

Dominion Energy's

Economic Development Report

to the Governor, Chairmen of the House and Senate Committees
on Commerce and Labor, and State Corporation Commission

December 1, 2018



Table of Contents

3 Introduction

4 Dominion Energy: Providing Affordable, Reliable Energy to Grow Virginia's Economy

5	Powering Virginia's Homes and Businesses
6	Keeping Rates Low for Families and Businesses
8	A Nationally Recognized Economic Partner

10 The Atlantic Coast Pipeline: Virginia's Biggest Economic Development Project

12	Impact of Dominion Energy's Capital Projects for 2007-2021
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14 Dominion Energy and Virginia's State and Local Governments: Working Together to Strengthen Virginia's Economy

17	Energy and Economic Development in Rural and Underserved Regions
-----------	--

18 Looking Ahead: Dominion Energy's Commitment to Future Job Creation Efforts

23 Conclusion

Introduction

The passage of the Grid Transformation and Security Act of 2018 (GTSA) represented an historic moment for energy policy in the Commonwealth of Virginia. The legislation will strengthen grid security, encourage the incorporation of more renewable sources of energy into the existing electrical grid, and allow the Commonwealth's economy to continue to have the affordable and reliable energy it needs to continue growing in the years ahead.

With a clear focus on the future of energy security, reliability, transmission and generation in the Commonwealth, the legislation also directed Dominion Energy, as a Phase II utility operating within the state, to prepare a report addressing the company's work to support economic development efforts in the Commonwealth. Specifically, the legislation mandates:

"That each Phase I Utility and each Phase II Utility, as such terms are defined in subdivision A1 of § 56-585.1 of the Code of Virginia, shall investigate and report upon its economic development activities and assistance provided to Virginia localities in the area of economic development in each utility's respective service area. Such report shall include discussion of any existing economic rate incentives, the use thereof, and recommendations for changes of such economic rate incentives, if any; any electrical equipment discounts for economic development purposes; any ongoing support for the development of new economic development sites, including determining the energy infrastructure and permitting requirements in advance of an end-user locating on the site, and providing marketing assistance and promotion of validated sites; any direct assistance to localities in their economic development efforts, including responses to requests for information and proposals for economic development prospects; and any resources and personnel devoted to such economic development efforts. The report shall include a discussion of underserved areas, particularly in rural areas of the Commonwealth, together with suggestions for enhancing economic development assistance in such rural areas. The report shall also provide recommendations for the enhancement of economic

development activities in each utility's respective service area, including a discussion of requirements to provide electric services to business-ready sites in advance of identifying a user for such sites. Each utility shall report to the Governor, the State Corporation Commission, and the Chairmen of the House and Senate Commerce and Labor Committees on December 1, 2018."

The following is that report. It is the result of a comprehensive process taking place over a number of months, incorporating input from stakeholders, businesses, customers, local and state economic development officials, interest groups and others.

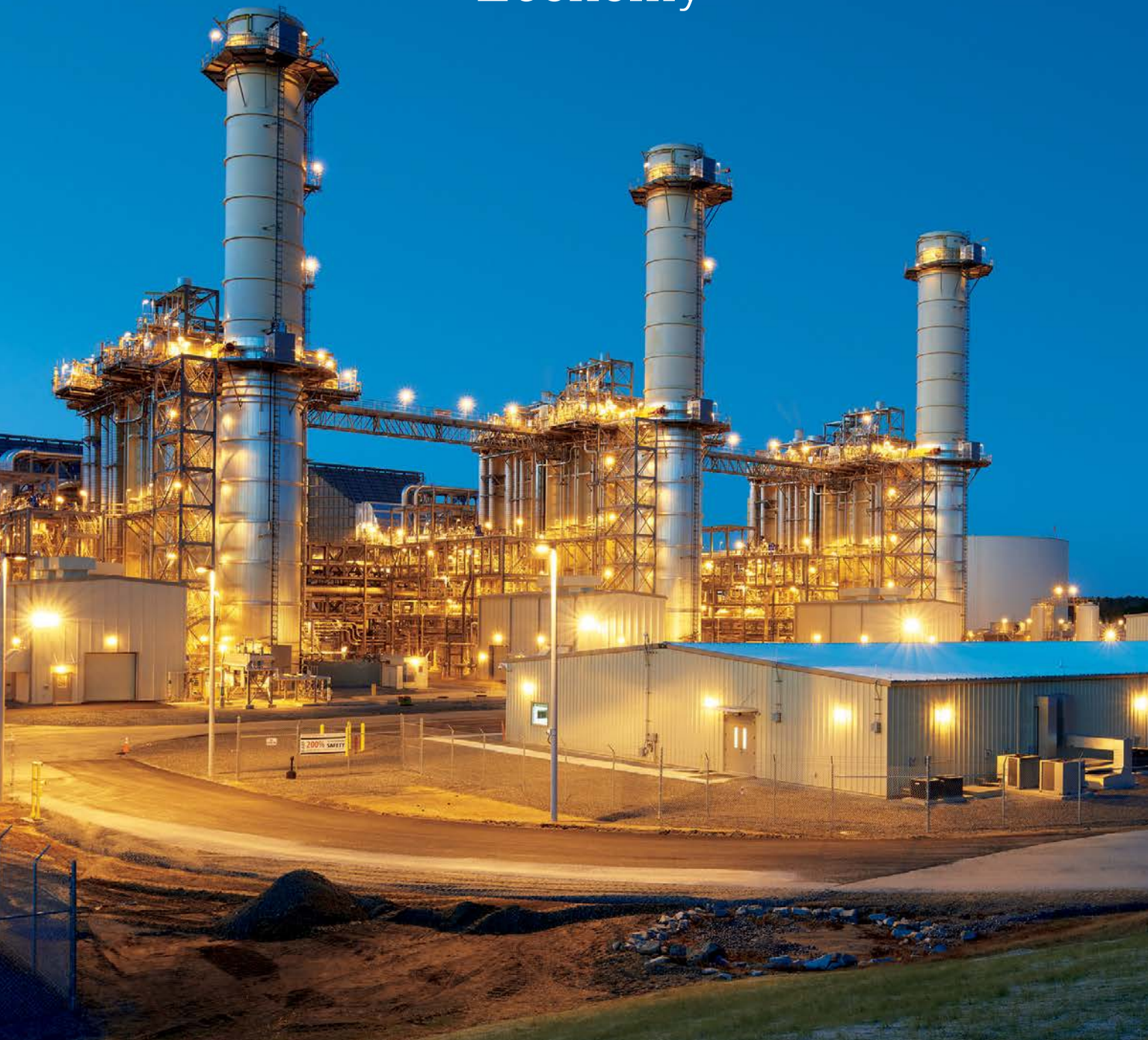


Some of the groups from whom input was solicited were:

- Virginia Municipal League
- Northern Virginia Technology Council
- Virginia Economic Development Partnership
- Virginia Association of Counties
- Virginia Economic Developers Association
- Virginia Chamber of Commerce
- Columbia Natural Gas
- Multiple Local Economic Development Organizations
- Virginia's Gateway Region
- Virginia Manufacturers Association
- Virginia's Growth Alliance

The report also includes a thorough review of Dominion Energy's work on economic development in prior years, and a look at policies and practices that could help generate further job creation in the company's service areas going forward.

Dominion Energy:
Providing Affordable,
Reliable Energy
to Grow Virginia's
Economy



Powering Virginia's Homes and Businesses

Dominion Energy is the Commonwealth's single largest energy provider.

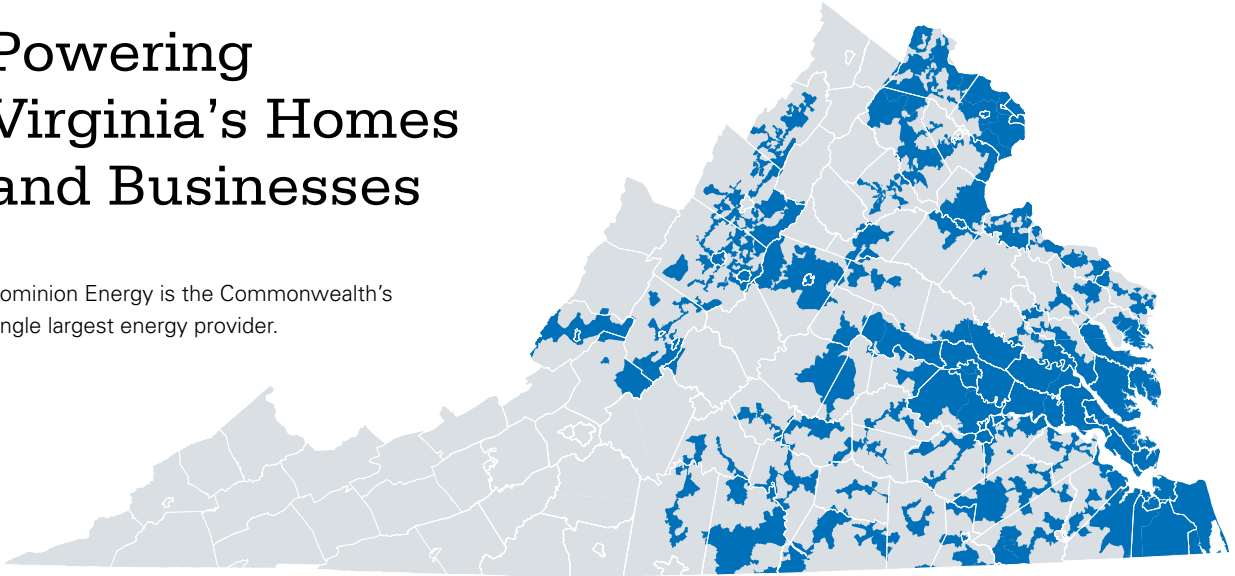


FIGURE 1: Dominion Energy Virginia Service Area Map

The majority of Virginians, and Virginia employers, depend upon Dominion Energy for the electricity that powers their homes and workplaces. Dominion Energy's mission is to provide reliable, affordable, environmentally sound energy to its customers, and in doing so help the Commonwealth thrive and grow. The company is proud of its longstanding track record of success in this effort.

■ Dominion Energy Customers

Note: Customer count statistics available in the "Sales to Ultimate Customers" file for 2017 at this site: <https://www.eia.gov/electricity/data/eia861/>

**In the residential numbers it is important to remember the numbers represent accounts, not individuals.*

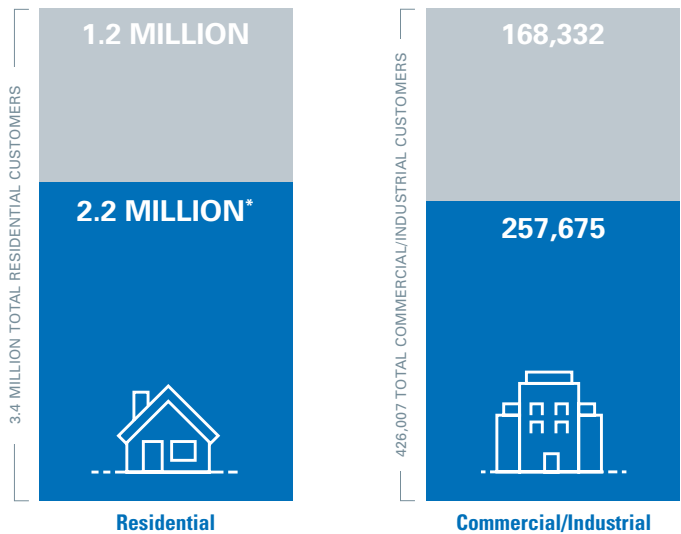


FIGURE 2: Latest publicly available data in 2017 compiled by the United States Energy Information Administration

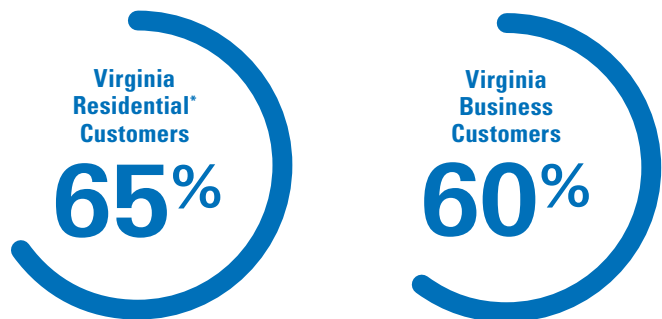


FIGURE 3: Approximate percent of Virginia's *Residential and Business Customers that Dominion Energy provides energy.

Keeping Rates Low for Families and Businesses

In terms of both residential and industrial rates, Dominion Energy continues to be one of the most affordable providers of electricity in the country, a crucial component for economic development and job creation.

FIGURE 4: Dominion Energy Virginia’s typical residential bill (for 1,000 kilowatt-hours of monthly usage, annualized) as of November 2018

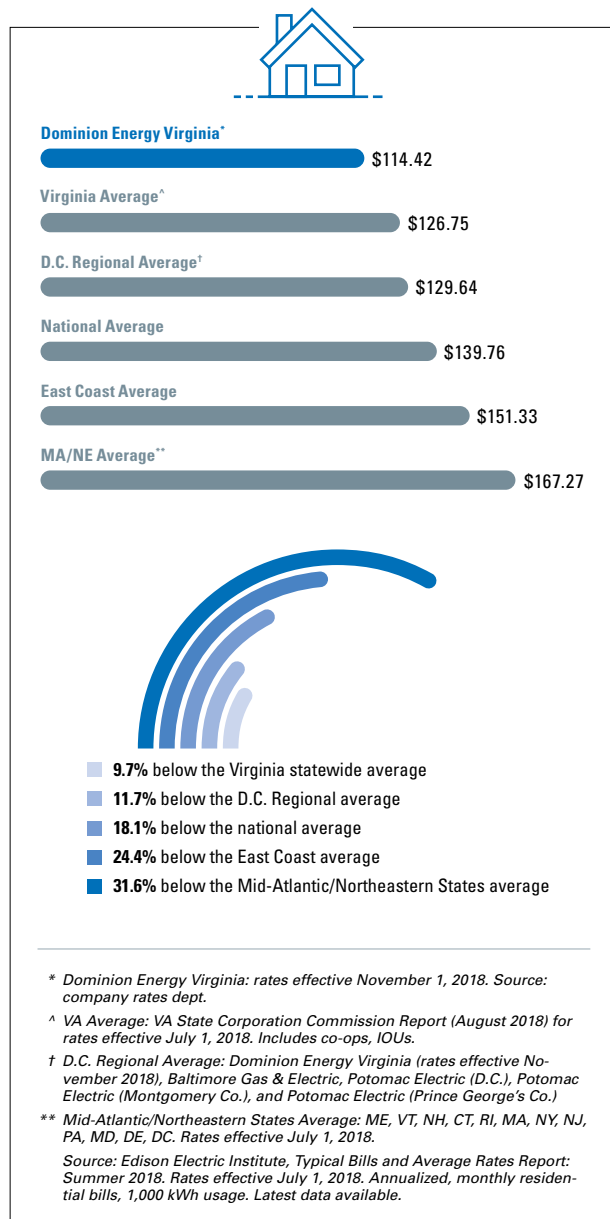
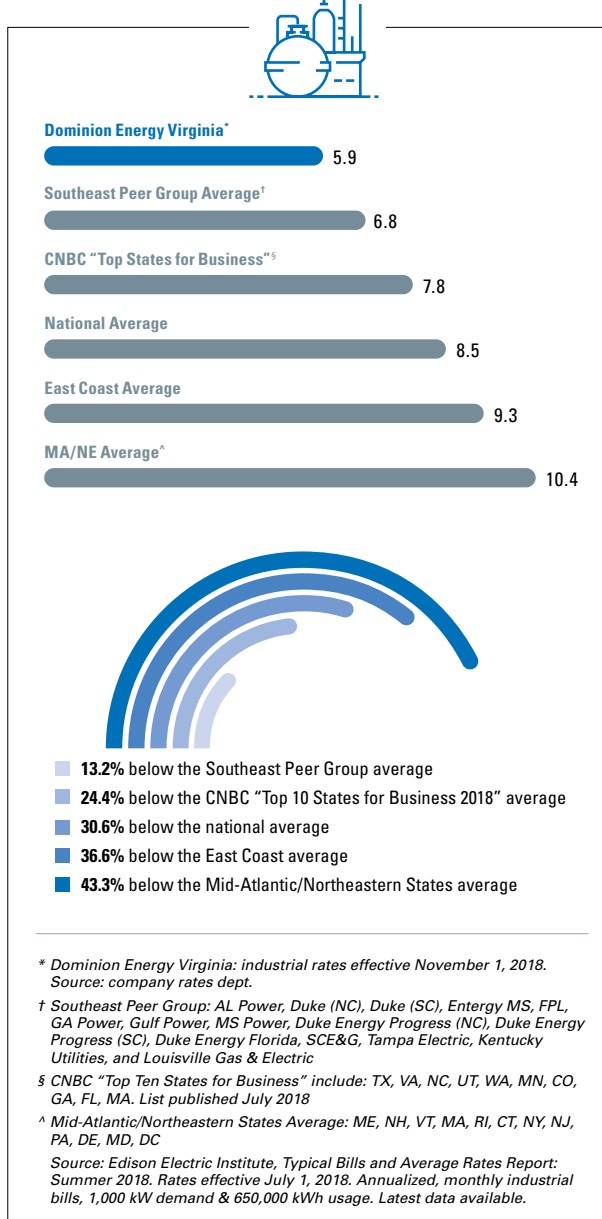


FIGURE 5: Dominion Energy Virginia’s average industrial rate (average rate cents per kilowatt-hour, 1,000 kW demand and 650,000 kWh usage), as of November 2018



Dominion Energy’s competitiveness in rates is a longstanding economic development advantage for the Commonwealth. Looking back a decade, in July 2008 the company’s typical residential bill was \$107.20. As of November 2018, the typical bill was \$114.42. Over the course of ten years, the typical bill has increased just 6.7%, or an annual average increase of less than 0.7% which is much lower than the rate of inflation.

The same trend holds when it comes to industrial rates. In July 2008, Dominion Energy’s average industrial rate was 6.2 cents/kWh. It is now 5.9 cents/kWh. The average rate has dropped by about 5% over the decade.

Comparatively, per the Bureau of Labor Statistics’ consumer price index, prices in 2018 are 15% higher than prices in 2008.

<https://www.bls.gov/cpi/>

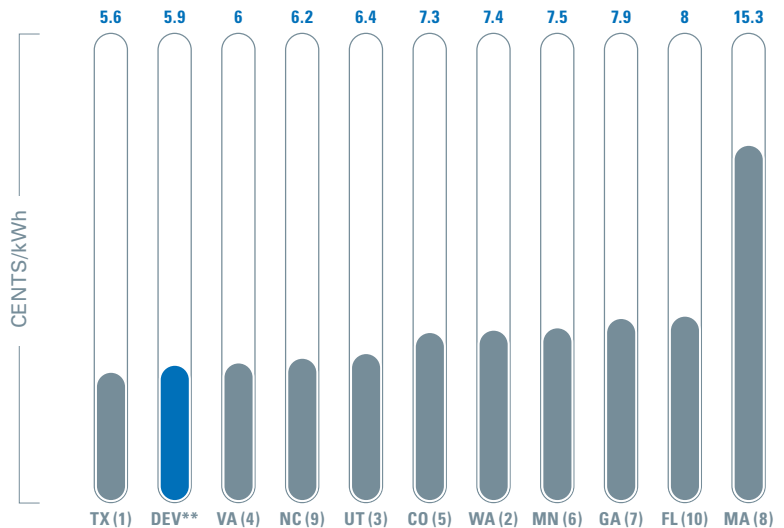


FIGURE 6: CNBC “Top 10 States for Business: 2018”: Dominion Energy Virginia Average Industrial Rate Lower than Averages for 9 of 10 Top States

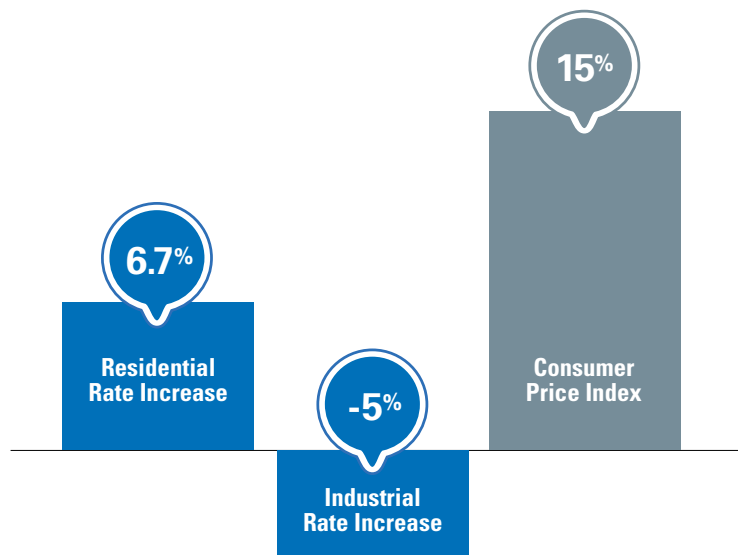


FIGURE 7: 2008-2018 Dominion Energy Rate Increase Comparison with Consumer Price Index

** Source for Dominion Energy Virginia: company rates dept., industrial rates effective as of November 2018.

Source for all others: Edison Electric Institute, Typical Bills and Average Rates Report: Summer 2018, rates effective July 1, 2018. Based on industrial customer with 1,000 kW demand, 650,000 kWh monthly usage, annualized.

A Nationally Recognized Economic Development Partner

Just as Dominion Energy's low rates help provide the Commonwealth with a significant economic development advantage, the company's recognized work in facilitating and supporting job creation efforts also help spur significant economic activity as well.


potential sites for more data centers, Dominion continued in 2014 to pursue renewable energy alternatives, announcing 400 MW of new solar generation to be added to the system; an offshore wind pilot project; a solar partnership program with large customers such as Capital One, Canon and Philip Morris; and a solar purchase program.

As a corporate actor itself, Dominion also is a partner (along with Duke, Piedmont Natural Gas and AGL Resources) in supporting the proposed Atlantic Coast Pipeline, which consultancy ICF International said could create up to 2,200 new full-time jobs to North Carolina and Virginia because of the lower energy prices it would bring to the region."

In April of this year *Business Facilities Magazine* ranked Dominion Energy one of the nation's top utilities, with a specific focus on work in promoting economic development. The magazine allowed its selected top utilities to submit copy about their work within their service areas. Dominion Energy noted:

ensuring companies looking to expand or relocate have business-ready sites available.

The availability of clean energy along with reliable service at a competitive price, have become key drivers for companies during site selection. Companies are keenly focused on ways to meet their corporate sustainability goals through renewable energy sources. The high-tech sector in particular, including our customers in Virginia which is home to the largest data center market in the world, is very interested in considering environmental impacts as part of its siting process. Dominion Energy is responding with an increase in renewables solutions. Backed by an ongoing \$1 billion investment, Dominion Energy has grown its solar fleet in Virginia and North Carolina over the last two years from near zero to approximately 1,350 megawatts in service, in construction or under development. That is enough clean energy to power nearly 340,000 homes during peak sunshine. The company has also announced several innovative renewable rate options allowing large energy users to meet their needs through the addition of clean energy sources which opens the door for future robust economic development. Dominion Energy's goal is to provide options for customers. There is no one solution for renewable energy. Customers need options to choose from to meet their needs. Dominion Energy's focus on clean energy investments include solar, natural gas and nuclear power as part of a




**THE MORE ENERGY YOU NEED,
THE MORE YOU NEED AN
ENERGY COMPANY LIKE US.**

- 1** Number one data center market in the world
- 55** The only U.S. East Coast port with congressional authorization to dredge 65 feet
- 37** Thirty-seven Fortune 1,000 companies headquartered here
- 1** First intermodal facility in northeastern North Carolina, making it an East Coast logistics hub

More companies with energy-intensive needs are choosing to call Virginia and northeastern North Carolina home. Why? Because we deliver some of the lowest electricity rates in the country and unmatched reliability. What's more, they also enjoy easy, streamlined connections and a strong business climate. Find out how we can help power your business too.

Learn more at www.EconomicDevelopment.DominionEnergy.com



In 2015, *Site Selection Magazine* ranked Dominion Energy as one of the Top 10 "Utility Economic Development Teams" in the country. The magazine wrote:



"Dominion's team helped bring to fruition more than \$2.7 billion in corporate facility investments supporting 3,615 new jobs. In addition to its continually growing lists of data centers and



"Dominion Energy had a great economic development year in 2017 with new and existing companies investing millions of dollars and bringing thousands of high-paying jobs to our electric service territory in Virginia and North Carolina. These gains are the result of years of diligent planning centered on creating a favorable business climate and

generation portfolio centered on lower emission rates and competitive electric costs. Dominion Energy is also building the mid-Atlantic's first offshore wind project in a strategic partnership with Ørsted Energy of Denmark, a global leader in offshore wind development. This is the first phase of a plan to bring wind generated electricity to our customers. The investments in diverse, reliable and affordable sources of energy will ensure the company and its customers will have a lower-carbon future.

In 2017, Facebook, Google and Vantage Data Centers announced major data center investments in Virginia. Dominion Energy's service area in Northeastern North Carolina will be the future home of Triangle Tyre's new \$580-million plant and a new \$86-million distribution facility for Corning, Inc. In total, Dominion Energy's Economic Development team supported new projects that will create nearly 1,400 jobs and over \$3.2 billion of new capital investment in VA and NC.

The company is undertaking a transformative effort to modernize

the energy grid and better serve its customers. In addition to a lower carbon footprint, customers will experience improved reliability and enhanced voltage stability. Investments in new energy storage technologies, intelligent grid devices, and infrastructure improvements will improve resiliency and reduce the risk of cyber and physical threats. Transforming the power grid will ensure customers will continue to enjoy stable rates below the state, regional and national average, strong service reliability, and extensive renewable energy options.

As one of the nation's largest producers and transporters of energy, Dominion Energy serves a broad territory and offers an array of services. In Virginia and North Carolina, Dominion Energy's portfolio includes approximately 25,700 megawatts of generation and 6,600 miles of electric transmission lines. Dominion Energy also has a substantial portfolio of gas assets with approximately 15,000 miles of natural



“Dominion’s team helped bring to fruition more than \$2.7 billion in corporate facility investments supporting 3,615 new jobs.”

Site Selection Magazine

gas transmission, gathering and storage pipeline. The company also operates one of the nation's largest natural gas storage systems with 1 trillion cubic feet of storage capacity and serves more than 6 million utility and retail energy customers.”



25,700
Megawatts
of Generation



6,600
Miles of Electric
Transmission Lines



15,000
Miles of Natural Gas
Transmission, Gathering
and Storage Pipeline



1 Trillion
Cubic Feet of Natural
Gas Storage Capacity



6 Million
Utility and Retail
Energy Customers

The Atlantic Coast Pipeline: Virginia's Biggest Economic Development Project



"This is the biggest job-creating infrastructure project we've seen in our region for many decades," said Dennis Martire, Laborers International Union of North America's (LiUNA) Vice President & Mid-Atlantic Regional Manager. "This is a once-in-a-generation opportunity to rebuild our region's infrastructure and bring back the middle class jobs that have disappeared from too many of our communities. Our members live in these communities, so we have a personal stake in doing this the right way and with the utmost care for safety and the environment. We have the skills and the work ethic that it takes to build a project like this, and we're just grateful for the opportunity to put those skills to work for our economy and our energy security," Martire concluded.

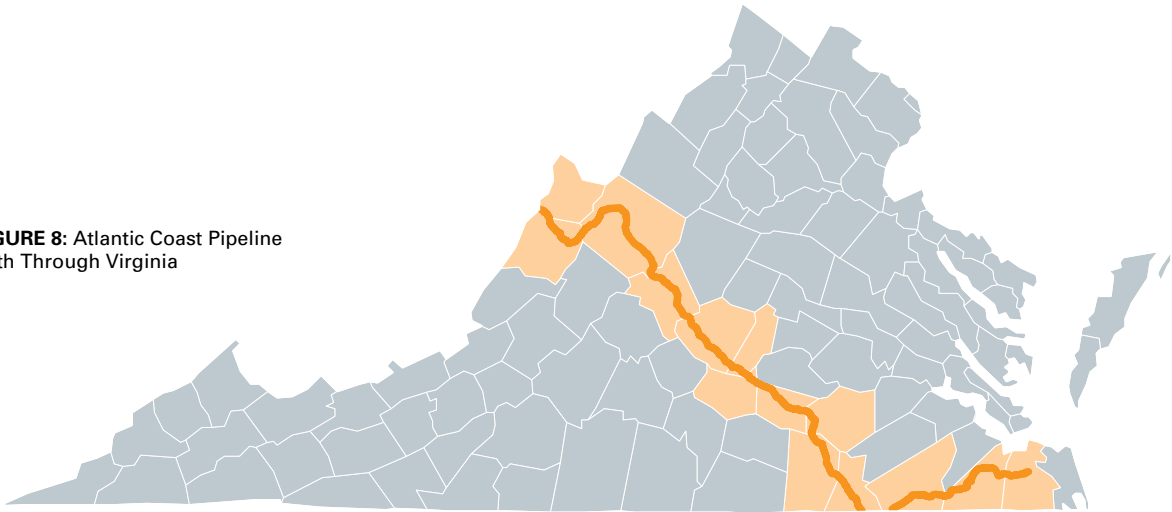
With demand for natural gas slated to double in Virginia and North Carolina over the next twenty years, Dominion Energy continues to move forward with the construction of the Atlantic Coast Pipeline (ACP), which will bring much needed natural gas to consumers throughout Virginia, and is the largest single economic development project currently underway in the Commonwealth. The domestically-produced natural gas transported by the pipeline is crucial to future economic development and job creation in the Commonwealth.

“

“This is the biggest job-creating infrastructure project we've seen in our region for many decades...”

Dennis Martire,
LiUNA's Vice President &
Mid-Atlantic Regional Manager

FIGURE 8: Atlantic Coast Pipeline Path Through Virginia



≈ **8,800**
Jobs expected to be created by the project



\$1.4 Billion
In total economic activity in Virginia during construction



\$10.4 Million
In tax collections annually for Virginia local governments

The pipeline represents a capital investment of up to \$7 billion in West Virginia, Virginia and North Carolina and will run 600 miles from Harrison County, W.Va., to Robeson County, N.C. About 300 miles of the line will cross Virginia, including an extension to bring urgently needed supplies of natural gas eastward from the main pipeline to the Hampton Roads area. All segments of the pipeline are scheduled to be in-service by mid-2020; key segments needed to meet peak winter demand in critically constrained regions served by the project are expected to be in-service by late 2019.

According to an analysis by the consulting firm Chmura Economics & Analytics, the project is expected to create approximately 8,800 jobs and generate an additional \$1.4 billion in total economic activity in Virginia during construction. Studies by the company indicate the pipeline, once in operation, will produce as much as \$10.4 million annually in new property tax collections for Virginia local governments. A study by ICF International also estimated that once built the pipeline will be responsible for 1,300 new permanent jobs in Virginia due to lower energy prices in the Commonwealth.

The ICF International report found that operation of the pipeline would save Virginia electric customers an average of \$236 million annually during the

20-year period from 2019-2038. The study found that the new supplies of natural gas made available by the project would lower annual average wholesale power generation costs by approximately 1.4 percent during the analysis period, with these savings being passed along to end users through retail rates.

The study also found operation of the pipeline would produce energy cost savings averaging \$7 million annually for natural gas customers in Virginia during the 2019-2038 period.

Virginians are being trained right now for the good-paying construction jobs the pipeline will generate through an innovative partnership between the Virginia Community College System and LiUNA. In January of 2018 the two entities announced Virginia workers would be trained to work on the pipeline at six community colleges located near the planned route: Piedmont, Dabney S. Lancaster, Blue Ridge, Southside Virginia, Paul D. Camp and Tidewater.

The greatest impact of the pipeline, however, will be the significant improvement of overall long term economic development prospects along its route through Virginia, and in neighboring communities in the state. Major industrial projects need a reliable and steady supply of energy. It is one of the first criteria they seek in

determining whether to locate to, or expand in, a locality. Virginia has not been able to offer that certainty in a number of communities recently, and industry in Hampton Roads already has been impacted by natural gas shortages. With the Atlantic Coast Pipeline in place, Virginia will be a much more attractive location for future industrial projects.

For all these reasons, and many others, the pipeline has overwhelming support from economic development officials statewide. Its construction is crucial for future economic growth. Virginia has reached capacity in terms of energy supply and growth depends upon new sources of reliable, affordable energy becoming available. The Atlantic Coast Pipeline addresses this pressing need in many regions of Virginia. As Jeff Reed, Executive Director of Virginia's Growth Alliance has stated:

"The natural gas the ACP brings to our region will help make us competitive with other parts of the country as businesses look to grow or expand their business domestically. Further, the pipeline would provide a dependable supply of natural gas for electric utilities in the region to serve our current businesses with a reliable and cleaner energy supply. This access will make it easier for existing businesses to continue success or expand their operations right here in Central and Southside Virginia."

November 2018 Chmura Study: Impact of Dominion Energy Capital Projects

Dominion Energy’s capital investments in Virginia are designed to meet customers’ rising demand for energy in a reliable, secure, affordable, and environmentally responsible manner. Importantly, the construction and operation of these capital projects has the significant secondary effect of promoting the expansion of Virginia’s economy and creating new job opportunities for the Commonwealth’s residents.

The magnitude of this effect is laid bare in a November 2018 study conducted by Chmura Economics & Analytics, assessing the economic and job creation benefits in the Commonwealth stemming from Dominion Energy’s capital expenditures from 2007-2021. The report, commissioned by the company, found Dominion Energy’s projects over this period:

- Will generate \$30.7 billion in additional economic activity in Virginia

- Will support more than 200,000 cumulative jobs (with “cumulative jobs” defined as one full-time position that lasts for one year.)
- Will have an average annual economic impact of more than \$2 billion and support more than 13,300 jobs annually
- Moving forward (from 2022 on) will generate almost \$320 million annually in additional economic activity and support approximately 1,200 jobs

Dominion Energy projects evaluated in this study include:

- Natural gas and coal-powered generation, among them the coal-biomass Virginia City Hybrid Energy Center (VCHEC); natural gas-powered combined cycle projects, including the Bear Garden, Warren County, Brunswick County and Greenville

County Power Stations; combustion turbine projects; and coal-to-natural gas generating unit conversions

- Solar and offshore wind projects
- Biomass conversion projects
- Nuclear capital projects, including improvements to facilitate the second relicensing of the North Anna and Surry Power Stations
- Electric transmission projects
- Electric distribution projects, including the Strategic Underground Program, the proposed first phase of the Grid Transformation Plan, and other projects needed to expand or upgrade the distribution system
- The Atlantic Coast Pipeline
- The Eastern Market Access project, including the Loudoun and Pleasant Valley compressor stations



Economic Impact 2007-2021

\$30.7 Billion generated in additional economic activity

+\$2 Billion average annual economic impact



Employment Impact 2007-2021

+200,000 cumulative jobs supported

+13,300 jobs supported annually


From 2022 on:

\$320 Million generated in additional economic activity annually

+

1,200 jobs supported annually

Dominion Energy projects evaluated in this study include:




Natural Gas & Coal-Powered Generation



Solar & Offshore Wind Projects



Biomass Conversion Projects



Nuclear Capital Projects



Electric Transmission Projects



Electric Distribution Projects



The Atlantic Coast Pipeline



The Eastern Market Access Project

Dominion Energy and Virginia's State and Local Governments: Working Together to Strengthen Virginia's Economy

The GTSA tasks this report with addressing a number of specific inquiries regarding Dominion Energy and economic development activities and programs within the Commonwealth:

"Such report shall include discussion of any existing economic rate incentives, the use thereof, and recommendations for changes of such economic rate incentives, if any; any electrical equipment discounts for economic development purposes; any ongoing support for the development of new economic development sites, including determining the energy infrastructure and permitting requirements in advance of an end-user locating on the site, and providing marketing assistance and promotion of validated sites; any direct assistance to localities in their economic development efforts, including responses to requests for information

and proposals for economic development prospects; and any resources and personnel devoted to such economic development efforts."

Responses to each of these specific inquiries follow.

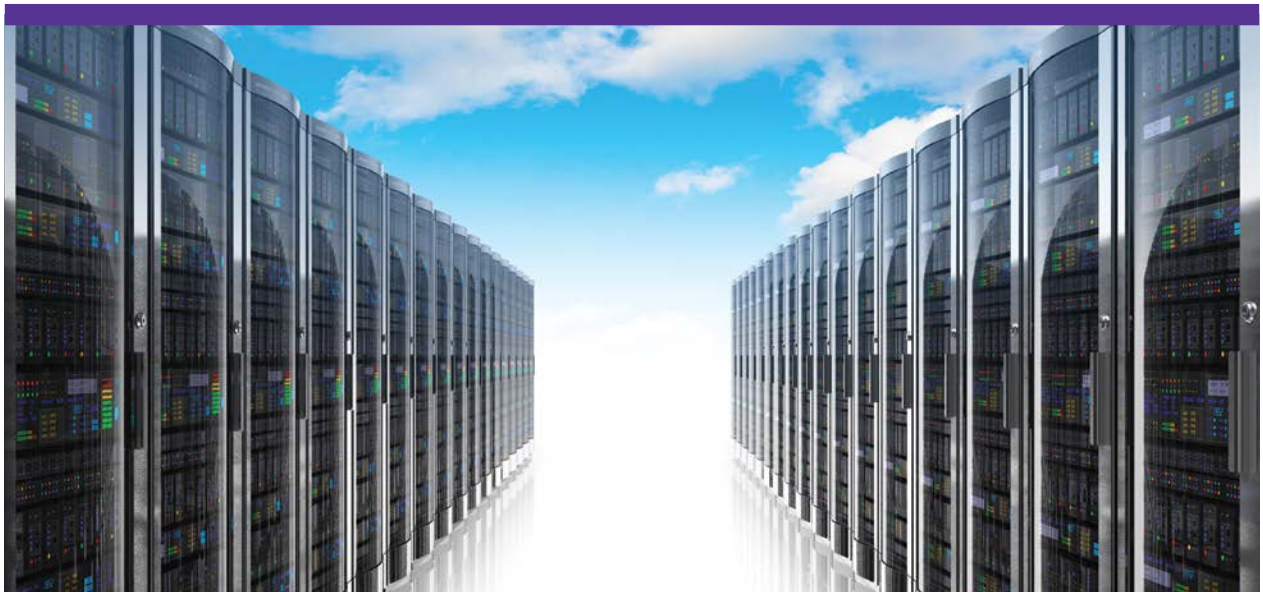
"Discussion of any existing economic rate incentives, the use thereof, and recommendations for changes of such economic rate incentives, if any."

Dominion Energy has long recognized electric rates are an important factor in site selection decisions, and that the company therefore plays an important role in maintaining Virginia's competitive position. The company's first economic development incentive rate was offered in 1998 in order to compete with utilities in other states who offered such rates. Dominion Energy's rates have been modified over the years to ensure that incentive

rate offerings continue to remain competitive.

Dominion Energy Economic Development Rate Incentives:

- **Economic Development Rate Discount** – Dominion Energy currently offers an Economic Development Incentive Rate (Rider EDR) that provides a discount on electric charges for a term of five years. This rate is applicable to qualifying companies that locate new or expanded facilities in Dominion Energy's service area and create new jobs and/or capital investment. A diverse mix of companies throughout Dominion Energy's service area have benefited from the availability of this rate and affirmed that the availability of the rider was a factor in their decision to locate or expand in Virginia. The rate has been modified since its first offering in 1998, most



recently on June 3, 2015, to provide more significant discounts resulting in a more competitive offering.

- **Retention Rider** – A Manufacturing and Commercial Competitiveness Retention Credit Rider (Rider CRC) has been filed with the Virginia State Corporation Commission (SCC). The proposed rider supports economic development and the retention of significant retail customers through the provision of a retention credit to eligible manufacturing and commercial customers.
- **Special Rates and Contracts** – § 56-235.2 of the Code of Virginia allows for the provision of a special rate, contract, or incentive for electric and gas service. Such contracts are subject to approval by the SCC. Dominion Energy has entered into special contracts with multiple companies with unique load requirements or characteristics that warrant such a special contract. These responsive special contracts provide customers with the ability to obtain affordable and reliable electric service, which, in turn, allows them to continue to compete and succeed in their business from a Virginia-based location.

“Any electrical equipment discounts for economic development purposes”

Dominion Energy offers a competitive policy for the delivery of electric facilities needed to serve new and expanding businesses. A revenue credit equal to four years of non-fuel revenue is applied to the cost of any distribution, transmission, or substation facilities required to provide normal electric service to the

facility. In most cases, the revenue credit offsets potential cost to the customer for normal electric service for commercial facilities and small and large industrial facilities.

In addition to what Dominion Energy offers, Virginia’s targeted tax credit for data centers has been widely credited with helping the Commonwealth achieve and retain its current title as the national and world leader in data center site location.

The location of these data centers has led to major job creation projects all across the Commonwealth, with many facilities increasingly interested in locating in areas further afield from Northern Virginia, the region of the Commonwealth most closely associated with the industry to date. The data center tax incentives are perhaps most necessary and crucial in these more rural localities. Clearly the data center tax credits are working to spur economic development in the state and should remain in place in the years ahead to keep these facilities, which are highly mobile and easily relocated, in place in Virginia.

“Any ongoing support for the development of new economic development sites, including determining the energy infrastructure and permitting requirements in advance of an end-user locating on the site, and providing marketing assistance and promotion of validated sites”

Dominion Energy routinely collaborates with localities and economic development organizations to identify and certify new industrial sites. The site certification program uses electric infrastructure assessments to determine available capacity and any needed upgrades to supply industrial loads, and permitting requirements, if any. The ultimate goal is to identify and market great industrial sites.

In addition to this, Dominion Energy was part of the initial stakeholder group of economic development organizations, engineering firms, and industry representatives that developed and implemented the Virginia Business Ready Site Program in the Commonwealth. The program’s goal is to identify, assess, and improve



“Through the negotiations between ACP and Kyanite, the county and its residents have been afforded an incredible opportunity for access to natural gas — a selling point for many, many businesses looking to expand and relocate.”

Farmville News-Herald

the readiness of potential industrial sites. Dominion Energy continues to support this program and the development of industrial sites for new business growth.

“Any direct assistance to localities in their economic development efforts, including responses to requests for information and proposals for economic development prospects; and any resources and personnel devoted to such economic development efforts”

Dominion Energy’s professional economic development staff has increased from 3 to 5 in the last 3 years, an increase of 66%. In addition, staff in the generation, transmission, and gas development areas routinely support economic development activity and specific projects throughout Virginia. An additional 17 employees support these efforts to increase new economic investments in the state. These efforts include:

- Promoting Virginia as a great place

to do business through various marketing activities, attendance at trade shows/conferences, and direct contact with prospects and real estate executives, and partnering with economic development organizations on targeted marketing events

- Collaborating with economic development partners to evaluate and market top economic development sites
- Providing regular funding support to regional economic development programs. Dominion Energy is one of the top private sector funding sources for these organizations in the company’s service territory
- Working with prospective companies and economic development partners to ensure streamlined electric service connections to sites that are selected for new operations

Recently, Dominion Energy also was

pleased to play a role in making possible the biggest economic development announcement in the modern history of Buckingham County, with a recent Memorandum of Understanding that will allow for a lateral line to be built from the Atlantic Coast Pipeline once constructed. This lateral line will service Kyanite Mining, the largest private sector employer in the county, and will be available to other businesses as well. The editorial board of the *Farmville News-Herald* wrote:

“Through the negotiations between ACP and Kyanite, the county and its residents have been afforded an incredible opportunity for access to natural gas — a selling point for many, many businesses looking to expand and relocate.”

This is the kind of direct economic development support Dominion Energy is proud to provide in localities across the Commonwealth.



While the urban crescent has seen dynamic growth and job creation, many rural areas have unfortunately trailed far behind.

Energy and Economic Development in Rural and Underserved Regions

“The report shall include a discussion of underserved areas, particularly in rural areas of the Commonwealth, together with suggestions for enhancing economic development assistance in such rural areas.”

■ **Dominion Energy, Inc Service Area**
■ **Electric Cooperatives**

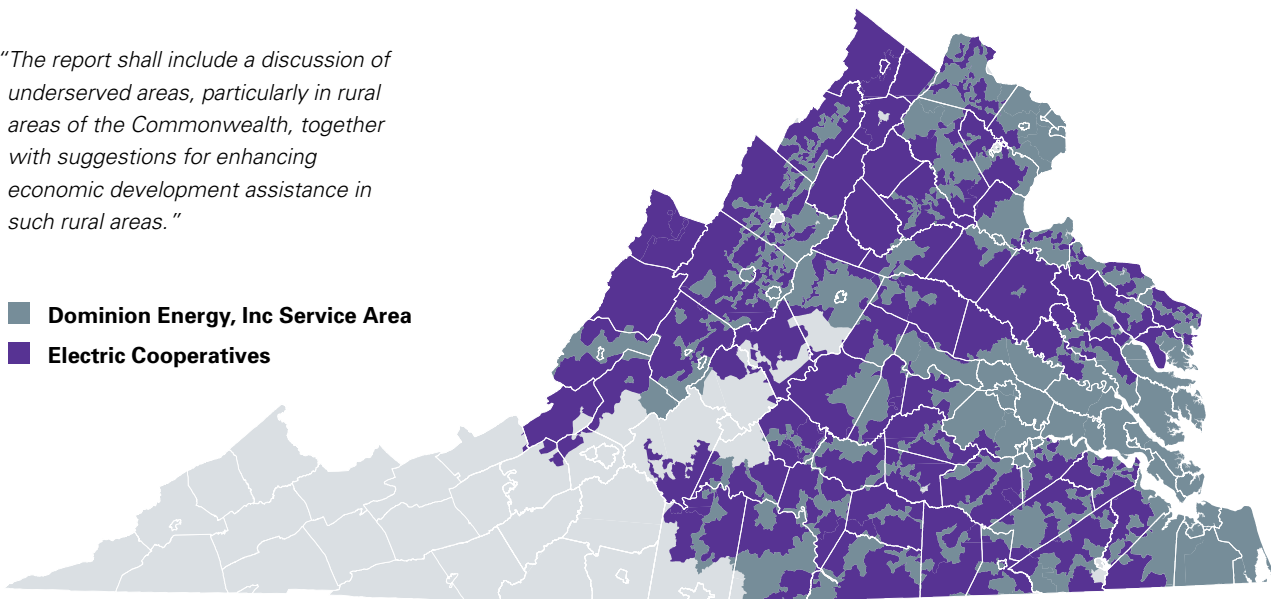


FIGURE 9: Map of Electric Cooperatives within the Dominion Energy Virginia Service Area

Economic growth in Virginia has not been equally distributed over the past twenty years. While the urban crescent has seen dynamic growth and job creation, many rural areas have unfortunately trailed far behind. It is imperative that policy makers and others work to identify solutions to ensure more equal job creation opportunities all across Virginia. As this happens, however, it must also be noted that simply based on the company’s footprint in Virginia, Dominion Energy is not the electricity provider in most of these more rural areas. For example, within the rural counties represented by the Virginia Tobacco Commission where Dominion Energy has some service area, less than 30% of the land area is served by Dominion. Most of these regions are covered by local co-ops.

This geographical fact can make it difficult for Dominion Energy to have

a direct economic influence on many rural areas. However, a number of the company’s efforts are producing positive impacts in rural parts of the Commonwealth outside of service areas. These efforts include:

- The job-training agreement between LiUNA and the Virginia Community College System that is preparing students at six community colleges along the Atlantic Coast Pipeline route (Piedmont, Dabney S. Lancaster, Blue Ridge, Southside Virginia, Paul D. Camp and Tidewater) to work on the pipeline and gain important skills moving forward in their careers;
- Ongoing work to dramatically expand solar power generation that will lead to new facilities being built in rural parts of the Commonwealth, creating thousands of temporary construction jobs and generating

millions in property tax revenue for the localities in which these facilities are sited. Dominion Energy’s solar power capacity in Virginia was just 1 MW in the beginning of 2015. Today the company has 824 MW of capacity either operational or under development in the Commonwealth. The company’s recent Integrated Resource Plan (IRP) calls for the potential addition of 4,720 MW of solar-powered capacity to the company’s generation fleet by 2033 and as much as 7,200 MW of additional solar capacity by the conclusion of a longer, 25-year study period ending in 2043. In addition, Dominion Energy has committed to having 3,000 megawatts of new solar and wind, enough to power 750,000 homes, under development or in operation by the beginning of 2022 with an annual RFP for large and small projects.

Looking Ahead: Dominion Energy's Commitment to Future Job Creation Efforts

"The report shall also provide recommendations for the enhancement of economic development activities in each utility's respective service area, including a discussion of requirements to provide electric services to business-ready sites in advance of identifying a user for such sites."

Virginia's economy currently is very strong. As noted in the previous section about rural Virginia, however, the growth has not been evenly distributed, and, as all policy makers are aware, economic environments can change rapidly and unpredictably. The Commonwealth must therefore always be thinking about what new initiatives and policies can best help facilitate future economic growth, and ensure that Virginia continues to be home to a strong economy where our residents can find the good paying jobs they need, and where companies will continue to seek to locate.

Dominion Energy representatives met with numerous leaders from a number of Virginia economic development organizations and entities throughout the course of compiling this report. Those meetings produced a broad array of ideas and suggestions for how to best position the Commonwealth for economic growth in the years ahead. The following are several of those ideas that policy makers should consider.

■ **Ensure the continuation of a policy and regulatory framework that allows Virginia's electric rates to stay low, stable and nationally competitive moving forward**

Economic development efforts in the Commonwealth have long benefited from the low electric rates potential job-

creating businesses find here in the state. It is a major calling card, and a significant talking point for state and local economic development officials. After all, few issues matter as much to the potential success of major new projects and expansions than the cost of energy.

Currently, Virginia can show economic development targets that if they choose to operate in the Commonwealth they will find typical industrial rates that are 30.6 percent below the national average; 36.6 percent below the East Coast average; and 43.3 percent below the Mid-Atlantic/Northeastern States average. That gets immediate attention. And it gives Virginia a seat at the table, and a serious shot, at landing major projects right out of the gate.

It is imperative this competitive advantage remain in place. Virginia can sell economic development targets on the energy savings they will reap by locating within the Commonwealth's borders. When combined with our world class technical, higher and K-12 education systems; recent transportation improvements; and incredibly well-prepared workforce, it makes for a powerful pitch. Virginia lawmakers should now ensure that the current policy and regulatory framework that has allowed for electric rates to stay so low remains in place. It is critical for future economic development efforts.

■ **Support the collaborative effort of the Virginia Economic Development Partnership and the Virginia Chamber of Commerce to improve Virginia's business climate and national business rankings.**

Dominion Energy has had a long history of supporting economic development in the Commonwealth and the development of new initiatives to increase economic growth. The Virginia Economic Development Partnership (VEDP) and the Virginia Chamber of Commerce are collaborating on an effort to improve Virginia's business climate and perception in the site selection marketplace. Utilities can play a vital role in this effort and as a strategic partner in the development of new marketing initiatives and development of new sites for economic development projects.

Five of the key initiatives are below:

- Establishment of a customized, turnkey workforce recruitment and training incentive program, following the General Assembly's allocation of funds
- Launch of a comprehensive marketing and branding and site consultant cultivation program, in collaboration with partners*
- Development of a dedicated effort to secure major transformational project wins in each region of the Commonwealth*
- Development of targeted proposals aimed at improving Virginia's tax competitiveness for new investment across a range of industry sectors
- Expansion of Virginia's portfolio of developable, business-ready sites*

Of these initiatives those starred above, and discussed in greater detail below, could most easily be positively impacted through partnerships with electric utilities and leveraging their



economic development staffs and other resources.

■ Launch a comprehensive marketing and branding program and site consultant program, in collaboration with partners.

Recommended action items for utilities:

- Develop marketing materials and web site marketing initiatives that articulate the benefits of locating new investments in Virginia. This effort should be directed to the specific industry target sectors identified for each region of the Commonwealth
- Develop and coordinate the placement of ads and/or paid marketing initiatives to increase perception of Virginia among executives in target industry sectors and site selectors. Consider paid media to increase the awareness and profile of rural Virginia as a business location
- Participate as a partner with VEDP and local/regional economic development organizations to host

events at national conferences and targeted industry meetings to promote Virginia’s business climate and site opportunities

- Work with economic development partners to promote Virginia to site selection consultants. Support FAM tours in regions throughout the utility service area including rural areas
- Consider the development of a public/private sector marketing initiative such as the “Georgia Allies” program. Formed in 1997 as a partnership between state government and private corporations, Georgia Allies builds on the individual initiatives of its members to create larger, more targeted programs that aggressively promote the state’s business development efforts. The organization helps drive innovative and cutting-edge efforts designed to enhance Georgia’s business climate. This effort should be designed to complement and leverage existing marketing resources that promote Virginia as

a great place to do business and as a way to promote the state to commercial and small and large industrial customers

■ Development of a dedicated effort to securing major transformational project wins to each region of the Commonwealth.

Recommended action items for utilities:

- Work in conjunction with VEDP and local/regional economic development organizations to validate and assist in the development of sites that will be promoted to target industry sectors likely to create high-impact projects
- Develop specific rate and renewable energy proposals for high-impact project sectors that can be used in national/international marketing efforts to promote favorable and competitive energy solutions

■ Expansion of Virginia’s portfolio of developable, business-ready sites

Speed to market is an extremely important factor in site selection.

Virginia has lost notable manufacturing and distribution projects to other states due to the lack of development-ready sites. Companies desire sites that can be fully developed with infrastructure in place in 12-18 months (preferably sooner). If significant electric infrastructure is needed to supply a specific site, the time required for permitting and construction could exceed the company's minimum requirements for delivery of the site.

Recommended action items for utilities:

- Continue to strongly support the VA Business Ready Sites Program (VBRSP) through partnerships with VEDP, GO Virginia and regional and local economic development partners. This effort will lead to the development of a robust and

geographically diverse portfolio of development-ready sites

- Evaluate existing electric infrastructure to potential economic development sites of 100 acres and above in the VBRSP portfolio. Identify any potential infrastructure upgrades required to deliver 10 megawatts of electric capacity to the site. For large "mega sites" above 1,000 acres or more, evaluate options to deliver 20 megawatts
- For sites that may require new or expanded substation and/or transmission facilities to provide the desired capacity levels, explore opportunities, including potential regulatory changes, which would streamline the process and time requirements for state and local

permitting for such infrastructure

- Consider a site development grant program for significant economic development sites in the utility service territory. Grants could be used to compliment other public and private sector funding sources that will be used to provide site development funds needed to elevate the site to a higher level of site-readiness

■ Continue to support and act upon the Virginia Chamber of Commerce's "Blueprint Virginia 2025" recommendations on energy policy

In December 2017, the Virginia Chamber of Commerce rolled out its "Blueprint Virginia 2025" blueprint for positioning Virginia to be a global leader in economic development, and to once

FIGURE 10: Blueprint Virginia 2025, Energy Excerpt

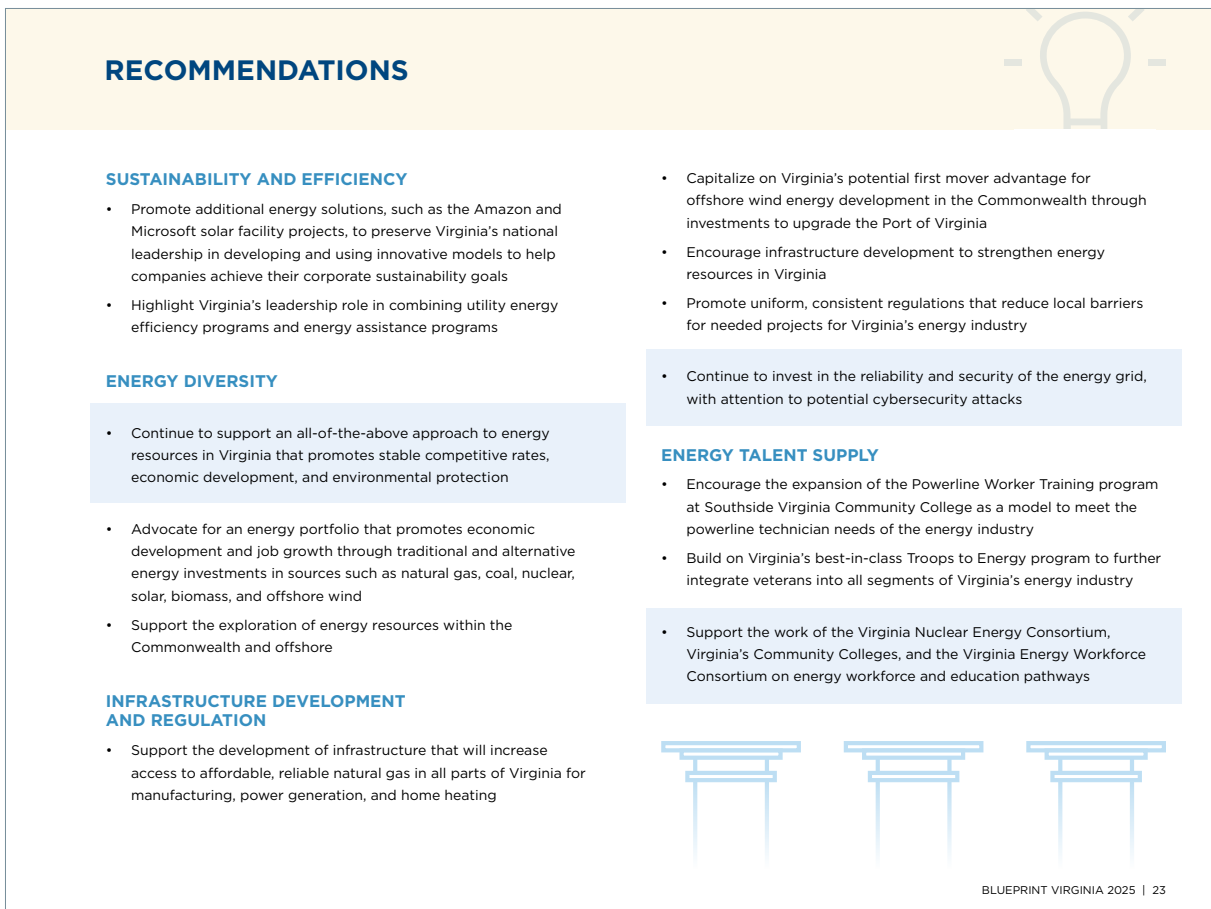
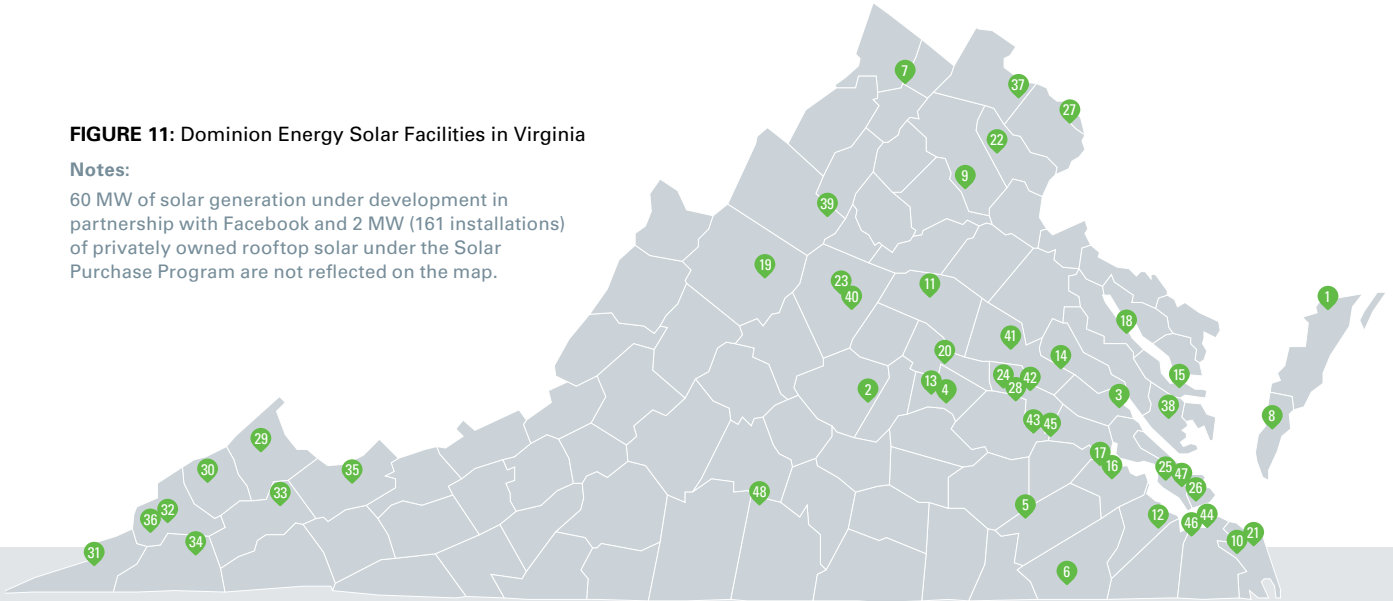


FIGURE 11: Dominion Energy Solar Facilities in Virginia

Notes:

60 MW of solar generation under development in partnership with Facebook and 2 MW (161 installations) of privately owned rooftop solar under the Solar Purchase Program are not reflected on the map.



Solar in operation or under development (includes power purchase agreements): 824 MW plus 2 MW through the Solar Purchase Program, Solar For Students (Existing and Coming Soon Installations) – Approx. 1.2 kW each

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> 1 Amazon Solar Farm Virginia - Accomack, Accomack County, 80 MW 2 Amazon Solar Farm Virginia - Buckingham, Buckingham County, 20 MW 3 Amazon Solar Farm Virginia - New Kent, New Kent County, 20 MW 4 Amazon Solar Farm Virginia - Scott, Powhatan County, 20 MW 5 Amazon Solar Farm Virginia - Sappony, Sussex County, 20 MW 6 Amazon Solar Farm Virginia - Southampton, Southampton County, 100 MW 7 Clarke, Clarke County, 10 MW 8 Cherrydale, Northampton County, 20 MW 9 Remington, Fauquier County, 20 MW 10 Oceana, City of Virginia Beach, 18 MW 11 Whitehouse, Louisa County, 20 MW 12 Woodland, Isle of Wight County, 19 MW 13 Scott, Powhatan County, 17 MW | <ul style="list-style-type: none"> 14 UVA Hollyfield, King William County, 17 MW 15 UVA Puller, Middlesex County, 15 MW 16 Spring Grove 1, Surry County, 98 MW 17 Colonial Trail West, Surry County, 142 MW 18 Water Strider, Halifax County, 80 MW 19 Shenandoah Valley Governor's School, Fishersville 20 Goochland High School, Goochland 21 Landstown High School, Virginia Beach 22 T. Clay Wood Elementary School, Nokesville 23 Charlottesville-Albemarle Technical Education Center, Charlottesville 24 Children's Museum of Richmond, Richmond 25 Deer Park Elementary School, Newport News 26 Hampton High School, Hampton 27 Kenmore Middle School, Arlington 28 MathScience Innovation Center, Richmond 29 Grundy High School, Buchanan County 30 Ridgeview High School, Dickenson County | <ul style="list-style-type: none"> 31 Lee County Career & Technical Center, Lee County 32 John I. Burton High School, Norton 33 Honaker Elementary School, Russell County 34 Twin Springs High School, Scott County 35 Tazewell High School, Tazewell County 36 Union Elementary School, Wise County 37 Prologis, Loudoun County, 0.74 MW 38 Canon, Gloucester County, 0.5 MW 39 Merck, Rockingham County, 1.5 MW 40 UVA, City of Charlottesville, 0.4 MW 41 RMC, Town of Ashland, 0.05 MW 42 VUU, City of Richmond, 0.05 MW 43 Capital One, Chesterfield County, 0.5 MW 44 ODU, City of Norfolk, 0.13 MW 45 Philip Morris, Chesterfield County, 2 MW 46 Western Branch HS, City of Chesapeake, 0.8 MW 47 Canon, City of Newport News, 1 MW 48 Essex, Essex County, 20 MW |
|--|--|---|

again assume the title of best state for business in the country. The work put into the report was exhaustive, with the Chamber securing the participation of more than 6,000 business leaders from across the Commonwealth to determine the best policies in a number of areas for spurring economic development and innovation.

The recommendations made in the energy policy section are comprehensive and far-reaching. They are the kind of steps the Commonwealth needs to take to ensure it remains an attractive location for economic development and job creation efforts in the decades ahead. Dominion Energy is actively moving

forward on numerous recommendations made in the report. Among them:

- Building the Atlantic Coast Pipeline to “support the development of infrastructure that will increase access to affordable, reliable natural gas in all parts of Virginia.”
- Working with major customers, like Facebook, Amazon, and Microsoft, to ensure they have the renewable energy they are increasingly seeking “to preserve Virginia’s national leadership in developing and using innovative models to help companies achieve their corporate sustainability goals.”
- Moving forward with a groundbreaking offshore wind effort

off Virginia Beach and exploring a major pumped storage hydro project in Southwest Virginia to “support the exploration of energy resources within the Commonwealth and offshore.”

- Securing and modernizing the energy grid in accordance with the Grid Transformation and Security Act of 2018 to “continue to invest in the reliability and security of the energy grid, with attention to potential cybersecurity attacks.”

Build more solar power farms and facilities across the Commonwealth

At the beginning of 2015, Dominion Energy did not have any large-

scale solar facilities in Virginia. The company's entire solar portfolio in Virginia consisted of four solar distributed generation facilities totaling just over 1 MW in capacity. In 2015, the company announced an ambitious investment of \$700 million to construct enough solar capacity in the state to produce 400 MW by the year 2020. The company quickly hit and exceeded that target.

Today, Dominion Energy has more than 30 facilities totaling 824 MW of solar generation operational or under development in the Commonwealth, and 2 MW through the company's Solar Purchase Program. Together, these units are capable of providing power to more than 206,000 homes at peak solar output, and more than doubling the 2020 target. This has led to the creation of 2,300 temporary construction jobs building these facilities, and will mean millions in property tax revenue for localities that host these solar facilities. Those are good jobs for Virginians; the tax revenue will mean more money for infrastructure development in impacted counties and cities.

■ Keep Virginia a national leader in attracting major data centers and retaining and attracting new manufacturing operations.

Virginia is the world and national leader in data center location. The growth of this sector has had a tremendous positive impact on the state's economy. According to a study commissioned by the Northern Virginia Technology Council (<http://nvtc.org/news/getnewscontent.php?code=1269>), the data center industry pays wages that are more than twice the average private sector wage in Virginia. Data centers also are extremely capital intensive, which has resulted in significant new tax revenue for localities throughout the state. There are

multiple reasons for this achievement including low electric rates and a supportive business environment and competitive tax structure. More than 30 states currently offer tax incentives to support data center growth. It's important that Virginia maintain its competitive position in order to support future growth. These sales and use tax credits should remain in effect to encourage more data centers, which are energy-intensive facilities, to both locate here initially, and to stay in the Commonwealth moving forward. These incentives also will help more rural areas of the state attract these customers as the industry continues to expand. The development of new renewable energy investments to support data center growth will provide additional economic benefits throughout the state.

At the same time, Dominion Energy's Data Center Site Certification Program will continue to help localities determine the best locations for large customers in order to give Virginia a head start when it comes to pitching new sites to potential future facilities.

Manufacturing employment in Virginia is nearly 250,000 per Bureau of Labor Statistics data. Retention of the sales tax exemption for manufacturers is critical to maintaining a competitive tax environment. Tax policy that lowers the tax burden for new, capital-intensive manufacturers will allow Virginia to better compete for these high economic impact projects.

■ Pass legislation to properly assign costs to customers who exercise choice, while preventing burdening of existing customers when a business facility chooses another energy supplier for generation

The General Assembly should consider legislation that will ensure costs are properly assigned to customers, while

also ensuring that companies that choose to leave their incumbent utilities and purchase their power supplies from other sources pay their share and do not overly burden existing energy customers in the process. When a customer currently exercises retail electric choice, all costs including legacy costs are borne by remaining customers. In addition, the legislature should address what happens when a customer returns and the frequency with which a customer can choose to move back and forth between providers. Electric utilities have to be ready to serve the customers generation needs when they elect to return.

■ Address conclusions in Dominion Energy's Broadband Feasibility Report

As the company noted in its Broadband Feasibility Report, availability of high-speed broadband access plays a critical role in economic development. Today, most businesses consider broadband to be an important resource and would not consider moving to a region without high-speed internet access. Communities in which there is a lack of high-speed broadband service will be at a significant disadvantage for attracting and retaining businesses and residential growth.

Dominion Energy's evaluation concludes that there are opportunities to leverage existing electric infrastructure to support expanded deployment of broadband in the Commonwealth provided that certain barriers are addressed, including corporate powers, real property rights, and cost recovery, among others. The most promising opportunity at this time appears to be leveraging both existing Dominion Energy electric distribution and transmission infrastructure and the foundational, forward-looking telecommunications strategy and solution Dominion Energy has proposed to deploy as part of its Grid Transformation Plan.

Conclusion

As the electricity provider for 65% of Virginia homes and 60% of Virginia businesses, Dominion Energy plays an integral role in the Commonwealth, its economy, and the well-being of its citizens. The company is proud of its longstanding history of providing that electricity at rates far below regional and national averages. These low rates ensure Virginians can keep more of their hard earned dollars, and make the Commonwealth far more attractive to job-creating businesses looking to relocate or expand. It provides an immediate competitive advantage that has consistently and repeatedly benefited Virginia economic development efforts for decades.

Going forward, the company's chief priority always will be providing energy to customers that is both reliable and affordable. That is the number one means by which Dominion Energy can

continue to help Virginia's economy grow and thrive. This requires a constant look towards the future to ensure that the company's energy supply, generation, and delivery system can keep up with customer demand. And it is why the Atlantic Coast Pipeline, in particular, is such an important project for the future of Virginia's economy.

Dominion Energy's construction of the Atlantic Coast Pipeline is the single biggest economic development project underway in the Commonwealth. It is crucial to attracting major industrial and manufacturing projects to the state, and ensuring that customers have reliable energy in the years ahead. It is the kind of project that, like Dominion

Energy's low rates, will provide the Commonwealth with a major leg up over regional and national rivals in the years ahead. It is exactly how a state proactively positions itself for future economic growth.

Energy infrastructure, affordability and reliability are crucial to attracting new businesses, and helping existing ones to expand and grow. As the Commonwealth continues to identify and put in place the pro-growth projects and policies of the future, Dominion Energy looks forward to continuing to be an economic development partner Virginia and its localities can count on for decades to come.



Provider
of Energy for
60%
of Virginia
Businesses

Provider
of Energy for
65%
of Virginia
Homes



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