



ENERGY MARKETING PLAN



Discussion By:

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Virginia Economic Development Partnership
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VIRGINIA'S ENERGY INDUSTRIES

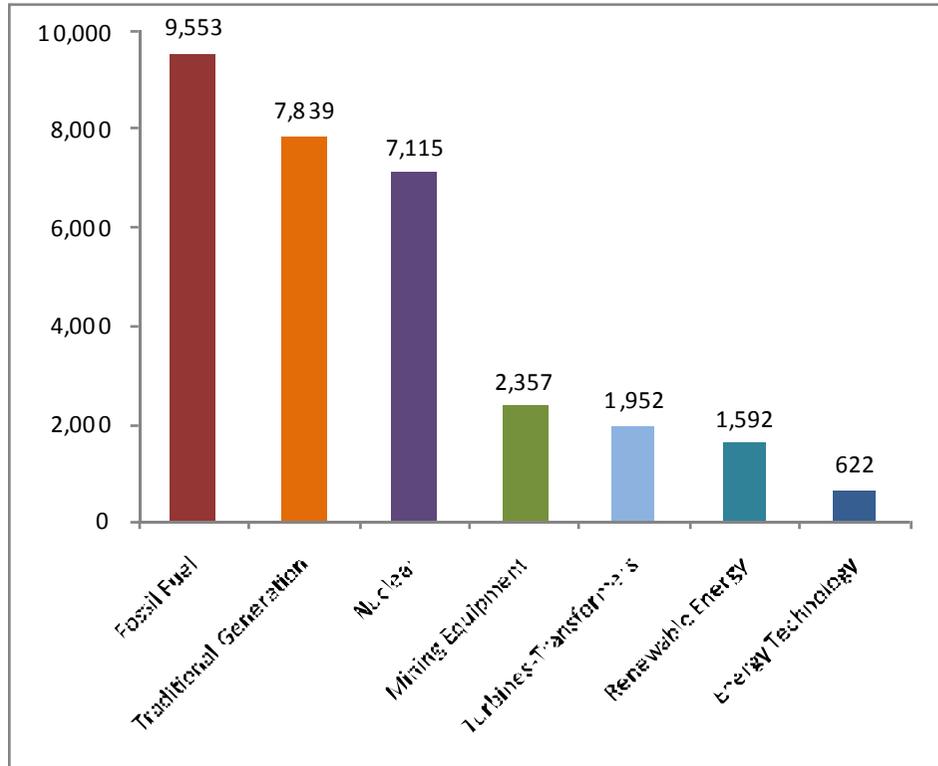
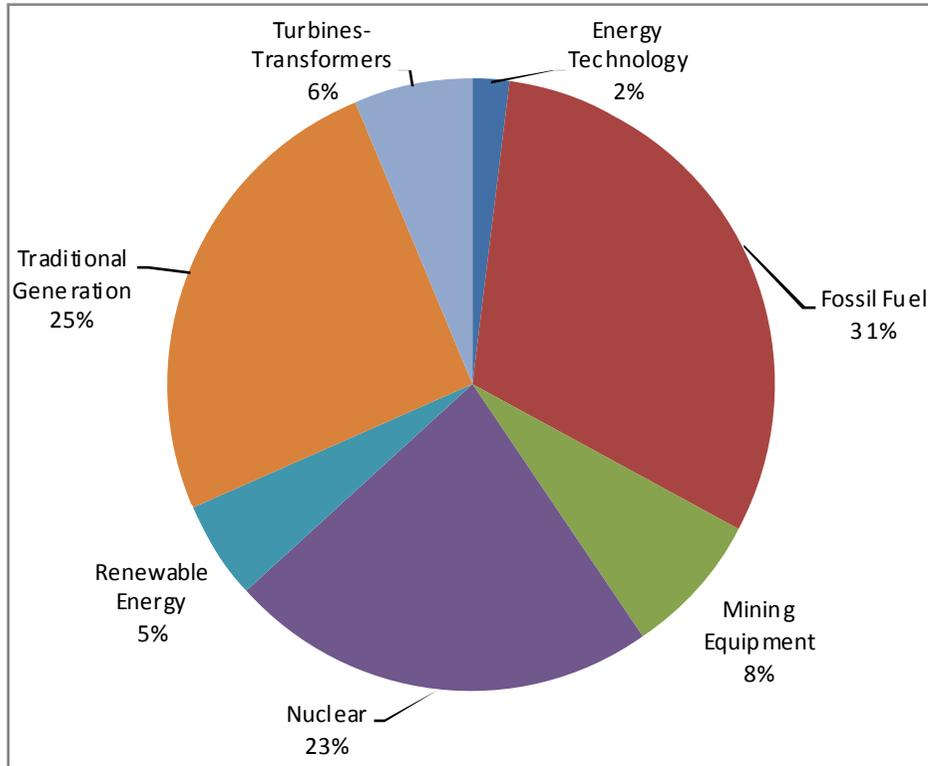


WORKFORCE IN VIRGINIA



- Virginia's 4 Million Employees are Highly Trained and Maintain a Strong Work Ethic-Ranked 7 by Forbes.com
- Virginia is Home to over 14,800 High-Tech Establishments employing 270,800 High-Tech Workers (1st in the US per capita-CyberStates Magazine)
- Virginia Ranks Second in Number of Nuclear Engineers-1330
- Virginia's Annual Labor Force Growth Includes Over 18,000 Skilled Workers Exiting the Military Annually
- High Concentration of Energy Research at Federal Labs, Universities and Private Industry
- Virginia's Worker's Compensation and Unemployment Insurance Rates are Among the Lowest in the US

OVER 31,000 EMPLOYEES IN VIRGINIA'S ENERGY SECTOR





INDUSTRIAL ENERGY R&D

	Energy Generation/Sources									Energy Use/Impact			Energy Policy
				Alternative Fuels	Other Renewables								
	Coal, Oil, Gas	Nuclear	Fuel Cells/H2	Alternative Fuels: Waste or Bio-derived	Geothermal	Hydroelectric	Solar/Photovoltaics	Wind	Coastal (Wind/Tidal/Current/Wave)	Energy Storage	Efficiency/Conservation	Building/Environment	Energy Policy/Economics
Virginia Company													
<i>Afton Chemical, Richmond</i>											√		
<i>Areva NP, Lynchburg</i>		√											
<i>BWXT, Lynchburg</i>		√											
<i>Consutech, Richmond</i>				√									
<i>Delta T, Williamsburg</i>				√									
<i>Dominion Power</i>	√	√					√	√			√	√	√
<i>GE Energy, Salem</i>								√			√		
<i>Northrop Grumman, Newport News</i>	√			√									
<i>SAIC, Virginia Beach</i>						√		√	√				√
<i>Siemens, Newport News</i>											√		
<i>Verdant Power, Arlington</i>						√			√				
<i>SBIR/STTR Companies</i>	√	√		√	√		√				√		



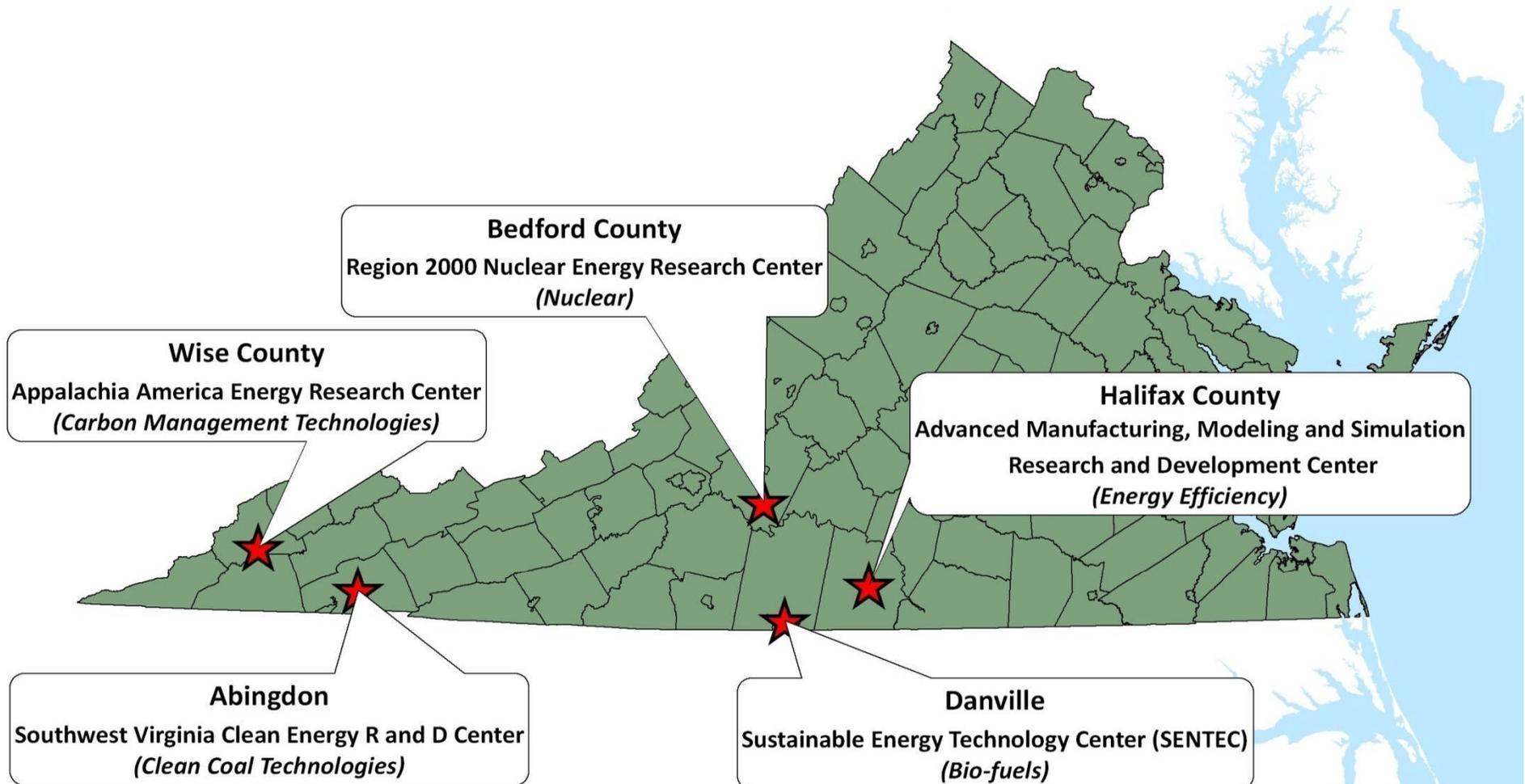
FEDERAL ENERGY R&D

	Energy Generation/Sources									Energy Use/Impact			Energy Policy
				Alternative Fuels	Other Renewables								
	Coal, Oil, Gas	Nuclear	Fuel Cells/H2	Alternative Fuels: Waste or Bio-derived	Geothermal	Hydroelectric	Solar/Photovoltaics	Wind	Coastal (Wind/Tidal/Current/Wave)	Energy Storage	Efficiency/Conservation	Building/Environment	Energy Policy/Economics
Virginia Federal Lab													
<i>Thomas Jefferson National Accelerator Facility (DOE)</i>		√					√	√					
<i>NASA Langley Research Center</i>		√	√	√				√		√	√	√	
<i>Naval Surface Warfare Center - Dahlgren Division</i>											√		

VIRGINIA

NEW ENERGY R AND D INFRASTRUCTURE

(\$40 MILLION BUDGET- TIC FUNDED)



RENEW VIRGINIA – LAUNCHED DECEMBER 11, 2008

- “In today’s economy, we can turn our energy challenges into an opportunity,” Governor Kaine said. “Our goal is to position the Commonwealth as a leader in alternative energy generation, energy conservation, and research and development. By developing a green energy industry here, we will not only move towards a more environmentally responsible approach to addressing our growing energy needs, but we will also help stimulate Virginia’s economy.”
- December 11 press conference launching Renew Virginia was preceded by a focused, energy roundtable discussion in which Governor Kaine heard from ten private sector executives representing a wide range of alternative energy generation, energy conservation, and research and development.
- Some of the larger companies represented were: Dominion Resources, AREVA NP, BP Alternative Energy, and GE Energy. Each of the executives was asked to consider answers to the following focus areas: (1) Best practice models for corporate and University R&D collaboration; (2) Need for incentives on the supply side or the demand side of alternative energy; (3) Green job skill sets needed to attract energy project investment; (4) Most important, factors influencing site location of energy production facilities.
- Renew Virginia is intended to be a multi-year strategic effort for energy project recruitment.

OBJECTIVES:

- Ensure that Virginia has an effective cross-disciplinary communications network to identify and attract high-value alternative energy projects over an extended time horizon. In short, communicate-communicate-communicate.
- Ensure that we have working fluency and “common messaging” in Virginia’s energy project recruitment value proposition.
- Optimize time and financial resource return on investment in Virginia’s pursuit of energy project recruitment.

VIRGINIA GREEN JOBS DEFINED:

- Green Jobs are jobs in the related fields of energy conservation and efficiency, clean energy research and development, alternative energy equipment manufacture and alternative energy power generation.

GOAL- PLAN OBJECTIVE

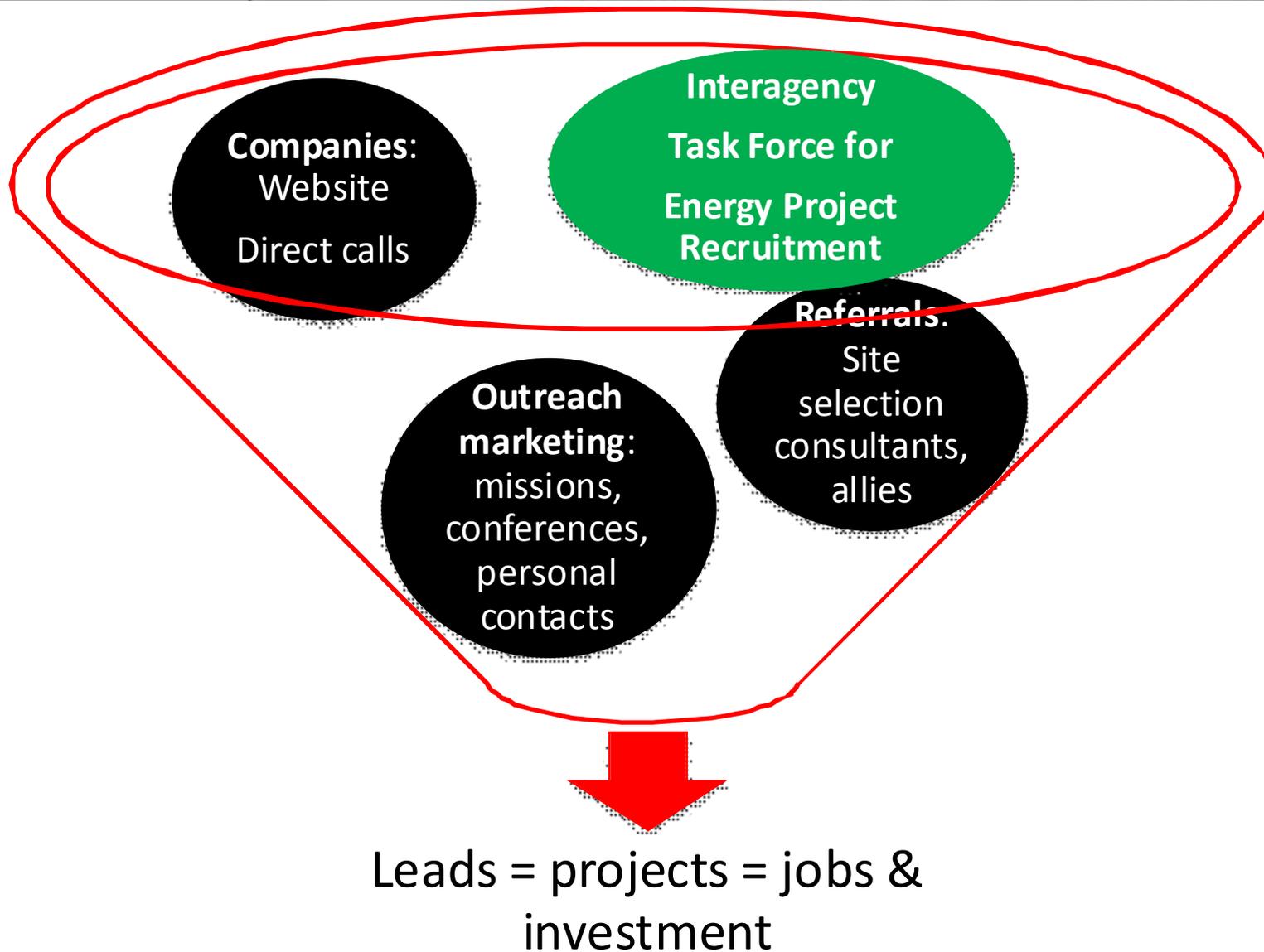
Goal:

**Earn the position of Virginia as “Best in Class” for
Green Energy Technology**

Plan Objective:

**Over the next two years, significantly increase
Virginia’s share of Green Energy projects, 21st
century jobs and capital investment.**

ENERGY PROJECT RECRUITMENT PIPELINE



PROPOSED ENERGY MARKETING ACTIONS

- Create an Energy Marketing Team - January 2009
 - Lead agency: VEDP
- Finalize Energy Marketing Plan –March 2009
 - Lead agency: VEDP
- Align Energy Workforce Development Systems –September 2009
 - Lead agency: VCCS
- Expand Relationships with Corporate R&D Centers – on going
 - Lead agency: VEDP
- Collaborate with Tobacco Commission R&D Centers – on going
 - Lead agency: VEDP
- Expand Relationships with Energy VC's – on going
 - Lead agency: VEDP

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PROPOSED ENERGY MARKETING ACTIONS

- Leverage American Recovery and Reinvestment Act energy elements for project recruitment – March 2009
 - Lead Agency: VEDP
- Create Electronic News Letter for Targets - May 2009
 - Lead Agency: VEDP
- Collaboration with Virginia Universities/Federal Labs on High-Impact Energy Research Challenges/Opportunities-on going
 - Lead Agency: VEDP
- Develop Energy Marketing Brochure - May 2009
 - Lead Agency: VEDP
- Explore A Governor's Energy Technology Leadership Symposium – September 2009
 - Lead Agency: VEDP



ENERGY OUTREACH ACTIVITIES

Event**Dates**

NATIONAL ENERGY CONFERENCES

Solar Power Conference

October 2009

Power-Gen International

December 2009

National Ethanol Conference

February 2010

RETECH-Renewal Energy Conference

February 2010

Offshore Wind Development Conference

March 2010

Windpower Conference & Expo

May 2010



FOLLOW THE MONEY

Yearly VC Investment

(North America, Europe & Israel, China, India)

2001	\$506,780,774
2002	\$883,269,409
2003	\$1,258,565,762
2004	\$1,398,256,823
2005	\$2,077,524,074
2006	\$4,520,208,949
2007	\$6,087,179,844
2008 (preliminary)	\$8,414,259,610

Top VC Clean Technology in 2008

Source: Cleantech Group (Cleantech.com)

Technology Sector	Amount Invested	% of total
Solar	\$3.3 billion	40%
Biofuels (including ethanol, biodiesel, synthetic biology, algae)	\$904 million	11%
Transportation (including electric vehicles, advanced batteries, fuel cells)	\$795 million	9.5%
Wind	\$502 million	6.0%
Smart Grid	\$345 million	4.1%
Agriculture	\$166 million	2.0%
Water	\$148 million	1.8%



FOLLOW THE MONEY

Full-Year 2008 Top Five Most Active Clean Technology Venture Funds

Venture Capital Firm	# of rounds
Khosla Ventures	21
Kleiner Perkins Caufield & Byers	18
Quercus Trust	16
RockPort Capital Partners	13
Draper Fisher Jurvetson	13

1. “Best State for Business”-Means Sustained Economic Returns for your Company
2. Virginia Fields a Diverse and Deep Energy Workforce
3. Virginia Incentives Both the Supply and Demand Sides of the Energy Equation
4. Virginia Rewards High-Impact and Collaborative, Energy R&D



RECENT RESULTS AND ENERGY PLAN GOALS

<u>January 2007 - March 2009</u>	<u># of Projects</u>	<u># of Jobs</u>	<u>\$ Capital Investment</u>
Active Projects	40	12,326	\$6.7 Billion
Decisions for Virginia (Nuclear, Ethanol, Biomass, Engineering, Power Plant)	11	2,407	\$803 Million

<u>January 2009 - December 2010*</u>	<u># of Projects</u>	<u># of Jobs</u>	<u>\$ Capital Investment</u>
Active Projects	46 (+15%)	13,559 (+10%)	\$7.5 Billion (+12%)
Decisions for Virginia	13 (+15%)	2,648 (+10%)	\$899 Million (+12%)

* Subject to Virginia Legislation and Economic Conditions

“ASK” HOW VIRGINIA STAKEHOLDERS CAN HELP?

- Adopt “Renew Virginia” within your Stakeholder Community-Spread the Word.
- Leverage your Relationships to support energy project recruitment.
- Look for ways to Collaborate on Energy.
- Commit the Energy Value Proposition to Memory and Use It.
- Communicate-Communicate-Communicate.

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