

**Renewable Energy Definition:**

Renewable power is energy made from resources that are naturally replenishing like sunlight, flowing streams, and wind. It's also made from Biogas, a by-product of modern living commonly released at dairy farms and landfills. These resources will not run out. They also have dramatically lower pollution rates than fossil fuels.

**Green Power**

A mix of renewable resources available at 100% match or in \$2 blocks, the renewable power is added to the grid on your behalf. Supports the development and operation of renewable energy projects and reduces our dependence on fossil fuels.

- Annual electric emissions without GP = 12,420 lbs. co<sub>2</sub>e (1000 kWh/mo)
- With a \$10.00 mos. GP purchase = 2.31 lbs. of co<sub>2</sub>e (average monthly usage 1000 kWh)
- Cost \$4 minimum purchase of a 400 kWh block
- PSE cannot use RECs from our customer GP purchases towards the State RPS.

Projects include: Swauk Wind, Ellensburg; Neal Hot Springs, Vale OR; Nooksack Falls Hydroelectric, Nooksack; and Van Dyk, VanderHaak, and Edaleen Dairies, Lynden, WA.

- Bellingham Stats:
  - Commercial Green Power customers in Bellingham: 148
  - Residential Green Power customers in Bellingham: 5599
  - 11% of GP customers are in Bellingham

**Solar Choice**

Just like Green Power, but the renewable resource is exclusively solar

- Annual electric emission without SC = 12,420 lbs. of co<sub>2</sub>e (1000 kWh/mo)
- With a \$20.00 mo. SC purchase = 4968 lbs. of co<sub>2</sub>e (average monthly usage 1000 kWh)
- Cost \$5 minimum purchase of 150 kWh solar choice blocks
- PSE cannot use RECs from our customer SC purchases towards the State RPS
- Projects include: Kingston Community Solar; Grandview Solar Farm
- Bellingham Stats:
  - Commercial Solar Choice in Bellingham: 3
  - Residential Solar Choice in Bellingham: 327

**Community Green Power Challenge**

- Bellingham Green Power Purchases increased 15% in 2016, during the challenge year. Typical increases in other areas are 3-5%
- Resulted in a \$50,000 grant from PSE for a solar installation (Taylor Dock)
- A previous challenge, in 2006-7 resulted in solar installations on the Environmental Learning Center and Depot Market Square.

**Powerful Partner Incentive for Green Power**

- In 2018, for every customer that signs on to Green Power, \$10 will go to the customers PSE Powerful Partner of choice. Whatcom County Power Partners:
  - Sustainable Connections, Skookum Kids, Kulshan Land Trust

**Green Direct**

Allows commercial and municipal customers the ability to purchase 100% of their power from a local renewable resource through a long term contract of 10, 15 or 20 years. The UTC approved the initial tariff in 2016 and recently approved a second round in late summer of 2018.

- 2 renewable energy projects being built in Washington state:
  1. Skookumchuck wind farm in Lewis County with 137 MW of power
  2. Solar Farm in SE Washington with 150 MW of power (largest in the state)
- Phase 1 sold out in June 2017; and Phase 2 sold out in August 2018.

**Net Metered Customers**

Customer connected generation of 100 kW or less. (rooftop solar)

- As of November 2018,
  - 1140 Net Metered Solar Customers in Bellingham
  - 7.9 MW of generating capacity in Bellingham
- That is 15% of the total customer-connected solar PSE has in our service territory
- For context, estimated offsets at about 8.7 Million kWhs per year and will reduce customer electric bills by around \$900,000 annually.

**Schedule 91 projects in Whatcom County**

Power producers that sell power back to PSE between .025 MW & 4.99 MW

- Farm Power Lynden = 750 kW
- Farm Power Rexville (Skagit) = 750 kW
- Vanderhaak Farm(Whatcom) = 450 kW
- Van Dyk Farm (Whatcom) = 472 kW
- Edaleen Dairy (Whatcom) = 750 kW
- Bloks Evergreen Dairy (Whatcom) = 19 kW
- RECs for schedule 91: PSE is allowed first right of refusal and will use them for Green Power Programs, not used for meeting the State RPS

**Community Solar vs. Solar Demonstration**

Community Solar is the financial investment and connection of multiple users to one solar array. Whereas a solar demonstration is the installation of a solar array that may benefit a global community but not one specific individual(s). (Taylor Dock & Depot Market plus others).

- Bellingham received 2 solar demonstrations through the Community Energy Challenge
- The table below is a list of privately owned solar arrays and solar demonstrations. Highlighted are COB demonstrations received through the Community Energy Challenge

Whatcom County Parks & Recreation	1.44
WHATCOM COUNTY PARKS	0.66
CITY OF BELLINGHAM	2.04
<b>CITY OF BELLINGHAM (DEPOT MARKET SQUARE)</b>	<b>2.38</b>
NORTHWEST INDIAN COLLEGE	7.92
OPPORTUNITY COUNCIL	2.45
OPPORTUNITY COUNCIL	3.08
OPPORTUNITY COUNCIL	2.86
Bellingham Housing Authority	20.7
Bellingham Housing Authority	18.4
Bellingham Housing Authority	12.4
OPPORTUNITY COUNCIL	19.3
BELLINGHAM TECHNICAL COLLEGE	22.23
NORTHWEST YOUTH SERVICES	9.84
BELLINGHAM CO-HOUSING	8.64
NORTHWEST INDIAN COLLEGE. SALISH RESEARCH FACILITY	24
WHATCOM COMMUNITY COLLEGE	13.4
BELLINGHAM FOOD BANK	13.2
Whatcom Transportation Authority	7.2
<b>City of Bellingham</b>	<b>8.26</b>