

Newsletter

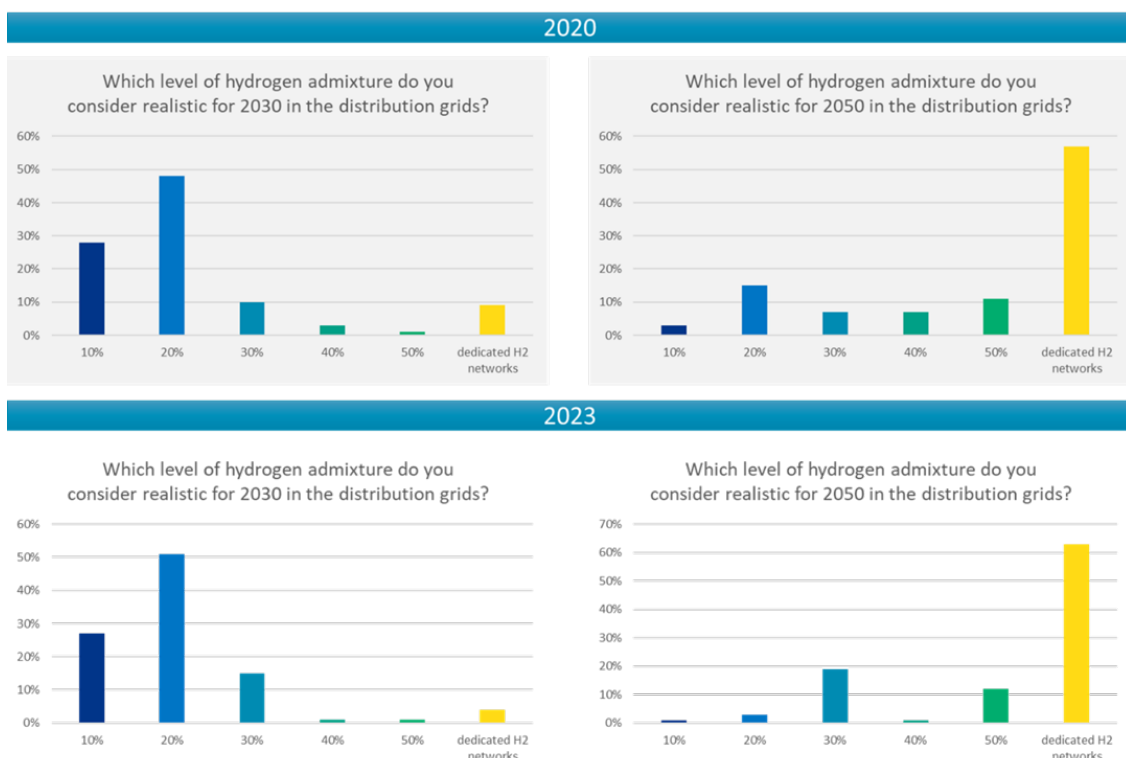
Testing Hydrogen admixture for Gas Applications

Dear THyGA followers,

It has already been almost 3 years and a half¹ since the THyGA project started with the ambition to enable the wide adoption of H2NG blends by closing knowledge gaps regarding technical impacts on residential and commercial gas appliances.

By the beginning of 2020, when the THyGA project started its activities, the general knowledge and opinions regarding H2NG blends had already evolved, with perspectives more focused on lower levels. This is illustrated by the results of a live survey with the attendants of the [first THyGA Workshop](#), on the 6th of May 2020, where 93% of the answers predicted blends lower or equal to 30%H₂.

The same question has been asked during the [final Workshop of the project](#), on the 24th of March 2023, with very similar results: focus on blends below 20% in 2030 and transition to pure hydrogen networks in 2050. This is reassuring since most of our work has been focusing on lower than 30%H₂, to make sure to provide relevant results to stakeholders 😊 .



¹ The project was to last 36 months, we asked for a 3-months extension to properly finalize our reports.

Our work is finally coming to an end.

The [final Workshop of the 24th of March](#) already showed you the major results, but the last deliverables of the project are also finally published, with in-depth analysis on short-term and long-term results (around 100 appliances tested), recommendations for standardization activities and mitigation.

Around 50 deliverables have been published, including 19 public deliverables, several newsletters, articles, and replays of several technical workshops that you can access through the links below.

List of Public Deliverables

		Deliverable title	Link
WP2	D2.1	Market segmentation of domestic and commercial natural gas appliances	Report
	D2.2	Impact of hydrogen admixture on combustion processes – Part 1: Theory	Report
	D2.3	Impact of hydrogen admixture on combustion processes – Part 2: Practice	Report
	D2.4	Non-combustion related impact of hydrogen admixture - material compatibility	Report
	D2.5	Testing programme for hydrogen tolerance tests of domestic and commercial natural gas appliances	Report
WP3	D3.5	Intermediate segment of technologies by segment report on the impact of the different H2 concentrations on safety, efficiency, emissions and correct	Report
	D3.6	Intermediate long-term effect of H2 on appliances tested	Report
	D3.7	Testing done on components (new and taken from existing installation) from different countries including statistics on results obtained for the leakage	Report
	D3.8	Segment of technologies by segment report on the impact of the different H2 concentrations on safety, efficiency, emissions and correct operation	Report
	D3.9	Long term effect of H2 on appliances tested	Report
	D3.10	Compiling of results from all tasks and development of further statistics at EU and country level	Report
WP4	D4.1	Overview of the current EU certification/standardization framework and description of the identified issues	Report
	D4.2	Overview of relevant existing testing/certification experience	Report
	D4.3	Recommendation on test gases and guide for assessment of gas appliance standards for H2NG.	Report
WP5	D5.1	Review on other projects related to mitigation and identification of usable sensors in existing appliances	Report
	D5.2	Test report of the identified mitigation solution on problematic appliances	Report
	D5.3	Preconisation on measures to adapt existing appliances	Report
WP6	D6.5	“Green Hydrogen” for Europe roadmap	Report

List of Replays, Articles and Newsletters

	Reference	Deliverable title	Link
WP2	Article	The Impact of Hydrogen Admixture into Natural Gas on Residential and Commercial Gas Appliances	Link
	Webinar	Impact of hydrogen admixture on residential and commercial combustion processes insights from combustion science	Replay
	Webinar	Materials science – impacts of hydrogen blends	Replay
WP3	D3.6	THyGA Workshop on interim test results – December 2021 (D6.2)	Link
WP4	Workshop	Technical workshop “H2NG supply to residential and commercial appliances – standardization and certification”	Replay
WP6	Workshop	First workshop of the THyGA project	Replay
	D6.3	Workshop on standardization (D6.3)	Replay
	D6.4	Final public workshop (D6.4)	Replay
		Newsletter #1	Link
		Newsletter #2 – June 2021	Link
		Newsletter #3 – November 22	Link
		Newsletter #4 – June 23	Link
	Conference	THyGA at World Gas Conference 2022	Link
Article	THyGA in the Global Voice of Gas	Link	

Some additional material (test protocol, test sheet, Excel calculation sheets, aggregated test results for own use) is also available on the website, check the [Open Data section](#) !

The project members would like to express their special gratitude to:

- Appliances manufacturers who have kindly provided their appliances for testing in WP3 or helped with support through our analysis;
- External (to the project) laboratories having tested appliances with the same protocol as developed in the project and shared their results with the project team: Applus and some manufacturers;
- The Advisory Panel group, experts from associations and CEN TCs who provided their advice on the test protocol and our analysis (adjustment, etc.);
- The European Commission and the Clean Hydrogen Partnership for supporting our work from the beginning to its conclusions.

Thank you!



(Part of) the project team in Brussels for the final THyGA workshop, March 2023
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