



# Snohomish County PUD Arlington Microgrid

2320 California Street  
Everett, WA 98201

Number of Employees: 1,046  
Website: [snopud.com](http://snopud.com)

Year Founded: 1936

Region Served:  
Snohomish County & Camano Island

## Project Profile

### Components:

- 1 MW/1.4 MWh – Lithium-Ion Battery Energy Storage System with MESA\* compliant battery management system
- 500 kW AC Solar Array with Smart Inverters
- V2G – Vehicle-to-Grid System
- Microgrid Control System and Building Energy Management System
- Clean Energy Center

\*MESA: Modular Energy Storage Architecture, [mesastandards.org](http://mesastandards.org)

### Use Cases:

- Grid Resiliency and Disaster Recovery
- Renewable Energy Integration
- Grid Support & Ancillary Services
- V2G Integration

### Contact:

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**Project Address:** 17601 59th Avenue NE  
Arlington, WA 98223

### Project Overview:

The PUD has developed a microgrid and Clean Energy Center, just east of the Arlington Airport. A microgrid is localized generation and load that is normally connected to the grid but can be isolated or disconnected to operate independently. The project is supported by a \$3.5 million grant from the Washington Clean Energy Fund.

### What can we learn from this project?

The project will demonstrate how energy storage in combination with a renewable energy resource and a microgrid control system can be utilized for disaster recovery and grid resiliency as well as renewable energy integration and grid support. In addition, the project will demonstrate how intelligent solar PV controllers and vehicle-to-grid (V2G) systems can benefit the grid. The Clean Energy Center will allow the PUD to provide educational information about the project to customers and students.

The University of Washington plans to use the Arlington Microgrid to study the economics of microgrids, energy storage and solar in the Pacific Northwest. The project also provides an opportunity for researchers to explore the feasibility of using V2G technology, challenges of using a microgrid to provide renewable energy integration (solar) and seamless grid support during an emergency.

### Milestones:

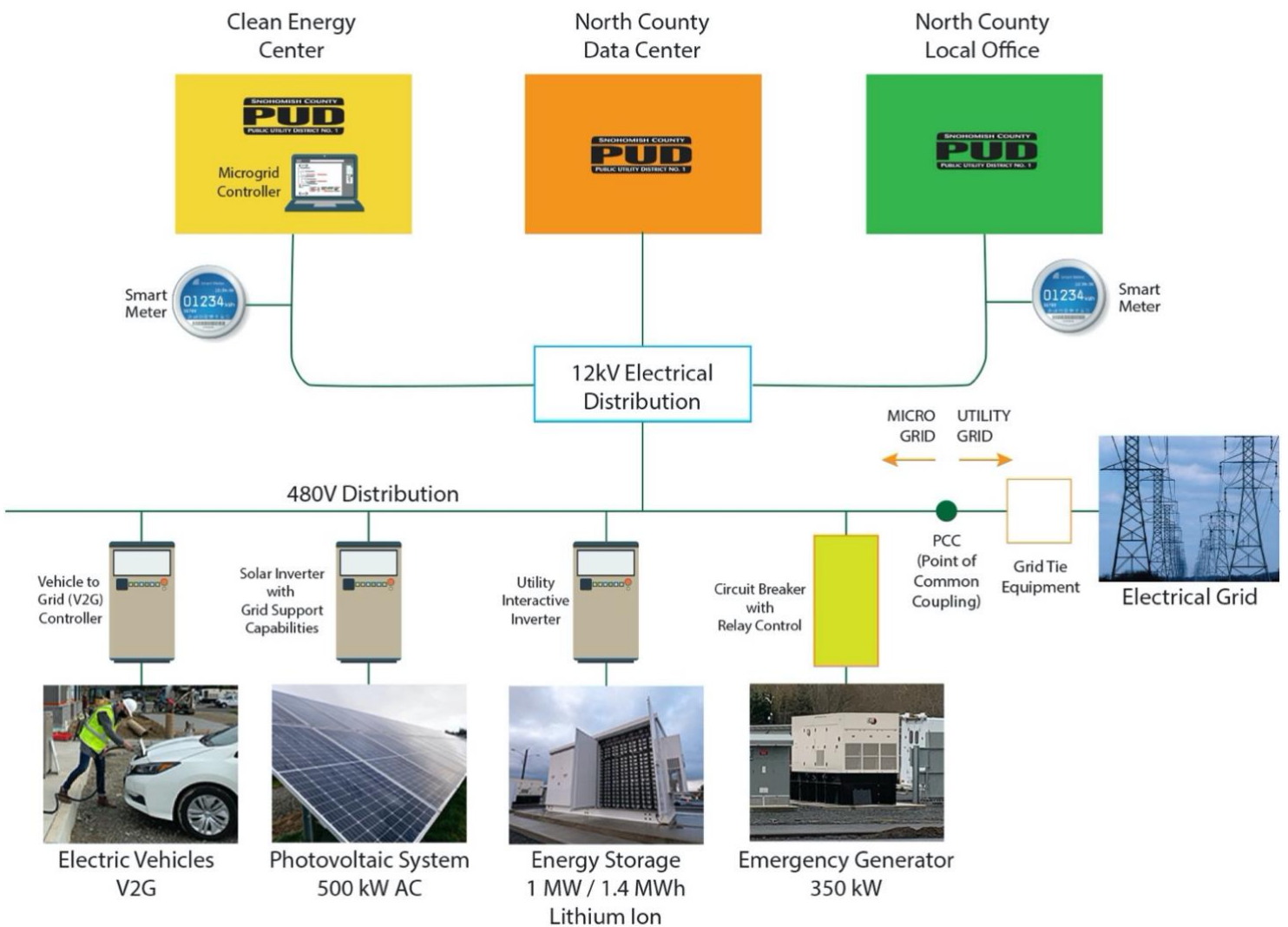
2018-2019:	Design & Phase I site work
2019:	Solar Array
2019-2020:	Clean Energy Center
2020 Q3:	Battery Energy Storage & Microgrid Control System procurement
2021 Q3:	Start-up, commissioning & report
2021-2033:	Operation & study

## Community Solar

- Largest community solar array in the state of Washington
- 500+ PUD customers reserved 100% of the available solar units in under a month
- Granted 10% of the units to two community service providers to benefit low-income households
- Program will produce energy and production credits for customers for 20 years

## Arlington Microgrid Contributors

Snohomish County PUD	Owner
WA Dept of Commerce	Financial Partner – CEF2 Grant
University of Washington	Contract – Modeling, Data Analysis & Reports
Burns & McDonnell	Contract – Owner’s Engineer
Mitsubishi Electric	Contract – V2G - Equipment and Support
A&R Solar	Contract – Solar Array Construction
Hitachi - ABB Power Grids	Contract – Battery and Microgrid Controls Supply
PUD Substation Crews	Battery & Controls Install



**About the PUD** – Snohomish County PUD serves one of the fastest-growing counties in the Pacific Northwest, delivering electricity to over 360,000 customers and water to about 22,000 customers. It’s currently the second largest public utility in the Pacific Northwest.