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**A CONSUMER'S GUIDE**

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# **Net Metering and Solar Power in Mississippi**

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# Introduction

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Adding solar panels to meet the energy needs of your family or business can help reduce your electric bills and even increase the value of your property. It is also a way that you can make an environment-friendly and energy-efficient contribution.

Over the past decade, deployment of solar energy systems in the U.S. has grown rapidly. Cost reductions as well as new homeownership and financing options have made solar energy a possibility for many Mississippi residents.

Adding a solar power system to your property is a big decision. Understanding the basics of solar energy, financing options, how it might impact your electric bill, and which questions to ask the experts are important. Contact information for national and local resources are found at the end of this document.



# Net Metering in Mississippi

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In 2016, the Mississippi Public Service Commission (Commission) implemented the Mississippi Renewable Energy Net Metering Rule. The Rule applies to Entergy Mississippi and Mississippi Power customers only. Electric cooperative members should contact their electric providers for their net metering guidelines.

The Rule authorizes homeowners and businesses to utilize rooftop solar systems to meet their energy requirements and provide any excess power back to the electric power system, known as “the grid.” Pursuant to the Rule and the utilities’ interconnection process, the utility will accept excess power and give the customer a bill credit based on the utility’s current avoided energy cost rate (expressed in cents per kWh) plus a Commission-approved add-on of 2.5 cents per kWh. This excess energy produced by the rooftop solar owner will be valued and credited monthly, with unlimited carryover of any bill credits.

The first 1,000 qualifying, low-income customers to install solar systems will receive an additional 2 cents per kWh credit. This incentive for low-income customers is effective for a period of 15 years from the date the customer begins taking net metering service. For residential applications, solar systems are limited to 20 kW in size.

In January of 2021, the Commission established a docket to review the existing net metering rule and consider possible changes relating to program caps, system size limits, compensation rates, and interconnection processes. More information can be found at <https://www.psc.ms.gov/>.



# Solar Power

## HOW IT WORKS

Solar panels can be installed or integrated on to your roof or located on the ground. When the sunlight comes in contact with the solar panels, it is converted into electricity. If you produce more electricity than you need at any point in time, the excess energy can be run back through your meter into your electric company's grid and will help further reduce your electric bill. Benefits of adding a solar system depend upon the installed cost of the system, available incentives such as the federal Investment Tax Credit, amount of electricity used each month, amount of direct sunlight that your home receives, and the utility company that provides service to your home or business. Today, most residential solar systems are photovoltaic ("PV") systems. Solar PV systems generate electricity through two main components:

1. Solar panels that convert sunlight to direct current (DC) electricity; and
2. Inverters that convert DC into alternating current (AC) electricity for use in your home or business.

# Generating Electricity

## WHAT IT TAKES

The amount of electricity measured in kWh produced by any solar system depends on two factors:

1. The capacity of the solar PV system measured in kilowatts (kW); and
2. The amount of sunlight the system receives, which is affected by several variables:
  - The average amount of sunlight in your location.
  - The orientation of the system. The roof angle/pitch and compass direction impact how much of the sunlight in your area hits the panels each day. In the United States, roofs facing due north are not very good candidates for solar panels because they don't receive as much direct sunlight as south-facing panels would.
  - Shading from nearby objects, such as chimneys, trees, or neighboring buildings.

# Solar Equipment

## LIFESPAN

### Solar Panels:

- The majority of manufacturers offer a 25-year standard solar panel warranty, which generally means that power output should not be less than 80% of rated power after 25 years.
- Make sure your warranty is around the 25-year mark and the power output is consistent with the above stated rate.
- The typical lifespan for solar panels is between 20 and 30 years. However you may have to replace the inverter sooner.

### Solar Inverters:

- Central or "string" inverters are typically less-expensive and have a 15 to 20 year lifespan and warranty.
- Micro-inverters will provide maximum power production for each solar panel and may have a 20 to 25 year lifespan and warranty. Micro-inverters, while slightly more costly, are generally considered easier to install because they are integrated with the solar panel.

As a consumer, you should ask the installer about warranty, quality, and reliability of both the solar panels and the inverter before entering any agreement to purchase or lease. You may also want to contact an attorney and/or CPA to make sure you are receiving a fair contract for your purchase or lease. You may want to consider how purchase or lease may affect future plans, including selling your home or business.

## *Ownership Options in Mississippi*

Solar power ownership options are similar to ownership options for cars. It's important to understand the differences so that you can choose the option that best fits your needs. The two options currently available are purchasing a system directly or leasing a system.

## *Purchase*

When you buy a solar system directly, you are the owner, and you benefit from available incentives and receive all of the electricity the system produces. You are usually responsible for system upkeep, although some providers offer maintenance service plans on purchased systems. You may also be the beneficiary of any tax credits or other incentives that promote solar energy.

The payback period is the amount of time it will take for your system to pay for itself in energy cost savings. Payback is calculated based on expectations of future energy bills, the cost of your system, and any available incentives.

## *Lease*

Under a long-term lease, the solar company owns the system but leases it to you for your use and benefit. Under a lease, the solar company is typically responsible for upkeep and maintenance and is the beneficiary of any eligible tax credits or other incentives. You make monthly payments to the solar company as agreed upon in the lease. Some solar companies may allow you to lease with no initial costs. Companies may also give you an option to purchase the system after a certain amount of time.

It is important to read the lease terms carefully to be certain you can meet them. You should also compare the lease terms to those of a purchase loan before making a final decision.

## *Moving Forward*

When evaluating your solar options, you should always do your homework, check references, talk to friends and neighbors who have installed solar PV systems, and stay engaged with your solar company.

# Know your Situation

## Know your Finances

Like any major home or business decision, it's important to review your finances before shopping for a solar system. Although sunlight is free, buying or leasing solar systems are not. It may be wise to conduct a cost-benefit analysis before purchasing or leasing.

## Know your Electricity Usage

First, you should calculate how much electricity your home or business uses each month/year and then decide how much you want to rely on solar power. Your utility bill will show your electricity usage in kilowatt-hours (kWh) and the amount you pay for that electricity. Are you planning any changes that will affect your electricity use such as buying an electric vehicle, planning an addition, or improving your energy efficiency? If you are a business, billing can be complex and may involve different types of charges based on demand. Calculate your expected future energy use, and discuss with the solar companies you interview. This will give you a better understanding of potential savings and help select a system sized for your specific needs. It's important to discuss your daytime energy use and savings expectations with your installer because you can save more money with solar energy when you use the energy yourself.

## Know your Weather

If you experience frequent or serious hail storms, smaller modules are easier and less costly to replace.

## Know your Roof

Is your roof appropriate for solar? Examine its physical features and discuss with a qualified and reputable solar professional. A solar professional can estimate the amount of sunlight expected to reach a planned system over the course of a year and provide guidance on how the system should be designed and installed. How old is the roof? If you plan on replacing it soon, you may want to replace it prior to a rooftop solar installation. Installation of solar panels require flashings and waterproofing methods approved by the roof manufacturer in order to maintain the roof warranty and to protect against leaks and other potential problems. You should review your roof warranty and discuss with your solar installer. Ensure that your installer can guarantee appropriate installation methods will be used and the roof warranty will be maintained after panel installation.

# Do Your Homework



## Get The Best Deal

As with any major purchase or long-term commitment, get multiple bids for your solar system. Mississippians find the market to be quite competitive, with multiple solar companies competing for your business. Be sure to compare costs and terms from different qualified and reputable firms.

## Research The Solar Company

The contractor you choose can have a substantial impact on the success of your installation. Ask for customer references for recent solar installations in your area and call those references to learn about their experiences. Ask the contractor for proof of licensure and insurance (e.g., liability, workman's compensation), and check with your county, Mississippi Board of Contractors, and/or the Mississippi Attorney General's Office to ensure the firm is in good standing. It might also be helpful to look for certification from the North American Board of Certified Energy Practitioners (NABCEP), which is the global certification leader for renewable energy, and membership in The Solar Energy Industries Association (SEIA), the national trade association for solar. Both SEIA and its local branch, the Gulf States Renewable Energy Industries Association (GSREIA), expect all members to abide by a Code of Ethics and a Solar Business Code. You should also check with the Better Business Bureau of Mississippi and other consumer guides to determine if the solar company is the right fit for your needs.

## Understand Any Tax Credits, Incentives, or Potential Tax Implications

When a company leases you a solar system, it will typically be assigned any available tax credits. It is also important to remember the federal Investment Tax Credit is credited against taxes owed, so it is only available to individuals with sufficient tax liability. In December of 2020, Congress extended the investment tax credit at 26% through 2022. This will drop to 22% in 2023, then phase out entirely for homeowners. After 2023, businesses will still be eligible for a 10% tax credit. You should consider consulting a CPA to determine how the federal investment tax credit might work given your circumstances.

## Ask About Safety Guidelines

Ask the installer about safety issues related to the solar system; especially fire safety and roofing hazards. Many building codes now include provisions intended to address firefighter safety, such as minimum setback areas to provide space on the roof for walking around solar systems, as well as specific equipment requirements. There may also be local electrical and/or construction permitting requirements so be sure to check if the solar company has experience in your area and knows the local rules before the system gets installed.

# Understand the Agreement

## **UNDERSTAND THE TERMS**

Contracts are legally binding and should be read carefully. Make sure you understand what you are receiving from the solar company and how much you are paying for it, as well as any additional requirements not covered in the contract. Make sure terms and conditions that are important to you are specifically included in the official signed contract documents before you sign.

## **DON'T HESITATE TO ASK QUESTIONS**

The best transactions are ones where the consumer and the contractor both fully understand the agreement and who is responsible for what. Asking questions up-front can avoid confusion and frustration later in the process

## **SEPARATE ESTIMATES FROM GUARANTEES**

Many Americans can save money on their utility bills by choosing to install a solar system, but the savings depend on a number of factors unique to each location. If a solar company promises a particular level of savings or asserts that electricity costs from your utility will increase in the future by a certain amount, ask them to explain and provide documentation. According to the

U.S. Department of Energy, Mississippi's residential electricity rates increased, on average, by 1.17 percent annually between 2010 and 2020. While some installers will include a savings or production guarantee, it is always best to seek clarification.

## **FULLY UNDERSTAND WARRANTIES**

Like any other major product or service, a solar system includes warranties and may affect existing roofing warranties. Make sure you are getting the right warranty for your system. Installers should also provide a labor and workmanship warranty of at least one year, but more typically five to ten years, after the solar system is activated. Obtain all warranties in writing before making final payment.

## **PROPERTY INSURANCE**

Before you sign a contract to purchase or lease a solar system, you should check with your property insurance company to see if there will be any impact on your policy's annual premium. Some insurance companies specifically exclude rooftop solar systems from their policies up-front.

# The Interconnection Process

**Know your responsibilities.** As the customer, you should understand the steps for completing and submitting the Interconnection Application and requesting interconnection of your solar system to your utility's electrical distribution grid. Contact your electric provider directly to obtain information specific to your provider's interconnection process.

**Be aware of potential fees.** Your electric utility may impose an application fee in certain circumstances or even fees for a study (typically only required when the customer is considering a larger system).

**Review the installer's responsibilities.** Prior to the start of the installation, review and document the installer's role in completing, submitting, and negotiating the Interconnection Application, requests, and associated agreement. Some installers take care of all the paperwork and others do not. Also, understand who will request the utility to conduct the "Commissioning" or "Witness Test" of the solar system. This test will take place after installation is complete and all electrical connections have been made to ensure all equipment has been appropriately installed and all electrical connections have been made in accordance with applicable codes.



## Working out Differences

As with any other service or product, consumers may encounter issues when dealing with a solar provider. Below are some tips you may find helpful if you find yourself in that situation.

- Try to resolve problems directly with your solar provider.
- Your contract or lease may have a dispute resolution provision and a detailed process.
- If you choose a solar provider that is a member of SEIA or GSREIA, those organizations may be able to assist in resolving your issue.
- SEIA has a contractor reporting page to assist consumers.
- Private consumer organizations (e.g., your local Better Business Bureau) may be able to assist with solving your dispute.
- If you feel the installer misrepresented the product or performance of the solar system or did not perform the agreed upon services after being paid, contact the Consumer Protection Division of the Mississippi Attorney General's Office.
- If you feel the installation work performed was substandard, contact the Mississippi Board of Contractors.
- If issues arise concerning the utility and your utility bill, first contact your utility to resolve the issue. If you need additional assistance, please contact the Mississippi Public Service Commission.

# Key Questions

## FOR YOUR PROVIDER

### For all solar systems:

- Do you have experience installing grid-connected solar systems? How many years?
- What is the total cost of the solar system?
- Timeline: Do you want a short-term arrangement or a long-term asset?
- How much do I pay up-front or over time and for how long? What is the interest rate for the loan if I finance the system?
- Are there any pre-payment or other penalties for paying the loan off early?
- What is the anticipated system size appropriate for my needs?
- Will I get access to an online production monitoring system?
- How much electricity will the system generate each year? Do you guarantee a minimum amount?
- Do system production calculations consider actual installation details of the system, such as shading and other location aspects?
- Can I expect to save money with the system? If so, how much and based on what assumptions?
- Is the installation company licensed and insured in Mississippi?
- Will I be able to review and approve the final system design and contract terms before installation?
- Will I be required to make changes to my home (e.g., roofing upgrades)?
- Are there separate warranties for parts and labor? Will installing panels affect my existing roof warranty?
- What do the warranties cover and what are their durations?
- What type of maintenance or cleaning is required? Are any maintenance services included?
- What impact will the installation have on my property insurance policy? Will my premium be affected?
- Who should I contact if I have a question about the system following installation?
- Does your company follow the SEIA or Gulf States Renewable Energy Industries Association Solar Business Code?
- Do you agree to abide by SEIA or GSREIA's Complaint Resolution Process?
- If I am interested in adding battery storage at a later date, will I be able to do that with the current design?

### For leases only:

- Does your company use the SEIA Residential Lease Disclosure Form?
- How long is the lease?
- How does the rate of increase compare historically?
- What happens if I wish to end the lease early?
- Can I purchase the system, either during the agreement or once it ends?
- What are my options when I sell my home?
- Am I free to sell my home to anyone or do I need the system owner's permission to assign the lease to the buyer?
- Are there fees to transfer the lease agreement to the new homeowner?
- Do I have to pay off the lease when my home is sold?
- If I want to sell my home and don't own the system, how can I describe my home to potential buyers?
- Who is responsible for repairs and maintenance on the system?
- Who is responsible for insuring the system, and what happens if the system damages my roof or property?
- Do Renewable Energy Certificates (RECs) apply to my transaction? If so, can you explain how RECs work in my situation?

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# Additional Resources

**Office of the Mississippi Attorney General Consumer Protection Division**

*www.AttorneyGeneralLynnFitch.com*

**Mississippi Public Service Commission**

*www.psc.state.ms.us*

**SEIA Consumer Protection Portal**

*www.seia.org/consumers*

**Gulf States Renewable Energy Industries Association**

*www.gsreia.org*

**Better Business Bureau (BBB) Mississippi**

*www.bbb.org/mississippi*

**Database of State Incentives for Renewable Energy (DSIRE)**

*www.dsireusa.org*

**Mississippi Board of Contractors**

*www.msbc.us*

**Interstate Renewable Energy Council**

*www.irecusa.org*

**National Renewable Energy Laboratory (NREL)**

*www.nrel.gov*



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