Solar Success Story: How VEMC Solved A Case of Space Constraint for Solar Installation in a High-Rise Building

Making the switch from electrical to solar energy, which is the more sustainable and efficient alternative especially, in the long run, is often easier said than done. This is where VEMC, a leading solar power plant company in Mumbai with over 72 years of expertise in the field, can assist you and provide you with smart solutions. In this blog, we take a look at how VEMC solved a case of space constraint for solar installation on the roof of a medium high-rise building at Prince Care Zinnia, a residential property by Prince Care Realty. The building developers were looking for a way to reduce energy consumption while adopting a more reliable source of energy and the commissioned solar plant does exactly that, with an estimated annual average electricity production of 42900 kWh.

Challenge

The main challenge in installing solar panels at this site was a shortage of area on the roof of the residential building. Because of this, solar placement was difficult and required considerable modifications in the standard design and fabric of the solar structure. However, we were able to come up with the solution after a proper assessment of the situation.

Our Solution

The idea was to overcome space constraint challenges and ensure that the area was used as efficiently as possible while adhering to the client's other requirements, and set up a 33 kWp solar plant on the roof of the residential building at Prince Care Zinnia.

Execution

We had to take accurate rooftop measurements and make significant fabrications to the basic solar structure. These were necessary to ensure that the client's need for clear passage, space for other installations and other requirements could also be accommodated.

We studied the computer-aided design (CAD) of the roof layout to fit the required solar plant capacity in the available area. Shadow analysis was done on the finalised CAD drawings to mitigate the effect of shadows falling on the solar modules.

We installed the solar modules using hot-dipped galvanized solar structures placed on civil foundations. Hot-dip galvanization prevents the rusting of the steel posts and extends the life of

the system. The civil foundations are anchored with the structures to provide good foundation support.

Impact

There were multiple benefits of installing the 33 kWp solar plant at the site. These included energy savings of a whopping 30.36 metric tons of carbon dioxide each year to generate the same amount of energy — just by avoiding fossil fuels! Further, we were careful to adhere to a plan that made the most economical use of the space on the rooftop of the high-rise building, thereby fulfilling the client's needs for a smart source of solar energy.

VEMC is a well-established solar energy company in Mumbai, and a pioneer in the field of electromechanical engineering products, allied equipment, and services. With decades of industry experience, VEMCO Solar was able to successfully execute the Prince Care Zinnia project and deliver superior-quality results. VEMCO Solar is a market leader in solar solutions — be it solar plant erection, procurement, commissioning, net metering, or electrical connections. If you have any requirements in this space, please feel free to contact us at +91 98199 07445. We would be happy to help you out.