

**D. REZONING APPLICATION  
VIRGINIA ELECTRIC AND POWER COMPANY**OPENING STATEMENT

This public hearing is held pursuant to § 15.2-2204, Code of Virginia, 1950, as amended to receive public comment on a request by Virginia Electric and Power Company and Bessie Nora Edwards Heirs, owners, requesting a Conditional Use Permit to permit the construction and operation of a power generating plant on property zoned M-2, General Industrial District, per Sec. 18-313(38) of the Zoning Ordinance. The property is known as Tax Parcel 92-8B and a portion of Tax Parcel 92-8 and is approximately 91.22 acres in size. The property is located at 30134 General Thomas Highway (Rt. 671), on the south side between Delaware Road (Rt. 687) and Shady Brook Trail (Rt. 650). The property is located in the Franklin Voting District and Franklin Magisterial District.

The notice of this public hearing was published in the Tidewater News on April 10 and April 17, 2011 and all adjacent property owners were notified in writing by first class mail as required by law.

After conclusion of this public hearing, the Board of Supervisors will consider the comments offered this morning and may act upon the matter or defer action until such time as it deems appropriate.

**MOTION REQUIRED:**

If the Board is so inclined, a motion is required to accept the Planning Commission recommendation and approve the Conditional Use Permit.

## **CUP 2011:01**

Virginia Electric and Power Company, applicant, for Virginia Electric and Power Company and Heirs of Bessie N. Edwards, owners

Application Request: Conditional Use Permit amendment

### **IDENTIFICATION AND LOCATION INFORMATION**

Comprehensive  
Plan designation: Industrial, Courtland Planning Area

Zoning designation: M-2, General Industrial District, with 24 acres currently being designated Conditional M-2, granted in 1989

Acreage: Approximately 91.22 acres

Current Use: Power generating plant and vacant land

Tax Map No.: TP 92-8B and a portion of 92-8

Location: 30134 General Thomas Highway, Franklin, VA

Magisterial District: Franklin

Voting District: Franklin

Adjacent Zoning: North: M-2, General Industrial District  
South: M-2  
East: A-1, Agricultural  
West: M-2

Adjacent Land Use: North: Industrial uses and agriculture  
South: Agriculture  
East: Agriculture  
West: Hercules plant

### **PROJECT ANALYSIS**

#### Overview

In March 1989, the Board of Supervisors granted a Conditional Use Permit to Ultra Cogen Systems, Inc., to construct and operate a coal fired cogeneration plant which would produce approximately 60 megawatts of electricity and provide steam to Hercules Incorporated. The site was 24.5 acres, and it is adjacent to the Hercules plant on Rte. 671, General Thomas Highway. The site was to contain two boilers and one turbine generator. All of the equipment was to be housed in one large building that would stand

approximately 90' tall. The coal to operate the plant was to be delivered off the CSX or Seaboard Rail Line accessing the property from two rail spurs, per the application.

The current zoning of the property is M-2, General Industrial District. Power-generating plants are permitted with a Conditional Use Permit. The current request is to enlarge the plant and to change the fuel used by the plant from coal to biomass, or wood. The benefits of biomass include:

- Biomass is considered a renewable energy source in Virginia. Virginia requires that utilities achieve specific amounts of their energy from renewable sources and this switch to biomass will help this utility reach the 15% goal by 2025.
- The source of biomass, wood products, is readily available in this area. The closure of IP had a major effect on the wood producers and their suppliers and this switch will help use some of that available product. The regional forestry and trucking employers are expected to reap benefits from the switch from coal to biomass.
- The use of a renewable energy source is expected to reduce the carbon footprint of the utility in the long-run.

The elements of this request include:

- An enlargement of the land area in use under the current Conditional Use Permit from approximately 24 acres to approximately 91 acres.
- An increase in height of the tallest structure from approximately 200' tall, the height of the existing smokestack, to 250' tall.
- A change from the current coal-fired plant to a plant that is planned to be fueled by wood. It should be noted that the current fuel, coal, is delivered to the site by rail. The proposed biomass fuel, wood products, will be delivered by truck.

It is anticipated that the operational date of the renovated plant, if all necessary approvals are gained on the current schedule, will be the second half of 2013.

### Conditions

The following conditions are included in the Conditional Use Request:

- Buildings and structures at the site shall not exceed 250' in height from grade
- The facility shall be operated in accordance with applicable state and federal laws and regulations pertaining to power generating plants
- Reasonable buffers shall be included
- The requirements of the Virginia Department of Transportation will be complied with

### Community Comments

Three citizens came to the Community Development Office with questions. Ten people spoke at the Planning Commission, only one not in favor of request

## **CONCLUSION**

### Strengths of application:

- Wood is a renewable energy source. Virginia requires an increasing reliance on renewable energy sources from the utility producers in the Commonwealth, and a biomass-fueled plant will help reach that requirement.
- The use of wood will contribute to the economy in this area that was affected by the closing of the IP plant, specifically the forestry and trucking industries and the industries that provide services to those industries.
- It is anticipated that the existing employees at the plant will remain employed, and construction jobs will be available during the construction of the additions to the facility.
- The increased taxable value of the facility will make positive contribution to the County's tax base.
- The ash produced by the plant will be available for farmers to use for soil amendment.
- Train noise from the delivery of fuel will be eliminated.

### Weaknesses of application:

- Additional truck traffic would occur along General Thomas Highway. It is anticipated that the delivery of wood products will entail up to approximately 125 trucks per day traveling to the site.

## **SUPPORT INFORMATION AND ATTACHMENTS**

- 1) Staff Analysis
- 2) Application
- 3) Original Conditional Use Permit minutes
- 4) Letter from VDOT
- 5) Adjacent property owner mailing list

Sign posted 4/1/2011

Letters mailed 4/15/2011

Ad in Tidewater news 4/10/2011, 4/17/2011

## **PLANNING COMMISSION ACTION**

On April 14, 2011, the Planning Commission held their required public hearing. Ten citizens spoke at the public hearing, as well as two representatives of Dominion Power. All of the citizens except one spoke in favor of the request. The Planning Commission voted unanimously to recommend approval of the request. Minutes will be provided when available.



Southampton County  
Post Office Box 400  
Courtland, Virginia 23837  
757-653-3015

APPLICATION FOR:

REZONING      COMPREHENSIVE PLAN AMENDMENT      CONDITIONAL USE PERMIT

**CONTACT INFORMATION**

Applicant or Representative Name: Virginia Electric and Power Company, a Virginia public service company

Attn: Mr. Grant T. Hollett

Address: 120 Tredegar Street

City, State, Zip: Richmond, Virginia 23219

Phone: Day 804-819-2872 Evening N/A Mobile N/A

Owner Name: Virginia Electric and Power Company, a Virginia public service company

Address: 120 Tredegar Street

City, State, Zip: Richmond, Virginia 23219

Phone: Day 804-819-2872 Evening N/A Mobile N/A

**PROPERTY INFORMATION**

Address or Location: 30134 General Thomas Highway

Tax Parcel Number: 92-8-B and 92-8

Total Acreage of Parcel: 24.450 and 66.77

Amount of above acreage to be considered: 24.450 and 66.77

Current Use of property: Power Generating Plant and Vacant Land

Rezoning request from N/A to N/A

Comprehensive Plan request from N/A to N/A

Conditional Use request: Section 18-312 of the Southampton County Code

Owner Name: Heirs of Bessie N. Edwards, c/o Walter Edwards

Address: 652 W. Millpond Road

City, State, Zip: Roper, NC 27970

Phone: Day 804-819-2872

Evening: N/A

Mobile: N/A

**PROFFERS FOR CONDITIONAL REZONING**

\_\_\_\_\_ Original

\_\_\_\_\_ Amended

Pursuant to Section 18-546 (b) of the Southampton County Code, the owner or duly authorized agent hereby voluntarily proffers the following conditions which shall be applicable to the property, if rezoned:

I (we) hereby proffer that the development of the subject property of this application shall be in strict accordance with the conditions set forth in this submission:

\_\_\_\_\_  
N/A

Signature of Owner/Applicant \*

\_\_\_\_\_  
N/A

Date

\* If applicant is someone other than the owner, a Special Limited Power of Attorney Form must be submitted with this application.

Give a brief description of the application request (attach additional sheets if necessary):

Please see the attached additional sheet.

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Required Items to be submitted with application:

- Application Form  
 Application Fee of \$ 500  
 Cover Letter  
 Site Plan / Exhibit  
 Proffer Statement (if applicable)  
 Other (To be determined by agent)

**Note:** If applicant is anyone other than the fee simple owner, written authorization of the fee simple owner designating the applicant as the authorized agent for all matters concerning this application shall be filed with the agent. A Special Limited Power of Attorney form is available upon request.

The undersigned  Owner  Applicant authorizes the entry of Southampton County personnel onto the property in order to perform their duties with regard to this request.

March \_\_\_\_\_, 2011  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

**OFFICE USE ONLY**

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Received By: \_\_\_\_\_

Date: \_\_\_\_\_

Post Sign By: \_\_\_\_\_

PC Agenda Date: \_\_\_\_\_

BOS Agenda Date: \_\_\_\_\_

Attachment to Application for Conditional Use Permit

*Give a brief description of the application request:*

Virginia Electric and Power Company, a Virginia public service company (“Dominion Virginia Power”), requests a Conditional Use Permit for the construction and operation of a power generating plant on (i) that certain parcel of real estate owned by Dominion Virginia Power and located in Southampton County, Virginia, containing approximately 24.45 acres and commonly known as 30134 General Thomas Highway (State Route 671) and Southampton County tax parcel 92-8-B and (ii) an approximately 66.77 acre adjoining parcel of real estate owned by the Heirs of Bessie N. Edwards and identified as Southampton County tax parcel 92-8 (the “Facility”). The Conditional Use Permit will be subject to the following conditions: (i) buildings at the Facility shall not exceed 250 feet in height from grade, (ii) associated structures at the Facility (including, without limitation, the stacker/collector structure shown on the conceptual drawing attached to the Application) shall not exceed 150 feet in height from grade; and (iii) the Facility shall be operated in accordance with applicable state and federal laws and regulations pertaining to power generating plants.

J. THOMAS MILLER  
804.697.1227 telephone  
804.698.6050 facsimile  
tom.miller@troutmansanders.com

# TROUTMAN SANDERS

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Attorneys at Law  
Troutman Sanders Building  
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P.O. Box 1122 (23218-1122)  
Richmond, Virginia 23219  
804.697.1200 telephone  
troutmansanders.com

March 28, 2011

## BY EMAIL AND FEDERAL EXPRESS

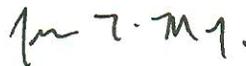
Beth Lewis, AICP  
Community Development Director  
Southampton County, Virginia  
26022 Administration Center Drive  
Courtland, Virginia 23837

**Re: Application for Conditional Use Permit for Southampton County, Virginia  
Real Estate Identified as Parcels 92-8 and 92-8-B (the "Property")**

Dear Ms. Lewis:

On behalf of our client, Virginia Electric and Power Company, a Virginia public service company ("Dominion Virginia Power"), please find enclosed an application for a Conditional Use Permit ("CUP") to construct and operate a power generating plant at the Property. Per our conversations last week, I understand that you will run the required public notices for the CUP application in anticipation of public hearings before Southampton County's Planning Commission on April 14 and Southampton County's Board of Supervisors on April 25, and the notices will identify the Property by reference to the parcel numbers listed above and the description "expansion of power generating plant". As you may recall, Dominion Virginia Power pre-paid the requisite filing fee for the CUP application on March 24. Should you require any additional information, please do not hesitate to contact me at the number above.

Sincerely,



J. Thomas Miller

## Enclosures

cc: Rudolph Bumgardner, IV, Esq. (by email)  
Christine G. Heslinga, Esq. (by email)  
Neil S. Kessler, Esq. (by email)

Richmond01 2037623v1 214041.001029



April 11, 2011

Dear Southampton County Officials and Staff:

Dominion is seeking your approval of the proposed Conditional Use Permit for the conversion of the Southampton power station from coal to renewable biomass fuel. We anticipate that the proposed project will create at least \$120 million of local and regional benefits over the 30-year life of the facility, as well as provide low cost electricity to our customers. Additional details of the benefits are provided below:

- Continuation of approximately 30 well-paid jobs at the power station.
- Increased tax revenue for the county government.
- Increased local business activity during construction and operation of the facility.
- Creation of approximately 100 jobs in the forestry and trucking industries in the region.
- Production of a low-cost source of electricity utilizing a renewable resource that is abundant in the region.
- Improved environmental benefits with the anticipation of reduced emissions of nitrogen oxides, sulfur dioxide, mercury, and particulate matter.
- Improved economics for our steam host for the supply of process steam from our facility.
- Free wood ash to the local farmers, as a replacement to the use of lime.
- Opportunities to attract businesses seeking to provide waste wood or seeking greater sources of renewable electricity in the region.

To ensure that you have as much information available to you about this proposed project prior to making a decision, we are including the following information with this letter:

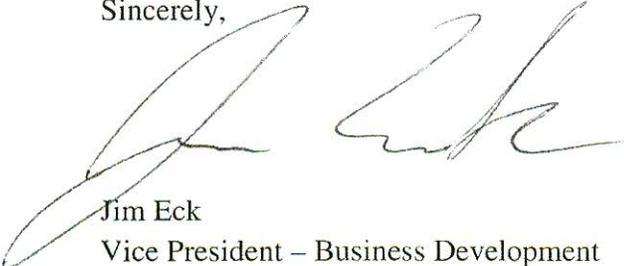
- A. Press release issued by Dominion Virginia Power regarding the proposed conversion of the Altavista, Hopewell and Southampton power stations from coal to renewable biomass fuel.
- B. The Conditional Use Permit application.
- C. Summary of the conversion project.
- D. Answers to Frequently Asked Questions (FAQs) about the project.

We believe that these numerous benefits will create significant future opportunities for the citizens of the Southampton County and the surrounding region.

We respectfully request that the Planning Commission and Board of Supervisors approve the proposed Conditional Use Permit in their respective meetings on April 14<sup>th</sup> and April 25<sup>th</sup>, to ensure that Dominion can proceed with the project on schedule.

If you have any questions about this information, please contact me at (804) 819-2020 or Emil Avram at (804) 819-2551.

Sincerely,



Jim Eck  
Vice President – Business Development  
Dominion Resources

# **Item A**

**Press Release issued by Dominion Virginia Power on  
April 1, 2011 for the Proposed Conversion of  
Altavista, Hopewell and Southampton Power Stations  
to Biomass Fuel**



## **Dominion Virginia Power Plans to Convert Three Coal-Fired Stations to Renewable Biomass**

- Low-cost conversions provide strong customer value**
- Additional regional benefits would exceed \$350 million**
- Proposal would lead to 150 megawatts of renewable energy**
- Virginia Gov. McDonnell says plan creates good jobs in the Commonwealth**

RICHMOND, Va., April 1, 2011 /PRNewswire/ -- Dominion Virginia Power, a subsidiary of Dominion (NYSE: D), is planning to convert three Virginia power stations from using coal to biomass, a renewable energy source. The conversions would provide environmental and customer benefits and generate up to \$350 million for their local economies over the next 30 years.

The power stations in Altavista, Hopewell and Southampton County are identical and went into operation in 1992. If the conversions are approved by local governments, the Virginia Department of Environmental Quality and the Virginia State Corporation Commission, they could begin burning biomass in 2013.

The total economic impact over the 30-year life of the stations would be more than \$350 million, including \$30 million in local taxes, \$180 million for the creation of more than 300 jobs in the forestry and trucking industries and about \$120 million paid to the 90 employees who would work at the stations.

The fuel switch would reduce nitrogen oxides, sulfur dioxide, mercury and particulate emissions, and all of the stations would meet stringent new emissions standards established by the U.S. Environmental Protection Agency.

Dominion Generation CEO David Christian said, "Our proposal to convert these units from coal to biomass provides customers with economical electricity, delivers environmental benefits and takes advantage of a renewable, low-cost fuel source."

Virginia Gov. Bob McDonnell said, "Conversion of these units to biomass creates jobs and generates tax revenues in a manner that will have a positive impact on the environment. The majority of the biomass product being used – wood slash – is typically left on the ground after timber or logging operations are complete. So, the state is now better utilizing a product that would normally go to waste. The projects are reflective of the 'all of the above' approach we need to take when it comes to energy production in the Commonwealth. They are essential to

expanding our alternative energy portfolio and closing our import gap, not to mention creating good jobs here in the Commonwealth."

Dominion plans to meet the state's voluntary Renewable Portfolio Standard, which calls for 15 percent of the company's generation to be from renewable resources by 2025. The company successfully met the 2010 milestone of 4 percent.

Each of these units can currently produce 63 megawatts of electricity of peaking power, running only when demand is at its highest. When converted, they would generate 50 megawatts each, but operate essentially all of the time. Together, these stations would provide electricity to about 37,500 homes.

The stations would obtain most of their fuel from the waste wood left from timbering operations and would comply with a Virginia law regulating the use of biomass for electric generation. Dominion will also be adhering to its allocated cap of 1.11 million tons per year of green wood chips and related tree materials.

Dominion is one of the nation's largest producers and transporters of energy, with a portfolio of approximately 27,600 megawatts of generation, 11,000 miles of natural gas transmission, gathering and storage pipeline and 6,100 miles of electric transmission lines. Dominion operates the nation's largest natural gas storage system with 947 billion cubic feet of storage capacity and serves retail energy customers in 14 states. For more information about Dominion, visit the company's website at [www.dom.com](http://www.dom.com)

**SOURCE:** Dominion Virginia Power

Altavista Power Station



Southampton Power Station



Hopewell Power Station



# **Item B**

**Dominion's Conditional Use Permit Application**

**to**

**Southampton County**

J. THOMAS MILLER  
804.697.1227 telephone  
804.698.6050 facsimile  
tom.miller@troutmansanders.com

# TROUTMAN SANDERS

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March 28, 2011

## BY EMAIL AND FEDERAL EXPRESS

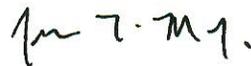
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Southampton County  
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**APPLICATION FOR:**

**REZONING      COMPREHENSIVE PLAN AMENDMENT      CONDITIONAL USE PERMIT**

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Attn: Mr. Grant T. Hollett

Address: 120 Tredegar Street

City, State, Zip: Richmond, Virginia 23219

Phone: Day 804-819-2872 Evening N/A Mobile N/A

Owner Name: Virginia Electric and Power Company, a Virginia public service company ; see attached page for additional information

Address: 120 Tredegar Street

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Mobile: N/A



Give a brief description of the application request (attach additional sheets if necessary):

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March 28, 2011  
Date

  
Signature

\_\_\_\_\_  
Signature

**OFFICE USE ONLY**

Received By: \_\_\_\_\_

Date: \_\_\_\_\_

Post Sign By: \_\_\_\_\_

PC Agenda Date: \_\_\_\_\_

BOS Agenda Date: \_\_\_\_\_

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# **Item C**

**Summary of the Proposed Conversion Project**



**Dominion**

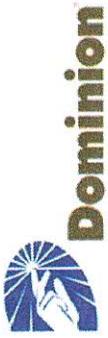


Overview for Southampton County:

Conversion of Southampton Power Station to Biomass Fuel

April 2011

Economic Development Proposal



# Why Approve the Proposed Conditional Use Permit?

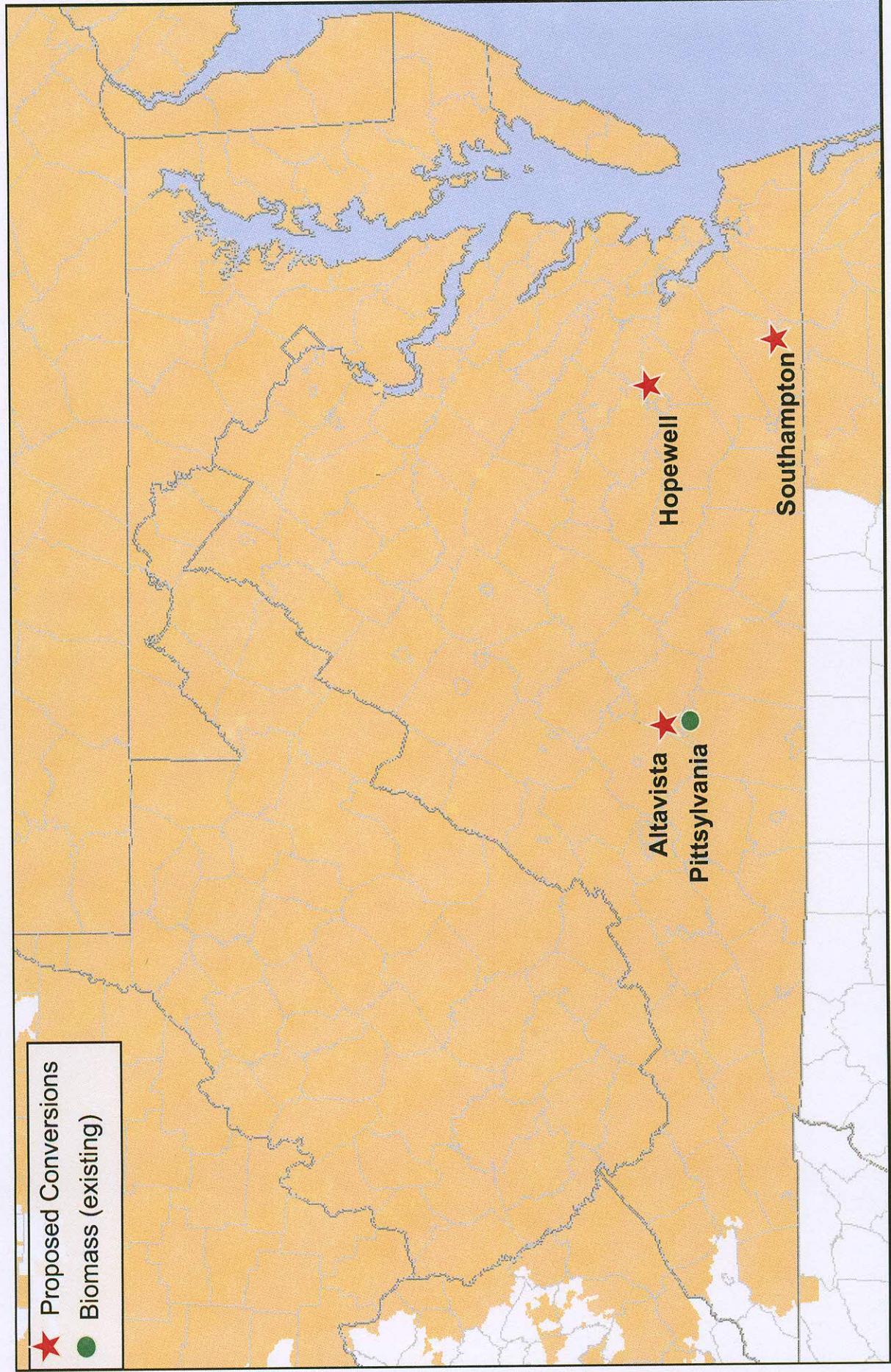
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- Dominion is committed to this project
- Maintains jobs for over 30 well-paid positions at the power station
- Increases local tax revenues
- Creates additional economic development opportunities in the town and region
- Creates 100+ jobs in the forestry and trucking industries
- Environmental benefits compared to operation on coal
- Low-cost source of electricity
- Free wood ash available to farmers



**Dominion**

# Announced Facilities: Conversions to Biomass Fuel





# Press Release issued in April

## Dominion Virginia Power Plans to Convert Three Coal-Fired Stations to Renewable Biomass

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**SOURCE:** Dominion Virginia Power



# Status of Southampton Power Station

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- Southampton Power Station
- Dominion Virginia Power asset
- Coal Capacity: 63 MW
- Constructed in 1992
- Currently in operation
- Potential conversion to biomass could create base-load resource
- Biomass Capacity: 50 MW



# Southampton Power Station: Proposed Conversion

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	<u>CURRENT</u>	<u>PROPOSED</u>
Fuel	Coal	Biomass (Wood)
Facility Output	63 megawatts	50 megawatts
Total Land Area	~ 24 acres	~ 44 acres
Anticipated Operational Date	Operating Today	2 <sup>nd</sup> half of 2013
Fuel delivery method	Rail (coal)	Truck (wood/sawdust)
Trucks Unloading Fuel per Day	N/A (rail)	Up to 125 per day
Zoning Required	Industrial (M-2)	Industrial (M-2)

# Economic Benefits of Project are Significant



	<u>Estimated Annual Benefit</u>	<u>30-Year Plant Life Net Present Value*</u>
<b>Continuation of 30 permanent site positions</b> (30 jobs x 40 hr / wk x 52 wk x \$45/hr)	\$ 2,808k	\$ 40.6M
<b>Southampton County tax revenue</b> (\$808k - \$524k = \$284k increase)	\$ 808k (initial year value)	\$ 9.7M
<b>Construction period jobs</b> (50 jobs x 40 hr / wk x 36wk x \$30/hr)	\$2,160k (one time)	\$ 2.2M
<b>Local services</b> (Historical average)	\$ 350k	\$ 5.1M
<b>Regional Forestry &amp; Trucking</b> (Estimate 100 jobs x 40 hr/wk x 52 wk x \$20/hr)	\$4,160k	\$ 60.1M
<b>Beneficial Reuse of Ash for Farmers</b> (Estimate of 5000 ton/yr equivalent of lime, at \$35/ton)	\$ 175k (initial year value)	\$ 2.5M

**Total Estimate**

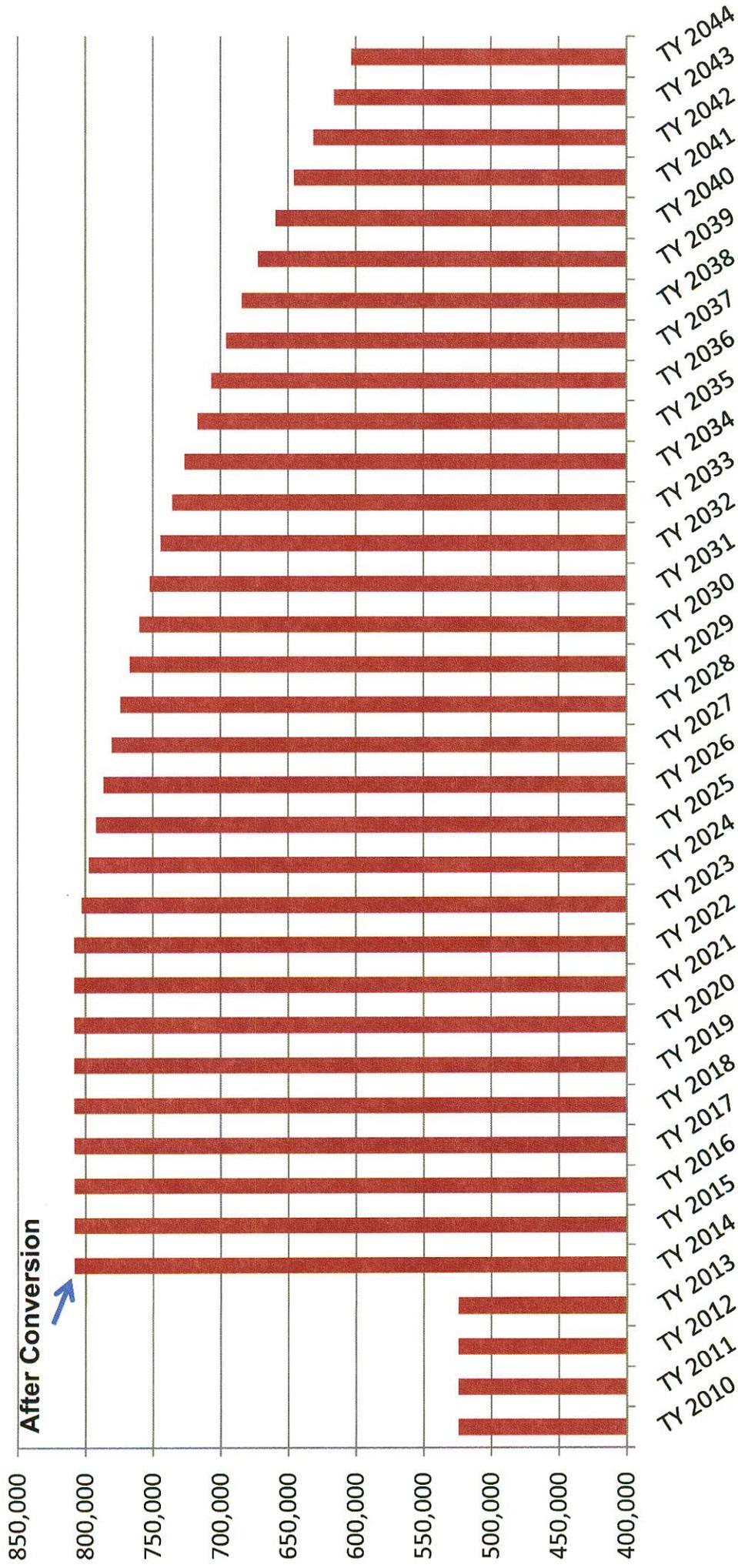
**\$10.5 M annual**

**\$120.2 M total**

\* Assumes 1.5% annual escalation of local services , labor costs, and lime, a 7% discount rate, and 30 year plant life starting in 2014  
**Economic Development Proposal**

# Estimated Future Tax Revenue from Facility

## County of Southampton Tax Estimate



**Assumptions:**

1. Biomass conversion plant investment of \$45 million
2. Property tax rate is \$0.76 per \$100 of assessed value
3. Property depreciates over life of plant

## Additional Economic Benefits

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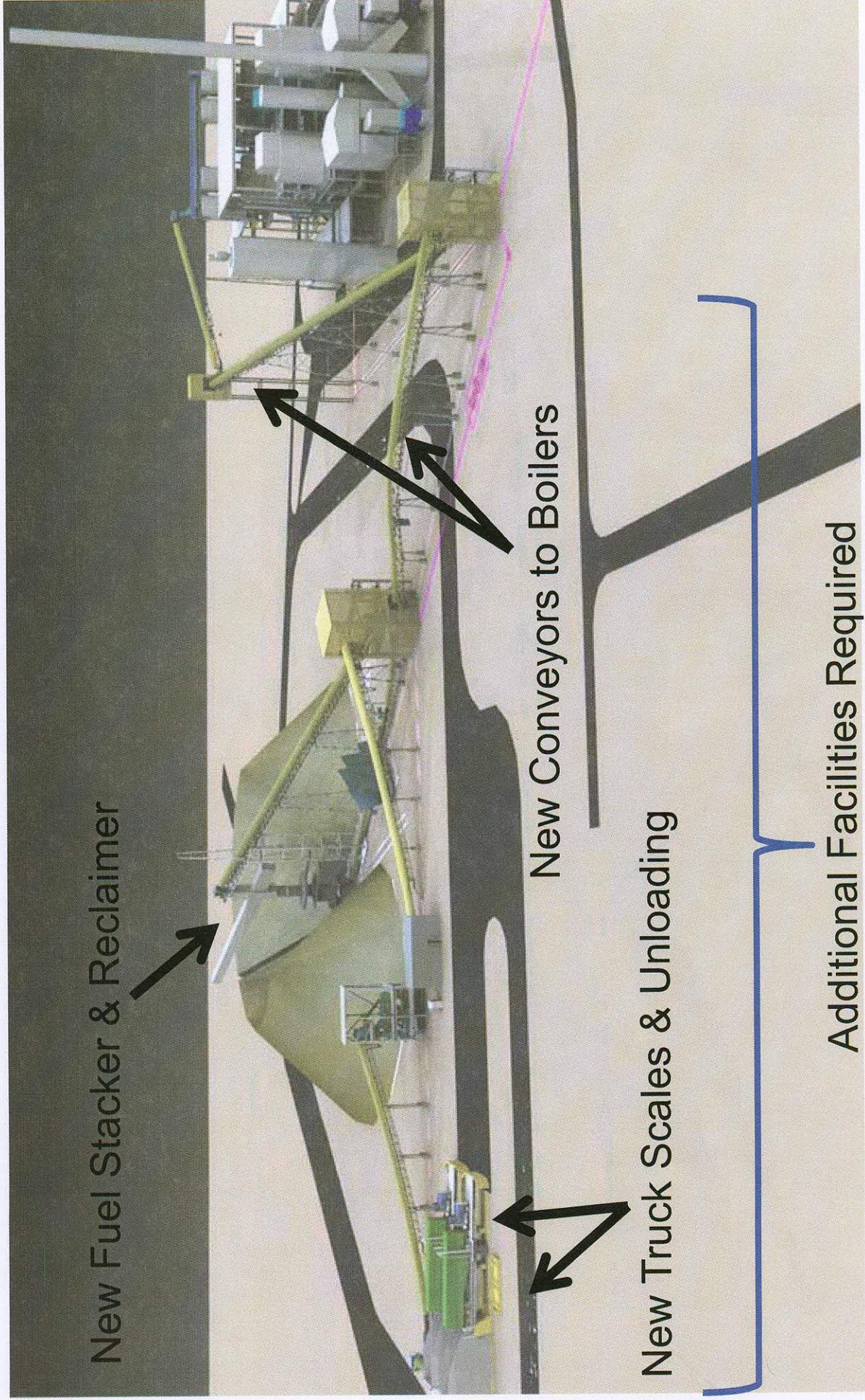
- Jointly seek & provide support for additional economic development opportunities
- Steam host entity (Ashland Chemical) achieves better steam supply economics
- Local sales tax benefits from goods and services
- Timber resource income throughout the region
- State Forestry Dept – severance taxes & reforestation fees on severed timber
- Truck license fees redistributed through VDOT to county / secondary road funds
- Mill & Logging maintenance, taxes





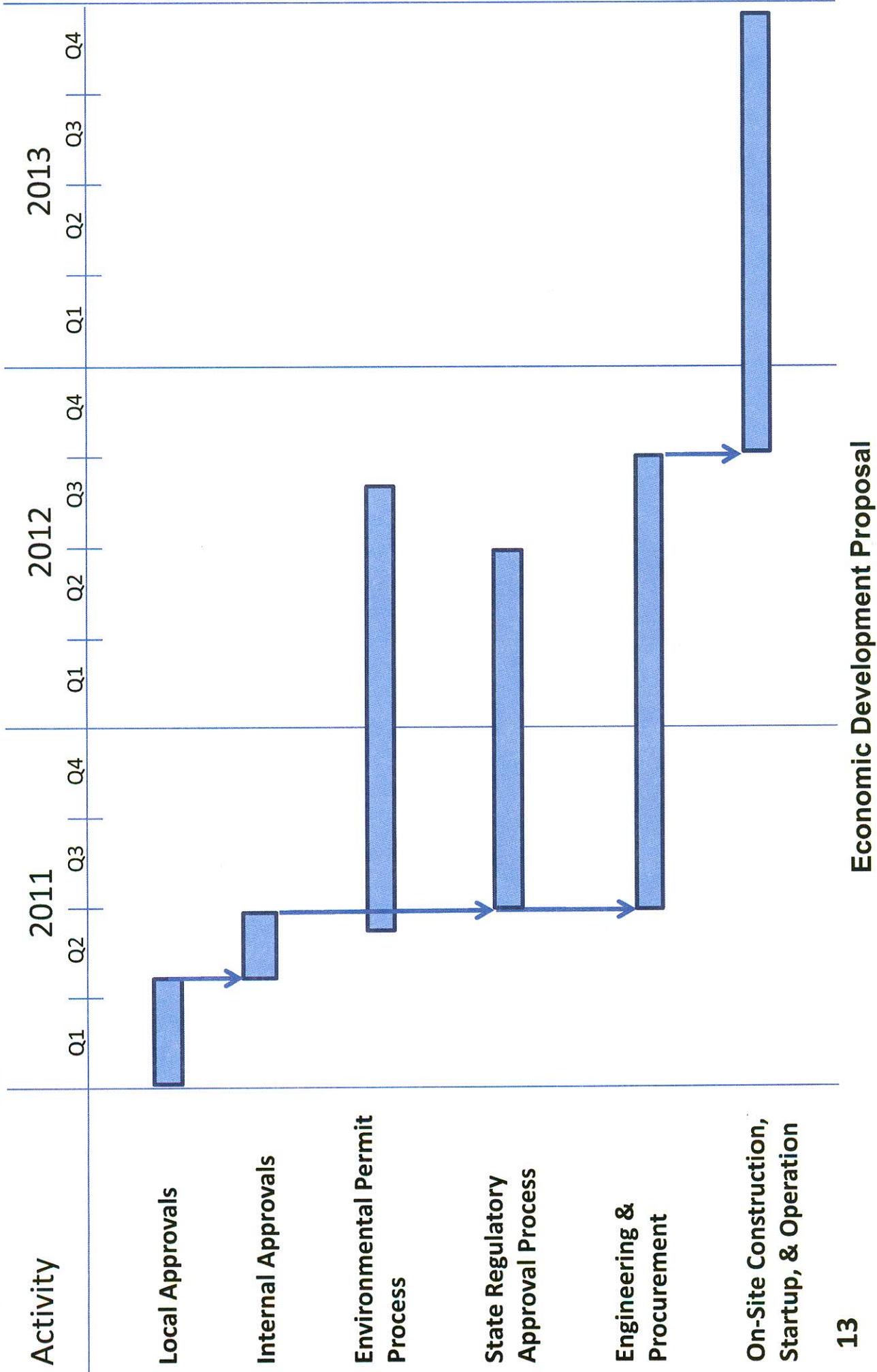
# Facility Improvements to be Built

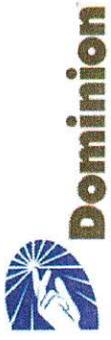
(Subject to Change: Design/Engineering not yet started)





# Proposed Conversion Schedule





# Requested Local Approval Schedule

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April 14, 2011

Planning Commission Public Hearing

- conditional use permit

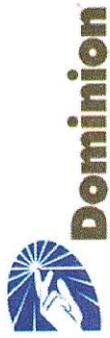
April 25, 2011

Board of Supervisors Public Hearing

- conditional use permit

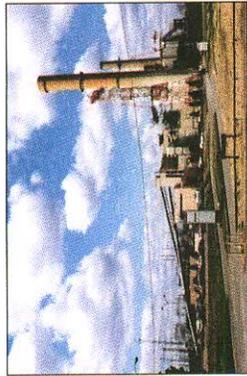


# APPENDIX

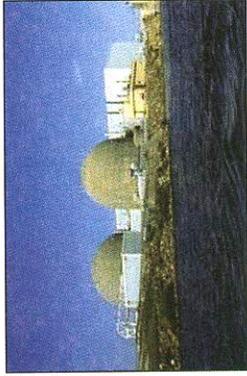


# Virginia Power Generation Portfolio

## Balanced, Diverse Fuel Mix



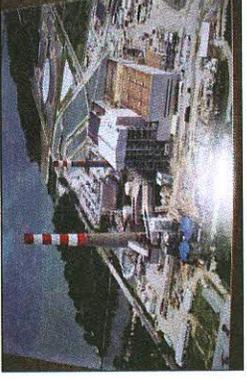
Coal



Nuclear



Natural Gas

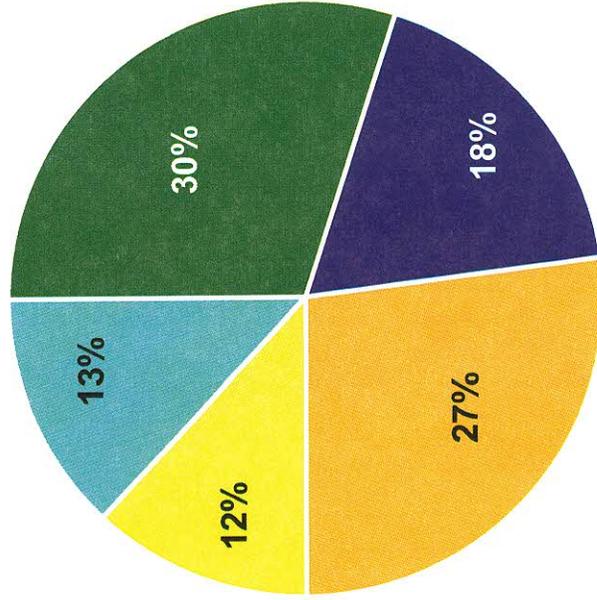


Oil

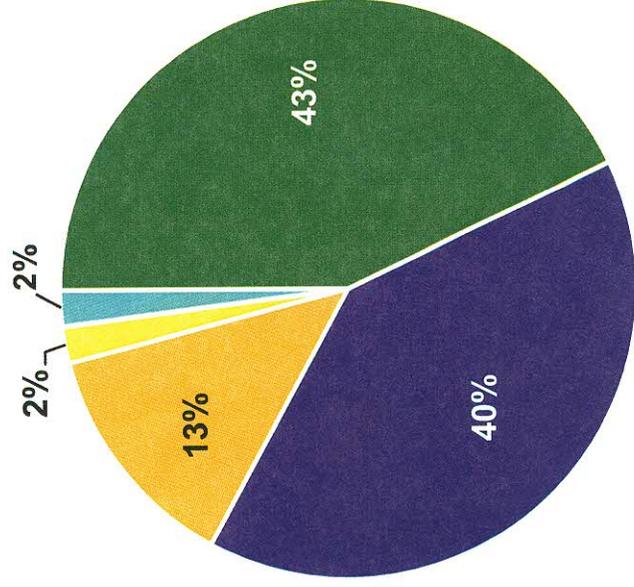


Hydro

### 2010 Electric Capacity by Fuel



### 2010 Electric Production by Fuel\*

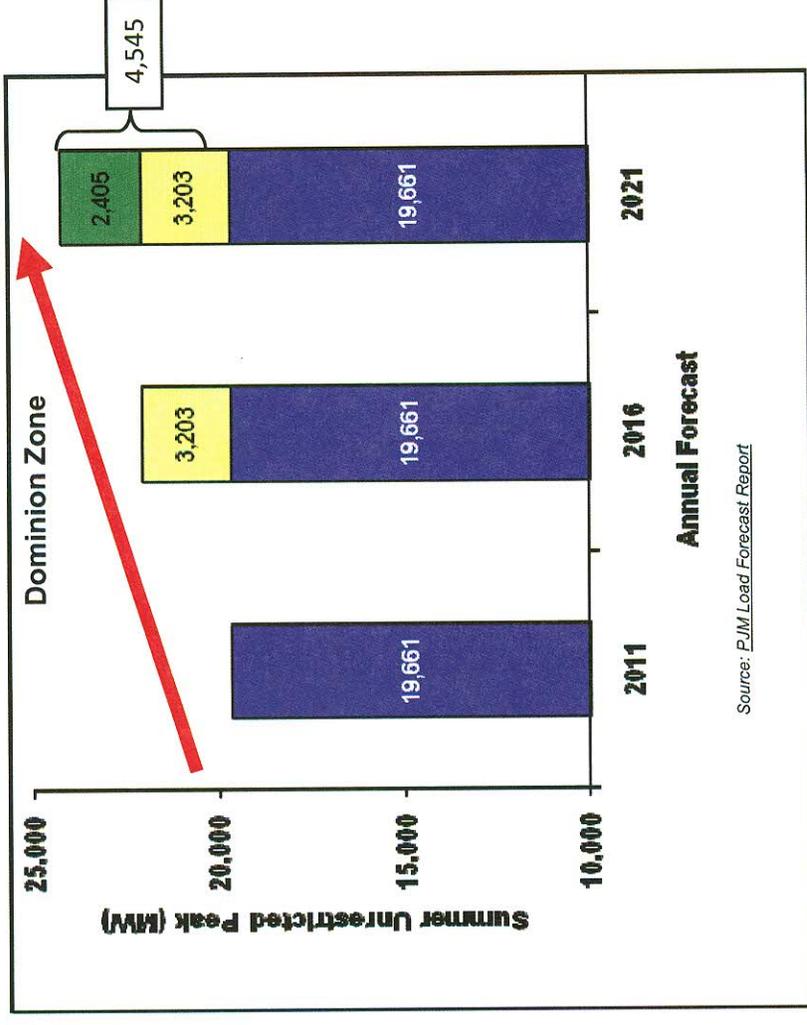


\*Electric Production by Fuel proportions exclude Non-utility Generation (NUG) under contract.



# Dominion's Projected Electric Demand

- Dominion peak load of 19,688 MW in 2007
- Overall annual predicted average load growth: ~1.4%\*
- Dominion Zone annual predicted average load growth: ~2.1%\*
- Dominion Zone has the highest 10-year forecasted summer peak load growth rate in PJM



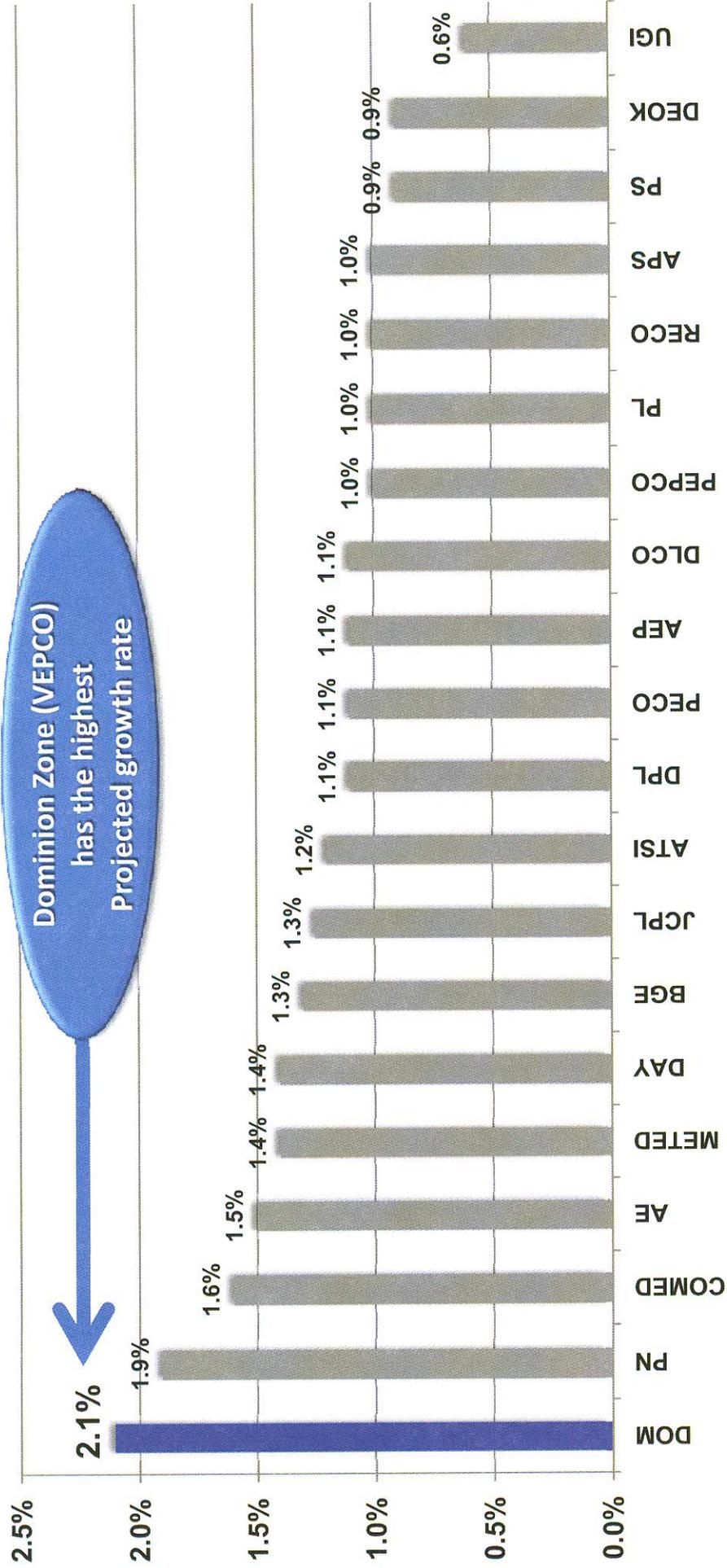
Source: PJM Load Forecast Report, January 2011

\*Annual peak demand growth for 10 year period as predicted by PJM



**Dominion**

# Dominion's Projected Load Growth is Highest of Mid-Atlantic Utilities



Source: PJM Load Forecast Report (January 2011)



# Announced Infrastructure Investments

Project/Program	2008	2009	2010	2011	2012	2013	2014	2015
✓ Ladysmith Units 3-5	481 MW							
✓ Peaker Upgrades	214 MW							
✓ Baseload & CC Upgrades	111 MW				131 MW			
✓ Nuclear Upgrades*	70 MW			164 MW				
✓ Bear Garden (R)	Under Construction			580 MW				
✓ Virginia City Hybrid Energy Center (R)	Under Construction			585 MW				
<b>Biomass Conversions</b>					<b>150 MW</b>			
Warren (R)								1,329 MW
Generic Combined Cycle (R)								Up to ~1,300 MW (COD 2017/2018)
Generic Combined Cycle / North Anna 3 (R)								Gen. CC Up to ~1,300 MW / North Anna - 1,300 MW (Dom. Ownership) (COD TBD)

(R) - Project subject to VA State Corporation Commission rate rider approval under Virginia Re-regulation Plan

# Virginia RPS Goals

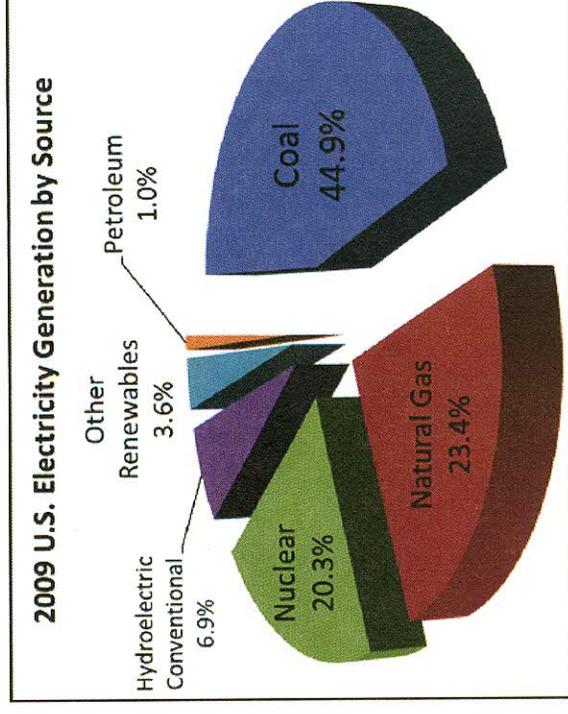


- ❑ In 2007, Virginia passed into law a voluntary Renewable Portfolio Standard (RPS):
  - 4% by 2010
  - 7% by 2016
  - 12% by 2022
  - 15% by 2025 (added in 2009)

❑ Dominion’s existing utility-owned renewable assets reach 4%

❑ Dominion is growing its renewable portfolio to reach 15% by 2025

- ❑ Evaluating all available options to meet the targets
  - Existing utility-owned renewable generation
  - Build new renewable facilities in Virginia
  - Purchase RECs / renewable energy



# Dominion Virginia Power's Renewable Generation Portfolio



## Renewable Power Generation Portfolio

<u>Renewable Utility Generation</u>	<u>Fuel</u>	<u>Region</u>	<u>2010 Capacity (MW)</u>	<u>Cumulative In Development 2011+ Capacity (MW)</u>
Pittsylvania	Biomass	PJM	83	83
Altavista, Hopewell & Southampton	Biomass	PJM	6	150
Virginia City Hybrid Energy Center*	Biomass	PJM	-	117
Undisclosed New Biomass	Biomass	PJM	-	100
Gaston (1-4)	Water	PJM	220	220
Roanoke Rapids	Water	PJM	95	95
Cushaw	Water	PJM	2	2
North Anna	Water	PJM	1	1
Virginia Wind Projects	Wind	PJM	0	248
Halifax Solar	Sun	PJM	0	4
<b>Renewable Utility Generation</b>			<b>407</b>	<b>1,020</b>

# **Item D**

**Answers to Frequently Asked Questions (FAQs)  
Regarding the Proposed Conversion Project**



## SOUTHAMPTON POWER STATION CONVERSION OF COAL TO RENEWABLE BIOMASS FUEL FAQs FOR SOUTHAMPTON COUNTY

APRIL 2011

### Answers to Frequently Asked Questions Offered by Dominion

*Virginia Electric and Power Company, a Virginia public service company (“Dominion Virginia Power”), is providing the information below regarding the proposed conversion of the Southampton power station from coal to renewable biomass fuel. These questions and answers have been created by Dominion Virginia Power to provide additional information to Southampton County.*

1. Why is Dominion Virginia Power considering converting the Southampton power station from coal to a renewable biomass fuel?

*Dominion Virginia Power is planning to convert the facility from coal to a renewable biomass fuel due to several significant advantages. The conversion provides strong customer value because it will utilize a fuel that is anticipated to be lower cost than coal or natural gas, and receive the benefit of the Federal production tax credit. It is also expected to provide at least \$120 million in local and regional benefits over a projected 30-year life, and provide environmental benefits by converting to a renewable energy resource that national policy already suggests is also carbon neutral.*

*To ensure that the region reaps the benefits of this investment, and to ensure that Dominion Virginia Power’s customers receive the benefit of a low-cost energy resource, Dominion is requesting that Southampton County approve the proposed Conditional Use Permit by April 25, 2011.*

2. How much of an investment would be required by Dominion Virginia Power to convert the Southampton power station from coal to a renewable biomass fuel?

*It is anticipated that converting the facility will cost less than \$50 million. The majority of the changes will include a new fuel unloading area, fuel pile, stacking, reclaiming, and conveyor equipment, as well as modifications to the boiler tube configuration inside both*

*of the boilers. The visible changes outside of the existing buildings would be limited to the fuel unloading, fuel pile, and fuel conveyance areas.*

3. How would this project create positive impacts to the region?

*This project would provide at least \$120 million in local and regional benefits over a projected 30-year life of the facility. Details of the projected benefits are listed below:*

<i>Continuation of 30 permanent jobs</i>	<i>\$ 40.6 million</i>
<i>Southampton County tax revenue</i>	<i>\$ 9.7 million</i>
<i>Construction period jobs (one time)</i>	<i>\$ 2.2 million</i>
<i>Local services</i>	<i>\$ 5.1 million</i>
<i>Regional Forestry &amp; Trucking</i>	<i>\$ 60.1 million</i>
<i>Beneficial Reuse of Ash for Farmers</i>	<i><u>\$ 2.5 million</u></i>
<b><i>TOTAL</i></b>	<b><i>\$120.2 million</i></b>

*Additionally, it should be noted that Dominion Virginia Power is purchasing coal for the facility primarily from out-of-state resources. If converted to a biomass fuel, it is anticipated that these biomass resources would be largely procured and sourced in Virginia and North Carolina.*

4. Are there any other potential economic benefits that could occur as a result of converting this facility from coal to a renewable biomass fuel?

*The Southampton power station is capable of providing process steam to the adjacent manufacturing operations owned by Ashland Chemical. The conversion of this facility from coal to biomass fuel is expected to significantly improve the economics of the power station and cause it to run at maximum capacity most of the time, thereby reducing the cost of process steam for Ashland Chemical.*

5. What about other potential economic benefits that may occur as a result of converting this facility from coal to a renewable biomass fuel?

*If the Southampton power station was converted to a renewable biomass fuel, there may be other economic development opportunities available to Southampton County. Some companies with operations that are heavily reliant on the use of electricity regularly approach Dominion Virginia Power to locate within our electric service territory in areas where we produce higher levels of renewable electricity. This occurs in many cases because these companies have corporate goals to increase the amount of renewable energy used for their operations. Internet providers seeking internet data sites are examples of some of the companies seeking locations, which are heavy electricity users. They generally seek sites that are near renewable energy facilities with zero or low carbon intensities. By converting the Southampton power station to a renewable energy facility, the opportunity exists to attract these types of opportunities to the area.*

6. How many people are currently working at the power plant today?

*There are currently 30 people working at the Southampton power station.*

7. How many trucks are required to deliver biomass fuel to the facility each day?

*Dominion Virginia Power estimates that approximately 80-90 trucks will transport biomass-related fuel to the Southampton power station (calculated on a rolling 30 day average), with the average maximum of truck trips per day estimated at 125. Dominion Virginia Power estimates that most of the deliveries are anticipated to occur on weekdays, but deliveries of biomass-related fuel will also occur on the weekends and/or holidays, subject to weather conditions and, as necessary, to meet the requirements for generation of electric power to serve Dominion Virginia Power's customers.*

8. How would the fuel be unloaded and conveyed into the two existing boilers at the Southampton power station?

*The delivery of fuel to the Southampton power station would occur by truck, and be offloaded by two truck tippers. Dominion Virginia Power anticipates that the conveyance of wood from the truck unloading area to the 2 boilers will be largely automated with stacking and reclaiming equipment and conveyors, and will require minimal use of a bulldozer to move the wood pile to the reclaimer(s). Because an engineering and construction firm has not yet been selected and awarded a contract, the exact configuration of the fuel pile and fuel handling system has not yet been determined. Dominion Virginia Power has proposed in the draft Conditional Use Permit to limit the height of the additional biomass-related facilities and improvements to not more than 150 feet above the grade level of the property. The fuel pile is expected to be approximately 3 million cubic feet in volume, and be sufficient for at least 14 days of supply for the power station.*

9. What is the fire risk for the wood pile?

*Bituminous coal has an auto-ignition temperature of 850F. Dry pine has an auto-ignition temperature of 800F and oak has an auto-ignition temperature of 900F. The wood that will be burned at Southampton power station will consist of a blend of hard and soft wood with a moisture content of approximately 45%. There is no significant difference between the auto-ignition temperatures of coal and the moist wood chip blend that will be stored at Southampton power station. A risk of a fuel pile fire is not increased by the conversion to biomass fueling.*

10. Has the Pittsylvania power station had a chip fire?

*There has been no instance of a biomass-related fuel fire since Dominion Virginia Power's acquisition of the facility in 2004. It is normal for biomass-related fuel piles to develop "hot spots" from time to time which are eliminated by simply moving the fuel (typically by bulldozer) to deny oxygen to the affected area.*

11. Is there sufficient wood available to operate the Southampton power station?

*Yes, Dominion Virginia Power has assessed the availability of wood in the region, and believes there is more wood available than is required to fuel the Southampton power station for the long-term.*

12. What is expected to be done with the ash produced from the facility?

*Dominion Virginia Power anticipates the ash produced and collected from the facility will be available for use by local farmers at no cost to them. The ash is expected to be an excellent substitute for lime, which costs \$35/ton in today's market. About 2.75 parts of ash equal 1 part of lime in the farm fields, and can be directly substituted by the farmers. We anticipate the ash produced from this facility would save the farmers over \$2.5 million over the projected 30-year life of the facility.*

13. Is the use of wood carbon neutral?

*Yes, Dominion Virginia Power has studied this in detail, and assesses that the use of wood for the generation of electricity is carbon neutral. Longstanding national and international precedents have been set for the treatment of greenhouse gas and CO<sub>2</sub> emissions from biomass sources as being carbon neutral. The reason that carbon programs to-date have policies that treat biomass as carbon neutral is that the science of biomass carbon neutrality is well established. The United States has consistently made a strong case over the decades that the Land Use, Land-Use Change, and Forestry (LULUCF) sector in the United States is not only carbon neutral, but that it is a large net carbon sink and represents an offset of total U.S. CO<sub>2</sub> emissions.*

*Dominion's Pittsylvania power station also offers a specific example of the carbon neutrality of biomass. This power station, currently the largest wood-fueled biomass electric generation facility operating in the United States, primarily burns waste wood (approximately 80%) such as treetops, limbs, and other logging residue left behind from pulpwood logging operations; excess round wood (approximately 10 percent); and sawdust (approximately 10 percent) from sawmill operations. Thus, Dominion's biomass use does not result in any increased demand in forest harvesting than would otherwise occur. Rather, it primarily uses waste biomass that would otherwise decompose or be burned.*

14. How will air emissions change as a result of converting this facility from coal to renewable biomass fuel?

*Dominion Virginia Power will operate the Southampton power station in compliance with the laws of the Commonwealth of Virginia and the regulations of the Virginia Department of Environmental Quality ("DEQ"). Dominion Virginia Power is preparing an application for submittal to DEQ for a new air permit to convert from coal to biomass fuel. Emissions of nitrogen oxides, sulfur dioxide, mercury and particulate matter are expected to decrease compared to the facility's coal-fired baseline emissions. The facility will be adding Selective Non-Catalytic Reduction technology to control nitrogen oxides, will continue to use its existing Flue Gas Desulfurization technology to control acid*

*gasses and will continue to use a bag-house that is 99.9% efficient in removing particulate matter.*

15. Is the use of wood for electricity generation considered a renewable resource by the Commonwealth of Virginia, and also by the Federal government?

*Yes, the use of wood fuel to create electricity is considered a renewable energy resource in the Commonwealth of Virginia. In Section 56-576 of the Virginia Code, "Renewable energy" means energy derived from sunlight, wind, falling water, biomass, sustainable or otherwise, (the definitions of which shall be liberally construed), energy from waste, municipal solid waste, wave motion, tides, and geothermal power, and does not include energy derived from coal, oil, natural gas or nuclear power.*

*In Section 45 of the Federal Tax Code, biomass is considered a qualifying renewable resource for the purpose of receiving a production tax credit.*

16. Will Dominion Virginia Power receive any tax credits by converting the Southampton power station from coal to renewable biomass fuel? Will that create a financial benefit for Dominion Virginia Power?

*If the facility is converted from coal to renewable biomass fuel, the facility and Dominion Virginia Power would qualify to receive a production tax credit for the first ten years of operation of approximately 1.1 cents for each kw-hr of electricity produced (rate would escalate annually as determined by the Federal government). To qualify, the conversion must be completed and the facility placed into service on or before December 31, 2013. Dominion Virginia Power would not keep this production tax credit, but rather, would be required to pass this along to its customers in the form of lowered facility operating cost. All of the production tax credits received from the Federal government would directly benefit Dominion Virginia Power's customers.*

17. Without the availability of the Federal production tax credit, would this converted facility still be economical for Dominion Virginia Power's customers?

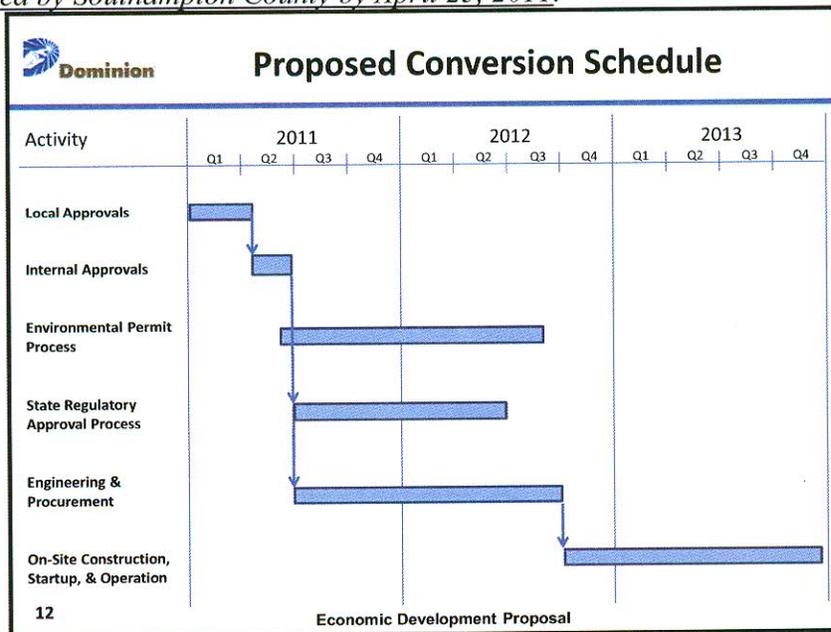
*Yes, Dominion Virginia Power anticipates this converted facility would still be economical for its customers with or without the Federal production tax credits. However, the availability of the tax credits creates further enhanced benefits for our customers by directly lowering the facility's operating cost. It also provides Dominion Virginia Power (and ultimately its customers) a hedge against uncertain environmental regulations and policies that could be created in the future by the Federal government.*

*As a matter of prudence for our customers, Dominion Virginia Power should proceed on a schedule that achieves these production tax credits. As an example of the viability of these biomass facilities, one can look at the Pittsylvania power station --- it is operating on wood fuel but its eligibility for production tax credits ended more than five years ago (the 10-year window ended), and even without those tax credits, it still operates*

*competitively in the market today and in a manner that is beneficial for our customers. We anticipate this would be the same for the Southampton power station.*

18. Why does Dominion Virginia Power need timely approval of the Conditional Use Permit?

*As previously mentioned, in order to qualify for the production tax credit, further lower the cost of operation of the facility for our customers, and maximize the utilization of the power station, the facility must be converted and placed in service on or before December 31, 2013. To meet that deadline, Dominion Virginia Power has developed a schedule that achieves that goal (also provided below). To preserve this schedule, a construction contract must be awarded and regulatory approvals must be applied for by the end of the 2<sup>nd</sup> quarter of 2011, and those costs will likely not be committed by Dominion Virginia Power without first receiving local approval. To preserve this schedule, Dominion Virginia Power is requesting that the Conditional Use Permit be approved by Southampton County by April 25, 2011.*



19. Has Dominion Virginia Power reviewed any other transportation alternatives to trucks to bring in the wood fuel?

*Dominion Virginia Power has studied the possibility of transporting wood fuel to the power station by rail. For the rail option, we determined that transporting wood via rail to the power station would increase the cost of the wood fuel by nearly 2 times the projected cost of truck-delivered fuel. This data was also confirmed by 3<sup>rd</sup> party sources. This increase in fuel cost would directly increase the cost of operating the facility and be detrimental to our customers. It is anticipated that using wood delivered by rail would result in a facility that is not as economical as truck-delivered wood fuel, and may*

*operate less than what it would have operated had it remained a coal-fired facility. Therefore, the rail option is not feasible.*

20. Has Dominion Virginia Power considered the use of other fuels rather than wood?

*Dominion Virginia Power has studied the use of wood, coal, and natural gas at this facility. Currently, the cost of wood and coal fuels delivered to the power station is projected to be as follows in 2013:*

<i>Wood</i>	<i>\$3.00 per million Btu's (not including added benefit of tax credits)</i>
<i>Coal</i>	<i>\$4.00 per million Btu's</i>

*We know that the use and cost of coal is leading to the power station's low use. Our current forecasts indicate the cost of coal will continue to remain above wood and be more economical to operate on wood.*

*Additionally, although natural gas prices have dropped to record lows and caused a decrease in the overall wholesale power market price, it is still anticipated to be a higher cost than both wood and coal for this location, which would also yield low use of the facility. Dominion Virginia Power is also not certain that natural gas could be delivered to Southampton power station at the flow rates needed to operate at full output. After review of these options, we concluded that the wood fuel and its abundance in the region, along with its favorable competitive market economics, was the best solution.*

21. In summary, what are Dominion's conclusions from this information?

*Dominion Virginia Power is planning to convert the facility from coal to a renewable biomass fuel due to several significant advantages. The conversion provides strong customer value because it will utilize a fuel that is anticipated to be lower cost than coal or natural gas, and receive the benefit of the Federal production tax credit. It is also expected to provide at least \$120 million in local and regional benefits over a projected 30-year life, and provide environmental benefits by converting to a renewable energy resource that national policy already suggests is also carbon neutral.*

*Dominion Virginia Power believes the benefits are significant. To ensure that the region reaps the benefits of this investment, and to ensure that Dominion Virginia Power's customers receive the benefit of a low-cost energy resource, Dominion is requesting that Southampton County approve the proposed Conditional Use Permit by April 25, 2011.*