



IEA Bioenergy

Technology Collaboration Programme



FRANCE Country Report IEA Task 33 Meeting

April 23, 2026

Yannick FERRIERE

ATEE - Club Pyrogazéification

Glasgow, May 2026

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Technology Collaboration Programme

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SNG for grid injection

GRDF call results: «*Pyrogasification and methanation for grid injection*»



GRDF has launched a call for projects to overcome the technical obstacles to coupling existing pyrogasification demo plants with a grid upgrade module, in order to experiment with gas injection into the gas network. A 1,2M€ grant is available.

3 awards on 21st Nov 2025 with all candidates currently having a syngas production demo plant in operation:

- NOVEA
 - In house pyrolysis + gasification technology + catalytic methanation from ENERGO
- CHARWOOD Innovation
 - Spanner gasification (O_2 /steam) + biological methanation
- ELVEA Energy
 - EQTEC gasification + AlphaSYNTH catalytic methanation



Novea (Le Barp)



Charwood (Colpo)



ELVEA (LERMAB Epinal)

SNG for grid injection

GT CSF NSE « nouvelles technologies des gaz renouvelables et bas carbone »



**Nouveaux Systèmes
Énergétiques**
Comité stratégique de filière

❖ Current situation:

- A working group (GT for “*groupe de travail*”), commissioned by the minister of ecological transition, the minister of finance and economy, and Ademe (french ecological transition agency), focuses on new renewable gas technologies: pyrogasification, hydrothermal gasification, and power-to-methane, within the framework of the CSF NSE biogas working group's sector agreement.

❖ Objectives:

- This working group serves as a forum for exchange and interaction between the administration and stakeholders in the sector. Its objectives include:
- Presenting studies already completed or underway.
- Sharing information (research, data, regulations, etc.) from the administration to the sector.

❖ Challenges:

- Develop the production of renewable and low-carbon gases and contribute to the decarbonization of France by 2050
- Meet industrial decarbonization needs
- Strengthen French and European industrial sovereignty
- Process and improve waste recovery

❖ Calendar 2026:

- 1: Overview of technologies (March 30, 2026)
- 2: Biomass resources and waste (May 26, 2026)
- 3: Joint analysis between government and industry stakeholders of the low-carbon regulation (June 2026)
- 4: Technical/economic roadmap of the pyrogasification sector - SNG for grid injection (September 2026)
- 5: Trajectory of renewable gases (October 2026)



SNG for grid injection

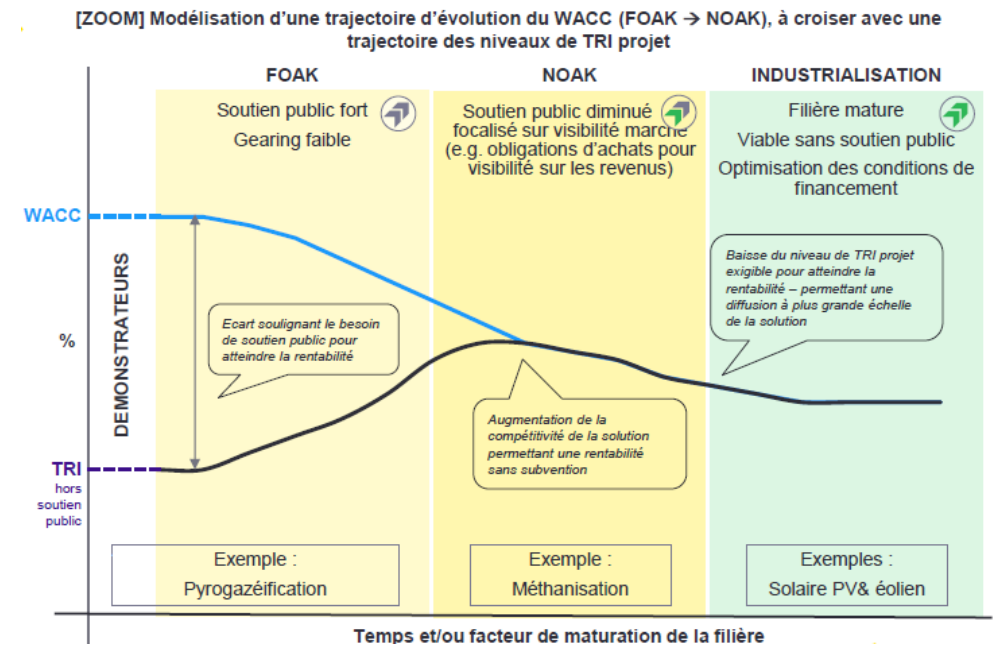
Study EY-ATEE « SNG from pyrogasification for grid injection: strategic roadmap »

Reaching 100% of green gas in the french grid by 2050 will not only require a strong increase of methanisation plants (currently > 1000 producing ~5 TWh of biomethane) but also the development of new sectors such as pyrogasification.

As any new promising technologies pyrogasification require strong political & economical support to begin its development and industrialisation until it reaches the right maturity level.

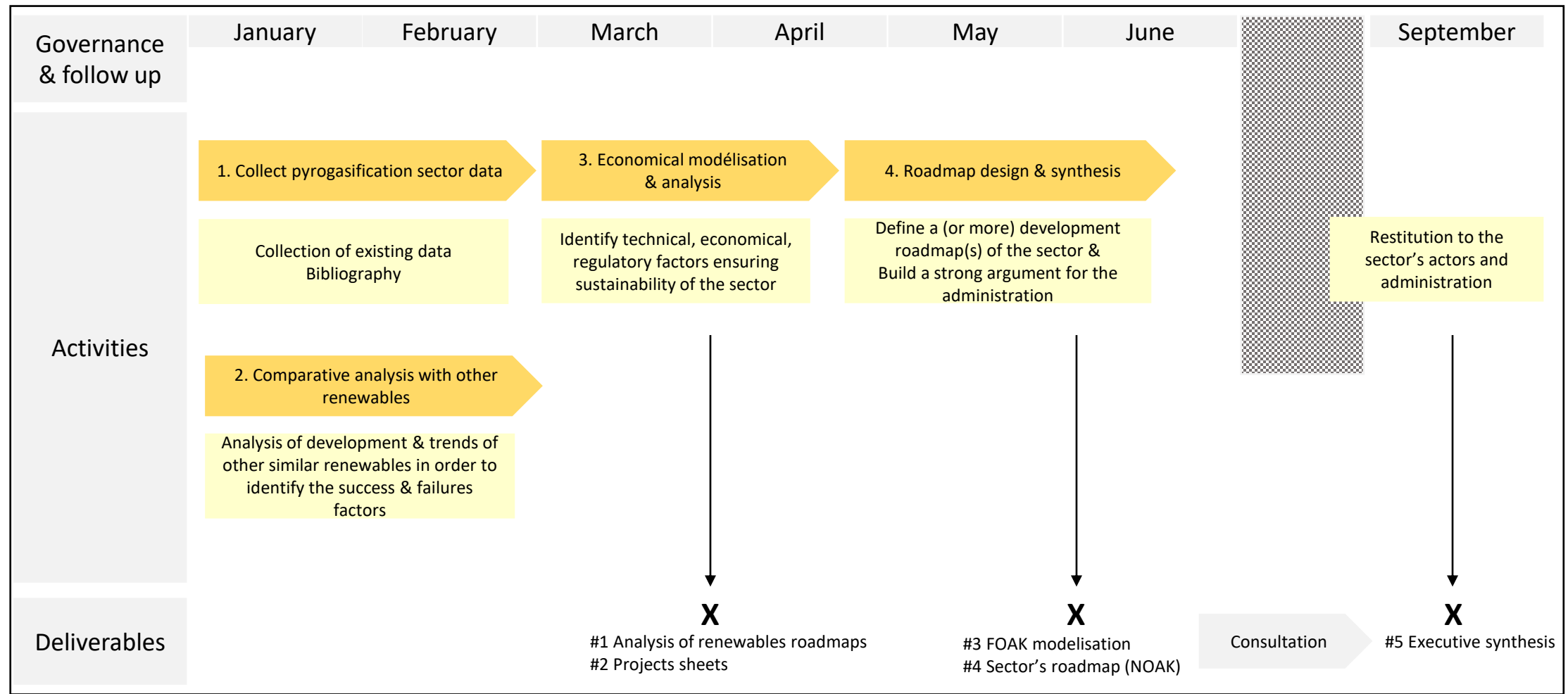
End of 2025 the ATEE national association with the support of EY launched a strategic study to consolidate the SNG production roadmap from pyrogasification of waste and biomass.

The objective of this study is to establish, with the actors in the sector who are members of the Pyrogasification Club, credible and shareable scenarios for the development and industrialization of pyrogasification technologies and to propose supported arguments for the trajectory of cost evolution and associated timelines for grid injection purpose (type of inputs, size of projects, production volume).



SNG for grid injection

Study EY-ATEE « SNG from pyrogasification for grid injection: strategic roadmap »



Planning of the study

SNG for grid injection

Study SETEC-ATEE «Assessment of the potential feedstocks of pyrogasification and hydrothermal gasification sectors for the production of renewable and low-carbon gas»

Main missions:

- Validate the study framework
 - Structuring assumptions
 - Methodological choices
- Frame the scenario development
 - Scenario coherence
 - Robustness of trajectories to 2050
 - Integration of key variables (technical, economic, regulatory)
- Inform strategic choices
 - Trade-offs between resource uses
 - Prioritization of sectors
 - Levels of decarbonization ambition
- Validate resource allocation
 - Assignment of deposits
 - Coherence with competing uses
- Guarantee the quality of deliverables
 - Scientific rigor
 - Transparency of assumptions
 - Overall credibility of the study

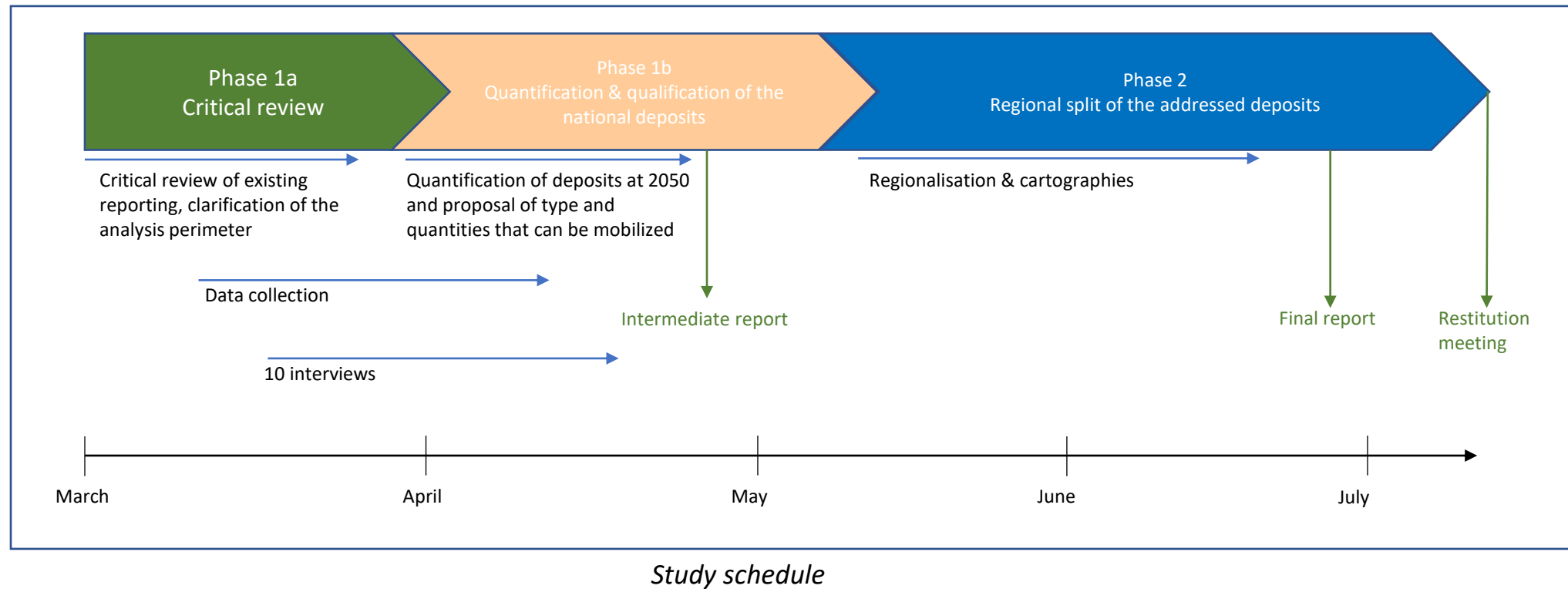


DELIVERABLES :

- Preliminary report on deposits to 2050 at the national level: end of April 2026
- Final study report: deposits at the national level: July 2026
- Executive summary
- Consolidated database
- Cartographies

SNG for grid injection

Study SETEC-ATEE «Assessment of the potential feestocks of pyrogasification and hydrothermal gasification sectors for the production of renewable and low-carbon gas»



Industrial projects of direct syngas usage (update)

2 awarded projects on National DECARB-IND call:

- VERALLIA glass foundry, Cognac
 - 30GWh of enriched syngas from 10kt/y of biomass
 - Technology: Spanner | Developer: Charwood
 - Grant awarded by Ademe in 2025
 - Current status: Construction started

- STELLANTIS aluminum foundry, Mulhouse
 - 40GWh of syngas + 6GWh of heat from 17kt/y of biomass
 - 15M€ CAPEX
 - Technology: Regawatt | Developer: Gazotech
 - 40% grant awarded on 24 dec 2025 by Ademe
 - Current status: FEED in progress



Thank you!

Contact: Yannick FERRIERE

President - ATEE Pyrogasification club

Email: yannick.ferriere@sg-energies.eco



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