



STORE&GO



ENERGY DELTA INSTITUTE
ENERGY BUSINESS SCHOOL



OIBA
ORDINE DEGLI INGEGNERI
della Provincia di Bari



**Politecnico
di Bari**

ENGINEERING INGEGNERIA INFORMATICA S.P.A.

ENERGY DELTA INSTITUTE

in collaboration with

AEIT - Sezione Pugliese

under the patronage of

ORDINE DEGLI INGEGNERI DELLA PROVINCIA DI BARI

POLITECNICO DI BARI

organize the Workshop entitled

“From Power to Gas: the STORE&GO plant in Troia (FG)”

Hotel Palace

Via Francesco Lombardi, 13 - 70122 Bari

Monday 20th, Tuesday 21st and Wednesday 22nd May 2019

The decarbonization of the energy production sector implies the need to increase the amount of energy coming from renewable resources, such as wind and sun. But when a relevant percentage of the electricity comes from renewables, like photovoltaic plants and wind turbines, stability and reliability of the power network can be threatened because of the intrinsic uncontrollability and unpredictability of these sources. Many different solutions, like demand response, demand side management, energy storage etc., must be put in place and properly and synergistically managed to safely operate the grid and ensure the compliance of power parameters with the thresholds established by the current regulatory framework. The power to gas (p2g) technologies can be a viable solution to store significant amount of energy on a different carrier: gases, like hydrogen and methane. The H2020 STORE&GO project aims at demonstrating that methanation, that is the production of methane from hydrogen and carbon dioxide, can support the balancing of the power grid and, at the same time, produce a zero net-emission fuel. Troia, a small town in the province of Foggia, has hosted the pilot demonstrator of the FP7 INGRID research Power to Hydrogen project, that today has evolved into one of the three pilot sites of the STORE&GO Power to Methane project.

The Workshop will explain in detail the context, the scope, the technologies and the economic aspects that now characterize the most innovative Power to Methane plant in Italy.

Program

Monday 20th May afternoon – Overview of the project and the workshop	
13:45 – 14:00	Welcome coffee
14:00 – 14:15	Introduction to the event G. Cafaro (AEIT), F. C. Ertem-Kappler (Energy Delta Institute) D. Arnone (Engineering I.I.)
14:15 – 15:00	Enabling new flexibility resources to support the power grid of the future M. La Scala, S. Bruno (Politecnico di Bari),
15:00 – 15:45	The hydrogen as an additional fuel for gas turbines S. Camporeale, M. Torresi, A. Saponaro (Politecnico di Bari)
15:45 – 16:30	From INGRID to STORE&GO D. Arnone (Engineering I.I.)
16:30 – 17:15	STORE&GO methanation plant: the design of the overall process S. Bensaid (Politecnico di Torino)
17:15 – 17:50	Layout of the plant - civil works and authorization procedures D. Pomponio (Studio BFP)
17:50 – 18:00	Recap of the first day D. Arnone (Engineering I.I.)

Tuesday 21st May – Inside the technology	
8:45 – 9:00	Welcome coffee
9:00 – 9:45	Design of a millistructured reactor for methanation G. Geffraye (Commissariat à l'énergie atomique - CEA)
9:45 – 10:30	CO2 capturing module L. Kaufman (Climeworks)
10:30 – 11:15	Methanation unit P. Bucci (Atmostat Alcen)
11:15 – 12:00	Liquefaction unit A. Saldivia (Hysytech)
12:00 – 12:45	Monitoring, Security and Control infrastructure A. Rossi (Engineering I.I.)
12:45 – 14:00	Lunch break
14:00 – 14:45	Impact of the plant on the power grid A. Mazza (Politecnico di Torino)
14:45 – 15:30	Regulatory Framework A. Saldivia (Hysytech)
15:30 – 16:15	Techno-economics and regulation of power-to-gas D. Parra Mendoza (Université De Genève). P. Bucci (Atmostat Alcen)
16:15 – 16:30	Coffee break
16:30 – 17:50	Open discussion and feedback collection Moderator: D. Arnone (Engineering I. I.)
17:50 – 18:00	Recap of the second day D. Arnone (Engineering I.I.)

Wednesday 22nd May morning – Visit of the plant	
8:45 – 9:00	Briefing of the visit D. Arnone (Engineering I.I.)
9:00 -10:30	Trip from Bari to the pilot site in Troia by bus
10:30 – 11:00	Welcome brunch
11:00 – 12:30	Visit of the plant and closing of the event
12:30 – 14:00	Trip from the pilot site in Troia to Bari by bus