

Community Solar Gardens - Legislative Energy Commission

July 12, 2018



Community Solar Gardens (Section 216B.1641)

- **Purpose:** Community Solar Gardens (“CSG”) were intended to allow members of a community to purchase a share of a CSG as a substitute for a roof-top installation. Proponents spoke of renters, customers for whom rooftop installation was undesirable or not possible, parishioners of churches and neighborhood groups pooling resources for this purpose.
- **Limitations provided in statute:** In furtherance of this purpose, limitations were placed on CSGs:
 - Must have at least five subscribers.
 - No subscriber with more than 40% of CSG.
 - CSG limited to 1 MW in size (about seven acres).
 - No customer can get more than 120% of their energy from all combined on-site solar and CSG.
 - CSG must be in Xcel Energy service territory.
 - Subscribers and CSG must be in contiguous counties.

Community Solar Gardens

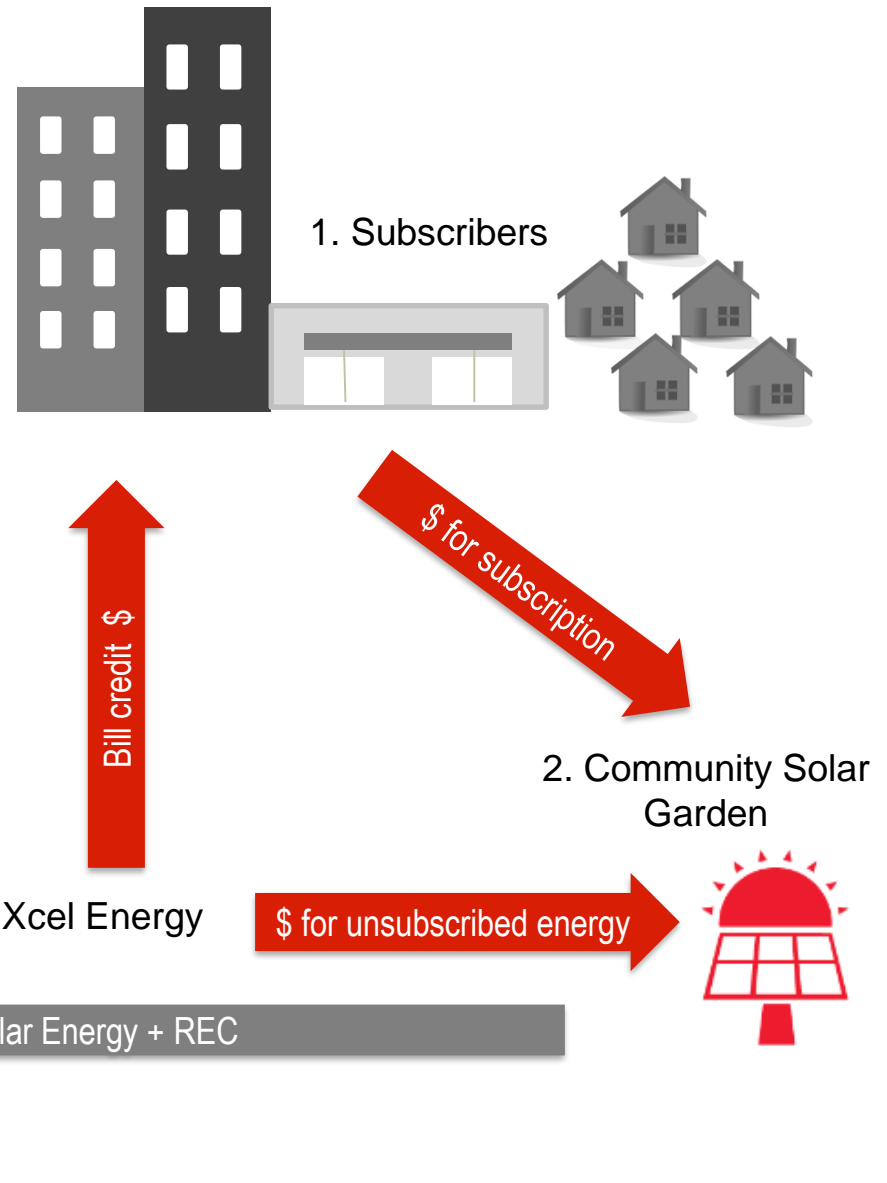
• How it works:

- Solar Garden Operators and subscribing customers enter into a subscription contract. Xcel Energy is not a party to the contract.
- Under the subscription contract, the subscriber gets paid (by Xcel Energy) for a portion of the CSG production for 25 years and agrees to pay a fee to the Solar Garden Operator. Contract terms and subscription fees vary. CSG fees are unregulated.
- The Solar Garden Operator delivers the energy from the CSG to Xcel Energy.
- Xcel Energy purchases the energy by paying subscribers in the form of a credit on their Xcel Energy bill. Xcel Energy uses the energy to meet its Solar Energy Standard.
- The rate that Xcel Energy pays is set by the PUC.
 - Applicable Retail Rate (ARR) (for projects initiated before 2017).
 - Value of Solar Rate (VOS) (for projects initiated in 2017 and later).
- Xcel Energy collects the amount of the bill credit from all its customers.

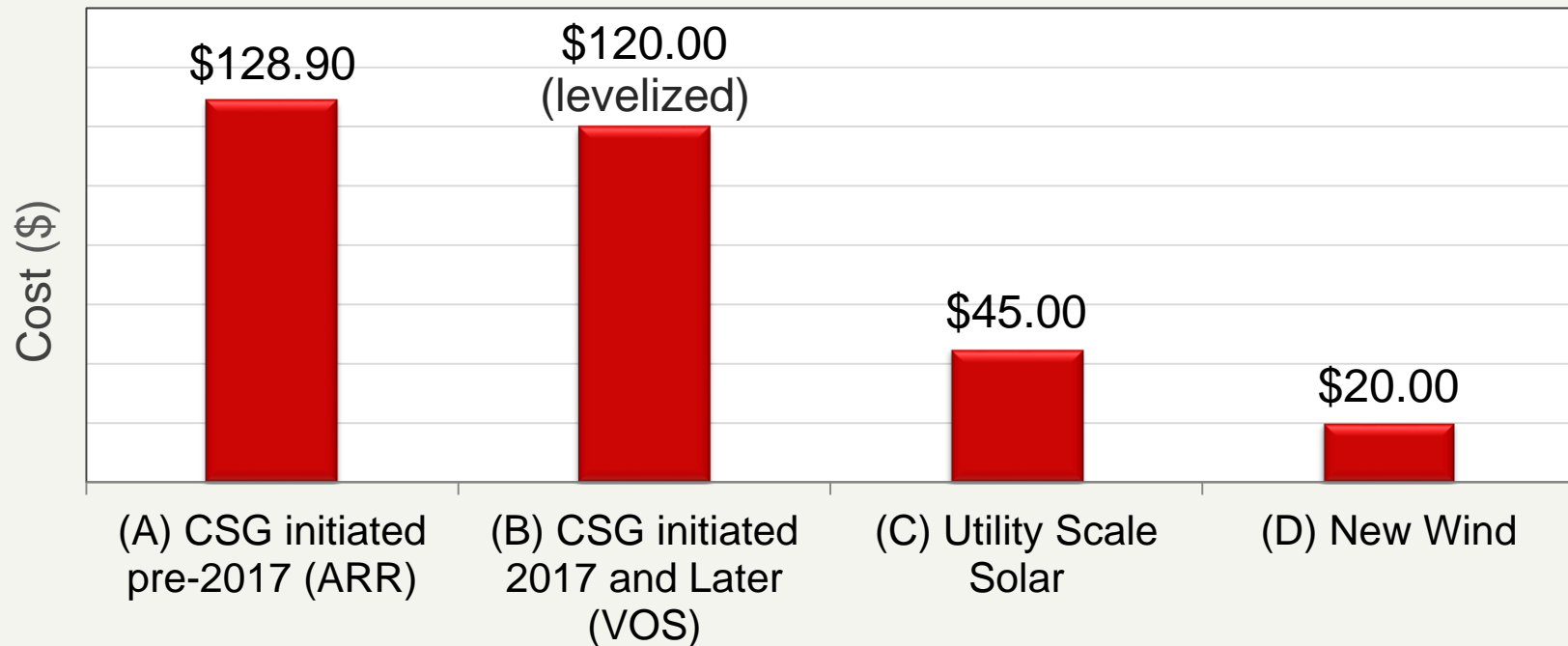
How Solar*Rewards Community Works



1. Subscribers pay the solar garden for their subscription – subscription costs and terms vary, are not regulated and are between the solar garden and the subscriber. Subscribers receive Xcel Energy bill credits (\$/kWh) for solar power produced by their portion of the garden's monthly output – the bill credits are regulated.
2. Solar garden delivers energy to Xcel Energy's distribution system. Renewable Energy Credits (RECs) go toward Xcel Energy's energy-standard compliance.
3. Xcel Energy works to connect the solar garden to our electric distribution system and credits subscribers at tariffed rates for the energy produced.
4. All customers pay for the solar garden energy (bill credits and unsubscribed energy) through the Fuel Cost Adjustment (FCA) charge.



Cost of CSG Energy (\$/MWh)



A. Weighted average of Residential and C/I customer rates. CSG rate changes as utility rate changes.

B. VOS rate is the same for all customers. Rate increases each year.

C. Estimates based on experience.

D. Estimates based on experience.

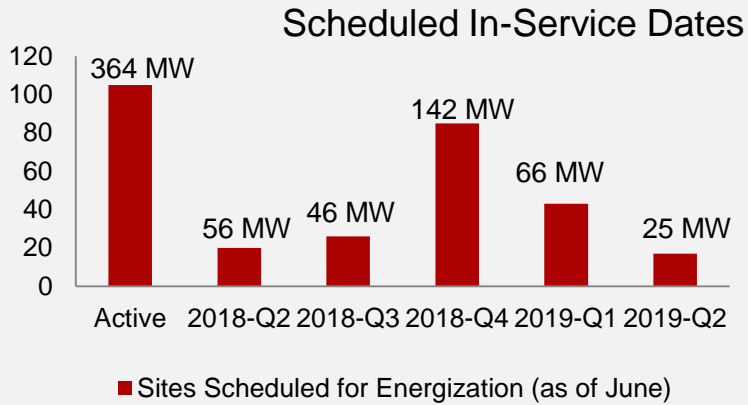
Community Solar Gardens

• Why is it being built?

- Xcel is required to take all the CSG energy that is offered regardless of need or resource planning limitations.
- The rate for CSG energy paid by Xcel Energy customers is significantly higher than other energy on our system.
- The higher price allows the Solar Garden Operator to pay for the construction and maintenance of the CSG and earn a profit.
- The higher price also allows the subscriber to receive more in bill credits than the subscription fee, thus offsetting or even eliminating its electric charges. Some subscribers get cash out at the end of the year.
- Costs are spread out over all Xcel Energy customers.

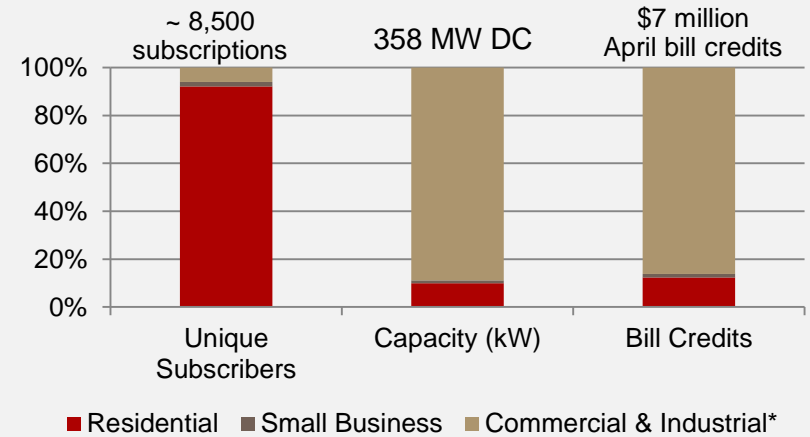
SOLAR GARDENS IN DESIGN & CONSTRUCTION

322 MW in Design & Construction at 181 sites



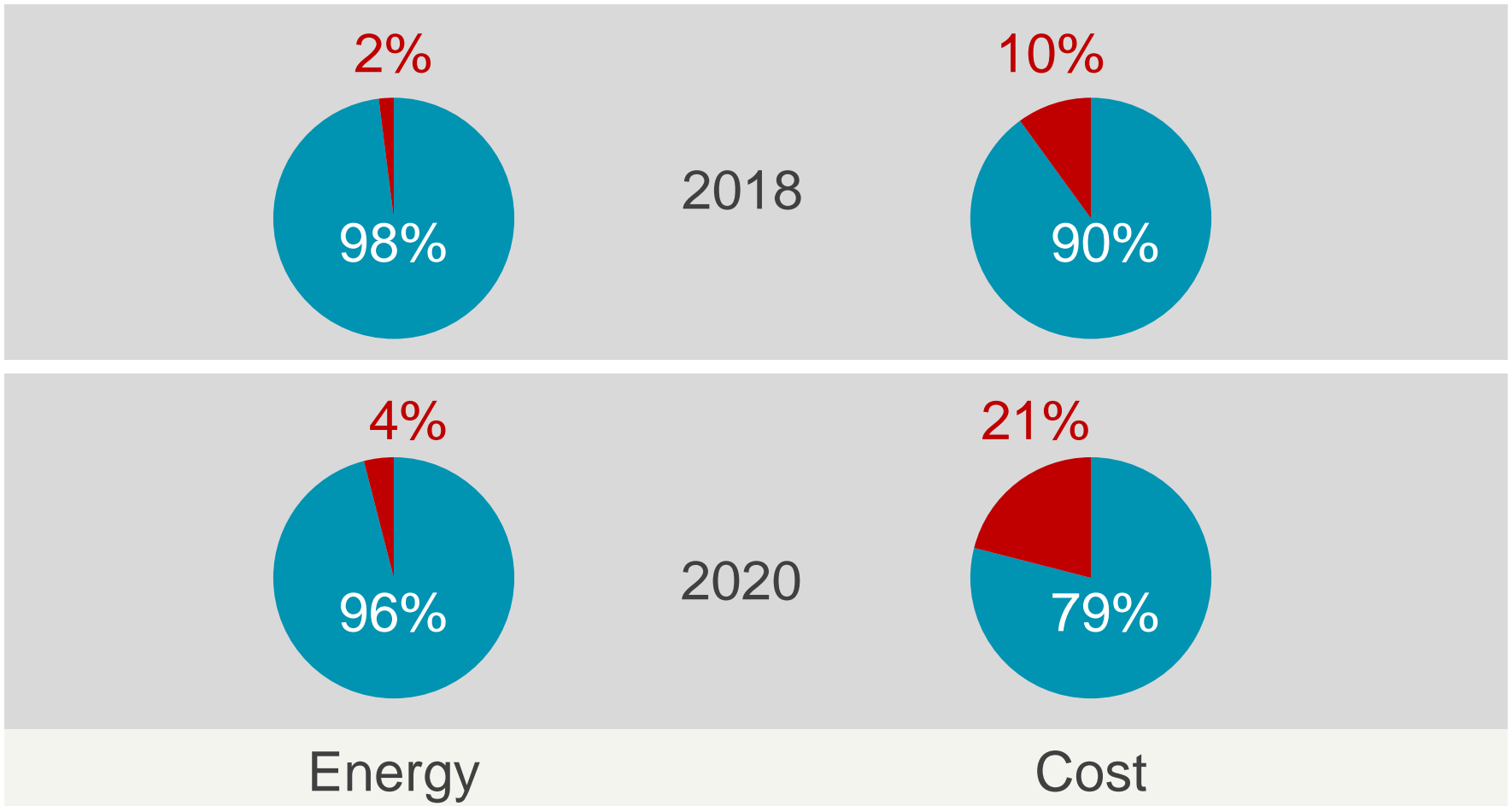
ACTIVE SOLAR GARDENS

92 projects received bill credits in April



Impact on Customers

Increase in CSG penetration vs. increase in CSG cost to customers.



Impact on Customers

Total cost of CSG Solar generation compared to purchasing the same amount of energy at Utility Scale Solar and blended Fuel Clause prices

