Proposed Community Solar Rate Rider: Schedule No. 500

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Objective

- Maintain a trusted energy partner relationship by developing a Community Solar Program (CSP) that will provide a solar option for all customer classes

- Design program fully funded by participating customers to ensure five-year no general rate increase

- Meet OPPD’s mission to provide affordable, reliable, and environmentally sensitive energy services
Strategic Directives

• SD-1 Strategic Foundation
  – Opportunity for the District to be viewed as innovative and “Leading the Way We Power the Future”
  – Exemplify fiscal, social and environmental responsibility

• SD-2 Competitive Rates
  – Elective program priced at market value to pass along the cost and market benefits to participants

• SD-5 Customer Satisfaction
  – Improved customer satisfaction scores from customers who want OPPD to offer community solar

• SD-13 Stakeholder Outreach and Engagement
  – Provide meaningful ways for customer-owners to participate and provide feedback
Pricing Design Principles

- Market research resulted in diverse pricing and program structures

- Consistent with SD-2:
  - Maintain fair, reasonable and non-discriminatory rates as stated in Nebraska Revised Statute § 70-655
  - Equitably assign costs across and within all customer classes
  - Pursue rate process and structure changes to reflect the cost of energy when it is used
  - Offer flexibility and options
  - Ease of understanding
Pricing Options Evaluated

- Various types of community solar pricing methodologies

<table>
<thead>
<tr>
<th>Method</th>
<th>Method Overview</th>
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</thead>
<tbody>
<tr>
<td>Embedded Cost of generation</td>
<td>Assumes equal capacity credit to baseload units</td>
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<tr>
<td>Full Retail Rate</td>
<td>Assumes all the benefits to reducing load</td>
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<tr>
<td>Value of Solar</td>
<td>Diverse interpretations and calculation methodologies</td>
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<tr>
<td>Market Based Rate</td>
<td>Market values allow participants to realize the market benefits and costs of the elective program</td>
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</table>
Proposed Market Based Rate

• Transparent and based on actual production and prior year Southwest Power Pool (SPP) day-ahead market pricing

• Valuation is consistent with how the market values current and future OPPD generation assets

• The proposed rate rider would be scalable to accommodate potential future states of large scale adoption of additional community solar projects or distributed energy resources

• Rate is ‘portable’ and can be retained through a customer relocation in our service territory

• The Board’s rate consultant, Brattle, agrees that this methodology is compliant with reasonable and prudent ratemaking principles
Community Solar Charge Summary

Community Solar Charge

Community Solar Charge = Market Based Value of Solar * Subscription Level

Definitions:

Subscription Level is defined as quantity of Community Solar Share(s).

A Community Solar Share is defined as 100 kWh per month.

The Market Based Value of Solar is calculated on a per share cost and is the cost of the interconnected community solar purchase power agreement (PPA) less both the market value of energy and capacity.
MARKET RESEARCH & STAKEHOLDER ENGAGEMENT
Qualitative Research

• Qualitative (Directional)
  – Ongoing Community Expert Involvement
    • Simplicity, transparency, and availability to all customers are important
    • Project size is not critical
    • Visibility may be physical or virtual
    • Affordability and educational value is needed

• Customer Power Panel Online Chats (Panel Phase I)
  – Program Funding – participants were split between funding by program participants and all customers
  – Program Participation – Demographics
    • Environmental supporters
    • Higher income
Quantitative Research

• Quantitative (Projectable)
  – Customer Power Panel (Panel Phase 2)
  – Demand
    • Price inelastic across tested package options
    • Pay-As-You-Go model showed greater demand than Pay Upfront financial model
  – Participation terms not critical
  – Physical location not critical
  – Program Funding - Split 53%-39% between 1) program participants; and 2) all customers
OPPDLListens
Customer & Media Contacts
February 13 thru March 11

• Media Contacts
  – Midwest Energy News, KIOS-FM, Omaha Public Radio
  – 7 published articles
  – 2 OPPD press releases

• Google Analytics
  – 616 page views
  – 520 unique page views

• Customer Comments & Engagement
  – 16 customer comments (13 via OPPDListens.com and 3 via Board email)
  – Twitter – 225 mentions, 117 retweets, 4,381,137 impressions
  – Facebook – 5,858 Facebook accounts reached, 233 clicks, 8 shares
Update - Shares Approach

- Based on customer feedback to simplify the process, a shares approach was pursued

- Shares approach defined as allowing customers to sign up for a fixed annual volume of community solar kWh

- 1 share of community solar = 100 kWh per month

- Benefits of a shares approach
  - Ease of customer understanding
  - Ease of utility tracking and billing
  - Volume of participation is predictable
  - Size shares like you would size DIY

- Account executives and call center representatives will educate interested participants
Proposed Commitment Length

- Enrollment deposit refundable after:
  - 5 years continuous participation for residential customers
    - Customers taking service under Schedules 110, 115, 119
  - 10 years continuous participation for commercial customers
    - Customers taking service under Schedules 226, 230, 231
  - 20 years continuous participation for industrial customers
    - Customers taking service under Schedules 232, 240, 245, 250, 261 and 261M
Example Customer Bill Calculation*

- Residential bill comparing participation in community solar to baseline bill (non-participant)
- Tax benefits from community solar are passed on to participants through Power Purchase Agreements

<table>
<thead>
<tr>
<th>Sample Monthly Customer Bill at 1,000 kWh and 1 share participation</th>
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<tr>
<td>Calculation Line</td>
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<tr>
<td>2019 Service Charge</td>
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<tr>
<td>Energy Charge</td>
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<tr>
<td>Community Solar Charge**</td>
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<td><strong>Total</strong></td>
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*Does not show FPPA, image is for illustrative purposes & forecasted value of FPPA is shown in the energy charge component

**Community Solar Charge = Market Based Value of Solar * Subscription Level
Sample Annual Summary*

- Customer Profile equals 12,000 kWh annually or an average of 1,000 kWh per month
- 1 Share to equal approximately 100 kWh monthly

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NEXT STEPS
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• Seek board approval for community solar rate rider

• Review developer proposal responses

• Develop program details and marketing plan

• Check in with stakeholders

• Report back to the Board the award of the community solar Purchase Power Agreement (PPA)

• Report to the Board program details