

# **Involving consumers in the programmes of consumption adjustment by using dynamic tariffing within the European project FLEX4GRID**

*Kristijan Koželj, Damjan Bobek, Anton Kos  
Elektro Celje, d.d., Vrunčeva 2a, 3000 Celje*

Flex4Grid will demonstrate the results obtained from Pilot Critical Peak Tariff (PCPT). The Flex4Grid system will be used to implement the advanced Critical Peak Tariff (CPT) based demand-response program in Elektro Celje, Slovenia. The pilot aims at improving and validating the synergies between existing DSO systems and IT-based solutions in smart grid. CPT is a new dynamic tariffing scheme for DSOs in Slovenia, which features a lower standard network fee and a high network fee for peak-load periods. The Energy Agency of the Republic of Slovenia has approved Elektro Celje's proposal for the PTCP based on the Flex4Grid system. The pilot in which up to 2500 end users will be involved will be launched on June 1st, 2017.

According to the legislation, the maximum number of peak hours in a calendar year is 50 hours. The DSO is obliged to notify the participant at least 24 hours in advance about the beginning time and duration of the peak event. The Flex4Grid system will provide services for forecasting the 50 largest peaks, executing the flexibility aggregation and management tasks as well as validating the results. The Flex4Grid system will notify users in real-time about the peak and its mitigation via a smartphone application. Additionally, the Flex4Grid system will provide users with means to automate appliances control during the peak event. The results of the PTCP technical and business validation will be demonstrated both from the customer and DSO points of view for future legislation.