

# Public Sector Advisors





PRESENTATION TO

## Tazewell County, Virginia

November 17, 2009

PRESENTERS:

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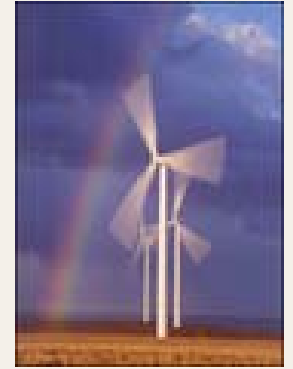
Executive Vice President



# Study Purpose

- Aid Tazewell County and the Tazewell IDA in evaluating a proposed wind farm development
  - Forecast or understand the potential economic impacts
  - Project the direct and indirect/induced impacts on local government
    - Revenue
    - Property values
    - County tourism
    - Job creation
    - Average annual wages
    - Loss of property use
    - Effect on “The Bluestone”

# Proposed Wind Farm



- Dominion Power and BP Energy proposing to develop wind farm in Tazewell County along ridge line of East River Mountain between Towns of Bluefield and Tazewell, Virginia

Area:	Approx 11 miles
Rated Generation Capacity:	60 MW
Number of Turbines:	30-40 (1.5MW to 2.0MW each)
Full-Time Jobs Created:	10-15
Construction Year:	2012
First Year of Operation:	2013

# Proposed Wind Farm

*cont.*

- Developers have purchased over 2,500 acres for the project
  - Generates \$8,831 in property taxes
  - Not included in our calculations
  - Base figure from which future estimates are projected

# Proposed Wind Farm Assumptions

- Total project cost is estimated to be \$200 million
- Taxable investment estimate \$121.5 million
  - Wind turbines \$90 million
  - Infrastructure improvements, electrical connections and related equipment \$31.5 million
- Remainder of costs for other activities such as engineering, site studies, project management, insurance, etc.

# Proposed Wind Farm Assumptions *cont.*

- Bulk of sales tax revenues received during the construction period
- 10-15 full-time workers needed to maintain and monitor the turbines and related electrical equipment when fully constructed
  - Technicians drawn from local area
  - Estimate average salary of workers will be approximately \$46,500 in 2013

# Proposed Wind Farm Assumptions *cont.*

- Property tax assumptions
  - Turbines will be treated as real property for property tax purposes
    - To the extent any related equipment is treated as tangible personal property, revenues would be increased accordingly
  - Turbines depreciated on a 12-year straight-line depreciation schedule

# Proposed Wind Farm Assumptions *cont.*

- Property tax assumptions *cont.*
  - Current Tazewell County property tax rates
    - Real estate - \$0.58/\$100
    - Tangible business property - \$2.00/\$100
- Inflation assumptions
  - Payroll inflation 3% per year
  - Construction/furniture, fixtures and equipment inflation 4.865% per year
  - Property value growth rate 1.5% per year

# Proposed Wind Farm Assumptions *cont.*

- Construction spending
  - Turbines not included assumed these are coming from outside Tazewell County
  - Other construction costs are assumed to be 50% materials and 50% labor
  - Taxable profits for construction firms are 10% of total costs

# Proposed Wind Farm Assumptions *cont.*

- Construction spending *cont.*
  - Construction permit fees calculated at the estimated construction cost times the County's current fee rate of 0.003838
  - Half of construction materials taxable by Tazewell County
  - Construction workers projected to earn \$45,000 annually
  - Half of taxable spending by construction workers is estimated to occur in Tazewell County

# Proposed Wind Farm Assumptions *cont.*

- Sales taxes
  - Sales tax rate 4% for the Commonwealth and 1% for localities
  - Workers spend 40% of their pay on taxable goods and services

# Proposed Wind Farm Assumptions *cont.*

- Indirect and induced impacts
  - Indirect and induced impacts
    - Those arising from economic activity growing up around the development
    - Not directly part of the project
  - Bureau of Economic Analysis Regional Input-Output Modeling System (RIMS II)
  - Multipliers specific to Tazewell County, Virginia

# Methodology

- Property taxes
  - Growth in tax base
    - Commercial/industrial growth resulting from the new development
      - Total value of buildings and improvements and furniture, fixtures and equipment
    - Growth in residential property created when new housing is built to accommodate new employees
      - New residential property construction is expected to be zero

# Methodology *cont.*

- Sales taxes
  - Sales tax collections
    - Construction materials
    - Businesses in the new development
    - Personal spending of construction workers and long-term employees
- Other
  - Payments for plan review, permits and inspections, and related services

# Methodology *cont.*

- Cost versus benefits
  - Costs incurred by County
    - Extraordinary one-time expenditures
    - Direct incentives offered to the developers
    - No such costs have been identified
  - Costs to provide governmental services
    - Due to small number of permanent jobs created, there will be limited expenditure impacts incurred by the County for operational purposes

# Revenue Impacts

<b>Sales Taxes - General</b>	2012	2013-2017 (5 years)	2018-2032 (15 years)	Total
Construction				
Bluestone Wind Project	\$ 189,000	\$ -	\$ -	\$ 189,000
New business sales and purchases				
Bluestone Wind Project		\$ -	\$ -	\$ -
Employee spending				
Bluestone Wind Project		\$ 9,193	\$ 37,336	\$ 46,529
Total Sales Taxes - General:				
Bluestone Wind Project	\$ 189,000	\$ 9,193	\$ 37,336	\$ 235,529

# Revenue Impacts

*cont.*

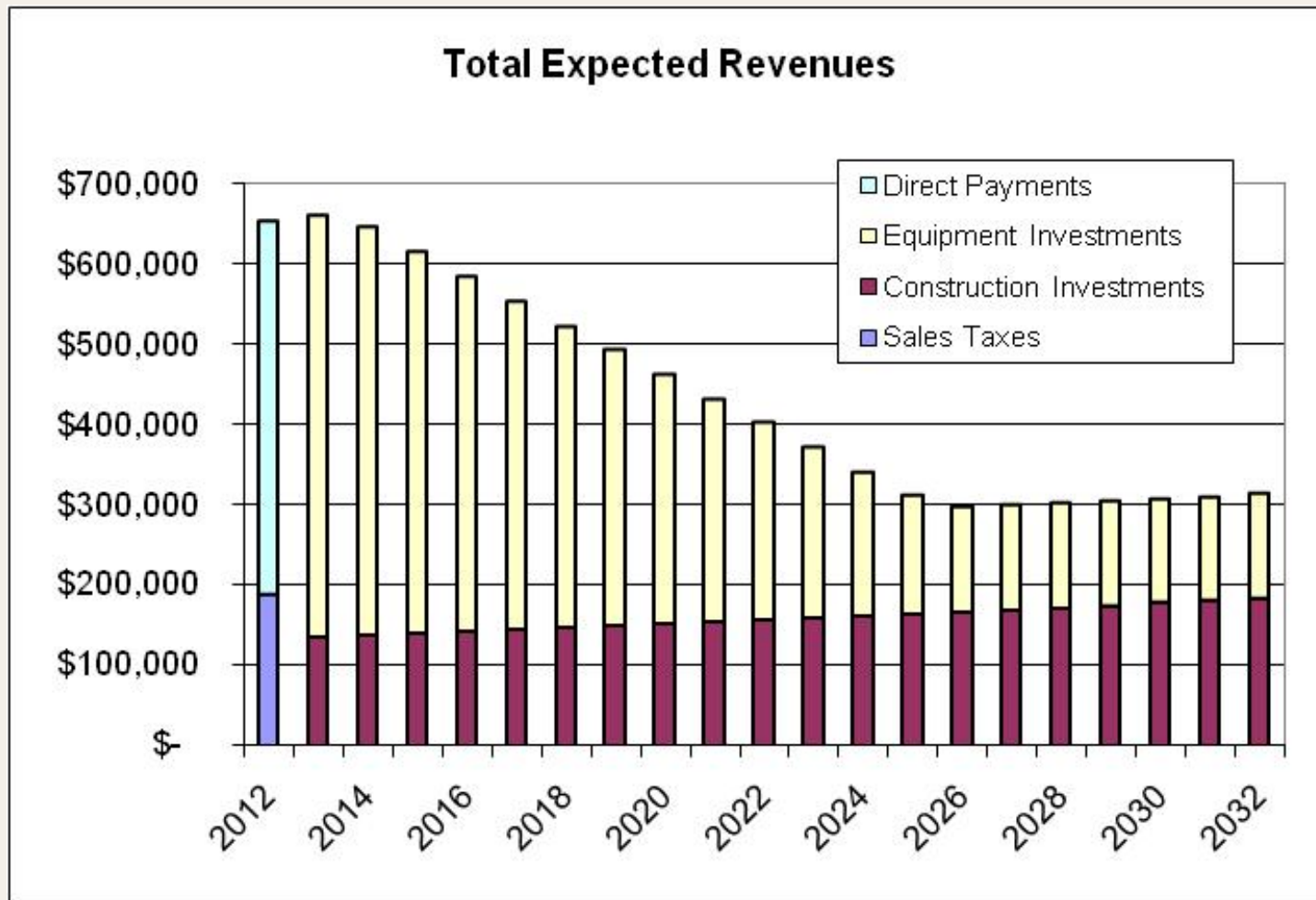
<b>Property Taxes</b>	2012	2013-2017 (5 years)	2018-2032 (15 years)	Total
Project land				
Bluestone Wind Project	\$ -	\$ -	\$ -	\$ -
Project construction				
Bluestone Wind Project	\$ 705,989	\$ 2,462,531	\$ 3,168,520	\$ 3,168,520
Project FFE				
Bluestone Wind Project	\$ 2,349,000	\$ 3,001,500	\$ 5,350,500	\$ 5,350,500
New residences				
Bluestone Wind Project	\$ -	\$ -	\$ -	\$ -
Total Property Taxes:				
Bluestone Wind Project	\$ 3,054,989	\$ 5,464,031	\$ 8,519,020	\$ 8,519,020

# Revenue Impacts

*cont.*

—							
<b>Other Revenues</b>		2012	2013-2017 (5 years)	2018-2032 (15 years)			Total
Direct payments from developer							
Bluestone Wind Project	\$	466,317	\$ -	\$ -	\$		466,317
Total Other:							
Bluestone Wind Project	\$	466,317	\$ -	\$ -	\$		466,317
<b>Total County Benefits</b>							
Bluestone Wind Project	\$	655,317	\$ 3,064,183	\$ 5,501,367	\$		9,220,866

# Revenue Impacts *cont.*



# Revenue Impacts

*cont.*

- Indirect impacts
  - Negligible
  - Anticipated 10-15 permanent jobs expected to require little by way of goods and services purchased in Tazewell County to support their activities

# Tourism Impacts

- Measurements of impacts limited due to the relatively recent development of wind farms
- Two of most widely cited studies come from Nantucket Sound (Massachusetts) and Scotland
  - Because studies were survey-based, results are of limited usefulness in predicting future effects

# Tourism Impacts *cont.*

- Scottish survey results
  - Tourism spending in areas within view of a wind farm might be reduced by 5.1% to 13.6%
    - These impacts based on survey results
      - Respondents representing 5.1% of tourism spending said they would not return to an area with wind farms
      - Respondents representing 8.5% of spending said they might possibly not return

# Tourism Impacts *cont.*

- United States research on impacts of proposed wind farm in Nantucket Sound and tourism in the Cape Cod area
  - Approximately 5% of visitors would avoid spending time in an area with wind farms or shorten their visits
  - Approximately 1% of visitors would be more likely to stay longer
  - About 11% of visitors would pay less for lodging
  - About 1% who would pay more for lodging

# Tourism Impacts *cont.*

- Cape Cod/Nantucket Sound study estimated the presence of a wind farm would result in the loss of 1.2% to 2.6% of the area's tourism jobs
- We wish to emphasize that the figures cited above are based on opinion surveys and that it would be inappropriate to treat them as predictive of actual effects

# Tourism Impacts *cont.*

- Current Tazewell County tourism levels
  - Virginia Tourism Corporation estimates tourism accounted for approximately 580 jobs and \$644,000 in local tax receipts in Tazewell County in 2008

	2004	2005	2006	2007	2008
Traveler Expenditures	\$ 31,866,630	\$ 34,362,782	\$ 38,890,075	\$ 42,144,284	\$ 44,812,039
Travel-Related Employment	508	509	542	560	580
Travel-Related Payroll	\$ 7,740,127	\$ 7,823,476	\$ 8,558,524	\$ 8,865,777	\$ 9,391,045
Local Tax Receipts	\$ 473,452	\$ 496,687	\$ 556,621	\$ 600,353	\$ 644,408
State Tax Receipts	\$ 1,532,568	\$ 1,587,209	\$ 1,753,605	\$ 1,860,336	\$ 1,930,521

# Tourism Impacts *cont.*

- For illustrative purposes, projected potential impacts on the County if the proposed development were to negatively affect tourism by 5% or 10% were calculated

Potential Tourism Impacts	2012	2013-2017 (5 years)	2018-2032 (15 years)	Total
<b>Baseline</b>				
Traveler Expenditures	\$ 50,436,345	\$ 275,806,606	\$ 1,120,094,168	\$ 1,446,337,118
Travel-Related Payroll	\$ 10,569,704	\$ 57,799,473	\$ 234,732,785	\$ 303,101,962
Local Tax Receipts	\$ 725,287	\$ 3,966,166	\$ 16,107,226	\$ 20,798,679
<b>-0.05 5% Impact</b>				
Traveler Expenditures	\$ -	\$ (13,790,330)	\$ (56,004,708)	\$ (69,795,039)
Travel-Related Payroll	\$ -	\$ (2,889,974)	\$ (11,736,639)	\$ (14,626,613)
Local Tax Receipts	\$ -	\$ (198,308)	\$ (805,361)	\$ (1,003,670)
<b>-0.1 10% Impact</b>				
Traveler Expenditures	\$ -	\$ (27,580,661)	\$ (112,009,417)	\$ (139,590,077)
Travel-Related Payroll	\$ -	\$ (5,779,947)	\$ (23,473,279)	\$ (29,253,226)
Local Tax Receipts	\$ -	\$ (396,617)	\$ (1,610,723)	\$ (2,007,339)

# Tourism Impacts *cont.*

- If these factors are applied to tourism-related jobs, they estimate a potential loss of 60-120 seasonal and part-time jobs over the 20-year period
- We emphasize these projections are intended to be illustrative and not predictive

# Residential Property Value Impacts

- Research findings
  - In most cases, studies relied on survey data to determine impacts anticipated by residents and real estate professionals
  - Subjective opinions cannot be relied upon to predict real life behaviors or effects of a particular project on the value of real estate
  - Reports based on anecdotal data or opinion surveys were eliminated as being too unreliable

# Residential Property Value Impacts *cont.*

- Research findings *cont.*
  - Four reports dealt with actual property transactions that occurred before and after wind farms were built and became operational
    - 2003 study by Sterzinger, Beck & Kostiuk
    - 2005 study by Poletti for Invenergy
    - 2006 study by Hoen
    - Ongoing study by Hoen and Wiser

# Residential Property Value Impacts *cont.*

- Research findings *cont.*
  - None of the four transaction-based studies demonstrated a statistically significant effect on real property values due to wind farm construction
  - We acknowledge the transaction-based studies are limited by virtue of methodology and sample sizes

# Residential Property Value Impacts *cont.*

- Related areas of study for guidance on potential property value impacts
  - Impacts of high-tension power lines on nearby residential properties
    - One of the most widely cited studies was performed by Des Rosier in 2002
      - Concluded electric power lines have an adverse impact on residential values of roughly 10%, if the property is located within 500 feet of a transmission tower

# Residential Property Value Impacts *cont.*

- For illustrative purposes we calculated projected potential impacts on the County using current values and GIS mapping if proposed development were to negatively affect residential property values in the viewshed by 5%

Potential Property Value Impacts	2012	2013-2017 (5 years)	2018-2032 (15 years)	Total
<b>Baseline</b>				
Residential Property Values in Viewshed	\$ 175,130,247	\$ 915,852,546	\$ 3,194,545,787	\$ 4,285,528,580
Estimated Real Estate Tax Receipts	\$ 1,015,755	\$ 5,311,945	\$ 18,528,366	\$ 24,856,066
<b>-0.05 5% Impact</b>				
Residential Property Value Impact	\$ -	\$ (45,792,627)	\$ (159,727,289)	\$ (205,519,917)
Real Estate Tax Impact	\$ -	\$ (265,597)	\$ (926,418)	\$ (1,192,016)

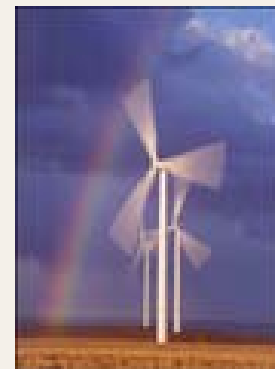
# Bluestone Regional Business and Technology Center Impacts

- Proposed wind farm
  - Our analysis shows very limited indirect or induced economic effects due to the wind farm
    - Not a manufacturing facility that might induce a vertical industry supply chain cluster
    - Wind farm alone would not develop an extensive horizontal interconnection between businesses sharing knowledge and resources
    - In regard to the commercial, residential and industrial components of the park, we find little impact on development

# Net Fiscal Impacts of the Proposed Wind Farm on Tazewell County

Net Impacts	2013-2017		2018-2032		Total
	2012	(5 years)	(15 years)		
Project Benefits	\$ 655,317	\$ 3,064,183	\$ 5,501,367	\$	\$ 9,220,866
Tourism Impact (10%)	\$ -	\$ (396,617)	\$ (1,610,723)	\$	\$ (2,007,339)
Residential Property Tax Impact (5%)	\$ -	\$ (265,597)	\$ (926,418)	\$	\$ (1,192,016)
Net Benefit (Scenario 2)	\$ 655,317	\$ 2,401,969	\$ 2,964,226	\$	\$ 6,021,512

# Proposed Wind Farm Impacts



- Questions and Discussion