

Smart Grid for Utility Companies & Homeowners

There has been a lot of talk about the smart grids but do you clearly know what it means? If no, let us tell you that the smart grid is the network based on electricity and digital community which supplies energy to the users through a two-way digital communication system. With this system, the reliability of the energy supply chain will be improved by cutting the cost and consumption of the energy after the complete monitoring, analysis, control, and communication. The smart grids are incorporated with smart meters to conceal the weaknesses of traditional electrical grids. The implementation of smart grids has been encouraged by the governments to control the increasing global warming and to deal with emergency resilience.

The smart grid technology is equally beneficial for hospitals, retail stores, corporations, and even the homes. With smart grids, users can easily track electricity consumption and allow users to transmit information to effectively respond to smart grid condition systems. The abundance of internet connection at all places has eased the implementation of smart grids. It is an evident fact that energy prices are increasing but with smart grid energy management services, consumers can control the energy consumption during peak times to cut the costs. A smart is capable of;

- Repairing itself
- Efficient operation
- Expanding electricity markets

The traditional electrical grids sent the energy in one direction only but in the case of smart grid, it provides feedback on power interruption, system-wide operations, and much more. It uses real-time monitoring to get in the track of delivering electricity evenly and for the provision of performance. With a smart grid, users can effectively isolate the parts that can cause long-term blackouts by cutting on them when they are on a small scale.

Smart grids are famous for their self-repairing capabilities which portray that it will detect and isolate the outage to prevent power failures. It also re-routes the electricity to meet the energy demands.

Smart Grids for Utility Companies

For utility companies, the provision of even energy is extremely important. More than even energy provision, continuous energy and electricity are crucial. In the case of utility companies, they can gain benefit from smart grids in various ways including;

Energy Saving – A smart grid can integrate and transmit energy across the whole power grid. It monitors and controls the wireless appliances to make things smooth.

Cost Reduction Of Blackouts – The traditional electrical grids are not intelligent and well, it never recognizes the components in the grid that need upkeep or maintenance and the utility company will never know unless someone physical reports it. On the other hand, the smart grid will monitor the network state; analyze the equipment that might need an upgrade. Moreover, it transmits information and data related to voltage along with the transformer oil. It also transmits information about the excessive load on the grid so that energy use can be reduced before it causes a blackout.

Measure Energy Cost And Consumption – Smart grid allows the users to monitor real-time energy consumption through the web. With the latest upgrades, it has become possible to analyze the energy consumption by a specific system and how much cost it adds to the electricity bill. This way, users can reduce energy consumption to cut expenses. Who knows you will be able to identify the energy drainer and get rid of it as well! If you are a large utility company with various branches, you can identify the energy consumption by each of them and analyze what needs to be changed. The smart grid management system allows businesses to connect their utility system in an innovative way.

Smart Grids For Homeowners



Smart grids have relatively same advantages for the homeowners as it does for the utility companies. We are saying this because the smart grid allows the users to analyze energy consumption and help them take appropriate steps to reduce the costs and save energy alongside. According to the recent stats, 70% of households in the U.S. have shifted to smart grids to lower the energy consumption levels. For example, if the energy demand is too high, the smart grid can automatically turn off the clothes dryer for 30 seconds to regulate the energy consumption.