



ETN
Global

Working Group initiatives & objectives for 2025/2026

CCGT Efficiency Penalty					
WG Name	CCS	Chair	Jens Walter (BASF)	Co-chair	David Peralta-Solorio (Uniper)
Project lead	TBD				
Core team	TBD				
ETN officer in charge	Nicolò Cairo				
Initiative description					
Short project description					
The efficiency penalty is the most important criterion for the economy of CCS. The penalty of different technologies is to be considered.					
Objective setting					
The CC technology with the highest TRL is the amine gas treating. Different system configurations such as the use of exhaust gas recirculation can have a major influence on efficiency. Also new technologies are developed. These are to be compared.					
Expected outcome					
A comprehensive overview of the possible system configurations for CC and their expected efficiency penalty for the entire system over the entire load range.					
Implementation of the activities					
Project execution					
Please describe the role and the involvement of the participating members. Estimate the required manhours. Opportunities to involve a Master student from an ETN University could be explored. This activity may be delivered via a Master Thesis (in light of the positive experience with the previous two CCS Master Thesis).					
Project finances					
No external funding is required.					
Meeting schedule and dissemination					
The CCS Taskforce monthly meeting will provide a guiding platform for the Master Thesis. Regular updates and feedback from ETN Members will be exchanged during these occasions.					
Deliverables & Milestones (max. 1 per each objective)					
Deliverable 1	Master Thesis Description	Timing	June 2025		
Explain briefly. Proposal to discuss with Shieffield University.					
Deliverable 2	Delivery of the Master Thesis	Timing	June 2026		
Explain briefly.					
Milestone 1	Start of the Master Thesis	Date	January 2026		
Explain briefly.					
Milestone 2	Delivery of the Master Thesis	Date	June 2026		
Explain briefly.					
Project timeline					
Please provide a simple planning with milestone and deliverables.					