







# Hydrogen and decarbonization mission Torino- July 1° 2022

# EDIS Srl (Group EGEA)























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SMAPTENERGY

## Our activities

- EDIS is the company belonging to the EGEA group specialized in solar energy development and production
- More than 260MW of agro-photovoltaic utility scale plants in pipeline
- Plants wil be equipped with large scale battery energy systems and power to gas in order to produce green hydrogen from renewables
- The initiatives are located near the future national hydrogen transport network (also in blending with methane)

### EDIS current main projects in pipeline:

- 50 MW Agro PV in Veneto, in Veneto, with up to 200 MWh of BESS capacity. Possible upgrade with 10MW electrolyser;
- 90 MW Agro PV in Apulia, with 25 MW of electrolyzers and 50 MWh of BESS capacity;
- 120 MW Agro PV in Tuscany, with 25 MW of electrolyzers and 50 MWh of BESS capacity;

Up to 460GWh/y energy production

Up to 3,6 Mkg/y green H<sub>2</sub>

Up to 171kton/CO<sub>2</sub>/y avoided



## What are we looking for



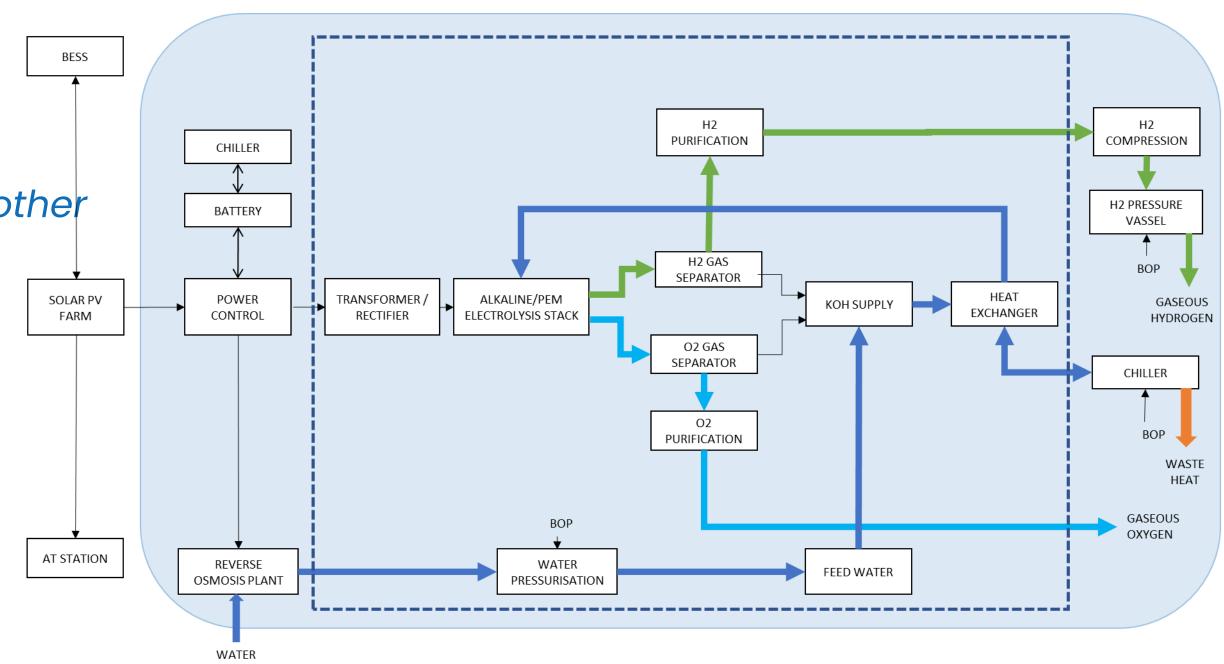
The presence of EGEA and EDIS in this meeting aims to show our developments of innovative projects, in order to attract companies with which to collaborate at different levels.

We would like to find in this meeting:

Technology supplyers (electrolysers, pressure vessels and other components);

Power management / control & SCADA (PV + BESS + PTG)
 supplyiers;

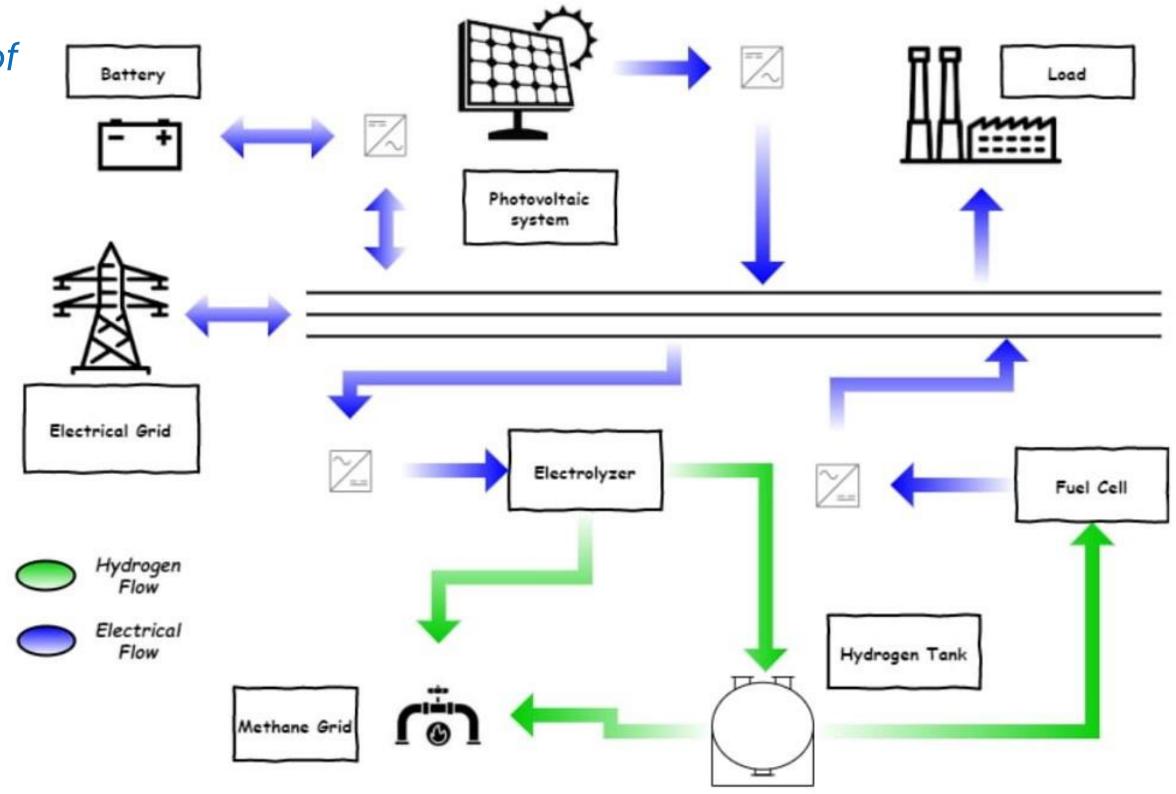
- System designers and electrolysys experts;
- Co-investors;
- Green hydrogen off-takers, etc;
- Technical scientific partners (PNIEC / PNRR IPCEI NEXT GEN EU finance proposals....)



## What can we offer



- EDIS and Politecnico di Torino developed tools for the modeling and simulation of hydrogen-based energy systems .
- The main model allows the construction of Digital Twins (DTs ) of Hybrid Energy Networks. Such DTs rely on linear models.
- Mathematical Optimization of the DT is led via MILP solvers.
- Both economic and energetic specifications of the energy system are considered in detail.
- Electrochemical and Hydrogen storage can be exploited to perform arbitrage on commody markets. Our model returns optimal power flows.
- The tool also outputs detailed economic projections to assess the feasibility of investments in utility-scale hydrogen systems.



• Our latest open reaserch project involves using Reinforcement Learning algorithms for the real-time control of energy systems.

## Contacts

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Web: WWW.EGEA.IT

Reference person: Eng. Marco

Cerchio

Mob. 3466222310

E-mail: m.cerchio@egea.it