

# AN INTRODUCTION TO GRID TIED SOLAR

Presented by: Sam Zuckerman Owner, Maine Solar Solutions



## TODAY'S DISCUSSION



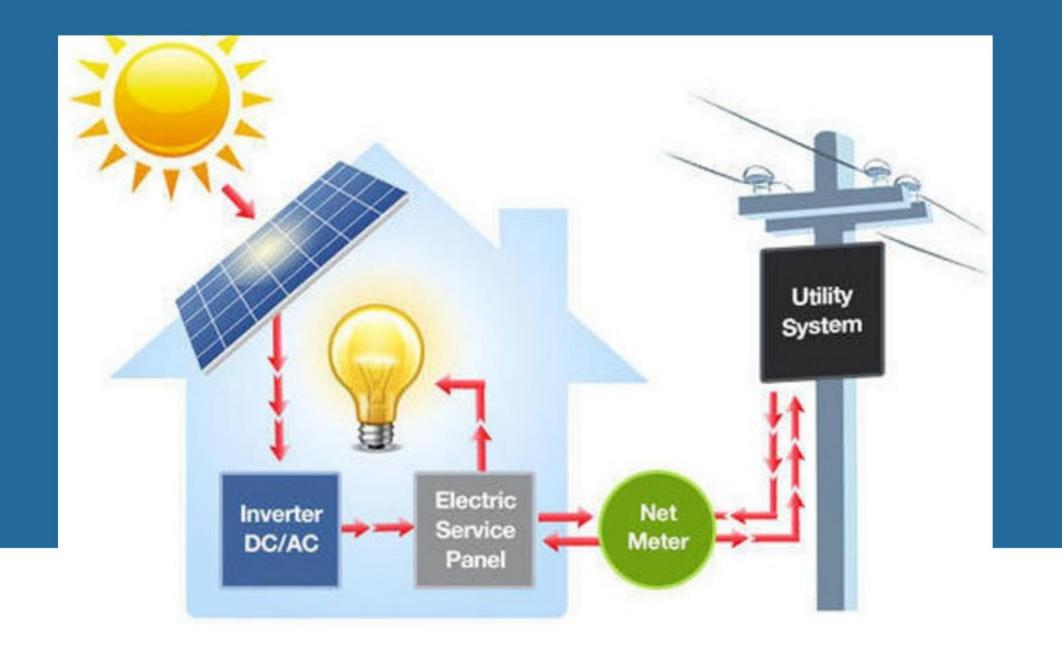


HOW DOES NET METERING WORK?



WHAT SIZE SYSTEM DO I NEED?









## NET METERING FAQ

WHAT IF THE SYSTEM PRODUCES MORE POWER IN A YEAR THAN I USE?

CAN I USE EXCESS CREDITS FROM MY ARRAY TO OFFSET ANOTHER ACCOUNT?



#### **NET METERING BENEFITS**



Get the full value of your solar system whether you use the power right away or send the excess power to the grid



You get a 1 to 1 kWh credit for any excess power your system produces.



Excess kWh's are credited on a rolling 12-month period.



Reduce your bill to the minimum monthly charge of \$13/month.



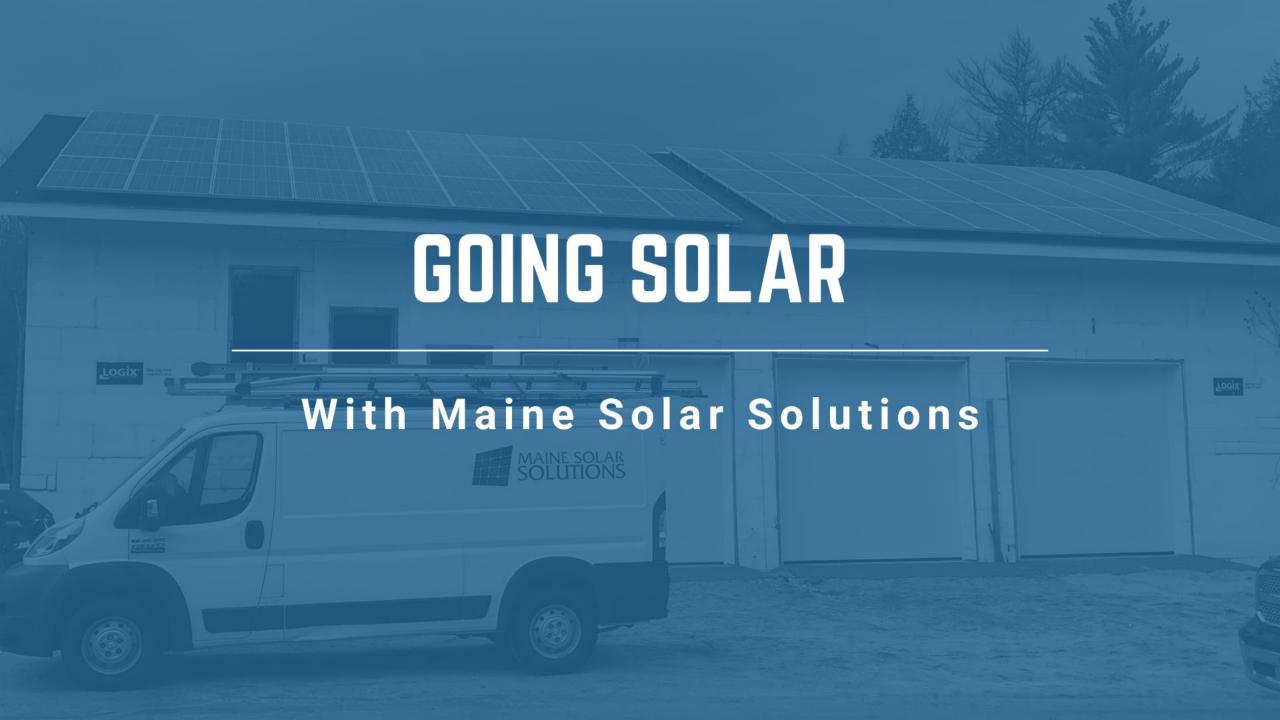


## GRID TIED SOLAR FAQ

DOES A GRID TIED SOLAR ELECTRIC SYSTEM REQUIRE BATTERIES?

WHAT HAPPENS WHEN THE POWER GOES OUT?





#### OUR PROCESS - modified during COVID-19



#### Step 1:

#### INTRODUCTORY PHONE CALL

The first step is a brief phone call where we gather some information and schedule a free solar site evaluation. We confirm your address, we determine your annual electricity usage & we answer some of your basic questions.



#### Step 2:

#### FREE SOLAR SITE ASSESSMENT

We schedule a thorough onsite solar assessment where we measure the roof and perform a shade analysis. We use this information to prepare a preliminary solar proposal specific to the conditions at your home. We also take pictures that will be used to plan your install.



#### Step 3:

#### ONLINE PRESENTATION OF PRELIMINARY PROPOSAL

We present a preliminary solar proposal designed specifically for your home. We educate you as to how solar works, review the net-metering policy and typically present 3 or 4 different panel options. We also educate you & present options such as battery back-up, car chargers and consumption meters.

Based on your feedback and questions we can modify your proposal during our call and once you have narrowed down your choices, we can also present a selection of financing options with varied interest rates and loan terms.



#### Step 4:

#### THE SOLAR INSTALLATION

Our qualified and experienced team handles all aspects of your installation. We present a fixed cost proposal. From paperwork to final inspection, we provide a high quality, safe and code compliant installation.

# SIZING YOUR SOLAR SYSTEM www.mainesolarsolutions.com

### WHAT SIZE SOLAR SYSTEM DO I NEED?

# WE DESIGN A SYSTEM TO OFFSET YOUR ANNUAL ELECTRICITY USAGE.

- We calculate your current annual electrical consumption
- We factor in any electrical loads you may add to your home such as heat pumps, heat-pump hot water heaters or electric cars





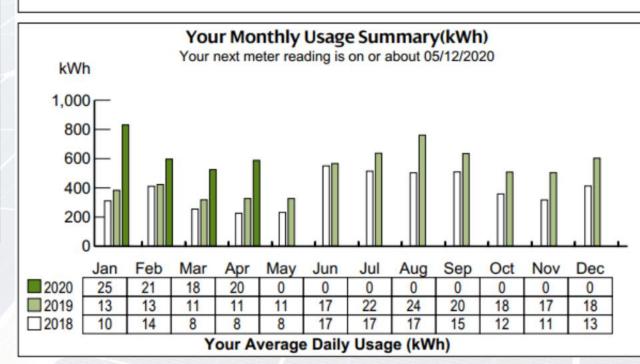
## CALCULATE ANNUAL USAGE

6,800 KWH/YR





Please pay by 05/11/2020	\$94.38
Electricity Supply Standard Offer	+\$42.95
Electricity Delivery Central Maine Power	+\$51.43
Balance Forward	\$0.00
Payments received through 04/13/2020 - Thank you	-\$83.65
Prior Balance	\$83.65



#### WHAT SIZE SOLAR ARRAY DO I NEED?

# INFORMATION WE TAKE INTO ACCOUNT TO SIZE YOUR SYSTEM:

- The available space on your roof
- Your roof pitch
- Orientation to south (azimuth)
- Shade readings
- Geographic location of your home





#### WHAT SIZE SOLAR ARRAY DO I NEED?

#### SYSTEM DESIGN FAQS

- What is the best angle for solar panels?
- My house doesn't face directly south is that ok?
- What's the best type of roofing to install on?
- Do I need to remove trees if they shade the array?
- Do I have to installer solar on my roof?









# SYSTEM COMPONENTS

www.mainesolarsolutions.com



# MAJOR SYSTEM COMPONENTS

- Solar Panels
- Racking System
- Inverter & Optimizers
- System Monitoring



# THINGS TO KNOW WHEN CHOOSING SOLAR PANELS:



- Wattage
- Efficiency
- Size
- Appearance
- Country of Manufacture
- Cost

















### INVERTER

- Track production
- Monitor performance
- Run production reports
- Provide remote access for troubleshooting



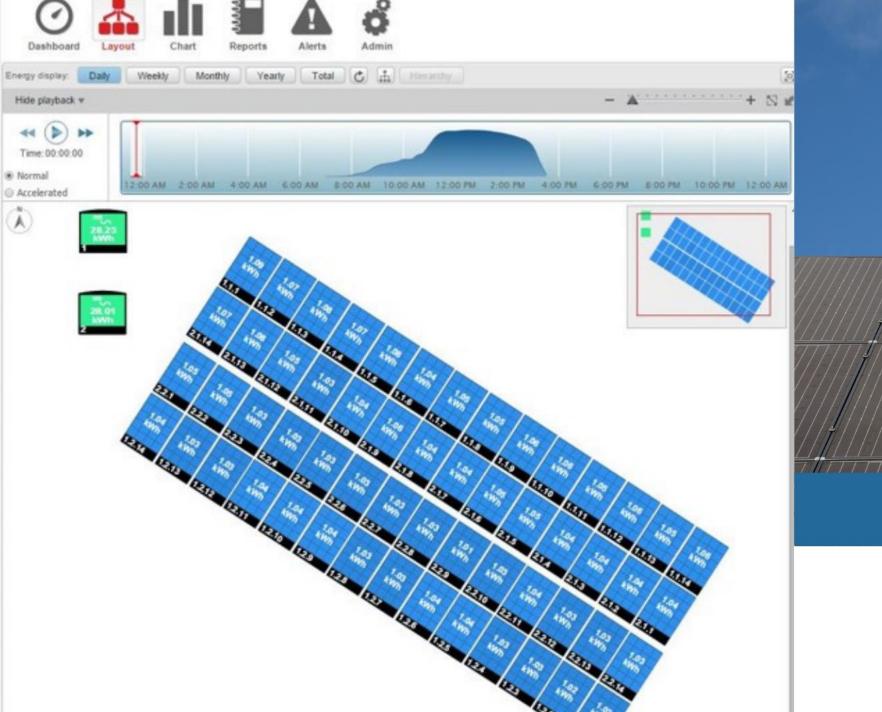


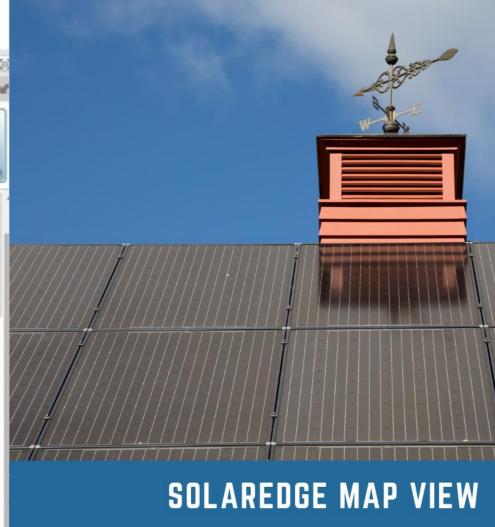
# SYSTEM MONITORING



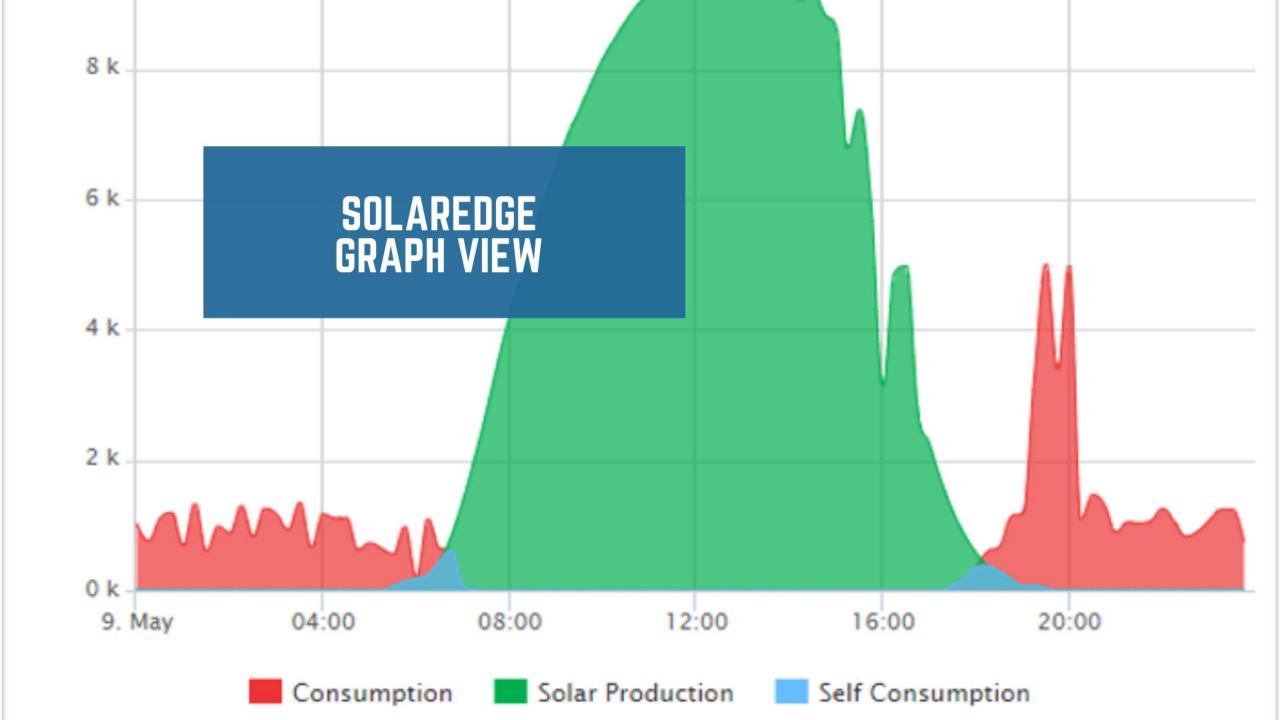
- Track production
- Monitor performance
- Run production reports
- Provide remote access for troubleshooting













# THE BENEFITS OF OWNING A SOLAR ELECTRIC SYSTEM

- Fix your cost of electricity by pre-purchasing a lifetime of electricity production
- Reduce or eliminate your carbon footprint by combining with heat pumps and heat pump hot water heaters
- Couple with a battery for back-up power during outages
- · Earn a 22% federal tax credit





POWERWALL

CERTIFIED INSTALLER

Protect your home during blackouts. Backup power during grid outages.

#### **Grid Independence**:

Store excess solar electricity in batteries during the day. Use your stored solar power at night.

Your solar electric system can charge the batteries during an outage.

When combined with solar, battery backup qualifies for federal tax credit.



#### **BATTERY BACKUP FAQ**



Can I add batteries later?



How long will the battery last?



Can I run my whole house with a battery back-up?





# FREQUENTLY ASKED QUESTIONS



- What about snow on the panels?
- How long do solar panels last?
- What if my roof needs to be replaced?
- What if I have shade on my roof?
- What if my home doesn't face directly south?
- Do you offer financing?
- Is there a tax credit or state incentive?
- How long does an install take?

## CONTACT US VIA OUR WEBSITE, **EMAIL OR CALL** TO SCHEDULE A FREE SOLAR SITE **ASSESSMENT**

**EMAIL ADDRESS** 

info@mainesolarsolutions.com

PHONE NUMBER

(207) 871-7191



THANK YOU,

FOR ATTENDING