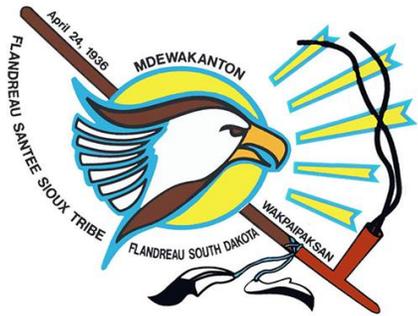


# SOLAR FOR ALL PROJECT



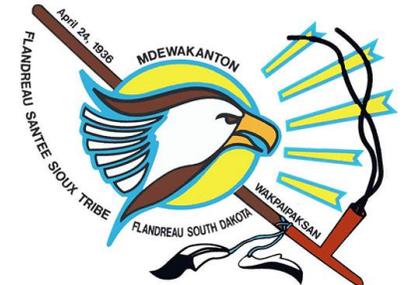
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FSST Solar Energy Department



# WHAT IS THE SOLAR FOR ALL PROGRAM?

- The **Solar for All Program**, launched by the Environmental Protection Agency (EPA) under the Inflation Reduction Act (2022), aims to provide affordable solar energy access to low- and moderate-income households by overcoming financial barriers. Indigenized Energy has joined forces with 14 Great Plains tribes, including the Flandreau Santee Sioux Tribe (FSST), to advance sustainable energy initiatives. This collaboration has secured a significant \$135 million grant from the Environmental Protection Agency (EPA) to support these efforts. The Mandan, Hidatsa, and Arikara (MHA) Nation is serving as the grant facilitator, ensuring the effective distribution and implementation of these funds across the participating tribes.



# COALITION AND ADMINISTRATION

- The coalition, known as the Northern Plains Tribal Coalition, includes tribes from regions such as Wyoming and Montana. The nonprofit organization Indigenized Energy will administer the grant, collaborating closely with the tribes to implement the solar projects effectively.



# INDIGENIZED ENERGY

- Indigenized Energy is a Native-led nonprofit organization founded in 2018 by Cody Two Bears, a member of the Standing Rock Sioux Tribe. The organization focuses on collaborating with Native American tribes to develop long-term energy visions and transformation plans, aiming to achieve energy sovereignty and economic development through renewable energy projects.
- **Website:** <https://www.4indigenized.energy/>



# INDIGENIZED ENERGY

- Indigenized energy plays a crucial role in the Solar for All project by ensuring that Indigenous communities have equitable access to solar energy solutions while integrating traditional knowledge, local governance, and community-driven approaches. Indigenized energy ensures that solar solutions are not just imposed but co-created with Indigenous leadership, respecting sovereignty, culture, and economic growth. By prioritizing Indigenous participation, the project enhances energy justice, resilience, and long-term success for all communities involved.



# MHA NATION (THREE AFFILIATED TRIBES)

- The Mandan, Hidatsa, and Arikara (MHA) Nation leads the Northern Plains Tribal Solar for All (NPT-SFA) program, securing \$135 million to expand solar energy across 14 tribal communities in North Dakota, South Dakota, Montana, Wisconsin, and Wyoming. The initiative focuses on installing residential solar systems, reducing energy costs, and improving power reliability for disadvantaged tribal members. Additionally, it promotes workforce development through apprenticeships and education programs, fostering energy sovereignty and job creation. By advancing environmental justice, lowering greenhouse gas emissions, and ensuring equitable access to clean energy, the MHA Nation is driving long-term economic and environmental sustainability for tribal communities.



# EXPECTED OUTCOMES

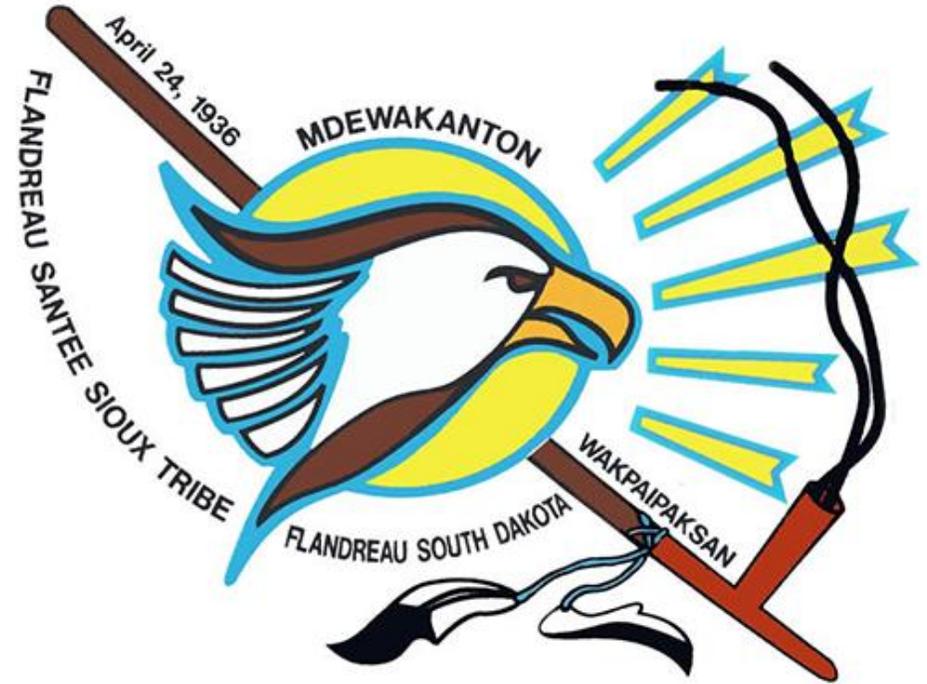
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This initiative is anticipated to:

- Provide sustainable energy solutions to disadvantaged tribal communities who don't have affordable access to solar energy.
- Reduce greenhouse gas emissions and other air pollutants by creating clean energy.
- Create jobs within the community.
- Foster long-term energy independence and resilience for the tribes involved.

# SFA ELIGIBILITY QUALIFICATIONS

- Must be a FSST tribal Member to receive a system
- Must reside in Moody County
- Must be a homeowner or rent home/apartment from the Tribe.



## 4 KW (KILOWATT) SYSTEM

- Suitable for homeowner's grid connected in town
- Member Fee: \$75 annually for maintenance and monitoring
- Suitable for 2-3 BR homes
- Can produce 10-16 kWh (kilowatt Hour) of energy daily
- Estimated annual savings of \$600 on electric bill
- Going solar means that your monthly energy expenses will be less
- Typically consists of 12-16 panels
- There is the option for homeowners to upgrade to an 8kW system if available (w/ an upcharge fee.)



# 8 KW (KILOWATT) SYSTEM

- Would be more suitable for the Rural homeowners
- Rural homes often have higher energy demands and often experience grid connectivity issues
- Member Fee: \$200 annually for maintenance and monitoring
- Suitable for larger properties with energy storage (batteries)
- Estimated annual savings of \$1200 on electric bill
- Produces more energy than the 4 kW system
- Consists of 20-24 panels



# Components of a Solar Power System for an 8kW System with storage

A **PV array** converts sunlight into direct current (DC)

1

A **charge controller** protects the battery from overcharging

2

3

A **battery bank** stores the energy produced by the PV array

4

An **inverter** converts DC electricity into alternating

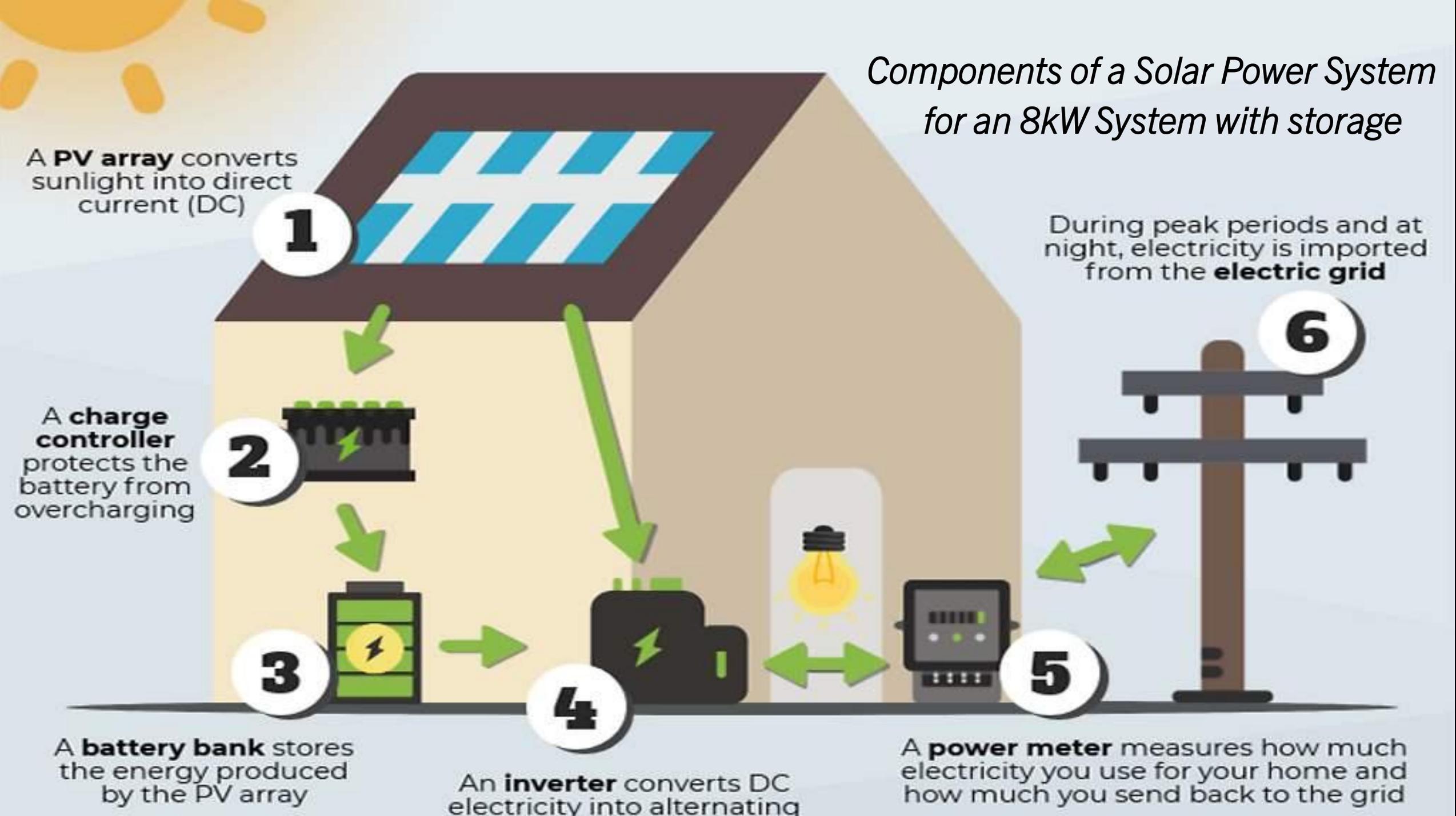
During peak periods and at night, electricity is imported from the **electric grid**

6



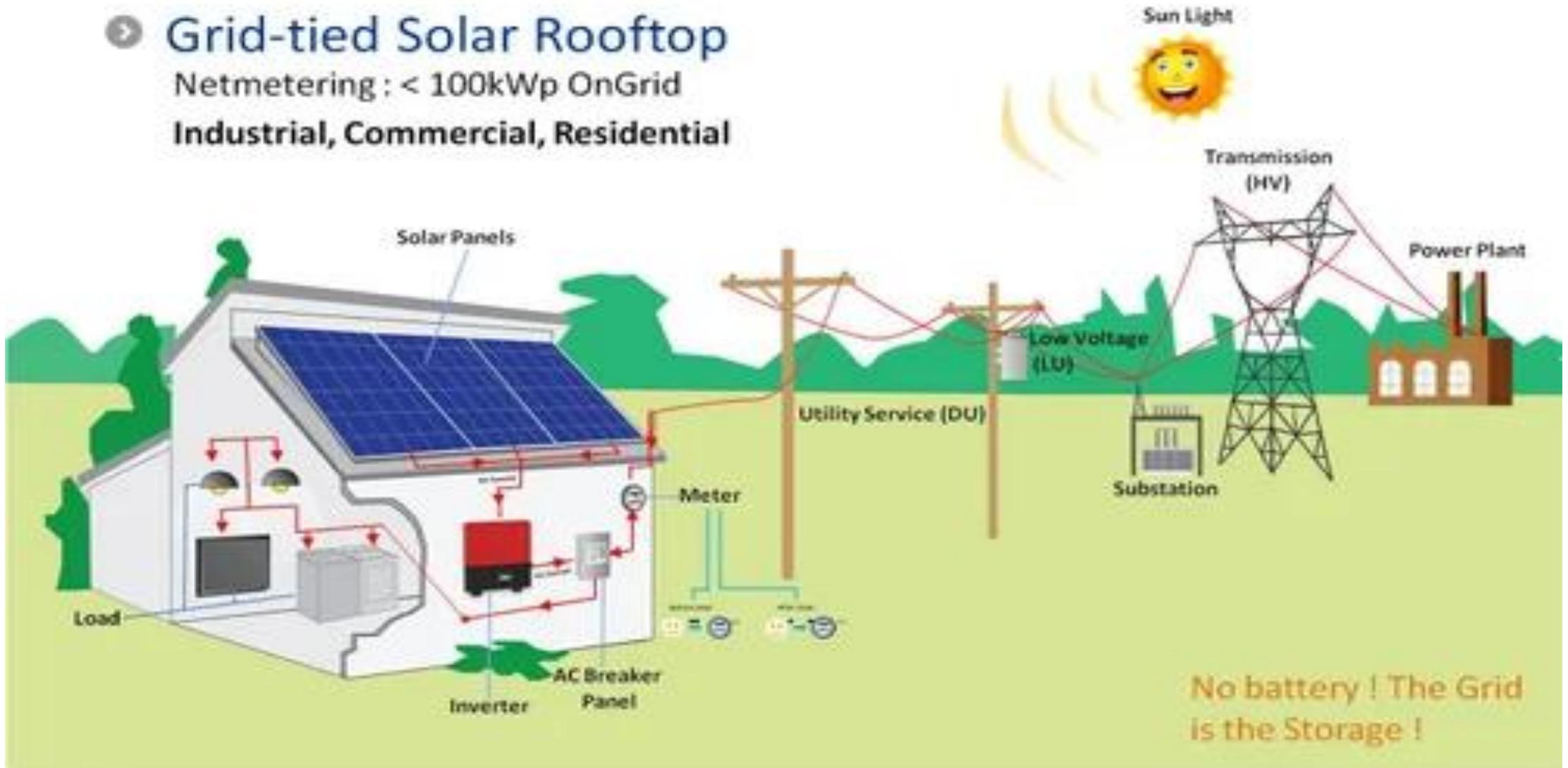
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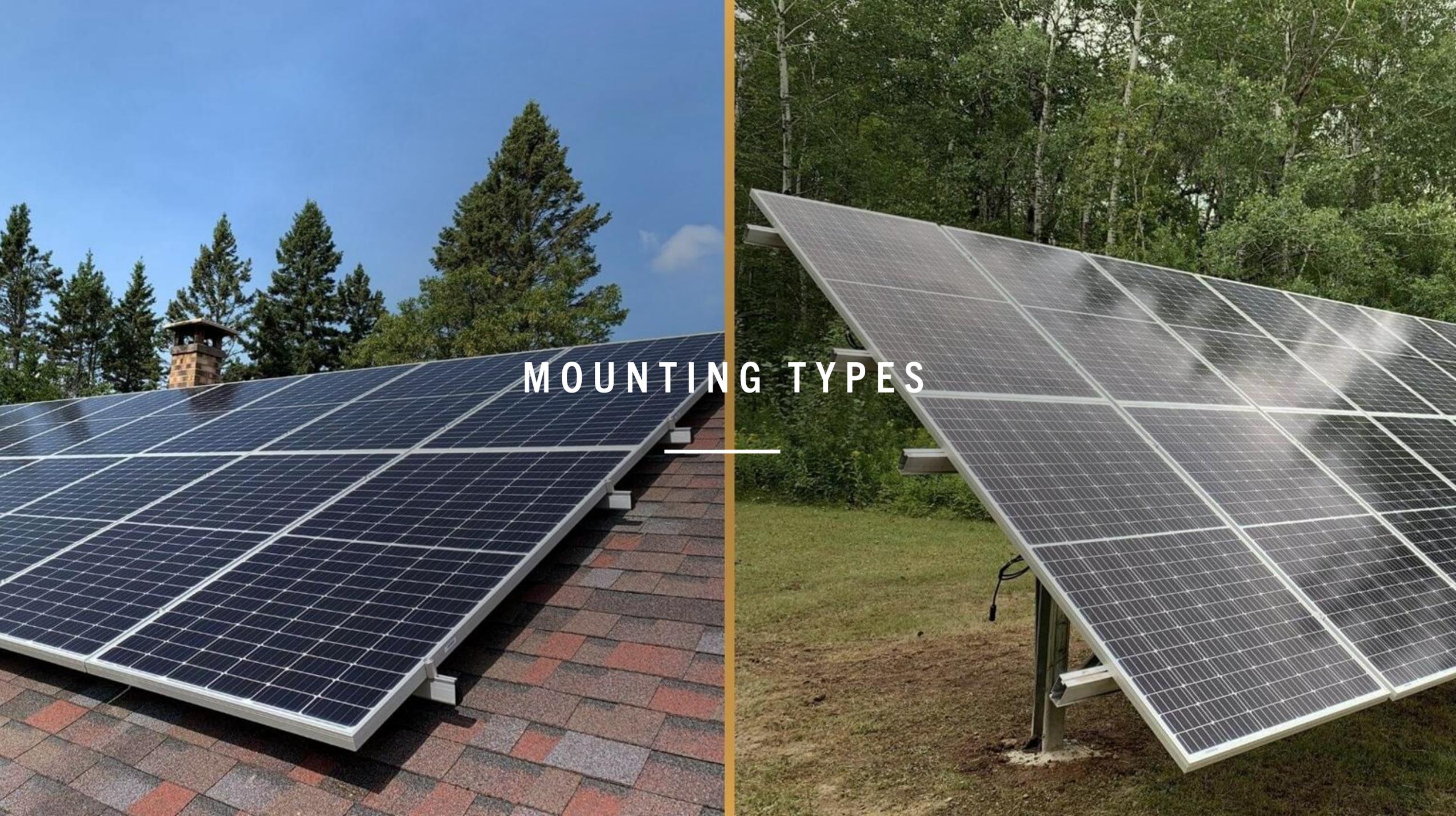
A **power meter** measures how much electricity you use for your home and how much you send back to the grid



# Components of a 4kW Solar system

- **Grid-tied Solar Rooftop**  
Netmetering : < 100kWp OnGrid  
**Industrial, Commercial, Residential**





# MOUNTING TYPES

## WHAT WILL THE MAINTENANCE FEE CONSIST OF?

- **Inspection and Testing** - Checking for physical damage (e.g., cracks, scratches, or wear on panels). Verifying connections, cables, and wiring to ensure they're secure and not corroded. Inspecting the mounting structure for stability and rust.
- **Performance Monitoring** - Analyzing energy output to identify underperformance or inefficiencies. Diagnosing and addressing any software or inverter issues.
- **Inverter Maintenance**
- **Battery Maintenance** (if applicable)- inspecting solar battery systems for capacity, efficiency, and wear, etc..



# WHAT THIS PROJECT MEANS FOR FSST

- This EPA Grant provides funding for the Tribe to develop, own, and expand solar projects, reducing energy costs and promoting energy sovereignty. The program supports rooftop solar, community solar, and microgrids, improving energy resilience in Tribal lands while fostering job creation and economic development through workforce training. By investing in clean energy, the initiative strengthens Tribal sovereignty, reduces reliance on fossil fuels, and encourages a sustainable future.

