

# Solar Interconnections

Understanding Your Bill for non-aggregated accounts

**Revised February 2023** 

## **How Energy Flows with a Solar Interconnection**

With a typical electric service, energy generally only flows in one direction: from the grid to the member. With a solar interconnection, however, energy is able to flow in both directions: from the grid to the member and vice versa.

It is important to understand how energy flows with a solar interconnection. Please see the below graphic that shows the flow of energy.



Please note that not all of the energy generated by your solar array will be sent back to the grid. Your home will absorb some (or all) of the generated energy, and any excess will be sent to the grid.

The energy produced by your solar array that is consumed by your home is not shown on the bill. This value is unknown to DEC as that energy does not pass through the meter.

It should also be noted that there may be times where your solar is exporting excess energy to the grid (perhaps on a temperate, sunny day), and there may be times where the grid is powering your home (at night, for example). Over the duration of your billing period, DEC's meter records how much energy you *take* from the grid as well as how much energy you *send* to the grid. The difference between these two values is what is shown on the bill.

Any excess energy exported to the grid throughout the duration of a billing period may be credited towards future bills. This excess energy is called "banked kilowatt-hours" and is shown on your bill as well.

Banked kilowatt-hours will reset once per year after the March billing period. At this time, any banked kilowatt-hours not consumed by the member are forfeited. However, the majority of members with solar interconnections have empty (or near-empty) banks by this time, so this will not make a difference to most members. This is in accordance with Title 26, Chapter 10 of the Delaware Code.

## **Understanding your Bill**

See below for an overview of a DEC electric bill. Your electric bill with a solar interconnection may look different than a typical bill. Please see the following sections for explanations of a few different billing scenarios due to having a solar interconnection.

Please note that the banked kilowatt-hours shown on the bill are the value of your bank from the previous month. Your current billing period bank can be calculated by taking the difference of the bank value shown on the bill and whatever number is shown in the 'Usage' column of the table. If your usage is negative, then that usage value is essentially added to the bank. If your usage is positive, then that usage value is essentially added to the bank.

It should also be noted that the \$16 Customer Charge is billed no matter how much your solar produces. Unless there is a cash credit on your account, your bill will be \$16 minimum.

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### Scenario 1: You consumed more energy than your solar produced

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In this example, you consumed more energy during the billing period than your solar array was able to produce. You will be billed for the net amount of energy that you used from the grid.

Looking at the above image – you will be billed for the usage of 91 kWh.

# Scenario 2: You consumed more energy than your solar produced, but you had excess generation in the past credited towards your current bill

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Dinner begins at 3:00 p.m. and the business meeting begins at 7:00					00			ŀ	(WH	USAGE	HISTORY		
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enewable Fund 527 KWH @ 0.000178 S OTAL CURRENT CO-OP CHARGES \$2					\$0.09 \$28.81	.09 .81 TOTAL DUE SUPPLIER \$48.69							
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In this example, you consumed more energy during the billing period than your solar array was able to produce. However, you had generated excess energy in the past. You will be billed for the net amount of energy that you used from the grid minus the amount of excess kilowatt-hours that were in your bank. If your bank is greater than the net amount of energy that you used from the grid, then you will not be billed for usage.

Looking at the above image – you will be billed for the usage of 527 kWh. This value is calculated by taking the 588 kWh that were consumed minus the 61 kWh that were in your bank. Following this bill, your bank would be empty.

#### Scenario 3: Your solar produced more energy than you consumed



In this example, your solar produced more energy during the billing period than you consumed. You will only be billed for the Customer Charge (as well as Balance Forward, if any).

Looking at the above image – you will not be billed for any usage. The -265 kWh shown on the bill is the amount of net energy that you sent to the grid in excess of what you consumed. Leading into this bill, you had 311 kWh in your bank. Moving forward to the next bill, you will have 576 kWh in your bank.