









COMMUNITY SOLAR AT SEATTLE CITY LIGHT

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Seattle City Light Facts

Municipal owned & "nation's greenest"

- £;592% hydropower
- ジジ 4% wind
- ξ_{i}^{\prime} : Net-zero carbon emissions

Service area

Seattle, Burien, Renton, SeaTac, Shoreline, Lake Forest Park, Tukwila, some uninc. King County

Statistics

\$\\$ 408,000 customer accts
 \$\\$ Retail load - 1,130 -1,150 aMW
 (9,506,400 MWh/year (2013))
 \$\\$ almost 1,500 solar
 generating customers and
 7.9 MW of installed solar!











Background – Solar at City Light

CUSTOMER GENERATION

Customers install solar photovoltaic (PV) systems on their own premises; SCL offers net metering services and state renewable energy production incentives

GREEN UP

Voluntary customer payment option that funds regional renewable energy projects (RECs), local solar projects on public facilities, education and

COMMUNITY SOLAR

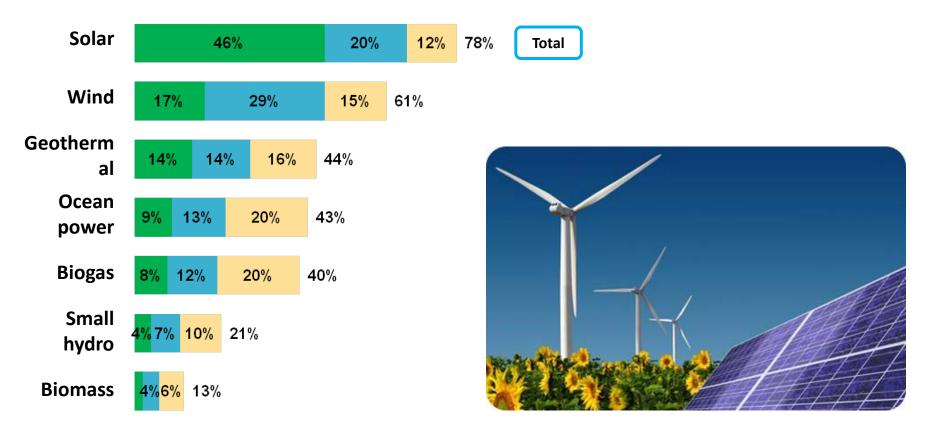
Customers purchase "solar units" of larger projects on public facilities and get shared benefits of net metering and state production incentives







Preferred New Sources of Renewable Energy





CEF Survey 3 Q1. If given a choice, which of the following new sources of renewable electricity generation would you <u>most</u> prefer? Please select your top 3 choices. *Base: All respondents (n=968)*



WHAT IS COMMUNITY SOLAR?

A DIFFERENT MODEL FOR SOLAR ENERGY

- One* larger solar array
- Many customers
- Locations are a good fit for solar -- sunny, visible to the public, and on properties that bring other public benefit to the community

PARTICIPANT BENEFITS

- Economies of scale & better siting
- Support solar in the community
- Low \$ entry level
- Customer enjoys financial benefits from his/her fraction of the entire project.



COMMUNITY SOLAR AT CITY LIGHT

State Law Shapes Community Solar in WA

- RCW 82.16.110 & WAC 458-20-273
- Scheme currently set to expire June 30 2020

Grant-funded Origins

- DOE Solar America Cities Grant 2008
- DOE Solar America Cities Special Projects Grant 2010

Program Design

- Hosts chosen for community & conservation orientation/mission
- SCL builds, customers "pay back," Host gets long-term benefit

GENERAL PROJECT INFORMATION

- Solar units cost \$150; each represents a 28 watt piece of the system
- Customers can buy from 1 125 units
- Current WA state production incentives (\$1.08/kWh) and bill credits for the energy produced (about 7.5 cents/kWh) add up to \$1.16 per kilowatt-hour of electricity
- Online enrollment system available; charges are divided into 2 equal payments across 2 bills
- Annual payments/credits should add up to more than unit cost (
- Monitoring systems provide live data and are available to see online (<u>http://portfolio.deckmonitoring.com/city_of_seattle</u>)



WHERE IS COMMUNITY SOLAR IN SEATTLE?

Jefferson Park Shelters



Community Solar Participants



Seattle Aquarium





PHINNEY RIDGE PROJECT – 2 HOSTS, 3 SITES

- State's largest community solar project at 74.79 kW (2671 solar units)
- Made-in-WA Itek modules and inverters
- Phinney Neighborhood Association emphasizes
 "community." PNA's programs include sustainable
 home improvement programs & a tool-lending library
- Woodland Park Zoo has strong conservation and sustainability missions and believes it has a responsibility to inspire people across our region to improve the health of our environment by modeling sustainability
- Zoo's Rainforest Food Pavilion gets over 500,000 visitors annually (total zoo visits top 1.25 million/year)
- Should return about \$187 per each \$150 unit by end of project in mid-2020







CAPITOL HILL ECODISTRICT – SOLAR PLUS AFFORDABLE HOUSING

- Hosted by affordable housing provider Capitol Hill Housing. A public municipal corporation, CHH provides affordable apartments to more than 1,700 residents
- "Ballasted" system on the flat roof of a 30 unit apt. building located in the heart of the Capitol Hill EcoDistrict – a neighborhood-based sustainability initiative serving the most densely populated urban village in the PNW
- 25.92 kW (925 solar units)
- Made-in Washington Itek modules & inverters
- When system ownership passes to CHH in 2020, the electricity it generates will lower the operating costs for the Holiday Apartments and other CHH properties, directly benefitting low-income tenants





Questions?

