

Cost Analysis and Model Comparison of Hydrogen Supply Chains

A Task in Definition from the Hydrogen TCP

Timing

Expected start date: March, 2024; Expected end date: March, 2027

Importance of the topic

There are numerous initiatives and activities planned to organize supply chain to facilitate international trade of hydrogen. Despite all such aspiration to the large-scale international hydrogen trade, there is still great uncertainty about the cost of hydrogen on international supply chains. Harmonization of clean hydrogen standards is essential in fostering international trade of hydrogen. Same methodology should be used to determine the greenhouse gas intensity of hydrogen produced. However, good quality data on GHG-emission intensity are still largely lacking.

International collaboration is necessary to deepen understandings about cost and GHG intensity of hydrogen. New Task is proposed, for this purpose, to conduct comparison of cost analysis models owned by research institutes in IEA/H2TCP member countries.

Alignment with the Strategic Plan

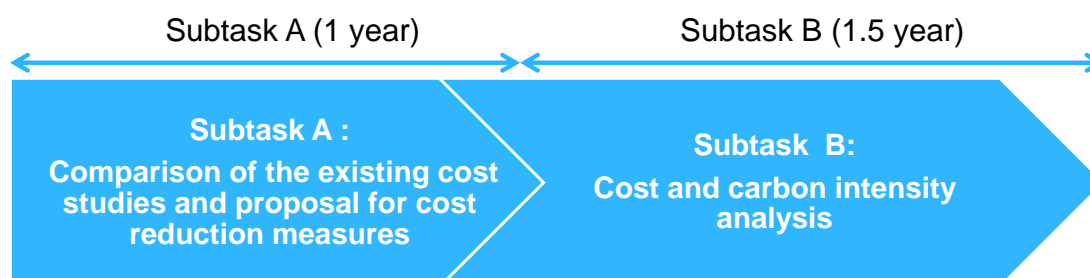
The task is fully aligned with the priorities set for the collaborative RD&D theme of the strategic plan 2020-2025. Furthermore, this task might contribute to various relevant activities in TCP by providing data and knowledge about the latest cost and GHG intensity of hydrogen. Hence foster the international trade of hydrogen in member countries.

Main goals

The main purpose of this task is deepening the understandings of the cost and GHG intensity of hydrogen supply chains. Further develop policy recommendations for the pathway to achieve massive reduction of hydrogen supply cost.

- ✓ Deepening the understanding of variations, in the cost and emission intensity of hydrogen, envisaged in the international supply chain analyses by comparing supply chain models.
- ✓ Deepening the understanding of the cost structure of international hydrogen supply chains and identification of main uncertainties and priority areas for cost reduction.
- ✓ Developing recommendations and proposals to policy makers about the measures to realize massive reduction of hydrogen cost.

Structure



Participation and Collaboration

Currently Australia, Japan, The Netherlands and Norway are participating as launch members but the task is open for interested members of IEA/H2TCP. If you are an expert in this field, particularly already implemented cost analysis studies with your own analysis models, and you are interested in participating in the definition and implementation of this new Task then please fill out the form below.

What are we looking for?

	Requirements	Responsibilities
Co-Task Manager	25% of working time Good organization and communication skills	Report to ExCo (2/year), and Technical Secretariat (regularly, to keep the website updated, create social media content...) Co- coordinate Participation Letters Co-organize Task Meetings (1-2/year) Review subtask deliverables
Subtask A Leader	15% of working time Extensive experience in roadmaps	Organize subtask meetings (2-3/year) Participate in Taskforce Meetings
Subtask B Leader	Knowledge of the expert network, important events, key publications...	Coordinate subtask deliverables Curate a group of active experts
Task experts (All subtasks)	10% of working time Active work on R&D&I	Take part in the stakeholder meetings
Taskforce members	High-level representatives from the organizations involved	Will meet twice a year, and comment on progress from their perspective.

Why should you join this Task?

- ✓ Join a network of international experts.
- ✓ Contribute to defining the state of the art for hydrogen technologies in industry.
- ✓ Your participation will be publicly acknowledged in deliverables and the Hydrogen TCP website, enhancing visibility for your work.
- ✓ Participate in cutting-edge hydrogen R,D&D.

Any organization, institution, entity, or individual expert from a member Country / Sponsor can participate in the Task upon approval of the Task Manager(s) and corresponding ExCo representatives.

Join Task in definition / Similar initiatives ([link to form](#))

Also, if you are aware of other initiatives (past/ongoing/planned) whose scope and results partially or substantially overlap with those of this Task in Definition, please fill this form so it is taken into account during the definition process working for maximum synergy and minimum overlapping.