TESLA
Forecasting Solutions

CASE **STUDY**

Victoria House, CESC Building, Calcutta, India

CESC's generation scheduling improved

The Calcutta Electric Supply Corporation (CESC) sought the most accurate load forecasting available in order to help them with their generation scheduling and reducing Unscheduled Interchange (UI) charges.

About CESC

CESC is India's first fully integrated electrical utility company. Since 1899, they have been generating and distributing power in Kolkata and Howrah. CESC owns and operates the transmission and distribution system through which they supply electricity to consumers.

TESLA's Involvement

Understanding the high value of a more accurate system demand forecast, CESC decided to take part in a free trial in June of 2015. This allowed the team at CESC to assess TESLA's accuracy during the notoriously difficult to forecast monsoon season.

Nightly load and weather feeds back to TESLA to allow economists to analyse and update the models are completely automated and part of the delivered system. Likewise, calculation of the load forecasting and sending them back to CESC, based on the resulting recalibrated models is all handled automatically on TESLA's datacentres, greatly reducing IT overhead for CESC.

CESC LIMITED

"CESC provided TESLA with historical load data and were quickly able to produce a hosted system to forecast CESC's system load."

Tony Baker
Regional Director
TESLA Asia Pacific Ltd

CESC make their day-ahead generation scheduling decisions at 10am each morning. As TESLA Asia Pacific's economists are located in New Zealand, they are able to calibrate the model to the most recent load and weather data early in the Indian morning, providing CESC with the most accurate forecast possible for their 10am decision making.

As the TESLA solution is based off of a highly parameterised nonlinear regression handcrafted by their own economists, they can confidently estimate the hedonic festival effects relevant to Kolkata. This is critical in India where holiday observances can change with very little notice.

Tony Baker, Regional Director of TESLA Asia Pacific Ltd explains:

> *"We have an ongoing dialogue with the team at CESC where we communicate about any festival changes in addition to our own research to ensure modifications are made to the forecast."*

Post Trial

After a successful trial period, CESC signed up to TESLA's services for an initial year. Throughout this first year of service, TESLA and CESC worked diligently together to assure all available information could be accommodated for within the model. The forecast accuracy continues to improve and CESC have resigned with TESLA for continued services.

Benefits

- **Key information** now supplied to make generation scheduling decisions
- **Lower cost** than dedicating staff to producing load forecasts
- **Minimal overhead** to trial and implement
- **Easy Integration** with existing systems


Victoria Memorial Hall - Kolkata

Asia Pacific: asiapacific@teslaforecast.com | +64 (0) 9 551 5039 **| Europe:** info@teslaeurope.com | +44 (0) 20 7202 8540

Americas: info@teslaforecast.com | +1 (804) 612 5450

www.**tesla**forecast.com