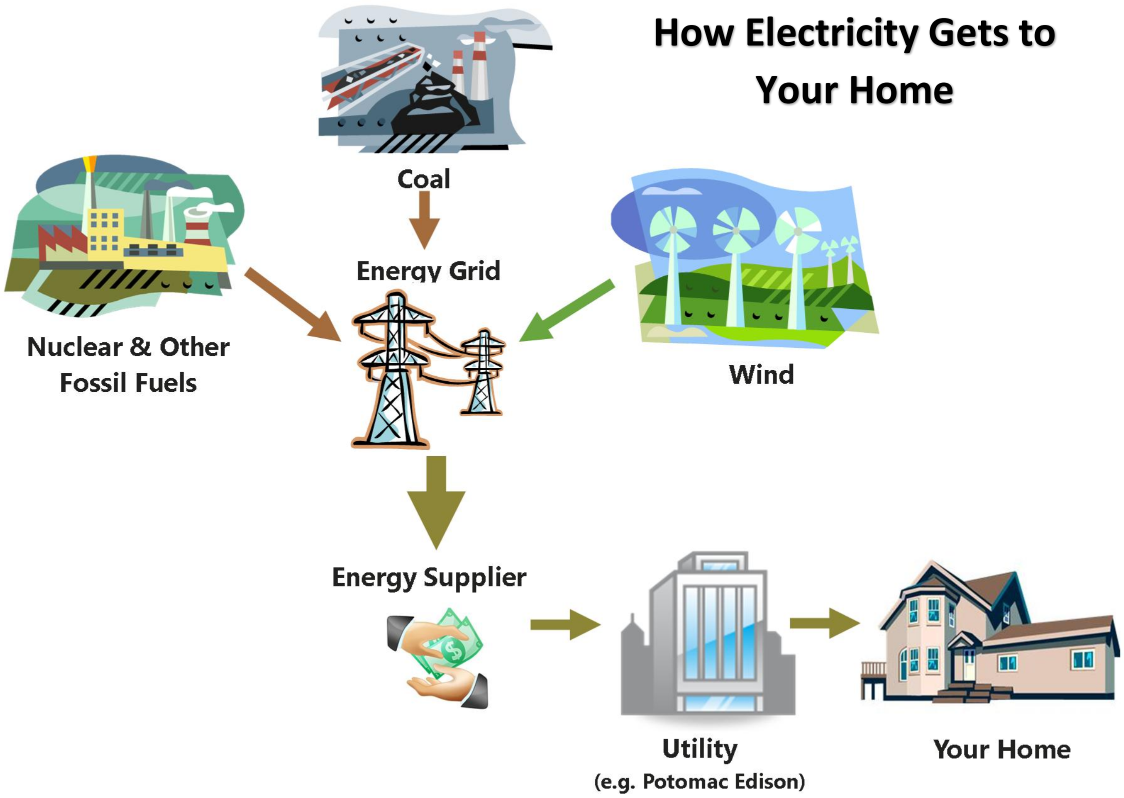
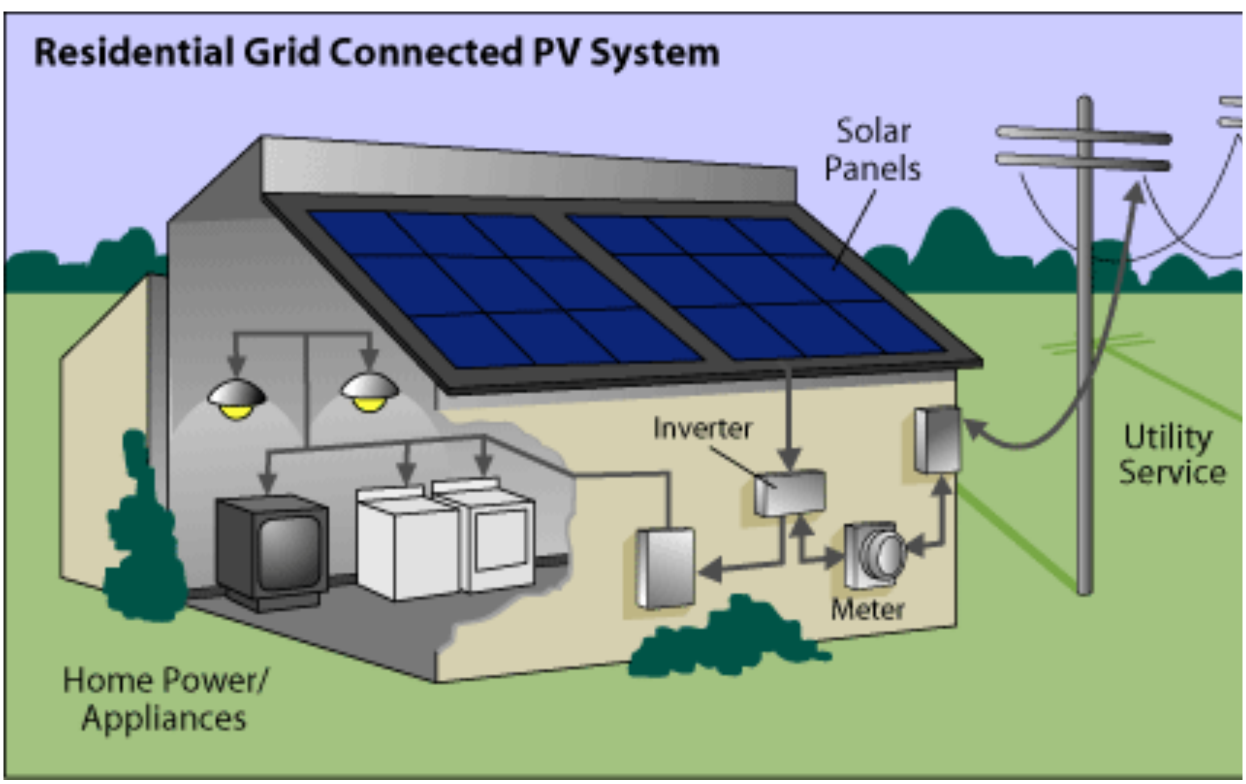
climate
CHANGE
WORKING GROUP
OF FREDERICK COUNTY

How Electricity Gets to Your Home





Definition of Terms

- **Solar Renewable Energy Certificates (SRECS), or Solar Renewable Energy Credits**

  SRECs exist in DC and states, like Maryland, that have Renewable Portfolio Standard (RPS) legislation. SRECs are an artificial "currency" produced each time a solar energy system generates one thousand Kilowatt-hours (KWh) of electricity. For every 1000 kilowatt-hours of electricity produced by an eligible solar facility, one SREC is awarded. Producers can sell SRECs on a (fluctuating) market. This market serves to increase the economic value of a solar investment and assists with the financing of solar technology. In sum, solar system owners can partially recover their investment in solar by selling the SRECs that are generated. SRECs serve as an incentive to expand solar capacity.

- **Net metering, or Net Energy Metering**

  An electricity billing mechanism that allows consumers who generate some or all of their own electricity to use that electricity anytime, not just when it is generated. This is particularly important with renewable energy sources like wind and solar, which are not continuous (when not coupled to storage). Net metering uses a single, bi-directional meter that measures the current flowing in two directions: energy flowing to the grid and from the grid. Any excess electricity generated from the solar system that is not consumed by the customer is automatically exported to the power utility grid. The utility then gives a credit for the excess electricity received on the customer's electric bill, and that credit can be used to supply energy from the grid when the solar system is not generating energy.

- **Power Purchase Agreement**

  A financial agreement in which a developer arranges for the design, permitting, financing and installation of a solar energy system on a buyer/customer's property at little to no cost. The developer sells the power generated to the host customer at a fixed rate that is typically lower than the local utility's retail rate. This lower electricity price serves to offset the customer's purchase of electricity from the grid while the developer receives the income from these sales of electricity as well as any tax credits and other incentives generated from the system. PPAs typically range from 10 to 25 years and the developer remains responsible for the operation and maintenance of the system for the duration of the agreement. At the end of the PPA contract term, a customer may be able to extend the PPA, have the developer remove the system or choose to buy the solar energy system from the developer.