TEPCO’s first “Electricity Load Forecasting Technology Contest"
Initiative to encourage accurate forecasting of electricity load

June 20, 2017
Tokyo Electric Power Company Holdings, Inc.

TEPCO is holding its first “Electricity Load Forecasting Technology Contest" to identify new methods for forecasting electricity load within the service area of TEPCO Power Grid, Incorporated ("TEPCO PG"). Contest participants are to compete in accurately forecasting electricity load via TEPCO’s open innovation website, "TEPCO CUUSOO." The contest opens today.

TEPCO PG carries out daily forecast on electricity load in order to supply electric power more efficiently within its service area. The company has already developed a highly precise forecasting system based on years of expertise and experience. Yet with recent advances in data science and forecasting technology, it expects to improve its forecasting accuracy further by absorbing new technologies and knowledge.

The contest is being held to explore innovative techniques and approaches to forecasting, including the use of artificial intelligence (AI). Participation is open to data scientists around the world. Outstanding load forecast techniques proposed will be considered for application in actual operations.

Contest participants are requested to propose a method that predicts electricity load for the following day in one hour intervals over an entire day, based on past electricity load data in TEPCO PG’s database. They will then use their methods to prepare a forecast for the entire year. In addition, participants will be asked to perform actual forecasting operations from September 1 through September 9, 2017.

For the actual forecasts, participants are provided daily with past electricity load data up to the previous day. Using this data, participants are to submit the load forecast for the following day through the API (application programming interface).

Participants who submit the highest ranking sets will present their methods in the final judging of the contest. A maximum total prize of three million yen will be awarded to the winners. Yutaka Matsuo, Project Associate Professor at the University of Tokyo and authority on machine learning and other artificial intelligence technologies, will be one of the contest

judges.

For more details about the contest, see https://cuusoo.com/projects/50136. (Due to collaboration with an external partner, domain is changed.)

■ Contest Overview

Contest period：

From Tuesday, June 20, to Early October, 2017

＊ Contest application ends on Thursday, August 17, 2017.

Theme:

Following Day Electricity Load Forecast

Eligibility:

People affiliated or associated with a company, university or research institute

Task：

Propose a method for “the following day forecast”, that is predicting load in one hour increments for the coming 24 hours of the following day based on data such as electricity load, weather and other factors available up until the day prior to the day for which electricity load will be forecast.

What to submit:

・Annual forecast ; hourly forecast data over a period of 365 days for 2015 (to be submitted by September 9)

・Actual forecast; hourly forecast from September 2 to September 10, 2017 (to be submitted daily by 8:00 the day before the forecast date)

・Report explaining the constructed model (to be submitted by September 9)

Important dates:

- June 20 to August 17, 2017 Contest Entry Period
- June 26, 2017 Start of Data Set Distribution and Start Analysis Period
- August 18 to August 31, 2017 API Set Up Period
- September 1 to September 9, 2017 Submission Period for Actual Forecasting
- End September-Early October, 2017 Final Judging (Presentations) and Announcement of Results

Head Judge:

Yutaka Matsuo, Project Associate Professor, Department of Technology Management for Innovation, Graduate School of Engineering, The university of Tokyo

Web page for contest application: TEPCO open innovation platform TEPCO CUUSOO

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* A TEPCO CUUSOO account is required to apply for the contest.

* No inquiries about the contest will be accepted via the TEPCO website.