

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

Docket No. E-2, Sub 1262

Docket No. E-7, Sub 1243

In the Matter of)	
Joint Petition of Duke Energy)	DIRECT TESTIMONY OF
Carolinas, LLC and Duke Energy)	STEVEN HELLER,
Progress, LLC Issuance of Storm)	PRESIDENT OF ANALYTICAL
Recovery Financing Orders)	AID, CONSULTANT TO SABER
)	PARTNERS, LLC

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Direct Testimony of

Steven Heller, President of Analytical Aid, and

Consultant to Saber Partners, LLC

December 21, 2020

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INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Steven Heller. My business address is 3 Fairbanks Ct,
3 Woodbury, NY 11797

4 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR**
5 **POSITION?**

1 A. I am President of Analytical Aid, and a consultant to Saber Partners,
2 LLC, solely for purposes of evaluating this North Carolina
3 securitization petition.

4 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
5 **PROFESSIONAL EXPERIENCE.**

6 A. I have a B.A. (1981) from Union College in Computer Science /
7 Chemistry and an M.B.A (1983) in Finance from NYU. I have over 37
8 years of experience in structuring and analyzing real estate and non-
9 real estate asset backed securities (ABS) while being employed at
10 firms including Salomon Brothers, Merrill Lynch, Credit Suisse and
11 Andrew Davidson & Co. My real estate ABS experience includes well
12 over 100 residential mortgage, commercial mortgage and PACE
13 assessment financings. My non-real estate ABS experience has
14 included several dozen Student Loan, Auto, and Pharmaceutical
15 Royalty transactions.

16 I also have extensive experience with non- ABS transactions such
17 as Stranded Cost / Rate Reduction Bond or Ratepayer-Backed Bond
18 financings with investor-owned utility securitization like the
19 Companies. With respect to Ratepayer-Backed Bonds similar to the
20 storm recovery bonds proposed by the Companies, my experience
21 has included being structuring agent on the following six (6) AAA
22 (S&P and Fitch) and Aaa (Moody's) rated investor-owned utility
23 Ratepayer-Backed Bond transactions over 14 years:

- 1 1. **2016** \$1.294 Billion for Duke Energy Florida (Duke Energy
2 Florida Project Finance LLC)
- 3 2. **2009** \$64 million Monongahela Power (MP Environmental
4 Funding LLC)
- 5 3. **2009** \$22 million for Potomac Edison (PE Environmental
6 Funding LLC)
- 7 4. **2007** \$652 million for Florida Power & Light Storm Recovery
8 Bonds (FPL Recovery Funding LLC)
- 9 5. **2006** \$1.739 billion for AEP Texas Central (AEP Texas
10 Central Transition Funding II LLC)
- 11 6. **2005** \$115 million for West Penn Power (WPP Funding LLC)
- 12 7. **2005** \$1.851 billion for CenterPoint Energy (CenterPoint
13 Energy Transition Bond Company II, LLC)

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. I will discuss the function of the modeler and structuring agent of
16 Ratepayer-Backed Bonds and give some insight into the different
17 perspectives and objectives of the structuring agent when working
18 for an investment bank as opposed to when the structuring agent is
19 an independent member of the financing team.

20 In addition, except as otherwise defined in this testimony, terms have
21 the meanings assigned to them in the Glossary, attached as the final

1 exhibit to the testimonies of Public Staff witnesses Joseph Fichera
2 and Paul Sutherland.

3 **Q. WHAT INFORMATION DID YOU REVIEW FOR THIS**
4 **TESTIMONY?**

5 A. I reviewed the Companies Testimony and the descriptions of the
6 securities and the assumptions and other aspect of the proposed
7 structure to evaluate in generally accepted financial principles the
8 outcomes and conclusions put forth by the Companies. To evaluate
9 someone else's financial work product, one needs to understand
10 what they did, what are their assumptions, what variables can be
11 independently verified and why they did it so as to properly give an
12 informed opinion as to my conclusions. Consequently, I reviewed the
13 Companies Witness Atkins' testimony and responses to Data
14 Requests from Public Staff to familiarize myself with the Companies
15 basic assumptions regarding Ratepayer-Backed Bond securitization
16 and the methodology employed to determine whether it was
17 reasonable and accurate based on my professional experience in
18 similar situations. Correct financial analysis requires context as well
19 as calculations.

20 **Q. YOU HAVE BEEN THE STRUCTURING AGENT ON SIX UTILITY**
21 **RATEPAYER-BACKED BOND TRANSACTIONS, THREE WHILE**
22 **WORKING AT A WALL STREET FIRM AND THREE WITH YOUR**

1 OWN FIRM OVER THE PAST 16 YEARS AND ONE OF THOSE
2 WAS THE DUKE ENERGY FLORIDA RATEPAYER-BACKED
3 BOND TRANSACTION. DID YOU RECEIVE A REQUEST FOR
4 PROPOSAL FROM DEC/DEP FOR STRUCTURING ADVISOR IN
5 THIS TRANSACTION?

6 A. No, I did not.

7 HOW THE STRUCTURING AGENT/ADVISOR AFFECTS
8 RATEPAYER INTERESTS

9 Q. AS THE STRUCTURING AGENT ON THOSE SIX
10 TRANSACTIONS AND CURRENT TRANSACTIONS, DID YOU DO
11 ALTERNATIVE SCENARIO ANALYSES?

12 A. Yes. I have prepared analyses of timing of a transaction under
13 different market conditions and different bond structures and
14 requirements of the issuer and commission to help the decision-
15 makers make informed decisions regarding securitization bonds.

16 Q. AS THE STRUCTURING AGENT ON THOSE SIX
17 TRANSACTIONS AND BASED ON YOUR REVIEW OF THE
18 STATUS OF THE CURRENT PROPOSED TRANSACTION, DID
19 YOU PREPARE MANY MORE SCENARIOS ANALYSES TO
20 COMPARE COSTS TO THE RATEPAYER THAN THAT
21 PRESENTED BY DEC/DEP IN ITS TESTIMONY?

22 A. Yes. I would normally run a number of structures varying the number
23 of tranches and tranche sizes to target different average lives to see

1 which produced the lowest cost and largest NPV savings to
2 ratepayers.

3 **Q. WHAT DATA MUST BE PROVIDED WHEN STRUCTURING A**
4 **UTILITY SECURITIZATION/ RATEPAYER-BACKED BOND TO**
5 **COMPARE COSTS TO THE RATEPAYER IN ALTERNATE**
6 **SCENARIOS?**

7 A. Generally, the first step is obtaining data from the sponsoring utility
8 on the following:

- 9 1. Long-term demand forecast by customer class to the
10 expected final term of the financing
- 11 2. Historical collection curve by customer class
- 12 3. Targeted proceeds - how much money is to be raised
13 including all recoverable expenses
- 14 4. Allocation of financing cost by customer class
- 15 5. Targeted term (maturity) of financing
- 16 6. Targeted Settlement Date of initial offering
- 17 7. U.S. Treasury yield curve and assumed pricing credit spreads
18 for average lives of tranches of two years and up
- 19 8. Historical demand variance - actual six-month vs forecast six-
20 month

1 **Q. WITNESS ATKINS HAS PROPOSED A TRANCHE WITH A**
2 **WEIGHTED AVERAGE LIFE OF JUST 1.4 YEARS. WHY WOULD**
3 **YOU JUST LOOK AT THE TREASURY YIELD CURVE STARTING**
4 **AT 2 YEARS?**

5 A. In all the deals I've worked on, no charge goes on customers' bills
6 until after the settlement date of the financing. Applying class by
7 class collection curve means actual cash comes in with a delay after
8 billing. So, the deal doesn't reach a full monthly cashflow until several
9 months into the deal. We have gotten permission to start level
10 revenue exempting these early months (otherwise you'd need to
11 start with a higher per kwh charge and then drop it once you were 6
12 months in). There typically would just be enough cash receipts to pay
13 interest for the first 6-9 months and not enough receipts to cover
14 principal in an amount needed to achieve a significant class size with
15 less than an average life of 2 years.

16 **Q. AS THE STRUCTURING AGENT, HOW DO YOU PREPARE A**
17 **MODEL TO COMPARE COSTS TO THE RATEPAYER UNDER**
18 **DIFFERENT SCENARIOS?**

19 A. Using the data described above, an initial model can be set up that
20 provides the required amount of financing that is paid back over the
21 desired term using a charge per class determined by the model so
22 that when applied to the demand forecast and collected at the pace
23 of the collection curves for each class, allocates the cost of the

1 financing across classes as required by the allocation provided.
2 Scenarios are then modeled based upon alternative inputs for
3 targeted proceeds, cost allocation, and terms to determine the
4 structure with the lowest all-in cost of funds. Over the course of the
5 pre-pricing period of a bond offering, many deal structures will be
6 analyzed repeatedly as benchmark U.S treasuries and credit
7 spreads move around.

8 **Q. WERE YOU ABLE TO REVIEW ANY SCENARIO ANALYSES**
9 **PREPARED BY DEC/DEP OR PREPARE YOUR OWN**
10 **ADDITIONAL SCENARIO ANALYSES?**

11 A. No, not in any great detail, because the Companies have conducted
12 very limited analysis and only provided some of the basic data
13 needed for such a model.

14 **Q. COULD THIS MODELING BE CONDUCTED IN THIS CASE AS**
15 **PART OF A PRE-BOND ISSUANCE REVIEW PROCESS?**

16 A. Yes, the type of modeling I describe above can and should be
17 conducted as part of a pre-bond issuance review process to ensure
18 compliance with the requirement that that customer costs be
19 minimized and present value savings to customers maximized to the
20 extent possible.

1 Q. WOULDNT AN EXAMINATION OF ALTERNATIVES TO
2 MAXIMIZE PRESENT VALUE FOR RATEPAYERS BE
3 PERFORMED BY THE UNDERWRITER?

4 A. No, generally not. The underwriter's model is generally just audited
5 for accuracy but not for policy objectives like minimizing the charge
6 on customers. This is an important distinction.

7 **CONFLICTS OF INTEREST WITH RATEPAYERS'S BEST**
8 **INTERESTS ARE CREATED WHEN AN UNDERWRITER IS**
9 **ALSO THE STRUCTURING AGENT**

10 Q. YOU HAVE MODELED RATEPAYER-BACKED BOND DEALS AT
11 INVESTMENT BANKS AND AS AN INDEPENDENT MODELER.
12 WHAT DIFFERENCES HAVE YOU EXPERIENCED THAT ARE
13 RELEVANT FOR THE COMMISSION TO CONSIDER IN
14 EVALUATING THE COMPANIES BASE CASE?

15 A. At an investment bank, my typical direction came from a syndicate
16 or trading desk with a subjective guidance on average life targets and
17 number of classes or tranches including scheduled maturities. The
18 objectives usually will be the easiest or fastest sale. The firm makes
19 its profits by executing transactions. It wants to do as many
20 transactions as possible during the fiscal year (compensation cycle)
21 with the least risk to the firm's capital. That usually means to price
22 securities to sell quickly so that other deals can get done.

1 When consulting to utilities with active Commission involvement and
2 an independent financial advisor, I have access to a full supply of
3 spreads for different average lives (and potentially payment
4 windows/ principal amortizations and scheduled maturities). So
5 instead of being told the structure to create, I had the opportunity to
6 evaluate a larger number of alternatives in order to discover the best
7 structure with the lowest cost of funds (highest present value
8 savings) for the ratepayer rather than the structure that is the most
9 advantageous to the underwriter and their sales and trading
10 departments.

11 **Q. BASED ON YOUR EXPERIENCE, WHEN AN INVESTMENT BANK**
12 **HAS SERVED AS THE STRUCTURING AGENT FOR A UTILITY**
13 **SECURITIZATION, HAS THE STRUCTURING AGENT**
14 **RECOMMENDED STRUCTURES THAT FACILITATED THE**
15 **QUICKEST SALE AND NOT NECESSARILY THE LOWEST**
16 **CHARGES TO THE CONSUMER RATEPAYER?**

17 A. Yes, that is correct.

18 **Q. COULD YOU PROVIDE AN EXAMPLE OF THIS?**

19 A. Yes. In the most recent Ratepayer-Backed Bond I modeled, for Duke
20 Energy Florida, the underwriters (which included Guggenheim
21 Securities) wanted a 4-tranche structure to provide larger tranches
22 sizes. This is similar to Witness Atkins' proposal to combine the

1 transactions simply to get a larger tranche size. However, the
2 commission's independent financial advisor (Saber Partners, LLC)
3 and the utility asked for alternatives to be examined. Through my
4 analysis (with credit spreads for the yield curve provided by the
5 underwriters) Saber Partners recommended a 5-tranche structure
6 that had sufficient tranche sizes and narrower principal payment
7 windows and had a lower all-in cost of funds to the ratepayer, and
8 that's the deal that went to market (after a modest amount of
9 resistance from the bank). Without an independent and experienced
10 financial advisor in the process, the underwriter's structure would
11 have been used and the other alternatives not examined.

12 **Q WITNESS ATKINS TESTIFIES THAT QUALIFYING STORM**
13 **RECOVERY BONDS FOR INCLUSION IN THE AGGREGATE**
14 **BOND INDEX AS AN ASSET-BACKED SECURITY SHOULD BE**
15 **A PRIME MOTIVATING FACTOR FOR STRUCTURING THIS**
16 **TRANSACTION. HAS THIS TOPIC EVER COME UP IN YOUR**
17 **DISCUSSIONS?**

18 A. No, not to my recollection.

19 **Q. ARE THERE ANY OTHER MATERIAL DIFFERENCES BETWEEN**
20 **STRUCTURING UNDER THE DIRECTION OF AN INVESTMENT**
21 **BANK/UNDERWRITER VERSUS AS AN INDEPENDENT**

1 **MODELER NOT EMPLOYED BY AN UNDERWRITER OF THAT**
2 **TRANSACTION?**

3 A. Yes. Additionally, the investment bank typically charges a fee for
4 structuring between \$300,000 and 500,000 and typically wants
5 access to the underwriting fees which are higher in amounts since
6 they are based on a percentage of the bond size and not a fixed fee.
7 This fee is roughly three to five times the fee that I accept, which I
8 believe is fair for the work involved. All transactions that I have
9 worked on have achieved a AAA rating from all three nationally
10 recognized rating agencies in the same amount of time as when I
11 was at Credit Suisse, and all transactions I have worked on were sold
12 to investors at tight spreads.

13 **Q. HOW IMPORTANT IS ACCURACY IN MODELING CUSTOMER**
14 **CHARGES TO ACHIEVING A AAA RATING WHILE ALSO**
15 **ACHIEVING THE LOWEST CUSTOMER CHARGE?**

16 A. It is very important in order to anticipate and respond to rating agency
17 concerns regarding sensitivity to changes in sales, write-offs and
18 other variables. Rating agencies provide stress scenarios which
19 specify stressed demand forecasts as well as stressed collections.
20 For each stress scenario, we have to model what the charge for each
21 class would be at each true up. This is simulated in the model as
22 accurately as it would be by the client doing the true up in the future
23 in response to changes in demand and collections.

1 **Q. DO YOU THINK THE MODELS DONE FOR RATEPAYER-**
2 **BACKED BOND TRANSACTIONS ARE PROPRIETARY WORK**
3 **PRODUCT LIKE A TRADE SECRET AS THE COMPANIES CLAIM**
4 **THAT GUGGENHEIM ASSERTS IN RESPONSE TO PS DATA**
5 **REQUEST 8-3 IV?**

6 A. No I do not. My model under contract to Duke Energy Florida for
7 example was used by the company and its underwriters without any
8 restriction,

9 This is how we operate. I've developed Ratepayer-Backed Bond
10 models over and over again. They get a little better each time and
11 make it easier to do the most frequent tasks 1) running stress
12 scenarios and 2) considering structural alternatives. But the basic
13 model is not terribly complicated. For each customer class, multiply
14 the load forecast by the charge per kilowatt hour to get the billing
15 amount. Apply historical collection curve to the billing amount to get
16 revenue received. That revenue is the source of payments of interest
17 and principal on the bonds. Now it's slightly more complicated in that
18 we modify the per kilowatt charge in response to changes in the load
19 forecast to maintain a level revenue. And we determine the charge
20 so that the billed amounts for each customer class apportion
21 responsibility for the cost of financing according to some proscribed
22 percentages. But that's the extent of the complication.

1 We usually distribute cash flows workbook (sans formulas) to the
2 rating agencies but have shared the model without modification
3 amongst client, bankers and financial advisors. We shared our model
4 with Guggenheim and Royal Bank of Canada during the last Duke
5 transaction. I also recall creating a custom worksheet for the client to
6 facilitate periodic true up calculations. All of this was pursuant to my
7 contract with no claim as to proprietary or trade secret.

8 **RATEPAYER-BACKED BONDS SHOULD NOT BE TREATED AS**
9 **ASSET-BACKED SECURITIES (ABS)**

10 **Q. IN ADDITION TO THE PROBLEMS IDENTIFIED ABOVE, WHAT**
11 **OTHER PROBLEMS HAVE YOU IDENTIFIED IN CONNECTION**
12 **WITH STRUCTURING AND MARKETING SECURITIZED UTILITY**
13 **RATEPAYER-BACKED BONDS?**

14 A. Any decisions to treat the proposed bonds as “asset-backed
15 securities” (ABS) when it should be treated as Ratepayer-Backed
16 Bond, as in the Duke Energy Florida Project Finance securitization
17 bond precedent in 2016, would likely reduce the potential savings to
18 ratepayers. The two structures are different in all material ways that
19 are of concern to investors. ABS are typically described with scenario
20 analyses that certainly include prepayment risk and might also
21 include risk of loss. Even AAA asset-backed securities with little or
22 no risk of loss trade at a wider spread than AAA corporates, at least
23 in part, because of variability in the timing of principal return.

1 Generally, AAA Ratepayer-Backed Bonds have no material risk of
2 loss and no material risk of timing variability because of the frequent
3 true up mechanism. This is because utilities' forecasts for demand
4 for a 6-12-month period are typically within a very modest variance
5 from actual demand which means cashflow is always very close to
6 what's expected. The strength and benefits of the true up mechanism
7 can't be emphasized enough. Commission financial advisors have
8 challenged underwriting firms' pricing utility securitization bonds
9 based on ABS credit spreads versus high-quality corporate credit
10 spreads as well as other issues that could affect pricing. They have
11 done so in an effort to negotiate credit spreads (and therefore the
12 cost to the ratepayer/customer) based on the power of the regulatory
13 true up mechanism of the charge on all customers on a joint basis
14 designed to ensure principal payment timing certainty and the legal
15 protections from the state not to interfere in the transaction.

16 From my 37 years of experience, I cannot emphasize enough this
17 fundamental difference: ABS begin with a fixed asset pool, and
18 investors will, generally, receive the cashflow from those assets
19 (protected from credit loss though a subordination of claims involving
20 a senior piece and a junior piece, but with no protection against
21 variations in the timing of principal payments) whenever the
22 payments happen to arrive. This represents a material prepayment
23 and extension risk. It means either investors receive their money

1 back sooner or later than expected, if at all. These risks and the
2 complexities associated with them are either not present or not
3 material in storm recovery bonds and other utility securitizations.

4 Storm recovery bonds, and other Ratepayer-Backed Bonds, begin
5 with a bond repayment schedule and have a true up mechanism to
6 ensure that's what investors will receive on time. It makes up for
7 losses or changes in demand by redistributing the charge on all
8 consumers in the utility's service territory on a joint basis. Paying
9 consumers make up for losses from non-paying consumers. That's
10 not a fixed pool of receivables like ABS. It's a charge on an essential
11 commodity, and if consumers leave the service territory, the charge
12 goes up on the customers that remain. If more consumers come into
13 the service territory, the charge goes down. All the Ratepayer-
14 Backed Bonds I have been involved with prohibit prepayment, and
15 the extension risk was not material.

16 In contrast, ABS investors who buy a pool of auto loans, credit cards,
17 or mortgages must look for repayment to a fixed pool. If one of the
18 payors in the pool defaults on their mortgage, auto loan, or credit
19 card, that loss is not redistributed to the mortgages, auto, loans and
20 credit cards of others in the pool. Those mortgages, auto loans or
21 credit cards are fixed. Their obligations don't go up to ensure the
22 bondholders are paid on time. But if that happens in a utility
23 securitization, the charges on those who are paying do go up. It's an

1 apples to oranges comparison when comparing ABS to utility
2 securitizations like the storm recovery bonds proposed by the
3 Companies.

4 **Q. IS THE FACT THAT RATINGS AGENCIES ASSIGN THE**
5 **TRANSACTIONS TO THEIR STRUCTURED FINANCE RATING**
6 **ANALYSTS MEAN THAT THEY ARE “ASSET-BACKED**
7 **SECURITIES” LIKE THOSE INCLUDED IN THE AGGREGATE**
8 **BOND INDEX THAT WITNESS ATKINS SAYS IS CRITICAL TO**
9 **STRUCTURING THE STORM RECOVERY BONDS?**

10 A. No. That they are handled in the Structured Finance group at the
11 rating agencies is sort of a historical accident. When the first
12 Ratepayer-Backed Bonds were contemplated, the corporate side of
13 rating agencies hadn't had experience with, for example, SPVs.
14 (special purpose vehicles or entities) So, even though there is no
15 asset credit risk or overcollateralization component to Ratepayer-
16 Backed Bonds, they landed in the structured finance group. That
17 needn't dictate how they are marketed or treated by underwriters and
18 investors.

19 **STRUCTURING DEC/DEP STORM RECOVERY BOND**
20 **ISSUANCES SO AS TO BE INCLUDED IN THE AGGREGATE**
21 **BOND INDEX AS ASSET BACKED SECURITIES (ABS) WILL**
22 **COST RATEPAYERS**

23 So, in my professional judgement, (i) it is very hard to justify that
24 Ratepayer-Backed Bonds like storm recovery bonds should be

1 marketed and priced as ABS for whatever reason including
2 attempting to include them in the Aggregate Bond Index as Witness
3 Atkins asserts, and (ii) treating them and suggesting in any way to
4 investors that they are asset-backed securities **would not be in the**
5 **ratepayers' best interest**, particularly given the objective to reduce
6 storm recovery charges to the maximum extent possible to achieve
7 the lowest cost and to create present value savings for ratepayers.

8 **SUCCESSFUL PRECEDENTS**

9 In addition, certain of the Ratepayer-Backed Bonds like the Duke
10 Energy Florida Project Finance bonds and the MP and PE
11 Environmental Funding bonds that I have modeled for utilities and
12 were successfully sold at tight credit spreads and have offered longer
13 weighted average life bonds than is available in the ABS market. The
14 ABS market is dominated by shorter maturities, generally 5-10 years
15 and the Companies' Ratepayer-Backed Bonds will have 15-20 year
16 maturities,

17 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18 A. Yes.