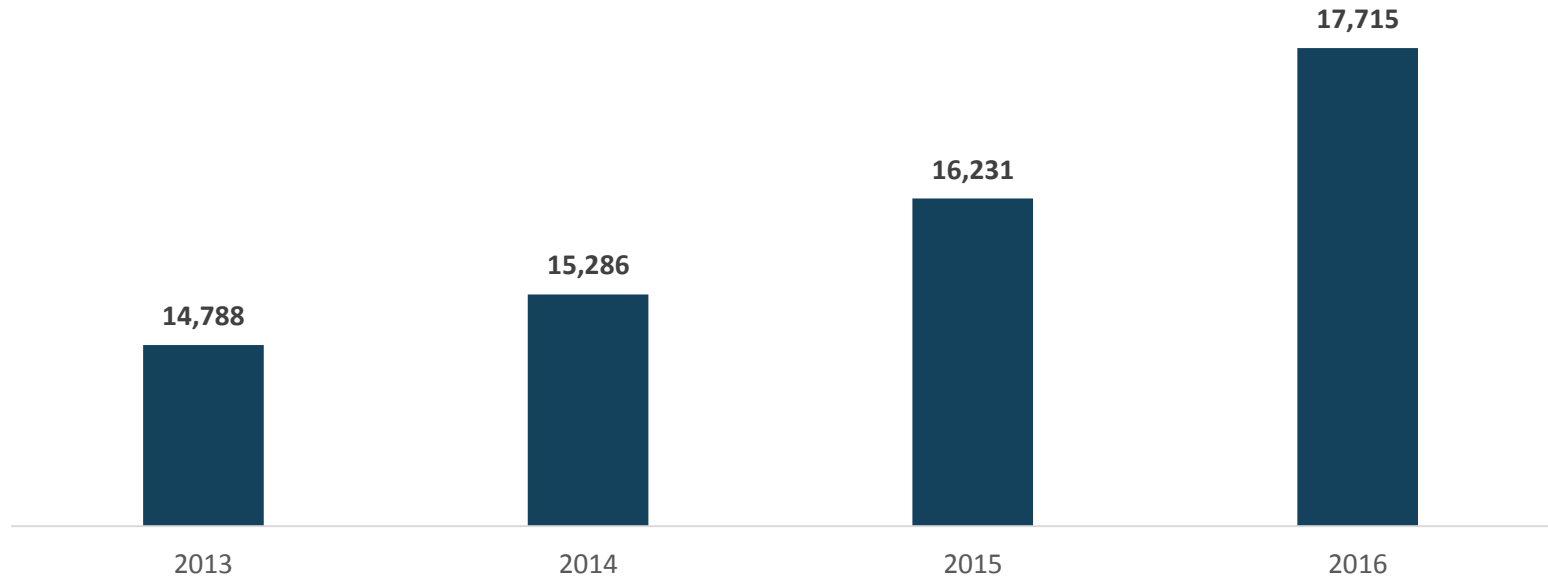


Vermont Public Service
Department
Clean Energy Development Fund
2016 Clean Energy Industry Report
Prepared by BW Research
Partnership

Andrew Perchlik
andrew.perchlik@Vermont.gov
802-828-4017
www.publicservice.vermont.gov

**Figure 1. Vermont Clean Energy (CE) Industry
Employment, 2013-2016**



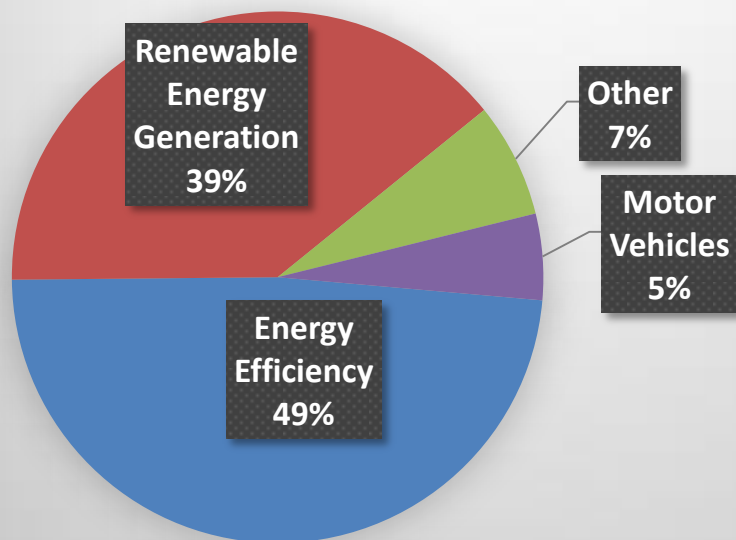
- **The Vermont CE cluster employs 17,715 workers at business establishments throughout the state, which represents approximately 6% of the state's workforce. The growth rate since 2013 was 19.8%.**
- **Installation accounts for 7,518 workers or 42% of CE workers, with engineering/research/professional services coming in with 4,170 workers (24%) and trade/distribution/transport counting 3,104 (18%).**

Workers Vs. FTE Jobs.

The Report tracks the number of workers/jobs when any amount of the work includes work in the clean energy industry. The Report doesn't calculate FTEs for the part-time workers but does capture the % of time the workers spend on clean energy activities. The survey does ask EE and RE companies what % of their CE employees work full time and at least half time on clean energy activities:

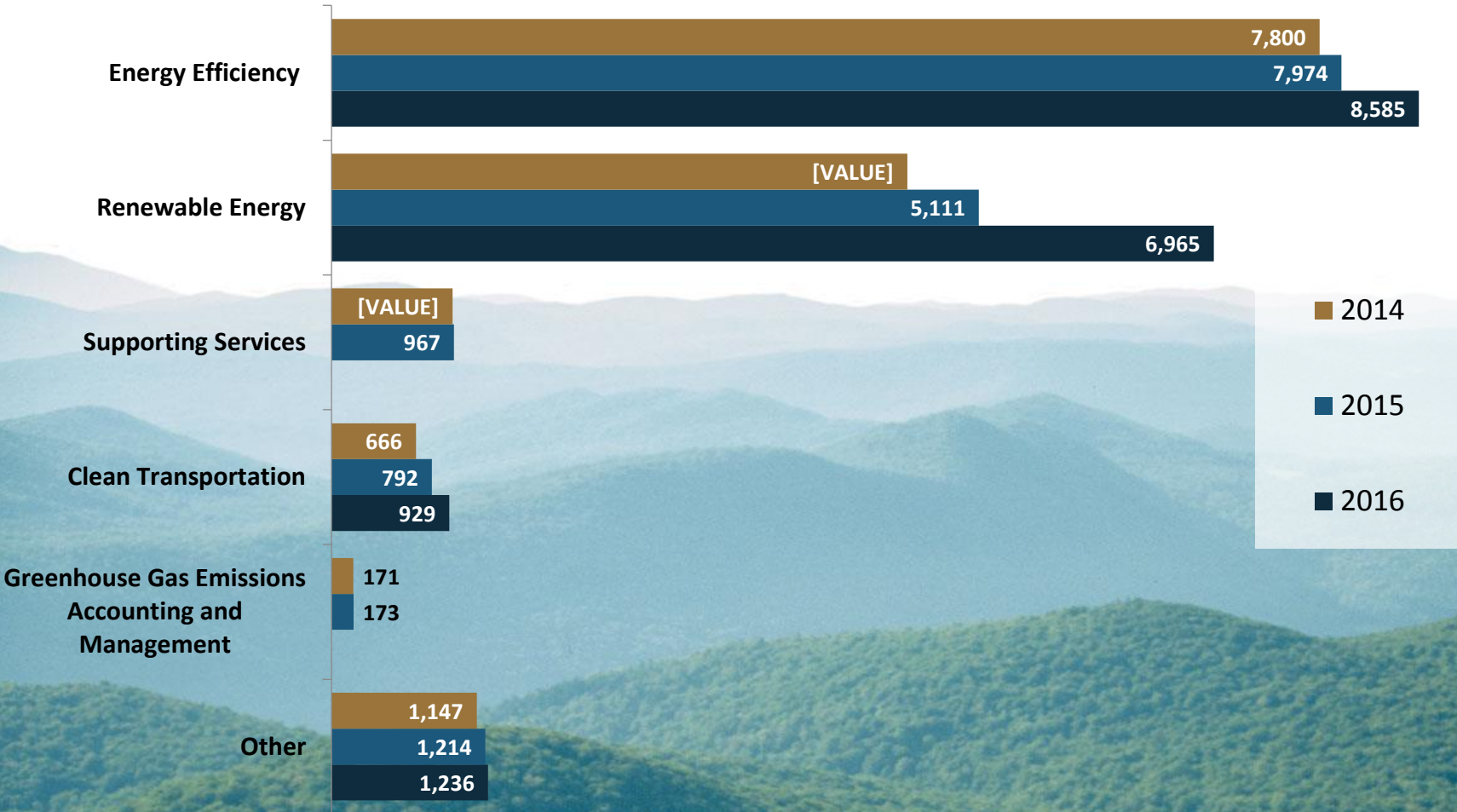
- Of the 8,585 reported EE workers 72% (6,181) of workers spend at least half of their time, and 38% (3,262) all of their time on energy efficiency activities.
- Of the reported 6,965 RE workers 71% (4,945) of workers spend at least half of their time on RE work and 57% (3,970) were reported to spend all of their time supporting renewable generation activities.

Clean Energy Technology Employment Breakdown, 2016



- Energy efficiency continues to form the largest segment, employing 49% of the CE workforce, but renewable energy workers expanded in 2016 again with 6,965 workers (39% of the total).
- Among renewable energy technologies, the solar sub-sector increased to more than 2,100 workers or 30.5% of all renewable energy workers.
- Workers in the woody biomass sector constituted 1,500 followed by non-woody biomass at 940, then renewable heating and cooling at 933.
- Wind hired 369 workers followed by hydro at 375.

Employment Growth by Technology, 2014-2016



Methodology

- The survey was developed by BW Research Partnership & conducted by both telephone and web; Castleton Polling Institute conducted the phone calls
- Excludes any employment in the retail trade NAICS codes—fuel dealers, motor vehicle dealership, appliance and hardware stores, and other retail establishments.
- Includes sole-proprietors (U.S. BLS does not)
- The margin of error at the 95% level of confidence for energy establishments in Vermont is +/- 5.54%.