

Japan unveils its plan for USD 19bn clean hydrogen subsidies

November 12, 2024

Hydrogen Society Promotion Act



Support measures

CfD for fuel price

DEVEX for shared infrastructure

Regulatory exemptions

CfD: Contract for difference
DEVEX: Development expenditure

Applicant



Supplier &
"hard-to-abate" offtaker

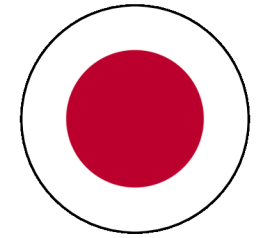


Two or more users of
the shared facility

Those who seek for exemptions on permitting
and notification under the Port and Harbor Law

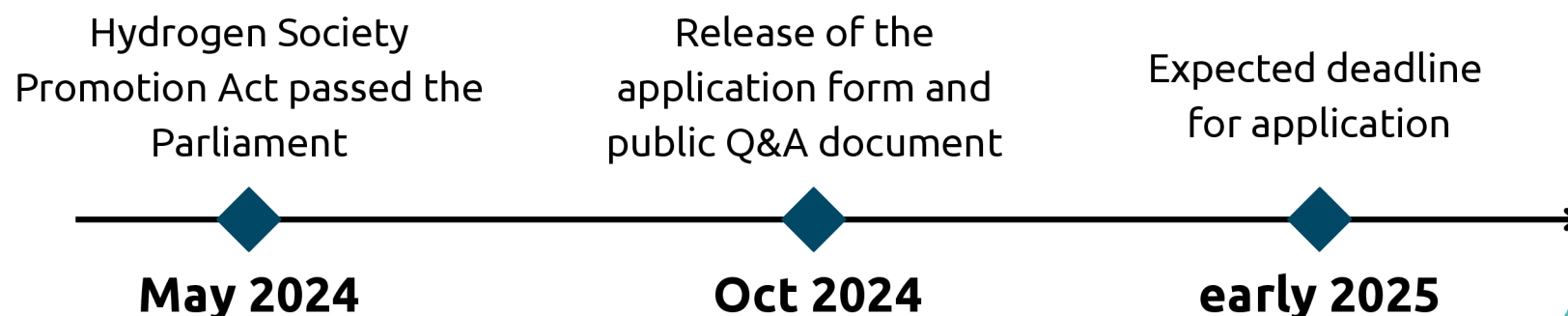
- ➔ Japanese government released the details of the clean hydrogen subsidies under the Hydrogen Society Promotion Act
- ➔ Applicants can choose from three types of support on 1) price difference, 2) development cost, and 3) regulatory procedures
- ➔ The launch of the support scheme is yet to be confirmed

USD19bn support from Japanese government for clean H2

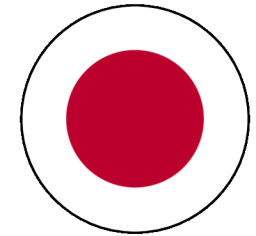


Japanese government released the details on subsidies for clean hydrogen and derivatives project as the Hydrogen Society Promotion Act comes into effect

Size	JPY 3 trillion (around USD 19bn)
Duration	15 years (+ 10 years w/o subsidy)
Start of delivery	2030
Eligible projects	Supply <u>AND</u> use of hydrogen, ammonia, e-fuels or synthetic methane
Target sector	Hard-to-abate (steel, chemicals, transport, etc.)
Granting authorities	METI for approving business plans, JOGMEC for approving subsidies



Applicants can apply to 3 types of support



Measure 1

Subsidies for price difference (CfD)

Mechanism

Difference between base price for clean H2 or NH3 and the reference price (last 12-month average price of grey H2/NH3)

Eligibility

- 1) Must have a **hard-to-abate sector offtaker** in application
- 2) Minimum supply volume is 1,000 ton of H2 per year
- 3) Expected to obtain approval in accordance with the Safety Law



**Hydrogen Society Promotion Act
Article 10, Item 1(a)**

Measure 2

Subsidies for base development cost (DEVEX) of shared supply facilities

Mechanism

Subsidies provided for FEED and EPC costs of the shared supply facilities

Eligibility

- 1) The facility must be used by **two or more low-carbon hydrogen users**
- 2) Minimum supply volume is 10,000 ton of H2 per year



**Hydrogen Society Promotion Act
Article 10, Item 1(b)**

Measure 3

Exemption to permits and notifications

Mechanism

Regulatory exemptions under the Port and Harbor Law, the High Pressure Gas Safety Law, or road occupancy

Eligibility

- N/A, but need to submit documents such as:
- drawing of the intended construction or activities,
 - detailed safety report,
 - environmental impact assessment, etc.

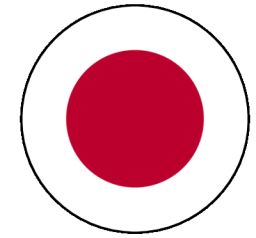


Special provisions under relevant laws



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Various evaluation criteria are considered for awarding the support



Supply diversification

Diversify procurement resources



Carbon intensity of fuel

Meet the carbon intensity level of 3.4 kgCO₂/H₂ “well-to-gate” and 0.84 kgCO₂/NH₃ “gate-to-gate”



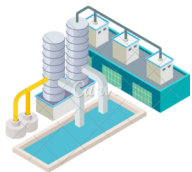
Price stability

Secure the price negotiation power with the % share of Japanese entities involved in upstream projects



Low cost

Preference for projects with certain cost reduction and cost competitiveness



Technological contribution

H₂ production enabled by the Japanese technologies



Project maturity

Preference for projects that are closer to final investment decision (FID)



Economic contribution

Increase domestic investment or job creation in Japan

Detailed evaluation method on how these criteria will be prioritized is still yet to be confirmed by METI at the official launch of the scheme

Comparison of demand-side CfD schemes in major offtake countries



	Contract for Difference (CfD)	Clean Hydrogen Portfolio Standard (CHPS)	Carbon contract for difference (CCfD)
Size	JPY 3 trillion (USD 19 billion)	n/a <i>(6500 GWh by opening volume)</i>	EUR 2.8 billion (USD 3.2 billion)
Target sector	Hard-to-abate* <i>(including power supplied to industrial facilities)</i>	Power	Energy-intensive industry
Support	Price difference between clean and grey hydrogen OR clean ammonia and coal/gas	Difference between the LCOE* of full H2- or co-firing and the wholesale electricity price	Difference between the market price for emission allowances and the carbon avoidance costs
Pro's & Con's	✓ Develops full value chain ⚠ Need to apply separately for CAPEX and OPEX support	✓ Supports both CAPEX and OPEX ⚠ Involves external factors that affect price (e.g. curtailment)	✓ Supports both CAPEX and OPEX ⚠ Relatively small budget
Status	Not open yet	Ongoing	Awarded

*Applications in the "hard-to-abate" sectors include steel, chemicals, transportation, and power generation facilities that supply power to industrial plants

*LCOE: Levelized cost of electricity



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Yamna, green molecules producer, is developing several green hydrogen and derivatives projects worldwide, delivering at a competitive price

Looking for a partner for the Japanese CfD program?

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