH

NEO	\$1.807
Orwell	\$1.986
Brainard	\$1.751

Daily Price Index: TCO Appalachia \$2.00 Dominion \$1.835 and MichCon \$2.18

Oct19-Mar20 Futures: TCO (\$.304), DEO (\$0.422), MichCon (\$0.149)

Orwell imbalances: OTP & NC: 42,445 DTH, Cobra (9,831) DTH, Spellman 447 DTH,

Brainard Imbalances: OTP & NC: 543 DTH, Cobra 1,455 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 238,302/dkt (74,513/dth GTS & 163,789/dth FSS, (done injecting, storage full)
- **Cobra Pipeline**
 - Imbalance 52,900/dth
- **Spellman Pipeline**
 - Imbalance (11,931)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for September 5, 2019:

- 1) GNR's current supply and imbalance position; (no changes from last week)
 - a. GNR's combined imbalance position as of July 31, 2019, is +8,694 dth [Cobra at +1,721 dth, OTP at +7,093 mcf, Spelman at (62) dth and ONG at (58) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of June 30, 2019, was +10,300 dth so this represents a decrease of 1,606 dth from June's position.
 - b. GNR's original customer sales projection for August was 33,600 mcf. The updated mid-month forecast has been lowered to 32,800 mcf, due to a forecasted reduction for Painesville Schools. In previous years, the school system ran their hydronic boilers in the summer to improve indoor air comfort. This year in a cost savings effort, the boilers were not operated. The supply plan for August consists of 18,200 dth from North Coast Gas Transmission, 6,000 dth from Columbia Gas Transmission, 6,700 dth from Tennessee Gas Pipeline and 5,100 dth from local production.
- 2) GNR purchases for **September**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in September – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in September at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in September at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 15 dth/d into North Coast to serve Lake Co. YMCA in September at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in September at NYMEX settle minus \$0.06/dth. (basis down \$0.02/dth from August)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in September at NYMEX settle minus \$0.225/dth. (basis down \$0.045/dth from August)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 315 dth/d delivered into the TCO/Cobra North Trumbull interconnect and multiple grain dryer meters in September at NYMEX settle minus \$0.25/dth. (basis down \$0.09/dth from August)

- h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.
- 3) Customer issues; (changes from last week are in bold)
 - a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for September is \$2.251/dth, up \$0.11 from August, but GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in September was NYMEX minus \$0.06/dth, so GNR's margin on its variable rate agreements should be at least \$0.38/dth, a \$0.02/dth increase from last month.
 - c. Grain drying season will be starting up in September, although indications are that drying will start a little later this year than normal, due to the wet spring and early summer, which delayed planting for many farmers.
 - d. **Component Repair Technologies (CRT) contacted GNR about changing their contract rate from a variable rate to a fixed rate. CRT has been on a month-to-month contract for several years. They currently pay NYMEX plus \$1.79 per Mcf. GNR has provided the customer with an indicative fixed price proposal for a 24-month term. CRT has the ability to switch to Dominion, but Orwell has the customer under contract through February 2021.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update September 5, 2019

August Rev Budget – 33,750

August Actual – 36,094

September Rev Budget – 63,492

Usage to date – 5,152

September Forecast - 50,000

Nominating 1,500/day for Veazie,

September HDD to date 15, last year same period 0

Today's Cash Price – \$2.02 (Algonquin)

Average Cash Price to date - \$1.982 (Algonquin)

Bangor has no hedged volumes or baseload requirements for September

Natural Gas Intelligence "NGI" September 5, 2019 Forward winter Strip for Algonquin City Gates \$6.399

They have secured 40 % of their bundled forecast for Oct through April at an average of 7.49.

They will secure another 20% of their forecasted bundled volumes Nov – Mar by the end of October.

Capacity Updates...

Monday the 9th, Bangor has a Technical conference on intervenor testimony and bench analysis.

Emera Price Quote September 5, 2019

1. Fixed price weighted for the volumes and month below **\$8.43**
2. Strip price for 50,000/month November - March **\$8.16**
3. Basis quote for Weighted for below volumes - Nymex + **\$5.78**
4. Monthly fixed prices:

Nov 2019 – 10,304	\$5.36
Dec 2019 – 15,146	\$8.01
Jan 2020 – 18,005	\$10.16
Feb 2020 – 15,526	\$10.12
Mar 2020 – 12,990	\$6.92

Frontier Natural Gas:

Ted gave the Committee a supply update for Frontier Natural Gas.

AUGUST SUMMARY

Budget: 65,115
 Usage to Date: 70,703
 Daily Avg Usage: 2,281
 Avg Daily Cash Price:
 Zone 3: \$2.15
 Zone 5: \$2.24
 FOM Price:
 Zone 3: \$2.08
 Zone 5: \$2.18
 HDD Budget: 4
 HDD to Date: 32
 HDD Projected: 32
 HDD this time last year: 16

SEPTEMBER SUMMARY

Budget: 97,072
 Usage to Date: 9,165
 Daily Avg Usage: 2,291
 Avg Daily Cash Price:
 Zone 3: \$2.29
 Zone 5: \$2.37
 FOM Price:
 Zone 3: TBD
 Zone 5: TBD
 HDD Budget: 37

HDD to Date: 7
HDD Projected: 20
HDD this time last year: 0

FNGC is sending out their supply RFP today. Their current supply contract ends March 31, 2019.

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 84 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.78	\$1.84	\$2.28	\$1.73
AECO	\$0.46	\$1.33	\$1.64	\$1.22
NYMEX	\$2.435 - Oct 2019			

South Pool

7008 – Noming 200/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 200/dkt/d, flowing 0/dkt/d – Imbalance 1,249/dkt as of 8/1/19

- Glacier down - dropped nom to zero

Retail – north pool

4008 – Noming 4,941/dkt/d, flowing 4,433/dkt/d, imbalance 8,333/dkt with a tolerance of 5,491/dkt, injecting 2,000/dkt/d into storage, balance is 212,650/dkt

- Dropped swing purchases to 1,000 GD6, increased storage to 2,500
- Weyerhaeuser's facility has been down due to a fire, just getting back up

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Dan gave them indicative prices for the winter of Nov19-Oct20 of 7(A) +\$0.85 and 5(A) +\$0.80. Dan had a conference call on September 4th to discuss pricing options.
- Dan is working with Jetco to secure winter peaking supply.
- **Montana Resources** – Dan is working to secure a fixed price deal for MRI.
- **Hill Top Colony** – made the decision to go back to the Utility
- **Rhodia/Solvay** – contract expires 10/31/19 – they are building a new facility, which will require more gas, 400/dkt/d. Facility should be on line Mid-summer next year. Dan is communicating with the Dan Bersanti (Manager).

Energy West Montana:

2008 – Noming 13,800/dkt/d, flowed 13,993/dkt yesterday, imbalance 10,978/dkt, tolerance of 26,678/dkt, injecting 4,000/dkt/d into storage, inventory balance 1,000,000/dkt

- Dan is managing swing purchases to fill storage
- Carway curtailments continue in October through the first part of November (50% firm)

- EWST continues to focus on their Long-term supply planning for Energy West Montana.
 - Management had a conference call on 8/29/19 with TransCanada to discuss capacity options. TransCanada will send them the paperwork to move forward with additional Nova Capacity.
 - Plans to set up a face to face meeting with Jetco and Tenaska regarding supply

West Yellowstone:

Tyler gave the Committee a supply update for West Yellowstone.

West Yellowstone is going through the first month of scheduling loads with Prometheus.

Jay at Jetco reached out to West Yellowstone regarding their supply concerns stated in the termination letter with North Shore Exploration (formerly Merit). Tyler assured them that the majority of the LNG supply would continue to come from the Kirkwood Painter Plant (Merit) if available and not looking for other sources.

The September gas costs will be 2 cents more per gallon, but winter will look better.

Cut Bank Gas:

Plans to shut in wells in October – November to avoid freezing

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
September 12, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne and Mary Stanich
- Dan Hickman, Mike Zappitello, Ken Oostman, Jerry Livengood, Renee Huff, Taylor Younger, Ted Gambill and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

September Baseload Purchases:

	NEO	Orwell	Brainard
TCO	500/day	290/day	0/day
DEO	730/day	165/day	25/day
OTP	0/day	225/day	0/day
TGP	5/day	0/day	0/day

September blended Cost per DTH

NEO	\$1.807
Orwell	\$1.986
Brainard	\$1.751

Daily Price Index: TCO Appalachia \$2.38 Dominion \$2.00 and MichCon \$2.37

Oct19-Mar20 Futures: TCO (\$.307), DEO (\$.439), MichCon (\$.153)

Orwell imbalances: OTP & NC: 42,074 DTH, Cobra (9,323) DTH, Spellman 783 DTH,

Brainard Imbalances: OTP & NC: 543 DTH, Cobra 1,507 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 236,807/dkt (73,018/dth GTS & 163,789/dth FSS, (done injecting, storage full)
- **Cobra Pipeline**
 - Imbalance 44,348/dth
- **Spellman Pipeline**
 - Imbalance (3,728)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR by email.

GNR Weekly Risk Report for September 12, 2019:

1. GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. **GNR's combined imbalance position as of August 31, 2019, is +8,269 dth [Cobra at +2,860 dth, OTP at +5,833 mcf, Spelman at (89) dth and ONG at (335) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of July 31, 2019, was +8,694 dth so this represents a decrease of 425 dth from July's position.**
 - b. **Total gas sales for GNR in August was 34,882 mcf, a 4% increase over GNR's original customer sales projection for August of 33,600 mcf.**
 - c. **September gas sales are projected to be 39,600 mcf, as some grain dryers begin their fall drying season. The supply plan for September consists of 18,900 dth from North Coast Gas Transmission, 10,450 dth from Columbia Gas Transmission, 6,450 dth from Tennessee Gas Pipeline and 5,200 dth from local production.**
2. GNR purchases for **September**; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in September – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in September at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in September at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 15 dth/d into North Coast to serve Lake Co. YMCA in September at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in September at NYMEX settle minus \$0.06/dth. (basis down \$0.02/dth from August)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in September at NYMEX settle minus \$0.225/dth. (basis down \$0.045/dth from August)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 315 dth/d delivered into the TCO/Cobra North Trumbull interconnect and multiple grain dryer meters in September at NYMEX settle minus \$0.25/dth. (basis down \$0.09/dth from August)
 - h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.

3. Customer issues; (changes from last week are in bold)
 - a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for September is \$2.251/dth, up \$0.11 from August, but GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in September was NYMEX minus \$0.06/dth, so GNR's margin on its variable rate agreements should be at least \$0.38/dth, a \$0.02/dth increase from last month.
 - c. Grain drying season will be starting up in September, although indications are that drying will start a little later this year than normal, due to the wet spring and early summer, which delayed planting for many farmers.
 - d. **Component Repair Technologies (CRT) agreed to a one-year fixed price contract with GNR at a fixed rate of \$4.54 per Mcf starting October 1, 2019. CRT had been on a month-to-month contract for several years at a variable rate price of NYMEX plus \$1.79 per Mcf. This deal has a physical hedge for the customer's annual usage of approximately 30,000 mcf per year. GNR's margin for this deal is approximately \$0.30 per Mcf.**

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update September 12, 2019

September Rev Budget – 63,492

Usage to date – 16,708

September Forecast - 50,000

Nominating 1,500/day for Veazie,

September HDD to date 58, last year same period 12

Today's Cash Price – \$2.345 (Algonquin)

Average Cash Price to date - \$2.066 (Algonquin)

Bangor has no hedged volumes or baseload requirements for September

Natural Gas Intelligence "NGI" September 12, 2019 Forward winter Strip for Algonquin City Gates \$6.568

They have secured 40 % of their bundled forecast for Oct through April at an average of \$7.49.

They will to secure another 20% of their forecasted bundled volumes Nov – Mar by the end of October.

Capacity Updates...

Bangor have a settlement conference scheduled for next week on the 18th.

Emera Price Quote September 12, 2019

1. Fixed price weighted for the volumes and month below **\$8.53**

2. Strip price for 50,000/month November - March \$8.06
3. Basis quote for Weighted for below volumes - Nymex + \$5.72
4. Monthly fixed prices:

Nov 2019 – 10,304	\$5.16
Dec 2019 – 15,146	\$8.06
Jan 2020 – 18,005	\$10.39
Feb 2020 – 15,526	\$10.35
Mar 2020 – 12,990	\$6.98

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

SEPTEMBER SUMMARY

Budget:	97,072
Usage to Date:	27,892
Daily Avg Usage:	2,536
Avg Daily Cash Price:	
Zone 3:	\$2.40
Zone 5:	\$2.50
FOM Price:	
Zone 3:	\$2.19
Zone 5:	\$2.28
HDD Budget:	37
HDD to Date:	13
HDD Projected	27
HDD this time last year:	3

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 78 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$2.06	\$1.94	\$2.36	\$1.77
AECO	\$0.51	\$1.25	\$1.69	\$1.21
NYMEX	\$2.575 - Oct 2019			

South Pool

7008 – Noming 0/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 0/dkt/d, flowing 250/dkt/d – Imbalance 1,249/dkt as of 8/1/19

- Glacier line back up – resuming nominations

Retail – north pool

4008 – Noming 3,391/dkt/d, flowing 4,149/dkt/d, imbalance 3,260/dkt with a tolerance of 5,826/dkt, injecting 1,000/dkt/d into storage, balance is 226,150/dkt

- Strawberry Creek down should be up this week

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. They are exploring their options.
- Dan is working with Jetco to secure winter peaking supply.
- **Montana Resources** – Dan submitted a price proposal to MRI for review.
- **Rhodia/Solvay** – contract expires 10/31/19 – they are building a new facility, which will require more gas, 400/dkt/d. Facility should be on line Mid-summer next year. They renewed their current contract for one year, Nov19-Oct20 at \$2.50.

Energy West Montana:

2008 – Noming 14,800/dkt/d, flowed 17,158/dkt yesterday, imbalance 2,004/dkt, tolerance of 27,815/dkt, injecting 4,500/dkt/d into storage, inventory balance 1,031,000/dkt

- Plans to have 1.1 Bcf in storage by the end of September, no plans to inject into extra storage at this time.
- EWST continues to focus on their Long-term supply planning for Energy West Montana.
 - TransCanada has send the paperwork (PEA) to move forward with additional Nova Capacity for 2023.
 - Meeting Scheduled with Jetco and Tenaska on September 20, 2019
 - Dan had a call with John Canavan regarding Northwestern Energy's upstream capacity. They are sorting through the details of the capacity allocation process.
 - Plans to schedule a follow up meeting with Northwestern Energy

West Yellowstone:

Nothing new to report

West Yellowstone is going through the first month of scheduling loads with Prometheus.

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
September 19, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein, Dave Cerotzke, Jed Henthorne, Dan Hickman and Mary Stanich
- Greg Slone, Jerry Livengood, Renee Huff, Ted Gambill and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas by email.

September Baseload Purchases:

	NEO	Orwell	Brainard
TCO	500/day	290/day	0/day
DEO	730/day	165/day	25/day
OTP	0/day	225/day	0/day
TGP	5/day	0/day	0/day

September blended Cost per DTH

NEO	\$1.807
Orwell	\$1.986
Brainard	\$1.751

Daily Price Index: TCO Appalachia \$2.315 Dominion \$1.975 and MichCon \$2.385

Oct19-Mar20 Futures: TCO (\$.315), DEO (\$0.446), MichCon (\$0.178)

Orwell imbalances: OTP & NC: 37,954 DTH, Cobra (9,323) DTH, Spellman 783 DTH,

Brainard Imbalances: OTP & NC: 537 DTH, Cobra 1,507 DTH

GTS TCO Storage Balance: 91,791/dth, GTS storage is full

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 235,859/dkt (72,070/dth GTS & 163,789/dth FSS, (done injecting, storage full))
- **Cobra Pipeline**
 - Imbalance 44,348/dth
- **Spellman Pipeline**
 - Imbalance (3,728)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for September 19, 2019:

1. GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance position as of August 31, 2019, is +8,269 dth [Cobra at +2,860 dth, OTP at +5,833 mcf, Spelman at (89) dth and ONG at (335) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of July 31, 2019, was +8,694 dth so this represents a decrease of 425 dth from July's position.
 - b. Total gas sales for GNR in August was 34,882 mcf, a 4% increase over GNR's original customer sales projection for August of 33,600 mcf.
 - c. September gas sales are projected to be 39,600 mcf, as some grain dryers begin their fall drying season. The supply plan for September consists of 18,900 dth from North Coast Gas Transmission, 10,450 dth from Columbia Gas Transmission, 6,450 dth from Tennessee Gas Pipeline and 5,200 dth from local production.
2. GNR purchases for September; (no changes from last week)
 - a. 2-year deal with Elevation - GNR purchasing 300 dth/d delivered into North Coast for Lake Hospitals in September – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.
 - b. 3-year deal with Constellation - GNR purchasing 33 dth/d delivered into Cobra North Trumbull for Breckenridge in September at \$3.07/dth.
 - c. 2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in September at \$3.125/dth.
 - d. 2-year deal with Direct Energy – GNR purchasing 15 dth/d into North Coast to serve Lake Co. YMCA in September at \$2.695/dth.
 - e. 1-month purchase with Elevation Energy – GNR purchasing 300 dth/d into North Coast to serve customer requirements on OTP in September at NYMEX settle minus \$0.06/dth. (basis down \$0.02/dth from August)
 - f. 1-month purchase with Elevation Energy – GNR purchasing 50 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in September at NYMEX settle minus \$0.225/dth. (basis down \$0.045/dth from August)
 - g. 1-month purchase with Elevation Energy - GNR purchasing 315 dth/d delivered into the TCO/Cobra North Trumbull interconnect and multiple grain dryer meters in September at NYMEX settle minus \$0.25/dth. (basis down \$0.09/dth from August)
 - h. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.

3. Customer issues; (changes from last week are in bold)
 - a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for September is \$2.251/dth, up \$0.11 from August, but GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in September was NYMEX minus \$0.06/dth, so GNR's margin on its variable rate agreements should be at least \$0.38/dth, a \$0.02/dth increase from last month.
 - c. Grain drying season will be starting up in September, although indications are that drying will start a little later this year than normal, due to the wet spring and early summer, which delayed planting for many farmers.
 - d. Component Repair Technologies (CRT) agreed to a one-year fixed price contract with GNR at a fixed rate of \$4.54 per Mcf starting October 1, 2019. CRT had been on a month-to-month contract for several years at a variable rate price of NYMEX plus \$1.79 per Mcf. This deal has a physical hedge for the customer's annual usage of approximately 30,000 mcf per year. GNR's margin for this deal is approximately \$0.30 per Mcf.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update September 19, 2019

September Rev Budget – 63,492

Usage to date – 29,693

September Forecast - 53,000

Nominating 1,500/day for Veazie,

September HDD to date 119, last year same period 0

Today's Cash Price – \$2.14 (Algonquin)

Average Cash Price to date - \$2.108 (Algonquin)

Bangor has no hedged volumes or baseload requirements for September

Natural Gas Intelligence "NGI" September 19, 2019 Forward winter Strip for Algonquin City Gates \$6.714

Forward prices have remained stable so Bangor secured another 5% of their forecasted winter volume November to March, they are now 45% hedged at an average price of \$7.57. They will secure another 5% each week over the next three weeks, which will bring them to their target of 60% hedge for the winter period.

Capacity Updates...

Bangor had a Tech conference yesterday and received a few data request they are working on, and a second settlement conference was scheduled for next Wednesday the 25th.

Emera Price Quote September 19, 2019

1. Fixed price weighted for the volumes and month below **\$8.56**
2. Strip price for 50,000/month November - March **\$ 8.11**
3. Basis quote for Weighted for below volumes - Nymex + **\$5.71**
4. Monthly fixed prices:

Nov 2019 – 10,304	\$5.26
Dec 2019 – 15,146	\$8.10
Jan 2020 – 18,005	\$10.50
Feb 2020 – 15,526	\$10.35

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

SEPTEMBER SUMMARY

Budget: 97,072
 Usage to Date: 44,730
 Daily Avg Usage: 2,485
 Avg Daily Cash Price:
 Zone 3: \$2.49
 Zone 5: \$2.58
 FOM Price:
 Zone 3: \$2.19
 Zone 5: \$2.28
 HDD Budget: 37
 HDD to Date: 16
 HDD Projected 26
 HDD this time last year: 3

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 84 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.85	\$1.95	\$2.36	\$1.73
AECO	\$0.55	\$1.27	\$1.80	\$1.20
NYMEX	\$2.537 - Oct 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 220/dkt/d – Imbalance 1,249/dkt as of 8/1/19

Retail – north pool

4008 – Noming 4,235/dkt/d, flowing 4,660/dkt/d, imbalance 2,443/dkt with a tolerance of 6,140/dkt, injecting 1,250/dkt/d into storage, balance is 234,150/dkt

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. They are exploring their options. Dan will follow up with Weyerhaeuser.
- Dan is working with Jetco to secure winter peaking supply.
- **Montana Resources** – Dan submitted a price proposal to MRI for review. Dan will follow up with MRI.

Energy West Montana:

2008 – Noming 15,700/dkt/d, flowed 15,924/dkt yesterday, imbalance 1,819/dkt, tolerance of 28,917/dkt, injecting 4,500/dkt/d into storage, inventory balance 1,062,500/dkt

- Plans to have 1.1 Bcf in storage by the end of September, no plans to inject into extra storage at this time.
- EWST continues to focus on their Long-term supply planning for Energy West Montana.
 - TransCanada has send the paperwork (PEA) to move forward with additional Nova Capacity for 2023. Management has evaluated the financial risk associated with executing the document (execution date September 23, 2019).
 - Meeting Scheduled with Jetco and Tenaska on September 20, 2019
 - Management had a conference call with Northwestern Energy regarding, plans to schedule a follow up meeting.

West Yellowstone:

Nothing new to report

West Yellowstone is going through the first month of scheduling loads with Prometheus.

Prepared by: Mary Stanich

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
September 26, 2019
11:30 A.M.

Activities Performed

Present were:

- Kevin Degenstein and Mary Stanich
- Dan Hickman, Mike Zappitello, Ken Oostman, Greg Slone, Taylor Younger, Ted Gambill and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

September Baseload Purchases:

	NEO	Orwell	Brainard
TCO	500/day	290/day	0/day
DEO	730/day	165/day	25/day
OTP	0/day	225/day	0/day
TGP	5/day	0/day	0/day

September blended Cost per DTH

NEO	\$1.807
Orwell	\$1.986
Brainard	\$1.751

Daily Price Index: TCO Appalachia \$2.05 Dominion \$1.51 and MichCon \$2.01

Oct19-Mar20 Futures: TCO (\$0.37), DEO (\$0.495), MichCon (\$0.216)

Orwell imbalances: OTP & NC: 37,954 DTH, Cobra (9,323) DTH, Spellman 783 DTH,

Brainard Imbalances: OTP & NC: 537 DTH, Cobra 1,507 DTH

GTS TCO Storage Balance: 91,791/dth

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 234,104/dkt (70,315/dth GTS & 163,789/dth FSS, (done injecting, storage full)
- **Cobra Pipeline**
 - Imbalance 44,348/dth
- **Spellman Pipeline**
 - Imbalance (3,728)/dth

Gas Natural Resources:

Greg gave the Committee a supply update for GNR.

GNR Weekly Risk Report for September 26, 2019:

1. GNR's current supply and imbalance position; (changes from last week are in bold)
 - a. GNR's combined imbalance position as of August 31, 2019, is +8,269 dth [Cobra at +2,860 dth, OTP at +5,833 mcf, Spelman at (89) dth and ONG at (335) mcf]. GNR's combined imbalance on Cobra Pipeline, OTP, Spelman and Orwell Natural Gas as of July 31, 2019, was +8,694 dth so this represents a decrease of 425 dth from July's position.
 - b. **The initial estimate for September gas sales was projected to be 39,600 mcf. However, fall grain drying operations that typically start up in September will not get started until October this year. The current projection for September gas sales is only 32,300 mcf, down 18% from the original forecast. The supply plan for September consists of 18,900 dth from North Coast Gas Transmission, 10,450 dth from Columbia Gas Transmission, 6,450 dth from Tennessee Gas Pipeline and 5,200 dth from local production.**
2. GNR purchases for October; (changes from last week are in bold)
 - a. **2-year deal with Elevation - GNR purchasing 355 dth/d delivered into North Coast for Lake Hospitals in October – the price is 50% at \$2.865/dth and 50% at NYMEX plus \$0.07/dth.**
 - b. **3-year deal with Constellation - GNR purchasing 32 dth/d delivered into Cobra North Trumbull for Breckenridge in October at \$3.07/dth.**
 - c. **2-year deal with Elevation Energy – GNR purchasing 165 dth/d delivered into Leesville CG on Tennessee Gas Pipeline for Bowerston Shale in October at \$3.125/dth.**
 - d. **2-year deal with Direct Energy – GNR purchasing 20 dth/d into North Coast to serve Lake Co. YMCA in October at \$2.695/dth.**
 - e. **1-year deal with Direct Energy – GNR purchasing 15 dth/d into North Coast to serve Component Repair Technology in October at \$2.85/dth.**
 - f. **1-month purchase with Elevation Energy – GNR purchasing 260 dth/d into North Coast to serve customer requirements on OTP in October at NYMEX settle minus \$0.285/dth. (Basis down \$0.225/dth from September).**
 - g. **1-month purchase with Direct Energy – GNR purchasing 60 dth/d delivered into the Leesville City Gate on Tennessee Gas Pipeline in October at NYMEX settle minus \$0.38/dth. (Basis down \$0.155/dth from September).**
 - h. **1-month purchase with Elevation Energy - GNR purchasing 535 dth/d delivered into the TCO/Cobra North Trumbull interconnect and multiple grain dryer meters in October at NYMEX settle minus \$0.58/dth. (Basis down \$0.33/dth from September).**

- i. 3-month purchase with Elevation Energy – GNR purchased 15 dth/d for Sept, 10 dth/d for Oct and 15 dth/d for November to serve Landis Farms, a NEO grain dryer served off TCO system. The price was \$2.15 per dth.
- 3. Customer issues; (changes from last week are in bold)
 - a. GNR's lowest fixed-rate agreement has a monthly breakeven rate of NYMEX settle of approximately \$3.45/dth. The NYMEX settle price for September is \$2.251/dth, up \$0.11 from August, but GNR will continue to see a healthy margin on its unhedged, fixed-priced contracts.
 - b. GNR's lowest variable-rate agreement has a monthly breakeven rate of approximately NYMEX settle plus \$0.32/dth. The basis price into North Coast Gas Transmission (the bulk of GNR gas) in September was NYMEX minus \$0.06/dth, so GNR's margin on its variable rate agreements should be at least \$0.38/dth, a \$0.02/dth increase from last month.
 - c. Grain drying season will be starting up in September, although indications are that drying will start a little later this year than normal, due to the wet spring and early summer, which delayed planting for many farmers.
 - d. Component Repair Technologies (CRT) agreed to a one-year fixed price contract with GNR at a fixed rate of \$4.54 per Mcf starting October 1, 2019. CRT had been on a month-to-month contract for several years at a variable rate price of NYMEX plus \$1.79 per Mcf. This deal has a physical hedge for the customer's annual usage of approximately 30,000 mcf per year. GNR's margin for this deal is approximately \$0.30 per Mcf.

Bangor Gas:

Renee gave the Committee a supply update for Bangor Gas.

Bangor Supply Update September 26, 2019

September Rev Budget – 63,492

Usage to date – 38584

September Forecast - 53,000

Nominating 3,000/day for Veazie,

September HDD to date 139, last year same period 73

Today's Cash Price – \$1.80 (Algonquin)

Average Cash Price to date - \$2.058 (Algonquin)

Bangor has no hedged volumes or baseload requirements for September

Natural Gas Intelligence "NGI" September 25, 2019 Forward winter Strip for Algonquin City Gates \$6.583

They secured another 5% of their second hedge position for their forecasted winter volume November to March at \$8.62, they are now 50% hedged at an average price of \$7.57. They will secure another 5% each week over the next two weeks, which will bring them to their target of 60% hedge for the winter period.

Emera Price Quote September 25, 2019

1. Fixed price weighted for the volumes and month below **\$8.62**
2. Strip price for 50,000/month November - March **\$ 8.24**
3. Basis quote for Weighted for below volumes - Nymex + **\$5.92**
4. Monthly fixed prices:
 - Nov 2019 – 10,304 **\$5.40**
 - Dec 2019 – 15,146 **\$8.18**
 - Jan 2020 – 18,005 **\$10.52**
 - Feb 2020 – 15,526 **\$10.37**
 - Mar 2020 – 12,990 **\$6.97**

Frontier Natural Gas:

Taylor gave the Committee a supply update for Frontier Natural Gas.

SEPTEMBER SUMMARY

Budget: 97,072
 Usage to Date: 60,549
 Daily Avg Usage: 2,422
 Avg Daily Cash Price:
 Zone 3: \$2.49
 Zone 5: \$2.58
 FOM Price:
 Zone 3: \$2.19
 Zone 5: \$2.28
 HDD Budget: 37
 HDD to Date: 47
 HDD Projected 76
 HDD this time last year: 9

Frontier has secured the following volumes and prices for the winter, according to supply plan (50% of expected average volumes for each month). They are waiting for the exact pricing on their September purchases.

SUMMARY		VOLUME	COST	PRICE
APRIL		99,777	\$337,571	3.383
MAY		99,777	\$338,703	3.395
JUNE		99,777	\$301,938	3.026
JULY		99,777	\$303,646	3.043
AUGUST		99,777	\$297,399	2.981

Energy West Resources:

Dan gave the Committee a supply update for EWR.

EIA Storage number – The EIA storage report showed a net increase of 102 Bcf from the previous week.

Prices	Day	Sum 19	W 19/20	Sum 20
CIG	\$1.77	\$1.77	\$2.21	\$1.69
AECO	\$0.55	\$1.31	\$1.74	\$1.23
NYMEX	\$2.395 - Oct 2019			

South Pool

7008 – Noming 250/dkt/d to Jetco– imbalance 0/dkt

Glacier Noming 250/dkt/d, flowing 0/dkt/d – Imbalance 1,301/dkt as of 9/1/19

Retail – north pool

4008 – Noming 4,226/dkt/d, flowing 4,069/dkt/d, imbalance 634/dkt with a tolerance of 6,688/dkt, injecting 1,250/dkt/d into storage, balance is 242,900/dkt

- Starting October with 500/dkt/d wholesale purchases

EWR Customer Updates:

- **Weyerhaeuser** – contract expires 10/31/19. Enel X is running an online sealed auction for Natural Gas accounts of Weyerhaeuser. The Pricing deadline is Monday, September 30, 2019 at 9:30 EST. EWR will submit a bid.
- Dan is working with Jetco to secure winter peaking supply.
- **Montana Resources** – Dan submitted a price proposal to MRI for review. He will follow up with MRI on that proposal.

Energy West Montana:

2008 – Noming 18,700/dkt/d, flowed 13,786/dkt yesterday, imbalance -37/dkt, tolerance of 30,540/dkt, injecting 1,500/dkt/d into storage, inventory balance 1,091,000/dkt

- Plans to have 1.1 Bcf in storage by the end of September, no plans to inject into extra storage at this time.
- Bumped up swing purchases to 10,000 GD26 – Expecting cold weather
- EWST continues to focus on their Long-term supply planning for Energy West Montana.
 - TransCanada has send the paperwork (PEA) to move forward with additional Nova Capacity for 2023. Management executed the document on September 23, 2019.
 - Met with Jetco and Tenaska on September 20, 2019. Discussion items included Nova Capacity, south end capacity, declining production and the potential EWM contract extension through March 2023.

West Yellowstone:

Nothing new to report

West Yellowstone is going through the first month of scheduling loads with Prometheus.

Prepared by: Mary Stanich

Exhibit G

Allowance for
marketers to
be short and
customer
growth

2018
Total
Daily
Bundled
Prediction

Date	BaseLoad	Z3 Capacity Total (DTH)	Z5 FOM	> FOM BaseLoad	Zone 5 Daily (DTH)	Peaking	Intraday	Zone 3 Retro	Zone 5 Retro	Zone 3 \$/DTH	Peaking \$/DTH	Zone 5 \$/DTH	Total Peaking \$	Total Zone 5 Daily \$	Sell Back (MMBTU)	\$/DTH	Total \$
1-Jan	10,000	8,613	1,387	1,420	0	1,420				3.63	3.072	32.71	\$ 4,361.93	\$ -	0	32.555	\$ -
2-Jan	10,000	8,613	1,387	1,899	0	1,899				3.63	3.072	32.71	\$ 5,832.50	\$ -	0	32.555	\$ -
3-Jan	10,000	8,613	1,387	1,587	0	1,587				6.46	3.072	18.915	\$ 4,874.04	\$ -	0	18.76	\$ -
4-Jan	10,000	8,613	1,387	3,060	0	3,060				6.965	3.072	51.345	\$ 9,399.71	\$ -	0	51.19	\$ -
5-Jan	10,000	8,613	1,387	2,989	0	2,989				4.375	3.072	128.5	\$ 9,181.90	\$ -	0	128.345	\$ -
6-Jan	10,000	8,613	1,387	2,374	0	2,374				2.915	3.072	31.485	\$ 7,292.93	\$ -	0	31.33	\$ -
7-Jan	10,000	8,613	1,387	1,865	0	1,865				2.915	3.072	31.485	\$ 4,807.68	\$ -	0	31.33	\$ -
8-Jan	10,000	8,613	1,387	0	0	0				2.915	3.072	31.485	\$ -	\$ -	1012.3	31.33	\$ 31,715.36
9-Jan	10,000	8,613	1,387	0	0	0				2.89	3.072	3.42	\$ -	\$ -	4039.6	3.265	\$ 13,189.29
10-Jan	10,000	8,613	1,387	0	0	0				2.915	3.072	3.38	\$ -	\$ -	3641.5	3.225	\$ 11,743.84
11-Jan	10,000	8,613	1,387	0	0	0				3.095	3.072	3.28	\$ -	\$ -	5100.3	3.125	\$ 15,938.44
12-Jan	10,000	8,613	1,387	0	0	0				3.18	3.072	3.41	\$ -	\$ -	5098.2	3.255	\$ 16,598.64
13-Jan	10,000	8,613	1,387	0	0	0				4.26	3.072	19.26	\$ -	\$ -	1917	19.105	\$ 36,624.29
14-Jan	10,000	8,613	1,387	1,897	0	1,897				4.26	3.072	19.26	\$ 5,827.58	\$ -	0	19.105	\$ -
15-Jan	10,000	8,613	1,387	717	0	717				4.26	3.072	19.26	\$ 2,202.01	\$ -	0	19.105	\$ -
16-Jan	10,000	8,613	1,387	0	0	0				4.26	3.072	19.26	\$ -	\$ -	1028.5	19.105	\$ 19,649.49
17-Jan	10,000	8,613	1,387	2,463	0	2,463				4.73	3.072	13.56	\$ 7,566.34	\$ -	0	13.405	\$ -
18-Jan	10,000	8,613	1,387	215	0	215				3.896	3.072	9.06	\$ 659.56	\$ -	0	8.905	\$ -
19-Jan	10,000	8,613	1,387	0	0	0				3.375	3.072	4.145	\$ -	\$ -	1613.3	3.99	\$ 6,437.07
20-Jan	10,000	8,613	1,387	0	0	0				3.235	3.072	3.44	\$ -	\$ -	3588.3	3.285	\$ 11,787.57
21-Jan	10,000	8,613	1,387	0	0	0				3.235	3.072	3.44	\$ -	\$ -	4760	3.285	\$ 15,636.60
22-Jan	10,000	8,613	1,387	0	0	0				3.235	3.072	3.44	\$ -	\$ -	4964.3	3.285	\$ 16,373.43
23-Jan	10,000	8,613	1,387	0	0	0				3.105	3.072	3.24	\$ -	\$ -	4346.1	3.085	\$ 13,407.72
24-Jan	10,000	8,613	1,387	0	0	0				3.445	3.072	3.765	\$ -	\$ -	2825.6	3.61	\$ 10,200.42
25-Jan	10,000	8,613	1,387	0	0	0				3.68	3.072	4.75	\$ -	\$ -	1466.4	4.595	\$ 6,738.11
26-Jan	10,000	8,613	1,387	0	0	0				3.555	3.072	3.77	\$ -	\$ -	2349.2	3.615	\$ 8,492.36
27-Jan	10,000	8,613	1,387	0	0	0				3.475	3.072	3.6	\$ -	\$ -	4170	3.445	\$ 14,365.65
28-Jan	10,000	8,613	1,387	0	0	0				3.475	3.072	3.6	\$ -	\$ -	4962.3	3.445	\$ 17,164.02
29-Jan	10,000	8,613	1,387	0	0	0				3.475	3.072	3.6	\$ -	\$ -	3039.4	3.445	\$ 10,470.73
30-Jan	10,000	8,613	1,387	0	0	0				3.775	3.072	8.27	\$ -	\$ -	293.4	9.115	\$ 2,674.34
31-Jan	10,000	8,613	1,387	0	0	0				3.68	3.072	5.525	\$ -	\$ -	930.3	5.37	\$ 4,995.71
977,231 261,422 20184.3 0 20184.3 0 0 0													\$ 62,006.17	\$ -	61186	\$ 284,199.06	\$ 1,016,459.85

Total owed to UGI Prediction \$ 1,016,459.85

Average
price paid
for gas
daily

Total price paid for gas daily	Average price paid for gas daily
\$ 44,318.47	\$ 3.881
\$ 45,789.04	\$ 3.848
\$ 44,830.58	\$ 3.869
\$ 49,356.25	\$ 3.779
\$ 49,138.44	\$ 3.783
\$ 47,249.47	\$ 3.818
\$ 44,764.22	\$ 3.871
\$ 8,241.18	\$ 0.917
\$ 26,767.25	\$ 4.491
\$ 28,212.70	\$ 4.437
\$ 24,018.10	\$ 4.902
\$ 23,361.90	\$ 4.766
\$ 3,332.26	\$ 0.412
\$ 45,784.12	\$ 3.848
\$ 42,158.55	\$ 3.934
\$ 20,307.05	\$ 2.264
\$ 47,522.88	\$ 3.813
\$ 40,616.10	\$ 3.976
\$ 33,519.47	\$ 3.997
\$ 28,168.97	\$ 4.393
\$ 24,319.94	\$ 4.641
\$ 23,583.11	\$ 4.702
\$ 26,548.82	\$ 4.696
\$ 29,756.12	\$ 4.148
\$ 33,218.43	\$ 3.893
\$ 31,464.18	\$ 4.113
\$ 25,590.89	\$ 4.390
\$ 22,792.52	\$ 4.542
\$ 29,485.81	\$ 4.236
\$ 37,282.20	\$ 3.841
\$ 34,960.83	\$ 3.855

2019 EST Zone 3 Zone 5
FOM: 3.66 6.08

2018 Zone 3 Zone 5
FOM: 2.72 5.63

2017 Zone 3 Zone 5
FOM: 3.89 5.82

Z3-Z5 2018 Jump 2.91
Z3-Z5 2017 Jump 1.93
Z3-Z5 Avg Jump 2.42

Assumptions:

- Using the NYMEX Futures Price for Z3 FOM (It is constantly changing)
- Using an average Z3 to Z5 jump for 2017 and 2018 FOM prices to calculate Z5 FOM
- Using Jan 2018 Gas Daily prices for Z3 and Z5
- Using Jan 2018 Bundled Usage with a cushion to allow for marketers being short and customer growth

Everything highlighted in green can be changed to show different scenarios

You can even change the Gas Daily prices for Z3 and Z5, sell back prices and the Daily Bundled Usage if desired