## **Environmental Drivers**

#### Darrell Shier Manager, Environmental Services

DESC

#### **Environmental Driving Forces**

- Dominion Commitments
- National Environmental Rules
- South Carolina Effects
- For More Information

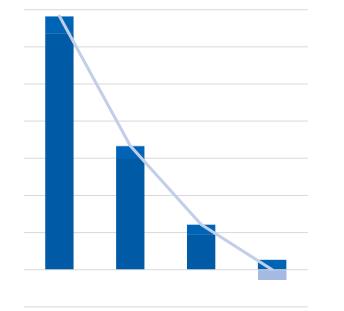


## **Dominion Commitments**



3

Company-wide Pathway to Net Zero Direct Scope 1 & 2 Emissions from Operations, and certain Scope 3 emissions



2040

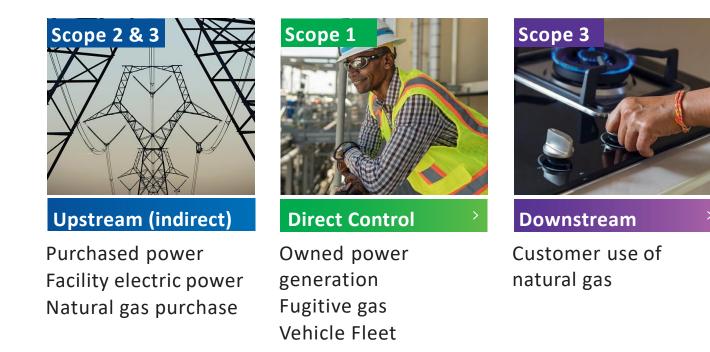
2050

2019

2030

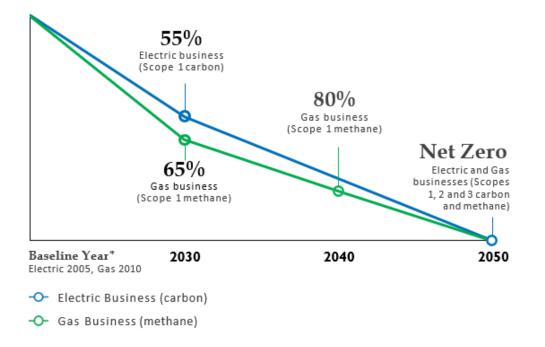


#### Included in our Net Zero commitment





#### Net Zero Targets



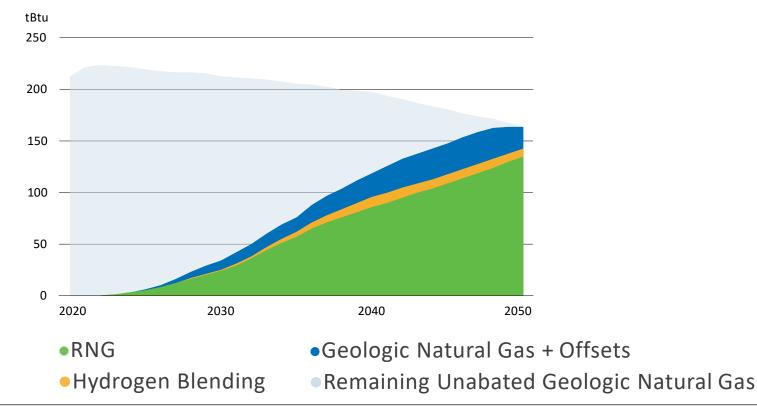


#### Pathways to meet our Net Zero commitment

- Expanding our portfolio of renewable energy and storage
- Extending the licenses of our zero-carbon nuclear stations
- Investing in system resiliency and modernization
- Advancing zero-carbon or carbon-beneficial technologies, including RNG, hydrogen, SMRs, energy storage and more.

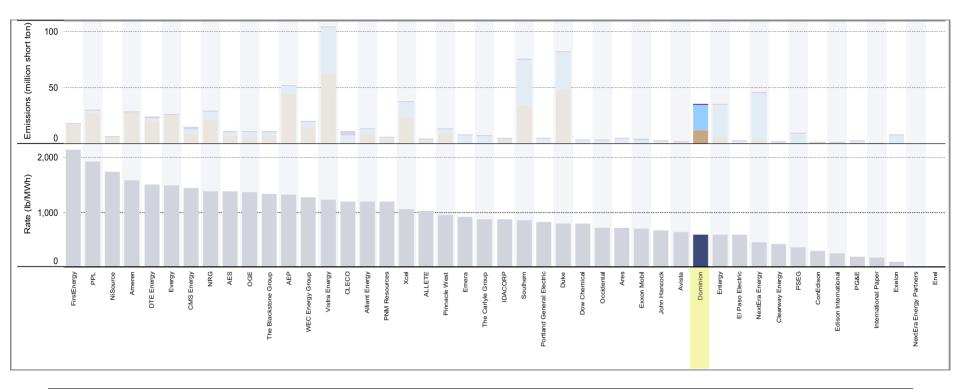


### Natural Gas Throughput to Customers



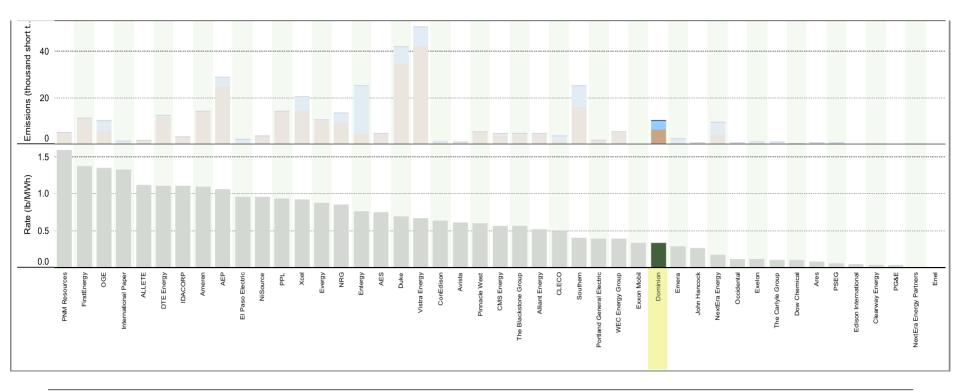


#### **CO2 Emission Rank for U.S. Utilities – CY 2020**



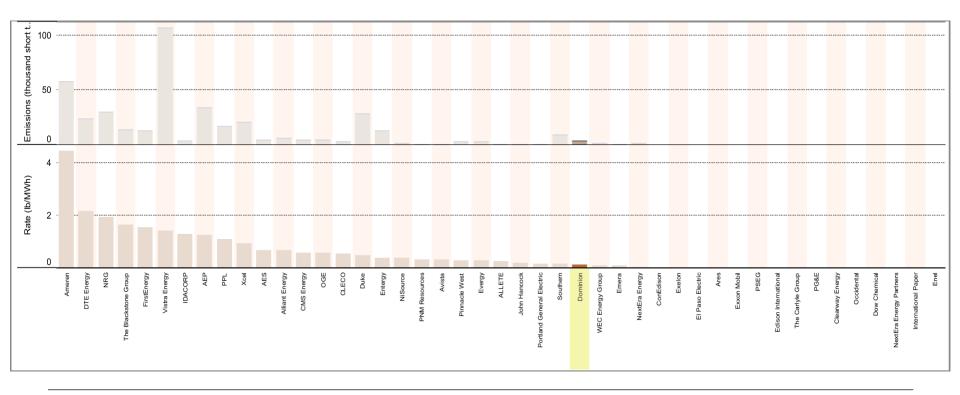


#### NOx Emission Rank for U.S. Utilities – CY 2020





#### SO2 Emission Rank for U.S. Utilities – CY 2020





## **National Environmental Rules**



#### **New and Pending Environmental Rules**

- Effluent Limitation Guidelines
- Particulate Matter (PM) Ambient Air Quality Proposed Rule
- Mercury and Air Toxics Standards (MATS) rule
- Clean Air Act Section 111 rule (GHG rule)



### **Effluent Limitation Guidelines (ELG)**

- Previous water rules set standards for <u>mixed discharges</u> of all plant waters.
- 2015 and 2020 EPA rules set standards at the point of creation prior to mixing:
  - Flue gas desulfurization (FCD) wastewater
  - Bottom ash transport water
  - Combustion residual leachate
- 2020 rule set clock for compliance end of 2025 or 2028
- FGD Treatment is costly removal of mercury, arsenic, selenium, and nitrate/nitrite
- Strong incentive to end discharge by 2028



#### **PM 2.5 Proposed Rule**

- Particulate Matter (PM) less than 2.5 micrometers (microns) in diameter
- Annual standard is currently 12 micrograms/cubic meter
- Proposed rule January 2023
  - Proposed range between 8 and 11
- South Carolina ranges from 6.5 to 9
- Would not affect current generation
- Could make new unit permitting more challenging



#### **Proposed Clean Air Act Section 111 Rule**

- Proposed May 11, 2023
  - New Source Performance Standards (NSPS) for gas-fired turbines
  - Emission guidelines for large, frequently used existing gas-fired turbines
  - Emission guidelines for existing fossil fuel-fired steam generating EGUs



#### **Proposed Clean Air Act Section 111 Rule**

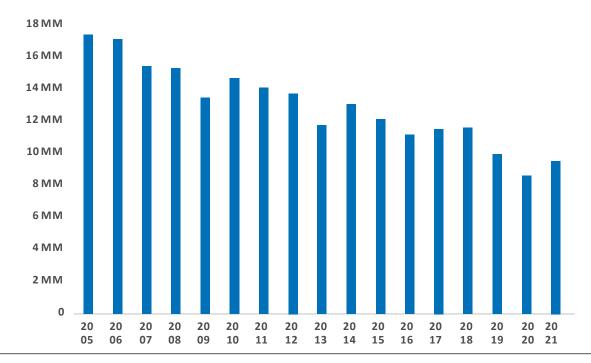
- May require emission reductions commensurate with
  - Highly efficient generation
  - Carbon capture and sequestration
  - Co-firing with low-GHG hydrogen
- Standards phased in from 2030 through 2038



## **South Carolina Effects**



#### **DESC Annual CO2 Emissions 2005-2021 (MT)**





19

#### **Responding to these driving** forces – 2023 **IRP**

- First Battery Storage project online May 2023
- Additional projects in development
- First IRP taking electric vehicle demand into account surging in future years





# **Responding to these driving forces – 2023 IRP**

Reference Build Plan (Preferred Plan)

- Extend VC Summer license
- Adds 5,025 MW of Solar and 1,600 MW of Battery over the planning horizon
- Adds Solar in every year from 2026 through 2049.





#### **Responding to these driving** forces – 2023 **IRP**

- Retires Wateree at the end of 2028
- Adds Solar and Battery in support
- Retires Williams by end of 2030
- Adds combined cycle natural gas in support of retirement





#### **Responding to these driving** forces – 2023 IRP

2040 and beyond

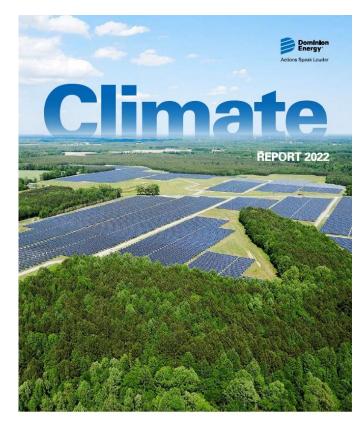
- Small Modular Reactors (SMR)
- Offshore Wind Generation





### **More Information**

- 2023 DESC Integrated Resource Plan (IRP)
- December 2022 Climate Report



A report based on the recommendations of the Task Force on Climate-related Financial Disclosures



#### More Information

 Annual Sustainability Reports







#### **Dominion Energy**

Country/Area: United States of America

<u>Year</u>	$\sim$	<u>Program</u>	<u>Status</u>	Score
2023		Climate Change 2023	No Response	Not Scored
2023		Water Security 2023	No Response	Not Scored
2022		Climate Change 2022	Submitted	A
2022		Water Security 2022	Submitted	A
2021		Climate Change 2021	Submitted	A-

Note: Not all companies requested to respond to CDP do so. Companies who are requested to disclose their data and fail to do so, or fail to provide sufficient information to CDP to be evaluated will receive an F. An F does not indicate a failure in environmental stewardship.



#### More Information

### **More Information**

• 2021 Diversity, Equity and Inclusion Report



