

The following is the monthly grid access charge from the spreadsheet for accounts with solar or other DER.

**Table 15 DER Proposed Monthly Grid Access Charge**

<b>kW AC Nameplate of DER</b>	<b>Monthly\$</b>
2.5 or less	\$0.00
3.0	\$2.00
3.5	\$4.00
4.0	\$6.00
4.5	\$8.00
5.0	\$10.00
5.5	\$12.00
6.0	\$14.00
6.5	\$16.00
7.0	\$18.00
7.5	\$20.00
8.0 – 39.9	\$22.00

This grid access charge would be an additional monthly charge. For example, the proposed monthly charge in this rate study for a residential account is \$12/month. A residential account with a solar array of 10 kW AC would be charged \$22 for the grid access charge and \$12 for the residential monthly charge for a total of \$34/month. DER 40 kW and larger don't qualify for net metering and require a purchase power agreement. The City should review the suggested grid access charge and discuss with other Electric Municipal Utilities and the Minnesota Municipal Utilities Association for guidance on implementing the grid access charge.

**5.4 Dual Fuel**

This rate is for a service that has a 2<sup>nd</sup> meter to measure the energy used for electric space heating. The electric loads are interruptible. This rate is for customers with dual fuel for electric space heating.

**5.5 Commercial Single and Three-Phase Rates**

This rate is for small commercial customers with a demand less than 50 kW. The rate includes a monthly charge and energy charge. The monthly rate for three-phase customers is higher than the rate for single-phase due to the additional cost to provide three-phase service.

## **5.2 Residential Rate**

The residential rate is for a single-phase service to a residential dwelling.

## **5.3 Customers with Solar (DER – distributed energy resources)**

There is no separate rate for customers with solar panels. At this time there are two customers with solar, a 9 kW and 16 kW solar array. Customers with solar generate a portion or all of their energy requirements with the solar array so these customers use less energy as compared to the average use for customers in the respective rate class. The energy rates recover some of the fixed costs so customers with solar and other customers that use less energy than the average user will have less revenue for fixed cost recovery. The Minnesota Public Utilities Commission allows cooperative and municipal utilities to charge a grid access fee to customers with DER to recover the fixed costs not already paid for by the monthly charge. A few electric cooperatives in Minnesota charge a grid access fee for customers with solar or other distributed energy resources (DER). Other electric cooperatives are reviewing the grid access charge and other options such as increasing the monthly charge or a demand rate for all customers to recover the distribution expenses.

The Minnesota Rural Electric Association (MREA) developed a spreadsheet to calculate the grid access charge. The spreadsheet calculates the additional monthly fee that could be charged to customers with DER. Some electric cooperatives in Minnesota implemented the grid access charge using the fee from the spreadsheet. The charge from the spreadsheet for the City of Caledonia Electric Department is a monthly charge of \$4.00/kW AC in excess of 2.5 kW with a maximum monthly fee of \$22.00.