RESOURCE PLANNING
OVERVIEW

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Dominion

August 5, 2012
~27,500 MW of electric generation
6,300 miles of electric transmission
11,000 miles of natural gas transmission, gathering and storage pipeline
947 billion cubic feet of natural gas storage operated
Cove Point LNG Facility
2.4 million electric customers in VA and NC
1.3 million natural gas customers in OH & WV
2.2 million non-regulated retail customers in 15 states

New Generating Stations
Planned/Under Development
- Coal/Biomass
- Natural Gas
- Wind
- Solar

Generating Stations in Operation
- Coal
- Natural Gas/Oil
- Nuclear
- Hydro
- Biomass
- Wind
- Coal/Oil/Gas
- Coal/Biomass
- Pending Sale
Balanced, Diverse Fuel Mix

2011 Electric Production by Fuel*

- Coal: 34%
- Natural Gas: 44%
- Nuclear: 20%
- Hydro/Biomass/Other: 2%

*Total production by regulated units. Excludes non-utility generation (NUG) under contract.
Residential Rate Comparison
Typical Monthly Bills, 1,000 kWh

The East Coast average includes all states along the Atlantic coast, as well as the DC and PA.
Nuclear Power - Vital to our Customers

- Four units in Virginia (North Anna and Surry)
- Two units in Connecticut (Millstone), one in Wisconsin (Kewaunee)
- About 20% of total generating capacity; about 35% of actual generation; about 40% of electricity supply for Virginia

- Virginia (§ 56-597, § 56-599.E)-
  - "Integrated resource plan" or "IRP" means a document developed by an electric utility that provides a forecast of its load obligations and a plan to meet those obligations by supply side and demand side resources over the ensuing 15 years to promote reasonable prices, reliable service, energy independence, and environmental responsibility.
  - The Commission shall analyze and review an integrated resource plan and, after giving notice and opportunity to be heard, the Commission shall make a determination as to whether an IRP is reasonable and is in the public interest.

- North Carolina (§ 62-2.3a)-
  - 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.
# Repowering, Retrofits and Retirements

<table>
<thead>
<tr>
<th>Generating Unit</th>
<th>Capacity</th>
<th>Fuel Type</th>
<th>Plan</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake – Units 1 &amp; 2</td>
<td>222 MW</td>
<td>Coal</td>
<td>Retire</td>
<td>2015</td>
</tr>
<tr>
<td>Chesapeake – Units 3 &amp; 4</td>
<td>373 MW</td>
<td>Coal</td>
<td>Retire</td>
<td>2016</td>
</tr>
<tr>
<td>Yorktown – Unit 1</td>
<td>159 MW</td>
<td>Coal</td>
<td>Retire</td>
<td>2015</td>
</tr>
<tr>
<td>Yorktown – Unit 2</td>
<td>156 MW</td>
<td>Coal</td>
<td>Repower or Retire*</td>
<td>2015</td>
</tr>
<tr>
<td>Yorktown – Unit 3</td>
<td>804 MW</td>
<td>Oil</td>
<td>Retrofit with an SNCR*</td>
<td>2015</td>
</tr>
<tr>
<td>Possum Point – Unit 5</td>
<td>779 MW</td>
<td>Oil</td>
<td>Retrofit with an SNCR</td>
<td>2015</td>
</tr>
<tr>
<td>Bremo – Units 3 &amp; 4</td>
<td>227 MW</td>
<td>Coal</td>
<td>Repowered by Natural Gas</td>
<td>2014</td>
</tr>
<tr>
<td>Altavista – Unit 1</td>
<td>63 MW</td>
<td>Coal</td>
<td>Repower with Biomass</td>
<td>2013</td>
</tr>
<tr>
<td>Hopewell – Unit 1</td>
<td>63 MW</td>
<td>Coal</td>
<td>Repower with Biomass</td>
<td>2013</td>
</tr>
<tr>
<td>Southampton – Unit 1</td>
<td>63 MW</td>
<td>Coal</td>
<td>Repower with Biomass</td>
<td>2013</td>
</tr>
<tr>
<td>Salem Harbor – Units 1 &amp; 2</td>
<td>163 MW</td>
<td>Coal</td>
<td>Retired</td>
<td>2011</td>
</tr>
<tr>
<td>Salem Harbor – Units 3 &amp; 4</td>
<td>591 MW</td>
<td>Coal/Oil</td>
<td>Retire</td>
<td>2014</td>
</tr>
<tr>
<td>State Line – Units 3 &amp; 4</td>
<td>515 MW</td>
<td>Coal</td>
<td>Retired</td>
<td>2012</td>
</tr>
</tbody>
</table>

*Yorktown Unit 2 & Unit 3 – in Integrated Resource Plan to be retired by 2022.
## Costs of New Generation

### U.S. Average Levelized Costs (2010 $/megawatt hour) for Plants Entering Service in 2017

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Capacity Factor (%)</th>
<th>Total System Levelized Cost* (2010 $/MWH)</th>
<th>Dispatchable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar PV</td>
<td>25%</td>
<td>152.7</td>
<td>NO</td>
</tr>
<tr>
<td>Biomass</td>
<td>83%</td>
<td>115.4</td>
<td>YES</td>
</tr>
<tr>
<td>Advanced Nuclear</td>
<td>90%</td>
<td>111.4</td>
<td>YES</td>
</tr>
<tr>
<td>Advanced Coal</td>
<td>85%</td>
<td>110.9</td>
<td>YES</td>
</tr>
<tr>
<td>Natural Gas-fired: Advanced Combustion Turbine</td>
<td>30%</td>
<td>101.8</td>
<td>YES</td>
</tr>
<tr>
<td>Conventional Coal</td>
<td>85%</td>
<td>97.7</td>
<td>YES</td>
</tr>
<tr>
<td>Wind</td>
<td>33%</td>
<td>96.0</td>
<td>NO</td>
</tr>
<tr>
<td>Hydro</td>
<td>53%</td>
<td>88.9</td>
<td>NO</td>
</tr>
<tr>
<td>Natural Gas-fired: Advanced Combined Cycle</td>
<td>87%</td>
<td>63.1</td>
<td>YES</td>
</tr>
</tbody>
</table>

*Includes levelized capital cost, fixed O&M, variable O&M (including fuel) and transmission investment.

Natural Gas Spot Prices
Monthly Average 1997-2012

(Dollars per Million BTUs)

Marcellus Shale Gas Production Lowers Price

Demand up 6.5 BCFD

Source: Energy Information Administration, Henry Hub Natural Gas Spot Price.
Major Planned Investments

- Virginia City Hybrid Energy Center (operational)
- 3 additional combined cycle natural gas facilities
  - Buckingham County (operational)
  - Brunswick County
  - Warren County
- New renewable initiatives
  (3 biomass conversions and distributed solar)
- Expanded energy efficiency/demand reduction programs
- Preservation of option to build additional nuclear unit
Chmura Study:
Economic Benefits of “Powering Virginia”

- **Construction phase:**
  (2007-2015) supports total of 14,220 jobs, produces $3.3 billion in economic benefits in Virginia*

- **Beginning in 2015:**
  total annual economic impact of ongoing operations estimated to be $291.8 million, supporting an annual average of approximately 750 jobs in Virginia

*Study does not include Brunswick Power Station.
### Comparing Re-Regulation Act and Traditional Cost of Service Provisions

<table>
<thead>
<tr>
<th>Provision</th>
<th>Re-Regulation</th>
<th>Traditional Cost of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives SCC Authority to Set Rates</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ensures Customer Refunds for Prior Period Excess Earnings</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Promotes Jobs in Virginia</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Keeps VA Utilities Competitive in Accessing Capital</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>Avoids Construction “Rate Shock”</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Promotes efficiency and customer service through incentives/penalties</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Promotes Renewable Energy</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Sets Conservation Goal</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>
North Anna Unit 3

- Existing key infrastructure
  - Road and rail
  - Water
  - Transmission

- Proximity to areas of expected load growth

- Synergies with 2 existing units (Originally licensed for 4 units)
Dominion’s NRC Application Status

- Applied to NRC for ESP September 2003
- ESP issued November 2007
- COL application filed November 2007
- Environmental impact statement issued March 2010
- Dominion selected MNES US-APWR technology May 2010
- COL expected in 2015

Maintaining the nuclear option at North Anna