

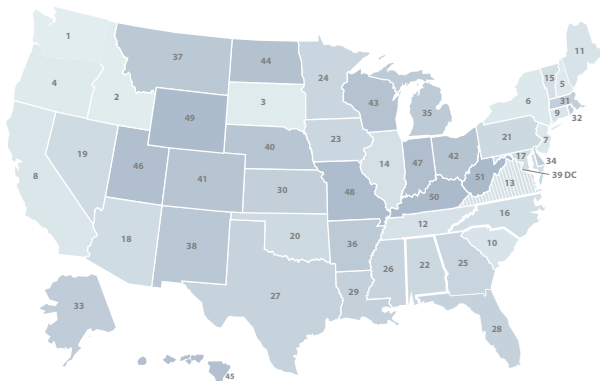
# HOW DOES VIRGINIA STACK UP ON CLEAN ENERGY?



DATA AS OF 2021



## LOWEST CO<sub>2</sub> EMISSIONS RATE



# #13

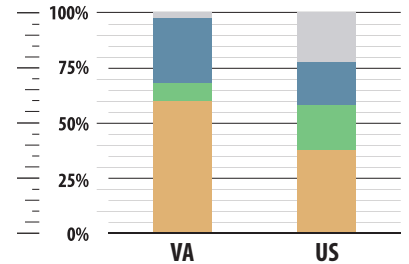
0.31 tCO<sub>2</sub>/MWh

CO<sub>2</sub> EMISSIONS RATE

0.1 tCO<sub>2</sub>/MWh 0.9 tCO<sub>2</sub>/MWh



## ELECTRICITY SOURCES



coal / other nuclear renewables natural gas



## CLEAN ENERGY JOBS

# #11

99,405  
(2021)



Growth/recovery since 2020 totaled 3,500 jobs (3.6%).



## CLEAN ENERGY RANKINGS

# #25

ENERGY EFFICIENCY  
SCORE = 18



# #9

61% GENERATION FROM  
NATURAL GAS



# #41

7% GENERATION FROM  
RENEWABLES



## RENEWABLE ELECTRICITY CAPACITY

# #7

1,202 MW  
(2021)

### NEW BUILD



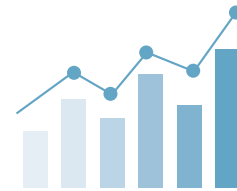
# #21

4,718 MW

### CUMULATIVE



# ENERGY INNOVATION IN A 21<sup>ST</sup> CENTURY ECONOMY



## WHAT ENERGY INNOVATION MEANS FOR VIRGINIA



**\$74.4 MILLION** Total Department of Energy funding in FY21

**\$19.8 MILLION** Office of Energy Efficiency and Renewable Energy Grants in FY21

**\$27 MILLION** Office of Science grants in FY21

**\$35.8 MILLION** Advanced Research Projects Agency-Energy grants since FY2009

**213 AWARDS** DOE Small Business Innovation Research (SBIR) since 2012

## IMPACTS OF FEDERAL R&D IN ENERGY SECTOR (TOTAL, 2018)

**#26** **460 JOBS SUPPORTED**

**#24** **\$53 MILLION CONTRIBUTED TO GDP**

## BUSINESS SPOTLIGHT

FEND INCORPORATED (ARLINGTON, VA) | [Fend.tech](https://fend.tech)



Fend protects energy infrastructure and industrial control systems from cyberattack using hardware that provides real-time information to operators while providing no physical way for hackers to breach a system. Fend has received funding from the Department of Energy's Solar Energy Technologies Office on a project to transition this technology into the energy market.