



## Integration of Large-Scale Solar

The Horn Rapids Solar, Storage & Training Project in Richland provides Washington state its first opportunity to integrate a large-scale solar and storage facility into its clean mix of hydro, nuclear and wind resources. This first-of-its-kind facility combines solar generation with battery storage and technician training.

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The site is just north of Richland, on land owned by the International Brotherhood of Electrical Workers and leased by the Regional Education & Training Center. The project consists of a 4MW, 20-acre solar generating array of photovoltaic panels with enough energy to power 600 homes coupled with a 1MW battery energy storage system. The combination of photovoltaic solar with battery storage will provide a predictable, renewable generating source and also serve as a training ground for solar and battery technicians throughout the nation.

The City of Richland will be purchasing the power from the project and utilizing the benefits of the energy storage.

## Construction & Costs

In 2017, as part of its Clean Energy Fund, the state Department of Commerce granted up to \$3 million in matching funds to develop the estimated \$6½ million project. Construction is scheduled to begin during the fall of 2019, and end during early 2020.

## Solar Generation

Potelco, a utility construction company based in the Seattle area, will build and own the 4-megawatt solar portion of the project next to the Regional Education Training Center. Power from the project will supply the battery system and, through interconnection with the City of Richland’s energy distribution system, will be a source of energy for local loads.





## Energy Storage

Energy Northwest will own and operate the co-located battery storage system. The system will smooth the solar output, shift off-peak solar energy generation to times when the energy is needed, and help reduce peak energy demand. The 1MW/4MWh system has the capability to power 150 homes for four hours.

## Professional Training

Richland's Regional Education Training Center, a non-profit organization focused on training new and incumbent workers, will create a curriculum for solar and battery storage technicians. Training will cover plant construction, operations, maintenance, and safety and hazard prevention. Hundreds of workers from throughout the United States are expected to train annually at the center. Training dollars brought into the Tri-Cities are estimated at about \$3 million per year.



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## National Research

Working together, the Pacific Northwest National Laboratory in Richland and the University of Washington's Clean Energy Institute will monitor and analyze data from the project to develop improved battery designs and advanced tools for forecasting load, price, and solar in-feed.

## About Energy Northwest

Energy Northwest develops, owns and operates a diverse mix of electricity generating resources, including hydro, solar and wind projects – and the Northwest's only nuclear energy facility. These projects provide enough reliable, affordable and environmentally responsible energy to power more than a million homes each year, and that carbon-free electricity is provided at the cost of generation. As a Washington state, joint action agency, Energy Northwest comprises 27 public power member utilities from across the state serving more than 1.5 million ratepayers. The agency continually explores new generation projects to meet its members' needs. In 2016, the Association of Washington Business named Energy Northwest Employer of the Year.

Visit our website for more information about us. [www.energy-northwest.com](http://www.energy-northwest.com).

