

CONCEPT PAPER

Loan Facility for Strategic Green Hydrogen Imports

1. Purpose and Summary

Europe faces three converging pressures: repeated gas price shocks (three in four years), the risk of ceding leadership in green industries to China, and the need to keep energy-intensive sectors, steel, chemicals, refining, and their defence supply chains, competitive. Green hydrogen imports are not a substitute for domestic production but the element that makes the overall system affordable: delivered from Saudi Arabia's west coast, green hydrogen can reach Germany at roughly half the cost of unsubsidised domestic production, while German technology, engineering and offtake keep the value creation at home. The decisive variable for whether these imports protect or burden German industry is their delivered cost, and the largest controllable component of that cost is the cost of capital.

Germany has set itself the objective of importing 50 to 70 percent of its hydrogen demand by 2030. Whether these imports protect or burden German industry depends almost entirely on their delivered cost, and the single largest controllable component of that cost is the cost of capital. Financing costs account for roughly 40 to 45 percent of the economics of a large-scale green hydrogen and ammonia project; reducing the all-in cost of debt to the 1 to 2 percent range lowers the delivered hydrogen cost by up to 1 EUR/kg, more than any individual subsidy instrument currently in place.

Germany's existing toolbox cannot reach rate level for projects in countries where green molecules are cheapest. Development finance through KfW Entwicklungsbank is closed to high-income countries; KfW IPEX-Bank is legally required to lend at market terms; and export credits under the OECD Arrangement are bound to CIRR rate floors. Germany's two principal industrial competitors in the emerging hydrogen economy face no such gap: Japan operates a policy-bank untied loan facility designed precisely for energy supply security, and China deploys concessional financing at around 2 percent across its strategic value chains.

This paper proposes that Germany close the gap with a federal untied loan facility for strategic green molecule imports, modelled on the Japanese approach, executed through KfW under a mandated transaction (Zuweisungsgeschäft) pursuant to Section 2(4) of the KfW Law, with the interest differential compensated from the federal budget. The facility would be open to qualifying producers worldwide, untied from German content, and conditioned solely on long-term supply of certified green hydrogen or derivatives to offtakers in Germany. It would operate alongside, not instead of, the existing guarantee instruments (KLIMA-UFK, Hermes export credit cover), which together carry the legal and risk architecture that allows the facility to remain small, targeted and budget-efficient.

2. The Financing Gap and Why Existing Instruments Cannot Close It

Three structural constraints prevent existing German instruments from delivering soft loans for hydrogen projects in countries such as Saudi Arabia, which offer the lowest production costs worldwide:

- **Development finance is permanently unavailable.** Concessional lending through KfW Entwicklungsbank requires the recipient country to be on the OECD DAC list of ODA recipients, which is derived mechanically from World Bank income classification. High-income countries cannot be added by political decision, and lending to them would not qualify as ODA, removing the legal and budgetary basis of the BMZ mandate.
- **Tied concessional credit is prohibited.** Under the tied aid disciplines of the OECD Arrangement on Officially Supported Export Credits, concessional financing linked to procurement from the donor

country may not be provided to countries above the World Bank income threshold. Any instrument combining below-market rates with a German content condition would therefore be prohibited outright for high-income host countries, irrespective of which German institution provides it.

- **KfW IPEX-Bank must lend at market terms.** Under the 2002 understanding between the Federal Republic and the European Commission, KfW's competitive international financing business was ring-fenced into IPEX-Bank on the condition that it operates at market conditions without recourse to the state guarantee mechanisms. Below-market IPEX lending would breach this settlement and constitute state aid in its own right.

The conclusion is that genuinely soft loans for hydrogen imports require a new, deliberately designed instrument. The design question is how to create one that is legal under OECD, WTO and EU rules, fast to implement, and efficient per euro of budget.

3. International Comparators: Japan and China

Japan: The Japan Bank for International Cooperation (JBIC) operates an untied loan facility whose statutory purposes include securing stable supplies of energy and mineral resources for Japan and financing projects with significant effects on global environmental preservation. Eligible foreign borrowers are companies that form part of supply chains of goods designated as strategically important for Japan in an ordinance of the Japanese Ministry of Finance. Because the loans carry no Japanese content condition, they fall outside the scope of the OECD Arrangement and are not bound by CIRR rate floors, premium minimums or tenor limits. JBIC prices its loans by reference to its own funding cost, including borrowings from the Fiscal Loan Fund Special Account, effectively passing through near-sovereign rates with a thin margin, and typically cofinances with private banks under a JBIC guarantee, multiplying the volume of each public euro (or yen) deployed.

Japan is applying this model to hydrogen and ammonia at scale today. In 2025, JBIC financed JERA's investment in large-scale low-carbon ammonia production in the United States, explicitly framed as building a resilient hydrogen and derivatives supply chain for Japan under the Basic Hydrogen Strategy, which calls for mobilising significant funds through policy-based financial institutions. Japan pairs this supply-side financing with a demand-side contracts-for-difference scheme under the 2024 Hydrogen Society Promotion Act, so that both the cost of capital and the price gap are addressed by dedicated instruments. Notably, Japanese content arrives in these projects de facto, through the commercial strength of Japanese suppliers and offtakers, without ever being a legal condition of the financing.

China: The Export-Import Bank of China is the sole institution designated by the Chinese government to administer the Government Concessional Loan and the Preferential Export Buyer's Credit, known together as the Two Concessional Facilities. Documented transactions show interest rates of around 2 percent with maturities of up to 20 years and grace periods of 3 to 6 years. These loans are tied to Chinese content and procurement. China is not a participant to the OECD Arrangement and is subject to neither its rate disciplines nor any supranational state aid control; US officials have estimated that China Exim's export financing alone exceeds the combined total of the G7. In parallel, China's policy banks fund domestic green hydrogen, electrolyser and ammonia capacity at policy rates, supporting the rapid scaling that has already given China roughly half of globally installed green hydrogen capacity.

Two implications follow for Germany. First, the comparator argument: both of Germany's principal industrial competitors possess financing instruments for strategic supply security that operate below or outside the OECD Arrangement, while Germany's only sub-market instrument is structurally closed for the countries where green molecules are cheapest. Second, a technical lever: the OECD Arrangement contains matching provisions that permit participants to match financing terms offered by non-participants once verified.

Documented Chinese concessional offers in the hydrogen value chain can therefore legitimise non-standard German terms on a case-by-case basis, complementing the systematic solution proposed here.

4. Proposed Instrument Design

- **Vehicle:** KfW at group level receives a mandated transaction (Zuweisungsgeschäft) under Section 2(4) of the KfW Law, the established mechanism for strategic federal mandates. This requires a federal government decision and budget cover, not new primary legislation.
- **Form:** Long-term untied loans (20 to 25 years) to foreign green hydrogen and derivative projects. Untied design places the facility outside the OECD Arrangement, exactly as JBIC's facility, removing CIRR floors, premium minimums and the tied aid prohibition.
- **Qualifying condition:** A long-term supply contract (15 years or more) for certified RFNBO-compliant hydrogen or derivatives with an offtaker in Germany. The facility is producer-neutral and open globally; the strategic linkage to Germany runs exclusively through the offtake, mirroring the supply-security logic of the KLIMA-UFK.
- **No unlawful content condition, but a deliberate link to the German value chain:** A formal German-content requirement attached to concessional financing would be a prohibited local-content subsidy under WTO rules and incompatible with EU state aid and OECD tied-aid disciplines. The facility therefore cannot, and must not, make German content a legal condition. Instead the linkage to German industry is secured through three lawful channels: the facility is bundled with the parallel Hermes/CIRR export credit layer that finances the German technology scope (for Yanbu, the Siemens Energy electrolyser package), so German participation is contractually present where it is legally permitted; the qualifying conditions, long-term offtake by a German company, certification and technology performance standards, are origin-neutral but structurally favour competitive German suppliers, exactly as Japan's JBIC facility secures Japanese industrial participation through the supply relationship rather than a content rule; and strategically, the facility is the export-finance instrument that allows German electrolyser and equipment makers to win the large projects in low-cost regions that would otherwise be financed, and supplied, by Japan and China. Seen this way, the facility is not in tension with the German H2-Wirtschaft ramp-up but a condition for it: without it, the order book that justifies scaling German manufacturing flows to competitors.
- **Pricing:** Target all-in rate of 1 to 2 percent fixed. KfW funds at approximately the Bund curve; the differential between funding cost plus administration and the facility rate is compensated annually from the federal budget as an interest equalisation payment to KfW.
- **Risk architecture:** Facility loans ride behind a KLIMA-UFK federal guarantee wherever available, removing most of the risk margin from the equalisation requirement and keeping the budget cost close to the pure rate differential.
- **Allocation:** Transparent eligibility criteria with allocation by cost-effectiveness (euro of budget per kilogramme of delivered cost reduction and per tonne of CO2 avoided), or by competitive rounds once a project pipeline exists.

5. Interaction with Existing Instruments

The facility completes, rather than duplicates, the existing German toolbox. H2Global addresses the price gap on the offtake side through double auctions; IPCEI and CAPEX grants address domestic investment; Hermes export credit cover under the modernised OECD Climate Change Sector Understanding provides 22-year tenors at CIRR for the German supply scope; and the KLIMA-UFK provides federal cover for untied financing of green intermediate products supplied to German offtakers under long-term contract. None of

these instruments reduces the cost of capital below market levels. The proposed facility addresses exactly this remaining lever, and because it operates on covered, contracted, supply-linked debt, every euro of equalisation translates directly into delivered cost reduction rather than risk premium.

For a first application, projects can reach financial close on the existing stack (KLIMA-UFK plus Hermes/CIRR, yielding fixed rates of approximately 3 to 3.5 percent over 22 years on national decisions alone), with loan documentation structured to permit refinancing or blending through the facility once operational. The facility therefore does not delay investment decisions; it determines the final cost level at which imported hydrogen reaches German industry.

6. Budget Mechanics and Cost Efficiency

The budget cost of the facility is the interest equalisation only; the principal is KfW-funded and repaid by the projects. Buying a UFK-covered loan down from approximately 3.5 percent to 1.5 percent costs roughly 2 percentage points per year on the subsidised tranche. On an illustrative tranche of 2 billion EUR, this amounts to approximately 40 to 50 million EUR per year, in the order of 500 to 700 million EUR in present value over a 20-year term. By comparison, individual H2Global auction windows of similar present value support a fraction of the molecule volume, because they must bridge the full price gap rather than a rate differential on covered debt.

Expressed in the metric that should govern instrument choice, euro of budget per kilogramme of delivered cost reduction, an interest equalisation on covered loans is the most efficient instrument available: a reduction of the cost of debt by approximately 3 percentage points lowers delivered hydrogen costs by up to 1 EUR/kg, against project volumes of several hundred thousand tonnes per year. Funding the equalisation from the special fund for infrastructure and climate neutrality rather than the core budget would further ease implementation; this should be examined with BMF.

7. Legal Pathway: OECD, WTO and EU State Aid

- **OECD Arrangement:** Untied loans fall outside the Arrangement's scope; the tied aid prohibition and CIRR disciplines do not apply. The parallel Hermes layer remains fully Arrangement-compliant.
- **WTO:** The facility carries no local content condition and therefore avoids the prohibited subsidy category of Article 3.1(b) of the Agreement on Subsidies and Countervailing Measures. The Hermes/CIRR layer benefits from the safe haven for export credits provided in accordance with the Arrangement.
- **EU state aid:** The interest equalisation is notifiable aid, as the advantage partly accrues to undertakings in the internal market. The approval pathway is established: the European Commission has approved German support for renewable hydrogen production outside the EU for import and sale in the EU three times, in the H2Global decisions of December 2021 (900 million EUR), December 2024 (3 billion EUR, jointly with the Netherlands) and January 2026 (400 million EUR bilateral window with Canada), in each case assessed under the same framework as aid for activities inside the EU. A producer-neutral, delivery-conditioned, transparently allocated facility fits squarely within this line of decisions. Realistic duration from pre-notification to decision: 9 to 15 months, run in parallel with facility set-up.

Acwa stands ready to support this process with full project-level transparency on financing structures, cost build-up and the delivered-cost effect of each instrument, drawing on the Yanbu Green Hydrogen Hub as a concrete reference case with committed German technology participation and German offtake.