



# PROPHET

Sustainable and competitive Energy Transition  
The major technological challenge of the next decade

Milan, 27 September 2018

Politecnico di Milano

Aula Magna Carassa Dadda, Via Lambruschini 4, 20156 Milano



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# PROPHET

The most complex microgrid ever developed, embedded with the most advanced power electronics controlled by artificial intelligence and neural networks

In the last decade the increasing penetration of renewables has been contributing to phase-out traditional power plants and to put the role of energy storage systems under the spotlight.

This energy transition scenario was foreseen in advance by the EPS founders in 2005, which in collaboration with the Politecnico di Milano e Torino decided to focus over the management of **microgrids, stationary battery storage and hydrogen technology**.

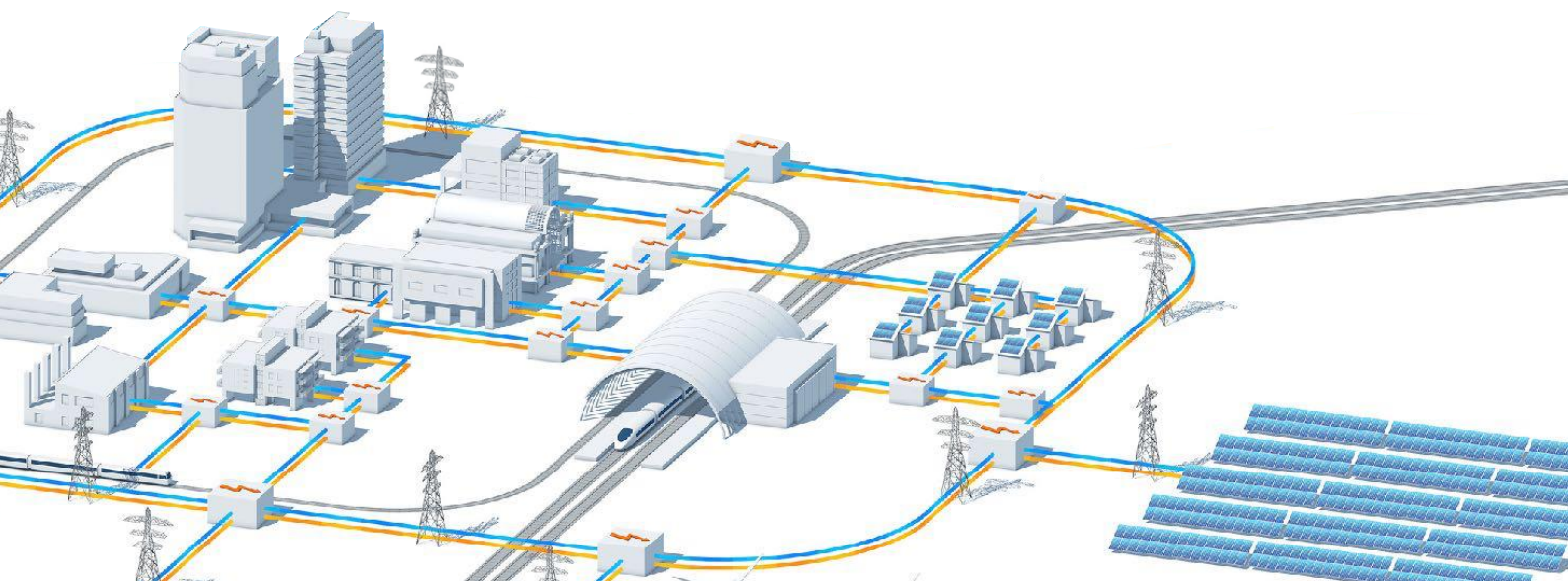
This pioneering vision contributed to make EPS one of the most successful technology players in the world, delivering one of the largest installed bases of commercial microgrids and utility-scale systems globally, as well as growing from a start-up to now a company leveraging on the ENGIE global reach.

Similarly, Politecnico di Milano decided to invest in the Department of Energy in 2008 which now is a Department of Excellence recognized in Italy. The Excellence title was granted based on the research activity in the mobility field.

EPS and Politecnico di Milano decided to join their excellence to face the challenge of replacement of conventional centralized power plants with renewable energy and new businesses related to the EV as the integration of their charging stations in distribution networks

In emerging countries, 2.4 billion people reliant on diesel generation which will be replaced by renewable energy taking advantage of the reduced cost combined with the maturation of the energy storage market.

To pave the way towards these goals, in 2017 EPS and Politecnico di Milano launched a four years research plan, under the name of **PRedictive OPTimizations Heading to the Energy Transition (PROPHET)**. Throughout the whole project a combination of traditional optimization techniques (e.g. MILP) and novel Artificial Intelligence and Neural Networks Algorithms is going to be deployed for unravelling complex energy engineering dilemmas, as the fuel minimization in multigoods microgrids, electric vehicle recharging or the real time battery state estimation.



# Agenda

14:00 – 14:15	Opening Speech	<b>Fabio Inzoli</b> Head of Department of Energy, Politecnico di Milano
14:15 – 14:30	Keynote Speech	<b>Carlalberto Guglielminotti,</b> Chief Executive Officer, EPS
14:30 – 15:00	PROPHET Microgrid description and Academical objectives	<b>Prof.ssa Sonia Leva,</b> Politecnico di Milano <b>Prof. Giampaolo Manzolini,</b> Politecnico di Milano
15:00 – 15:30	PROPHET Business and Development goals	<b>Daniele Rosati,</b> Chief Technology Officer, EPS <b>Pietro Raboni,</b> Head of System R&D, EPS
15:30 – 17:00	Roundtable	<b>Industrial Laders</b>
17:00- 19:00	Opening Ceremony Visit to microgrid, PROPHET Lab and cocktail	

The participation to the event must be confirmed to Anna Maria Pullè

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How to reach Aula Magna Carassa D'adda Campus Bovisa (Edificio BL28):

- by car, the address is via Lambruschini 4, 20156, Milano (GPS coordinates 45.503169 N, 9.156967 E);

- by public transportation, it is two-minutes' walk from FNM Bovisa Station. FNM Bovisa Station is connected to Milano Porta Garibaldi underground (Suburban lines S1 S2 and S13, two stops) and Cadorna Stations.

