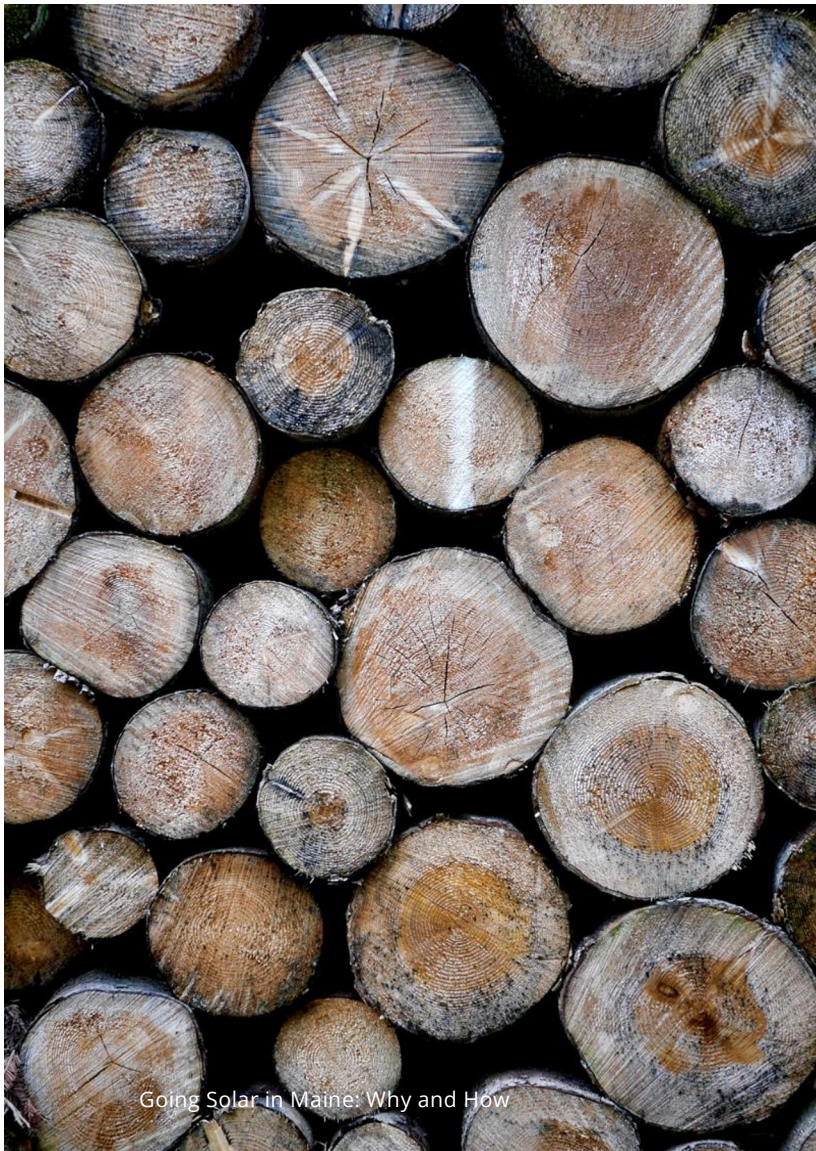

GOING SOLAR IN MAINE: WHY AND HOW

Fred Horch,
Rotary Club of Brunswick





Going Solar in Maine: Why and How

WHY GO SOLAR

1

Permanently
lower energy
prices for
everyone.

2

Sustain and
grow a **better**
economy.

3

Protect and
promote
healthier
conditions for
people on
Earth.

SOLAR ENERGY

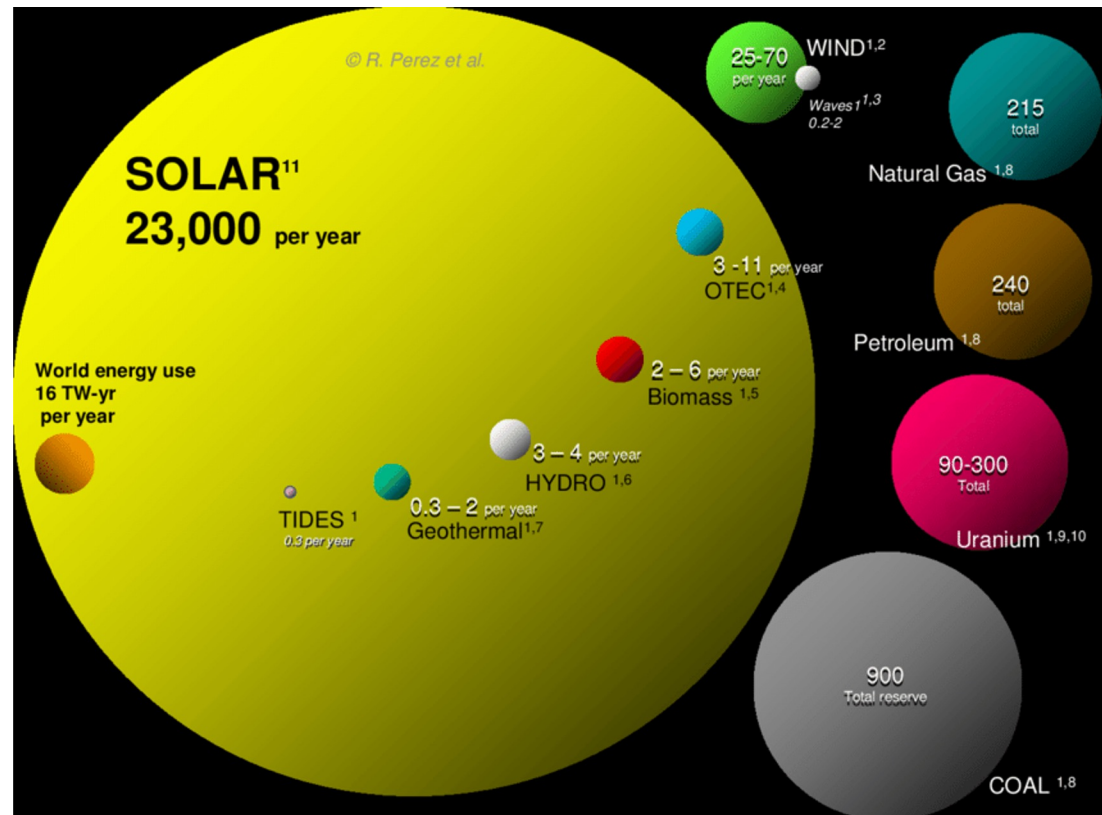
Solar energy powers the entire natural world. It is the most abundant and sustainable source of energy on our planet.

Going solar is tapping into an **endless supply of clean energy** that is **sufficient to power all human needs** now and for the foreseeable future.



ANNUAL SOLAR RESOURCE COMPARED TO OTHER ENERGY TOTAL RESERVES

- Solar energy is by far Earth's **largest** energy resource.
- Every **three weeks** the sun delivers more energy than all the **coal** deposits in the world.
- Solar power is **more than 300** times more abundant than **wind** power.

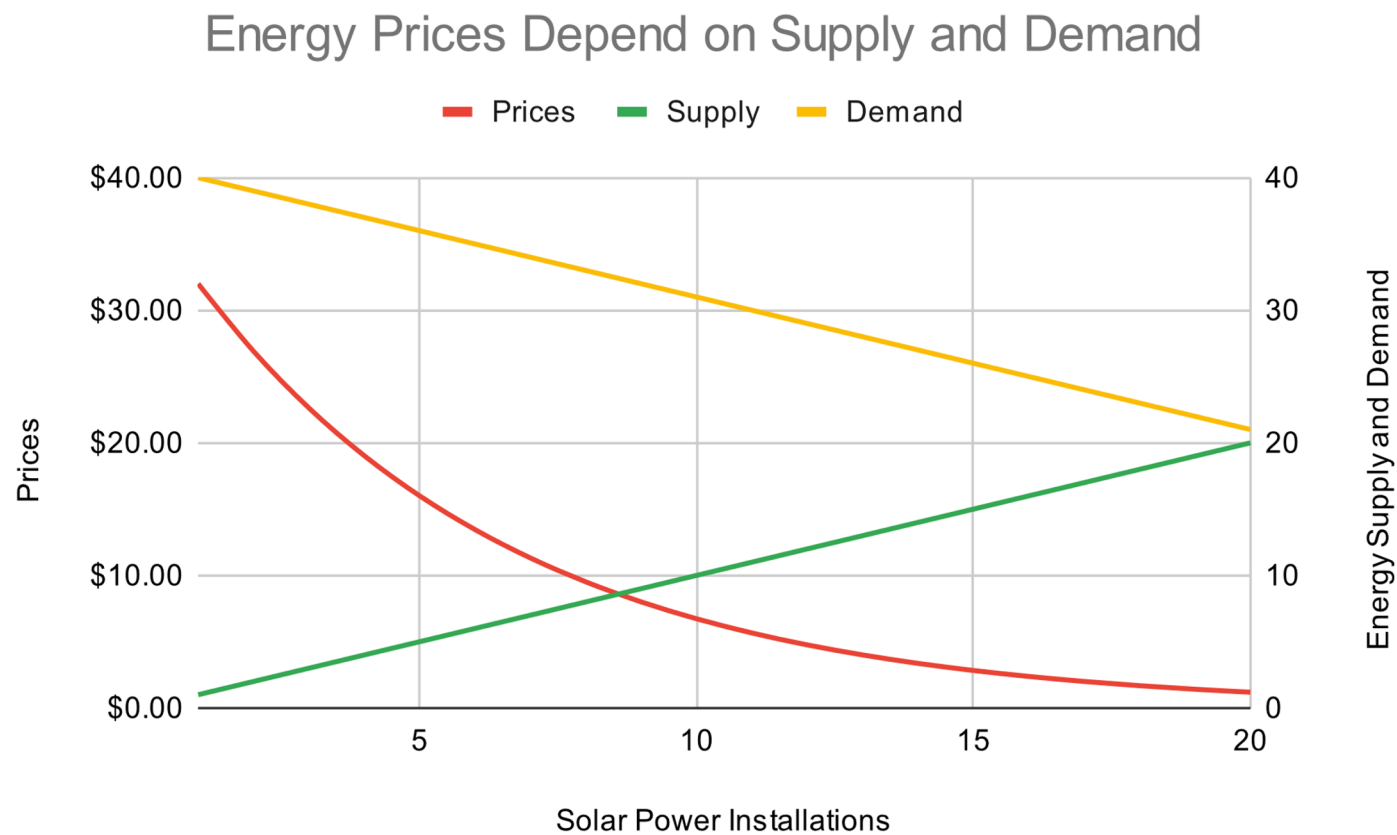




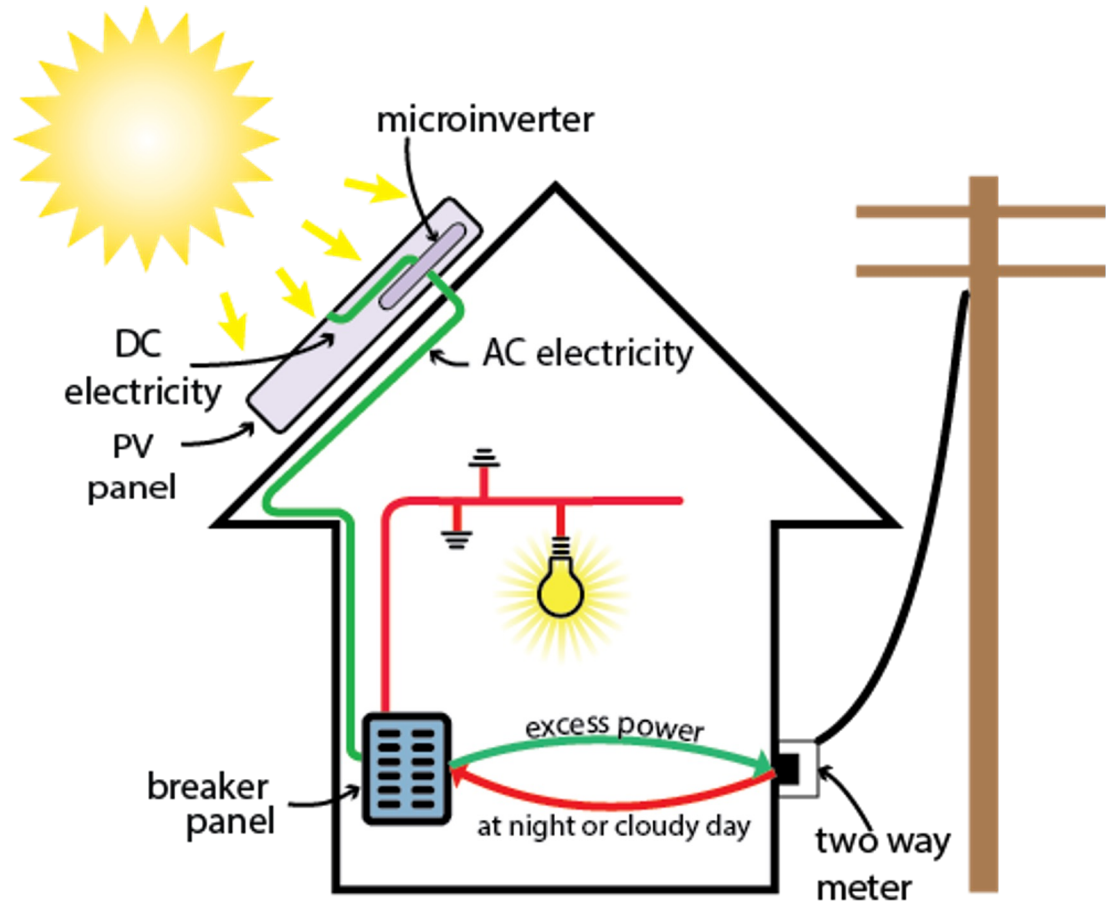
MORE SOLAR POWER BENEFITS EVERYONE THROUGH LOWER ENERGY PRICES

Solar power is delivered around the world for free every day. Harnessing this free resource reduces energy prices for everyone.

GOING
SOLAR
INCREASES
ENERGY
SUPPLY,
REDUCES
ENERGY
DEMAND

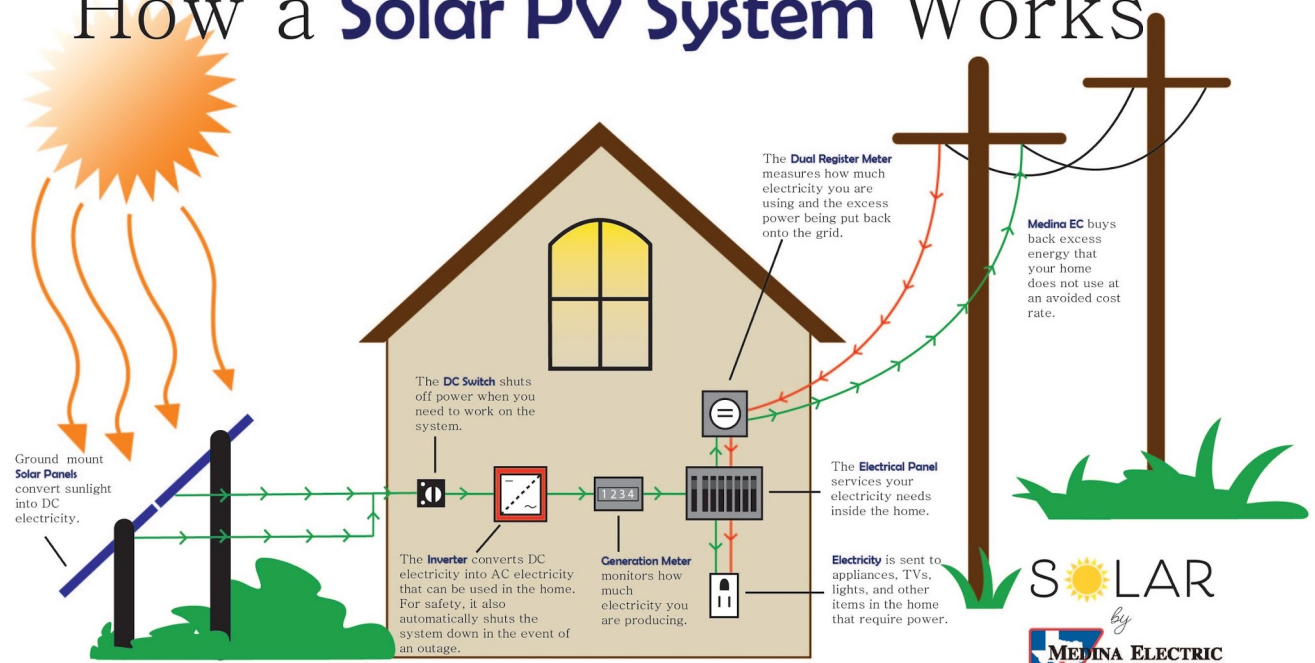


SOLAR ON YOUR ROOF



SOLAR IN YOUR YARD

How a Solar PV System Works



@MedinaECTalks

/MedinaEC

/MedinaEC

@ourMEC

1.866.MEC.ELEC (632.3532)

www.MedinaEC.org/Solar

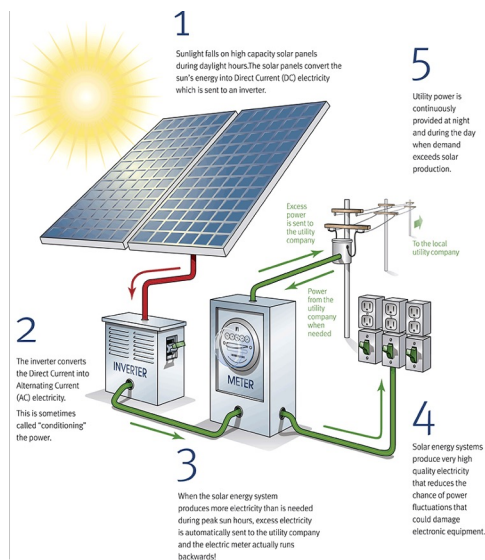
by
MEDINA ELECTRIC
COOPERATIVE, INC.

SOLAR FARM



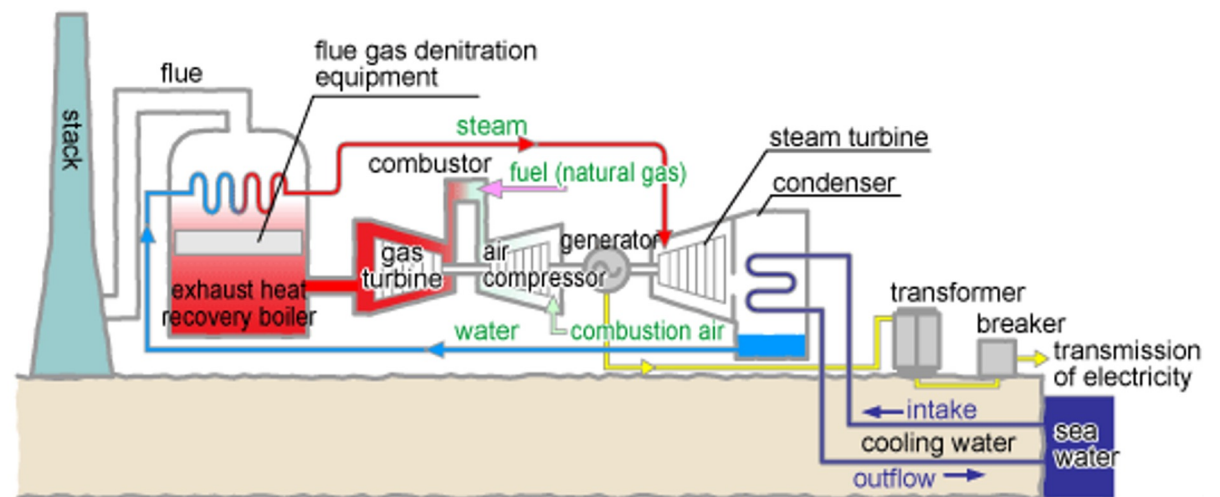
SOLAR TODAY: BURN LESS GAS

Solar on Sunny Days



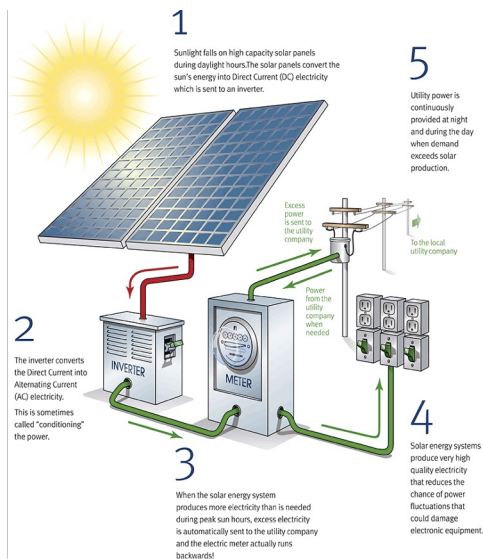
Natural Gas on Cloudy Days or Nights

Combined Cycle Power Generation

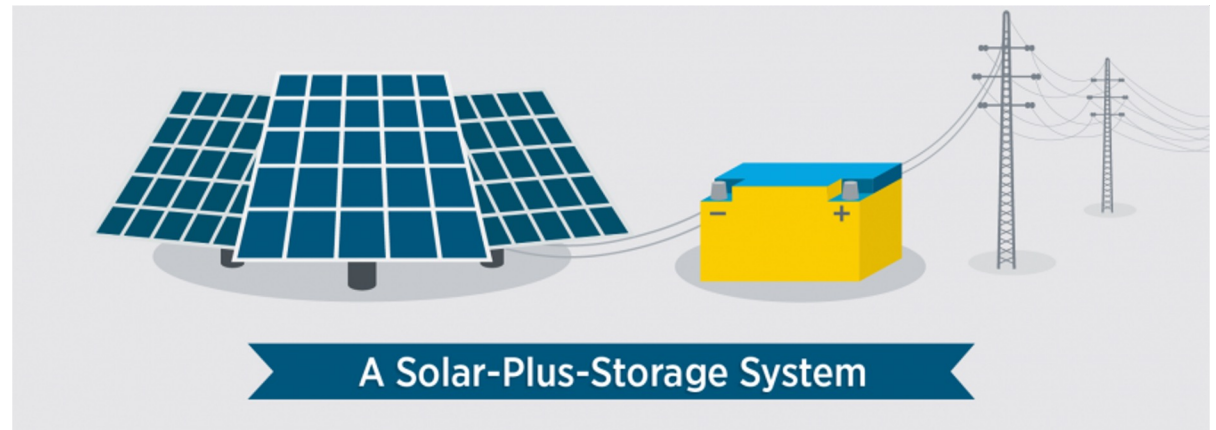



SOLAR TOMORROW: NO GAS NEEDED

Solar on Sunny Days



Batteries for Cloudy Days or Nights



The background of the slide is a close-up photograph of a wood surface, showing concentric growth rings and a prominent knot. The wood has a warm, brownish-orange hue with varying textures and tones.

Energy is the lifeblood of the
global economy – a crucial input
to nearly all of the goods and
services of the modern world.

World Economic Forum

SOLAR ENERGY: MADE IN MAINE POWER

Maine Has No Fossil Fuel Reserves

- 100% of the fossil fuel burned in Maine for energy must be **imported** from out of state.
- Every year, fossil fuel costs Maine **\$4 billion**.
- Maine's economy will **collapse** if out-of-state suppliers stop providing us with fossil fuel for more than a few weeks.

Maine Has PLENTY of Sun

- The **entire state** of Maine receives sunlight: it is an evenly-distributed energy resource free for the taking wherever you live and work.
- **20 square feet** of full-sun roof area in Maine produce more than **450 kilowatt hours** of electricity per year—enough energy to drive a Tesla **1,300 miles**.
- **300 square feet** (12 feet by 25 feet) of solar panels in Maine produce as much electricity as an average Maine household uses **per year**.

MAINE'S \$4 BILLION QUESTION

Spend \$4 billion per year on fossil fuel?

- Buy \$4 billion of fossil fuel.
- Burn it for energy.
- Release pollution into our air and water.
- Hope the price of fossil fuel doesn't go up.

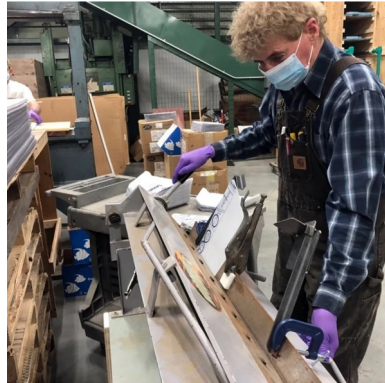
Spend \$4 billion per year on solar power?

- Borrow money.
- Pay \$4 billion per year to repay the loan.
- Use the money we've borrowed to install solar panels on our homes, small businesses, parking lots, capped landfills and other sunny places.
- Generate electricity without releasing any pollution into our air and water.
- Hope the sun doesn't burn out.

WHO BENEFITS IN MAINE FROM SOLAR POWER



Farmers
Earn income from solar
Supply own energy



Manufacturers
Lower costs
More reliable supply



Retailers
Lower costs
Supply own energy



Homeowners
Lower costs
Supply own energy

NOTHING ELSE
MATTERS IF YOU
CAN'T BREATHE.

American Lung Association

Going Solar in Maine: Why and How



3/20/2022

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SOLAR POWER: CLEAN, QUIET, RELIABLE

Air

Solar panels produce electricity without burning fuel. You can enjoy power without pollution.

Water

Unlike hydro, coal and nuclear power plants, solar photovoltaic panels do not require any water to produce power.

Noise

Unlike wind turbines, solar panels produce power in complete silence.

Motion

Unlike hydro, tidal, wind, gas, nuclear and coal power plants, solar panels produce power with no moving parts.

Warranty

Most solar panels have a 25-year warranty and an expected useful life of 30 years. Solar panels installed 30 years ago are still producing power today.

COMMON QUESTIONS ABOUT SOLAR POWER

Sustainability

- It takes about 200 kWh of energy to make a solar panel.
- If installed in a sunny spot in Maine, over its useful life a solar panel will produce between 8 and 30 times as much energy as it takes to make.
- Producing electricity on site with solar panels has less environmental impact than any other energy source.

Practicality

- Snow slides right off solar panels in the winter.
- Rain cleans dirt off solar panels in the spring, summer and fall.
- Electricity from solar panels can be used just like power you buy from a utility.
- You can install solar in any sunny spot or subscribe to a solar farm.

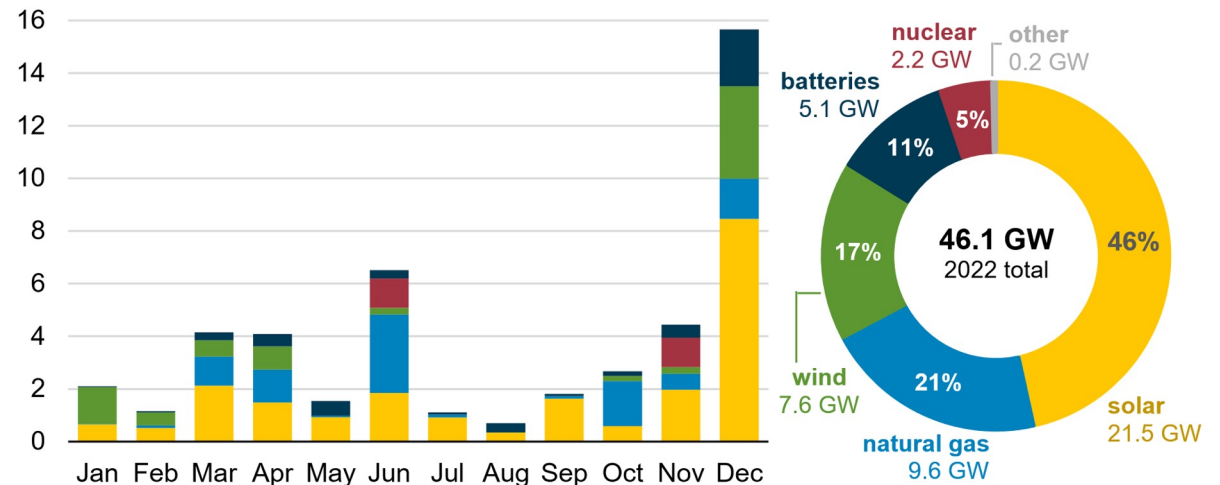
Affordability

- If you can take out a 15 or 30-year loan, generating your own solar power is cheaper than buying power from a utility.
- You can lower your utility power costs by 15% by subscribing to a solar farm.

SOLAR: NOW MOST AFFORDABLE ENERGY SOURCE

- The US Energy Information Administration says solar power will account for nearly half of new U.S. electric generating capacity in 2022.
- New solar projects around the world are bidding at 1.5 cents or less per kilowatt hour.

Planned U.S. utility-scale electric generating capacity additions (2022)
gigawatts (GW)





SUMMARY

Generating your own solar power is **cheaper** than buying electricity from a utility.

By installing solar panels, you **increase the supply** of electricity and **decrease the demand** for electricity, which leads to **lower energy prices** for everyone.

When installed in any sunny location in Maine, solar panels will reliably produce power for **30 years** without making any noise or emitting any pollution.



THANK YOU

Fred Horch | fred.horch@gmail.com | www.BrunswickMaineRotary.org