

AMERESCO SOLAR

Green • Clean • Sustainable

AC Coupled Battery Backup Systems

Did you know that grid-tied solar electric power systems are unable to provide electricity to your home or business when the utility grid becomes unavailable? Even on sunny days?

AC coupled battery backup systems, offered by Ameresco Solar, provide an ideal way to add battery backup security to your existing grid-tied photovoltaic (PV) system.

Installations of AC coupled battery backup systems typically do not require modification to current PV systems. Furthermore, the ability to avoid additional roof work helps facilitate a safe, fast, and trouble-free installation.



System Sizing

Please give us a call for exact system sizing.
1-855-43-SOLAR

Our AC coupled battery backup systems automatically transfer power from batteries to the dedicated loads when the utility grid is offline. The batteries remain fully charged when the utility is present to ensure the longest run time when the utility fails.

The addition of a backup generator will add peace of mind and increase the length of time power is available during the outage. The optional generator control unit will automatically start and stop the generator to maximize charge and minimize fuel usage.

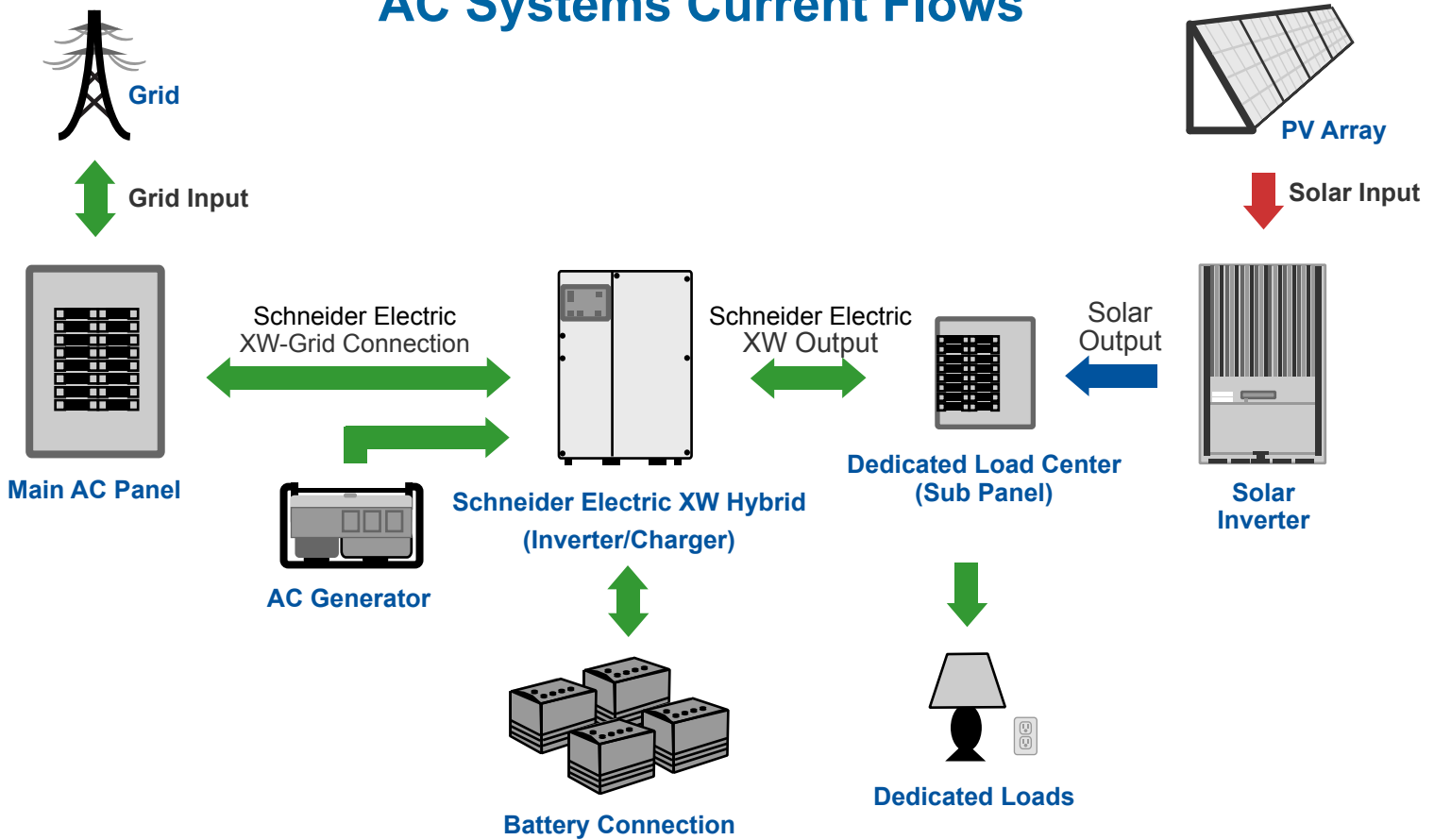
Benefits of emergency backup power include:

- **Security**
- **Lighting**
- **Refrigeration**
- **Heating**
- **Communications**
- **Entertainment**
- **Water pumping**
- **Electric Doors and Gates**

Nearly all household electrical needs can be addressed using our battery backup systems. Note that depending on system sizing, running high resistance electrical heating such as electric dryers, electric stoves and electric heat for long durations is not recommended.

For businesses the benefits are simple, no lost revenue, no down time, no wondering when power will be restored.

AC Systems Current Flows



The optional addition of a generator adds extra security and peace of mind. Optional generator controls allow for automatic starting and stopping.

System includes:

- Schneider Electric XW inverter(s)
- Schneider Electric power distribution panel
- Schneider Electric system control panel
- Battery cables
- Batteries and enclosure (if needed)
- System wiring diagrams
- Schneider Electric generator auto generator start (optional)

Installer to supply needed dedicated load center and AC wiring and conduit.

Inverters

Schneider Electric XW series inverters are the central part of the system and maintain batteries at full charge, transfer electrical loads during power interruptions, charge batteries from either AC grid, solar, or optional generator. The XW's high surge capacity ensures that systems stay online. Ameresco battery backup systems arrive complete with all required parts and installation documentation needed for a fast and clean code compliant installation.

Batteries

Ameresco uses industry leading deep cycle solar batteries manufactured by East Penn Deka. Deka batteries are "Made in the USA", provide years of maintenance free service, do not require any special venting and provide maximum energy storage at a minimum of required space.