

Oregon Community Solar Program

AQPER Colloque/Symposium 2020
Québec, QC, Canada
6 February 2020

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NW Energy Coalition
for a clean and affordable energy future

NW Energy Coalition

The NW Energy Coalition is an alliance of about 100 environmental, civic, and human service organizations, progressive utilities, and businesses in Oregon, Washington, Idaho, Montana and British Columbia. We promote development of renewable energy and energy conservation, consumer protection, low-income energy assistance, and fish and wildlife restoration on the Columbia and Snake rivers.

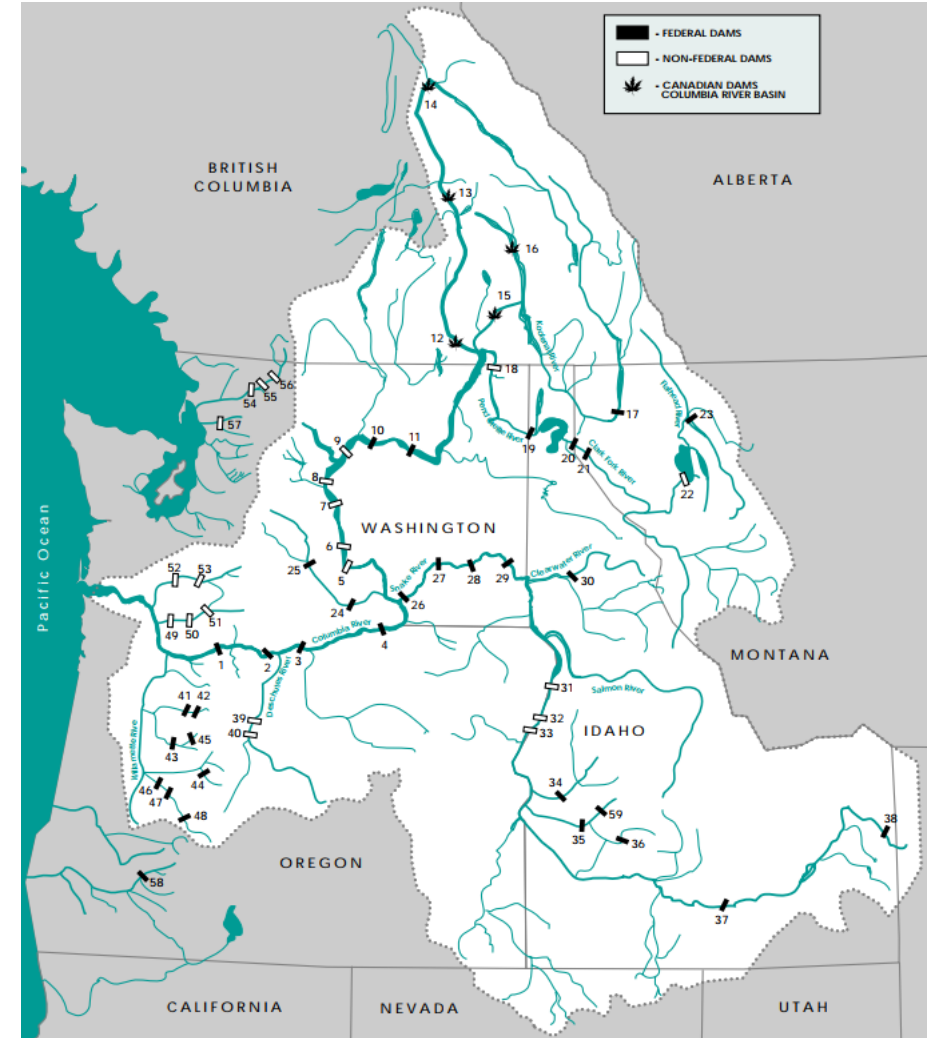
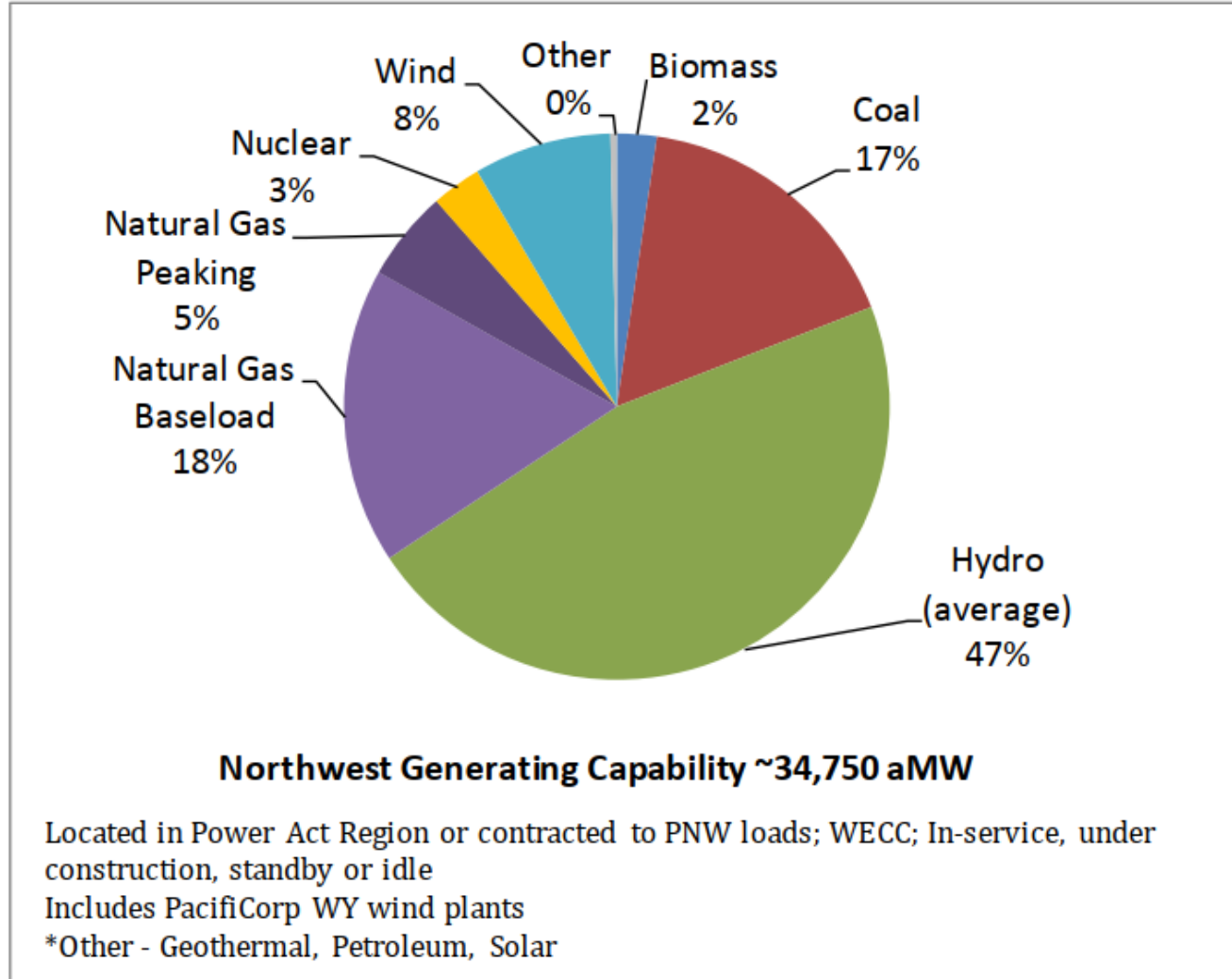


NW Energy Coalition

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www.nwenergy.org

US Northwest Resource Mix



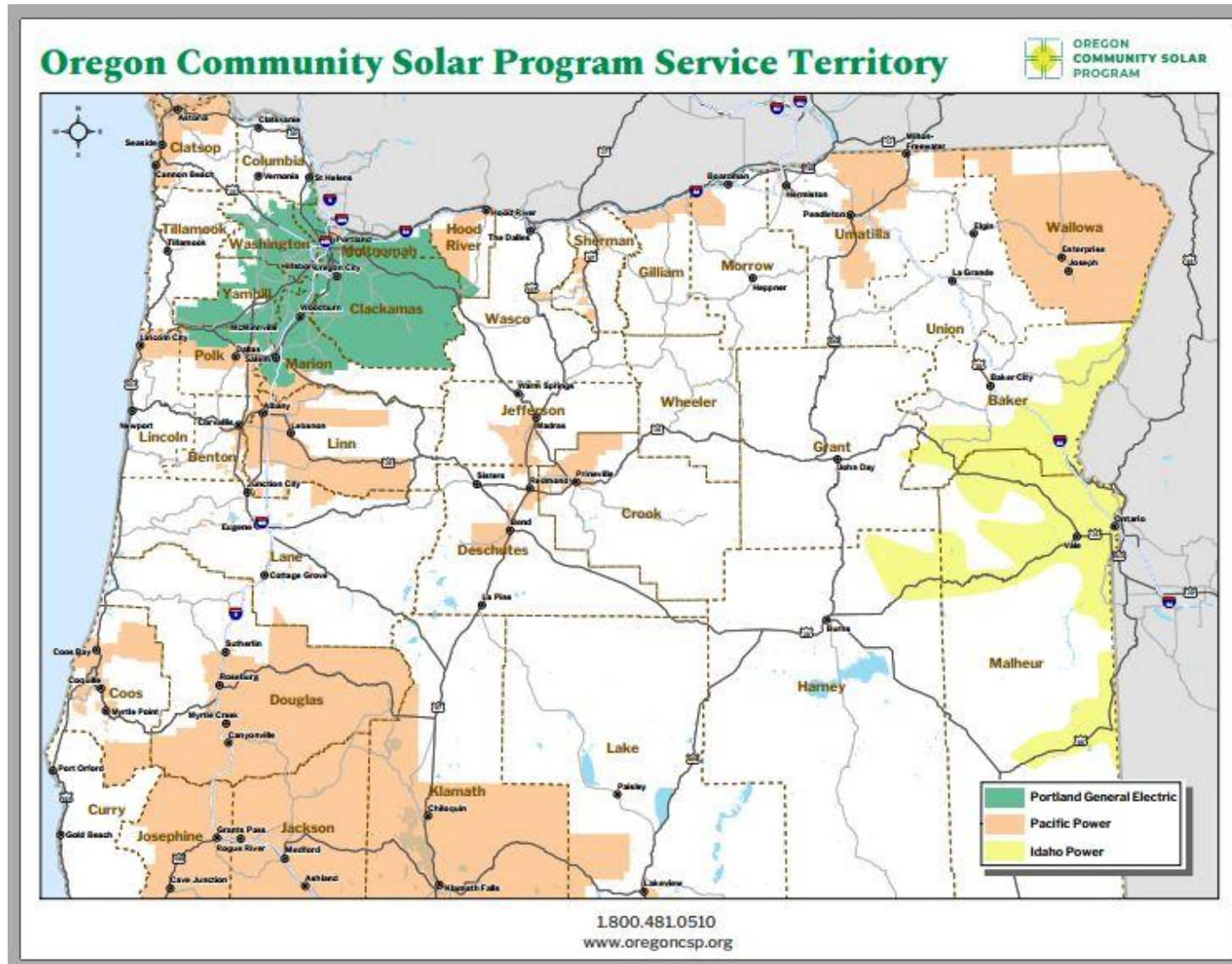
NWEC supports community solar

- Shared ownership of solar facilities
- Can be one or more:
 - Located in a specific community
 - Offered to a specific community
 - Managed by a community organization
- Development principles
 - ✓ Increase the use of renewable energy
 - ✓ Open up solar for all – equitable and meaningful access for underserved communities – low-income, communities of color
 - ✓ Tangible economic benefits for customers
 - ✓ Flexible forms of ownership
 - diversify sources, ownership, employment

Oregon Community Solar Program

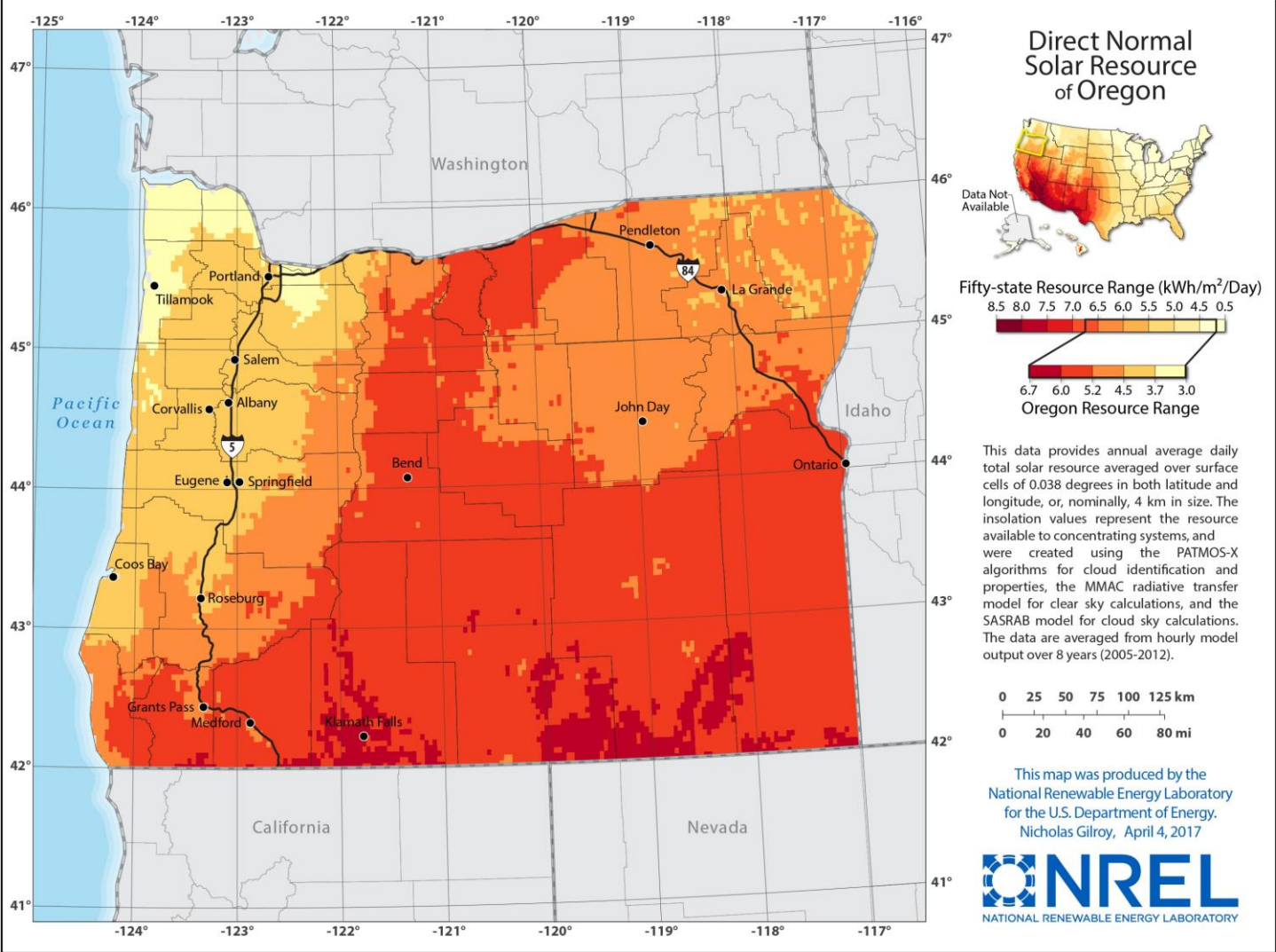
- Established by state law (SB 1547, 2016)
- Applies to investor-owned utilities (75% of state)
- “Solar garden” model (Minnesota, Colorado) – utility pass-through, on-bill crediting, voluntary participation
- Oversight by Oregon Public Utility Commission (OPUC) – consumer protection, competitive market, accountability, transparency, promotes public interest
- Program development complete, now in early implementation
- Project certification opened January 21
- Project subscriptions start spring 2020 as projects are certified
- Community solar projects online – fall 2020

Oregon utilities and community solar



- IOUs serve about 75% of state and are in the CSP
- Portland General Electric, 900,000 customers (green)
- Pacific Power, 600,000 customers (beige)
- Idaho Power, 20,000 customers (yellow)
- *Some public power utilities also have community solar projects (City of Ashland developed first project in 2007)*

Oregon's Solar Resource



Oregon CSP development

- 2013 – Oregon community groups and renewable advocates create informal network to promote community solar
- 2016 – Oregon Legislature passes SB 1547, Clean Electricity and Coal Transition Act, to retire coal-fired power while doubling Oregon’s renewable energy by 2040; includes section establishing community solar program
- 2016-19 – Oregon Public Utility Commission (OPUC) engages in comprehensive rulemaking (dockets AR 603, UM 1930) with stakeholder collaborative process
- 2019 – Oregon CSP program administrator chosen: Energy Solutions, with low-income program support by Community Energy Project
- 2019 – Program Implementation Manual (PIM) adopted
- January 21, 2020 – project certification window opens

Oregon CSP Program Elements (1)

- **Initial program capacity** set to 2.5% of IOU retail load:
 - Portland General Electric, 93 MW
 - Pacific Power, 65 MW
 - Idaho Power, 3 MW
- **Interim program tier:** 50% for PGE, PAC; 100% for Idaho Power
 - Allows early adjustments and program refinement
 - Bill credit rate = current retail rate (10-12 cents/kWh, no annual escalator, up to 20 year contract term)
 - *OPUC intends to reduce bill credit rate to Resource Value of Solar (RVOS, 4-6 cents/kWh) at a later stage*
 - Priority for small (< 360 kW), non-profit and public agency projects – 25% program carveout

Oregon CSP Program Elements (2)

- **Project size:** 25 kW to 3 MW
- **Project managers** can be any type (community organization, business, public agency, utility)
- **Project and subscribers must be within utility service area**
- **Customer subscriptions** up to average annual use (residential customers typically use about 10,000 kWh/year; larger customers have 2 MW cap)
- **Project subscriptions:** 5 or more, at least 50% residential, no single owner > 40%
- **All customers eligible to be subscribers**

Oregon CSP Program Elements (3)

- **Low-Income mandate (SB 1547)** – 10% of program must be offered to low-income customers
 - ✓ Adopted program rule: 10% set-aside per project, 5% minimum participation, at least 20% bill discount
 - ✓ Detailed attention to many aspects of low-income access, significant involvement by low-income and affordable housing advocates and agencies, high priority for NWECC
- **Interaction with other programs:** renewable portfolio standard (RPS), renewable energy credits (RECs), alternative resources (PURPA), federal tax credits, Energy Trust of Oregon
- **Cost recovery** for utilities and program administrators
- **Utility connections** – difficult issues with existing interconnection queues; program rules provide relief for small (< 360 kW) projects

Oregon CSP: At the Starting Gate

- Strong points
 - ✓ Multi-hundred MW opportunity
 - ✓ Program flexibility, transparency and accountability
 - ✓ Detailed program design and Program Implementation Manual
 - ✓ Firm commitment to equitable access
 - ✓ Support by public, community groups, legislators, OPUC, utilities, developers
 - ✓ Falling costs for solar

Oregon CSP: Areas for Improvement

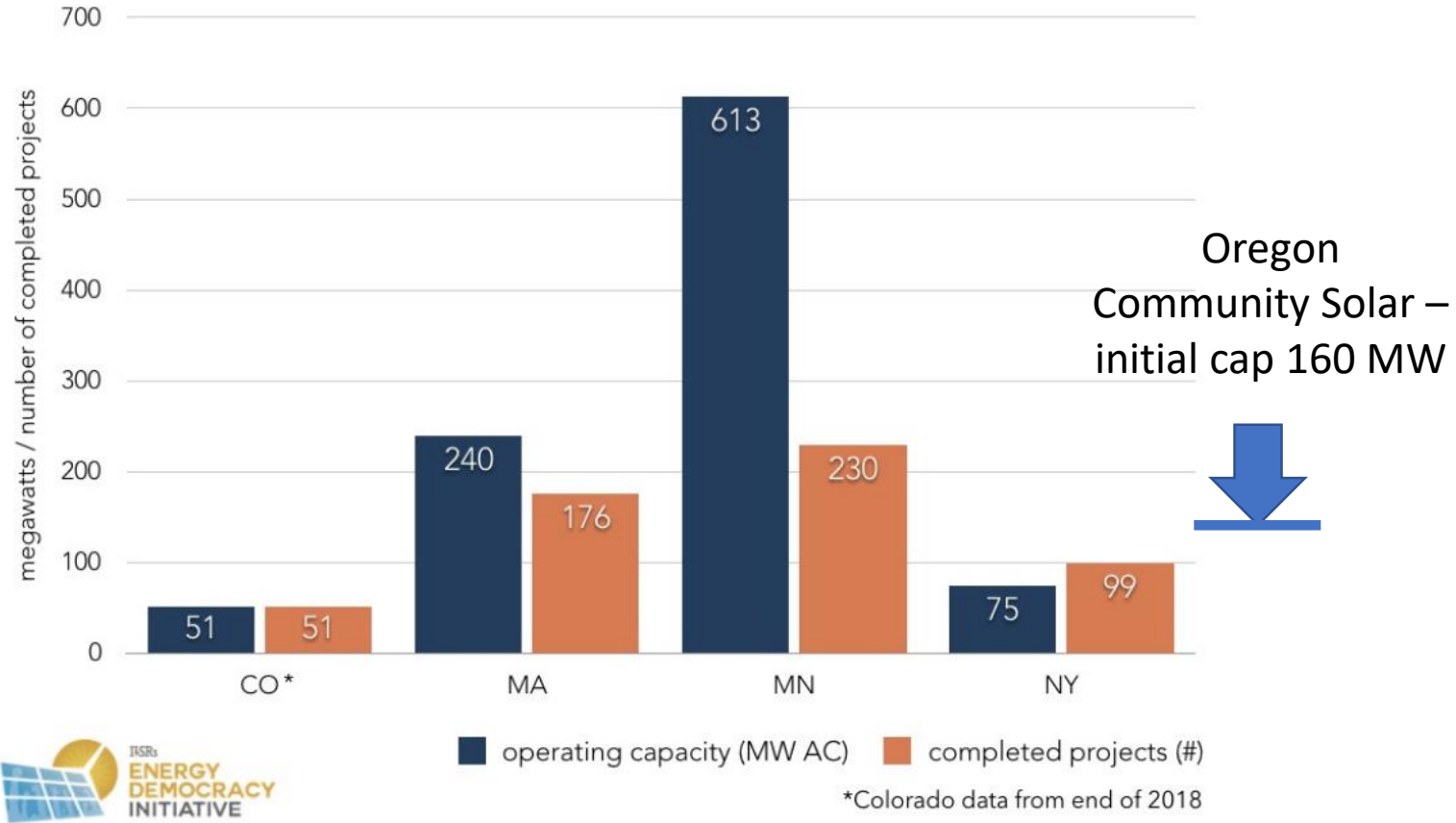


- Bill credit rate
 - Initial program tier at retail rate
 - Lack of annual escalator substantially decreases subscriber value
 - RVOS (wholesale value) poor fit for CSP (retail program) going forward
- Restricted geographic access
 - Limitation to utility service area reduces program value – eastern/southern Oregon solar resource is 40% better than Portland
 - Willamette Valley high-value farmland restriction



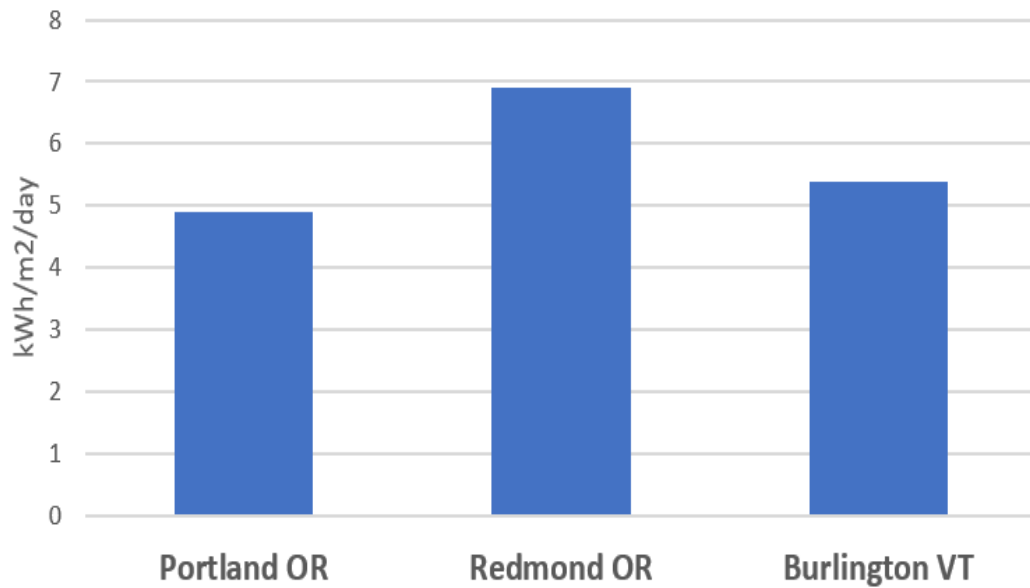
STATE COMMUNITY SOLAR PROGRAMS

STATUS UPDATE: 2019 Q3

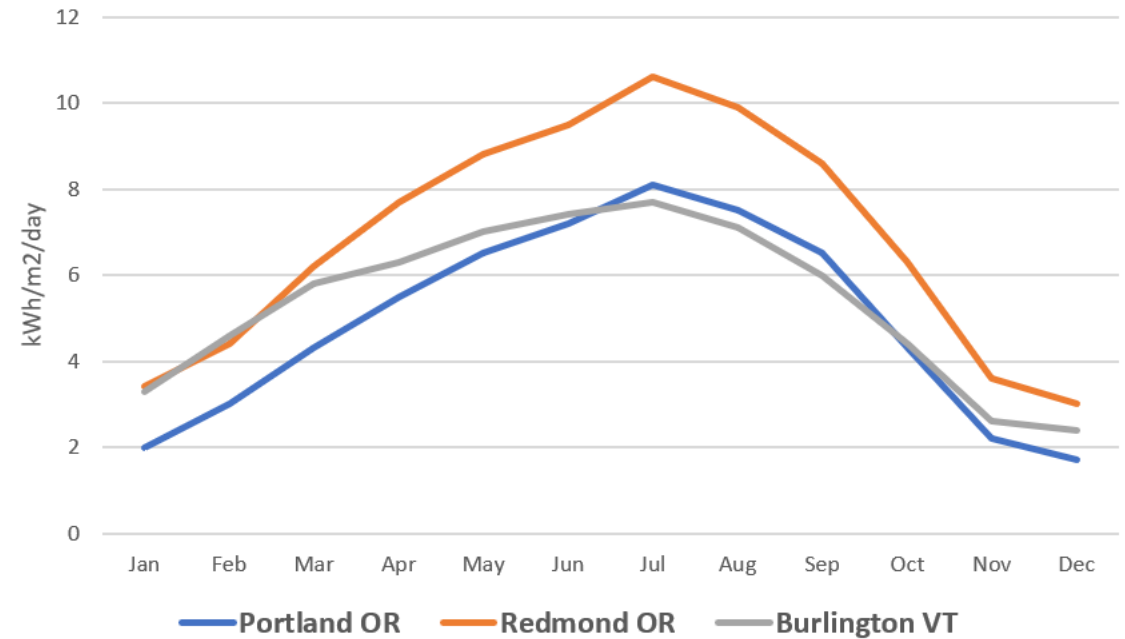


Community Solar can work everywhere!

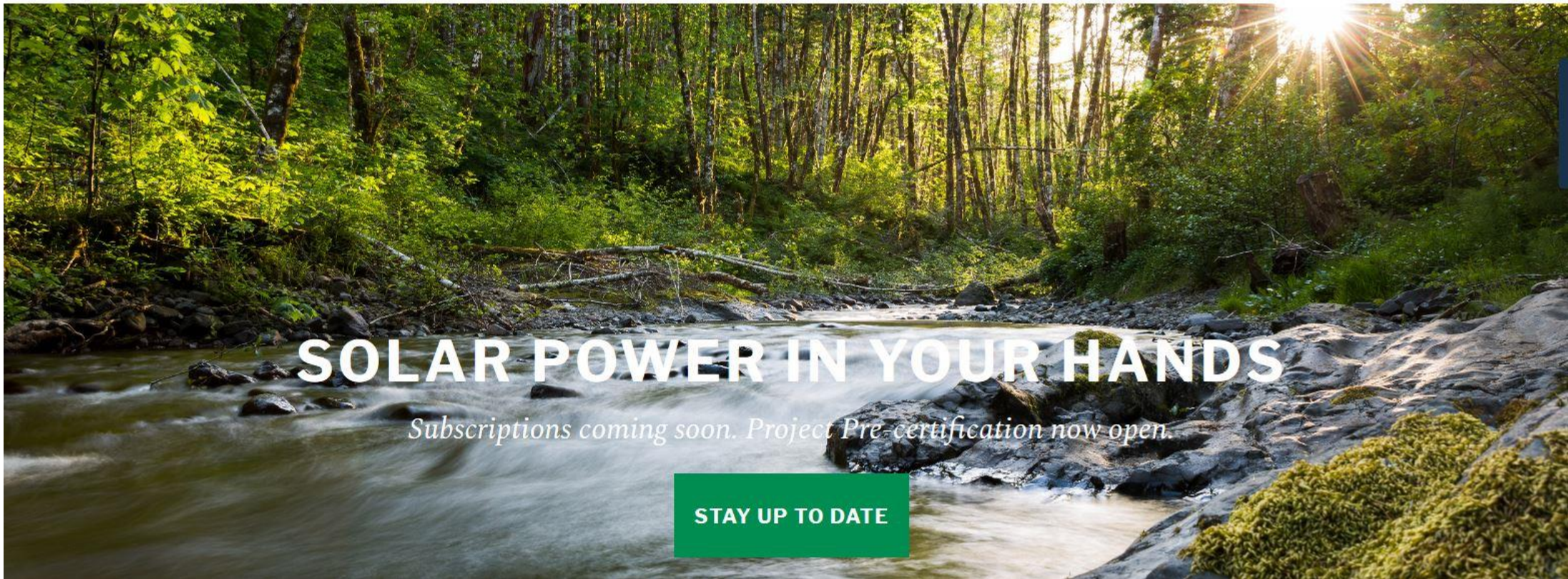
Solar DNI, single axis, latitude tilt -- annual



Solar DNI, single axis, latitude tilt -- per month



Data from NREL Solar Radiation Data Manual



SOLAR POWER IN YOUR HANDS

Subscriptions coming soon. Project Pre-certification now open.

STAY UP TO DATE