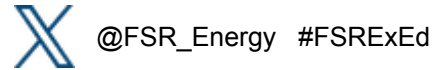


Clean Molecules for the Energy Transition 2024



12-30 June 2024

Online Training

Course Directors:

Ilaria Conti | Florence School of Regulation, RSCAS, EUI

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

Training Coordinator:

Marina Cascella | Florence School of Regulation, RSCAS, EUI

Teaching Assistant:

James Thomas Kneebone | Florence School of Regulation, RSCAS, EUI

Introduction

Within the EU Green Deal vision, renewable, low-carbon, and even emission-negative gases such as renewable hydrogen and biogas have a central role to play in decarbonising the EU economy. This vision has since been elaborated in subsequent strategies pertaining to key areas, for example, the Energy System Integration Strategy and the EU Hydrogen Strategy. Moreover, the energy crisis in Europe over the past 12 months or so has also brought an added impetus to accelerate the growth of these sectors to ensure the long-term affordability and security of energy in the EU.

The 'Clean Molecules for the Energy Transition' course from the Florence School of Regulation covers the key issues in this fast-evolving area. The three-week programme (2 weeks of offline preparation & 1 week of live classes) offers first-hand insights into the EU and global context of clean molecules, with relevant case studies, topical discussions and panel debates delivered by leading professionals.

Course structure

Week 1 & 2 (10-23 June 2024) | Offline preparation to the course

Week 3 (24-30 June 2024) | Online live classes



Draft Programme

10 June **Preparatory weeks on the course platform**

12:00- 13:00 Welcome Live Class

10 - 23 June *Read/watch/listen to the material and take the relevant activities on the course platform.*

19 June 12 – 1 PM CEST
Live Office Hour

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI
James Kneebone | Florence School of Regulation, RSCAS, EUI

24 June **Day 1: Clean molecules in the EU**

9:00 - 9:15 Welcome to the course

Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

9:15 - 10:15 Lecture “The EU context”

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

10:15 - 11:15 Lecture “Mapping the system: products, processes, and taxonomies”

Ilaria Conti | Florence School of Regulation, RSCAS, EUI

11:15 - 11:30 *Coffee break*

11:30 - 12:00 Case study “Biogas and biomethane”

Anna Venturini | EBA
Zoltan Elek | Landwärme

12:00-12:30 Case study “Scenario planning and policy framework for the end-uses of clean molecules in the EU”

Carla Benauges | European Commission

12:30 - 13:30 *Lunch break*

13:30 - 14:30 Debate “Transportation of clean molecules”

Moderator

Christopher Jones | Florence School of Regulation, RSCAS, EUI

Panellists

Fabian Neumann | Technische Universität Berlin (TUB)
Sara Piskor | ENTSOE
Maxime Peeters | Port of Antwerp-Bruges

14:30 - 14:35 Closing

Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

25 June **Day 2: Hydrogen deep dive**

9:00 - 9:15 Welcome and reflections on previous day

Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

9:15 - 10:15 Lecture “Producing green hydrogen and synthetic fuels with Power-to-X technologies “

David Parra | Iberian Energy Storage Research Centre, CIIAE

10:15 - 11:15 Case study “Market uptake of hydrogen”

Malte Krieger | H2Global
Konstantin Brosch | DENA
Kristina Fürst | DENA

11:15 - 11:30 *Coffee break*

11:30 - 12:00 Mini lecture “EU Hydrogen Bank and market-based support instruments for Hydrogen scale up“

Johanna Schiele | European Commission

12:00 - 12:30 Interactive session “Hydrogen cost-effectiveness in the EU”

James Kneebone | Florence School of Regulation, RSCAS, EUI

12:30 - 13:30 *Lunch break*

13:30 - 14:30 Debate “National perspectives for a hydrogen economy”

Moderator

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

Panellists

Erik Rakhou | BCG
Fiona Simon | Australian Hydrogen Council
Federico Villatico | StrategHy

14:30 - 14:35 Closing

Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

26 June **Day 3: Regulation and markets**

9:00 - 9:15 Welcome and reflections on previous day

Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

9:15 - 10:15 Lecture “The Hydrogen and Decarbonised Gas Market Package”

Federico Marco | DG ENER

10:15 - 11:15 Lecture “The future of network regulation”

Oliver Koch | European Commission

- 11:15 - 11:30 *Coffee break*
- 11:30 - 12:00 Mini lecture “CBAM, international trade and competitiveness”
Michael Mehling | MIT, University Strathclyde Law School
- 12:00 - 12:30 Interactive session
James Kneebone | Florence School of Regulation, RSCAS, EUI
- 12:30 - 13:30 *Lunch break*
- 13:30 - 14:30 Debate “Hydrogen and industrial competitiveness: EU, US, China”
Moderator
James Kneebone | Florence School of Regulation, RSCAS, EUI
Panellists
Laima Eicke | RIFS
Joseph Dellatte | Institut Montaigne, Kyoto University
Ben McWilliams | Bruegel
- 14:30 - 14:35 Closing
Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

27 June **Day 4: Externalities of a clean molecule economy**

- 9:00 - 9:15 Welcome and reflections on previous day
Ilaria Conti | Florence School of Regulation, RSCAS, EUI
Andris Piebalgs | Florence School of Regulation, RSCAS, EUI
- 9:15 - 10:15 Lecture “Security of supply for renewable energy supply chains”
Roland Roesch | IRENA
- 10:15 - 11:15 Lecture “Emissions from clean molecules”
Maria Olczak | Oxford Institute for Energy Studies (OIES)
- 11:15 - 11:30 *Coffee break*
- 11:30 - 12:00 Mini lecture “What does ‘clean’ mean? Certification of clean hydrogen and biofuels”
Simon Vanhove | University of Gent
- 12:00 - 12:30 Interactive session “The role of clean molecules in energy security”
James Kneebone | Florence School of Regulation, RSCAS, EUI
- 12:30 - 13:30 *Lunch break*

13:30 - 14:30 Debate “Empowering consumers and the risk of greenwashing”

Moderator

Ilaria Conti | Florence School of Regulation, RSCAS, EUI

Panellists

Helena Almeida | ERSE

Katrien Verwimp | AIB

Marine Cornelis | Next Energy Consumer

14:30 - 14:35 Closing

Ilaria Conti | Florence School of Regulation, RSCAS, EUI

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

28 June **Day 5: Participants’ projects discussion**

9:00 - 09:15 Welcome and reflections on previous day

Ilaria Conti | Florence School of Regulation, RSCAS, EUI

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

09:15 - 9:50 Lecture “The shoots new industry: Learnings from an innovator”

Tim Cholibois | Enapter

9:50 - 11:45 Mastery challenge “Final presentations & course closure”

Ilaria Conti | Florence School of Regulation, RSCAS, EUI

Andris Piebalgs | Florence School of Regulation, RSCAS, EUI

James Kneebone | Florence School of Regulation, RSCAS, EUI

Marie Dejonghe | University of Gent