US Green Economy Report Series

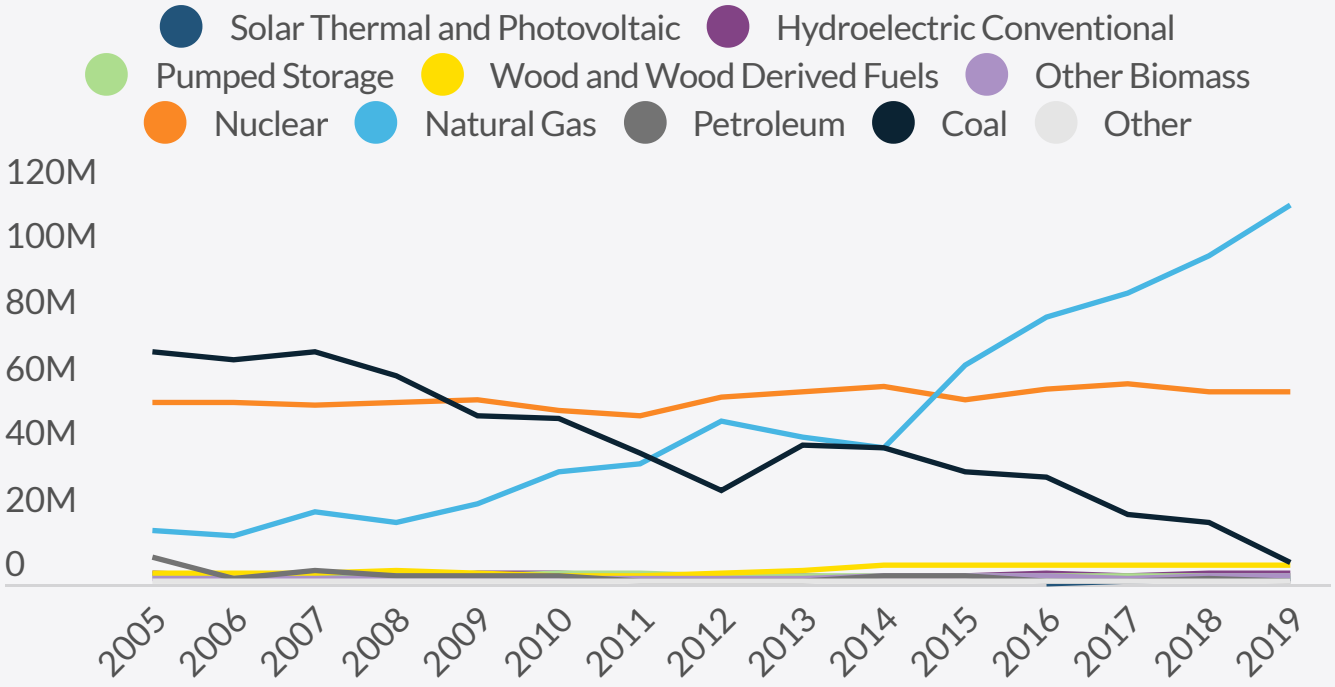
Case Study - Virginia

In 2020, Democratic Governor Ralph Northam signed the Virginia Clean Economy Act which set a mandate for 100% clean electricity by 2050. This legislation comes as Virginia has recently seen a sharp increase in both small-scale and large-scale solar photovoltaic capacity. By the middle of 2020, the state had 743 MW of solar capacity, bringing its rank to 16th in the country. Virginia's hydroelectric power accounts for about 2.5 percent of electricity generation, and the state sees potential in offshore wind in its Atlantic waters. Despite the growth of renewables, natural gas and nuclear still overwhelmingly dominate the electricity sector. In Virginia, Dominion Energy is a monopoly utility and has committed to transitioning to 100 percent clean energy, which is aligned with the Virginia Clean Economy Act. Since 2007, the state has passed a number of laws to provide funding and planning for flood preparedness, coastal protection and adaptation to sea-level rise. With Democratic majorities in both the Virginia House and Senate, further climate legislation is likely in the coming years. Virginia, a member of the US Climate Alliance, joined the Regional Greenhouse Gas Initiative (RGGI) in 2020, demonstrating its commitment to collaborate with regional players to mitigate emissions.

NEAR-TERM OPPORTUNITIES: STATE OUTLOOK BY TECHNOLOGY

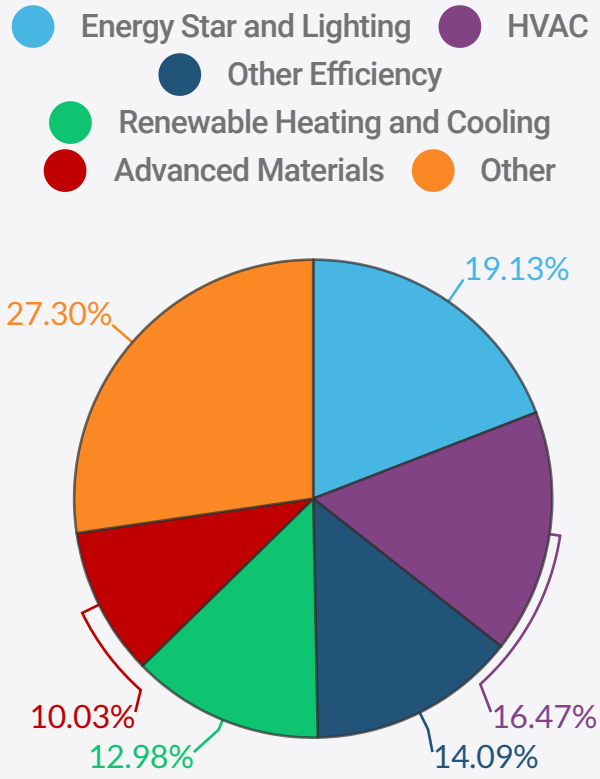
Technology	Overview	Outlook
Offshore Wind	Governor Northam signed legislation establishing an offshore wind target of 5,200 MW by 2034.	
Green Consultancy	Virginia has 2,810 environmental consultants and should grow with more rural utility-scale PV and offshore wind.	
Electric Vehicles	Virginia ranks 16th nationally on the ACEEE EV Scorecard and may have legislation for electric vehicle sales to increase annually.	
Energy Efficiency	Virginia is ranked 25th on ACEEE's 2020 State Energy Efficiency Scorecard and has seen modest improvement recently.	
Grid Modernisation	Virginia ranks 25th in the 2018 Grid Modernization Index and has mixed policy and investment support for the sector.	
Energy Storage	Virginia has demonstrated aggressive efforts to stimulate energy storage growth.	
Waste To Energy	Virginia ranks 19th nationally for biogas production potential and about 4 percent of its electricity generation comes from biomass.	
Hydrogen	Virginia has few incentives for hydrogen-fuelled vehicles and lacks infrastructure. Some private-sector interest may help the sector.	
CCUS	CCUS is included in Virginia's clean energy bill and utilities can pass costs onto ratepayers but the outlook is still moderate.	

ELECTRICITY GENERATION BY SOURCE IN MW (EIA)



CLEAN ENERGY JOBS

Top Five Sectors (2019)



2021 - 2025 JOBS PROJECTIONS

Full-Time Employee (FTE) Adds

9,432-14,794
Energy Efficiency FTEs Added

0 - 2,812
Energy Storage FTEs Added

3,356
Clean Vehicles FTEs Added

60-13,348
Offshore Wind FTEs Added

110,293 clean energy jobs (2019), **2.77%** of total state jobs