

# Clean Technology

Photo credit: cattleclassraveler on Flickr

## Greater Seattle

### A State for Sustainability

Greater Seattle and Washington State are leaders in the current global movement towards sustainability. The region is uniquely prepared for the task of finding renewable solutions, being home to cutting-edge research institutions, a prospering business environment and diverse workforce talent ranging from aerospace to IT. As of 2016, Washington State's cleantech sector employs 90,000 direct jobs and is backed by more than \$1 billion in angel investments and venture capital. These factors are making Greater Seattle a leader in cleantech with applications that range from sustainable buildings to agriculture.

## HOME TO THE LARGEST HYDROELECTRIC POWER STATION IN THE U.S.

### Economic Impact

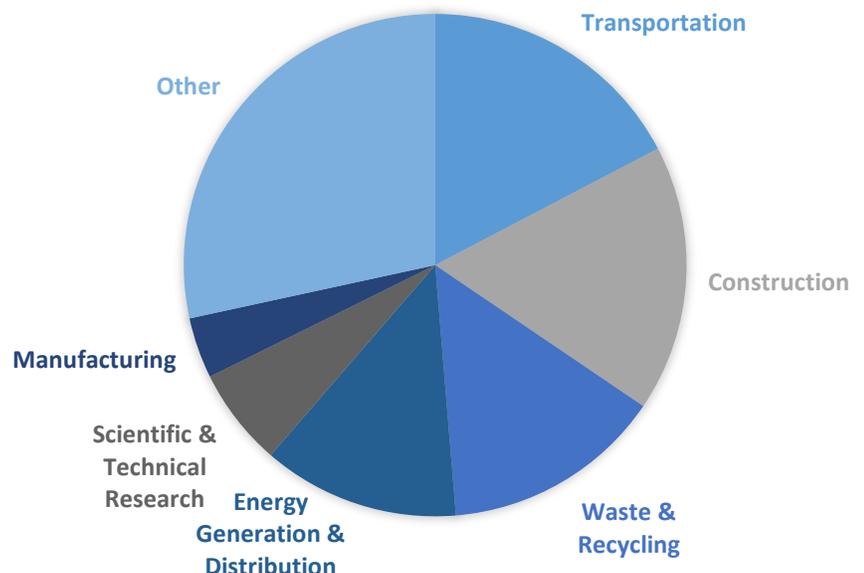
-CleanTech Alliance identified 90,000 direct cleantech jobs across Washington State.

-Washington State's most promising cleantech sectors include building efficiency, grid modernization & energy storage, renewables, and biofuels.

-Washington State has the nation's lowest residential electric rates. Electricity production in the state is composed of 74% hydroelectric, 10% other renewables, 9% nuclear, and 7% natural gas.

-Washington State is an exporter of electricity, supplying to the Canadian power grid as well as 13 US states as far away as California and the Southwest.

### CLEANTECH JOBS IN KEY INDUSTRIES IN WA



## FUN FACTS AND ACHIEVEMENTS

- Seattle's **Bullitt Center** was named the globe's most sustainable building in 2014 by World Architecture News.
- Seattle has more LEED (Leadership in Energy and Environmental Design) certified professionals than any other city in the country.
- The **Grand Coulee Dam** is the largest U.S. hydroelectric power producer.
- Washington State produces 25% of U.S. net hydroelectricity.
- Washington ranked 8<sup>th</sup> in Clean Tech Leadership Index for 2017 (Clean Edge).

The Bullitt Center. Photo Credit: Brad Kahn



## Innovation

Greater Seattle's mixture of innovation and invention creates dynamic partnerships between businesses and research institutions. Washington's \$76 million Clean Energy Fund is helping fund the cleantech movement and aims to leverage \$200 million in matching funds from industry partners over the next 10 years.

The **Pacific Northwest National Laboratory** is the Department of Energy's leading laboratory in chemistry and environmental sciences, and one of only 10 such federal laboratories in the United States. PNNL has research expenditures of nearly \$1 billion annually. Another leader in R&D is **Washington State University**. WSU is home to 16 research labs that are addressing energy needs. The university has filed 198 provisional and full cleantech patents. WSU is also the winner of the Washington CleanTech Achievement Award for 2015.

Some examples of innovative technology being explored are highly-efficient batteries that can store more energy produced by wind and solar panels and advanced computer systems for power grid management.

## International Investment in Washington Cleantech

International engagement in Greater Seattle's cleantech sector has been increasing rapidly over the past few years. Recent examples include a \$26 million investment from Orix, based in Japan, for UniEnergy Technologies in Mukilteo and Doosan, based in South Korea, acquiring 1Energy Systems in Seattle.

## RESOURCES:

### CleanTech Alliance

<http://www.cleantechalliance.org>

### E8

<http://www.e8angels.com>

### Office of Sustainability & Environment

<http://www.seattle.gov/environment>

### Pacific Northwest National Laboratory

<http://www.pnnl.gov>

### University of Washington Clean Energy Institute

<http://www.cei.washington.edu>

### Washington State University- Clean Technologies

<https://cleantech.wsu.edu>

## E8

Formerly known as Element 8 founded in 2006, E8 is a Seattle-based member organization of private, accredited angel investors who are focused on supporting cleantech startups. In 2016, E8 invested \$6.1 million in 27 innovative cleantech companies. E8 was the first angel group in the US dedicated solely to cleantech.

## CleanTech Alliance

The CleanTech Alliance is a business trade association that drives innovation and job growth to advance the regional economy. The largest CleanTech trade association in the US, its 300 member organizations represent a wide diversity of industries, business models, technologies and services. The Alliance undertakes policy advocacy, commercialization, business services and events that educate, enlighten and enhance profitability to help its members succeed.

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