Dominion Energy®

What's Next for Nuclear:
Emerging Technologies to Power Tomorrow

July 21 - 25, 2024
SOUTHERN LEGISLATIVE CONFERENCE
The Greenbrier
WEST VIRGINIA

Southern Legislative Conference
July 23, 2024

July 21 - 25, 2024
SOUTHERN LEGISLATIVE CONFERENCE
The Greenbrier
WEST VIRGINIA

Dominion Energy Virginia

2.7M
Customers

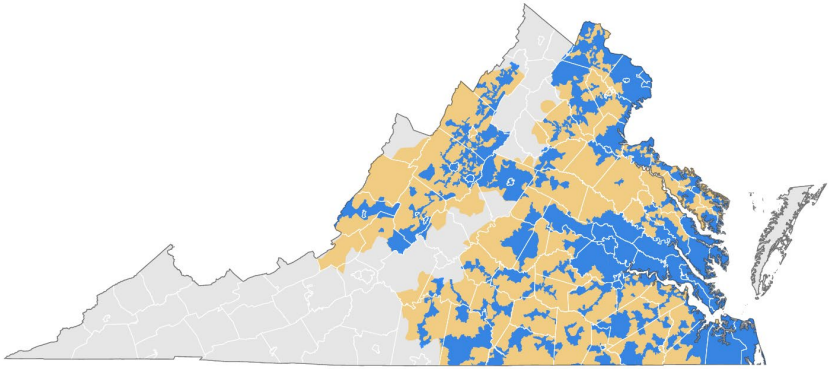
10,000+
Employees & Contractors

18+
Years with rates below the national average (residential/industrial)

65,000+
Miles of Power Lines (Transmission & Distribution)

20,400+
Megawatts of Generation

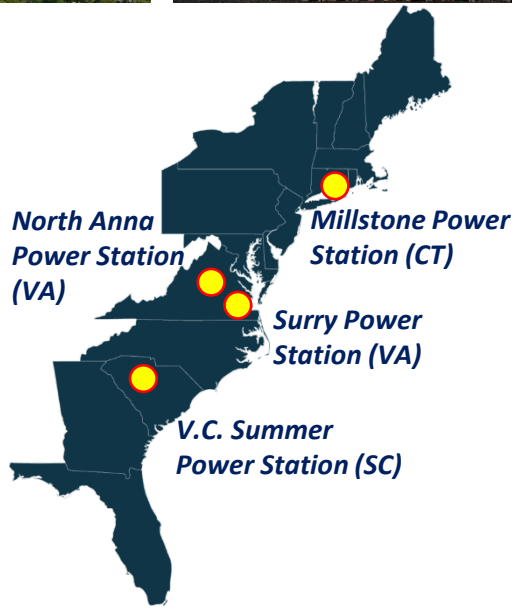
40
Years of EnergyShare Program



Nuclear Energy: Key to Our Clean Energy Transition




- Over 50 years of safe, reliable nuclear operations
- 7 reactors at 4 sites in 3 states
- 6,432 MW in operation, enough power for over 1.6 million homes
- Over 3,000 employees in VA, SC and CT support nuclear operations
- Top nuclear power operations ratings from the industry
- A proven track record of siting, constructing, and deploying mega-projects
- Partnerships with the state universities and trade schools
- License extensions to 80 years in progress
- Proactively evaluating SMRs to complement our clean energy portfolio



Nuclear Energy: Key to Our Clean Energy Transition

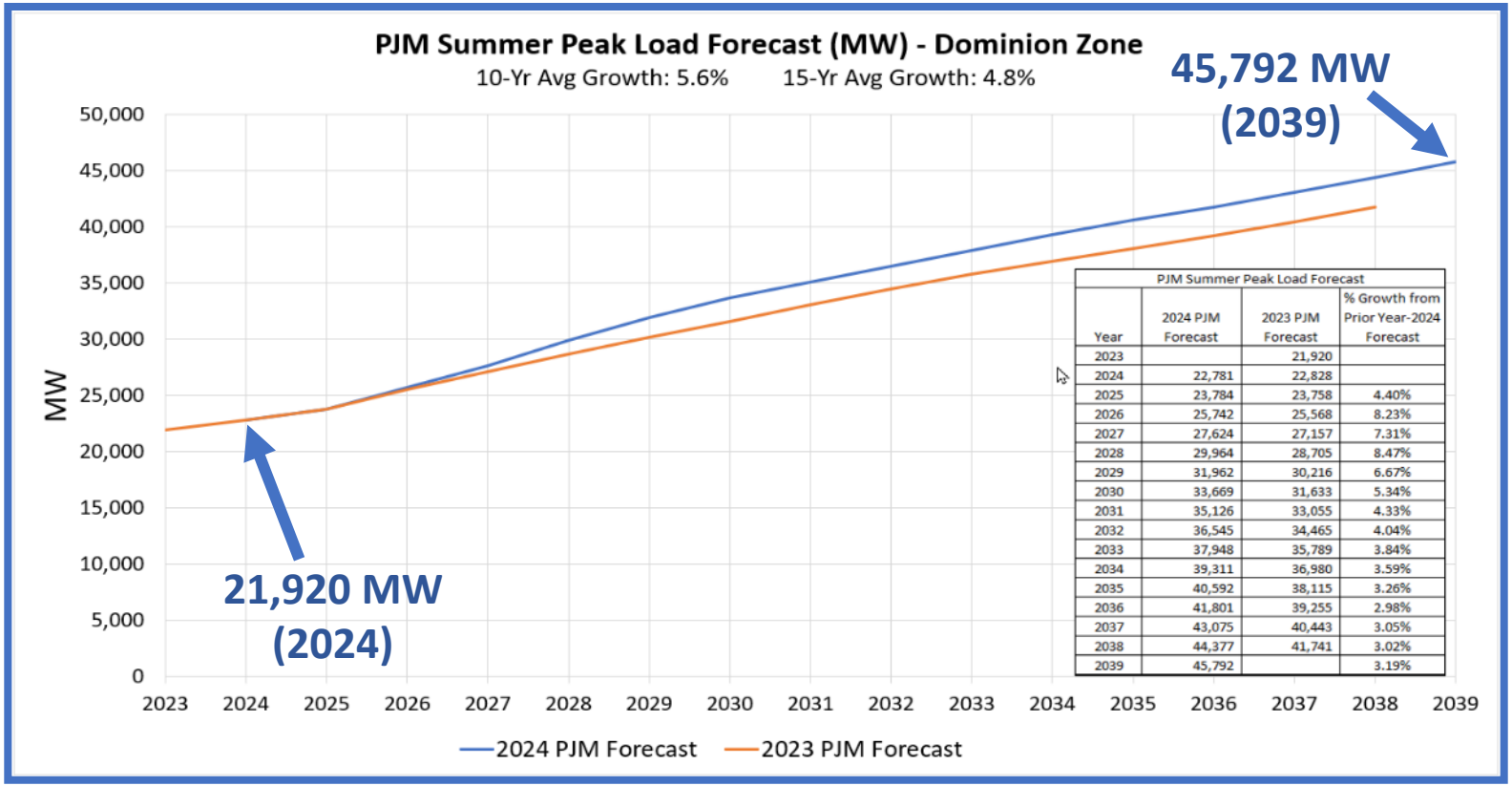
Dominion Energy's Operating Nuclear Power Stations

and timing of Subsequent License Renewals (SLR) to achieve 80-year operating licenses

Facility Name	Location	Unit Number	Nameplate Capacity	SLR Licensing Status as of July 2023
North Anna Power Station	Louisa County, VA	1	838 MW	Expected in 2024
		2	834 MW	Expected in 2024
Surry Power Station	Surry County, VA	1	838 MW	Received in 2021
		2	838 MW	Received in 2021
Millstone Power Station	Waterford, CT	2	884 MW	Notice Provided in 2024
		3	1227 MW	Notice Provided in 2024
V.C. Summer Power Station	Jenkinsville, SC	1	973 MW	License application submitted
		Total:	**6,432 MW**	

Dominion Energy Virginia

Highest Electric Load Growth Forecasted in the Nation

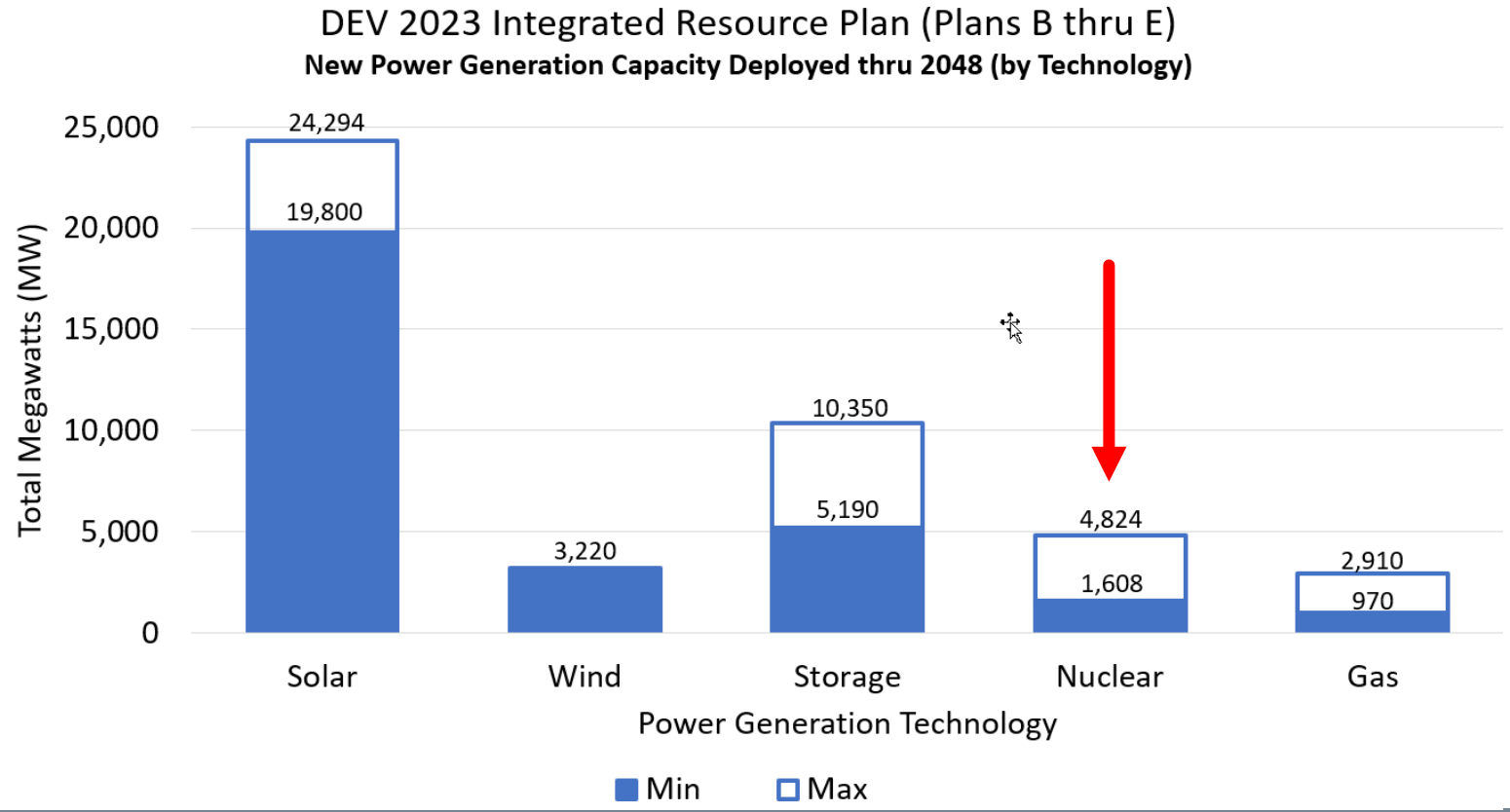


PJM Summer Peak Load Forecast

Year	2024 PJM Forecast	2023 PJM Forecast	% Growth from Prior Year-2024 Forecast
2023		21,920	
2024	22,781	22,828	
2025	23,784	23,758	4.40%
2026	25,742	25,568	8.23%
2027	27,624	27,157	7.31%
2028	29,964	28,705	8.47%
2029	31,962	30,216	6.67%
2030	33,669	31,633	5.34%
2031	35,126	33,055	4.33%
2032	36,545	34,465	4.04%
2033	37,948	35,789	3.84%
2034	39,311	36,980	3.59%
2035	40,592	38,115	3.26%
2036	41,801	39,255	2.98%
2037	43,075	40,443	3.05%
2038	44,377	41,741	3.02%
2039	45,792		3.19%

New Power Generation Capacity Planned for Our VA Customers

Largely Zero-Carbon Power Generation Technologies



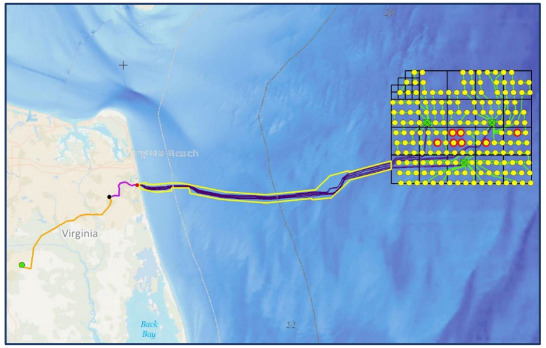
We Are Investing in New Power Generation Infrastructure

Largely Zero-Carbon Power Generation Technologies

Dominion Energy

Coastal Virginia Offshore Wind

2,640 MW – Largest in the U.S.



UNDER CONSTRUCTION

2nd Largest Utility Solar Portfolio in U.S.

Deploying ~ 1,000 MW per Year

UNDER CONSTRUCTION & IN OPERATION

Developing & Deploying

Innovative Projects for our Customers

(LDES, Nuclear, Transmission, etc.)

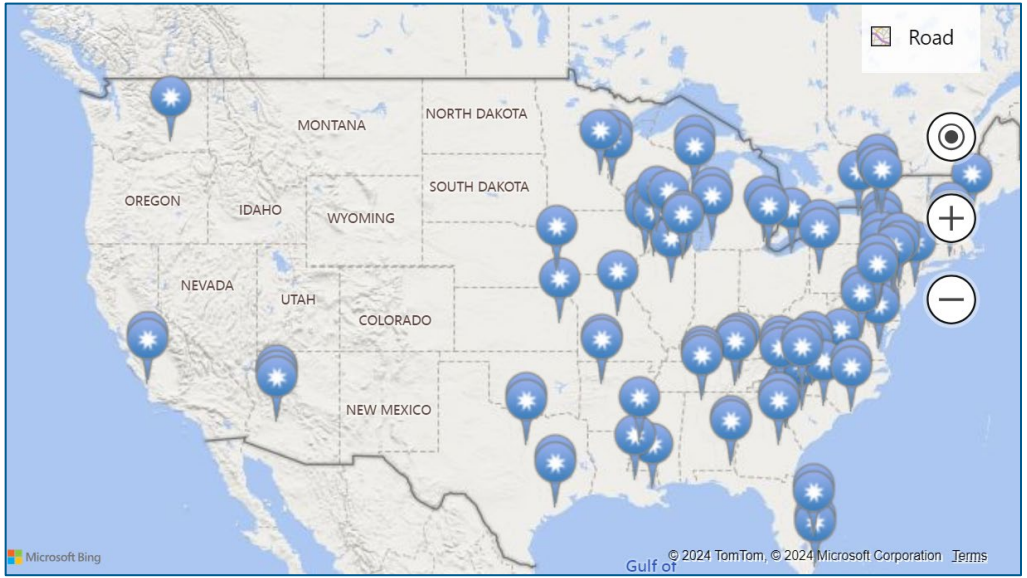
IN DEVELOPMENT

Nuclear Power Provides 20% of the Nation's Electricity

Summary of Operating Nuclear Power Stations in the U.S.:

- **Total Number of Operating Reactors**: 94 reactors
- **Total Capacity**: 96,555 MW
- **Total Number of Nuclear Power Station Sites**: 54
- **States with Nuclear Power Plants**: 28 states
- **Average Age of Reactors**: ~42 years old

Our Nation's Drive to Net Zero Carbon Emissions from the Power Industry Cannot be Accomplished With Wind, Solar and Batteries Alone

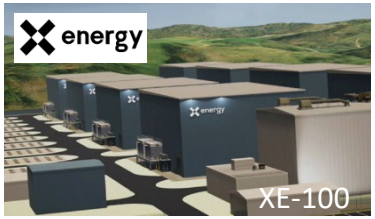


Nuclear Technologies Available in the U.S. Market

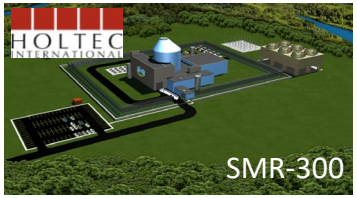
SMRs Are the Next Evolution of Large-Scale Reactor Designs – Typically 50-500 MW in Size

Sampling of SMR Technology Companies

Advanced Technologies



Light-Water Technologies



- Highest level of regulatory familiarity
- Most mature fuel supply chain ("off the shelf fuel")

Each SMR vendor has received funding through the DOE Advanced Reactor Demonstration Program.

Active COL for an ESBWR at North Anna

Demonstrated deployments:

- 12 AP1000 reactors in operation or construction
- 8 APR1400 units in operation, 2 under construction

Traditional (Large-Scale) Nuclear

Light-Water Technologies

Nuclear Power Development Challenges

- ~~Public Acceptance~~
- ~~Spent Fuel Storage~~
- ~~Technology Maturity~~
- ~~Federal and State Support~~
- ~~Proliferation and National Security Concerns~~
- Economics, Cost and Schedule Certainty
- Capital/Financing Structures

Innovative Business Models and Solutions being Developed

Federal Policy Updates

Lawmakers reach agreement on advanced nuclear package

- The nuclear package includes a compromise between two key pieces of legislation
  - The “Atomic Energy Advancement Act,” H.R. 6544
  - The “Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy (ADVANCE) Act,” S. 1111.
- The bills contain provisions to buoy advanced reactors, heralded by an unprecedented bipartisan majority in Congress
- Legislators moved the combined package through the House and Senate in June 2024 and was signed by President

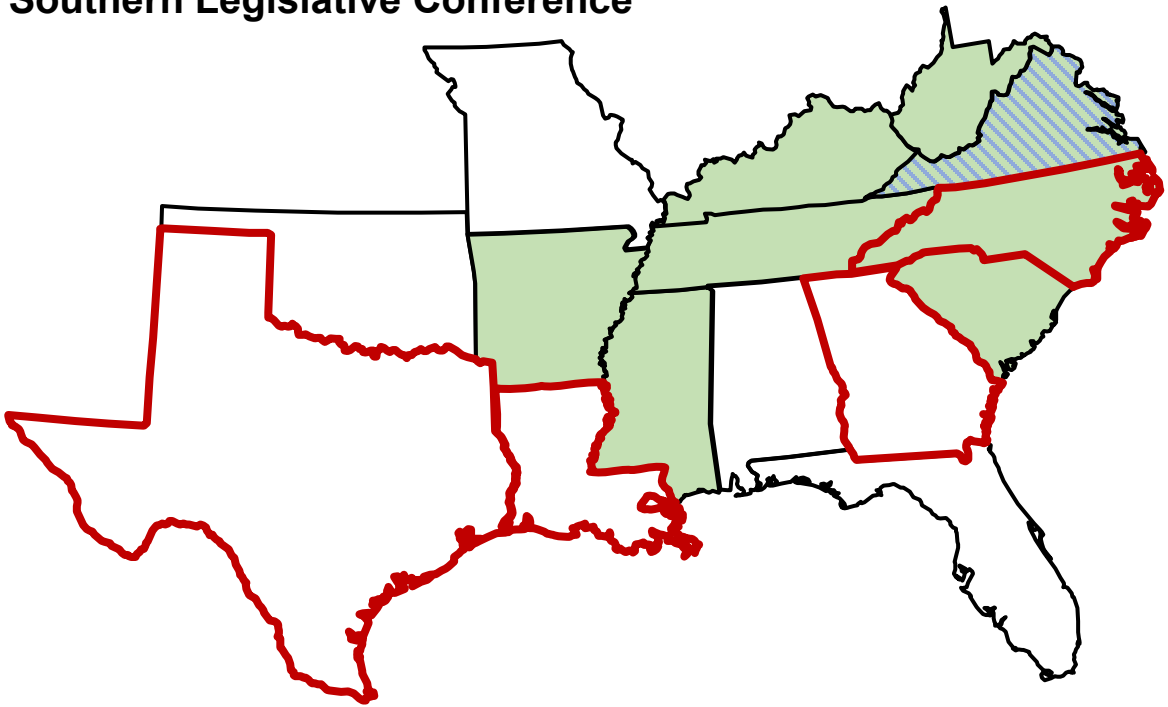
The Senate Advanced Nuclear Caucus

- Dedicated to amplifying the critical role nuclear energy in the U.S.
- Focused on emerging advanced nuclear reactors.
- Launched by Sens. Mark Warner (D-Va.) and Jim Risch (R-Idaho)

This is the first group in the Senate to focus specifically on advanced nuclear technologies – highlighting the growing support for the sector as both parties coalesce around nuclear as a carbon-free source of energy that could prove essential to achieving net-zero emissions.

Nuclear Energy State Policy Developments

Legislative/Regulatory Activity in the Southern Legislative Conference



Within the last five years, **11 of 15** member states have enacted policy and/or taken action in the regulatory arena relevant to nuclear energy.

Statutorily authorized recovery

Other supportive policy

Relevant regulatory activity

Adapted from: "State Legislation and Regulations." *Nuclear Energy Institute*

Detail on Select State Policy Developments

Virginia	SB 454 (2024) – permits Dominion Energy Virginia to petition for rider recovery of small modular reactor project development costs
West Virginia	SB 4 (2022) – repealed a ban on construction of nuclear power plants
Kentucky	SJR 79 (2023) – established the Nuclear Energy Department Working Group, tasked with identifying barriers to nuclear power generation and related technologies and with eventually establishing a nuclear energy commission
North Carolina	SB 678 (2023) – replaces the statutory definition of renewable energy with clean energy, inclusive of nuclear fission and fusion
Georgia	Docket No. 29849 (2023) – the Public Service Commission unanimously approved Georgia Power's application to adjust rates to include reasonable and prudent costs from Plant Vogtle Units 3 and 4

Virginia Legislation in 2024
Moved Nuclear Development Forward for Utilities

SB 454: Recovery of SMR Development Costs
Patron: Virginia Senator Marsden (D)

- ❑ Applies only to Dominion Energy Virginia (similar companion bill applies to AEP)
- ❑ Allows for project development cost recovery
- ❑ Development can cover multiple SMRs at the site
- ❑ Costs are capped to limit electric bill impacts
- ❑ Sunsets December 31st, 2029

Bill Tracking - 2024 session > Legislation (virginia.gov)

Effective July 1, 2024

24109376D

SENATE BILL NO. 454
AMENDMENT IN THE NATURE OF A SUBSTITUTE
(Proposed by the Governor
on April 8, 2024)
(Patron Prior to Substitute--Senator Marsden)

A BILL to amend the Code of Virginia by adding a section numbered ***56-585.1:14****, relating to electric utilities; recovery of development costs associated with small modular reactor.*

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered **56-585.1:14** as follows:

§ ***56-585.1:14****. Recovery of development costs associated with small modular reactor.*

A. As used in this section:

"Small modular reactor" or "SMR" means a nuclear reactor that produces nuclear power and has a nameplate capacity that does not exceed 500 megawatts of generating capacity per reactor.

"SMR facility" means an SMR or multiple SMRs that generate electricity at a single site.

"SMR project development costs" or "project costs" means all costs associated with the development of one or more SMRs, including costs of evaluation, design, engineering, federal approvals and licensing, environmental analysis and permitting, early site permitting, equipment procurement, and authorized rate of return.

"Utility" means a Phase II Utility, as that term is defined in subdivision A 1 of § ***56-585.1****.*

B. Notwithstanding any limitation under subdivision A 6 of § ***56-585.1****, the utility may petition the Commission at any time for approval of a rate adjustment clause pursuant to subdivision A 6 of §* ***56-585.1*** *for the recovery of SMR project development costs. The utility may petition the Commission for up to one SMR facility pursuant to this section. Such utilities may petition the Commission for SMR project development cost recovery along separate development phases and, if the Commission determines such projected or actual project costs to be reasonable and prudent, such project costs may be recovered by such utility on a timely and current basis from customers prior to any approval pursuant to subsection D of §* ***56-580*** *or the commercial operation date of any such SMR facility. Any SMR project development costs incurred prior to July 1, 2024, and 20 percent of SMR project development costs incurred after July 1, 2024, shall not be eligible for accelerated cost recovery pursuant to this section and may be recovered through the utility's rates for generation and distribution services pursuant to subdivision A 1 of §* ***56-585.1****. The utility that petitions the Commission for recovery of SMR project development costs shall demonstrate that such utility has evaluated funding opportunities from the U.S. Department of Energy. Nothing in this section shall limit the Commission's discretion to determine whether the proposed SMR project development costs are reasonable and prudent. As part of a final order approving such cost recovery, the Commission may impose a deadline by which the relevant utility shall either (i) place an SMR into commercial operation or (ii) sell the permitted site, unless it is at a previously existing nuclear site, and return the proceeds of the sale to customers. The length of such deadline shall be at the Commission's discretion; however, it shall provide the utility a reasonable timeframe in which to obtain all necessary permits and approvals, including allowing for approval by federal agencies such as the Nuclear Regulatory Commission, and completing construction of an SMR.*

C. Nothing in this section shall limit the Commission's authority to approve or deny a petition for recovery of SMR project development costs or to require a utility to demonstrate that such utility made reasonable good-faith efforts to secure appropriate funding opportunities from the U.S. Department of Energy. The annual revenue requirement for any rate adjustment clause authorized pursuant to this section shall not exceed an amount that would increase the monthly bill of the utility's typical Virginia residential customer, utilizing 1,000 kilowatt hours of electricity monthly, by more than $1.40.

2. That the provisions of this act shall expire on December 31, 2029.

Our New Nuclear Project Development Activities

Site Selection – performing site characterization studies at specific sites

Technology Selection – evaluating several advanced technologies

Capital/Financing Structures – developing innovative solutions

Customer Solutions – discussing opportunities with key large customers

Federal/State Legislation – monitoring supportive legislation and enabling solutions

Potential In-Service Timeframe – Forecasting early 2030's for 1st facility COD

We Recently Announced A Major Step Forward (July 10, 2024)

Small Modular Reactor (SMR) RFP Issued to Technology Companies

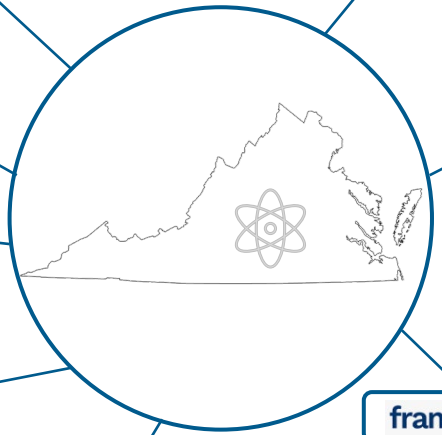
- Issued a Request for Proposals (RFP) to leading SMR nuclear technology companies
- Evaluate the feasibility of developing an SMR at North Anna Power Station in central Virginia
- SMRs could play a pivotal role in an 'all-of-the-above' approach to our energy future
- The company also announced that it intends to seek recovery of SMR development costs in a filing with the Virginia State Corporation Commission (SCC) expected in the Fall of 2024

Robert Blue – Chair, President & CEO of Dominion Energy
Announcing the SMR RFP for the North Anna Site

Glenn Youngkin – Governor of Virginia
Discussing the Importance of New Nuclear

Major Nuclear Technology Presence in Virginia

Dominion Energy



Headquarters in Reston
- Developing next-generation nuclear fuel including for the current U.S. nuclear fleet.

BWXT Lynchburg Facilities
- Designer of the BANR microreactor
- Manufactures naval nuclear reactor cores
- Only domestic supplier of research reactor fuel
- Facility for down blending highly enriched fuel for other reactor uses

Newport News Shipyards
- Constructs and maintains the U.S. Navy nuclear powered submarines and aircraft carriers
- The only facility in the U.S. that supports refueling of the Navy's fleet of nuclear aircraft carriers

Bechtel
- Headquartered in Reston, VA, along with the headquarters of the global nuclear business unit
- Has designed, serviced, or delivered 80% of all nuclear plants in the U.S.

NovaTech
- Provides professional design, engineering, manufacturing, and testing services for nuclear, industrial, and defense organizations

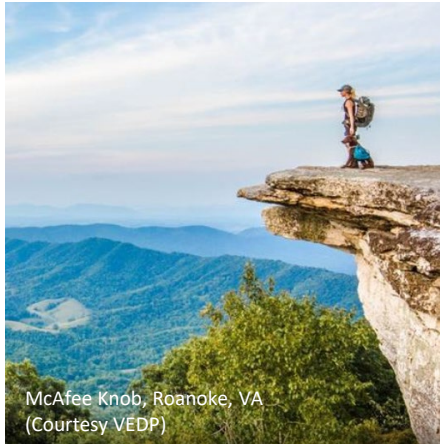
Institutions of Higher Education
- Research and development in multiple areas, including materials engineering, corrosion, radiation detection and measurement, and advanced modeling and simulation of nuclear systems

Naval Station Norfolk
- The world's largest naval station
- Home port of four carrier strike groups and their assigned ships and host to several Military Sealift Command ships, as well as the submarines of the Atlantic Fleet

Framatome
- Framatome designs, builds and services the nuclear steam supply system (NSSS) for customers across the globe.
- For more than 60 years, the company has been present at every stage of the process on all types of reactor technologies.

Why is Virginia Poised to Lead New Nuclear Deployments?

- Established nuclear industry
- America's top state for talent
- Strategic Mid-Atlantic location
- World-class logistics infrastructure
- An attractive and stable business climate
- Robust portfolio of potential project sites
- Exceptional quality of life


McAfee Knob, Roanoke, VA
(Courtesy VEDP)

#1 WalletHub 2022 Best Public Schools in the South (# 4 in the U.S.)

#2 smartasset 2022 Best State for Higher Education

#1 CNBC 2024 Top State for Business – Education