

ETN CCS taskforce

Minutes of the monthly meeting

10.11.2023, Brussels

Participants	
Present	
Mohammad Mansouri	University of Stavanger
Peter Jansohn	Paul Scherrer Institute
Xiaomian Baxter	SSE
Paolo Capobianco	Ansaldo Green Tech
Jens Walter	BASF
Simona Calenda	Politecnico di Milano (POLIMI)
Andrea Zelaschi	Politecnico di Milano (POLIMI)
Renaud Le Pierres	Meggitt
Jamie Bennison	Uniper
Olaf Brekke	Equinor

Table of contents

1. CCS webinar	2
2. POLIMI presentation	2
3. New research activities	2
4. Actions list	2

1. CCS webinar

ETN briefed participants about the organisation of the upcoming webinar on “*The prospects of flexible natural gas-fired CCGT within a green taxonomy*”, with Mai Bui (Senior Researcher, Imperial College London) as speaker. The virtual event will take place on Friday, 24 November at 11.00 (CET).

ETN suggested members of the CCS taskforce to support the promotional efforts of the webinar.

2. POLIMI presentation

Andrea Zelaschi (Master Student at POLIMI) gave a presentation on the ongoing work for the Master thesis (joint effort with Simona Calenda). The research is entitled “Part-load performance of Natural Gas Combined Cycles integrated with post-combustion CO₂ capture”, and it is carried out within the context of CCS taskforce activities.

Andrea presented the project main assumptions, and in particular:

- i. The modelling of a NGCC with Post-Combustion CO₂ capture
- ii. And the modelling of the CO₂ capture and compression section

The research activities will be completed in six months-time. Next actions include:

- Full-load simulation of the NGCC with post-combustion CO₂ capture (retrofit case)
- Part-load analysis of the NGCC with post-combustion CO₂ capture (retrofit case) with identification of minimum load
- Full-load and part-load analysis of the greenfield NGCC with post-combustion CO₂ capture (steam compressor)
- Full-load and part-load analysis of the greenfield NGCC with post-combustion CO₂ capture (throttling valve at crossover section)

Mohammad Mansouri (Chair of the CCS taskforce) suggested to also cover economic performance of NGCC with post-CO₂ capture in the Master thesis.

Participants of the CCS taskforce can find the presentation [at this link](#) on Microsoft Teams.

3. New research activities

Mohammad Mansouri suggested Andrea and Simona discuss with Enrico Martelli (Professor at POLIMI) the possibility of carrying out research on smaller engines. This task would be carried out in parallel to the Master thesis mentioned above, which covers large engines.

4. Actions list

#	Actions	Resp.	Deadline
---	---------	-------	----------

1	The title of the webinar should be changed to include “CCS”. Nicolò Cairo (ETN) to follow-up with the presenter and change the title.	NC	10.11.2023 (completed)
2	Andrea Zelaschi and Simona Calenda to follow-up with Enrico Martelli (POLIMI) on new research activities (see above for further information)	AZ, SC	15.12.2023
3	Andrea Zelaschi and Simona Calenda to provide any updates on their research activities at the next monthly meeting	AZ, SC	15.12.2023
4	Launch invitation for the next monthly meeting (15.12.2023 at 11.30 (CET)	NC	10.11.2023 (completed)