

BEC DER Policy text of presentation

Slide 1 Title Slide: Thank you for inviting me to tell Bayfield Electric Cooperative's story. I am going to be talking about *net metering* and the *payback or credit* the co-op gives to its members for electricity put back on the grid. Today, net metering is also referred to as distributed generation or distributed energy resources, DER for short. I think Bayfield Electric's story is a good story and needs told. We all like a good story with a happy ending, and I think this one is a win for all Bayfield Electric members and sets the stage for the next decade as we enter into the energy transition. First, a little housekeeping: The presentation should take only about 15-20 minutes which should leave plenty of time for questions at the end. So, jot down your questions, or thoughts as we go through this presentation and we'll open things up at the end.

Slide 2 Perspective/Disclaimer: I am a member of Bayfield Electric but do not represent the Bayfield Electric Board, nor am I an employee of BEC. I share this story in the spirit of cooperation, which happens to be one of the seven guiding principles of a cooperative. I am also president of Cheq Bay Renewables which tells you where I am coming from. Our mission is to advocate for clean energy.

Slide 3 Co-op Month: October is National Co-op month and I'm sure you're all familiar with the 7 cooperative principles. It seems that 4 of the 7 have specific relevance to today's presentation: democracy, economics, education, training and information, and cooperation among cooperatives. You will find these principles highlighted throughout the presentation.

Slide 4 Key Points: The Bayfield Electric DER policy was successful because three things happened: 1) the process encouraged member input and was open and transparent, 2) the impact that solar was having on Bayfield Electric's system was quantified mathematically, and 3) a 20-year contract was included in the solution guaranteeing stability for those who had invested sometimes large sums of money in a solar project. I will go through each of these 3 key points.

Slide 5 Background: The first series of slides is a timeline of events and focuses on communications between BEC and its members. But first, a little background. In 2014, only two months after Vernon Electric Cooperative had commissioned the first community solar garden in WI, I brought up the idea to the BEC board. Their

community solar project was commissioned two years later in 2016. Following that, in 2018 and 2019, CBR sponsored the largest solar group buys in WI's history, installing over one megawatt of solar PV in 159 installations. However, in February 2020, the BEC board decided to change the payback rate of solar put on their grid from full retail to avoided cost. I believe the decision was based on fear of loss of income, although no one ever calculated what that loss was. There was nothing illegal about what they did, but it was the minimum amount required by the Federal government's PURPA Law.

Slide 6 Result: As you might imagine the members who had just installed solar systems were mad as it came as a complete surprise. The phrase, "the rug had been pulled out from under them" seemed appropriate. The 2020 annual meeting was business as usual for the board with no immediate answers given to the solar members. The pandemic was in full swing, the virtual meeting was new territory, and many members felt they had no representation. New solar installations were drastically reduced.

Slide 7 Meanwhile: The CEO back then was retiring and the board did a great job searching for a new replacement. Chris Kopel started in April 2021 and a few months later a new board member was elected that ran on transparency and member input.

Slide 8 Letter: One of Chris Kopel's first tasks to calm the waters was to send a letter to all members. The board had decided to review the DER policy and acknowledged the 2020 decision was made without member input, communications, or feedback, something they wanted to correct.

Slide 9 Letter also: The letter was important because it set a new tone and encouraged members to give feedback, even listing a timeline for the process. The letter also encouraged members to enter the digital age by providing email addresses and cell numbers.

Slide 10 Communication: Sending out letters is expensive, for BEC in the tune of \$5K for each mailing. Sending an email free. BEC encouraged members to communicate digitally. BEC also communicates through their website. A successful website is one that is updated frequently and posts current events, and old information is deleted or archived.

Slide 11 Work Group: In addition to member input, a work group was set up to research the problem and come up with some suggested solutions. Besides Chris Kopel, two board members and one regular member made up the work group. They were tasked to present their findings to the board in Jan 2022

Slide 12 Second Letter: A second letter was mailed to the members in March 2022. It summarized the results of the working group who had come up with a modeling tool to quantify the financial impact that solar was having on the BEC system. Yes, there was a subsidy from non-solar members to solar members, but the subsidy was considerably less than expected. The letter once again asked for additional member input and announced that the upcoming annual meeting would take on a different approach and focus on the DER issue.

Slide 13 Member Input: BEC repetitively asked for member input, 4 times to be exact. The board valued this input and personally told me they read and re-read the letters, and used this input to guide their decisions. Not all letters were favorable to solar, they were a variety of opinions. BEC will also be starting to develop a strategic plan this fall and is considering a member survey to incorporate consensus. This focus on member input is now an important part of BEC's decision making process.

Slide 14 Annual Meeting: The 2022 Annual meeting was a totally different format than any previous year. It was long and focused on the DER policy. The working group served as panelists. Chris Kopel presented many key points from BEC's 2020 rate study and how solar impacted the BEC system. Members asked questions for over an hour and the meeting was recorded and posted to the BEC website

Slide 15 Chris – Positions Recording: Here is a short clip from the 2022 Annual Meeting: [play] I think that short clip sums up BEC's position quite well, and is in line with co-op principles of democracy.

Slide 16 Follow-up meeting: Then in August 2022 BEC had a virtual follow-up meeting further detailing the draft DER policy and offered another opportunity for members to understand the details and ask questions. The meeting was recorded and posted to BEC's website. Additional member input was sought with the stated goal of finalizing the DER policy at the October board meeting.

Slide 17 Oct 13. The BEC board gave final approval of the DER policy just last week and posted the final version to their website.

Slide 18 Highlights of Policy: The approved policy was very similar to what was presented at the annual meeting. Since May, several things were detailed because of questions brought up by members, but the basic concept of 100% net metering until 2025, then 90% net metering after that with a 20-year contract guaranteeing the 90% rate, remained in place. The new policy also added that any excess over annual usage would be credited to the member at avoided cost.

Slide 19 Analysis Tool: The analysis tool, sometimes referred to as a model, or spreadsheet, was the second successful component in the DER policy process

Slide 20 Transparency: The “analysis tool” is about economics and people get concerned when money is involved. But one of the 7 co-op principles is economic participation. The members are also the owners of the cooperative and to me, it is wrong to withhold economic data, not that it is everyone’s strength, but it should at least be available for those that are interested. I also don’t understand why economics is so feared or such a big secret. Utilities in WI are not in a competitive market, they are monopolies. I have taken BEC’s tool and modified it to be an open-sourced generic tool where you simply supply your input values and the rest is automatically generated. More about this generic tool later, but I hope it can be used to quantify the impact that solar has on your system.

Slide 21 BEC Analysis: The DER Tool, or model, became an important part of the whole process. Using financial numbers from the 2020 rate study, a snap-shot in time determined the impact that solar was having on the BEC system, specifically that the non-solar members were subsidizing the solar members, but that amount was substantially less than anticipated. With solar energy put on the grid valued at only the avoided fuel cost, that subsidy amounted to \$0.32/month/member.

Slide 22 Perspective: To put the \$0.32 in perspective, compare it to BEC’s Public Benefits Program. I’m not sure if all co-ops have a similar program, but my guess is that they do. BEC’s has been around \$1.30/month for over 20 years. When adjusted for inflation, the 2022 amount should be about \$2.19/month. Compare that to the impact that solar was having: 32 cents/month. Public benefit is also another cooperative principle and I plan on asking my board why it hasn’t changed in 20 years.

Slide 23 Electric bills: Here are two screenshots of a few of my electric bills. Yes, I have a file with all my bills going back for more than 20 years. At the bottom of every electric bill, highlighted in yellow here, is a dollar and 30 cent adder, and it has been that way, the same amount, for over 20 years. Nobody thinks about it, in fact when questioned, most people don't even know where the money goes, and yet it is substantially more than the impact that all the solar was having on the BEC system.

Slide 24 Value of Solar: Another thing to consider is what is the Value of Solar energy put back on the grid? BEC has valued it at only the avoided fuel cost because that is the only thing that is immediately reduced from their finances, that is, the kWhs not purchased from Dairyland. Reducing the net-metering percentage will lower the subsidy. You see here, as an example, from 100% net-metering to 90% reduces it from 32 cents to 28 cents/member/month, but even more significant would be if other factors were considered, like environmental or health benefits. Doing so, would reduce an already low number to pennies on the dollar. You see 12 cents here. This conversation about what the Value of Solar is, is a national conversation and also on the WI PSC docket. Additional factors to consider could be avoided transmission costs and avoided capacity costs. The impact that solar has on BEC's system is already so low, that arguing about these details seemed irrelevant at this point in time, but could be significant in the future as solar penetration increases.

Slide 25 Subsidies: Another point that our CEO brought up, and the rate study confirmed, was that eliminating all subsidies is virtually impossible. There are subsidies between rate classes as well as subsidies within rate classes. A rate studies' goal is to identify large inequities, but is not necessarily to nit-pick at small ones. Some subsidies are built into the system, for example large users generally subsidize low users because the facility charge usually doesn't cover all of the fixed costs. Chris Kopel did a great job at the annual meeting explaining how capacity or demand charges, in other words the fixed charges, are not fully recovered in the facility charge, so the shortcoming needs to be made up in the energy or kWh charge.

Slide 26 Subsidy Example: The price of a postage stamp, now at 60 cents, is about twice the current BEC solar subsidy of 32 cents. If a member chooses paperless

billing, the co-op saves the cost of the stamp, and the paper it is printed on, and the time it takes to stuff the envelope, etc. Paperless members are therefore subsidizing members who want a paper bill at a rate approximately three to four times higher than the solar subsidy. The point is, these small subsidies need to be viewed as part of the larger picture and are financially insignificant. A balance must be achieved between administrative efficiency and equity.

Slide 27 Board Reaction: When the results of the solar analysis were presented to the BEC board, they were presently surprised at the low impact. They had gone through a lot of headaches for very little.

Slide 28 Tool Benefits: The analysis tool has input values which are tailored to the specific system being analyzed or timeframe chosen. The input values can be adjusted as things change. The results are mathematical, not emotional or reactive. Even the Value of Solar can be adjusted to fit the place and time.

Slide 29 20-year Contract: The last component of the BEC DER policy is the 20-year contract. Many of the solar systems installed take years to pay off so knowing that the terms will be fixed for the next 20 years gives assurance the investment is sound. If solar penetration increases in the future, the DER payback rate can be adjusted for new installations, but the old installation's rate remains the same for the duration of the contract. BEC also determined that the contract should not be transferable which is consistent with membership in a cooperative and the accumulated capital credits. The 20-year contract period will start on April 1, 2025.

Slide 30 Summary: Here is a list of what BEC posted to their website during the development of the new DER policy. It covers the full gamut of their DER process and it satisfies their desire to be fully transparent and engaged with their members. Two letters, 2 videos, the draft policy as it was being developed, and timeline of events. Last week, after the final policy was approved, the videos and letters were archived and replaced with the final policy.

Slide 31 Also: CBR's website also has a tab dedicated to telling the BEC story. In addition, I also have the tool template available for you to use. You just fill in the input values, and the tool calculates the solar impact. If you would like a copy, just ask, but some training on how to use it would probably be best. I can show it

to you now on a high-level if you like, or maybe a follow-up session could be setup for those interested to dive into the numbers and how to use the model.

Slide 32 Questions: