



Programme “Power to Gas”

Day	Time	Content
Day 1	<i>Power to gas essentials: technology and</i>	
	08.45 – 09.00	Introduction to the course
	09.00 – 11.15	The concept of power to gas (P2G) <ul style="list-style-type: none"> - Challenges with power production from renewable energy sources, power excess vs. interruptible power production - Limitation of power transmission and distribution grids - Integration of renewable energy into the existing power grid - The role of energy storage systems in the electricity grid - Power to gas concept
	11.15– 11.30	Break
	11.30 – 12.30	Storage technologies and solution for renewable energy storage <ul style="list-style-type: none"> - Energy storage for short term power system services - Power storage: existing technologies for renewable power applications - Storage options for P2G products
	12.30– 13.30	Lunch
	13.30 – 15.30	Power to gas technology in a nutshell <ul style="list-style-type: none"> - The process of electrolysis and methanation - Products from P2G process and their industrial applications - State of the art and latest developments
	15.30 – 15.45	Break
	15.45 – 18.30	Case work: offshore green decommissioning
	18.30	Dinner
Day 2	<i>Business aspects and forecasts for P2G industrial application</i>	
	09.00 – 11.15	Drivers for power to gas technology <ul style="list-style-type: none"> - Economics of P2G technology - Case studies and business cases for P2G projects in Northwest Europe - Demonstration projects in Germany
	11.15 – 11.30	Break
	11.30 – 12.30	Utilization of hydrogen from P2G process in natural gas grid <ul style="list-style-type: none"> - blending hydrogen into natural gas pipeline networks, key issues - hydrogen concentrations and system integrity synthetic natural gas vs. hydrogen
	12.00 – 13.00	Lunch
	13.00 – 15.00	Potential of P2G in the Northwest Europe <ul style="list-style-type: none"> - integration of wind energy, hydrogen and natural gas pipeline systems to meet customer’s needs - import dependency and security of supply: the role of P2G in the future Northwest European energy system - P2G in mobility - P2G concept in the Netherlands within the context of the European energy market
	15.00 – 17.00	Case work and case presentations
	17.00– 17.30	Concluding session - evaluation
	17.30	Certificate ceremony & drinks

This programme was designed within the framework of the EDIaal program

EDIAAL is an Energy Delta Institute programme that aims to gather, edit and make available independent knowledge on the role of gas in the transition to a low carbon economy. The main purpose of the project is to enhance the economic position of the northern provinces of the Netherlands and their positioning as the “Energy Valley.” Within the framework of EDIAAL, EDI sets up accessible training programmes, conferences and network meetings and makes relevant information on energy available to public and private market parties in the northern part of the Netherlands.

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