

Citizens Utility Board of Michigan - Comments on Service Quality and Reliability Standards for Electric Distribution Systems (U-20629)

NOW COMES the Citizens Utility Board of Michigan (“CUB”) to file these comments pursuant to the Michigan Public Service Commission staff’s request for comments following the January 8, 2020 meeting of the Service Quality & Reliability Workgroup. The Citizens Utility Board (CUB) of Michigan is an independent, nonpartisan organization that represents the interests of residential utility customers across the state.

CUB once again appreciates an opportunity to comment on needed updates to the Service Quality and Reliability Standards. We thank the MPSC staff for the attention paid to our comments submitted for the first Workgroup meeting. The Staff’s presentation showed a detailed reading of CUB’s ideas. In particular, the staff looked favorably upon CUB’s suggestions to 1. add another category beyond “normal” conditions and “catastrophic” conditions, and 2. Increasing the compensation based on the duration of outage.

1. Size and Structure of Bill Credits

In that Jan. 8 meeting, the MPSC staff asked CUB to clarify our proposal on how to structure the bill credit, and how it would be tied to the reliability metric SAIDI. We apologize for the lack of clarity in our previous comments – we were attempting to sketch broad ideas in order to start discussion.

We will use these comments as an opportunity to lay out a more detailed picture of how to implement our proposed bill credit, as well as the equally important question of what amount to allow for utility rate recovery.

To clarify, CUB’s proposal regarding the bill credit is very simple: the credit should be \$2 per hour of outage. The value of \$2 is not chosen arbitrarily, although we are certainly open to suggestions for a more precise number. First, \$2 is based on a model created by the Interruption Calculator, developed by the U.S. Department of Energy and the Lawrence Berkeley National Laboratory.¹ CUB used this calculator to estimate the cost to one residential customer in Michigan based on average SAIDI² and CAIDI³ values for the state’s utilities.

Second, \$2 is a rough match to the current credit of \$25 per event, but like the Staff’s proposal of \$50 per event, CUB’s proposal would substantially increase the potential credit due to a customer.

In addition, the fact that CUB’s proposed credit would be administered on an hourly basis makes it more flexible compared to a one-size-fits-all approach. Michigan SAIDI was 779 minutes in 2017, according to CUB’s Electric Utility Performance Report 2019⁴, or about 13 hours. The five-year average SAIDI for Michigan was 546.6 minutes, or about 9 hours.

The five-year average SAIFI⁵ was 1.77 interruptions per customer. So at nearly 2 power outage events per year for a customer, if those events meet the current threshold for triggering bill credits, then the staff’s proposal means that the average customer would receive \$100 per year (\$50 for two outages.) However,

¹ <https://icecalculator.com/build-model?model=interruption>

² Annual System Average Interruption Duration Index.

³ Customer Average Interruption Duration Index.

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https://d3n8a8pro7vhmx.cloudfront.net/cubofmichigan/pages/15/attachments/original/1563405525/CUB_of_MI_Electric_UTILITY_Performance_Report_2019_Edition_Final_for_Website.pdf?1563405525

⁵ Annual System Average Interruption Frequency Index.

because so few outages go on long enough to meet the current thresholds of 16 hours for normal grid conditions and 120 hours for catastrophic grid conditions, the average customer would receive dramatically less than \$100.

Under CUB's proposal, however, a customer on average would receive only \$18 in a year (\$2 credit for 9 hours). In addition the number of customers receiving credits would increase significantly relative to the staff's proposal because credit eligibility would no longer be limited by the current thresholds.

An hourly credit properly recognizes that even relatively short outages have an economic cost to customers, and that the cost compounds over time if the power stays out. As mentioned in CUB's previous comments, this commonsense position is backed up by Lawrence Berkeley National Laboratory research.⁶

Under our proposal, the SAIDI metric would again come into play when determining the amount of bill credits that a utility can recover from customers through rates. CUB proposes an adjustment that will incentivize utilities to improve reliability, while still allowing them to recover fairly incurred costs.

We propose that rates be set based on an assumption that the utility recovers bill credits with a value of \$2 multiplied by the national average SAIDI. To be clear, the actual payout for bill credits would still be \$2 per hour. But if, for example, the national average SAIDI is 150 minutes, or 2.5 hours, then rates would include the assumption that the utility is recovering bill credits of \$5 per customer per year. The utility would fully recover their costs if its average SAIDI was 150 minutes. If the utility's SAIDI is less than the average, then the utility is essentially able to earn an extra return. For example, if the utility's SAIDI was less than 120 minutes, it would be charging ratepayers as if the credit was \$5, but only paying out an average of \$4 per customer, giving a rate of return from an extra \$1 per customer. If the utility's SAIDI was worse than the national average, the payment of bill credits would function as a penalty.

The result is that the utility has a financial incentive to improve the average number of minutes of outage per customer.

We do not think that \$2 per hour is necessarily the right bill credit to use in the long run, but we are using it here for illustrative purposes. CUB recommends that the Commission include in the administrative rules an obligation for utilities to collect necessary data from affected customers using methods like those used by the Lawrence Berkeley National Laboratory and that those data be made available to the Commission and stakeholders for the purpose of finding the correct value over time.

2. Question from Jan. 8 meeting: "Residential Consumers: How do momentary outages affect you?"

The Lawrence Berkeley National Laboratory paper cited above estimated the costs of momentary outages. For residential customers, the paper found that the cost of a momentary outage varies depending on the time of day, from \$1.5 for non-summer evening outages to \$6.8 for summer morning/night outages. The paper's weighted average of these costs is \$3.9.

This finding supports the contention that utilities should be tracking momentary outages. Momentary outages have real economic costs that are not trivial compared to longer-duration outages. The \$3.9

⁶ <https://emp.lbl.gov/sites/all/files/lbnl-6941e.pdf>

weighted average for momentary outages is only 6 cents less than the \$4.5 weighted average cost for a 30-minute outage and \$1.2 less than the \$5.1 cost for a 1-hour outage, according to the paper.

The finding also suggests that, as the staff asked, the benefits of reliability would be significantly decreased if sustained interruptions decreased, but momentary outages increase.

3. Additional categories

An hourly bill credit, as outlined above, would solve the challenge the MPSC staff is facing regarding the current thresholds for determining credit eligibility. The staff appears open to adding another category, recognizing that the thresholds of a) 16 hours under normal conditions and b) 120 hours under catastrophic conditions severely limits the number of customers who can receive bill credits, even as outages are becoming a bigger problem.

But how can a third category be added without using another arbitrary threshold like 16 hours or 120 hours? The hourly approach, CUB suggests, avoids that problem. With a \$2 hourly credit, for longer outages customers would receive a substantive credit similar to the \$25 credit, and for shorter outages, customers would receive a smaller credit.

As for grid-catastrophic conditions, an hourly approach could lead to dramatically higher credits, as in the case of a 120-hour outage. But, as discussed above, the utility could recover the costs of these credits, under CUB's proposal.

We look forward to the next Workgroup meeting to further discuss our proposals.