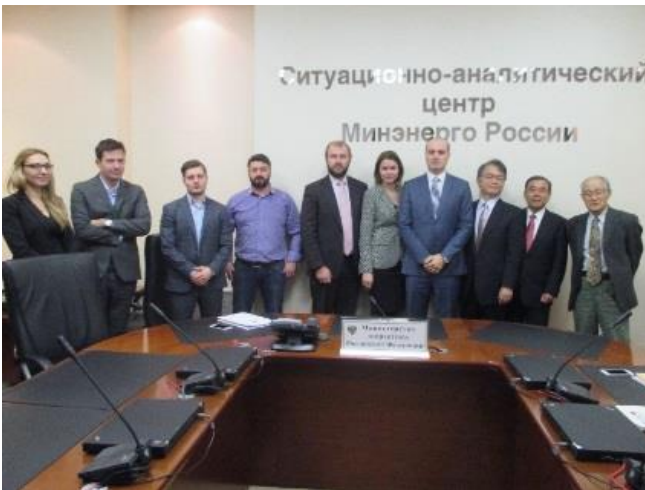


## ECCJ Implemented Energy Conservation Audit in Moscow, Russia

### [Project Summary]

Entrusted by the Ministry of Economy, Trade and Industry (METI) concerning the Project to Rationalize International Energy Use and the Project to Foster Human Resources to Promote Energy Conservation, the Energy Conservation Center, Japan (ECCJ) implemented an energy conservation audit for buildings in Moscow City during a 5-day period from November 25 to 30, 2016 for the following purpose.

- 1) For school buildings (kindergarten), audit of the classroom environment, implementation of an energy audit, and proposal of improvement plans based on the evaluation of the audit



Prior to the implementation of this study, the ECCJ had implemented a preliminary study in March, 2016. The following problem was found as a result of the study, and it was found necessary to pursue the possibility of solution (energy conservation).

Problem: Classrooms are heated during nighttime and holidays of winter even though there are no students.

The heating is operated by using hot water supplied from a heat supply plant.

To confirm the possibility of reducing the heating energy, the ECCJ implemented the following energy audit experiment.

- (1) For the kindergarten building, during nighttime when there were no students, measurement was conducted to find the correlation between heat quantity supplied and classroom temperature. Data measurement was conducted by changing the heat quantity supplied for 3 days.
- (2) As a result, it was found that even if the heat quantity supplied was changed from 0% to -10% and -20% when outside air temperature was around -5°C, the room temperature did not decrease to a notable degree, which was always 2°C or lower.
- (3) The room temperature environmental standard for non working time of public buildings in Russia is 12°C, and it was confirmed that, even if heat supply was reduced for energy conservation, it was possible to sufficiently exceed the temperature.
- (4) With this audit, the feasibility of energy conservation was sufficiently confirmed.

As the data was acquired for the only period of 3 days this time, the ECCJ asked the Russian side to independently implement follow-up study and consider installation of model facilities for demonstration lasting a year.

The above-mentioned activities are to be followed up in the FY2017 activities.