




Piedmont Electric Membership Corporation

A Touchstone Energy® Cooperative 
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Clerk's Office
 N.C. Utilities Commission

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September 1, 2011

Renné Vance, Chief Clerk
 North Carolina Utilities Commission
 430 N. Salisbury Street
 Dobbs Building
 Raleigh, North Carolina 27603-5918

Re: Piedmont EMC - 2011 Integrated Resource Plan

E100 SUB 128

Dear Ms. Vance:

Pursuant to Rule R8-60 of the North Carolina Utilities Commission's Rules and Regulations, Piedmont EMC hereby provides for filing an original and thirty (30) copies of our 2011 Integrated Resource Plan. Also included is the required certification document.

If you have any questions, please do not hesitate to contact me at 919.732.2123.

Sincerely,



R. G. Brecheisen
 President and Chief Executive Officer

(ST)
 AG
 7 Comm
 Watson
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2011
NCUC Integrated Resource Plan

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SEP 01 2011

**Clerk's Office
N.C. Utilities Commission**

E100 SUB 128



® Piedmont Electric
Membership Corporation

North Carolina Utilities Commission
September 1, 2011

SEP 01 2011**Executive Summary**Clerk's Office
N.C. Utilities Commission

This document represents Piedmont EMC's Annual Report filed with the North Carolina Utilities Commission ("NCUC") in response to R8-60 of the NCUC Rules and Regulations. This plan includes a forecast of loads and resources to meet Piedmont's power supply needs over the next fifteen years.

Piedmont EMC has load in two control areas: Duke ("Duke Load") (76%) and Progress Energy Carolinas East ("Progress Load") (24%). For its Duke Load, in January 2008, Piedmont EMC entered into a Full Requirements Power Purchase Agreement ("FRA") with Duke Power Company, LLC ("Duke"), amending its 2006 contract with Duke. Under this full requirements agreement, Piedmont has agreed to make its entitlements to the electric energy and capacity from the Wholesale Power Supply Agreement ("WPSA") with North Carolina Electric Membership Corporation ("NCEMC") (allocated to the Duke control area) available to Duke and Duke will plan, procure and provide electric capacity, energy and scheduling services for Piedmont's load in the Duke control area. The initial term of this agreement is through the year 2021 with an automatic extension mechanism that allows the agreement to extend for additional 10 year periods and has since been extended through 2031.

For its Progress Load, Piedmont EMC entered into a long-term agreement with Progress Energy Carolina, Inc. ("Progress") in September, 2006 which was amended in December 2008. Under this agreement, Piedmont has agreed to make entitlements to its combined cycle resources from the WPSA with NCEMC (allocated to the Progress control area) available to Progress and Progress will plan, procure and provide electric capacity and energy to meet the future incremental power supply needs of Piedmont EMC, above the remaining NCEMC resources and SEPA resources that are allocated to the Progress Load. The initial term of this agreement is through the year 2021. Although this agreement does not have an automatic extension mechanism, it does contemplate an extension or replacement of the existing agreement. Therefore, it is planned that the supply of electric power and energy under the NCEMC WPSA, along with purchases from SEPA, Duke and Progress, will continue to meet the power supply needs of Piedmont EMC through the planning period.

Piedmont EMC is a transmission dependent utility and relies on the transmission systems of Duke Energy and Progress Energy Carolinas to transfer power purchases to their loads. Piedmont EMC receives Network Integration Transmission Service under Part III of the Open Access Transmission Tariff with Duke Transmission and under Part III of the Open Access Transmission Tariff with Progress Energy Carolinas.

The following is Piedmont EMC's response to the requested data as outlined in NCUC's Rule R8-60:

Section I: Piedmont EMC Integrated Resource Plan

1. Forecasts of Load, Supply-Side Resources, and Demand-Side Resources

Piedmont EMC employs TSE Services to develop their annual load forecast. TSE is responsible for the coordination of the forecasting effort including consumer research, energy and demand forecasting, and weather data analysis. The load forecast is reviewed by Piedmont and the input from their staff is used to revise the forecast if necessary.

Customers, energy and demand are forecasted on a monthly basis. The customer forecast and the energy sales forecast are completed for each retail class listed on the RUS Form 7. The system monthly energy is the sum of the retail class energy sales adjusted for losses.

Residential and commercial customers are forecast using regression analysis. This forecast of customers by retail class is then utilized in developing the energy forecast. For both the residential and commercial energy forecasts, the forecast of customer growth of each class is multiplied by the forecast of average energy consumption per customer for that class, under the assumption of normal weather. Industrial customers are modeled on an individual basis. The demand forecast is developed similarly to the energy forecast by multiplying the number of customers and an average hourly demand per customer.

a) Customers by class:

Table 1.1 provides a ten year history and a fifteen year forecast of Piedmont EMC's customers by each customer class, along with a ten year history and a fifteen year forecast of the energy sales (MWh) by each customer class.

b) Forecast of Peak Loads and Energy Requirements:

Table 1.2 and Table 1.3 provide a fifteen year forecast of Piedmont EMC's peak load requirements for both the summer and winter periods and energy requirements from 2012 through 2026. Following these tables are the load duration curves for Piedmont EMC for 2012 and 2026.

Table 1.1: Piedmont EMC Historical and Forecast Customers by Class and Energy Sales by Class

| Customers By Class | | | | | | | | | | | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Historical | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | | | | | |
| Residential | 25,438 | 25,621 | 26,219 | 26,710 | 27,036 | 27,263 | 27,399 | 27,410 | 27,490 | 27,676 | | | | | |
| Seasonal | | | | | | | | | | | | | | | |
| Commercial | 2,983 | 3,127 | 3,183 | 3,285 | 3,451 | 3,470 | 3,548 | 3,575 | 3,574 | 3,630 | | | | | |
| Industrial | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | |
| Other | | | | | | | | | | | | | | | |
| Total | 28,423 | 28,849 | 29,403 | 29,996 | 30,488 | 30,734 | 30,948 | 30,986 | 31,035 | 31,510 | | | | | |
| | | | | | | | | | | | | | | | |
| Forecast | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Residential | 28,273 | 28,771 | 29,276 | 29,784 | 30,352 | 30,948 | 31,563 | 32,217 | 32,888 | 33,547 | 34,225 | 34,918 | 35,609 | 36,302 | 37,005 |
| Seasonal | | | | | | | | | | | | | | | |
| Commercial | 3,682 | 3,748 | 3,815 | 3,884 | 3,958 | 4,037 | 4,119 | 4,208 | 4,295 | 4,383 | 4,473 | 4,565 | 4,657 | 4,749 | 4,842 |
| Industrial | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Other | | | | | | | | | | | | | | | |
| Total | 31,856 | 32,520 | 33,092 | 33,679 | 34,311 | 34,986 | 35,683 | 36,424 | 37,184 | 37,931 | 38,699 | 39,484 | 40,287 | 41,052 | 41,848 |
| Energy Sales (MWH) by Class | | | | | | | | | | | | | | | |
| Historical | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | | | | | |
| Residential | 358,963 | 359,833 | 377,388 | 388,873 | 370,077 | 391,352 | 380,617 | 384,866 | 430,437 | 417,044 | | | | | |
| Seasonal | | | | | | | | | | | | | | | |
| Commercial | 63,719 | 64,150 | 57,134 | 55,274 | 54,714 | 59,978 | 59,753 | 59,535 | 62,217 | 62,231 | | | | | |
| Industrial | 8,810 | 10,927 | 11,473 | 13,251 | 11,517 | 12,173 | 8,523 | 7,580 | 8,279 | 8,116 | | | | | |
| Other | | | | | | | | | | | | | | | |
| Total | 420,482 | 424,910 | 445,995 | 457,398 | 436,308 | 463,501 | 449,093 | 451,981 | 500,933 | 487,391 | | | | | |
| | | | | | | | | | | | | | | | |
| Forecast | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Residential | 426,527 | 433,679 | 441,314 | 448,051 | 457,188 | 466,044 | 475,248 | 484,834 | 495,096 | 505,096 | 515,244 | 525,714 | 536,273 | 546,991 | 557,369 |
| Seasonal | | | | | | | | | | | | | | | |
| Commercial | 63,050 | 64,135 | 65,286 | 66,454 | 67,883 | 69,023 | 70,407 | 71,890 | 73,408 | 74,918 | 76,445 | 78,026 | 79,619 | 81,198 | 82,803 |
| Industrial | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 |
| Other | | | | | | | | | | | | | | | |
| Total | 497,683 | 505,930 | 514,716 | 523,621 | 532,987 | 543,183 | 553,771 | 564,810 | 578,620 | 588,131 | 599,805 | 611,856 | 624,008 | 635,995 | 648,308 |

Table 1.2: Piedmont EMC Projected Summer Peak Loads, Resources and Annual Energy (2010 Load Forecast)

Piedmont EMC - Duke Control Area

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PEAK (MW) (1) | 99 | 101 | 103 | 105 | 107 | 109 | 111 | 113 | 116 | 118 | 120 | 123 | 125 | 128 | 130 |
| ANNUAL ENERGY (GWh) (1) | 133 | 135 | 137 | 140 | 142 | 145 | 148 | 151 | 154 | 157 | 160 | 163 | 166 | 170 | 173 |

Notes:

1. Peak and energy values are measured at generation.
2. Piedmont EMC's load requirements in the Duke Control Area are being met by a requirements agreement with Duke Power Company, LLC, thus Piedmont's loads and resources are integrated into Duke Power's 2010 Integrated Resource Plan. The initial term of the agreement with Duke Power is January 1, 2009 thru December 31, 2021. The contract has an automatic extension mechanism that allows the agreement to extend for additional 10 year periods and has since been extended through 2031. All current and future resources provided by Duke Power are firm; the Duke Power purchase is a network resource recognized by Duke Transmission. Resources provided by Duke Power will come from resources in the Duke control area or through imports made with firm transmission. Duke Power has operational control of Piedmont's demand-side programs, therefore the MIVs associated with these programs are considered a Duke resource.

Piedmont EMC - Progress Energy (CP&L East) Control Area

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Load Requirements: | | | | | | | | | | | | | | | |
| PEAK (MW) (1) | 33 | 33 | 34 | 35 | 35 | 36 | 37 | 37 | 38 | 39 | 40 | 41 | 41 | 42 | 43 |
| Purchased Resources: (2) | | | | | | | | | | | | | | | |
| NCEM WPSA | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| SEPA | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Progress Energy Purchases (3) | 26 | 26 | 28 | 29 | 29 | 30 | 31 | 31 | 32 | 33 | 34 | 35 | 35 | 36 | 43 |
| TOTAL RESOURCES (MW) | 33 | 33 | 34 | 35 | 35 | 36 | 37 | 37 | 38 | 39 | 40 | 41 | 41 | 42 | 43 |
| RESERVE CAPACITY (MW) (2) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANNUAL ENERGY (GWh) (1) | 418 | 423 | 431 | 438 | 446 | 454 | 463 | 472 | 482 | 492 | 502 | 512 | 522 | 532 | 542 |

Notes:

1. Peak and energy values are measured at generation.
2. All purchases are 100% firm with reserves provided by the supplying entity.
3. The initial term of the purchase with Progress Energy is thru December 31, 2021. Although this agreement does not have an automatic extension mechanism, it does contemplate an extension or replacement of the existing agreement. All current and future resources provided by Progress Energy are firm; the Progress Energy purchase is a network resource recognized by CP&L Transmission. Resources provided by Progress Energy will come from resources in the CP&L East control area or through imports made with firm transmission.

Piedmont EMC - TOTAL SUMMER LOAD

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PEAK (MW) (1) | 132 | 135 | 137 | 139 | 142 | 145 | 148 | 151 | 154 | 157 | 160 | 163 | 167 | 170 | 173 |
| ANNUAL ENERGY (GWh) (1) | 549 | 558 | 568 | 578 | 588 | 599 | 611 | 623 | 636 | 649 | 662 | 675 | 688 | 701 | 715 |
| ANNUAL ENERGY (GWh) (1) (Including Impact of Energy Efficiency Programs) | 542 | 548 | 557 | 565 | 574 | 583 | 594 | 605 | 617 | 628 | 641 | 654 | 667 | 680 | 693 |

Notes:

1. Peak and energy values are measured at generation.

Table 1.3: Piedmont EMC Projected Winter Peak Loads, Resources and Annual Energy (2010 Load Forecast)

Piedmont EMC - Duke Control Area

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PEAK (MW) (1) | 104 | 105 | 107 | 109 | 111 | 113 | 115 | 118 | 120 | 123 | 125 | 128 | 130 | 133 | 135 |
| ANNUAL ENERGY (GWh) (1) | 133 | 135 | 137 | 140 | 142 | 145 | 148 | 151 | 154 | 157 | 160 | 163 | 166 | 170 | 173 |

Notes:

1. Peak and energy values are measured at generation.
2. Piedmont EMC's load requirements in the Duke Control Area are being met by a requirements agreement with Duke Power Company, LLC, thus Piedmont's loads and resources are integrated into Duke Power's 2010 Integrated Resource Plan. The initial term of the agreement with Duke Power is January 1, 2009 thru December 31, 2021. The contract has an automatic extension mechanism that allows the agreement to extend for additional 10 year periods. All current and future resources provided by Duke Power are firm; the Duke Power purchase is a network resource recognized by Duke Transmission. Resources provided by Duke Power will come from resources in the Duke control area or through imports made with firm transmission. Duke Power has operational control of Piedmont's demand-side programs, therefore the MWs associated with these programs are considered a Duke resource.

Piedmont EMC - Progress Energy (CP&L East) Control Area

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Load Requirements: | | | | | | | | | | | | | | | |
| PEAK (MW) (1) | 34 | 34 | 35 | 35 | 36 | 37 | 38 | 38 | 39 | 40 | 41 | 42 | 42 | 43 | 44 |
| Purchased Resources: (2) | | | | | | | | | | | | | | | |
| NCEMC WPSA | 8 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| SEPA | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Progress Energy Purchases (3) | 27 | 27 | 29 | 29 | 30 | 31 | 32 | 32 | 33 | 34 | 35 | 36 | 36 | 37 | 44 |
| TOTAL RESOURCES (MW) | 34 | 34 | 35 | 35 | 36 | 37 | 38 | 38 | 39 | 40 | 41 | 42 | 42 | 43 | 44 |
| RESERVE CAPACITY (MW) (2) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANNUAL ENERGY (GWh) (1) | 416 | 423 | 431 | 438 | 446 | 454 | 463 | 472 | 482 | 492 | 502 | 512 | 522 | 532 | 542 |

Notes:

1. Peak and energy values are measured at generation.
2. All purchases are 100% firm with reserves provided by the supplying entity.
3. The initial term of the purchase with Progress Energy is thru December 31, 2021. Although this agreement does not have an automatic extension mechanism, it does contemplate an extension or replacement of the existing agreement. All current and future resources provided by Progress Energy are firm; the Progress Energy purchase is a network resource recognized by CP&L Transmission. Resources provided by Progress Energy will come from resources in the CP&L East control area or through imports made with firm transmission.

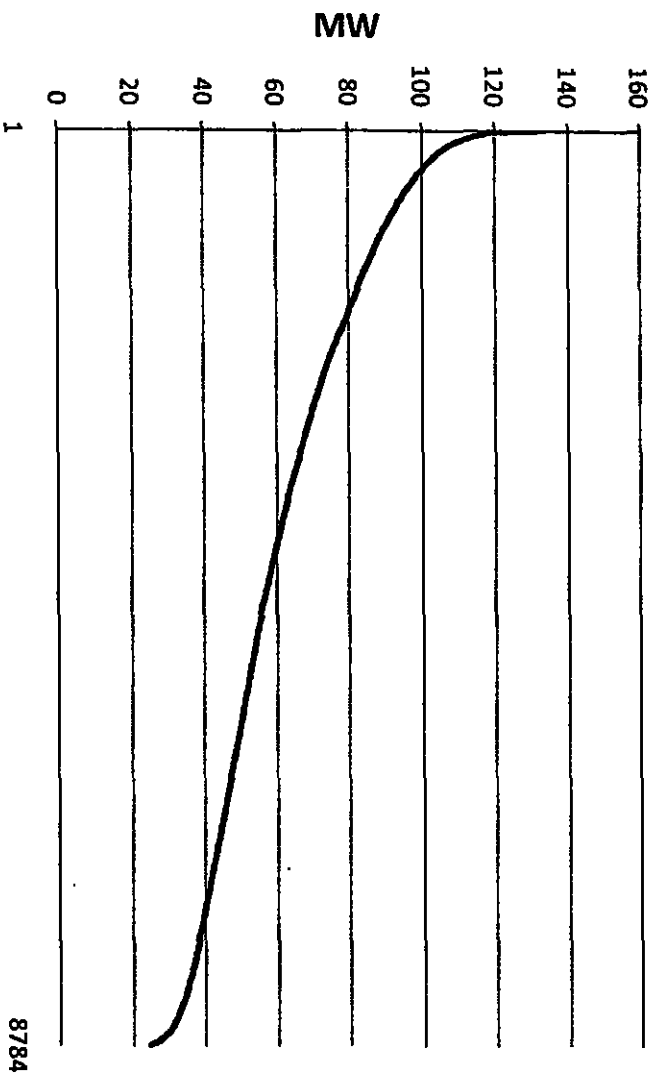
Piedmont EMC - TOTAL WINTER LOAD

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PEAK (MW) (1) | 138 | 140 | 142 | 145 | 147 | 150 | 153 | 156 | 159 | 162 | 166 | 169 | 172 | 176 | 179 |
| ANNUAL ENERGY (GWh) (1) | 549 | 558 | 568 | 576 | 586 | 599 | 611 | 623 | 636 | 649 | 662 | 675 | 688 | 701 | 715 |
| ANNUAL ENERGY (GWh) (1) (Including Impact of Energy Efficiency Programs) | 542 | 549 | 557 | 565 | 574 | 583 | 594 | 605 | 617 | 628 | 641 | 654 | 667 | 680 | 693 |

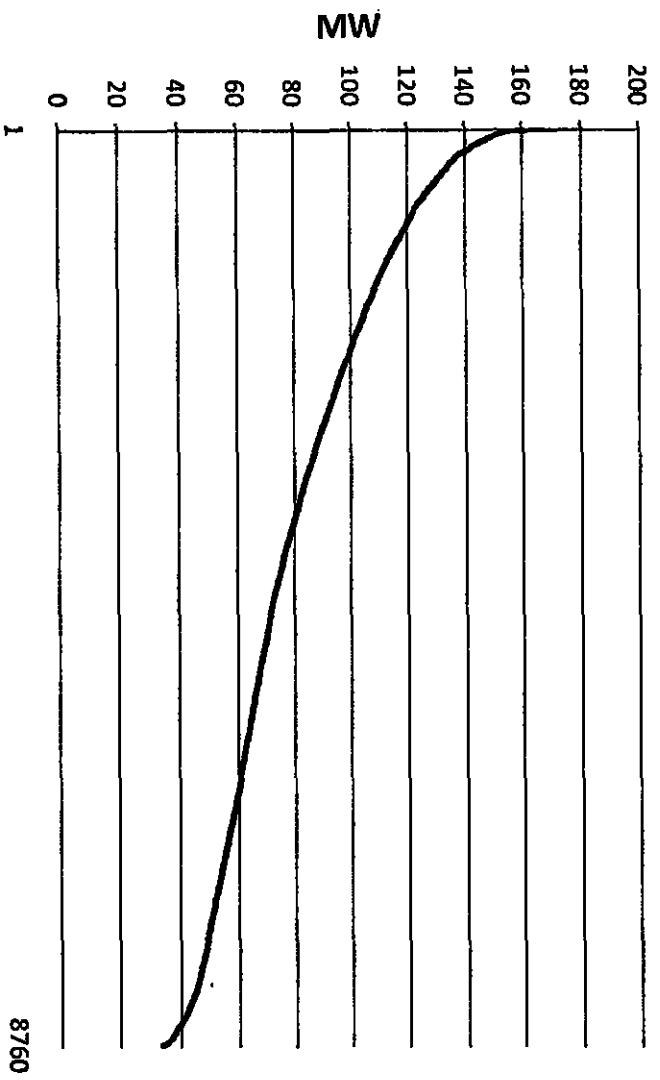
Notes:

1. Peak and energy values are measured at generation.

**Piedmont EMC
2012 Load Duration Curve**



**Piedmont EMC
2026 Load Duration Curve**



c) Future supply-side resources:

For the Duke Load, Duke will plan, procure and provide electric capacity and energy to meet the future power supply needs of Piedmont EMC.

For the Progress Load, Progress will plan, procure and provide electric capacity and energy to meet the future incremental power supply needs of Piedmont EMC, above their existing NCEMC resources (other than combined cycle) and SEPA resources that are allocated to the Progress Load.

2. Generating Facilities

a) Existing Generation:

Piedmont does not own any generating plants.

b) Planned Generation Additions:

Piedmont does not have plans to purchase or construct electric generating facilities.

c) Non-Utility Generation:

Piedmont EMC has solar panels and several backup generators located on their system. This generation is treated as a demand side resource and is thus not included in the EMC's list of power supply resources.

| Facility | Location | Primary Fuel Type | Capacity | Designation |
|------------------|---------------------|-------------------|----------|----------------------|
| 44 Solar Panels | Various | Solar | 365 kW | Qualified Facilities |
| Backup Generator | Hillsborough Office | Diesel | 300 kW | Contingency |
| Backup Generator | Roxboro Office | Diesel | 200 kW | Contingency |
| Backup Generator | Caswell Office | Diesel | 100 kW | Contingency |

3. Reserve Margins

For the Duke Load, Duke will plan, procure and provide electric capacity and energy to meet the future power supply needs of Piedmont EMC. These purchases from Duke Power are 100% firm and all reserves are provided by Duke.

For the Progress Load, Progress will plan, procure and provide electric capacity and energy to meet the future incremental power supply needs of Piedmont EMC, above their existing NCEMC resources (other than combined cycle) and SEPA resources that are allocated to the Progress Load. These purchases from Progress, NCEMC and SEPA are 100% firm and all reserves are provided by each of the supplying entities.

4. Wholesale Contracts for the Purchase and Sale of Power

a) Wholesale Purchased Power Contracts:

| | Primary Fuel Type | Capacity (MW) | Designation | Location | Expiration Date |
|-----------------|-------------------|-----------------------|--------------------|-------------------------------|-----------------|
| NCEMC WPSA | Nuclear | See Table 1.2 and 1.3 | Base/Intermediate | Progress & Duke Control Areas | 2046 |
| SEPA | Hydro | 1 | Base/Peaking | Progress Control Area | |
| Progress Energy | System Purchase | See Table 1.2 and 1.3 | Base/Inter/Peaking | Progress Control Area | 2021* |
| Duke Power, LLC | System Purchase | Full Requirements | Base/Inter/Peaking | Duke Control Area | 2031** |

*Contract does not have an automatic extension mechanism, It does contemplate an extension or replacement of the existing agreement.

**Contract has an automatic extension mechanism that allows the agreement to extend for additional 10 year periods.

b) Results of Request For Proposals:

For the Duke Load, Duke will plan, procure and provide electric capacity and energy to meet the future power supply needs of Piedmont EMC.

For the Progress Load, Progress will plan, procure and provide electric capacity and energy to meet the future incremental power supply needs of Piedmont EMC, above their existing NCEMC resources (other than combined cycle) and SEPA resources that are allocated to the Progress Load.

c) Wholesale Power Sales Contracts:

Piedmont EMC has no current or future wholesale power sales commitments.

5. Transmission Facilities

Piedmont EMC's Red Mountain Substation has a 500' 230 kV tap and is located on Bowen Road in Person County. The Dixon Store Substation, located on Neal Store Road in Person County was completed in the summer of 2009 and has 1000' 230 kV tap. The existing 230 kV transmission system is adequate to serve the projected system loads of Piedmont EMC.

6. Demand-Side Management

a) Existing Programs:

Demand Response Programs:

Load Control: Piedmont EMC has 7,500 kW of load control in the Duke Control Area and 1,700 kW of load control in the Progress Control Area which consists of switches installed on water heaters and air conditioners. Load Control is used in the Duke Control Area as a system contingency.

Time of Use Rates: Piedmont offers time of use rates to all customer classes. Piedmont currently has 519 residential consumers and 24 commercial and industrial consumers on a Time of Use rate.

Interconnected Member Owned Generation: Piedmont offers a small, up to 25 kW, and a large 25 - 200 kW net metering renewable generator rider. Piedmont also offers a Qualified Facilities Purchased Power rate. Piedmont has 44 consumers with solar panels and 1 consumer with a wind turbine.

Green Power: Piedmont promotes the Green Power Program and currently 137 of their members purchase 235 units per month.

Energy Efficiency Programs:

Low Interest Energy Efficiency Loans: Piedmont offers loans up to \$10,000 at 5% interest for seven years to members for energy efficiency projects at their homes. The majority of the loans are used to replace existing inefficient heat pumps with high efficient heat pumps. Each year approximately 70 loans are made.

Residential Energy Efficiency Rate Rider: Piedmont offers a rate discount to residential members whose homes and equipment meet energy efficiency standards. As of the end of 2009, Piedmont had 2,777 consumers on the Energy Efficiency Rate Rider.

b) New Programs:

Piedmont EMC is actively planning and implementing the programs and initiatives that will be the foundation for its successful accomplishment of the new Renewable Energy and Energy Efficiency Portfolio Standards (REPS) requirement that was issued as a mandate by the North Carolina Utilities Commission in 2007. These programs and initiatives are mostly a continuation and expansion of programs that have existed at Piedmont EMC for decades. The cooperative has always been focused on helping our members manage their electricity needs in the most cost effective and economical way. These programs that we will continue to focus on include offering residential, commercial and industrial energy efficiency evaluations at no cost to our members, high efficiency heat pump rebates, time-of-day rates and rates for our members that are renewable generation producers. We have recently added to our technology energy toolkit a residential duct blasting test and a new infrared thermal imaging camera. These new tools are used during energy audits and they help our members identify areas within their homes and buildings where measures can be applied to help improve their energy efficiency. At our April 2010 Annual Meeting we provided members in attendance with more than 1,600 energy saving CFLs and celebrated Earth Day during April 19-23, 2010 by giving members 500 energy saving CFLs. Piedmont EMC is also an Energy Star Partner with the US Environmental Protection Agency and the Department of Energy. Within the Energy Star Partner Program, Piedmont EMC will be promoting energy star products and programs that promote energy efficiency. Through GreenCo Solutions Inc., we will be participating in programs that involve energy efficiency programs and renewable

energy resources. In February 2009, we began a \$.50 per CFL rebate program which credits a member's account, up to \$15 per year, when CFLs are purchased. Through July 2010, Piedmont has given rebates for more than 3,500 CFLs. September 2009 marked our electric water heater kit program rollout and through July 2010, Piedmont has sold more than 450 electric water heater wraps. These water heater kits can save up to 940 kWhs per year. Our smart grid meter deployment program was completed in August 2009. The smart grid meters have allowed us to offer a pre-pay program and an online daily energy monitoring system for all members. To date there are 1144 members using the daily usage monitor and 431 using the prepaid program. In February 2009 we conducted a solar water heater pilot rebate program and in May 2009 we implemented the program offering a \$500 rebate to members who install a solar water heater and through July 2010, Piedmont has issued 23 solar water heater rebates to our consumers.

c) Evaluated but Rejected Programs:
None

d) Consumer Education Programs:

Home Energy Audits: Piedmont offers free residential energy audits to members. Trained staff evaluates the member's home insulation levels and outside building envelope and make recommendations to improve efficiency and save energy. Water heaters, appliances, lighting and other home energy equipment are also evaluated as part of the audit. In 2008, an infrared camera was purchased as a new tool for the residential energy auditors.

TogetherWeSave.com Website: Through our National Organization, we have launched the TogetherWeSave.com tool which provides members with money saving tips and practices by saving energy. The website has energy saving application, watch and learn videos, energy savings forum, and a share your story venue.

Heating and Air Conditioning System Audits: Piedmont offers free evaluations of members heating and air conditioning systems by an experienced HVAC technician. Systems are evaluated for efficient operation and system integrity. Ducts are checked for proper connection and seal. Filters and thermostats are also checked.

Commercial and Industrial Energy Audits: Piedmont also offers energy audits to their non-residential customers. In 2008, an infrared camera was purchased as a new tool for the commercial and industrial energy audits. Commercial and Industrial customers have access to a free resource tool, Questline, that provides an electronic bi-monthly newsletter, energy library and research assistance for their energy-related questions that involve equipment purchases and other business-related areas.

School Programs and Speakers Bureau: Piedmont regularly makes presentations to local schools and community groups on energy efficiency and utilization, safety and Green Power programs.

Advertising and Promotion: Piedmont includes articles on energy efficiency and safety each month in their newsletter, which is included in the Carolina Country Cooperative magazine and is available online on our website. In addition Piedmont's energy efficiency programs are promoted in the newsletter. Brochures and handouts are also provided to the members. Piedmont's website, www.pemc.org, offers Energy Efficiency tools including an on-line home energy audit.

7. Assessment of Alternative Supply-Side Energy Resources

For the Duke Load, Duke will plan, procure and provide electric capacity and energy to meet the future power supply needs of Piedmont EMC.

For the Progress Load, Progress will plan, procure and provide electric capacity and energy to meet the future incremental power supply needs of Piedmont EMC, above their existing NCEMC resources (other than combined cycle) and SEPA resources that are allocated to the Progress Load.

Piedmont will assess alternative supply-side energy resources that are identified as renewable sources; such as, solar, wind, and bio-mass which support the N.B. Senate Bill 3, REPS mandate, as projects are identified.

8. Evaluation of Resource Options

For the Duke Load, Duke will plan, procure and provide electric capacity and energy to meet the future power supply needs of Piedmont EMC.

For the Progress Load, Progress will plan, procure and provide electric capacity and energy to meet the future incremental power supply needs of Piedmont EMC, above their existing NCEMC resources (other than combined cycle) and SEPA resources that are allocated to the Progress Load.

Section II: Piedmont EMC's Short Term Action Plan

No action required. For the Duke Load, Piedmont's FRA with Duke Power will continue to meet the power supply needs of Piedmont EMC during the short term and throughout the planning period. For the Progress Load, Piedmont's purchases from NCEMC, SEPA, and Progress will continue to meet the power supply needs of Piedmont EMC during the short term and throughout the planning period.

Refer to Section III for REPS action plan.

Section III: Piedmont EMC's REPS Compliance Plan

Piedmont EMC is a member of GreenCo Solutions, Inc. ("GreenCo"). GreenCo, a non-profit organization formed on April 16, 2008, by 23 of the 26 electric membership corporations headquartered in North Carolina, exists to assist member cooperatives in complying with the Renewable Energy and Energy Efficiency Portfolio Standard ("REPS") contained in Senate Bill 3. GreenCo provides three primary services: compliance plan and reporting, energy efficiency program development and management, and assistance in renewable demonstration projects. Additionally, GreenCo will work with its member cooperatives on REPS portfolio assessments. As part of its compliance plan and reporting function, GreenCo will prepare and furnish consolidated (or aggregated) REPS reporting, including the REPS Compliance Plan, consistent with applicable law and regulation. GreenCo has requested of the Commission and received a waiver of the individual filing obligations of its members, in order that it might provide a consolidated (or aggregated) Compliance Plan on their behalf. Therefore, Piedmont EMC's current and future REPS Compliance Plans will also be submitted by GreenCo.