

ADB VIRTUAL WORKSHOP

Energy Transition

20 November 2020, 9.00 – 10.00 am CET

Welcome and Introduction:

Technology solutions which will play important roles in the global energy transition

Dr. Thomas Brandstätt, President Tractebel Engineering GmbH



Presentation 1:

New perspectives: offshore hydrogen production platform



Felix Knicker, Energy Engineer (M.Sc.) and Project Engineer

Green hydrogen is regarded as the missing link towards a zero-carbon energy transition. In the near future, the demand for green hydrogen is expected to increase dramatically. Hydrogen will be required in the industry, mobility and energy sector. To supply green hydrogen at the expected industrial scale Tractebel has developed a technical concept for 400 MW offshore hydrogen production platform that produces green hydrogen from sea water and wind energy via water electrolysis. The objective of

A link to a video description can be found here:



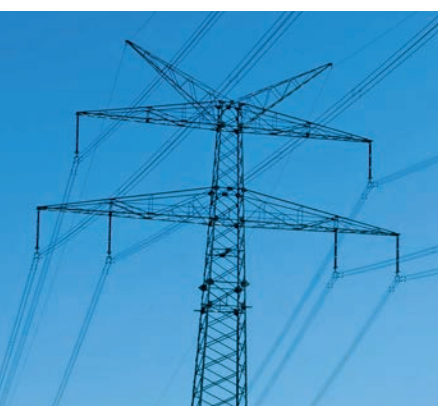
the concept development is to assess the feasibility of offshore hydrogen production and to provide solutions for offshore wind energy projects.



Presentation 2:

On the key technological enablers for the global energy transition: Smart grid solutions and solar-hybrids

Dr. Ralf Bucher, Department Head Power Grids & Systems and Project Director



Power generation from renewable sources is on the rise worldwide. The transition towards zero-carbon electricity supply requires – apart from renewable generation facilities – an upgrade of the transmission and distribution infrastructure.

To cope with the enhanced requirements driven by variable infeed, next-generation telecommunication systems and network automation are required – in one word: smart grids. The International Energy Agency stresses that hybrid micro-grids – i.e. small stand-alone grids, e.g. with battery- or diesel-backed wind and solar electricity generation – will play a crucial role in the electrification of areas with no previous supply. Third-generation renewable mini-grids – mainly solar-hybrids – are typically designed from the beginning to interconnect with the main grid.



Presentation 3:

PV-Battery-Straight Vegetal Oil thermal Plant-Hybrid System for Zero Emission Electricity Generation on the Galapagos Islands

Samuel Karres, Mechanical Engineer and Senior Project Manager of power projects



The project for one of an UNESCO heritage site of Galapagos biotope is implemented under the Zero Fossil Fuel Initiative. It also addresses the risks involved with the energy supply to islands arising from potential ship accidents and related pollutions. The technical concept of the Hybrid Power Plant in Isabela Island will be described as a jatropha straight vegetable oil operated diesel plant-PV

More information can be found here:



system combined with a BESS. Our services comprised support of the Ecuadorian Ministry of Energy and the Galapagos utility in design, contracting, implementation and operation of the plant. Relevant gained experiences will be outlined.



Contact: Anna Jabloniec-Grüger, Head of Sales Energy Division, Tractebel Engineering GmbH
anna.jabloniec-grueger@tractebel.engie.com, phone +49 6101551989