

EXPERTSPEAK

SOLAR POWER SYSTEMS FOR RESIDENTIAL TOWNSHIPS, TECHNO PARKS & SEZs



The power generation capacity has not kept pace with the rapid growth of requirements in cities. Therefore **Sriram Ramakrishnan** feels that solar power plant is ideal choice for residential township, techno parks and SEZ areas.

In India, power cut has become a common phenomenon across all cities and have become a hindrance for infrastructure development. The power situation in metro's is better compared to Tier 2 and Tier 3 cities.

As the rural population is moving towards urban centres in cities for employment and business opportunity, cities are growing very fast in terms of new residential complexes, malls, hospitals and other service sectors.

Many companies are setting up their offices and factories close to cities due to better infrastructure, availability of manpower and vicinity to government. This has also led to a number of SEZ's being setup close to urban centres.

Unfortunately the power generation capacity has not kept pace with the rapid growth of requirements in cities. This has caused the power situation in cities to worsen day by day. Many companies, residential townships, malls and hospitals are forced to run diesel generators during power cut to ensure smooth running of their operations.

The operating efficiency of a diesel generator or DG set as they are called is very poor and the cost of running diesel generator is very high. The cost of one unit of electricity generated using a DG set is more than ₹16 per unit and depending upon the size and place, this cost goes up. It generates by smoke and produces noise. In addition diesel prices are expected to go up as it is de-regulated and storage of large quantities of diesel creates a fire hazard.

The best alternative to DG today is solar power and wind power. Over the last



Solar power is better than diesel generators



Solar power has emerged as ideal choice for residential townships

couple of years the cost of solar power has dropped significantly this coupled with its abundant availability makes solar power plant as the clear choice of alternative to diesel generator.

Unlike diesel generator, solar power is clean, quiet and dependable source of energy.

The off grid solar power plant is best suited for segments like residential township, mall, and techno-park or SEZ area.

SOLAR POWER PLANT IN RESIDENTIAL TOWNSHIP

Solar power plant is ideal choice for residential township, techno parks and SEZ areas. In residential township, solar power plant can be easily installed in terrace of building, car parking area or parks.

The off - grid solar power plant is best suited for residential townships where the electrical energy produced by solar panel is stored in battery. This stored electrical energy can be used for common lighting system and electrical lift operation. Solarisation of lifts in residential township is fast catching-up.

SOLAR POWER PLANT IN TECHNO PARK/ SEZ

In Techno-park and SEZ area, the usage of diesel generator is extensive due to power back up requirements. It is very critical for business continuity. Most of the companies have UPS as power backup device. But due to poor power availability, the UPS system is not able to give adequate backup due to poor charging when required during a power cut. This problem can be easily addressed with Roof-Top

solar power plant solution. This power from solar panel ensures proper charging of battery system and increases reliability and availability of power back up system.

The solar power plant in Techno Park and SEZ finds various usages as given below.

- Lighting of work and service space along-with operating A/C
- Solar power plant on roof top reduces heat radiation to the building which reduces AC load indirectly
- Solar UPS system for power back requirements of critical equipment
- Solar backup for operating the lifts
- Diesel genset and Solar power integration to reduce diesel consumption

Solar power plant solution is rapidly growing as best alternative to many other source of energy. Solar plant increases power reliability and it offers other advantage like

- Distributed electrical system
- Reduced burden on government for laying electrical infrastructure
- Reduced line losses /load due to decentralisation

Be solar be independent!

(The author is currently CEO at Consul Consolidated Pvt. Ltd, a leading Indian company in the power conditioning, power back up and solar products space, which he joined in 2012. He has a proven track record of establishing and growing business in both India and US.)