



TOHOKU ELECTRIC POWER CO., INC.

TOSHIBA

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Tohoku Electric Power Co., Inc.

Toshiba Energy Systems & Solutions Corporation

Joint Research Agreement for P2P Energy Trading Between Individuals Using Distributed Energy Resources

Tohoku Electric Power and Toshiba Energy Systems & Solutions (hereinafter “Toshiba ESS”) have today entered into an agreement to conduct joint research on electricity trading between individuals (P2P* energy trading) using distributed energy resources.

In this joint research, Tohoku Electric Power will mainly be configuring settings of the simulation conditions (solar energy generation, battery prevalence rate, etc.) for P2P energy trading, and evaluating the results of the simulations. Meanwhile, work done by Toshiba ESS will include evaluating the effectiveness of simulations based on sophisticated models for actual electrical power distribution systems, and of blockchain technologies as the means for recording transactions.

Studies on detailed P2P energy trading business models and the optimal facilities arrangements and system operations methods assuming the expansion of P2P energy trading will be conducted through these activities over the course of about one year, until March 2020.

As renewable energy usage expands, and rechargeable batteries become more widespread, customers in the future will likely be able to utilize P2P energy trading to trade the excess energy they generate in their homes through solar energy generation and with rechargeable batteries. However, detailed business models for P2P energy trading have yet to be established, and it is unclear what impact an increase in these transactions will have on electrical power distribution systems.

Tohoku Electric Power and Toshiba ESS are taking an anticipatory approach to these changes in the business environment. The companies have agreed to work together on this joint research to strive toward making service to customers even better and bolstering the efficiency of renewable energy usage, while also building new business models that can grow the business domains of the future.

Tohoku Electric Power will continue working to utilize new information technologies such as IoT and AI to thoroughly meet the expectations of communities and customers.

Toshiba ESS will be working toward a low-carbon society by mobilizing its extensive expertise and advanced digital technologies accumulated through the construction of energy infrastructure and

development of renewable energy infrastructure, to deliver new energy service systems that help solve problems for customers.

* An abbreviation of “Peer to Peer.” Here it refers to participants in certain networks directly providing information and value to each other without going through any third parties such as energy companies.

