Building on our 2023 edition, we have tracked the clean hydrogen subsidies announced in 2024

Here are the main takeaways:

- **11 clean hydrogen subsidy programs** were launched or announced globally in 2024
- **Asia-Pacific region** led the momentum for subsidy auctions in terms of size and budget, while **Europe** introduced initiatives later in the year
- Most countries launched **subsidies for domestic hydrogen production**, while markets like Japan, South Korea, Germany, and the Netherlands focused on **offtake subsidies**
- Various eligibility criteria ensure both the quality of submitted bids and their alignment with policy goals

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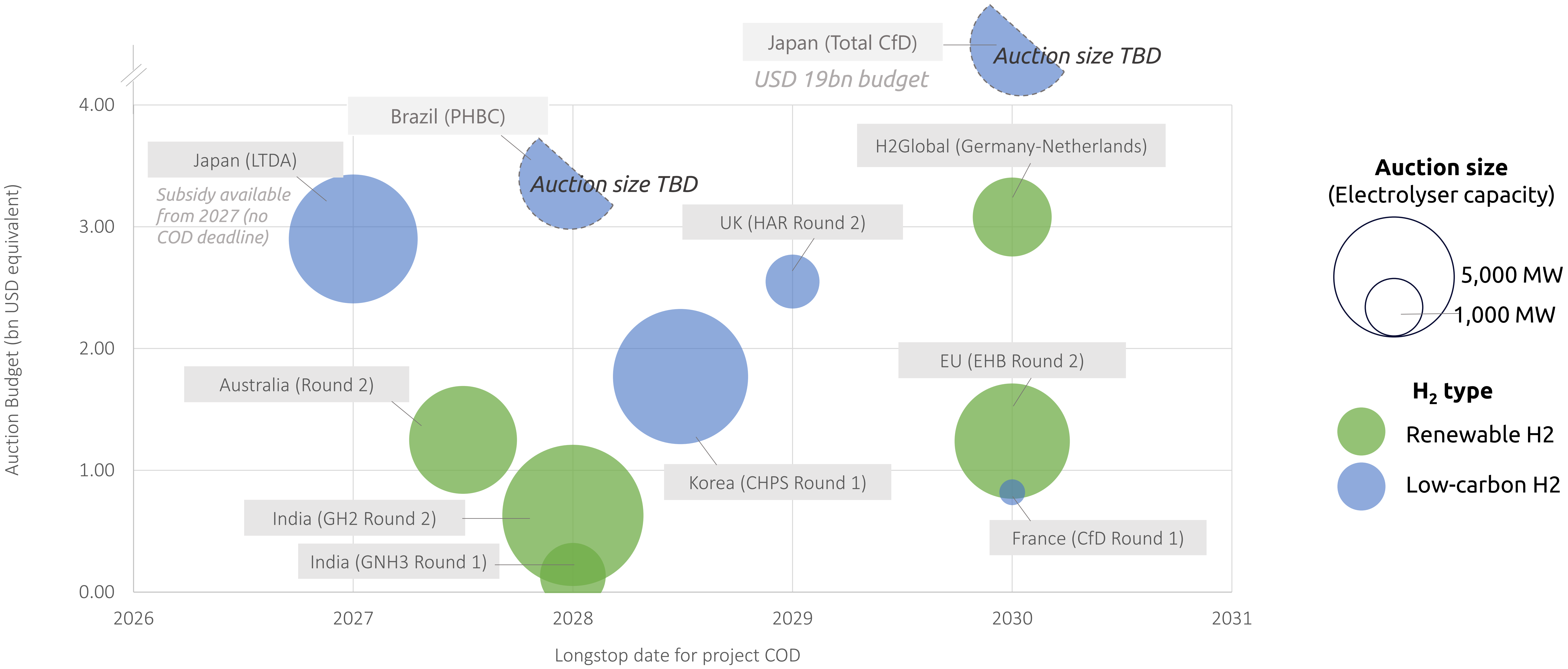
The momentum for clean hydrogen subsidies was mainly driven by subsidy auctions launched in the APAC region



Note: Auction sizes are shown in terms of electrolyser capacity. For Japan LTDA, 1GW of clean power from co-firing ammonia in coal plants corresponds to 2.5Mtpa of clean ammonia which requires 5GW of electrolyser capacity. For Korea, 6,500 GWh corresponds to approximately 2.78Mtpa of clean ammonia for co-firing or 5.5GW of electrolyser capacity. For India, 450,000 t/yr of hydrogen and 539,000 t/yr of ammonia require 6.1GW and 1.3GW respectively. For the EU, a maximum of 300,000 tons of hydrogen, or 4GW, can be subsidized under the EUR4/kgH2 cap. For Australia, the auction size is assumed to match Round 1 (3.5GW) but it is to be confirmed. For the UK, France, and H2Global, auction sizes are stated explicitly in electrolyser capacity (875MW, 200MW, and 1.875GW).

Three major European subsidies were announced in the end of 2024

EU Second Renewable Hydrogen Auction

- Open for application on 3 Dec 2024
- Award up to **€1.2 billion** to support **RFNBO* hydrogen** producers located in the European Economic Area (EEA)
- Provide a fixed subsidy (max. €4/kg) for 10 years
- Introduce new **resilience requirement for electrolyser sourcing**

Mécanisme de Soutien (French CfD) Round 1

- Open for application on 5 Dec 2024
- Maximum 200 MW of electrolyser capacity located within French territory are eligible
- Provide up to €4/kg of hydrogen for 15 years
- Selection based on a total of 100 points:
  - *(70%) Price paid out per ton of CO_2 avoided compared against the lowest price submitted*
  - *(30%) Other factors such as commitment to electrolyser curtailment in response to the grid, "pooling" of multiple industrial users, etc.*

German-Dutch H2Global scheme

- Approved by the EU Commission on 19 Dec 2024
- A total budget of **€3 billion**, contributed by Germany (€2.7bn) and the Netherlands (€300m)
- Known as the **"double-auction"** system, state aid will cover the difference between purchase and sale prices of RFNBOs
- Timeline for tenders are not yet confirmed

**Renewable fuels of non-biological origin*

Clean hydrogen subsidies primarily supported domestic production

List of production subsidies

Program	H_2 Derivatives	Status (as of Dec '24)	Destination (Domestic/Export)	End-use Sector	Subsidy Type	Duration (year)
Hydrogen Headstart Round 2	Yes	*Planned*	Domestic & Export	All	Fixed premium	10
SIGHT Mode-1-Tranche-II (Green Hydrogen Round 2)	-	Closed	Domestic & Export	All	Fixed premium	3
SIGHT Mode-2A-Tranche-I (Green Ammonia Round 1)	Yes	Closed	Domestic	Fertilizer	Fixed premium	3
Innovation Fund Second Renewable Hydrogen Auction (IF24)	-	Ongoing	Domestic	All (including maritime)	Fixed premium	10
Hydrogen Allocation Round 2 (HAR2)	-	Closed	Domestic	All	CfD	15
Mécanisme de Soutien (CfD) Round 1	-	Ongoing	Domestic	Industrial	CfD	15
Low-Carbon Development Program (PHBC)*	Yes	*Planned*	Domestic & Export	All	Tax credit	5

Note: Brazil's PHBC tax credit is applicable to any projects involved in commercialization of low-carbon hydrogen and its derivatives. Projects must meet at least one of the following criteria to benefit from the PHBC resources: (a) contribute to climate change mitigation and adaptation, (b) contribute to regional development, (c) promote technological development and dissemination, or (d) diversify the Brazilian industrial base.

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...while some promoted clean hydrogen supply and end-use application

List of offtake subsidies

Program	H_2 Derivatives	Status (as of Dec '24)	Production (Domestic/Imports)	End-use Sector	Subsidy Type	Duration (year)
German-Dutch H2Global Auction*	Yes	*Planned*	Imports	All	CfD	10
CfD Measure 1&2	Yes	Ongoing	Domestic & Imports	Hard-to-abate	CfD	15
Long-Term Decarbonization Power Source Auction (LTDA) FY2023-24	Yes	Closed	Domestic & Imports	Power	Fixed revenue	20
Clean Hydrogen Portfolio Standard (CHPS) Round 1	Yes	Closed	Domestic & Imports	Power	CfD	15

Note: H2Global's "double-sided" auction, implemented through Hydrogen Purchasing Agreements (HPAs) and Hydrogen Sales Agreement (HSAs), supports hydrogen production by providing a long-term offtake agreement to hydrogen producers. However, its primary purpose is to act as a supply measure, enabling the import of green hydrogen and its derivatives from cost-competitive regions into Europe, rather than directly funding production efforts.

Different bid eligibility criteria are set to focus on projects' resilience and bidders' robustness

Program	Project COD	Electricity supply	Offtake	Equipment	Other requirements
Hydrogen Headstart*	2028	MOU	MOU	MOU	
Green H_2 R2	2028	-	-	-	Net worth of bidder > $1.7m/ktpa of production capacity (Bucket 1)
Green NH_3 R1	2028	-	-	-	Net worth of bidder > $600k/tpa awarded
IF24	2030	HoT	HoT	MOU	Less than 25% of electrolyser capacity manufactured outside the EU
HAR2	2029	HoT	LOI	LOI	Grid connection offer or acceptance
French CfD R1	2030	LOI	LOI	LOI	Proof of grid connection permission; At least 60% of produced volumes to industrial offtaker(s); Less than 25% of electrolyser capacity manufactured outside the EU
H2Global*	2030	-	(To be selected by granting authority)	-	
Japan CfD	2030	-	Joint application producer/offtaker	-	
LTDA	2027	-	-	-	
CHPS R1	2028	MOU (for H2/NH3 supply)	-	-	Submission of clean hydrogen certificate or preliminary consultation result
PHBC*	2028	-	-	-	

Note: Australia's Hydrogen Headstart Program terms are based on Round 1. H2Global and Brazil PHBC's terms and conditions are to be published. Heads of Terms (HoT), Letter of Intent (LOI), and Memorandum of Understanding (MOU) refer to pre-contractual agreement signed between parties.

At Yamna, we are ready to power the future by participating in clean hydrogen auctions and producing green molecules at scale in the world's most attractive locations

Have a question or looking for a partnership?

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