



**Department of Commerce**  
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# **Growing Washington's Clean Energy Value Chain**

*Phase I Research*

September 2014

**Study Focus:** Identify and examine the supply chain for key clean energy enabling technologies manufacturing in Washington state.

## Washington State's key renewable enabling industries:

- Batteries
- Energy storage devices
- Smart grid controls and meters
- Inverters
- Advanced transmission and distribution equipment
- Controls software



# Methodology

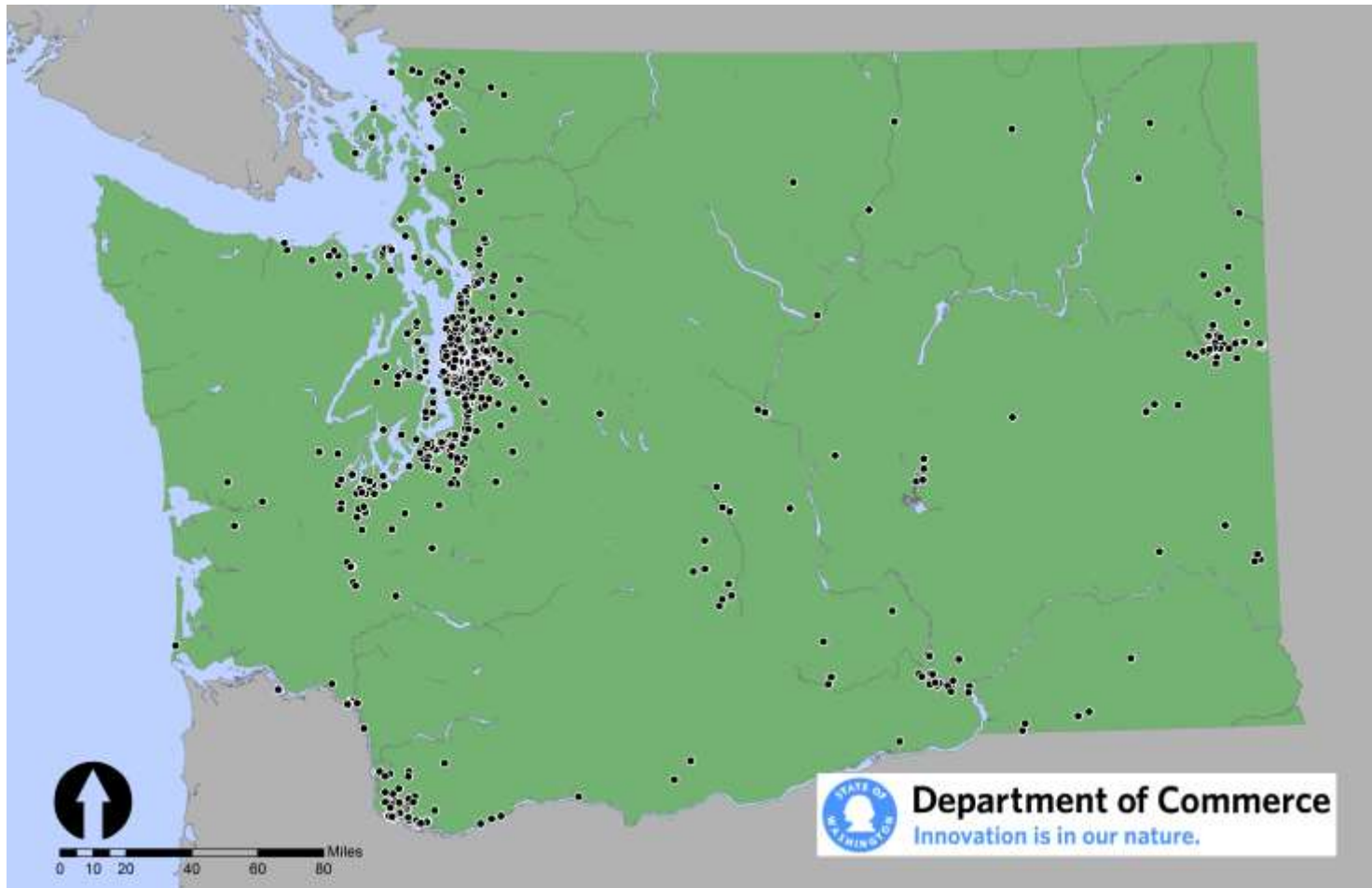


**Identify and examine the supply chain for clean energy enabling technologies manufacturing in Washington state.**

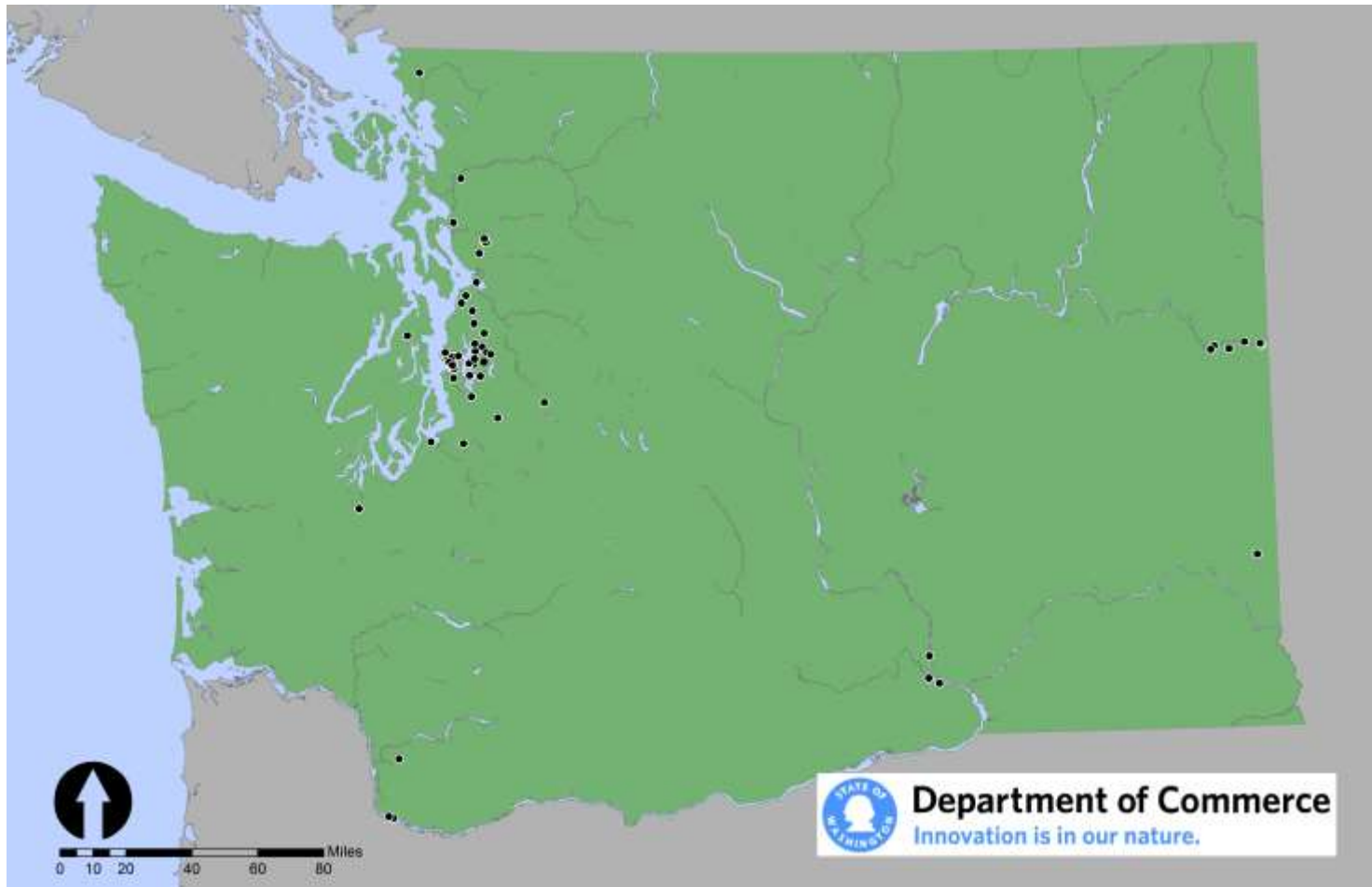
- Out of Washington's clean energy firms, 56 were sent surveys.
- To date, 16 firms have completed the survey. An initial email notification and one reminder were sent to firms in August. Calls to non-responding firms are being made in early September.
- Four responding firms have also been interviewed to better understand their position in the sector and their strengths, weaknesses and opportunities operating in Washington state.



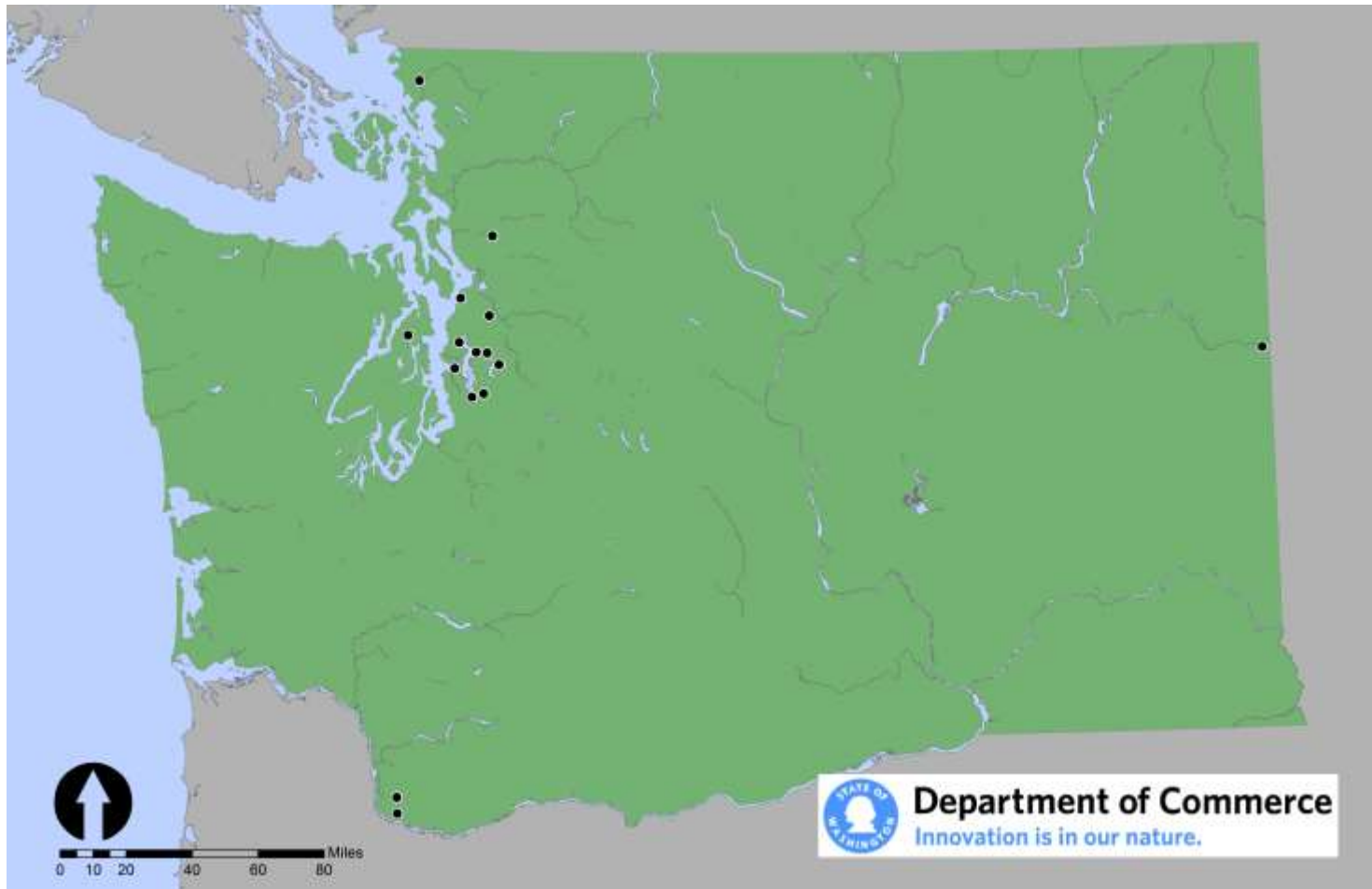
# Selected Clean Energy Firms in Washington



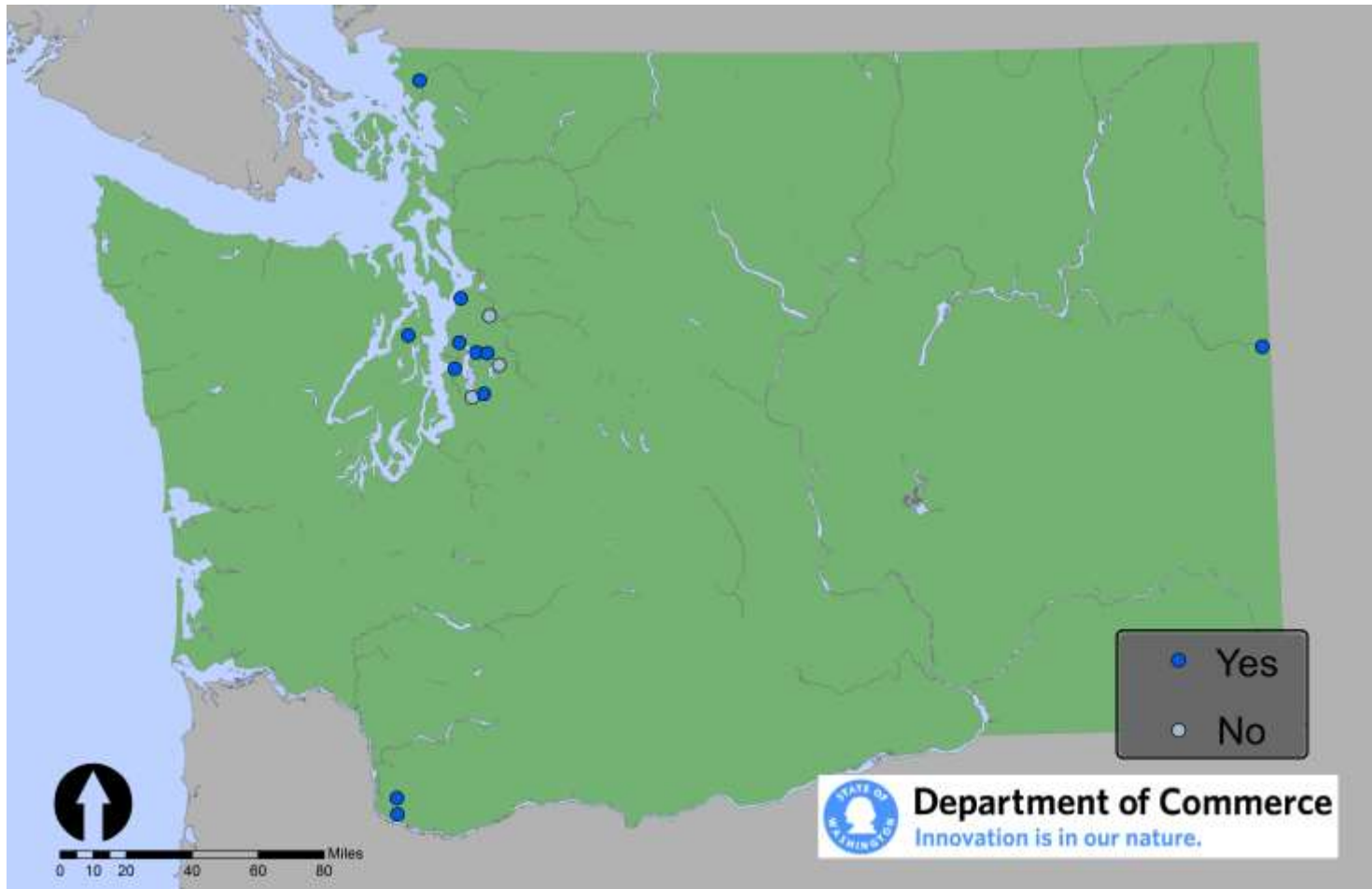
# Target Clean Energy Firms



# Respondents as of September 3, 2014



# Commercialized or developed a new product in the past 12 months?



# 1Energy Systems, Inc.

**Located in Seattle, 1Energy Systems, Inc. works in the distribution space before the meter, providing on-site energy storage and management .**

- Strengths of operating in Washington include access to Clean Energy Fund award thru the Snohomish PUD. The firm has been working with the PUD to implement Modular Energy Storage Architecture (MESA), a set of nonproprietary design and connectivity standards that provide a scalable approach for energy storage control system integration and optimization.
- Potential weaknesses might be the limited market in the state due to lower price of energy.
- Opportunities include proximity to University of Washington's software engineering graduates and the need to replace aging infrastructure.







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## **Cory Plantenberg**

Energy Programs Manager

360-725-3111

[Cory.platenberg@commerce.wa.gov](mailto:Cory.platenberg@commerce.wa.gov)