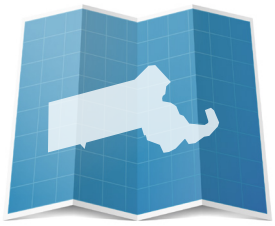
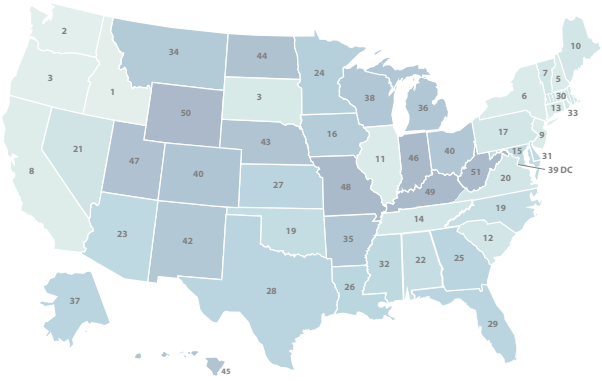
HOW DOES MASSACHUSETTS STACK UP ON CLEAN ENERGY?



DATA AS OF 2020

LOWEST CO_2 EMISSIONS RATE



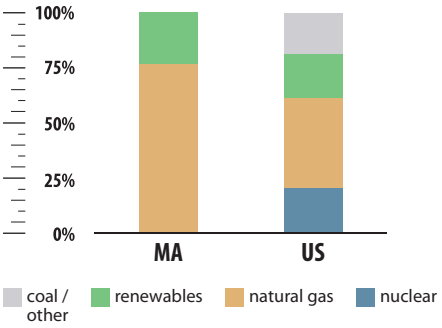
#30

0.40 tCO_2/MWh

CO_2 EMISSIONS RATE

0.1 tCO_2/MWh — 0.9 tCO_2/MWh

ELECTRICITY SOURCES



CLEAN ENERGY JOBS

#6

112,634 (2020)

COVID-19 job losses totaled at least 12,088 March-December 2020 (cumulative).

CLEAN ENERGY RANKINGS

#2

ENERGY EFFICIENCY SCORE = 43

#4

76% GENERATION FROM NATURAL GAS

#21

24% GENERATION FROM RENEWABLES

RENEWABLE ELECTRICITY CAPACITY

#32

111 MW (2020)

NEW BUILD

#28

3,449 MW

CUMULATIVE

CLEAN ENERGY BUSINESS NETWORK

The Business Council for Sustainable Energy®

DATA: COLOR SHADING ON ALL INFOGRAPHICS INDICATES PERCENTILE AMONG 50 U.S. STATES AND THE DISTRICT OF COLUMBIA. CLEAN ENERGY INDUSTRIES INCLUDED ARE ENERGY EFFICIENCY, RENEWABLE ENERGY, NATURAL GAS, STORAGE, AND ADVANCED GRID TECHNOLOGIES. SOURCES: BLOOMBERG NEW ENERGY FINANCE, BW RESEARCH, ENERGY INFORMATION ADMINISTRATION, AND AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY. COVID-19 2020 JOB LOSS CALCULATIONS BY BW RESEARCH DO NOT INCLUDE NATURAL GAS SECTOR AND DO INCLUDE ADDITIONAL DATA ON CLEAN VEHICLES, SO ARE NOT PERFECTLY ANALOGOUS WITH 2020 JOB DATA.

ENERGY INNOVATION IN A 21ST CENTURY ECONOMY

WHAT ENERGY INNOVATION MEANS FOR MASSACHUSETTS

- $38.7 MILLION Office of Energy Efficiency and Renewable Energy Grants in FY20
- $103.3 MILLION Office of Science grants in FY20
- $45.7 MILLION State and Indian energy programs, environmental cleanup, and other routine activities in FY20
- $241.5 MILLION Advanced Research Projects Agency-Energy grants since FY2009
- 90 GRANTS By ARPA-E since 2009

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

#16 990 JOBS SUPPORTED

#14 $144 MILLION CONTRIBUTED TO GDP

BUSINESS SPOTLIGHT

MEDLEY THERMAL (SOMERVILLE, MA) | www.MedleyThermal.com

Medley Thermal provides intelligent control system software for dynamic electrification, which is the process of switching between fossil fuels and electricity to power steam generation from a boiler. In a dynamically electrified system, an electric boiler is installed in parallel with an existing boiler system, creating a hybrid system. Medley Thermal's software enables switching between the energy sources optimally without disruption to the supply of steam. This allows a building to take advantage of electricity at times when it is inexpensive and clean, reducing energy costs and emissions associated with steam generation. The company has received $200k in Department of Energy grants to support development of its technology.

SOURCES: BIPARTISAN POLICY CENTER, USASPENDING.GOV, ARPA-E, BREAKTHROUGH ENERGY