Community Solar Models

Evan Ramsey | October 17, 2017
Evan’s Background

• Director of the Renewable Energy Group
• 10yrs. Solar experience
• SolarCity, leading solar company
• Experience with residential, commercial, government, and utility scale installations
• Primary consultant to utilities, tribes, schools
• Have been at BEF 3 years
Community Solar

Community Group Purchasing

Offsite Shared Solar

Onsite Shared Solar (Multi-Unit Building)

Community-Driven Financial Models

Image Credit: US Dept. of Energy
Community Solar Growth

59% compound annual growth rate
between 2014 and 2020

Annual Community Solar Installations (MWdc)

Share of U.S. Solar (%)

Image Credit: NREL
All Community Solar 2010
Residential Solar Cash flow

5 year payback and 118% Lifetime ROI
Lane Electric
Community Solar Cash flow

Lane Electric:
- 25kW System
- $1200/panel (325 watts)
- With $1.40/watt in incentives
- 8.9 cents/kWh
- 28 year payback
Community Solar Cash Flow

Emerald PUD:
- 85kW System
- $480/panel (320 watts)
- With $1.70/watt in incentives
- 7.8 cents/kWh
- 14 year payback
Emerald Peoples Utility District

• First low-income community solar project in the Northwest
• 45 households will be assigned energy generation from one panel each at no cost
• Low income portion funded by grants, energy assistance payments, and other participants


Source: Clean Energy States Alliance and Kevala Analytics
Affordable Housing Solar in WA

- Funded by grants, debt, and equity
- Benefit to housing provider, savings directed into “tenant fund”
- Some of the first affordable housing solar projects in WA
Affordable Housing Solar in OR

- Funded by grants only, debt averse
- Potentially a first in Oregon
- Savings directed to tenants through Oregon’s community solar program
BEF’s Partnerships
Solar Plus Coalition

- US DOE Sunshot grant of $2m
- Solar Plus is a regional effort in OR and WA to plan and implement state strategies to equitably achieve the full technical, social, and economic benefits of solar.
## Energy Services – Annual Funding

<table>
<thead>
<tr>
<th>Program</th>
<th>Source</th>
<th>Annual Funding</th>
<th>Program Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Income Home Energy Assistance Program (LIHEAP)</td>
<td>Federal</td>
<td>$35 million</td>
<td>Energy Assistance</td>
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<tr>
<td>Oregon Energy Assistance Program (OEAP)</td>
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<td>Energy Conservation Helping Oregonians (ECHO)</td>
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<td>$8.6 million</td>
<td>Weatherization</td>
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<tr>
<td>Bonneville Power Administration (BPA)</td>
<td>Federal</td>
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<td>Weatherization</td>
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<td>LIHEAP Weatherization</td>
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<td>USDOE Weatherization Assistance Program (DOE WAP)</td>
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<td>Multi-Family Weatherization Assistance</td>
<td>State</td>
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<td><strong>Total:</strong></td>
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<td><strong>$74 million</strong></td>
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</tbody>
</table>

Source: Oregon Housing and Community Services
Energy Equity and Solar

Colorado: low income customers paid (renewable surcharge) $60m since 2006 with no access to direct benefits. (Grid Alternatives)

“Repurposing existing flat rate subsidy programs toward rooftop solar investments could, on average, reduce low-income homeowners electricity bills by 48% “
Should Existing Energy Subsidies be used for Solar?
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