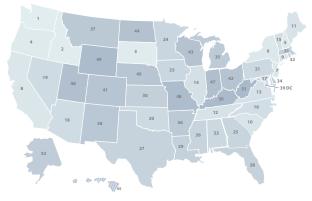
# HOW DOES HAWAII STACK UP ON CLEAN ENERGY?



DATA AS OF 2021





**#45** 

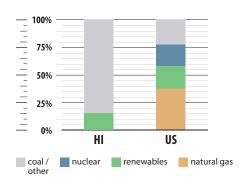
0.69 tCO<sub>2</sub>/MWh

CO2 EMISSIONS RATE

0.1 tCO2/MWh

0.9 tCO2/MWh







### **CLEAN ENERGY JOBS**

**#42** 





Growth/recovery since 2020 totaled 331 jobs (2.2%).



## **CLEAN ENERGY RANKINGS**

#14

ENERGY EFFICIENCY
SCORE = 28

**#51** 

0% GENERATION FROM NATURAL GAS

#23

16% GENERATION FROM RENEWABLES







# 

**#41** 

4 MW (2021) **NEW BUILD** 



**#40** 

1,516 MW

#### **CUMULATIVE**





**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 (2021), AND AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY (2020).

# ENERGY INNOVATION IN A 21st CENTURY ECONOMY

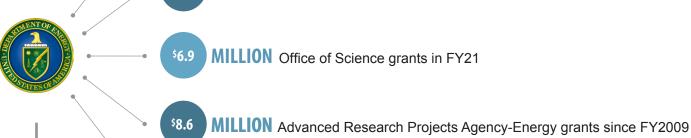




## WHAT ENERGY INNOVATION MEANS FOR HAWAII







41 AWARDS DOE Small Business Innovation Research (SBIR) since 2012

#49 20 JOBS SUPPORTED

#49 12 MILLION CONTRIBUTED TO GDP

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

### **BUSINESS SPOTLIGHT**

MAKAI OCEAN ENGINEERING, INC (KAILUA, HI) | Makai.com



Makai Ocean Engineering, Inc. is an innovative ocean technology and engineering firm. Makai's core technical areas include submarine cables, ocean energy, marine pipelines, underwater vehicles, buoys, and communications systems. The company has received funding from the Departments of Energy, Commerce, and Defense to support this research.