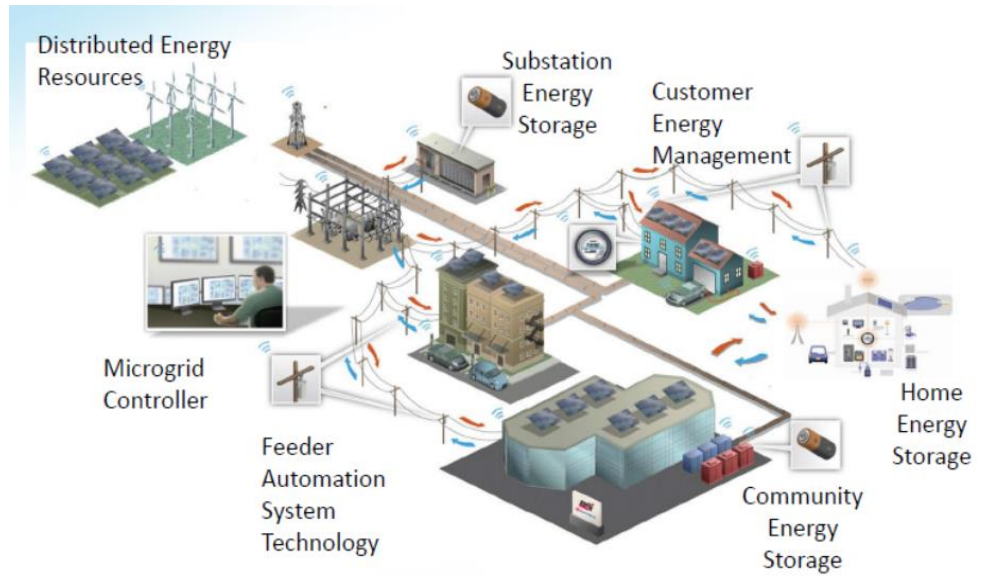


Distributed Energy Resources

What are They?

Distributed energy resources, or DER's, are small scale resources such as solar panels or micro wind turbines, that are interconnected to the electric grid. Examples of DER's may consist of generators, microturbines, solar arrays or battery storage systems. DER's allow for a safeguard against dependence on a single source of energy in the event the grid is compromise.

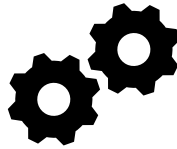


[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)

Main Features of DER's

Communication and Controls

Since DER's are not monitored 24/7 by an on-premise grid operator, the controls system must be fully automated. Signals for controls may be transferred over a wired internet connection, wireless cellular network or even through power lines.



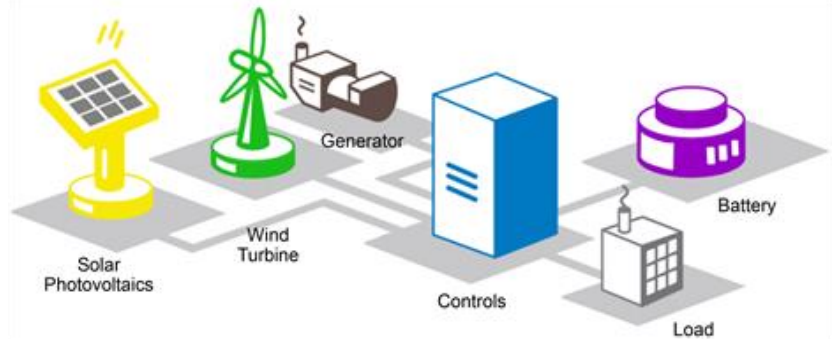
Synchronization and Connection

Equipment responsible for synchronization and connection ensures that the electricity from the DER's is in phase with the grid. Inverters ensure the transition of AC current from DC. Transfer switches ensure that the grid and the DER's can be isolated when needed.



Metering Equipment

Smaller DER's, such as solar systems, located in homes or businesses need two-way meter functionality. Homes with solar panels can sell their electricity generated back to the grid, effectively earning a credit on their electric bill.



Scan me to learn more!

[This Photo](#) by Unknown Author is licensed under [CC BY](#)