

A photograph of a solar farm in a grassy field with mountains in the background under a blue sky. The solar panels are arranged in long rows, and the field is green with some yellow wildflowers. The mountains are in the distance, and the sky is clear and blue.

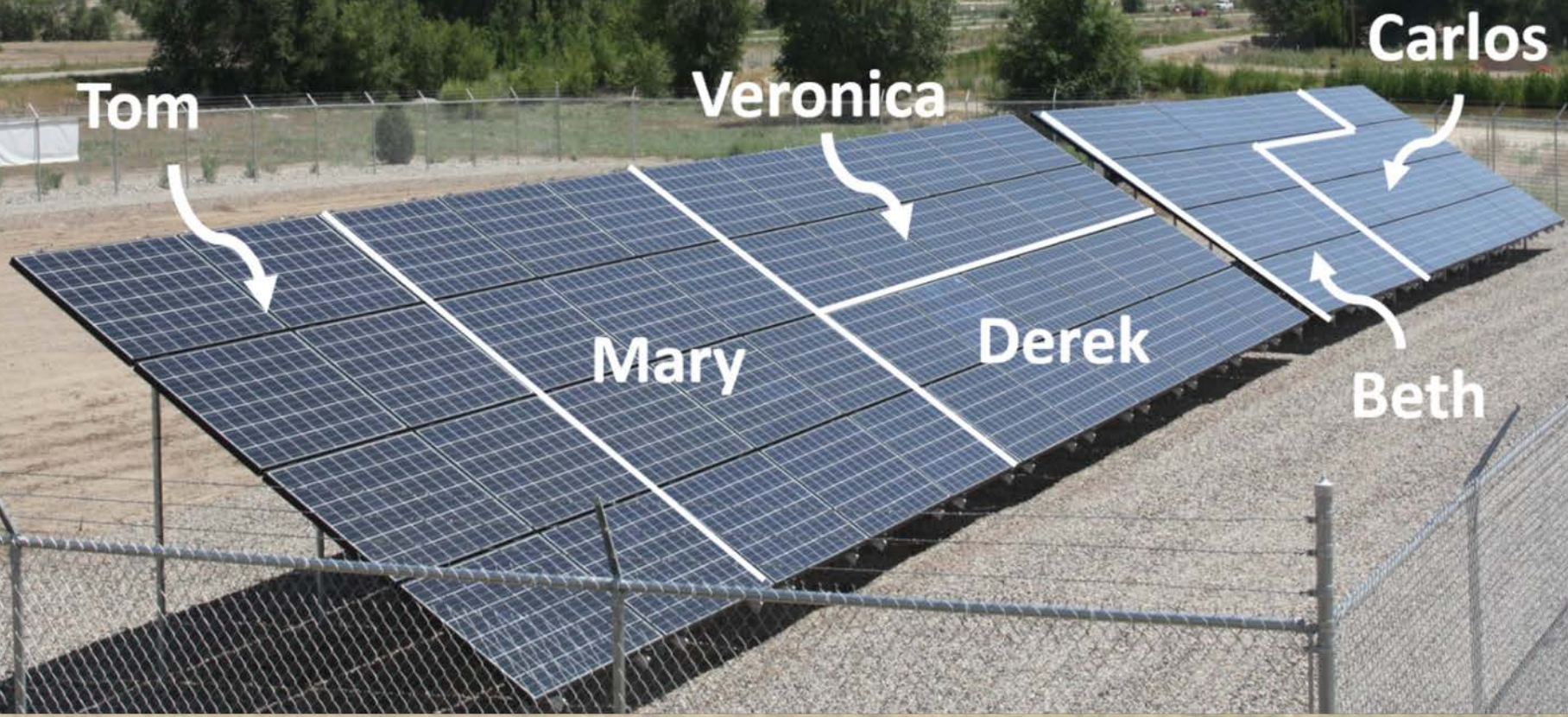
Recommendations for Washington's Community Solar Program

Case Studies from Minnesota and
Colorado

Megan Feddern & Ashly Spevacek

- Purpose
- Washington House Bill 1048
- Case Studies: Colorado and Minnesota
- Issues Encountered
- Recommendations





Tom

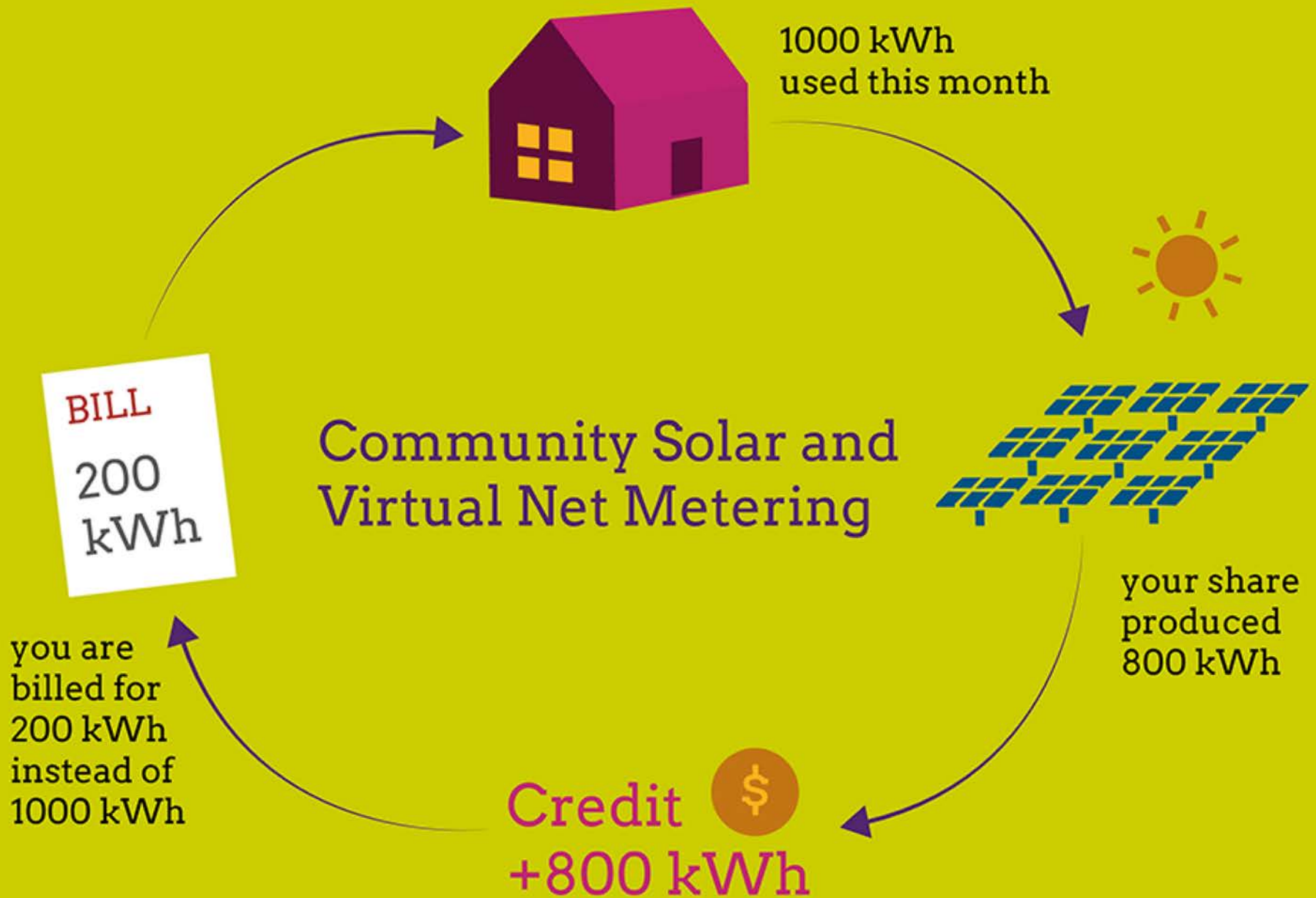
Veronica

Carlos

Mary

Derek

Beth

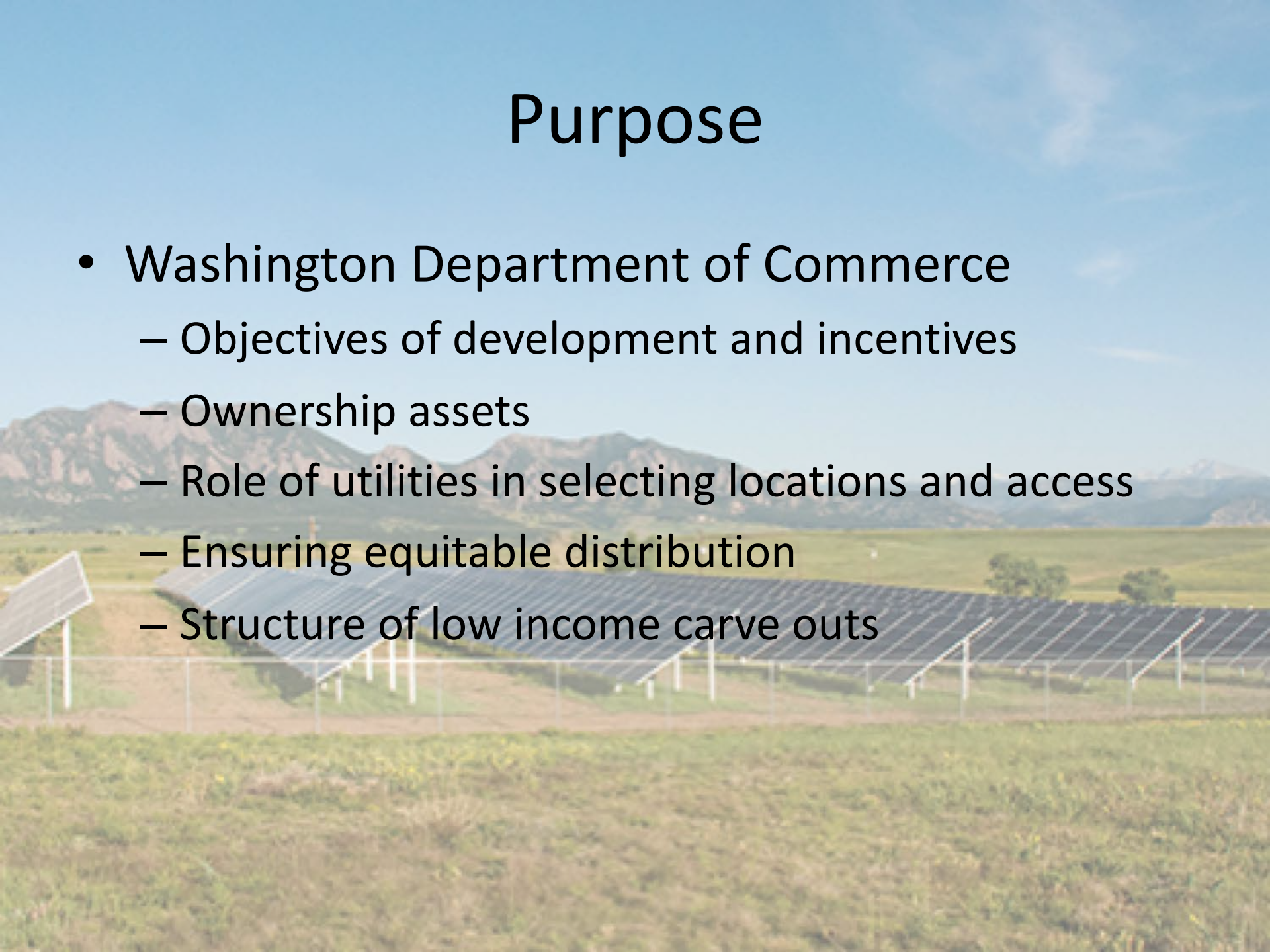


	Utility	Special Purpose Entity	Non-Profit
Owned By	Utility or third part	SPE Members	Nonprofit
Financed By	Utility, grants, ratepayer subscriptions	Member investments, grants, incentives	Donor contributions, grants
Hosted By	Utility or third party	Third Party	Donors, members
Subscriber Profile	Electric Ratepayers	Community Investors	Donors, Members
Subscriber Motive	Offset personal electricity use/cost	Return on investment, offset personal electricity use	Offset personal electricity use/cost
Long-term strategy of Sponsor	Offer Solar Options (Renewable Portfolio Standard)	Sell system to host, retain for production, sell renewable energy credits	Retain electricity for production
Examples	Xcel Energy	Clean Energy Collective	GRID Alternatives

Table Modified from US Department of Energy

Purpose

- Washington Department of Commerce
 - Objectives of development and incentives
 - Ownership assets
 - Role of utilities in selecting locations and access
 - Ensuring equitable distribution
 - Structure of low income carve outs



House Bill 1048

- Renewable Energy Portfolio
 - 15% by 2020
- Objective
 - “Promoting a sustainable, local renewable energy industry through modifying renewable energy system tax incentives”
- Section 7
 - “facilitate broad, equitable community investment community investment in and access to solar power”

House Bill 1048: Section 7

- Have at least 10 participants
- Nameplate capacity of 1000 Kilowatt hours or less
- Participants must be customers of the utility
- Project must be administered in a transparent way
- Utility may not adopt rates, terms, conditions that discriminate between other projects

Case Study: CO

- Renewable Energy Standard: Investor Owned Utilities 30% by 2020, HB 10-1001
- **Objective:** provide Colorado residents, particularly renters and low-income utility customers, the opportunity to participate in solar energy generation

WA House Bill 1048 vs. CO 10-1001

- Have at least 10 participants
- Nameplate capacity of 1000 Kilowatt hours or less *2000*
- Participants must be customers of the utility
Kilowatts
And live within the same county as the CSG
- Project must be administered in a transparent way
- Utility may not adopt rates, terms, conditions that discriminate between other projects
Subscriber bill credit explicitly defined

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Subscriber Profile	<i>Electric Ratepayers</i>	Community Investors	Donors, Members
Subscriber Motive	<i>Offset personal electricity use/cost, go green</i>	Return on investment, offset personal electricity use	Offset personal electricity use/cost
Long-term strategy of Sponsor	Offer Solar Options (<i>Renewable Portfolio Standard</i>)	Sell system to host, retain for production, sell renewable energy credits	Retain electricity for production
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Case Study: CO

- **Regulation**

- Annual compliance plan submission
- PUC determines yearly purchase plans

- **Ownership assets**

- Utility or any third party for profit or non profit entity

- **Access**

- Accessible to utility subscribers
- Must be in the same country or adjacent county as CSG



Case Study: CO

- **Locations**
 - Decided by the developer
- **Equitable Distribution**
 - Distribution carve outs
 - Low-income Community Solar Demonstration Project
- **Structure of low income carve outs**
 - 5% reservation of each new CSG for low income subscribers
 - Developed by non-profits such as GRID Alternatives
 - Colorado Low-Income Energy Assistance Program

Low Income Carve Out Successes

Percentage of annual consumption covered by Community Solar Garden	Percentage of Annual Electricity Bill Offset by Community Solar Garden	Estimated Savings
120%	71%	\$520
100%	59%	\$433
80%	47%	\$347

1. Developer and non-profit partner

2. Non-profit identifies participants

3. Developer and/or non-profit market the project

4. Subscriber receives solar energy and utility incentives

5. Developer manages subscriptions

Developer manages subscription to maintain compliance

- High mobility
- Multifamily buildings with one meter
- Time delay before receiving benefits
- Lots of paperwork

- Offset costs with larger subscribers
- Foreign terminology
- Artificial cap

WA House Bill 1048 vs. MN 216.1614

- Have at least **5** participants
- Nameplate capacity of 1000 Kilowatt hours or less *1 megawatt*
- Participants must be customers of the utility
- Project must be administered in a transparent way

Customer benefits must be explicitly stated in development plan

- Utility may not adopt rates, terms, conditions that discriminate between other projects

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Table Modified from US Department of Energy

MN Challenges

- **Co-Location**

- Large projects located near twin cities
- Limited access
- Higher cost for non-subscribers

- **Accessibility**

- No limits on who could subscribe (ie large businesses)
- Limited access to residential and low income communities



Recommendations

- Subscriber benefits should be a rate-based approach.
 - The bill credit should be equal to the subscribers share multiplied by the percentage of renewable energy produced by the solar garden, multiplied by the utility's total aggregate retail rate
- Washington should implement distribution carve outs and low income carve outs
 - Distribution carve outs can be generated to represent the proportion of the utilities overall customer base each market segment makes up.

Recommendations

- The location of CSGs should be determined by the developer, however some restrictions on location should be implemented to prevent co-location.
 - A neighborhood CSG cap should be incorporated into the legislation.
- Washington should implement distribution carve outs and low income carve outs
 - Distribution carve outs can be generated to represent the proportion of the utilities overall customer base each market segment makes up.



- Jasmine Vasavada – Senior Energy Policy Specialist at Washington Department of Commerce



Department of Commerce

Innovation is in our nature.



Xcel Energy[®]



GRID
ALTERNATIVES



powered by

Clean Energy
COLLECTIVE[®]



Minnesota Public Utilities Commission