



## SOLUTION OVERVIEW

**Electricity test** is solution what helps utilities to utilize their smart meter infrastructure for several use cases. Those use cases are addressed to provide value for utilities in their daily operations and provide additional services for utility clients. Services designed for utility client are opening additional service revenue opportunities for utility.

**Conceptual idea** for Electricity test product family is to provide his capabilities with minimum dependence from vendor based reading systems. Electricity test is cloud based software created and adopted by Elektrilevi, DSO operator in Estonia operating network with over 600 000 smart meters. Electricity test interacts with customer smart meter reading system(s) to gather data to fulfill desired functionalities. Results provided by Electricity test can be reported in to utility information system or separate user interfaces if needed.

**Functionality** what is introduced is advisory service for utility customer to determine right contractual fuse for connection point. This functionality is generating report to end customer about her/his maximum current load and how measured load is correlating with current contractual fuse size. Also, if there are imbalances in loads between the lines then this is brought out to customer with suggestions how to solve problem. Solution is working autonomously and DSO or service provider workforce is not involved.

**Second functionality** is designed for DSO to reduce their non-technical loss. This functionality is monitoring abnormalities in meter instant voltage/current value ratios in each line, combining them with consumption data. Algorithm's analyze connection points data. Metering points where detected values are not in line with measured consumption are marked as suspicious and there is potential fraud with bypass from meter. There might be also some defect in meter or wrong connection in network.

**Electricity test** is secure cloud based solution, this gives flexibility for us in development and in the same time new functionalities are available for users immediately.

*Elektrilevi Digital Solution team*



*Elektrilevi is the biggest DSO in Estonia. We manage 64 000 km of power lines and over 24 000 substations up to 110 kV and invest 50-60 mln € into network reliability every year. In addition, we utilize the vast knowledge from managing our power grid by offering infrastructure services that are managed effectively and proficiently. Elektrilevi is an affiliate of the largest state-owned company Enefit.*