



# MASTERCLASS IN POWER TO (THE) MOLECULES

## - FROM TECHNOLOGY TO MARKET UPTAKE

Next edition:  
5-7th of November  
Groningen, the  
Netherlands

By 2050, the EU aims to cut CO<sub>2</sub> emissions by 80 to 95 percent, which can only be realised by turning the vast majority of energy sources from fossil into renewable ones. The integration of such large amounts of renewable energy sources poses technological difficulties, as those sources are volatile and generate electricity intermittently. Storing large amounts of electric energy will enable countries to deal with long periods of shortage. Power-to-Gas (PtG) technology allows for storing the surplus of renewable energies on sunny or windy days by the creation of synthetic natural gas (SNG). The produced gas can be stored in the existing gas infrastructure. The existing gas grid allows for the transportation of the gas to various applications whenever and wherever it is needed, e.g. for the generation of electricity, the generation of heat, or mobility. PtG and SNG thereby facilitates the coupling of different energy sectors. During the course we will go beyond the state of the art of PtG and especially SNG, and focus on its integration into the daily operation of European energy grids.

### Target audience

The programme is especially developed for young professionals and researchers working in or related to the energy industry, such as:

- Policy makers from regional, national and European level;
- Business developers in the field of energy storage;
- Technological engineers in the field of electrolysers, methanation and/or CO<sub>2</sub> capture;
- Transmission system operators of both the gas and the electric grid;
- Gas and electricity traders;
- Large industrial consumers;
- Financial and knowledge institutes as well as university lecturers.

### Certification

Participants in the training will receive a participation certificate on behalf of the Energy Delta Institute.