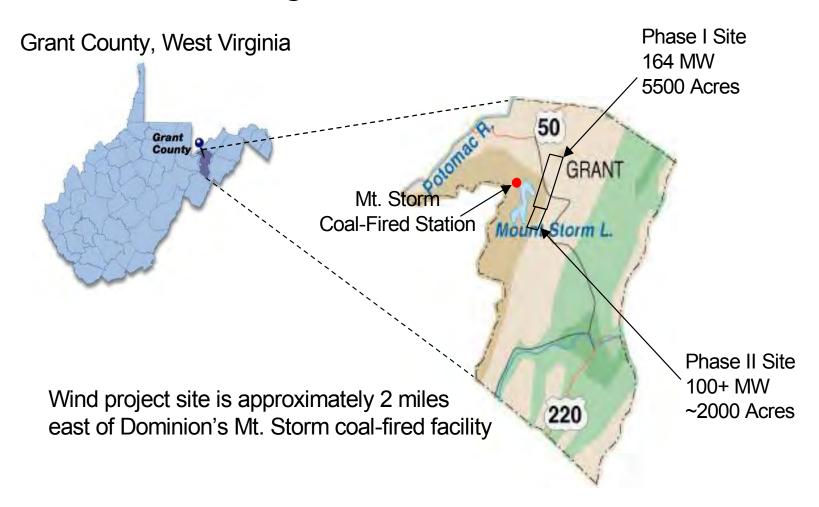


#### **Ned Power Mt. Storm Wind Farm**

#### December 2008

This communication/document is subject to the FERC's Code of Conduct requirements that govern communications between Dominion Virginia Power Operating Employees and the Dominion Wholesale Marketing Affiliate Operating Employees (Merchant Plants). It contains Dominion Wholesale Marketing Affiliate Market Information and can only be shared with Support, Senior Management, and Merchant Plant employees.

## **Project Location**



# Ned Power Mt. Storm Wind Farm

#### Update October 14, 2008

- > Project fully permitted and authorized
- **≻Phase I buildout complete**
- ➤ Phase I commissioning 82 turbines complete
- Phase II buildout nearly complete
- ➤ Phase II commissioning 50 turbines Dec. 31, 2008
- ➤ Post-Construction Bird & Bat Monitoring Jul. 15, 2008



#### Preconstruction Site-Prep

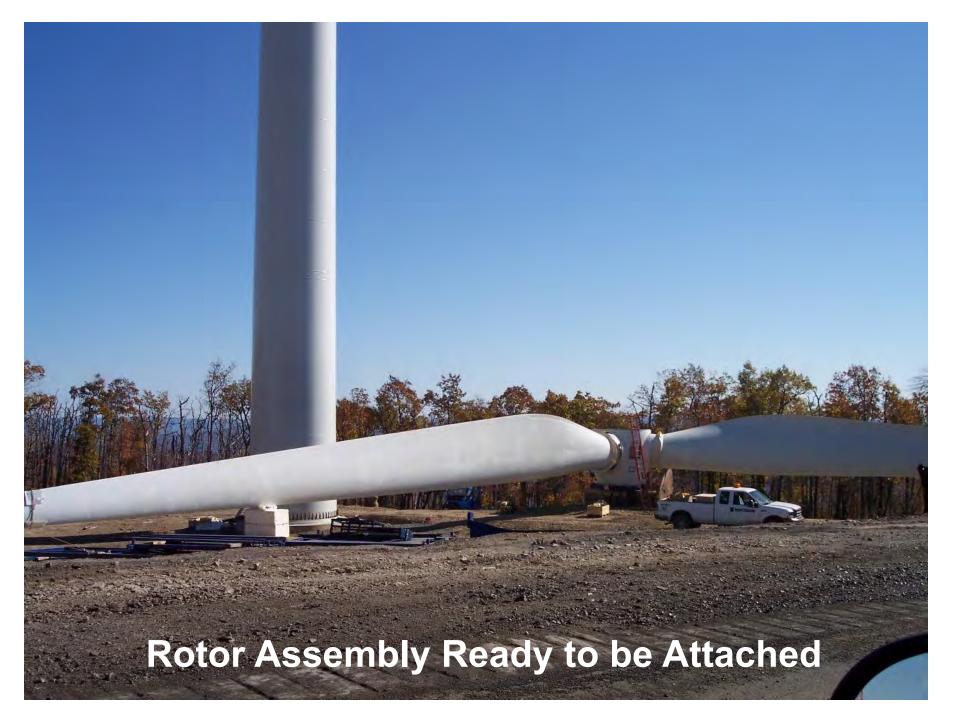












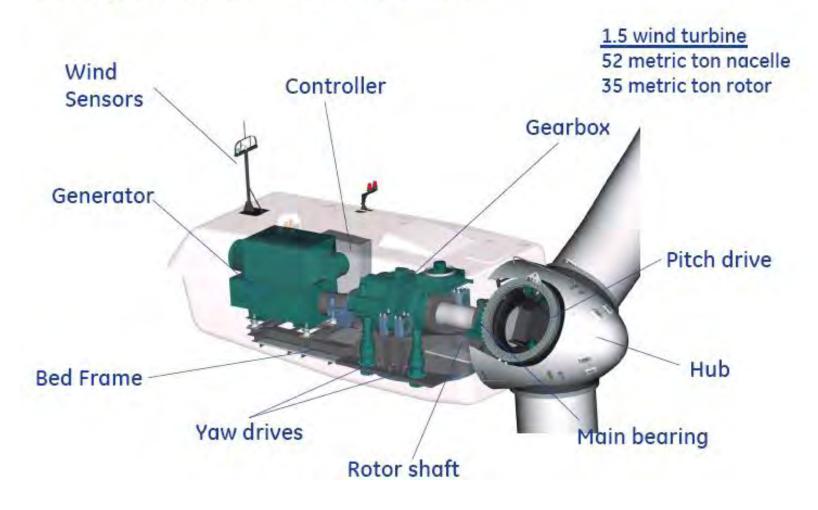


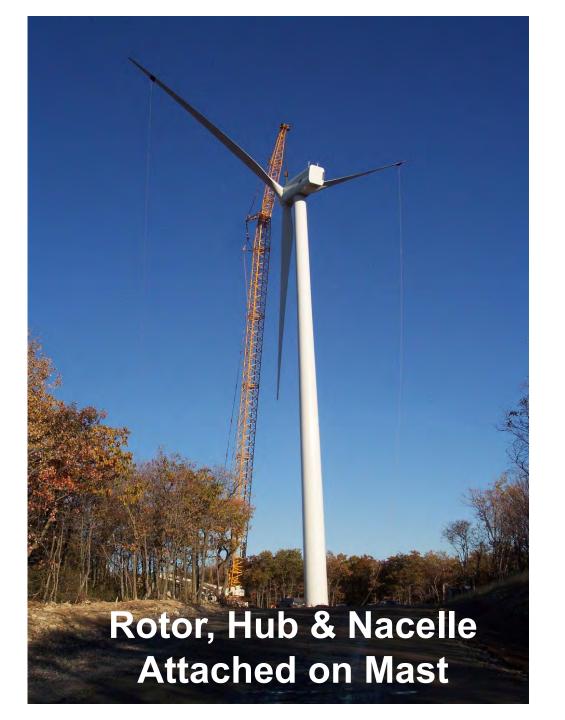




#### Wind Energy Technology Overview

## Components in the Nacelle







#### **Ned Power Mt. Storm Wind Farm**

Completed Wind Turbine (T-2)

**Turbine Dimensions:** 

Rotor Diameter: 262 ft Tower Height: 256 ft

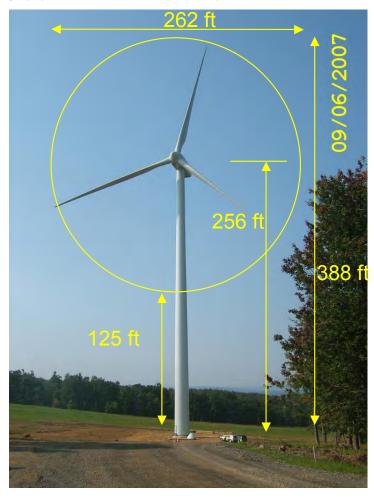
Total Height to Blade Tip: 388 ft

Distance from Bottom

of Blade Tip Arc to Ground: 125 ft

Height of the Federal Reserve Bldg

In Richmond: 393 ft







#### **Ned Power Project Benefits**

Taxes Over 25 Years

- Landlease: 17.45m

B&O Taxes: 3.79m

- Schools: 1.74m

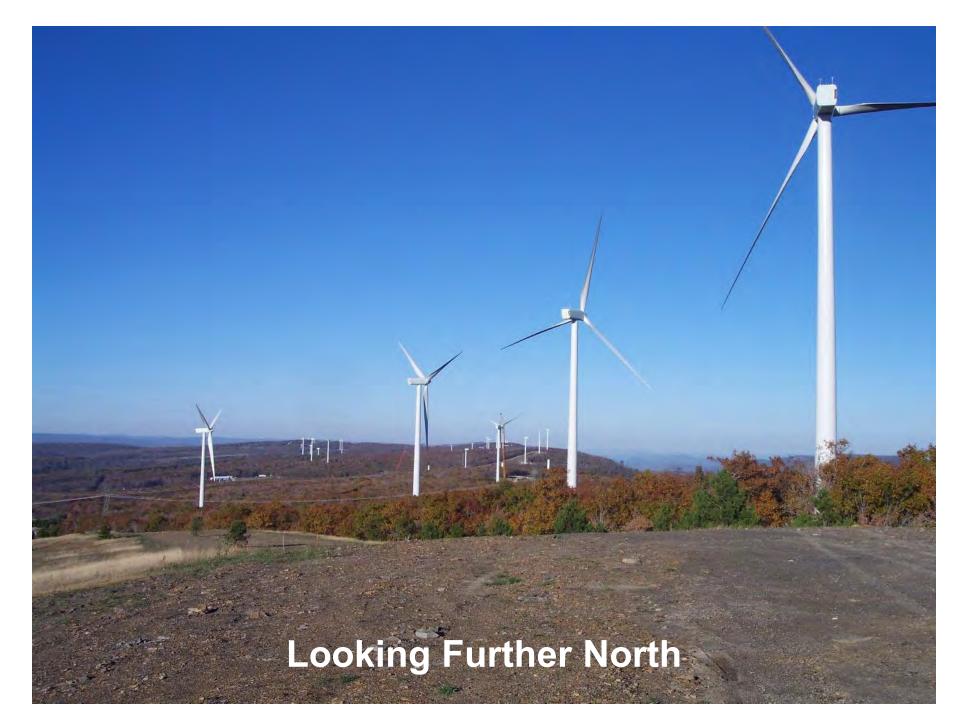
Property: 14.23m (county)

State: <u>6.87m</u>

44. M Over 25 Years

- Jobs Hundreds during construction and one dozen full time for operation
- Each 2 megawatt turbine provides electricity for 600 homes.
   The entire project will provide power for 79,000 homes.
- Outstanding working relationship with elected officials













#### **Ned Power Mt. Storm Wind Farm**











### "Moving WV Natural Gas"

December 2008



### Overview

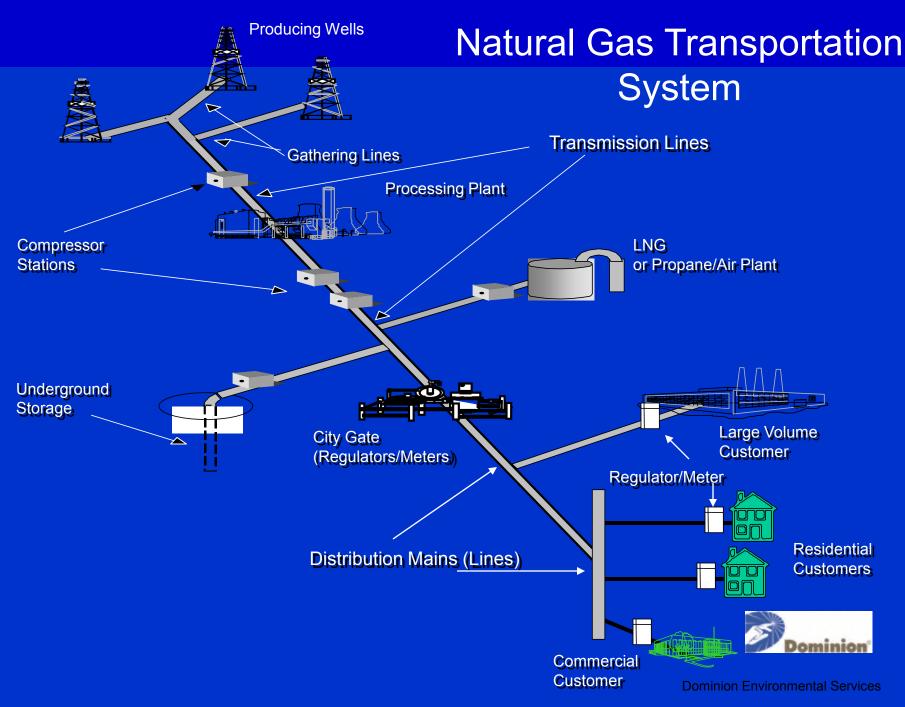
- Dominion in West Virginia.
- Natural gas transportation system.
- Need for additional natural gas facilities.
- Dominion's strategy to meet this need.
- Proposed facilities/permit requirements.



## Dominion West Virginia Assets

- Electric Mt. Storm, North Branch, MEA (335 Employees, \$25 Million Payroll, \$30 Million Taxes)
- Gas Distribution Dominion Hope (118,000 Customers, 300 Employees)
- Gas Transportation Dominion Transmission (800 Employees, \$71 Million Payroll, \$15 Million Taxes, 10,000 Miles of Pipe)
- Renewable Generation 50% Ownership Ned Power (264 Megawatt)
- Gas Exploration Dominion E&P (150 Employees, \$4.5 Million Payroll, \$3.2 Million Annual Taxes, Over 2,500 Wells)
- Dominion Field Services (8 Employees)





#### Need for New Natural Gas Infrastructure

- West Virginia is a net exporter of natural gas.
  - On the Dominion system, local markets consume only 20 to 25% (30 Bcf out of 140 Bcf) of West Virginia production.
- All production is currently transported on an interruptible basis.
- Increased production from multiple sources makes interruptions likely.
- Everyone—producer, royalty owner, pipeline and state loses if production is interrupted.
- Infrastructure needs exceed \$1 billion and involve gathering, processing, fractionation and transmission facilities.



## Dominion's Strategy

- Preserve and upgrade existing infrastructure.
- Build new and operate existing infrastructure in an environmentally responsible manner.
- Build what producers want.
  - Dominion will build infrastructure needed to move the producers' gas.
  - Provide option to avoid interruptions of production.
- Build when the producers want.
  - Some production is already naturally curtailed due to high line pressures.
  - Curtailment will increase until infrastructure is built.
- Be prepared to build more as producers expand.
- Add facilities to serve new load.



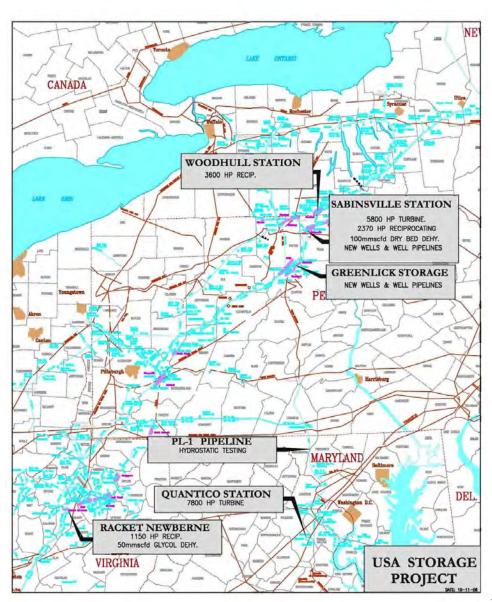
# West Virginia Projects

- USA Storage Project
- Appalachian Gateway Project
- Gathering and Processing Projects
- H-162 Pipeline Replacement Project
- Annual Pipe Replacement Program
- Hope Gas/Longview Pipeline Project



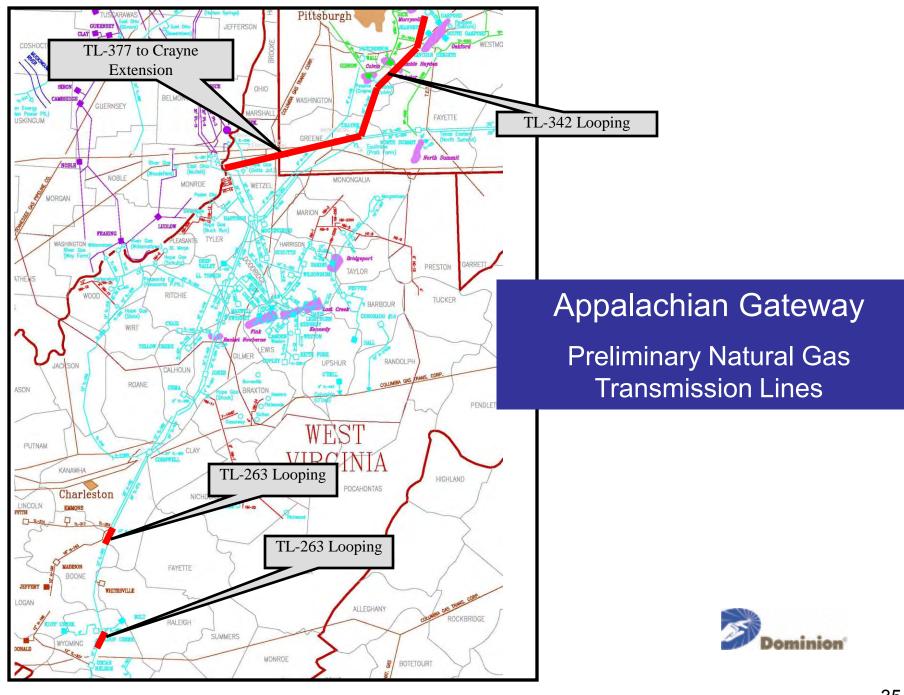
# **USA Storage Project**

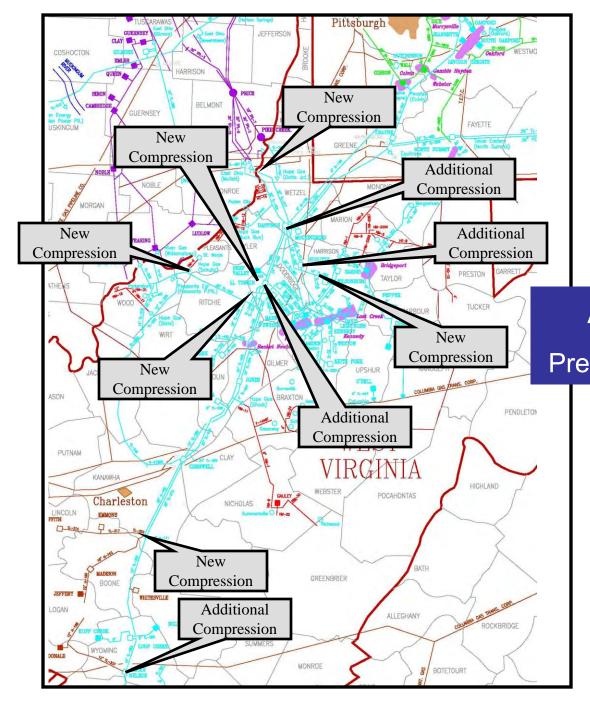
- New compressor station in Gilmer County, WV
- Compressor stations in PA, NY, VA.
- Storage wells in PA.
- Completed Permits/Authorizations
  - Air Permit
  - Endangered species
  - Historic preservation
  - Public Lands License
- Upcoming Permits/Authorizations
  - NPDES hydrostatic test water



# Appalachian Gateway Project

- Provide West Virginia Appalachian Basin natural gas supplies firm access to Northeast and Mid-Atlantic Markets.
- Allows for up to 620,000 dekatherms per day out of West Virginia.
- Project includes:
  - 120 miles of transmission line
    - 30 miles in West Virginia
    - 90 miles in Pennsylvania.
  - 54,500 hp of compression in West Virginia.
    - 7 new compressor stations.
    - 2 additional compressors at existing stations.
- Will require Federal Energy Regulatory Commission (FERC) certificate.





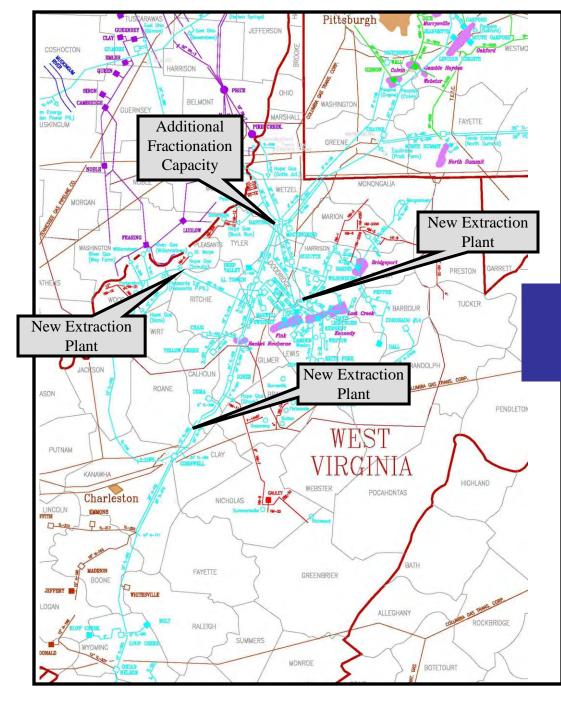
Appalachian Gateway
Preliminary Compressor Stations

Dominion

# Gathering & Processing Projects

- Incremental production cannot be moved out of state unless it is first gathered and in many cases processed to make it merchantible
- Projects include:
  - 35 miles of total gathering line in West Virginia.
  - 10 new compressor stations.
  - additional horsepower at 5 existing stations.
  - 3 new extraction plants.
  - Additional fractionation capacity.
  - Clay, Doddridge, Gilmer, Lewis, Logan, Pleasants, Ritchie, & Wetzel Counties.
- Non-jurisdictional under the FERC.





Gathering & Processing Preliminary Extraction Plants

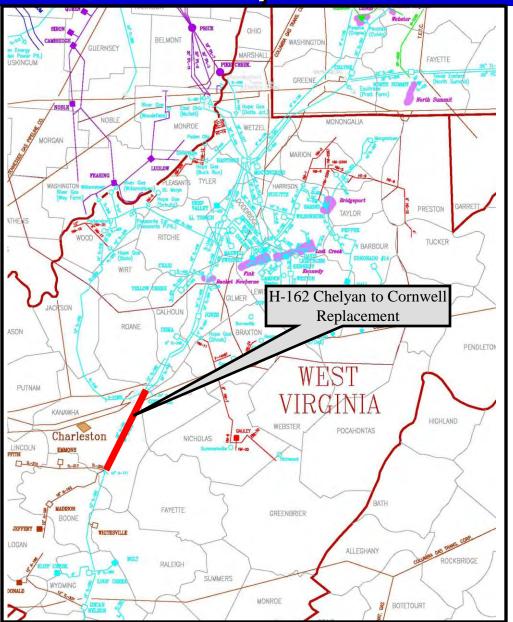


#### Summary of New Natural Gas Compression Anticipated

- Appalachian Gateway Project
  - 10 new engines at greenfield locations
  - 3 new engines at existing facilities
  - 54,500 new horsepower
- Gathering & Production Projects
  - 13 new engines at greenfield locations
  - 9 new engines at existing facilities
  - 30,000 40,000 new horsepower in next 3 years
- Other Scheduled Maintenance
  - 210 small (< 500 hp) engines currently in service</li>
  - Anticipated 20% replacement over next 3 years
  - 42 new engines



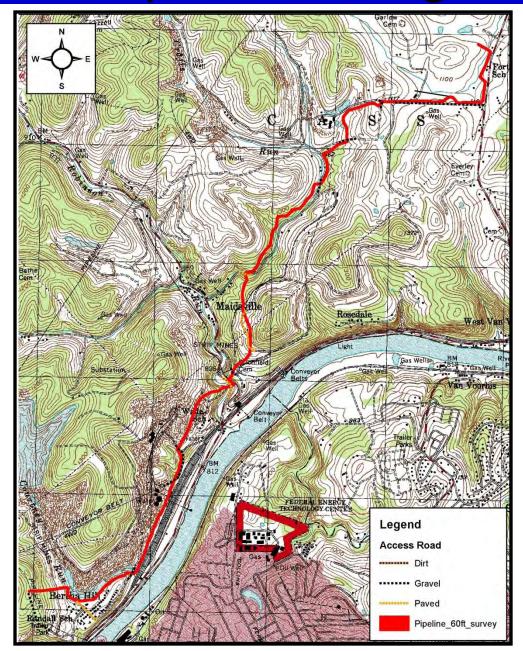
## H-162 Replacement Project



- 26.5 miles from north of Kanawha River from near Chelyan to Cornwell Station.
- Remove existing low pressure wet transmission line H-162 and install new transmission line TL-585
- Will require FERC certificate.



# Hope Gas/Longview Pipeline



 5 mile, 12 inch diameter pipeline to Longview Power plant in Monongalia County

#### **Permits:**

- State Water Quality certification.
- Endangered Species authorization.
- Historic Preservation consultation.
- Pipeline Crossing Licenses.

4 total State Permits/Approvals



## Conclusion

- Dominion is committed to building the necessary infrastructure to deliver to market West Virginia natural gas.
- Build new and operate existing infrastructure in an environmentally responsible manner.
- Infrastructure investment represents significant benefit to producers and the to state.
- Dominion will build what the producers want.
- The ability to maximize this important opportunity for producers will require close coordination with regulatory agencies.





