Solar Powering Iowa
Erin Buchanan
March 24, 2016
About CFU

• Municipally owned, serve the City of Cedar Falls and outlying areas
  • About 18,000 electric customers.
• Provide electric, natural gas, water, cable TV, high speed data and phone services
• Take pride in supporting our innovative community through excellent service, while retaining low rates
What is Community Solar to CFU?

- Allow for broad and active customer participation
  - All customer classes
  - Retail and wholesale
- Financially supported by customers with an interest and willingness to participate financially
- Be local and visible in our community
What is Community Solar to CFU?

- Complements generation portfolio
  - 112 MW peak load
    - Late peaking (3 PM – 8 PM)
  - 150 MW of other generation assets
- Showcase renewable energy locally
  - Grid impacts of utility-scale solar
  - Customer interest and experience
Our Concept – CFU Perspective

- CFU RFP for 3<sup>rd</sup> party solar developer to build, own, and maintain array
  - 3<sup>rd</sup> party would take ITC; CFU apply for IA PTC
  - CFU buys power via PPA for up to 25 years
- CFU would have the right, but not obligation, to purchase the array once construction tax benefits are exhausted
Our Concept – Customer Perspective

• Subscription model with upfront payment
  • Customer gets rights to energy output for 20 years from their proportional share of the array
  • Chosen for tax credit and fairness considerations
• $270 for one “unit”
  • About half of a solar panel
• No further payments
Our Concept – Customer Perspective

• Customers can pay subscription via utility-bill
  • 12-month or one-time payment options
  • About 10 customers purchased up to 100% of their baseline usage
Our Concept

• Monthly credits appear as separate line item on monthly CFU utility bill
  • Estimated payback by 15 years

• Credit based on CFU’s “avoided” costs
  • Value is reset annually
  • CFU is a direct LSE in MISO market and transmission owner (no all reqt’s contract)
  • Avoided energy, transmission capacity, and generation capacity costs and adder
Our Concept – Customer Perspective

- Transferable/hassle-free
  - Customers can sell back (if moving), transfer, or donate units to other CFU accounts
  - Several customers donated units to other family members, tenants of rental properties, or non-profit organizations
Technology & Location

• Located within city park
• Worked with City of Cedar Falls
• Non-farmland (8 acres)
• Centralized fixed-tilt system chosen
  • Cheaper than rooftop/small DG
  • O&M, logistical, & scalability considerations
• Good learning opportunity for CFU
  • Focus on delivering customer services instead
Status to Date

• Fall 2015: selected RER Energy as developer for array construction & ownership
• Largest community solar array in the State of Iowa
• Commercial online in April 2016
• Currently about 100% subscribed (~8700 units purchased)
  • Over 1,200 customers participating
  • ~5% of entire CFU customer base
• Projected to produce roughly 2,700 MWH per year
Now
What Worked?

- Two stages of enrollment
  - Early estimate when array size unknown
  - Final price after RFP price finalized
- Extensive local community marketing
- Implementation ourselves
- Embrace modularity
  - Kept our project simple and centralized
  - Can implement a more “complex" project(s) later
Key Themes

• Define expectations in RFP re: technology type, structure of initial or future ownership, any other financial or utility requirements
• Choose implementation path carefully
  • Marketing, billing systems, customer-facing services – who do you want to do this?
• Tax credits – monitor carefully
• Book even more time and resources for research