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September 9, 2013

VIA COURIER

Mrs. Gail L. Mount, Chief Clerk
North Carolina Utilities Commission
430 North Salisbury Street
Dobbs Building
Raleigh, North Carolina 27603-5918

FILED
SEP 09 2013
Clerk's Office
N.C. Utilities Commission

Re: Docket No. E-100, Sub 137

Dear Mrs. Mount:

On behalf of Virginia Electric and Power Company, d/b/a Dominion North Carolina Power ("DNCP" or the "Company"), enclosed for filing with the North Carolina Utilities Commission are the original and thirty (30) copies of the *Proposed Order of Dominion North Carolina Power*.

One additional copy is enclosed to be file-stamped and returned with our courier. Thank you for your assistance in this matter. Please do not hesitate to contact me if you have any questions.

Very truly yours,

E. Brett Breitschwerdt

E. Brett Breitschwerdt

8/1 Full Dist.

EBB:asm

Enclosures

cc: Parties of Record

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

FILED
SEP 09 2013
Clerk's Office
N.C. Utilities Commission

DOCKET NO. E-100, SUB 137

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of 2012 Biennial Integrated Resource Plans and Related 2012 REPS Compliance Plans	))))	PROPOSED ORDER OF DOMINION NORTH CAROLINA POWER

HEARD: Monday, February 11, 2013, at 7:00 p.m., in the Commission Hearing Room, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

Thursday, February 28, 2013, at 7:00 p.m., at the Mecklenburg County Courthouse, Courtroom 5310, 832 E. Fourth Street, Charlotte, North Carolina

BEFORE: Commissioner Bryan E. Beatty, Presiding
Chairman Edward S. Finley, Jr.
Commissioner William T. Culpepper, III
Commissioner Susan W. Rabon
Commissioner ToNola D. Brown-Bland
Commissioner Lucy T. Allen

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For the Using and Consuming Public:

Timothy R. Dodge
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Public Staff – North Carolina Utilities Commission

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BY THE COMMISSION: Several statutes and rules of the North Carolina Utilities Commission ("Commission") guide the Commission's review of electric utilities' resource planning. North Carolina General Statute (or "N.C.G.S.") § 62-110.1(c) requires the Commission to "develop, publicize, and keep current an analysis of the long-range needs" for electricity in the State of North Carolina ("State"). The Commission's analysis should include: (1) its estimate of the probable future growth of the use of electricity; (2) the probable needed generating reserves; (3) the extent, size, mix, and general location of generating plants; and (4) arrangements for pooling power to the extent not regulated by the Federal Energy Regulatory Commission ("FERC"). General Statute 62-110.1 further requires the Commission to consider this analysis in acting upon any petition for the issuance of a certificate for the public convenience and necessity of construction of a generating facility. In addition, N.C.G.S. § 62-110.1(c) requires the Commission to submit annually to the Governor and to the appropriate committees of the General Assembly: (1) a report of the Commission's analysis and plan; (2) the progress to date in carrying out such plan; and (3) the program of the Commission for the ensuing year in connection with such plan. Section 62-15(d) requires the Public Staff-North Carolina Utilities Commission ("Public Staff") to assist the Commission in making its analysis and plan pursuant to N.C.G.S. § 62-110.1.

In addition, N.C.G.S. § 62-2(a)(3a) declares it a policy of the State to:

> assure that resources necessary to meet future growth through the provision of adequate, reliable utility service include use of the entire spectrum of demand-side options, including but not limited to conservation, load management and efficiency programs, as additional sources of energy

> supply and/or energy demand reductions. To that end, to require energy planning and fixing of rates in a manner to result in the least cost mix of generation and demand-reduction measures which is achievable, including consideration of appropriate rewards to utilities for efficiency and conservation which decrease utility bills ....

Signed into law on August 20, 2007, S.L. 2007-397 (Senate Bill 3) amended N.C.G.S. § 62-2(a) to add subsection (a)(10), which provides that it is the policy of the State to "promote the development of renewable energy and energy efficiency through the implementation of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS)" that will: (1) diversify the resources used to reliably meet the energy needs of North Carolina's consumers; (2) provide greater energy security through the use of indigenous energy resources available in North Carolina; (3) encourage private investment in renewable energy and energy efficiency; and (4) provide improved air quality and other benefits to the citizens of North Carolina. To that end, Senate Bill 3 further provides that "[e]ach electric power supplier to which G.S. 62-110.1 applies shall include an assessment of demand-side management and energy efficiency in its resource plans submitted to the Commission and shall submit cost-effective demand-side management and energy efficiency options that require incentives to the Commission for approval." N.C.G.S. § 62-133.9(c).

Senate Bill 3 also specifically defines demand-side management ("DSM") as "activities, programs, or initiatives undertaken by an electric power supplier or its customers to shift the timing of electric use from peak to nonpeak demand periods" and defines an energy efficiency ("EE") measure as "an equipment, physical or program change implemented after 1 January 2007, that results in less energy being used to perform the same function." N.C.G.S. § 62-133.8(a)(2) and (4). EE measures do not include DSM. G.S. 62-133.8(a)(4).

To meet the requirements of N.C.G.S. § 62-110.1 and N.C.G.S. § 62-2(a)(3a), the Commission conducts an annual investigation into the electric utilities' integrated resource planning. Integrated Resource Plans ("IRPs") are intended to identify those electric resource options that can be obtained at least cost to the ratepayers consistent with adequate, reliable electric service. IRPs consider both demand-side options, such as conservation, EE and DSM programs, and supply-side options, including alternative supply-side energy resources, in the selection of resource options.

Commission Rule R8-60 sets out the Commission's requirements for the electric utilities' IRPs and the process for review of such IRPs. The Commission first enacted Rule R8-60 in 1988 and has revised it several times thereafter. Rule R8-60 was substantially altered by the Commission's Order issued on July 11, 2007, in Docket No. E-100, Sub 111. The 2007 revisions to Rule R8-60 require biennial reports with annual updates in lieu of annual reports, continual assessments by the utilities of programs that promote DSM and EE, an increased amount of information to be provided regarding those assessments, an expansion of the planning horizon from ten to fifteen years, and an accounting in the reports for the effects of demand response ("DR") and EE programs and activities. On February 28, 2008, the Commission issued an order in Docket No. E-100, Sub 113, which revised existing Commission Rules and promulgated new rules implementing Senate Bill 3. The Commission further amended Commission Rule R8-60 and promulgated Rule R8-67(b), which directs electric power suppliers subject to Commission Rule R8-60 to file their REPS compliance plans as part of their IRP filings.

In particular, Commission Rule R8-60 requires that each of the investor-owned utilities ("IOUs") furnish the Commission with a biennial report in even-numbered years beginning in 2008 that contains its current IRP together with all information required by subsection (i) of Rule R8-60 covering a two-year period. In odd-numbered years, each utility shall file an annual report containing an updated 15-year forecast, supply and demand-side resources expected to satisfy those loads, the reserve margin thus produced, as well as significant amendments or revisions to the most recently filed biennial report, including amendments or revisions to the type and size of resources identified, as applicable. In addition, each biennial and annual report should (1) be accompanied by a short-term action plan that discusses those specific actions currently being taken by the utility to implement the activities chosen as appropriate per the applicable biennial and annual reports, (2) include the utility's REPS compliance plan pursuant to Rule R8-67(b), and (3) incorporate information concerning the construction of transmission lines pursuant to Rule R8-62(p). Within 150 days after the filing of each utility's biennial report and within 60 days after the filing of each utility's annual report, the Public Staff or any other intervenor may file its own plan or an evaluation of, or comment on, the utilities' biennial and annual reports. The Public Staff or any other intervenor may identify any issue that it believes should be the subject of an evidentiary hearing. A hearing to address issues raised by the Public Staff or other intervenors may be scheduled at the discretion of the Commission.

Other Relevant Commission Proceedings

In addition to the statutes and rules guiding the Commission's review of electric utilities' resource planning, the Commission has also recently issued orders in other proceedings that impact utilities' integrated resource planning process.

On October 26, 2011, the Commission issued its *Order Approving 2010 Biennial Integrated Resource Plans and 2010 REPS Compliance Plans* in Docket No. E-100, Subs 128 and 129. The Order required the utilities to include certain information in their 2012 and subsequent filings, including a requirement that each IOU investigate the value of activating DSM resources during times of high system load as a means of achieving lower fuel costs by not having to dispatch peaking units with their associated higher fuel costs (if it is less expensive to activate DSM resources).

On April 11, 2012, the Commission issued an *Order Amending Commission Rule R8-60 and Adopting Commission Rule R8-60.1* in Docket No. E-100, Sub 126 (the "Smart Grid Order") that amended Commission Rule R8-60(i) to include a new subsection (10), which requires each utility to include in its IRP beginning in 2012 information regarding the impacts of its smart grid deployment plan on its resource plan, and adopted a new Commission Rule R8-60.1 that establishes reporting requirements for information regarding a public utility's smart grid technology plan beginning July 1, 2013. Rule R8-60.1(b) was subsequently amended by the Commission's May 6, 2013 *Order Amending Rule R8-60.1* to require utilities to file smart grid technology plans beginning October 1, 2014.

On May 30, 2012, the Commission issued its *Order Approving 2011 Annual Updates to the 2010 Biennial Integrated Resource Plans and 2011 REPS Compliance Plans* in Docket No. E-100, Subs 128 and 131. Among other things, the Order required IOUs to include a discussion of a variance of 10% or more in projected EE savings from one IRP report to the next and a discussion of market potential studies or updates in their 2012 and future IRPs.

On June 29, 2012, the Commission issued an *Order Approving Merger Subject to Regulatory Conditions and Code of Conduct* in Docket Nos. E-2, Sub 998 and E-7, Sub 986, approving the business combination of the parent companies of Duke Energy Carolinas, LLC ("Duke")[1] and Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. ("PEC");[2] , which included conditions relevant to the IRP proceedings, such as a requirement that Duke and PEC pursue least cost integrated resource planning and file separate IRPs until otherwise ordered by the Commission.

On October 30, 2012, the Commission issued an *Order Denying Rulemaking Petition* in Docket No. E-100, Sub 133, in which the North Carolina Waste Awareness and Reduction Network ("NC WARN") requested that the Commission amend Rules R1-17 and R8-60 governing the information and analysis filed by electric utilities in rate case proceedings and IRPs to include consideration of various cost allocation methods. In that Order, the Commission: (1) strongly encouraged the electric utilities to take reasonable measures to inform all customers of the forecasted summer peak to allow all customers to engage in voluntary demand response and peak shaving, and (2) required all electric utilities to include in future IRPs a full discussion of the drivers of each class's load forecast, including new or changed demand of a particular sector or sub-group.

Procedural History

The 2012 Biennial IRPs were filed in Docket No. E-100, Sub 137 between August 30, 2012 and September 13, 2012, by PEC, Duke and Virginia Electric and Power

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[1] Duke's 2012 Biennial IRP was updated to reflect generation unit retirement dates by filing dated March 22, 2013.

[2] Progress Energy Carolinas, Inc. subsequently changed its name to Duke Energy Progress, Inc. For consistency, Progress Energy Carolinas, Inc. will continue to be referred to as PEC throughout this proposed order. PEC's 2012 Biennial IRP was updated to reflect generation unit retirement dates by filing dated March 22, 2013.

Company d/b/a Dominion North Carolina Power ("Dominion")[3] (collectively, the IOUs), and by the North Carolina Electric Membership Corporation ("NCEMC") and the four independent electric membership corporations ("EMCs"), i.e., Piedmont EMC ("Piedmont"), Rutherford EMC ("Rutherford"), EnergyUnited EMC ("EnergyUnited"), and Haywood EMC ("Haywood").

During that same timeframe, 2012 REPS compliance plans were filed in Docket No. E-100, Sub 137 by PEC, Duke, Dominion, GreenCo Solutions, Inc. ("GreenCo"),[4] Halifax EMC ("Halifax"), and EnergyUnited.

In addition to the Public Staff, the following parties initially intervened in the 2012 IRP proceeding: the Blue Ridge Environmental Defense League ("BREDL"); the Carolina Industrial Group for Fair Utility Rates I, II and III ("CIGFUR"); the Carolina Utility Customers Association, Inc. ("CUCA"); Greenpeace, Inc. ("Greenpeace"); the Mid-Atlantic Renewable Energy Coalition; the North Carolina Sustainable Energy Association ("NCSEA"); NC WARN; the Southern Alliance for Clean Energy ("SACE"); and the Sierra Club.

On October 8, 2012, the Commission issued an *Order Scheduling Public Hearing on 2012 Biennial IRP Reports and Related 2012 REPS Compliance Plans*, which, among other things, scheduled a public hearing in Raleigh, North Carolina, for Monday, February 11, 2013, solely for the purpose of taking non-expert public witness testimony

[3] Dominion filed corrections to Appendices 2I, 3A, 5A, 5B and 6E of its 2012 Biennial IRP on November 7, 2012.

[4] GreenCo filed a consolidated REPS compliance plan on behalf of Albemarle EMC, Brunswick EMC, Cape Hatteras EMC, Carteret-Craven EMC, Central EMC, Edgecombe-Martin EMC, Four County EMC, French Broad EMC, Haywood, Jones-Onslow EMC, Lumbee River EMC, Pee Dee EMC, Piedmont, Pitt & Greene EMC, Randolph EMC, Roanoke EMC, South River EMC, Surry-Yadkin EMC, Tideland EMC, Tri-County EMC, Union EMC and Wake EMC, as well as on behalf of Mecklenburg Electric Cooperative (headquartered in Chase, Virginia) and Broad River Electric Cooperative (headquartered in Gaffney, South Carolina).

with respect to the 2012 Biennial IRPs and the related 2012 REPS compliance plans filed in this proceeding. In response to a *Motion to Hold Additional Public Hearings* in both Asheville and Charlotte, North Carolina, filed by NC WARN, BREDL and Greenpeace on January 9, 2013, and the subsequent responses to that motion filed by other parties to the proceeding,[5] the Commission issued its February 5, 2013 *Order on Motion for Additional Hearings* and its February 6, 2013 *Order Scheduling Additional Hearing*, which, among other things, scheduled one additional hearing for Thursday, February 28, 2013 in Charlotte, North Carolina.

In response to a motion filed by Public Staff on January 10, 2013, the Commission issued on January 15, 2013 its *Order Establishing Date for Comments on Integrated Resource Plans and Related REPS Compliance Plans*, which, among other things, directed the Public Staff and other intervenors to file initial comments on the 2012 Biennial IRPs and REPS compliance plans on or before February 5, 2013, and, additionally, directed all parties to file reply comments on or before February 19, 2013. In response to a motion jointly filed on February 15, 2013 by Duke and PEC, the Commission issued its February 18, 2013 *Order Granting Extension of Time*, which extended the date for all parties to file reply comments to March 5, 2013.

On February 4, 2013, NC WARN, BREDL and Greenpeace submitted initial comments on the 2012 Biennial IRPs and REPS compliance plans, including a request that the Commission hold an evidentiary hearing on whether the IRPs submitted by Duke and PEC are in the best interest of ratepayers and provide "least cost" electricity. The

[5] On January 24, 2013, the Commission issued an *Order Allowing Responses to Motion for Additional Hearings*. Pursuant to such Order, SACE and the Sierra Club filed a joint Response Supporting Motion for Additional Hearings on January 31, 2013; Duke and PEC filed a joint Response stating that there is no need to hold additional hearings on February 1, 2013.

Sierra Club and SACE; the Public Staff; the Mid-Atlantic Renewable Energy Coalition;[6] and NCSEA submitted initial comments on the 2012 Biennial IRPs and REPS compliance plans on February 5, 2013.

On February 5, 2013, NCSEA filed a Motion for Disclosure requesting that the Commission require Duke and PEC to make public certain information in the REPS compliance plans that was filed under seal with the Commission as confidential trade secret information. In addition, NCSEA requested that the Commission order PEC, Duke and Dominion to annually review their REPS compliance plans from four years earlier and make public any information that was previously redacted from those plans, or file an explanation as to why such information should remain confidential. By its February 7, 2013 *Order Requesting Comments*, the Commission allowed all parties to file initial comments in response to NCSEA's motion on or before March 8, 2013, and to file reply comments by March 29, 2013.

Public hearings were held at 7:00 p.m. on Monday, February 11, 2013 in Raleigh, North Carolina, and at 7:00 p.m. on Thursday, February 28, 2013 in Charlotte, North Carolina.

In response to the initial comments filed by the Public Staff and other intervenors on February 4-5, 2013, individual reply comments were filed by Rutherford EMC, Halifax EMC, Dominion, EnergyUnited, and the NCEMC, and joint reply comments were filed by Duke and PEC, and by SACE and Sierra Club on March 5, 2013.

In response to NCSEA's February 5, 2013 *Motion for Disclosure*, Duke and PEC jointly filed initial comments on March 7, 2013. On March 8, 2013, initial comments were filed jointly by SACE and Sierra Club, and individually by Dominion. Reply

[6] The Mid-Atlantic Renewable Energy Coalition filed amended initial comments on February 7, 2013.

comments were filed by NCSEA on March 25, 2013, and by Dominion on April 1, 2013.

On May 3, 2013, in response to concerns raised by citizens prior to and during the February 11 and February 28 hearings that questioned certain aspects of the IRPs filed by Duke and PEC, the Commission issued an *Order Requiring Verified Responses*, which, among other things, directed Duke and PEC to provide verified responses to a list of questions intended to address such concerns on or before June 10, 2013. On May 13, 2013, NC WARN, BREDL and Greenpeace jointly filed a response to the Commission's May 3, 2013 Order suggesting additional questions and again urging the Commission to hold an evidentiary hearing in this docket.

On June 3, 2013, the Commission issued its *Order Granting in Part and Denying in Part Motion for Disclosure*, which, among other things, directed Duke and PEC to amend their 2012 REPS compliance plan filings and directed Duke, PEC and Dominion to annually review their REPS compliance plans from four years earlier and disclose any redacted information no longer considered a trade secret.

On June 10, 2013, Duke and PEC jointly filed a response to the Commission's May 3, 2013 *Order Requiring Verified Responses*. Pursuant to the Commission's June 3, 2013 *Order Granting in Part and Denying in Part Motion for Disclosure*, Duke filed a revised 2008 REPS compliance plan and PEC filed a revised 2012 REPS compliance plan on July 1, 2013.

On July 15, 2013, partly in response to the request for an evidentiary hearing made by NC WARN, BREDL and Greenpeace in their initial comments filed February 4, 2013, the Commission issued its *Order Denying Request for Evidentiary Hearing and Allowing Proposed Orders and Briefs*, which, among other things, allowed the parties to the proceeding to file proposed orders and briefs on or before August 26, 2013. In response to a motion by Public Staff, the Commission subsequently issued its August 22, 2013 *Order Granting Extension of Time*, which allowed parties to extend the filing date for briefs and proposed orders to September 9, 2013.

Based upon the foregoing, the information contained in the 2012 IRPs, the 2012 REPS compliance plans, the comments and reply comments filed in this proceeding, and the Commission's record of this proceeding, the Commission makes the following:

FINDINGS OF FACT

1. Dominion's 15-year forecasts of native load requirements and other system capacity or firm energy obligations are reasonable and appropriate.

2. Dominion's consideration of supply-side and demand-side resources expected to satisfy those loads is reasonable and appropriate.

3. Dominion's reserve margins thus produced are reasonable and appropriate.

4. Dominion's efforts and plans to offer DSM and EE measures and programs are appropriate.

5. Dominion's 2012 IRP provided all information required by Rule R8-60 relating to generating facilities, wholesale power purchase and sale contracts, transmission facilities, alternative supply-side resources and levelized busbar costs.

6. Dominion's evaluation of resource options is reasonable and appropriate.

7. Dominion's 2012 IRP complies with the filing requirements of Rule R8-60, is reasonable, and should be approved.

8. Dominion's 2012 REPS compliance plan is reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 1

The evidence supporting this finding of fact is contained in Dominion's 2012 IRP and the record in this proceeding.

Chapter 2 of Dominion's 2012 IRP describes the Company's methodology for forecasting its peak demand and energy sales needs. Dominion uses two econometric models with an end-use orientation to forecast energy sales at the customer class level and hourly loads at the system level. Dominion's 15-year forecast from 2013 through 2027 predicted that its summer peaks will grow at a compound annual rate of 1.5%. The average annual growth of its summer peak from 2013 through 2027, which is considered its system peak, is 285 MW for the next 15 years, as compared to 274 MW in the 2011 IRP. Dominion predicts that load reductions from its DSM programs will reduce its 2027 peak load by approximately 2%. Dominion's energy sales are predicted to grow at an average annual rate of 1.6%. Dominion predicts that MWh savings from its EE programs will reduce its energy sales by approximately 3% in 2027.

The Public Staff reviewed Dominion's 2012 IRP peak and energy forecasts and found them to be reasonable for planning purposes.

Based upon the foregoing, the Commission concludes that Dominion's energy and peak load forecasts are reasonable and appropriate and should be approved. Dominion's forecasting methodology is well accepted in the industry and has proven over time to be reasonably accurate.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 2

The evidence for this finding of fact is contained in Dominion's 2012 IRP and the record in this proceeding.

Chapter 3 of Dominion's 2012 IRP describes the existing and proposed supply- and demand-side resources that the Company plans to use to meet its forecasted load.

On the supply side, Dominion owns a fleet of 102 generation units, including 4 nuclear, 24 coal, 1 biomass, 2 heavy oil, 2 natural gas-steam, 8 combined-cycles, 41 combustion turbines, 6 pumped storage, and 14 hydro units with a total summer capacity of approximately 17,603 MW, and is diverse in terms of capacity, age, operating characteristics and fueling requirements. Planned generation under construction consists of a 1,337 MW combined-cycle ("CC") unit at the Warren County facility scheduled to be completed in the 2015 timeframe, and the conversion of the Hopewell, Altavista and Southampton coal-fired stations to biomass-fueled facilities scheduled for completion by the end of 2013. Dominion also describes planned generation under development, including the Brunswick County Power Station, the Community Power Solar Program (including the Solar DG Demonstration and Solar Purchase Program), and the potential addition of another nuclear unit at the North Anna facility, which the Company continues to evaluate. These planned generation additions are projected to decrease the generation-to-load gap within Dominion's system.

In addition, Dominion's resource evaluation indicates that its existing blackstart generation capacity is quickly reaching the end of its useful life and requires replacement for compliance with the PJM Interconnection, L.L.C. ("PJM") Generator Operational Requirements Manual in order to maintain adequate blackstart capability. The Company's long-term strategy is to issue requests for proposals for a total of 250 MW of replacement blackstart generation in increments of at least 50 MW per year for five years between 2013 and the end of 2018 in order to replace the aging units.

Chapter 3 also explains that Dominion owns and operates several renewable resources, describes changes the Company has planned for its existing generation, including uprates, environmental improvements, retrofits, retirements and new construction, and discusses Dominion's non-utility generation ("NUG") resources, behind the meter generation ("BTMG"), and wholesale power sales. In compliance with the Commission's *Order Approving Integrated Resource Plans and REPS Compliance Plans* regarding the 2008 and 2009 IRPs, Docket Nos. E-100, Subs 118 and 124 (Aug. 10, 2010), Dominion provides at Appendix 3L a listing of wholesale power sales contract with parties whom the Company has either committed to, or expects to sell power to during the Planning Period.

On the demand side, Dominion offers several DSM and EE programs, consumer education programs and community outreach in both North Carolina and Virginia. In addition, Dominion currently has two DSM tariffs, Standby Generation and Curtailable Service, and is currently engaged in or has completed several DSM pilot programs in Virginia. Dominion's portfolio includes the same DSM and EE programs described in the 2011 IRP, with several notable exceptions. In February 2011, the Commission approved five programs proposed by Dominion: (i) the Air Conditioner Cycling Program, (ii) the Commercial HVAC Upgrade Program, (iii) the Commercial Lighting Program, (iv) the Low Income Program, and (v) the Residential Lighting Program. The Commission denied approval of Dominion's proposed Commercial Distributed Generation Program in September 2011. Subsequently, Dominion closed the Commercial HVAC and Commercial Lighting Programs to new participants and ceased offering those programs in Virginia. As a result of closing these two programs in

Virginia, Dominion could no longer operate them on a system-wide basis and, in August 2012, received Commission approval to suspend these programs in North Carolina in order to further study cost-effectiveness issues.

Public Staff stated that its investigation indicated that the planning process and consideration given to each resource was reasonable. Public Staff's statements regarding DSM/EE programs will be addressed further herein under Finding of Fact No. 4.

Based on the foregoing and the record in this proceeding, the Commission concludes that Dominion's plan for supply-side and demand-side resources expected to satisfy its loads is reasonable and appropriate and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 3

The evidence for this finding of fact is contained in Dominion's 2012 IRP and the record in this proceeding.

Chapter 4 of Dominion's 2012 IRP discusses the Company's Planning Assumptions, and states that it participates in the PJM capacity planning processes for short- and long-term capacity planning. As a PJM member, Dominion is a signatory to PJM's Reliability Assurance Agreement, which obligates the Company to own or procure sufficient capacity to maintain overall system reliability. PJM determines these obligations for each zone through its annual load forecast and reserve margin guidelines, and then conducts a capacity auction through its Short-Term Capacity Planning Process for meeting these requirements three years into the future. This auction process determines the reserve margin and the capacity price for each zone for the third planning year.

Dominion uses PJM's reserve margin guidelines in conjunction with its own load forecast to determine its long-term capacity requirement. PJM's 2011 Reserve Requirement Study recommended using a reserve margin of 15.4% to satisfy the reliability criteria required by NERC, Reliability First Corporation, and PJM's Planned Reserve Sharing Group.

Dominion utilizes a coincidence factor to account for the historically different peak periods between Dominion and PJM, and therefore its ability to meet its PJM reserve requirements. This coincidence factor reduces Dominion's reserve margin requirement to 11%. Dominion also includes a 16% upper margin, which is commensurate with the upper bound where the Reliability Pricing Model ("RPM") market auction has historically cleared. Dominion's planning reserve margin remains at 11%.

Based on its review, the Public Staff found the reserves listed to be reasonable and recommended that Dominion maintain its proposed reserve margins as filed.

Based on the foregoing and the record in this proceeding, the Commission concludes that the reserve margins produced by Dominion's plan for supply-side and demand-side resources expected to satisfy its loads are reasonable and appropriate and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 4

The evidence supporting this finding of fact is contained in Dominion's 2012 IRP and Reply Comments, and the record in this proceeding.

As discussed in Finding of Fact No. 2, Dominion describes its existing and planned demand-side resources, including current DSM tariffs, current and completed DSM pilot programs, current consumer education programs, and approved and proposed

DSM programs, in Chapter 3 (specifically, Section 3.2) of its 2012 IRP. The list of DSM and EE programs being considered for implementation is largely consistent with the list of proposed programs identified in the 2011 IRP. Dominion did not reject any new DSM/EE programs in the planning period.

While Dominion did not expressly address the use of DSM to achieve fuel savings in its 2012 IRP, Public Staff noted in its Comments that Dominion did include a brief discussion of the concerns about using its Residential Air Conditioning Cycling program more frequently. In 2011, this DSM program was activated over multiple days during the summer. As a result, Dominion observed some negative customer feedback, which resulted in customers leaving that program. In response to a Public Staff data request, Dominion indicated that it had not undertaken any formal study of the effects of greater use of DSM during high system load conditions to achieve fuel savings, but acknowledged that it was reasonable to assume that fuel savings result from the use of demand response resources. As a result of Dominion's first-hand experience with customer pushback from more frequent DSM usage, and coupled with the findings of Duke and PEC, Public Staff found it unnecessary for Dominion to conduct a study of potential fuel savings from DSM.

While the 2012 IRP Order required IOUs to include in their IRPs a discussion of their market potential studies for DSM and EE programs, Dominion informed Public Staff that it intends to update its market potential study in 2013 and will incorporate the new market potential study in its 2013 IRP.[7]

In its Comments, the Public Staff recommended, consistent with the

[7] Since its Reply Comments filed on March 5, 2013, Dominion plans to incorporate the new market potential study in its 2014 IRP. This revision is addressed in Section 5.5 of Dominion's 2013 IRP filed in this docket on August 30, 2013.

Commission's Smart Grid Order establishing Rule R8-60.1, that Dominion include a discussion of its current Smart Grid impacts in its Reply Comments, as these impacts were not addressed in the 2012 IRP. In its Reply Comments, Dominion provided additional information regarding its two programs related to Smart Grid (Voltage Conservation and Dynamic Pricing) and how such programs are enabled by leveraging advanced metering infrastructure ("AMI") as the foundational Smart Grid technology. Dominion also noted that the new Rule R8-60.1 filing requirement in the Smart Grid Order does not coincide with the filing date for the Company's IRP, which is due on September 1 of each even-numbered year (i.e., next due in 2014) with updates in the odd-numbered years, and would, therefore, not be ideal for utilities to develop their Smart Grid Technology Plans.[8]

Based on the foregoing and Dominion's 2012 IRP and Reply Comments, and the entire record in this proceeding, the Commission concludes that Dominion's efforts and plans to offer DSM and EE programs and measures are reasonable and appropriate for purposes of this proceeding and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 5

The evidence supporting this finding of fact is contained in Dominion's 2012 IRP and the record in this proceeding.

Rule R8-60(h) requires that biennial IRPs, such as the 2012 IRPs, contain each company's then-current integrated resource plan, together with all of the information listed by Rule R8-60(i), which includes: forecasts of load, supply-side resources, and

[8] Dominion, Duke, and PEC subsequently filed a Joint Motion to Amend Rule R8-60.1 in Docket No. E-100, Sub 126, to change the due date for the initial Smart Grid Technology Plans from July 1, 2013 to October 1, 2014, which the Commission granted by its May 6, 2013 Order Amending Rule R8-60.1 in that proceeding (*In the Matter of Investigation of Integrated Resource Planning in North Carolina – Smart Grid Technology Plans*).

demand-side resources; generating facilities; reserve margins; wholesale contracts for the purchase and sale of power; transmission facilities; demand-side management; assessment of alternative supply-side energy resources; evaluation of resource options; levelized busbar costs; and Smart Grid impacts.

In Chapter 3 of its 2012 IRP, Dominion provides information on its existing generation resources, including generation fleet demographics, existing capacity resource mix by unit type, as well as existing renewable resources. Dominion also provides information on planned changes to existing generation in the form of uprates, derates, and environmental improvements, potential generation retirements, and planned generation under construction, including construction of the Warren County Power Station and conversion of the Altavista, Hopewell and Southampton Power Stations from coal to biomass.

With regard to wholesale power purchase and sale contracts, Dominion describes in Chapter 3 of its 2012 IRP that a portion of its load and energy requirements are supplemented with contracted NUG units and market purchases. Dominion has existing contracts with nine NUGs, which are considered firm capacity resources and are included in the 2012 IRP. NUGs that are located at customer sites, that are BTMG, or from which Dominion does not have a contract to purchase capacity on a firm basis are not included in the 2012 IRP as a firm capacity resource. The 2012 IRP further provides that except for those NUG contracts, Dominion does not have any bilateral contractual obligations with wholesale power suppliers or power marketers. As a member of PJM, Dominion may self-schedule or buy capacity through the RPM auction process; the Company has procured its capacity obligations from the RPM market through May 31, 2016.

Dominion also states that it currently provides full requirements wholesale power sales to three entities, which are included in its load forecast, and has partial requirements contracts to supply the supplemental power needs of NCEMC.

Regarding transmission facilities, Chapter 3 of Dominion's 2012 IRP states that the Company has over 6,300 miles of transmission lines in North Carolina, Virginia, and West Virginia at voltages ranging from 69 kV to 500 kV, all of which are integrated into PJM. Dominion also describes its existing transmission and distribution lines, its one transmission interconnection project under construction, and its transmission lines and associated facilities that are under construction. In Chapter 4, Dominion describes its transmission planning process, system adequacy, transfer capabilities, and transmission interconnection process.

Dominion's 2012 IRP describes in Chapter 5 the Company's assessment of alternative supply-side resources, noting that it considered the following resources for further analysis in the busbar screening model: biomass, CC 2x1, CC 3x1, combustion turbine ("CT"), fuel cell, coal-fired integrated gasification combined-cycle ("IGCC") with carbon capture and sequestration ("CCS"), nuclear, super critical pulverized coal ("SCPC") CCS, solar photovoltaic ("PV"), brownfield solar ("solar tag"), off- and on-shore wind. Resources not included as a busbar resource for further analysis faced barriers such as the feasibility of the resource in Dominion's service territory, the state of technology development, and the availability of reasonable cost information. Dominion committed to continue to assess all alternative supply-side resources going forward, and stated its commitment to using technologies at reasonable and prudent costs that best meet its customers' needs.

Dominion's 2012 IRP states that the Company's busbar model was designed to estimate the levelized busbar costs of various technologies on an equivalent basis, and that the model's results show the levelized cost of power generation at different capacity factors, representing Dominion's initial quantitative comparison of various alternative resources. The comparisons include fuel, heat rate, emissions, variable and fixed operating and maintenance costs, expected service life, and overnight construction costs. Dominion's busbar model results showed that CT and CC technologies, along with biomass and nuclear, are the most cost-effective dispatchable resources for meeting its requirements. Dominion conducts a separate evaluation of non-dispatchable technologies, illustrating the relative economics of solar tag, on-shore wind, solar PV, and off-shore wind. Dominion states that while the assessment of alternative resource types and the busbar screening process provide a useful foundation for selecting resources for further analysis, the busbar curve is static in nature because it relies on an average of all of the cost data over a resource's lifetime. Dominion conducted further analysis using its Strategist model, which incorporates seasonal variations in cost and operating characteristics while integrating new resources with existing system resources. Dominion reported that this analysis more accurately matched the resources found to be cost-effective in this screening process, resulting in a selection of the type and timing of additional resources that economically fit the Company's current and future needs.

While recommending that the utilities provide additional details and discussion of projected alternative supply-side resources in a manner similar to that utilized by Duke, Public Staff did not raise any issue with Dominion's description of its generating facilities, wholesale contracts for the purchase and sale of power, transmission facilities, assessment of alternative supply-side energy resources, and evaluation of levelized busbar costs.

Based on the foregoing, the Commission's review of Dominion's 2012 IRP, and the entire record of this proceeding, the Commission concludes that Dominion's presentation of generating facilities, wholesale power purchase and sale contracts, transmission facilities, assessment of alternative supply-side energy resources, and evaluation of levelized busbar costs in its 2012 IRP is reasonable and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 6

The evidence supporting this finding of fact appears in Dominion's 2012 IRP, Dominion's Reply Comments, and the record in this proceeding.

As indicated in Chapter 6 of Dominion's 2012 IRP, the IRP process identifies, evaluates, and selects a variety of new resources to meet customers' growing capacity and energy needs to augment existing resources. This approach relies on integrating cost-effective DSM programs, supply-side resources, market purchases, and transmission options over the Study Period, resulting in a forward-looking representation of Dominion's system within the larger electricity market that simulates the dispatch of its electric generation units, market transactions, and DSM programs in an economic and reliable manner.

Dominion states that, to meet its capacity and energy needs over the Planning Period, it considers the economics of each available option within the IRP process, along with qualitative considerations such as fuel diversity and environmental compliance, and plans a prudent strategy of filling the capacity gap with a carefully chosen and diverse portfolio of resources to meet long-term needs at the lowest-reasonable cost. To assess an optimum strategy, Dominion indicates that it developed four alternative plans and analyzed them against a set of scenarios and sensitivities. As a result of this alternative plan analysis, Dominion selected Plan B, Fuel Diversity, as its Preferred Plan, based on its balanced mix of baseload, intermediate and peaking units as well as a diverse fuel mixture including fossil, nuclear and renewable resources. While acknowledging that the Preferred Plan is higher cost than the Base Plan, Dominion explained its selection of the Fuel Diversity Plan based on: (1) Dominion's belief that nuclear, despite being capital intensive, is still the most cost-effective non-gas baseload resource; (2) Dominion's belief that the Base Plan is over-reliant on natural gas as a fuel source; (3) Dominion's concern that the need for new nuclear power becomes greater over time with the expiration of the licenses for four of its nuclear units in the next 25 years (outside the 15-year Planning Period); (4) the availability of land-based wind energy sites in or near the Company's service territory, which will support fuel diversity and lower overall emissions; and (5) the addition of a 10 MW solar facility to a brownfield site, which will also support fuel diversity and lower overall emissions.

While acknowledging that Dominion's resource mix is less nuclear-reliant than Duke's, Public Staff suggested in its Comments that the benefit of additional nuclear generation from a fuel diversity perspective requires further evaluation. Public Staff further commented that, to the extent a utility selects a preferred plan based on factors outside of the planning period, that utility should provide a justification for its reliance or consideration of those circumstances in reply comments. Public Staff also recommended that the Commission direct such utilities to elaborate and provide additional support for their decision.

In its Reply Comments, Dominion noted that its reliance in the 2012 IRP on license expirations of its four nuclear plants beyond the Planning Period support the need for inclusion of new nuclear power in the Preferred Plan, as all four licenses will expire in the next 25 years, and recognition of these expirations is a reasonable consideration for Dominion to use in evaluating its choice of the Preferred Plan. Dominion also noted that, to assess the uncertainty and risks associated with external market and environmental factors, Dominion developed four alternative plans representing plausible future paths, and evaluated those plans using 14 scenarios and sensitivities and one basecase, as explained in Chapter 6 of its 2012 IRP. As a result of this analysis, Dominion indicates that it selected the Preferred Plan because it would provide fuel-price stability for customers over the long term by reducing over-reliance on any one fuel source and/or generation technology, as well as the most reliable baseload energy over the long term by incorporating emissions-free resources, such as a nuclear unit at the North Anna Power Station. Finally, for the next North Carolina IRP, Dominion indicated that it would develop additional support for any determination by the Company should a fuel diversity plan be the preferred plan, over the base plan.

Based on the foregoing and Dominion's 2012 IRP and Reply Comments, and the entire record in this proceeding, the Commission concludes that Dominion's evaluation of resource options is reasonable and appropriate for purposes of this proceeding and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 7

The evidence supporting this finding of fact appears in Dominion's 2012 IRP, the record in this proceeding, and the requirements of Commission Rule R8-60.

Dominion's 2012 IRP was prepared for the Dominion Load Serving Entity ("DOM LSE"), and represents the Company's service territories in the State of North Carolina and the Commonwealth of Virginia, which are part of the PJM Regional Transmission Organization. Dominion states that its objective in developing the 2012 IRP was to identify the mix of resources necessary to meet our customer's future energy and capacity needs in an efficient and reliable manner at the lowest reasonable cost while considering future uncertainties. The Company's options for meeting these future needs are: i) supply-side resources, ii) demand-side resources, and iii) market purchases. Dominion notes that the 2012 IRP is a long-term planning document, and that the provisions of North Carolina and Virginia law result in the Company preparing such a plan every year. Dominion's 2012 IRP includes chapters on load forecasting; existing and proposed supply-side, demand-side and transmission resources; planning assumptions; future supply-side resources and demand-side management initiatives, levelized busbar costs, planned generation under development and future transmission projects; and the IRP process.

Dominion has responded in its 2012 IRP to all of the applicable subsections of Rules R8-60(h) and R8-60(i). In addition to the requirements of Rule R8-60(i) discussed in more detail herein, Dominion's 2012 IRP contained, as required by Rule R8-60(h)(3), a short-term action plan discussing specific actions being taken by Dominion to implement the activities chosen as appropriate per the 2012 IRP, as well as, per Rule R8-60(h)(4), the Company's REPS compliance plan. In addition, per Rule R8-62(p), Dominion's IRP incorporates information concerning the construction of transmission lines. The Public Staff did not raise any issues with Dominion's compliance with the filing requirements of Rule R8-60.

Based on the foregoing and the record in this proceeding, the Commission concludes that Dominion's 2012 IRP as a whole complies with the requirements of Rule R8-60 and should be approved.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 8

The evidence supporting this finding of fact is contained in the record in this proceeding and in Dominion's 2012 REPS compliance plan.

Dominion filed its 2012 REPS compliance plan with its 2012 IRP in this proceeding on August 31, 2012. Dominion indicates that it plans to meet North Carolina's statutory goals through 2021 and thereafter with a REPS compliance plan that includes the use of Renewable Energy Certificates ("RECs"), EE and new company-generated renewable energy where economically feasible. As noted by Dominion, N.C.G.S. § 62-133.8(d) sets the initial compliance target for solar in years 2010 and 2011 at 0.02% of the previous year's baseline load, with overall REPS compliance beginning in 2012, along with swine waste and poultry waste set-asides. Dominion indicates that it began implementing EE programs in North Carolina by introduction of the Residential Lighting Program in May 2011 and the other approved programs in June 2011. Dominion states that the programs will contribute to the overall REPS goals, subject to approval by the Commission.

Dominion also states that it is responsible for meeting the REPS requirements for the Town of Windsor, one of its wholesale customers. The Company plans to meet both its obligations and the Town of Windsor's requirements, with out-of-state RECs, in accordance with the Commission order of September 22, 2009, that clarified that Dominion may use out-of-state RECs to meet all of its REPS requirements per N.C.G.S. § 62-133.8(b)(2)(e).

In its REPS compliance plan, Dominion indicates that its strategy for compliance with solar requirements is to buy unbundled out-of-state RECs to minimize the compliance cost to the ratepayers. Dominion has purchased or entered into contracts to purchase solar RECs for its compliance with N.C.G.S. § 62-133.8 (d) through 2014, which will provide enough solar RECs to satisfy its compliance for the years 2012-2014 and approximately 35% of the requirements for 2015-2017.

Dominion reports that as a result of its search for swine waste RECs in the marketplace, it learned that swine waste-to-energy technology is relatively new and the market is therefore not yet developed. Based on this assessment, Dominion joined a collaborative Swine Waste REC Buyers Group, which executed seven long-term contracts with different swine waste-to-energy developers that were expected to meet its requirements until 2015. However, Dominion states that with the passage of time, several of the contracts terminated due to consistent failure by the developers to meet the project milestones and demonstrate progress toward commercial operation. As a result of these terminations, Dominion indicates that it joined with other electric suppliers in filing an amended joint motion for delay of the swine and poultry waste resource requirements until 2014 in Docket No. E-100, Sub 113, which the Commission partially granted in the November 29, 2012, *Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Granting Other Relief.* Dominion also states that it joined the Poultry REC Buyers Group to meet its Poultry Waste Set-Aside requirement, which executed two long-term poultry waste contracts for Dominion (as part of the Buyers Group) and two long-term contracts for the Town of Windsor's in-state requirements. Dominion indicates that it will be able to meet its 2012-2014 poultry waste REPS requirements and 25% of the Town of Windsor's requirements (but not its in-state poultry waste REPS requirement for 2012-2014).

Dominion indicates that it plans to comply with the general REPS requirements, which began in 2012, using a combination of the approved options to include obtaining qualifying RECs, applying EE programs, and using company-generated new renewable energy that qualify under North Carolina law. Dominion provided a list of the potential EE programs and resulting savings based on a projected system allocation, noting that, depending on the outcome of the evaluation of operating EE programs exclusively in North Carolina, it may be more appropriate to use specific EE savings attributable to North Carolina customer participation.

In accordance with the requirements of Rule R8-67, Dominion's REPS compliance plan listed for itself and, where applicable, for the Town of Windsor: projected North Carolina retail sales and year-end number of customer accounts by customer class for each year of the planning period; a statement regarding current and projected avoided cost rates for each year of the planning period; projected total and incremental costs anticipated to implement its REPS compliance plan for each year of the planning period; and a comparison of projected costs to the annual cost caps contained in N.C.G.S. § 62-133.8(h)(4). Finally, Dominion states that it did not file a REPS Rider in 2011, as permitted by Rule R8-67(b)(viii), and did not file a REPS Rider in calendar year 2012, and also confirms that it will ensure that the facilities from which it purchases

RECs have registered with the Commission pursuant to Rule R8-66.

Public Staff stated in its Comments its belief that the electric power suppliers will likely continue to have difficulty meeting the swine and poultry waste set-asides even with a delay in the requirements.

Based on the foregoing, the Commission's review of Dominion's 2012 REPS compliance plan, and the entire record in this proceeding, the Commission concludes that the 2012 REPS compliance plan submitted by Dominion is reasonable for purposes of this proceeding and should be approved.

IT IS, THEREFORE, ORDERED as follows:

1. That this Order shall be adopted as a part of the Commission's current analysis and plan for the expansion of facilities to meet future requirements for electricity for North Carolina pursuant to N.C.G.S. § 62-110.1(c).

2. That the 2012 Biennial IRP filed in this proceeding by Dominion is hereby approved.

3. That the 2012 REPS compliance plan filed in this proceeding by Dominion is hereby approved.

ISSUED BY ORDER OF THE COMMISSION.

This the ____ day of ______, 2013.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount, Chief Clerk

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Proposed Order of Dominion North Carolina Power*, as filed today in Docket No. E-100, Sub 137 has been served electronically or via U.S. mail, first-class, postage prepaid, upon all parties of record.

This, the 9th day of September, 2013.

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