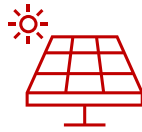


Net Bill Explainer – the Details

Understanding Time of Day Rates

when your home has
Solar Panels and/or Batteries



CONCORD MUNICIPAL
LIGHT PLANT

ELECTRIC | BROADBAND | ENERGY MANAGEMENT

Sections of this Explainer

CMLP Time of Day Rate Net Billing - **the Details**

Slide 3: How net usage is... - Talled within each hour

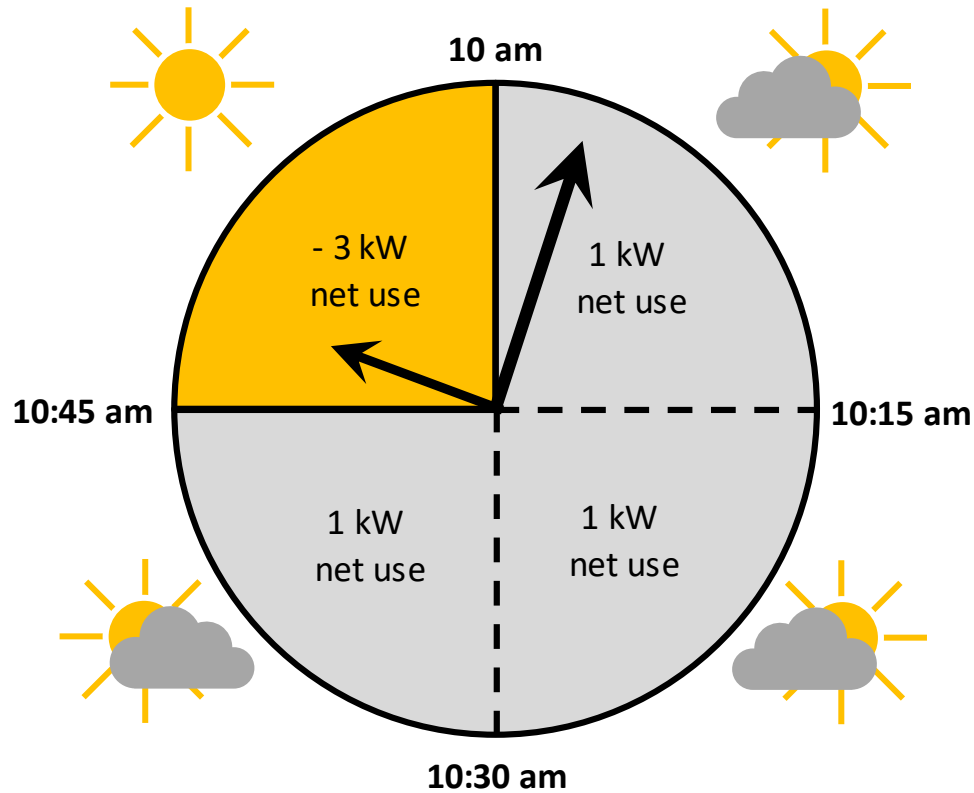
Slide 4: Electric rate components when CMLP...
- Brings electricity from the regional grid to Concord
- Distributes electricity on our local grid within Concord

Slide 5: When to...
- Use solar electricity at home, store it in your battery, or send it to the grid
- Charge vs. discharge your battery

Slides 6 - 7: Calculate your total home load from usage recorded by...
- Your solar meter
- Your utility meter

Slides 8 - 9: Find more information...

Bill charges are based on your **net usage**, which the meter measures at the **end** of each hour



15 minute Increment	Drawn from Grid	Sent to Grid	Net Use
10:00 am to 10:15 am	1	0	1
10:15 am to 10:30 am	3	(2)	1
10:30 am to 10:45 am	6	(5)	1
10:45 am to 11:00 am	2	(5)	(3)
10 am to 11 am	12	(12)	0 kWh
			Bill Total: \$0.00

$$\boxed{(1 \text{ kW @ } 15'')} + \boxed{(1 \text{ kW @ } 15'')} + \boxed{(1 \text{ kW @ } 15'')} - \boxed{(3 \text{ kW @ } 15'')} = \boxed{0 \text{ kWh}}$$

$$\text{☁️☀️} + \text{☁️☀️} + \text{☁️☀️} - \text{☀️} = \$0.00$$

Use your solar electricity (or store in a battery) **within the hour it was generated** - it **doesn't need to be used instantaneously**.

During that hour, the CMLP grid functions like a battery, allowing you to bank excess solar production when you don't need it and draw electricity from the grid when you do, without any impact on your bill.

Why is solar electricity sent to the grid worth less than solar electricity used at home?

CMLP's electric rates are based on costs to:

- ⚡ bring electricity to Concord:
 - The **energy** itself
 - **capacity & transmission** fees to maintain the regional grid
- ⚡ provide electricity within Concord:
 - manage our local **distribution** system

Previously, distribution costs for solar customers were the same each month, based on array size. Size was used as a proxy to estimate usage.

With net billing, **distribution** costs for solar customers vary each month, based on kWh drawn from and sent to the grid. Now distribution costs are based on actual usage instead of estimated usage.

When you **draw electricity from the grid...**

you are **charged** for **energy, capacity & transmission, and distribution charges** per kilowatt-hour

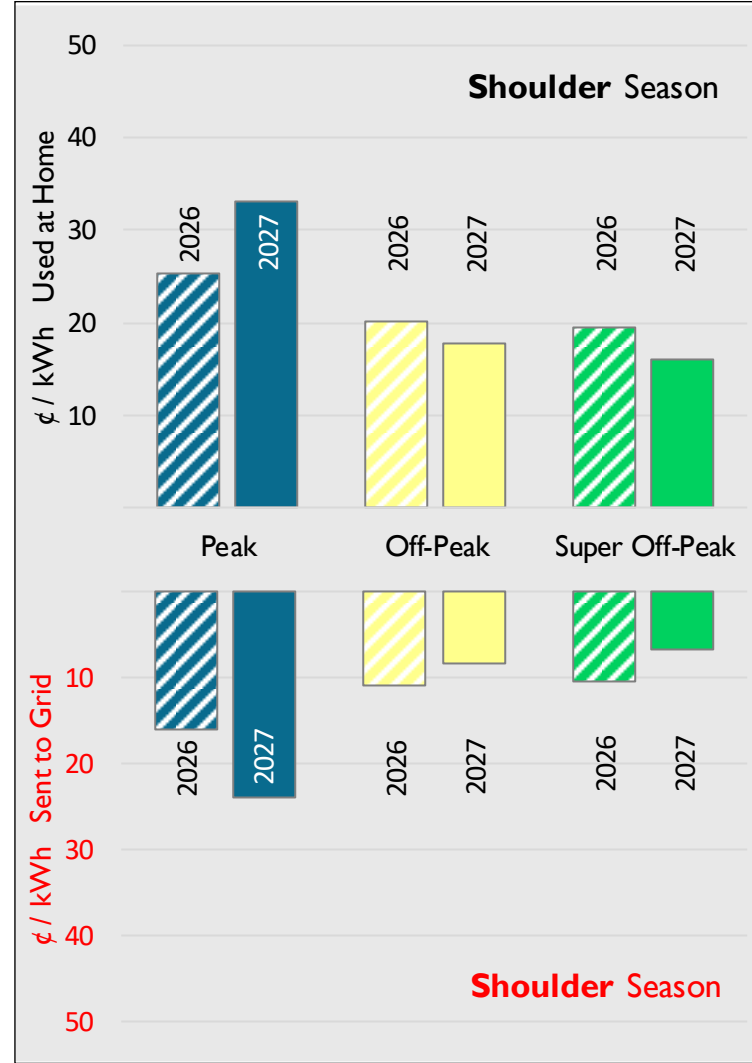
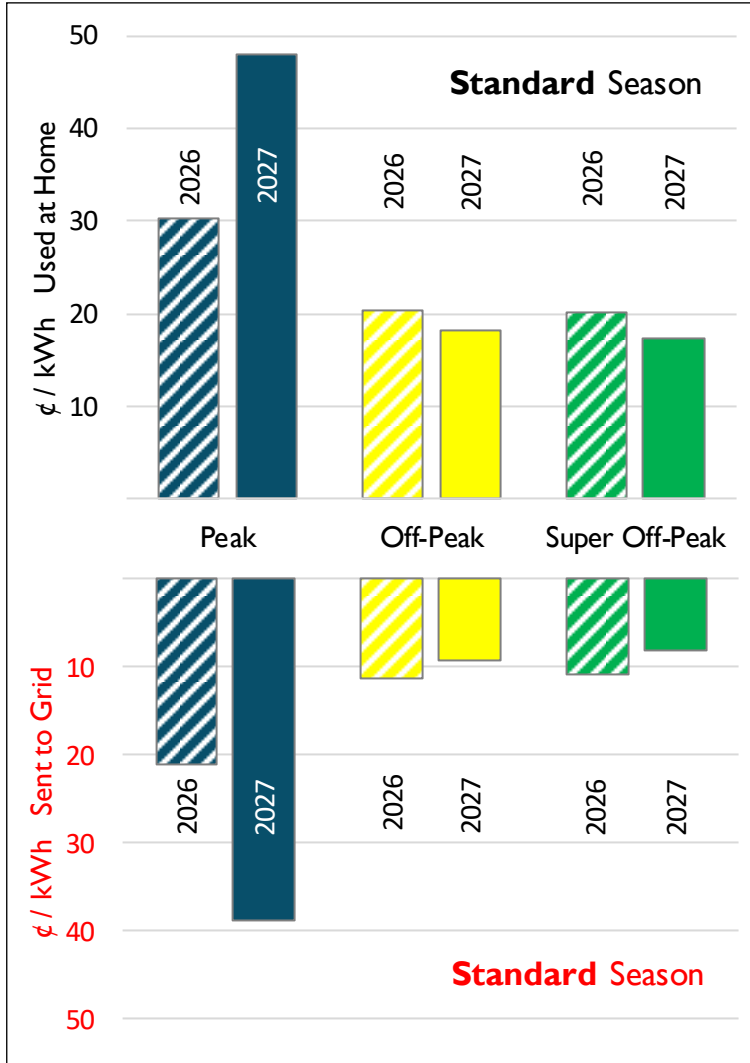
When you use electricity from your **solar panels** or store it in a **battery** for later use...

you **avoid paying the energy, capacity & transmission, and distribution charges** for those kWh
That energy has an equal dollar value to energy drawn from the grid

When you **send electricity to the grid...**

you are **credited** for **energy, capacity & transmission charges** because CMLP avoids the cost to bring electricity from the regional grid, but you are ***not credited for distribution charges*** because CMLP must still pay to run Concord's grid

When to use your solar and/or batteries



Within each time period, excess solar electricity sent to the grid always has a **smaller** dollar value than if that electricity is **used at home**. Lower your bill by reducing kWh drawn from the grid.

To save money...

***Always* reduce usage during Peak time periods**

***Only* increase usage (plug in EVs, run clothes dryers, turn on dishwashers, etc.) during Off-Peak and Super Off-Peak hours if you'd otherwise send solar electricity back to the grid**

CMLP does not accept electricity sent to the grid by batteries. You ***can use a battery* to shift when electricity is used at home** (by charging the battery previously from your solar panels or from the grid during non-peak hours), but you ***cannot use a battery* to shift when electricity is sent to the grid**. The only electricity you can send to the grid is excess generated by your solar panels that you don't store in a battery or use at home.

What was your **total** electric use?



When your home uses solar electricity in the same hour your panels generated it, that electricity isn't shown on your CMLP electric bill.

To figure out how much electricity your home used in a month (**iv** below), combine the solar electricity used at home with the kWh drawn from the grid:

1. Find your monthly **solar output** reading from your PV production meter or inverter web portal (**i** below)
*Note... make sure to ***match the start and end dates*** on your bill*
2. Subtract electricity sent to CMLP: the total **kWh credited** on your bill (**ii** below)
3. Add electricity **delivered from CMLP**: look at the PCA line on your bill (**iii** below)

Example from sample bill (see next slide)

..... kWh from Solar Meter (**i**)
– **677** kWh CMLP received from Home (**ii**)
+ **820** kWh CMLP delivered to Home (**iii**)
= Total kWh Use = Home Load (**iv**)

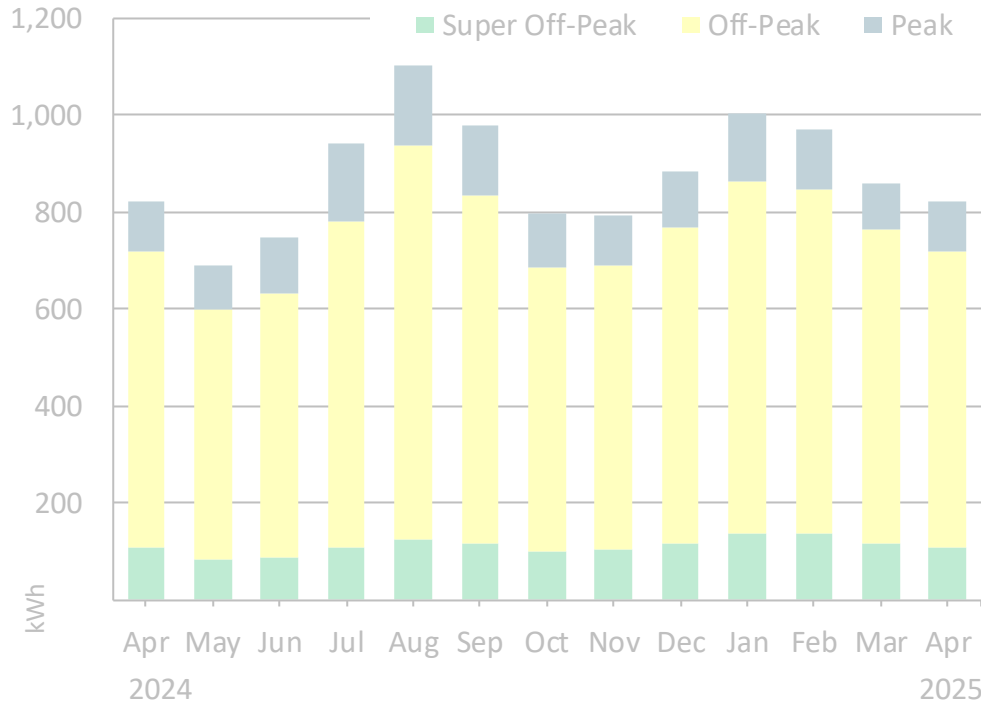
22 + 0 + 655 = **677** kWh sent to CMLP (**ii**)
102 + 106 + 612 = **820** kWh drawn from grid (**iii**)

Electric

Description: ELE SOLAR

Services		Days	Readings		Meter Multiplier	kWh Usage	Meter #	Rate Schedule
From	To		Previous	Present				
03/1/2025	04/1/2025	31	3463	3565	1.0	102	123456789	NETCP
03/1/2025	04/1/2025	31	945	1051	1.0	106	123456789	NETCS
03/1/2025	04/1/2025	31	1986	2598	1.0	612	123456789	NETCO
03/1/2025	04/1/2025	31	247	269	1.0	22	123456789	NETGP
03/1/2025	04/1/2025	31	0	0	1.0	0	123456789	NETGS
03/1/2025	04/1/2025	31	886	1541	1.0	655	123456789	NETGO

Your past and current electricity usage



Details of your new charges

Delivered Energy Charges - Cost to supply your electricity

Peak	102 kWh @ 0.30315	\$ 30.92
Super Off Peak	106 kWh @ 0.20117	\$ 21.32
Off Peak	612 kWh @ 0.20432	\$125.04
PCA	820 kWh @ (0.04267)	\$ (34.99)
NYPA Credit		\$ (2.80)

820 kWh
CMLP delivered to Home (iii)

Received Energy Credits - Credits from your solar generation

Peak	22 kWh @ 0.21132	\$ (4.65)
Super Off Peak	0 kWh @ 0.10934	\$ (0.00)
Off Peak	655 kWh @ 0.11249	\$ (73.68)

677 kWh
CMLP received from Home (ii)

Delivery Charges - Cost to distribute your electricity

Customer Charges	\$ 20.00
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Want to know more?

Read further information in our other resource, “*Net Bill Explainer – the Basics*” to learn about ...

Net Billing - the Basics

Slides 3 - 6: Factors impacting CMLP’s Time of Day rates...
- Rate phase
- Season
- Location
- Day and Hour

Slides 7 - 8: 2026 & 2027 Time of Day rates for kWh ...
- Drawn from the grid
- Generated by your solar panels
- Stored in a battery

Slides 9 - 10: What your net bill looks like...
- Rate schedule types
- Charges vs. Credits
- Your electric usage history graph

For more information or other questions about installing, generating, storing, and billing solar in Concord

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www.concordma.gov/rebates

The screenshot shows the website for the Town of Concord, Massachusetts. The header includes the town's logo and name, along with navigation links for Government, Services, Residents, Visitors, and How Do I... A search bar is also present. A large banner image of a wooden bridge over a pond is featured, with the URL www.concordma.gov overlaid in a red-bordered box. The main content area is titled "Solar Panels and Batteries" and includes a "SOLAR in Concord - Overview" section with 18 slides. A sidebar on the left lists various utility-related topics. A red-bordered box on the right contains a navigation menu starting with "Home" and listing sub-menus like "Government", "Departments", "Municipal Light Plant", "Energy Saving Rebates & Services", "Your Home", "Rebates for Your Home", and "Solar Panels".

THE TOWN OF
CONCORD
MASSACHUSETTS

GOVERNMENT SERVICES RESIDENTS VISITORS HOW DO I...

www.concordma.gov

Lease/Buy/Choose an Installer
How to Read Your Solar Net Metered Bill
Solar Net Metering Credit - Historic Rates
CMLP's Current Service Rates
What Are RECs?
Combining Solar with Electric Vehicles
Map of Concord Solar Arrays

Solar Panels and Batteries

SOLAR in Concord - Overview

18 slides on:

- Financial, environmental, & energy independence benefits of solar
- Siting decisions and, if you move ahead, steps in the process
- Ways to learn, do, give, and ask more on these topics

Rebate

CMLP Solar PV Rebate: \$625 per KW(DC) of installed solar PV generation capacity, capped at \$3,125 per service address. Residential

Home
> Government
> Departments
> Municipal Light Plant
> Energy Saving Rebates & Services
> Your Home
> Rebates for Your Home
> Solar Panels