Alternative fuels task force (YEC)					
WG Name	Hydrogen and Alternative Fuels	**Chair**	Peter Kutne (DLR)	**Co-chair**	Geert Laagland (Vattenfall)
Project lead	Lorenzo Pilotti (POLIMI)				
Core team	Peter Jansohn (PSI); Peter Kutne (DLR); Rene Vijgen (ETN); Geert Laagland (Vattenfaal); Felix Guethe (Phoenix BioPower); Lorenzo Pilotti (POLIMI); Jon Runyon (Uniper); Stefano Mori (Cranfield University); James Bain (Cardiff University); Laurie Brooking (Frazer Nash); Antonio Escamilla Perejon (ETN); Lennox Franciscampusano (Chromalloy); Sandra Richter (DLR); Mitch Webb (EPRI); Harry Ellicott (SSE); David Abott (Cranfield University); Kirti Sharma (City, University of London)				
ETN officer	**Antonio Escamilla Perejon**, Giuseppe Tilocca, Nicolò Cairo				

Initiative description

Scope definition

The task force has been formed with the aim to explore efficiency as well as handling and safety of alternative fuels. The group is focusing on the comparison of different alternative and renewable fuels to access the availability and usability and the actual development status for gas turbine applications.

Objective setting

The task force would like to expand their survey to other aspects including economic, socio-political, technological, and environmental criteria.

Expected outcome

The extension of the first comparison of different alternative fuels will give a better overview which fuels can be seen as a short or mid term alternative to hydrogen.

Implementation of the activities

Project execution

A preliminary study on alternative fuels for gas turbine power generation was presented at the IGTC23 in Brussels in October. The next steps will be focus on developing a more rigorous methodology to compare alternative fuels based on different aspects, with the objective of supporting gas turbine users in selecting the most appropriate alternative fuels for their applications. Currently, the task force is working to collect the data and gather all the relevant information that would allow for the setup of more detailed and different case studies. At the same time, the most interesting case studies for the application of this methodology are also under investigation (gas turbines for off-grid/standalone applications, cogenerative gas turbines, etc.). The outcomes from the application of this methodology to multiple case studies and the methodology itself will be presented at the ETN October Workshop 2024. The possibility of publishing this methodology and some of the findings in a scientific journal has been discussed.

Project finances

Please describe briefly.

Meeting schedule and dissemination

Regular internal meetings, 3-4 month meetings with the members of the hydrogen WG.

Deliverables & Milestones

Deliverable 1	Report on the extended comparison on alternative fuels (presentation at ETN October Workshop 2024)	**Timing**	10-2024
Deliverable 2	Prepare an extended version of the conference paper for scientific journal submission	**Timing**	11-2024
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Milestone 1	Project start	**Start date**	04-2023
Explain briefly.			
Milestone 2	Project end	**End date**	112024
Explain briefly.			