



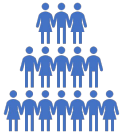
What's Next for Nuclear: Emerging Technologies to Power Tomorrow



2024 WV Governor's Energy Summit
October 30, 2024

Emil Avram, Vice President-Business Development

Committed to serving the people of the Commonwealth by safely providing **reliable, affordable, and increasingly clean energy.**



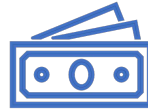
2.7M

Customers



10,000+

Employees & Contractors



18+

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



65,000+

Miles of Power Lines (Transmission & Distribution)



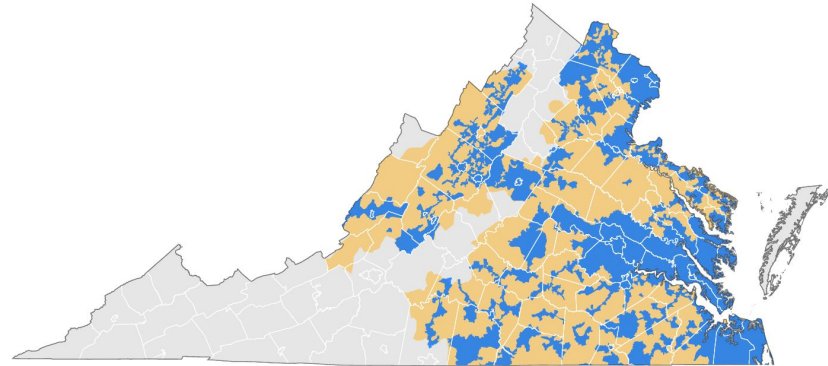
20,400+



Megawatts of Generation



40

Years of EnergyShare Program

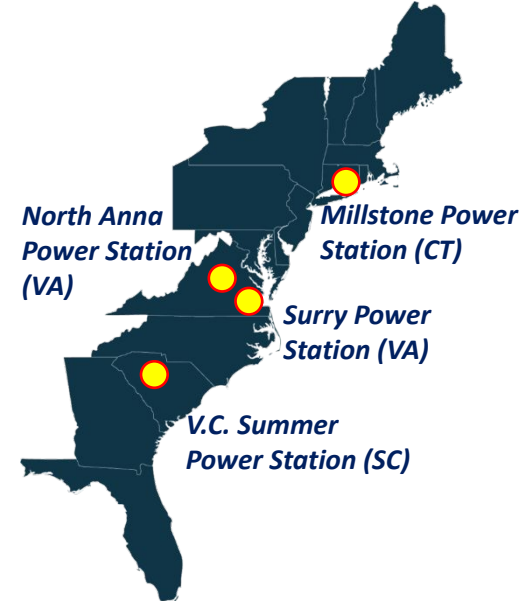


 Distribution and Transmission Service Territory
 Transmission Service Territory

Nuclear Energy: Key to Our Clean Energy Transition

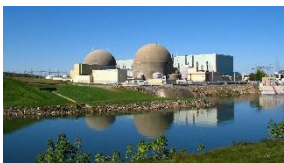


- Over 50 years of safe, reliable nuclear operations
- 7 reactors at 4 sites in 3 states
- 6,620 MW in operation, enough power for over 1.6 million homes
- Over 3,000 employees in VA, SC and CT support nuclear operations
- Top nuclear power operations ratings from the industry
- A proven track record of siting, constructing, and deploying mega-projects
- Partnerships with the state universities and trade schools
- License extensions to 80 operating years in progress
- Proactively evaluating SMRs to complement our clean energy portfolio

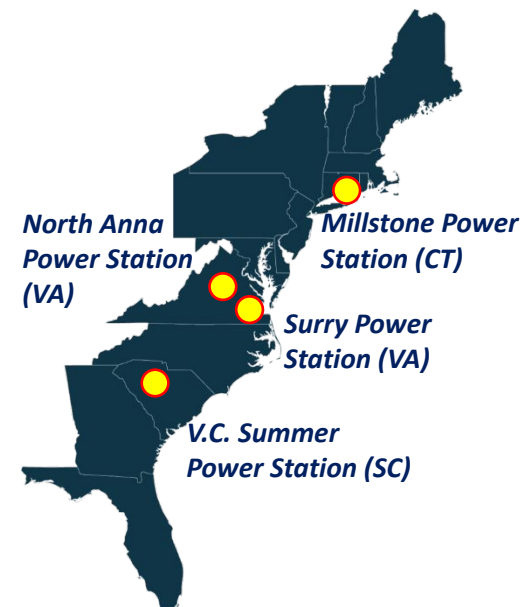


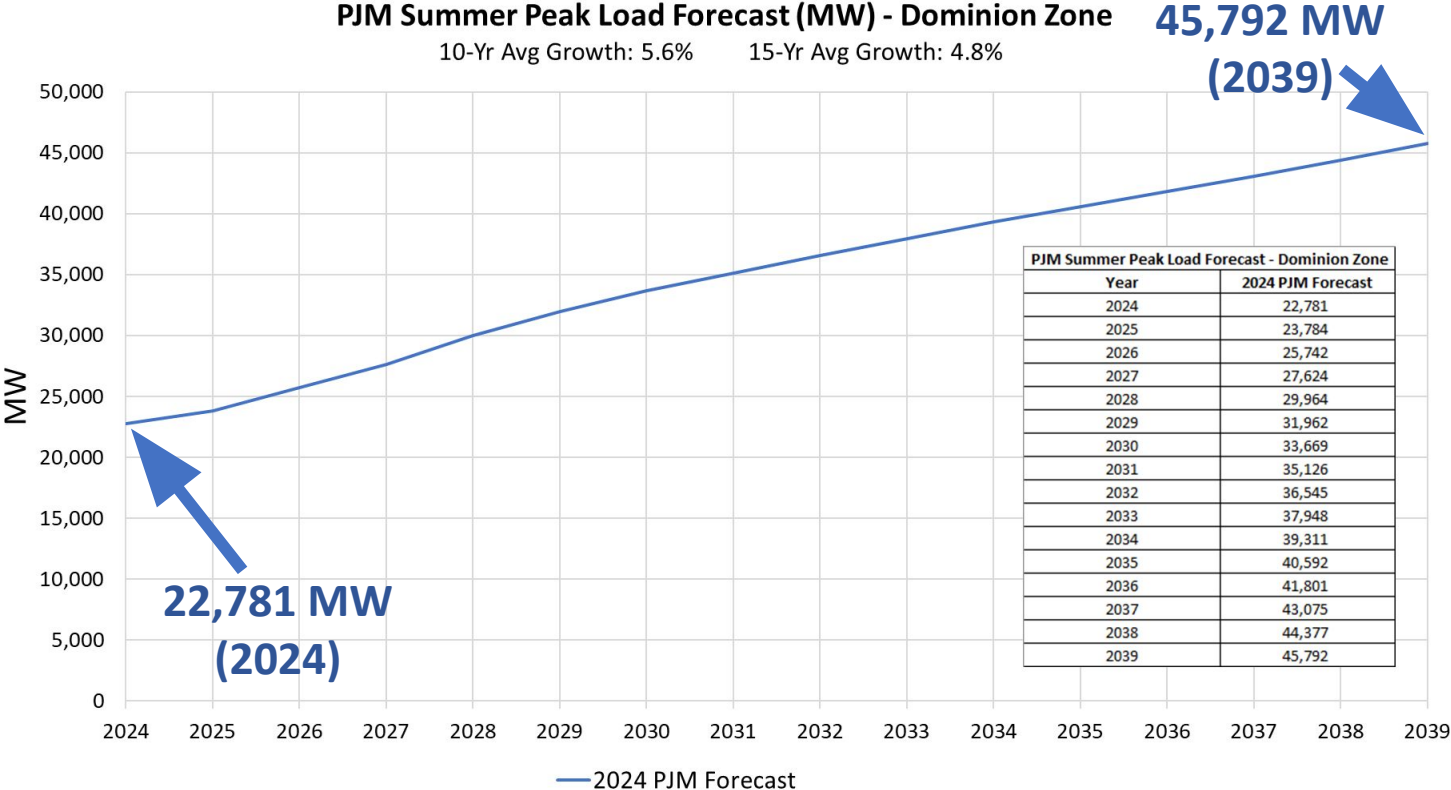
Nuclear Energy Subsequent License Renewals

All 7 Reactors Planned for 80-Year Operating Licenses (from 60 years)



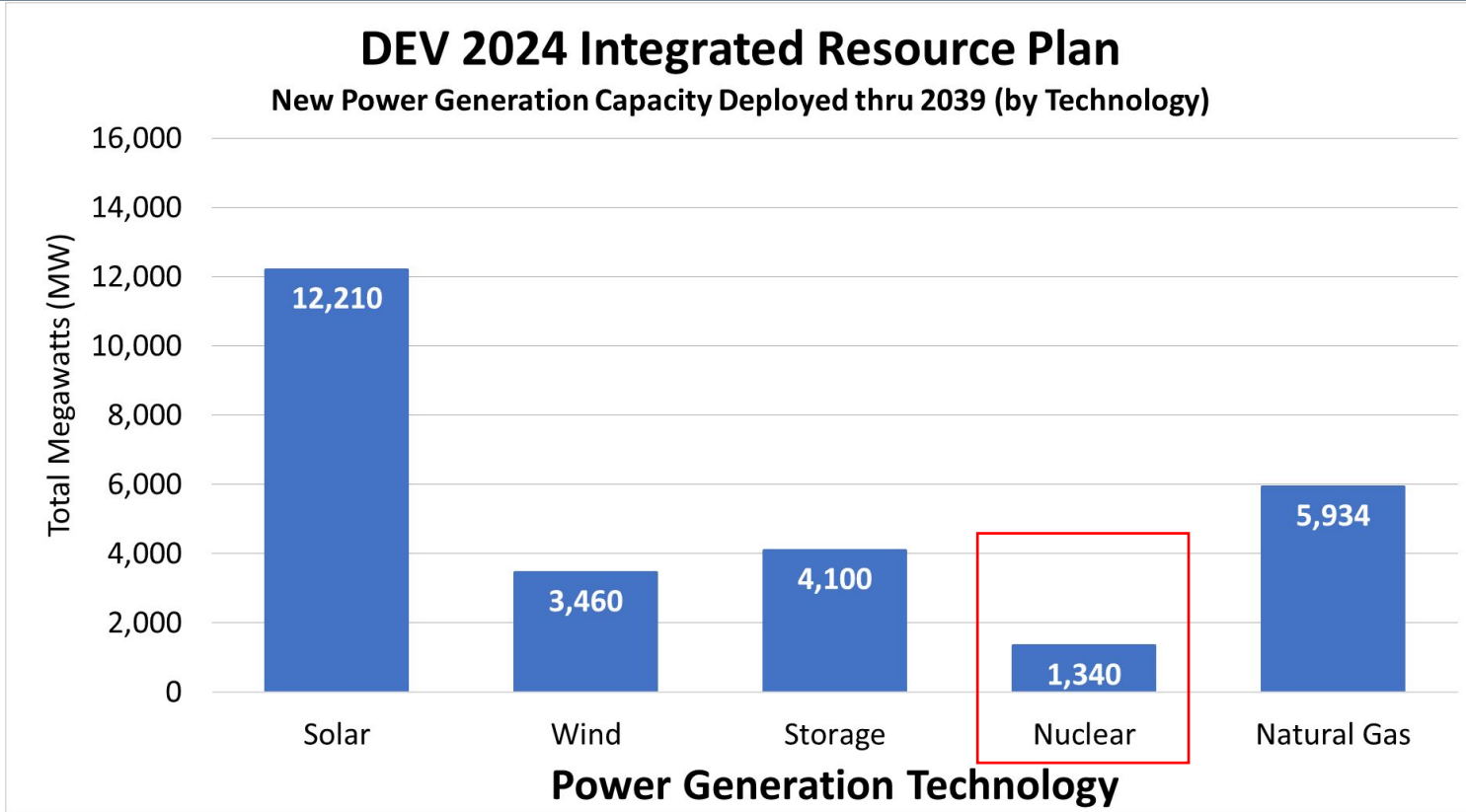
Business	Facility Name	Location	Unit Number	Nameplate Capacity	SLR Licensing Status as of July 2024
Dominion Energy Virginia	North Anna Power Station	Louisa County, VA	1	948 MW	Received in 2024
			2	944 MW	Received in 2024
Dominion Energy Virginia	Surry Power Station	Surry County, VA	1	838 MW	Received in 2021
			2	838 MW	Received in 2021
Dominion Energy Contracted Assets	Millstone Power Station	Waterford, CT	2	869 MW	Advance notice submitted to NRC
			3	1210 MW	Advance notice submitted to NRC
Dominion Energy South Carolina	V.C. Summer Power Station	Jenkinsville, SC	1	973 MW	License application submitted
			Total:	6,620 MW	





New Power Generation Capacity Planned for Our VA Customers

Additional 27,000 MW of Largely Zero-Carbon Generation Needed



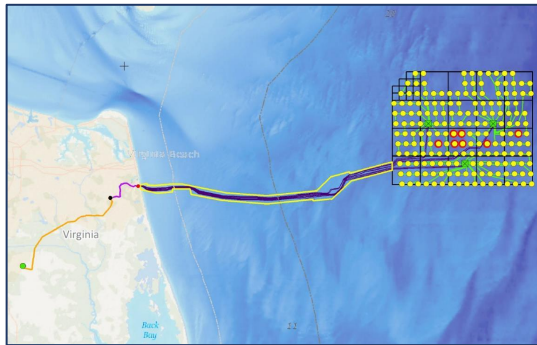
We Are Investing in New Power Generation Infrastructure

Largely Zero-Carbon Power Generation Technologies



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.)

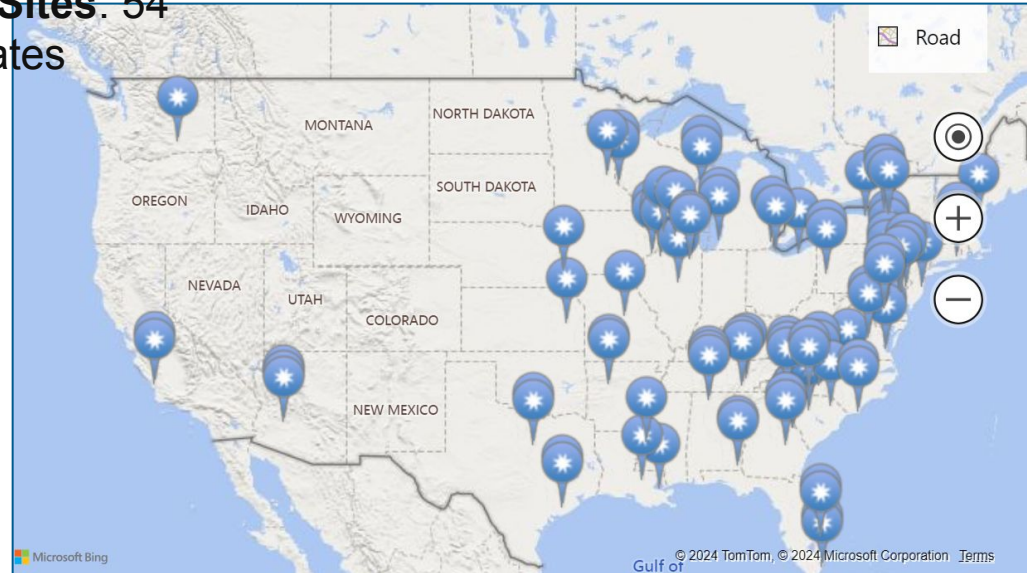


IN DEVELOPMENT

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

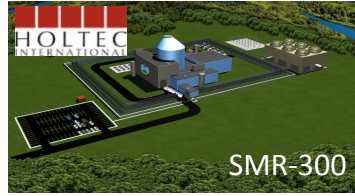


Sampling of SMR Technology Companies

Advanced Technologies



Light-Water Technologies



Traditional (Large-Scale) Nuclear

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

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**

Detail on Selected State Policy Developments



Virginia	<u>SB 454</u> (2024) – permits Dominion Energy Virginia to petition for rider recovery of small modular reactor project development costs
West Virginia	<u>SB 4</u> (2022) – repealed a ban on construction of nuclear power plants. <u>HB 208</u> (2024) – authorizes becoming an Agreement State with the US NRC
Kentucky	<u>SJR 79</u> (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	<u>SB 678</u> (2023) – replaces the statutory definition of renewable energy with clean energy, inclusive of nuclear fission and fusion
Georgia	<u>Docket No. 29849</u> (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

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 Major Steps Forward

SMR RFP & Amazon MOU Announcements



- 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
- Amazon and Dominion announced signing an MOU to explore business structures to deploy SMRs
- SMRs could play a pivotal role in an 'all-of-the-above' approach to our energy future

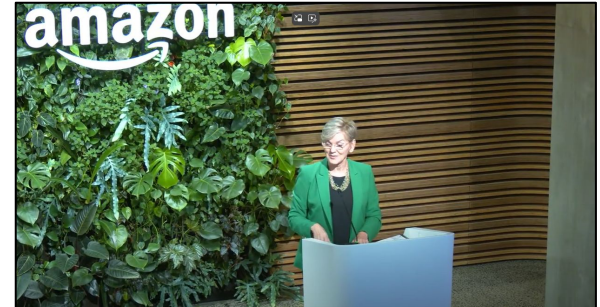
Robert Blue – Chair, President & CEO of Dominion Energy
Announcing the SMR RFP for the North Anna Site



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



Jennifer Granholm – U.S. Secretary of Energy
Announcing the Amazon and Dominion MOU



July 10, 2024