

Abstract

a) Synopsis

INTEGRA explores how influential a safe and stable system operation in the presence of a large number of mutually interdependent and smart grid services can be organized taking into account the European energy markets. Against the background of different frameworks of policy and regulation it is necessary to reconcile the requirements of various markets with local network conditions. Results will be available as a largely standardized Smart Grid Reference Architecture and a "unifying" instance, the "Flexibility operator". Thus, a concrete basis for the necessary discussions and next steps set up and strengthened the strategic positioning of Austria at the European level.

b) Abstract

INTEGRA addresses a central issue in the implementation of smart grid approaches: How safe and can stable operation of intelligent medium and low voltage networks be organized, taking into account a variety influencing of mutual and interdependent smart grid services and at least the actual regulations of European Energy markets?

Objective is to prepare the target system of the Smart Grid Model Region Salzburg (SGMS), and to guarantee a homogeneous and efficient operation of the power system (market AND network requirements) on the basis of a single Smart Grid Reference Architecture. INTEGRA develops an internationally visible Smart Grid Reference Architecture, which allows us to bring the requirements of the common European market and the nationally authorized, individual schemes in the market system in line, considering a special focus security and privacy policies by design. To ensure a transnational cooperation (cooperation D-A-CH), a German sister project (In2VPP) is planned.

Another goal of INTEGRA is the "missing link" in the form of a toolbox (eg, interfaces, software modules, ...), to develop the relationships between the different smart grid applications and to provide them for market. With it the integrated application of smart grid functionality will be enabled, as soon as the relevant applications are feasible from an economic perspective. Technically, the project will define and develop among other things a Flexibility Operator (FO) which also will be tested as a proof of concept in SGMS. Thus, organizational and technical interaction of the grid and market-specific processes of the smart grid is made possible. The findings of this project and the transnational cooperation will strengthen the strategic position of Austria in standardization bodies and in the debate at European level in the treated subjects. Clear recommendations for policy and regulation as well as for the standardization work are derived