

Challenges the Power Utility is Facing



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Born in 1981. Graduated from the Faculty of Economics in Zagreb in the field of macroeconomics in 2004. Completed the post-graduate study in Corporate Finance in 2008 acquiring the master's degree in economics as well as a specialist study in economic diplomacy in 2005 at the Diplomatic Academy of the Ministry of Foreign and European Affairs and the Harvard Business School Executive Education programme in 2012. In 2018 completed the Global Executive MBA programme at INSEAD Business School, Paris, Singapore. From 2005 until 2007 adviser in the Investment and Export Promotion Agency of the Croatian Government, and a project partner at the Faculty of Electrical Engineering and Computing, Zagreb during 2007. From 2008 to 2012 executive director of Korlea Invest Holding daughter company in Croatia, and from 2010 until 2012 director for SE Europe in charge of development, energy trade, cross-commodity trading and investments in production capacities. From 2012 to 2017 general manager of Proenergy Group in charge of business operations in Croatia, Slovenia, Bosnia and Herzegovina, Serbia and Macedonia. A guest lecturer at the Faculty of Economics in Zagreb in the Electricity Market and Energy Economics programmes where he also started his PhD study in 2012. His papers were published in international power magazines. Additionally educated at British educational institutions in the field of gas..

ABSTRACT

The presentation gives overview of main challenges today's power utilities deal with, It consists of three sections: (i) Global challenges; (ii) Local challenges; and (iii) Financial market expectations. The first part of presentation "Global challenges" discusses the digital transformation as global challenge number one. Power Plant 4.0. is a term used to describe future expected power utility facilities as a response to ongoing growing technology requirements. Answer to demand for improvement of unit efficiency and at the same time increased optimization resilience could be in machine learning and artificial intelligence as a response to optimized decision making and increased flexibility. One of the main goals for not only the future, but even for today's engineers is to learn how and then transform recent advances in analytics into actionable insights that would build fact based and data driven culture. All the benefits of digital transformation, need to be supported by applicable cyber security in order to implement a tech-enabled ecosystem. The global target of CO2 emissions reduction puts pressure on the green value chain and sustainable system of pre and post operational logistics. One of the remedies for having a resilient electric system could be set through "client-centric" solutions based on service models and evolution of smart cities. The second part of presentation "Local Challenges" summarizes key challenges in the Croatian

electricity market. Climate change goals are part of the global green energy story “The Green Deal”. The main pillars of green strategy are change of generation capacities structure having more installed capacities in renewable energy sources, decrease of CO2 footprint and improved energy efficiency. The goals aim for 36.4% of the renewable energy share, cut of CO2 greenhouse gas emissions by 40% from 1990 levels, and improvement of energy efficiency at least by 32.5%. The challenges of integration of renewable energy sources into the system are present in Croatia as well as in the rest of Europe. Also, technological challenges in transportation are expected to be more visible in the upcoming years with increased number of electric vehicles. Third part of the presentation discusses key financial market considerations: assessment of climate risk as part of risk policies, demand for so called ESG products from investors’ side and overall growing importance of ESG domains through capital markets. Number of ESG and overall green products are increasing due to increased interest from financial markets accelerated by COVID situation during 2020 when the number of “sustainable” products realized at the capital markets. Sustainable economy could be new imperative.

