



# Schneider Electric solution enables CET to cut diesel consumption of Telecom Tower sites by >35%

## Customer

Catalyst Energy Technologies (CET) enables Utilities, Power Marketers, Energy Services Companies (ESCO), the Telecom industry and businesses, and federal institutions and municipalities to incorporate energy storage technologies as a component of their energy supply that can be combined with solar, wind, and other renewable energy resources.

## Challenge

Several off-grid Telecom Towers in the Philippines were powered by running diesel generators (DGs) 24/7. DGs selected for the sites were prime-power, rated at 3 to 4 times higher kW output compared to the average site load due to a lack of feasible options, and to accommodate peak air-conditioning loads and future expansion. Most of the time, the DG operated at 20-25% of its rated capacity, thus operating at much lower efficiency, consuming more fuel, and shortening the life of the DG. In addition, the longer run-times of the DGs implied frequent maintenance and high associated costs.

To address the problem, CET developed a cost effective and robust cycle-charging package to operate the DG at peak-loads where it is most efficient and to reduce the DG run-time to just a few hours every day. When the DG is running, the excess energy not used by loads is stored in batteries. When the DG is not running, this energy is used by inverters to power the loads.

## SUMMARY

### Customer Profile

Catalyst Energy Technologies (CET)  
www.catalystet.com

- Leading distributor and provider of energy storage solutions in South East Asia
- Location: Washington, USA

### Challenge

- No grid electricity supply
- High diesel and generator maintenance costs
- High carbon footprint

### Solution

- Conext XW Inverter/Chargers



## Solution

These challenges required an inverter/charger with the following key features:

1. High amps capacity charger with PFC that operates without derating, even up to 40°C
2. Two AC-source inputs with built-in transfer switches allowing direct wiring to two DGs
3. Pure-sine AC output with high surge capacity to start heavy loads of air-conditioners
4. Modular and stackable design to support wide system sizes: both 1-phase & 3-phase
5. Essential accessories for DG control, remote monitoring, and electrical BOS
6. Scalable for future integration of solar as an option to further reduce diesel costs
7. Reliable product and technical support from a bankable partner

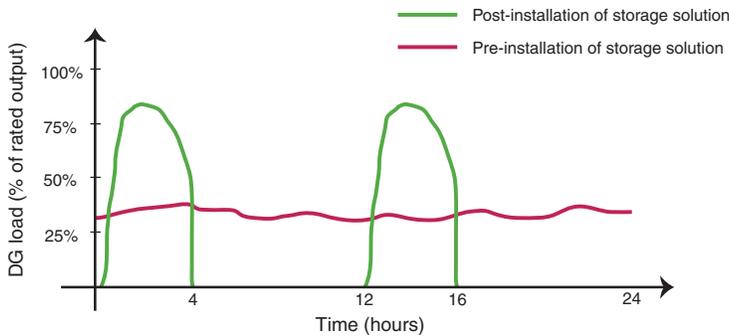
The **Conext XW inverter/charger from Schneider Electric** proved to be the perfect choice for CET for this installation.

A typical installation consisted of one to three Conext XWs stacked together in an outdoor rated enclosure along with the batteries. The Conext Combox from Schneider Electric provided the remote monitoring and easy configuration functionality, while AGS module allowed seamless integration with the existing DG at the site.



“Schneider Electric equipment proved to be incredibly rugged and extremely reliable in these harsh conditions, way beyond our expectations. We had an incredible zero failure rate among 100+ XW inverters installed at these sites.”

– Mory Houshmand,  
CEO and President, CET



The Telecom Tower sites were able to reduce DG runtime by up to 70% with up to 35% savings in diesel fuel consumption

After the solution was implemented, the Telecom Tower sites were able to reduce DG runtime by up to 70% with up to 35% savings in diesel fuel consumption. The subsequent decline in DG maintenance needs created additional savings for the customer.

### About Schneider Electric

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centers/networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, and efficient, the company's 150,000 plus employees achieved sales of 24 billion euros in 2013, through an active commitment to help individuals and organizations "Make the most of their energy".

Contact us at [www.SEsolar.com/where-to-buy](http://www.SEsolar.com/where-to-buy) to discuss your telecom tower energy needs.