# WHERE YOUR MID POWER COMES FROM



### **POWER MIX**

MID relies on a diverse, balanced power resource mix to meet our customers' needs. We generate some electricity at our own power plants; others are owned in partnership with other public utilities. We also buy power from others in the energy marketplace.

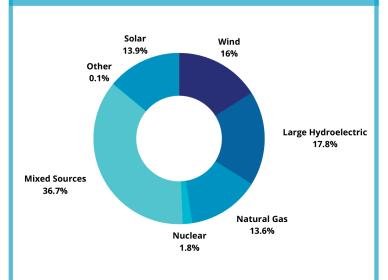
THE COMMUNITIES WE SERVE

MID transmits and distributes electricity over more than 1,800 miles of power lines throughout our service area, providing power to the communities of Modesto, Waterford, Salida, Mountain House and parts of Ripon, Escalon, Oakdale and Riverbank.

## HOW POWER GETS TO YOUR HOME OR BUSINESS

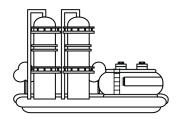
Electricity is typically produced at generating facilities by huge generators. These facilities capture the energy from sources such as wind, solar, natural gas or water. The electric current that is produced is sent through transformers to increase the voltage to push the power over long distances. The electrical charge goes through high-voltage transmission lines. It then reaches a substation, where the voltage is lowered so it can be sent on through smaller power lines to your homes and neighborhoods.

A diverse mix of power resources provide the best insurance for MID customers against all kinds of risks - marketplace, legislative, regulatory, technological, weather and climate. MID's power mix includes solar, wind, natural gas, hydropower and a variety of other resources.



See other side for MID's 2022 Power Content Label

#### HOW DIFFERENT ELECTRIC RESOURCES ARE GENERATED



#### **NATURAL GAS**

Natural gas power plants generate electricity by burning natural gas with gas turbines or reciprocating engines. For gas turbines, natural gas is added, along with a stream of air, which combusts and expands through the turbine causing a generator to spin a magnet, making electricity. Reciprocating engines operate like a car's engine, they're just much bigger.



#### **HYDROPOWER**

The energy from flowing water can be converted into electricity. Many hydroelectric power plants use a dam on a river to store water in a reservoir. Water released from the reservoir flows through a turbine, spinning it, which in turn spins a generator to produce electricity.



#### WIND

When the wind blows past a wind turbine, its blades rotate. This rotation turns an internal shaft connected to a gearbox, which typically increases the speed of rotation by roughly a factor of 100. That spins a generator that produces electricity.



or specific information about this

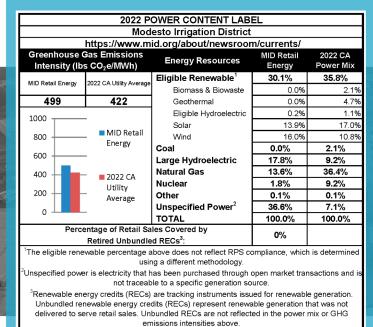
electricity portfolio, contact:

For general information about the

Power Content Label, visit:

#### **SOLAR**

To generate solar energy, the photons radiated from the sun to Earth must be collected, converted into a usable format and then delivered to an electronic device or the electric grid. Panels containing photovoltaic cells are used to collect the energy from the sun and convert it into electricity.



Modesto Irrigation District

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https://www.energy.ca.gov/programs-and-

topics/programs/power-source-disclosure-program

