Natural Gas Trend
U.S. Total Energy

U.S. consumption

Energy demand has flattened

U.S. production

Generation mix evolving

Data Source:
US Energy Information Administration (EIA) – Total Energy
www.eia.gov/totalenergy/data/annual/index.cfm
US Consumption: TABLE 2.1 Energy Consumption by Sector
US Production: TABLE 1.2 Primary Energy Production by Source
Release Date: Jan 28, 2015
Next Update: Feb 24, 2015
Natural Gas Trend
U.S. Total Energy

CONSUMPTION

U.S. Energy consumption in 2013: ~98 Quads

Coal is king in U.S.

Data Source:
Lawrence Livermore National Laboratory
https://flowcharts.llnl.gov/
Release Date: Mar 2014
Natural Gas Trend
U.S. Electric Power Generation by Fuel Type

Does not include EPA’s proposed Clean Power Plan, which if it is implemented is likely to have a significant effect on coal use. EIA 2015

Data Source:
US Energy Information Administration (EIA)
www.eia.gov/forecasts/AEO/section_elecgeneration.cfm
History: Annual Energy Review
Forecast: AEO2015 (Apr 2015)
Release Date: Apr 14, 2015
Next Update: Mar 2016

Dash for natural gas
Natural Gas Trend

Top 100 Natural Gas Fields by Reserves

Data Source:
US Energy Information Administration (EIA) - Natural Gas Form EIA-23L and DrillingInfo
http://www.eia.gov/todayinenergy/detail.cfm?id=20952

Assumptions:
• Dot diameter is relative to its 2013 proved reserves

Game changer – Marcellus development
Natural Gas Trend
U.S. Electric Power Capacity Additions

Data Source:
US Energy Information Administration (EIA)
www.eia.gov/forecasts/aeo/MT_electric.cfm
History: Form EIA-860
Forecast: AEO2014 Early Release (Dec 2013)
AEO2014 Figure MT-32

Does not include EPA’s proposed Clean Power Plan, which if it is implemented is likely to have a significant effect on coal use. EIA 2015

Future resources are primarily gas-fired
Natural Gas Trend
Virginia Total Energy

CONSUMPTION

Virginia Energy consumption in 2012
~2 Quads (~2,000 Trillion BTU)

Data Source:
Lawrence Livermore National Laboratory
https://flowcharts.llnl.gov/
Release Date: Jun 2013

Nuclear predominates in Virginia
Dominion Resources
Company Profile

Dominion Virginia Power

- Electric Transmission
  - 6,400 miles of transmission lines
  - Favorable regulatory environment

- Electric Distribution
  - 57,000 miles of distribution lines
  - 2.5 million franchise retail customer accounts in VA and NC

Dominion Energy

- Gas Transmission
  - Together with Gas Distribution, operates one of the largest natural gas storage system in the U.S.
  - 10,900 miles of pipeline in six states
  - Well positioned in Marcellus and Utica Shale regions

- Gas Distribution
  - 21,900 miles of distribution pipeline and 1.3 million franchise retail natural gas customer accounts in OH & WV

- Blue Racer Joint Venture
  - Utica Shale midstream services

Dominion Generation

- Utility Generation
  - 19,600 MW of capacity
  - Balanced, diverse fuel mix
  - Favorable regulatory environment

- Merchant Generation
  - 4,000 MW of capacity, including nuclear, gas and renewable power
  - Active hedging program for energy revenue/margins

- Dominion Retail
  - Retail Gas & Products/Services
  - 1.5 million non-regulated customer accounts in 10 states*

*Excludes electric business being sold.
Dominion Resources
Expansions in Natural Gas Infrastructure

**Nomenclature**
- ACP – Atlantic coast pipeline
- Bbl/d – billion barrels per day
- Bcf/d – billion cubic feet per day
- CC – combined cycle
- COD – commercial operation date
- mw – megawatts

**Process (Blue Racer)**
- 750 miles of pipe
- Processing
  - Natrium, Berne, Lewis
  - 0.6 Bcf/d capacity
- Fractionation
  - Natrium
  - 47,000 Bbl/d capacity

**Transport (ACP)**
- 550 miles of 42" pipe
- 1.5 Bcf/d capacity
- Nov 2018 – COD

**Storage (Cove Point)**

**Consume (Generation)**
- 1,342 mw CC, Warren county
- 1,358 mw CC, Brunswick county
- 1,600 mw CC, Greensville county

*National Regulatory Conference (May 2015)*
# Dominion Resources

## Expansions in Natural Gas Infrastructure & Regulatory Framework

**Process (Blue Racer)**
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## Regulatory Framework

<table>
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<tr>
<th>Regulatory Framework</th>
<th>PUC</th>
<th>FERC</th>
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<tr>
<td>Transport Pipeline (interstate)</td>
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<td>Storage Storage (LNG)</td>
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<td>Consume Integrated Resource Plan (IRP)</td>
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<td>Consume Certificate of Public Convenience and Necessity (Generation)</td>
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<tr>
<td>Consume Fuel Factor</td>
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Dominion Generation
Utility Generation Resources

**CAPACITY (as of 1/1/2015)**

- **Coal** 27%
- **Natural Gas** 34%
- **Uranium** 19%
- **Petroleum** 9%
- **Water** 10%
- **Renewables** 1%

**2014 IRP Fuel Diversity plan**

- **Coal** 27% Natural Gas 34%
- **Petroleum** 9%
- **Renewables** 1%
- **Water** 10%

**Installed capacity (MW)**

- 2015: Warren, Brunswick
- 2016: NA 3
- Future years: Greensville, others

National Regulatory Conference (May 2015)
Dominion Generation
Closing Statements

• Dash to gas is real

• Future uncertainties
  – Clean Power Plan (CPP)
  – Natural gas extraction regulations

• Fuel diversity is essential to ensure stability and reliability in electric supply, and strengthens national security

Ensure Virginians receive a reliable supply of electricity at just and reasonable rates
Supplemental Slides
2012 Virginia
Carbon Dioxide Emissions: ~95 Million metric tons