Green Hydrogen Organisation

GINTING & REKSODIPUTRO
IN ASSOCIATION WITH A&O SHEARMAN

Indonesia Good Green Hydrogen Contracting and Legislation for People and the Planet

PRINCIPLES AND POLICY IMPLEMENTATION OPTIONS ON FUNDING MECHANISM AND PROJECT FINANCING

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About the Green Hydrogen Organisation (GH2)

The Green Hydrogen Organisation (GH2) is a not profit foundation under Swiss law.

The mission of GH2 is to dramatically accelerate the production and utilisation of green hydrogen across a range of sectors globally. It will push to rapidly decarbonise industries like steel, cement, fertilisers, shipping and aviation that have so far made limited progress reducing their emissions.

GH2 welcomes comments and feedback on the guidance to be sent to Rifan Bachtiar (rifan.bachtiar@gh2.org).

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Indonesia Green Hydrogen Contracting and Legislation – principles and policy implementation options on funding mechanisms and project financing

1. Introduction

Being relatively new, the green hydrogen industry relies on developing, implementing, and scaling up new technologies. Consequently, Indonesia's commitment to green hydrogen energy requires significant investments from both public and private sectors, along with an effective fiscal and regulatory framework to promote the growth of green hydrogen industry.

The key challenge for Indonesia is securing the necessary financial commitments to advance green hydrogen development. Addressing this issue requires a thorough analysis of Indonesia's current funding capacities, exploration of potential investment strategies, and the establishment of robust regulatory measures. The success of these efforts hinges on a well-regulated financial strategy that includes planning, budgeting and a solid regulatory framework.

2. Key issues and considerations

2.1. Funding Mechanism

2.1.1. Public Funding

2.1.1.1. APBN Funding for NRE Development via Public Service Agency

Currently, there is no specific and explicit mandate for the Government of Indonesia (**GoI**) to allocate funds from the state budget (*anggaran pendapatan dan belanja negara* or **APBN**) or regional budget (*anggaran pendapatan dan belanja daerah* or **APBD**) to develop green hydrogen infrastructure. However, in the draft New and Renewable Energy (**NRE**) Law, the GoI proposes to initiate the establishment of the "NRE Fund" or "*Dana Energi Baru Terbarukan*" to finance various developments, including hydrogen infrastructure, which is considered a newly introduced type of "new" energy.

The current scope of NRE under the Energy Law includes sources of energy generated by new technologies (whether from renewable or non-renewable sources), such as hydrogen. Hydrogen remains classified as new energy under the draft of the EBT Law. Therefore, the NRE Fund essentially extends to the funding of green hydrogen.

The NRE Fund is proposed to be funded from APBN, APBD, non-renewable energy export levies, carbon trading funds, renewable energy certificate funds, and other legitimate sources. Pending legislation, the NRE Fund reflects the GoI's serious commitment to achieving the national energy policy target.

The GoI is actively designing a financing scheme for NRE development by directing budget expenditures to various Ministries and Agencies. These budget expenditures shall be later allocated to the relevant Public Service Agency (*Badan Layanan Umum* or **BLU**).

The GoI may also consider granting priority access to NRE Fund financing to state-owned enterprises (**SOE**) with established experience in the energy sectors, such as Pertamina or PLN. Their expertise and capacity to implement and manage these projects make them well-suited to lead and benefit from NRE Fund financing. Additionally, prioritizing SOEs can help leverage their existing capabilities and resources, ensuring that the funds are utilized effectively, and projects are completed on time. This approach can also be used to encourage collaboration between SOEs and private entities to drive innovation and achieve national energy goals.

2.1.1.1.1. NRE Development Budgeting at the APBN Level

While the establishment of a specialized BLU dedicated to NRE development and the detailed specific budgeting process for NRE development remain to be seen, a comparable budgeting mechanism exists. This is seen in the allocation of the APBN for NRE development through the Ministry of Finance's Environmental Fund Management Agency (*Badan Pengelola Dana Lingkungan Hidup* or **BPDLH**). The BPDLH is authorized to manage APBN funds allocated to the Ministry of Finance and other funding sources for environmental management in Indonesia.

The GoI may establish an NRE funding mechanism via BLUs that is reflective of the budgeting and funding mechanism for BPDLH that is carried out in accordance with Government Regulation No. 23 of 2005 on the Financial Management of Public Service Agencies (**GR 23/2005**) and the Minister of Finance Regulation No. 124/PMK.05.2020 on the Procedures for Managing Environmental Funds (**MOF 124/2020**).

Pursuant to Article 3(6) of GR 23/2005, the budget plan for a BLU is prepared as an integral part of the budget of the Ministry/Agency. This aligns with the context of NRE development budgeting, in which the government channels funds for NRE development through the APBN in the form of state budget allocations to Ministries/Agencies.

The BLU may withdraw the available APBN funds within the maximum limit determined in the request that the relevant Ministry or Agency has approved. Additionally, GR 23/2005 allows the BLU to submit a proposal for additional APBN budget to its Ministry or Agency in the event of a budget shortfall.

2.1.1.1.2. Disbursement of NRE fund from APBN to relevant BLU

The disbursement of BLU funds from the APBN is carried out through the issuance of a Payment Order (**SPM**) by the BLU. If the SPM is approved, the

APBN funds for the BLU will be disbursed to the BLU's account and subsequently distributed according to its intended purpose.

2.1.1.1.3. Funding mechanism from BLU to relevant NRE projects

BPDLH offers several types of funding instruments that can be provided to NRE projects, namely:
(i) viability gap fund,
(ii) project development fund,
(iii) credit enhancement fund, and
(iv) technical assistance fund.

Specifically for the Credit Enhancement Fund, BPDLH can provide it through various schemes such as:
(i) interest during construction,
(ii) mezzanine loan,
(iii) implementation guarantee,
(iv) insurance premium subsidy,
(v) liquidity risk facility,
(vi) partial credit guarantee, and
(vii) restricted two-step loan.

Referring to the funding mechanism of BLUs like BPDLH, such funding can be requested by the borrower to the BLU (in this case, BPDLH). According to Article 20 of MOF 124/2020, the disbursement of BPDLH funds is based on a request from the prospective beneficiary accompanied by a project proposal. Based on Articles 20(5) and (7) of MOF 124/2020, BPDLH evaluates the completeness of the documents and the availability of funds.

If approved, pursuant to Article 21 of MOF 124/2020, the Ministry/Agency supervising the BLU (in this case, the MOF) will designate the beneficiaries of the environmental funds. Based on this approval, BPDLH, as the BLU, will prepare a contract document with the beneficiary. Pursuant to Article 22(1) of MOF 124/2020, the BLU will disburse the funds, either in stages or in full (as applicable), from the BLU's account to the beneficiary's account in the agreed-upon amount.

2.1.1.2. Funding for NRE Development via Energy Transition Platform

In the broader renewable energy sector, the GoI has shown its commitment to accelerating the phase-out of coal-fired power plants and advancing renewable energy projects in Indonesia through establishing the Energy Transition Platform (**ETP**). According to Article 3 of Ministry of Finance Regulation No. 103 of 2023 on Provisions of Fiscal Support through the Funding and Financing Framework for the Acceleration of Energy Transition in the Electricity Sector (**MOF 103/2023**), the funding sources of the ETP include APBN and other legitimate sources (e.g., funding cooperation with international or other financial institutions). These platforms are intended for

projects related to coal-fired power plants (*pembangkit listrik tenaga uap* or **PLTU**) that meet certain criteria, including:

1. being included in the electricity supply business plan (*rencana usaha penyediaan tenaga listrik* or **RUPTL**[1]) within or outside of PT Perusahaan Listrik Negara's (**PLN**) operational area; and

2. being classified as a green or yellow project according to the Indonesian Green Taxonomy by the Financial Services Authority (*Otoritas Jasa Keuangan* or **OJK**).

Further, Article 6 of MOF 103/2023 provides that a replacement renewable power project must satisfy the following criteria:

(a) already identified in PLN's RUPTL (whether located within or outside PLN's business area);
(b) utilizes technology proven domestically and internationally;
(c) classified as a green project or yellow project in the Indonesian Green Taxonomy issued by OJK;
(d) committed to implementing ESG principles; and
(e) other criteria as may be required by MOF or MEMR.

To implement these initiatives, PT Sarana Multi Infrastruktur (**PT SMI**) has been appointed as the platform manager under MOF 103/2023.[2] One key responsibility of a platform manager is to seek primary funding, which may be provided under Article 2 of MOF 103/2023 through:

(a) loan facilities in the form of: (i) government investment in accordance with the relevant regulations; (ii) government guarantee as set out in the relevant regulations on infrastructure financing to SOEs; and/or (ii) other form of supports; and or

(b) facilities through Public Private Partnerships (**PPP**).

As the MOF 103/2023 is silent on the mechanism for allocating funds from the APBN to relevant projects through SMI, the Minister of Finance Regulation No. 105 of 2020 on Loan Management for National Economic Recovery for Regional Government indicate that SMI would be an intermediary to request and channel the disbursement of funds from the Ministry of Finance to the relevant lenders, which include, among others:

(a) PLN and its subsidiaries;
(b) Business entities holding a permit for electricity supply business activities (*Izin Usaha Penyediaan Tenaga Listrik* or **IUPTL**);
(c) Shareholders of business entities holding IUPTL; and

[1] The latest RUPTL that is applicable is the RUPTL 2021-2030, which does not explicitly set a target for the development or construction of green hydrogen by 2030. The upcoming RUPTL 2024-2033 contemplates adding 60-62 GW of renewable energy, however it remains to be seen whether green hydrogen will be specifically included in the newest RUPTL.
[2] Article 17 of the Ministry of Finance Regulation No. 103/2023.

(d) Applicants for other related ETP facilities.

Applicants might be expected to prepare a letter of intent, details such as the loan amount, loan term, and purpose, along with a framework document for the proposed project.

Partnerships with international financial institutions and other legally recognised entities aim to establish a coordinated and integrated blended finance mechanism.[3] Through this effort, PT SMI aims to enhance ETP's capacity by securing additional support for the electricity sector as well as ensuring a just and affordable energy transition.[4]

Once the NRE Law has been enacted, the GoI may consider allowing the use of ETP funds for the green hydrogen infrastructure in the context of accelerating phase-out of coal-fired power plants and supporting the consumption of green hydrogen across various industries such as the fertilizer, refinery, glass, and cement industries.

For green hydrogen projects under the public-private partnership (PPP) scheme, they can also enjoy the GoI support and guarantee. Please refer to Section [*] for further details.

2.1.2. Private Funding

1. PT Sarana Multi Infrastructure

PT SMI is a state-owned enterprise (**SOE**), developed and established by the Ministry of Finance, focusing on financing infrastructure projects across various sectors, including transportation, energy, water management, and telecommunications. Given their expertise, PT SMI shall play a crucial role in developing infrastructure for green hydrogen projects. Their expertise in financing and project development can significantly contribute to the construction of green hydrogen facilities, thereby accelerating Indonesia's transition to renewable energy and a low-carbon economy.

The various initiatives undertaken by PT SMI reflect their commitment and effort to fundamental projects that contribute the betterment of green hydrogen development in Indonesia, such as:

(a) green-commercial financing

By the end 2023, PT SMI has committed to increasing their climate-related and green financing efforts by entering into a significant loan agreement to support PLN's energy transition towards achieving net-zero emission by 2060. In addition, PT SMI provides

[3] Article 21 (2) of the Ministry of Finance Regulation No. 103/2023.
[4] Article 20 of the Ministry of Finance Regulation No. 103/2023.

a range of commercial financial solutions including loans, equity, investment, and other financial instruments. This aims to promote sustainable development and support infrastructure projects in sectors such as transportation, energy, water and telecommunication across Indonesia.

(b) Indonesia Energy Transition Mechanism (**ETM**)

PT SMI, along with the ETM Country Platform Manager, has been appointed by the Ministry of Finance to develop the financing and investment framework for ETM program in Indonesia. The ETM program aims to finance the development of energy infrastructure, accelerate the transition of renewable energy, as well as phase out PLTU. The ETM program utilizes a blended financial scheme funded by public and private investments (e.g., government agencies, development banks, commercial banks, climate change funds, equity investors, insurance companies, and local and international philanthropists). A collaborative effort among Indonesian stakeholders may also wish to be considered by PT SMI, as the ETM Country Platform Manager. The relevant Indonesian stakeholders may include other SOEs (including Pertamina).

2. State-Owned Banks and Private Banks

To attract private funding for the green hydrogen developments, certain state-owned banks offer promising initiatives. These initiatives are implemented through various forms, including green financing policies. These policies reflect certain state-owned banks' growing commitment to refrain from providing credit financing to business activities or enterprises that potentially cause negative environmental impacts. Their financing policies prioritise projects in sectors with high environmental, social and governance (ESG) risks, such as the alignment of PLTU with the coal phase-out strategy as outlined in the RUPTL.

Certain private banks have similar initiatives to create a significant positive impact on environmental, social and human rights issues through responsible financing contribution. Their efforts include improving sustainable financing portfolios, financing infrastructure projects, and supporting the renewable energy sector.

By means of supporting the GoI's low-carbon economy initiatives, certain private banks finance renewable energy projects, including projects for solar, hydro, mini-hydro, biogas and biomass power plants.

3. Development Finance Institutions (**DFIs**)

The involvement of DFIs in green hydrogen projects can significantly boost Indonesia's efforts to develop a sustainable hydrogen economy. ADB reportedly specifically has generally approved a $500 million policy-

based loan to help Indonesia accelerate its energy transition.[5] This program will support various policy measures to achieve Indonesia's net-zero emissions targets for electricity generation by 2050, as one of the two sub-programs under this initiative.[6] As one of new energy types, these institutions will not only provide much-needed funding, but also bring valuable expertise and credibility to green hydrogen projects. Having DFI as sponsor can attract additional private sector investments, facilitate technology transfer and ensure that projects adhere to international best practices.

a. International Finance Corporation (**IFC**)
   IFC, a member of the World Bank Group, has been a significant player in supporting green hydrogen projects globally. The IFC provides various forms of financial support, including loans, equity investments, and advisory services to promote sustainable development. IFC's commitment to green hydrogen is reflected in its policies aimed at reducing carbon emissions and encouraging investments in renewable energy sources.

   A concrete example of IFC's involvement in green hydrogen is its investment in the H2Global Initiative, a public-private partnership aimed at creating a global market for green hydrogen.[7] Through this initiative, IFC is working with various stakeholders to develop infrastructure, regulatory frameworks, and market mechanisms that support the widespread adoption of green hydrogen. This initiative not only helps in reducing greenhouse gas emissions, but also promotes economic development by creating new industries and job opportunities.

   Aside from specific green hydrogen projects, IFC also provides a sustainability-linked loan to Iberdrola to support its renewable energy expansion in emerging markets.[8] This funding helps Iberdrola increase its renewable energy capacity, including green hydrogen projects. IFC also made its first investment in lithium to support the development of the Sal de Vida project in Argentina.[9] This project aims to produce lithium for use in batteries, which are essential for green hydrogen production and storage.

   By offering financial support and technical expertise, IFC helps bridge the funding gap for green hydrogen projects, making them more attractive to private investors.

[5] https://www.businesstimes.com.sg/international/asean/adb-approves-us500-million-loan-indonesias-energy-transition-efforts
[6] https://www.adb.org/id/news/adb-approves-policy-loan-support-indonesia-energy-transition
[7] https://www.ifc.org/content/dam/ifc/doc/2023-delta/scaling-up-private-finance-for-clean-energy-in-edmes-en.pdf
[8] https://www.ifc.org/en/pressroom/2024/ifcs-sustainability-linked-loan-boosts-iberdrolas-renewable-energy-expansion-in-emerging-markets
[9] https://www.ifc.org/en/pressroom/2023/ifc-makes-first-investment-in-lithium-supports-the-development-of-sal-de-vida-in-argentina and https://www.aoshearman.com/en/industries/mining-and-metals

b. Asian Development Bank (**ADB**)
ADB is another key DFI that supports the development of green hydrogen infrastructure. ADB's policies are aligned with promoting low-carbon technologies and enhancing energy security in the Asia-Pacific region.

In 2023, ADB signed a memorandum of understanding with ReNew Energy Global worth more than $5.3bn (Rs441.83bn) for investments across renewable energy, including green hydrogen.[10]

Generally, ADB provides funding through grants, loans, and technical assistance to support green hydrogen projects.[11] ADB's involvement also includes capacity-building initiatives and policy advice to help governments and businesses navigate the complexities of green hydrogen development.

4. Direct Foreign Grants

The GoI should also consider creating a new vehicle to allow direct grant allocation from foreign grantors. For instance, Singapore has established the Tote Board's Direct Funding, which supports new programs from not-for-profit organizations that align with national policy directions and strategic objectives. They provide grants for projects that meet emerging community needs and have a significant impact.[12]

While the MEMR provides a procedure to receive direct foreign grant in electricity sector,[13] there is no platform to pass-through grants in relation to green hydrogen projects from abroad as grants to any Indonesian entity. Establishing such a mechanism would streamline the process and ensure more efficient allocation of funds. This could involve setting up a dedicated fund or agency to manage and distribute foreign grants directly to Indonesian entities conducting business in green hydrogen sector. By doing so, the GoI can better leverage international funding to support its development goals and enhance collaboration with foreign partners.

2.1.3. Other Funding Sources

GH2 Global Contracting Guides on Financing Green Hydrogen Projects identifies several alternative sources of funding which can be explored further by industry players in Indonesia.

[10] https://www.power-technology.com/news/renew-adb-mou-renewables-financing/
[11] https://www.adb.org/sites/default/files/institutional-document/725086/energy-policy-working-paper.pdf para. 53-57.
[12] https://www.toteboard.gov.sg/grants/looking-for-funding/direct-funding
[13] https://gatrik.esdm.go.id/assets/uploads/download_index/files/70746-sop-penerbitan-nomor-register-hibah-langsung-berupa-uang-di-lingkungan-direktorat-jenderal-ketenagalistrikan.pdf

The first potential option is Credit Exporting Agencies (ECAs). ECAs support the domestic economy and employment by helping companies find overseas product markets. ECAs can be government agencies, quasi-governmental agencies, or even commercial financial institutions. It can fill the role as a key source of liquidity for project financing transactions, particularly in the energy space, and have demonstrated the capacity and willingness to accept risks (including technological and geographical / political risks) that commercial lenders are not able to accept (or are not able to accept at a price that supports the economics of the project).

List of ECAs who have been active in providing support for Indonesian energy projects that are sees as not viable for commercial banking but are considered prospective to boost national export include national Asei Insurance, Indonesia Eximbank as well as foreign institutions such as SACE, Export-import Bank of Korea and Export and Export-import Bank of the United States.[14]

Private and non-private philanthropic funders are also playing an increasingly important role in advancing green hydrogen projects by financing critical components such as research, innovation, capacity building, and early-stage project implementation. This includes organisations such as the Microsoft Climate Innovation Fund, Breakthrough Energy, Bloomberg Philanthropies, Viriya ENB and Tara Climate Foundation.

2.2. Issues related to funding

Public funding would typically not be sufficient to cover or be made available for financing of GH2 projects. As such, notwithstanding the NRE Fund (pending legislation), private funding is an alluring alternative for developing green hydrogen projects. However, we anticipate that there will be several key issues related to the funding of green hydrogen projects in Indonesia, as described below.

2.2.1. Sponsor group: objectives and priorities

The sponsor group for a green hydrogen project may consist of diverse entities from different sectors, such as power, water, industrial, oil and gas, transport and government. Each sponsor may have different objectives and priorities for the project, such as environmental, economic, social or strategic goals. This may create challenges in aligning the interests of the sponsors and ensuring a coherent vision and governance for the project.

[14] https://www.eca-watch.org/publications/newsletter-items/indonesias-pertamina-reaches-31-billion-eca-and-bank-financing-deal

Eventually, Indonesian laws require the sponsors/shareholders to create a limited liability company (*perseroan terbatas* or **PT**) as the project company.[15] This legal structure is intended to provide a unified framework for governance and decision-making among the diverse sponsors where arrangements between each sponsor/shareholder relating to the corporate governance of the PT can be governed directly in the articles of association of the PT or in a separate shareholders' agreement.

Nonetheless, the GoI should consider how to facilitate the formation of sponsor groups that can work together effectively and share a common understanding of the project's benefits and risks. This may involve providing clear policy signals, incentives and guidance for potential sponsors, as well as creating platforms for dialogue and collaboration among them. The GoI should also ensure that the regulatory framework allows for flexibility and innovation in the project's structure and
financing, while maintaining appropriate standards and safeguards.

2.2.2. Offtake Strategy

One of the key issues that private sector funders such as banks will take into account in financing a green hydrogen project is the offtake strategy of the project as this is the source of income for the project to repay the lenders. Depending on the market conditions and policy objectives, the project may have single or multiple offtake contracts, with utility or merchant pricing mechanisms, for different products such as hydrogen, ammonia, electricity, or water. The choice of offtake strategy will greatly impact not only sponsors' return but also the structure of the proposed project and its bankability to lenders.

2.2.2.1. Revenue streams

Based on whether a green hydrogen project is integrated or non-integrated (as will be further discussed in section 2.2.3 below), there are various possible revenue sources for a green hydrogen project. The chosen products will impact partner appetite, offtake strategy and funding.

These possible revenue streams can come from:

(a) **green hydrogen (H2)**: this is the main product of the electrolysis process and is typically the main product of a green hydrogen project;

(b) **green ammonia (NH3)**: in a green hydrogen project, ammonia is produced from the electrolysis process, followed by further processing to produce ammonia. This is also one of the typical main products of a

[15] Exception for PT formation applies in the upstream oil and gas sector, which is controlled through a Production Sharing Contract between a permanent establishment (PE) and the executing government agency.

green hydrogen project as ammonia is heavily used in the agricultural industry for fertilizers;

(c) **water**: water is required to produce H2 in a green hydrogen project as a key component in the electrolysis process. Any excess water not required for the electrolysis process may be sold and generate revenue for the project;

(d) **electricity**: electricity is also required in the electrolysis process to produce to separate H2 from water. Any excess electricity not required for the electrolysis process may be sold and generate revenue for the project;

(e) **transportation of hydrogen**: hydrogen can be transported in various forms, such as compressed gas, liquid hydrogen, or through pipelines. This flexibility in ways of distribution methods is crucial, as it allows hydrogen to be delivered efficiently to end-users across different sectors. The fee charged for the transportation of hydrogen may become a revenue source for the project; and

(f) **conversion of hydrogen:** once transported, hydrogen can be converted into other forms of energy or used directly in fuel cells to generate electricity. This involves the utilization of electrochemical reactions, where hydrogen reacts with oxygen in the fuel cell which may produce electricity, water, and heat. The fee charged for the conversion of hydrogen may also be another possible revenue source for the green hydrogen project.

The choice of products in a given green hydrogen project will impact its financing. For example, the bankable volumes of offtakes will drive debt capacity and tenor of debt will be driven by tenor of the project's offtake.

Please note that current regulations on water resources and electricity distribution may impose certain restrictions on the sale of excess water and electricity. This is particularly relevant for projects that are not fully integrated, as these restrictions could limit the ability of developers to capitalise on these additional revenue streams.

2.2.2.2. Single vs multiple offtake contracts

A single offtake contract can provide simplicity but also entails a concentration risk on the creditworthiness and performance of the sole offtaker. This may require extensive due diligence and lender controls, as well as robust take-or-pay obligations and flow-down provisions in the project documents. A single offtake contract is a typical structure for power projects with PLN in Indonesia, where PLN acts as the sole offtaker for electricity generated by an independent power producer.

Multiple offtake contracts can provide a portfolio effect, offering greater flexibility and diversification to the sponsors, as well as a combined, aggregated credit assessment for the lenders. However, this may also involve more complexity and interface risk, as well as the need to ensure alignment of interests and exclusivity or priority between the offtakers.

The choice of offtake strategy may also depend on the type and location of the end-users, whether they are domestic or international, wholesale or retail, industrial or transport. The project may need to consider different pricing models, product specifications, delivery points and storage options for different offtake markets. Moreover, the project may need to align its offtake strategy with the government's policy objectives and regulatory frameworks, such as certification standards, subsidies, carbon pricing or environmental targets.

To address this issue, the GoI should provide policies and regulations that support the development of reliable markets for green hydrogen and its derivatives, such as ammonia or e-fuels. This may include setting certification standards for the different shades of hydrogen, establishing price indices or mechanisms, and facilitating access to infrastructure and distribution networks.

2.2.2.3. Key offtake terms

We set out below the key offtake terms for a green hydrogen project that sponsors must consider in the context of structuring a bankable green hydrogen project financing.

(a) Offtaker

The identity, track record and credit level of the offtaker(s) are essential for lenders to assess the bankability of the project.

(b) Take or Pay

For a project financing, lenders would like to see a robust take-or-pay obligations on the offtaker so that the offtaker can either: (i) lift the product and pay for the product; or (ii) not lift and pay damages equivalent to the price it would have paid for the product (less mitigation).

To ensure the take-or-pay obligations are robust, the take-or-pay obligations cannot be undermined by other contractual provisions but are subject to Force Majeure relief.

(c) Pricing

The number and nature of products will dictate the pricing model alongside the targeted IRR from the Project. Given the nascent Green H2 sector and the lack of a price index, it may be preferable to model the pricing mechanics around a targeted debt service coverage ratio (**DSCR**) to ensure that economics are investable/bankable. Lenders may provide a minimum DSCR requirement as a threshold which borrower must meet and maintain throughout the term of a loan.

Price review is also difficult, as the market is uncertain and hard to define. If a price review is included, it is likely to be controlled by any lenders.

(d) Product specification

For Green H2 products in a new market, the need to have flexibility in output product specification may be important in view of the implications of new technology, downstream uses and the lack of any global certification as to what constitutes "Green H2". Risk allocation for required specification changes outside agreed parameters is a key question.

(e) Tenor

In a project financing, lenders will want the term of the offtake contracts to cover for at least the duration of the debt plus a restructuring tail (typically 2+ years).

From sponsors' perspective, the tenor should take into account: (i) the significant capex and need for shareholder return; (ii) the need for appropriate price for the offtakers and their customers; and (iii) the terms on the validity of the main key licenses of the relevant project.

(f) Storage

The level of storage (both within the project and at ports) will be a key mitigant to offtake and delivery risks.

(g) Liquidated damages

Liquidated damages may be required as a pre-determined compensation amounts that the parties agree to pay to each other in certain triggering events that may be negotiated by the parties. For instance, the offtaker may agree to pay the project company if it fails to purchase the agreed quantity of hydrogen. On the other hand, the project company may also agree to pay the offtaker if it fails to provide the

agreed quantity of hydrogen or if there are delays in delivery. This provision helps to secure revenue streams and mitigate financial risks associated with non-performance.

Any liquidated damages provision in the offtake agreement must be made on a back-to-back basis with other project documents. For example, if the project company is required to pay liquidated damages to the offtaker due to failure to deliver the agreed quantity of hydrogen but such failure is due to the fault of the feedstock supplier (e.g. power producer or water supplier), the project company should be entitled to receive liquidated damages/other compensation from the feedstock supplier under the relevant feedstock supply agreement.

2.2.2.4. Green criteria

Green criteria are the specifications or requirements that define what constitutes green hydrogen or its derivatives, such as ammonia or methanol, based on their carbon intensity and environmental impact. Green criteria determine the eligibility of the product for certain markets, incentives, or certifications that recognize its low-carbon or renewable attributes. For instance, green criteria may include the source and intensity of the renewable energy used to produce the hydrogen, the carbon footprint of the feedstock and the production process, and the verification and traceability of the product along the supply chain.

Green criteria are unique to green hydrogen projects because they are not as well-established or harmonized across different jurisdictions or sectors in comparison to other power projects that may have more clear and consistent definitions of renewable or low-carbon energy. This creates uncertainty and complexity for green hydrogen producers, offtakers, and financiers, who need to agree on the contractual terms and risk allocation for meeting and demonstrating the green criteria. Moreover, green criteria may evolve over time as new technologies, regulations, and market preferences emerge, requiring flexibility and adaptation from the project parties.

The OJK Green Taxonomy designs the green criteria to ensure that economic activities contribute positively to environmental objectives such as climate change mitigation, climate change adaptation, protection of healthy ecosystems and biodiversity, and resource resilience and the transition to a circular economy. These criteria are aligned with international best practices and standards, ensuring that activities classified as "green" or "transitional" meet stringent environmental performance benchmarks. For instance, activities like renewable energy generation, sustainable agriculture, and waste management are evaluated against specific technical screening criteria (TSC) and sector-agnostic decision trees (SDT) to determine their alignment with the environmental objectives outlined in the OJK Green Taxonomy.

The green criteria outlined in the OJK Green Taxonomy are closely correlated with various certifications and standard that ensure the credibility and effectiveness of sustainable practices. Certifications such as ISO 14001 for environmental management systems, ISO 14067 for greenhouse gas emissions and the Public Disclosure Program for Environmental Compliance (*Program Penilaian Peringkat Kinerja Perusahaan dalam Pengelolaan Lingkungan Hidup* or **PROPER**) are integral to the OJK Green Taxonomy framework.

These certifications provide a standardized approach to measuring and managing environmental impacts, ensuring that activities meet high environmental performance standards. For example, the PROPER program evaluates companies based on their compliance with environmental regulations and their efforts to go beyond compliance through innovative and sustainable practices. By incorporating these certifications and standards into the green criteria, the OJK Green Taxonomy ensures that classified activities are not only environmentally beneficial, but also adhere to recognized and credible benchmarks.

Different offtakers also may have different green criteria, depending on their downstream uses and customer expectations. These criteria may evolve over time as new technologies, regulations and standards emerge, which may in turn create challenges for offtake in a green hydrogen project as the project sponsors, offtakers and lenders need to ensure that the product meets the agreed green criteria and can demonstrate its compliance through certification or audit.

One possible policy to address this issue is to harmonize and streamline the green criteria across different markets, products and customers, based on the best available science and practice. In this regard, the OJK Green Taxonomy only sets out general criteria for a green project, but it is still silent on green criteria for green hydrogen projects. Under the OJK Green Taxonomy, “green projects” criteria are as follows:

(a) Do No Significant Harm (DNSH): Activities classified as “Green” must not cause significant damage or harm to other environmental objectives. If such damage or harm occurs, remediation or correction must be done, and it must be ensured that no further significant harm is caused.
(b) Social Aspects: Activities must meet all relevant social criteria, which include impacts on social well-being and community welfare.

Having a streamlined criteria could help to reduce the complexity and uncertainty of meeting different green criteria and enable a more efficient and consistent market for green hydrogen products.

2.2.2.5. Green premium

Green premium is the additional price that customers are willing to pay for a product or service that has lower carbon emissions than its conventional

alternative. It reflects the value that customers place on reducing their environmental impact and supporting the transition to a low-carbon economy. Green premium is relevant in green hydrogen projects because it can provide an incentive for producers and offtakers to invest in green hydrogen production and consumption, as well as a source of revenue to cover the higher capital and operating costs of green hydrogen compared to grey or blue hydrogen. Therefore, green premium is a key factor that can influence the viability and attractiveness of green hydrogen projects, as it can provide a revenue stream that can cover the higher capital and operational costs of producing green hydrogen, and also create a demand and a value proposition for green hydrogen products in the market.

However, green premium is also subject to uncertainty and variability, depending on the supply and demand dynamics of the green hydrogen market, the availability and cost of carbon credits or certificates, the regulatory framework and incentives for low-carbon products, and the preferences and expectations of customers and stakeholders. As such, green premium can impact the overall structuring of the green hydrogen corridor and the debt capacity and lenders' risk profiles of the project finance. This may create challenges for offtake in a green hydrogen project, as the project sponsors, offtakers and lenders need to agree on how to share the green premium and its associated risks and rewards.

One possible policy to address this issue is to establish a clear and consistent framework for measuring and verifying the green premium, based on internationally recognized standards and methodologies. This could help to enhance the credibility and comparability of green hydrogen products and facilitate their trade and financing.

Another possible policy is to provide incentives or subsidies for green hydrogen production and consumption, such as carbon pricing, tax credits, feed-in tariffs or quotas. This could help to reduce the cost gap between green hydrogen and conventional products and increase the demand and profitability of green hydrogen projects.

While Minister of Finance No. 81 of 2024 on the Taxation Provisions for the Implementation of the Core Tax Administration System has alluded and Minister of Finance No. 21/PMK.011/2010 of 2010 on the Granting of Tax and Customs Facilities for the Utilisation of Renewable Energy Sources has governed the incentives given to business actors in the renewable energy sector, there are currently no implementing regulations that specifically address incentives for hydrogen business actors. Reflecting from the enactment of regulation specifically made for battery electric vehicles, the GoI may consider specifying regulations to provide incentives for green hydrogen business actors to direct the investment specifically at increasing investment in the green hydrogen sector.

2.2.3. Integrated versus non-integrated projects

A green hydrogen project may be structured as an integrated or a non-integrated project, depending on whether the project company owns and operates all the components of the hydrogen value chain, such as power generation, electrolysis, storage, transport and end-use, or whether these are split among different entities.

Under an integrated project structure, a single project company will carry out the project from power generation up to the sale of ammonia to the end user. Such integrated project may offer advantages such as simplicity, efficiency and control, but may also entail higher complexity, cost and risk. Such an integrated project will have minimum project-on-project risk which in turn might increase the bankability of the project for potential lenders.

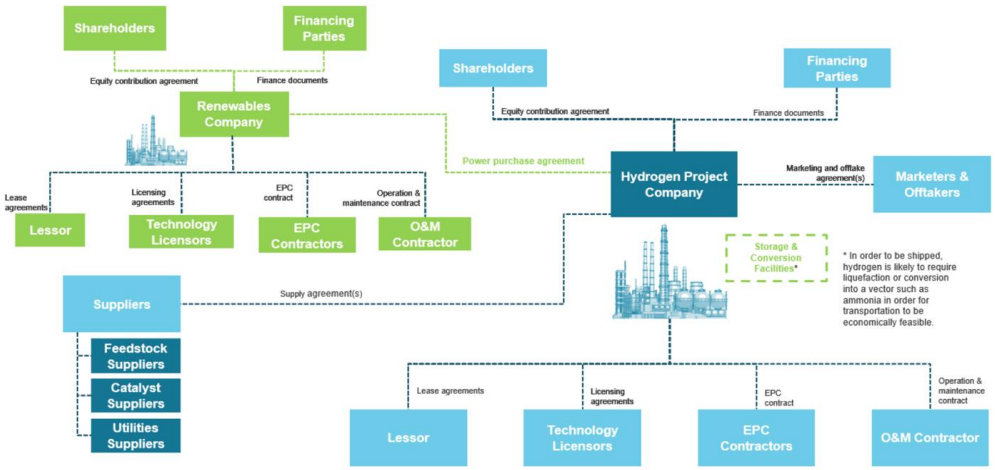
One possible issue in relation to the integrated project structure is its potential limitations due to possible regulatory restrictions for a single project company to operate various business activities in the supply chain. Based on prevailing regulations, there is no such general restriction. However, this may vary depending on the scope of the business activities in the relevant integrated green hydrogen project.

On the other hand, while a non-integrated project structure may allow for more specialization, diversification and scalability, it may also require more coordination, interface and interdependency among the project parties. Such non-integrated projects will also have higher project-on-project risks as any problems in one of the projects will impact the other projects in the supply chain.

Further, implementing non-integrated project structures may also be more difficult due to the lack of a comprehensive regulatory framework for infrastructure sharing between the various projects in the supply chain. Without clear guidelines, sharing resources such as utilities, transportation, and communication systems faces legal and logistical challenges. As a result, developers and investors face higher risks, delays, increased costs, and poor resource use.

The complexity of a non-integrated project structure will also substantially increase if there are different sponsors and lenders involved in the various projects.

The GoI shall evaluate the pros and cons of each project structure and provide a conducive environment for both options. This may involve establishing clear and consistent policies and regulations for the hydrogen sector, as well as facilitating the development and integration of the necessary infrastructure and markets. The GoI shall also support the development of bankable and robust contracts and agreements among the project parties, as well as the availability and accessibility of financing sources and instruments for both integrated and non-integrated projects.



Green Hydrogen Project Structure (Source: GH2, 2023)

Although there are no specific regulations on the production and use of hydrogen in Indonesia, the GoI may consider providing fiscal incentives, such as spending and tax levies for renewable energy developers, including those working on green hydrogen, based on Law No. 30 of 2007 on Energy.

Presently, the GoI is preparing key incentives to encourage investment in green hydrogen projects, which will be included in the New and Renewable Energy (**EBET**) Bill, currently under evaluation. These incentives include tax relief for green hydrogen developers, an evaluation of the national hydrogen strategy aimed at reducing fossil fuel usage, and regulations covering standards for tax holidays, tax allowances and carbon trading.[16]

In the event that the EBET Bill and green hydrogen regulations are in effect, the GoI must enforce the imposition of taxes effectively while providing incentives and subsidies in parallel.

As long as the 'stick' and 'carrot' from the GoI are still lacking, there are no incentives for green hydrogen. The GoI must 'stick' to enforcing the carbon tax effectively while providing the 'carrots' in the form of incentives, subsidies etc., so that business actors are more triggered in investing in green hydrogen projects.

2.2.4. Permitting, land and local law issues

The Project may face challenges and delays in obtaining the necessary permits, licenses, approvals, consents, and authorizations from the relevant authorities, as well as securing the rights and interests in the land and sites

[16] Indonesia prepares incentives for green hydrogen development | INSIDER - Indonesia Business Post (https://indonesiabusinesspost.com/insider/indonesia-prepares-incentives-for-green-hydrogen-development/).

required for the project and complying with the applicable local laws and regulations.

The GoI should aim to create a regulatory environment that simplifies and streamlines the permitting, land and local law issues for the project, by providing clear and consistent policy signals, establishing certification standards for renewable energy sources, such as green hydrogen, ensuring adequate protection for investors' rights and interests, and coordinating with other jurisdictions to harmonize the regulatory frameworks and standards.

This may include providing incentives and support for the acquisition and development of land and sites for the project and ensuring the stability and predictability of the local laws and regulations affecting the project.

2.2.5. Involvement of SOEs in the Project

Utility companies such as PLN as well as other SOEs may be potential sponsors, offtakers, suppliers, or infrastructure providers for the project, depending on their sector, objectives and priorities, and this may affect the structuring and decision-making of the project. We set out below typical issues found in past project financings of power projects with the involvement of utility companies such as PLN in its various roles.

While the issues below are based on power projects, these are still relevant as there will be power generation aspect of green hydrogen projects. Further, utility companies may also act as offtaker of the products (similar to typical PLN role as offtaker of electricity in a power project). The issues below are also largely relevant for different means of production of green hydrogen.

(a) take-or-pay offtake contract: typical PPAs entered into between an independent power producer and PLN as offtaker for a power project that is project financed will include a take-or-pay obligation on PLN covering at least the debt service period. Similar take-or-pay obligations must be included in any green hydrogen project involving PLN as an offtaker to ensure the certainty of the Project's revenue stream and thus increase its bankability for lenders;

(b) currency mismatch: generally, Indonesian law requires that all transactions within Indonesia be denominated and payable in IDR. There are certain exceptions to this rule, including international financial transactions (which are automatically exempted from the IDR requirement) and strategic infrastructure projects (which is eligible for an exemption from Bank Indonesia). The mandatory use of IDR is an issue if the project financing of the project is made in a foreign currency (typically the USD).

Payment of tariffs by PLN in PPAs are made in IDR. As such, there is a currency mismatch with the currency of the debt (which are typically in USD). There are some mitigants to this issue, explained below.

The PPA tariff components, while denominated in IDR, are calculated and indexed against USD. This protects the lenders as the revenue stream of the Project will be tied to USD.

Further, PLN, the project company and a converting bank will typically enter into tripartite converting agreement where PLN's payment obligation will be satisfied when the invoiced amount equivalent to the indexed USD amount is received in the USD Offshore Account designated by the project company. The IDR amount equivalent to the indexed USD amount as of the invoice date would be transferred to the USD Offshore Account.

Other than payment of tariffs, offshore lenders will also not accept IDR-denominated termination payments under the PPA due to currency mismatch with the USD denominated debt. As such, typical PPAs will state that termination payments may be made in USD (or other currency aligned with the currency of the senior debt). In any case, termination payments are exempt from the mandatory use of IDR as such payments are considered as repatriation, which may be paid in foreign currency under Law No. 25 of 2007 on Investment.

Based on the above issues, the GoI may wish to ensure that green hydrogen projects are categorized as strategic infrastructure projects so that the Project may receive exemption from Bank Indonesia and may receive its revenue in foreign currency such as USD. This will reduce the risk of currency mismatch with the currency of the loan provided by lenders.

To the extent that this is not possible (which may be the case for certain onshore payments), then appropriate currency mitigation strategies may need to be contemplated under the financing arrangements and in the project documents such as indexation of the revenue to a foreign currency to align with the currency of the senior debt and therefore minimize any foreign exchange risk for lenders or a tripartite converting arrangement similar to the one used in PPAs.

(c) WBNP restrictions: if PLN is involved in the Project as a sponsor with more than 50% direct or indirect shareholding in the project company, this will present a challenge for potential lenders with respect to the taking of project security that does not risk breaching the World Bank's negative pledge covenant (**WBNP**).

In brief, the GoI has entered into certain loan agreements with the International Bank for Reconstruction and Development (**IBRD**) of the World Bank. The general conditions of the IBRD loans require the GoI to ensure that no other "Covered Debt" shall have the priority over the IBRD loans. As such, under the General Conditions, if security is created on any "Public Assets" of the GoI as security or any Covered Debt, the

GoI must grant *pari passu* security to the IBRD to secure the IBRD Loans (i.e. the WBNP). As a result of the WBNP, the GOI does not provide security over its Public Assets, due to, among others, the practical difficulties of granting *pari passu* security for the IBRD.

As a result of a WBNP restrictions, if PLN is involved as a sponsor with more than 50% of control in the project company, sponsors and lenders will have to address these in the structuring of the project company. Public Assets under the WBNP includes shares held by an SOE such as PLN (or its subsidiaries) in the project company. As such, if PLN is involved as a sponsor in the project, PLN's (or its subsidiaries') shares in the project company cannot be secured in favor of the lenders.

(d) PD 59 restrictions: PD 59/1972 prohibits an SOE (such as PLN) from providing asset security for its own offshore loans or guarantees with respect to offshore loans of, among others, private entities. As such, if PLN acts as a sponsor, it may not guarantee the obligations of the project company. This is a critical issue in the structuring of sponsor support obligations in a project financing. Please note that PD 59/1972 does not apply to the subsidiaries of SOEs. However, WBNP still applies to subsidiaries of SOEs under the control of such SOEs. Alternative sponsor support obligations must be arranged if PLN or other SOEs act as a sponsor in the Project.

(e) share transfer restrictions: under Ministry of Energy and Mineral Resources Regulation No. 48/2017, an independent power producer selling its electricity to PLN may not transfer its shares prior to Commercial Operation Date (**COD**) to any party other than an Indonesian incorporated affiliate of such sponsor.

This restriction may present an issue to lenders in a scenario where there has been a default by a project company prior to COD, and a financier must exercise on its secured interest to recoup the value of its loan. Although there are structures that sponsors and financiers may use to work around this restriction, from a financier security perspective these structures are timely and costly to implement

Imposing a similar share transfer restrictions in the context of green hydrogen projects may result in reduced interest from potential investors. Green hydrogen represents a nascent industry characterized by uncertainties in technology, regulatory frameworks and market demand. Relaxing share transfer restrictions could attract favorable valuations and investments in this promising sector by reducing perceived risks for investors. Nevertheless, there should be certain limitations on share transfers to ensure long-term project stability, such as requiring government approval, ensuring investor qualifications, or implementing transfer caps.

2.3. Risk allocation in a project financing

A project is considered bankable if lenders are willing to finance it. Lenders determine whether they are willing to finance a project after their counsels undertake a detailed bankability review of the project documents. Under the Abrahamson principles, a party should bear a risk where:

(a) the risk is within that party's control;

(b) the party can transfer the risk;

(c) the party has the greatest economic incentive to assume or control the risk;

(d) placing the risk upon that party achieves the greater efficiency economically or in terms of planning, innovation, incentive; and

(e) if the risk occurs, it is not practicable or sensible to attempt to transfer the loss to another,

Bankability of a project depends on the level of acceptable versus unacceptable risks. Risks are acceptable when they can be properly assessed, measured and mitigated. It is an unacceptable risk if the financial consequences cannot be measured or the costs cannot be passed on to other parties (state, contractors, insurers, consumers/offtakers). We set out below several key risks in project financings and how lenders would expect such risks to be allocated.

2.3.1. Construction risk

Construction risk is the risk that the project will not be built on time and in accordance with the project documents (design and technical).

There are several ways to mitigate construction risk, such as: (i) using a fixed-price turnkey EPC contract with adequate liquidated damages, defects liability period and warranties; (ii) selecting reputable, experienced and creditworthy contractors; and/or (iii) requiring shareholder/sponsor support (completion guarantee/cost overrun support).

2.3.2. Operating risk

Operating risk is the risk that the project facility is not operated and maintained in accordance with the design specifications. This risk may affect the availability and quality of the project's products or services, and consequently its revenue and debt service capacity.

Operating risk can be mitigated by way of, among others: (i) outsourcing the operations and maintenance of the project to a reputable, experienced and

creditworthy operator (preferably with parent company support); and (ii) entering into a long-term O&M agreement (at least as long as the loan maturity) with incentives (bonuses and penalties) for (better or worse) performance.

2.3.3. Market risk

Market risk is the risk that there is no purchaser for the project's products or services or that the price is insufficient to service the project's debt. This risk may arise from fluctuations in demand, supply, competition, regulation or other factors that affect the market conditions.

To mitigate market risks, securing reliable long-term offtake agreements may be effective in ensuring a guaranteed market for the products, thereby providing a more predictable revenue stream. Such long-term offtake agreements should also ideally include a take-or-pay feature to increase the bankability of the project. Other aspects to consider include the creditworthiness of the offtaker and whether performance bond or guarantee will be required from the offtaker.

2.3.4. Counterparty risk

Counterparty risk is the risk that any counterparty of the project company defaults under their contract. This risk may result from the insolvency, breach, force majeure or termination of the counterparty, which may affect the performance or viability of the project.

Counterparty risk may be mitigated by obtaining guarantees or letters of credit from reputable financial institutions. These instruments provide a financial backstop, ensuring that if the counterparty defaults due to insolvency, breach, force majeure, or termination, the project company can still recover its losses and maintain project viability.

2.3.5. Political risk

Political risk is the risk of collapse of the existing political order or the imposition of laws that jeopardize the prospects of repayment in the project company's country. This risk may include expropriation, nationalization, war, civil unrest, currency controls, taxation, regulatory changes or breach of contract by the government or its agencies.

Political risks may be mitigated by way of, among others: (i) entering into direct agreement with the government; and (ii) including clauses with respect to change in law and government action/inaction in the relevant project documents.

2.3.6. Production risk

Production risk is the risk of difficulties or issues arising in the production of the project's products or services, such as design flaws, technical failures, quality defects, accidents or environmental impacts. This risk may affect the efficiency, reliability and safety of the project facility, and consequently its revenue and reputation.

To mitigate productions risks, obtaining insurance for equipment breakdown and business interruption can be an effective safety net. Additionally, implementing stringent quality control and testing procedures is both feasible and necessary. Beyond these strategies, creating backup components or systems that can take over if a primary component fails can further enhance reliability and ensure continuous operation.

2.3.7. Financial risk

Financial risk is the risk that the price of project inputs will increase or that other events will arise that jeopardize the profitability of the project. This risk may arise from inflation, exchange rate fluctuations, interest rate changes, taxation changes, or other factors that affect the project's costs or cash flows.

In mitigating financial risks, securing fixed-rate loans is a feasible strategy to mitigate interest rate risks, providing stability in financing costs. However, noting that fixed-rate loans are not always feasible, an alternative would be to enter into interest rate hedging arrangements. Additionally, maintaining contingency reserves is a prudent practice, ensuring that funds are available to cover unexpected financial shortfalls. These strategies are particularly relevant in the Indonesian context, where economic conditions can be volatile and having robust financial planning can significantly enhance project resilience and profitability.

2.3.8. Legal risk

Legal risk is the risk that the laws in the host jurisdiction and any other relevant jurisdiction will be interpreted and applied inconsistently with the interests of the project company or the Lenders. This risk may include changes in law, disputes over contract interpretation, enforcement difficulties, or breaches of contractual or statutory obligations.

The mitigation of legal risks involves engaging in legal counsel for regulatory compliance, contract drafting, and dispute resolution strategies, ensuring that the project adheres to all relevant laws and minimizes legal vulnerabilities. In particular, it is advisable to clearly stipulate the governing law of the contract to ensure consistent interpretation and application of the contract. Additionally, the inclusion of a clear dispute resolution mechanism

in contracts provides specific remedies in the event risks such as breaches of contractual or regulatory obligations.

2.3.9. ESG risk

ESG risk is the risk of breaching environmental or social standards (regulatory/internal) in the development or operation of the project. This risk may result from non-compliance with environmental or social laws or regulations, adverse impacts on the natural or human environment, or reputational damage or stakeholder opposition to the project.

To mitigate these ESG risks, developing and implementing comprehensive ESG policies is increasingly expected by stakeholders. Engaging with stakeholders is critical for project success, ensuring their concerns are addressed and support is maintained. Additionally, obtaining relevant certifications can demonstrate a commitment to high environmental and social standards.

3. Typical documentation required in a project finance transaction

Although there is a substantial history of delivering separate projects for (1) generating power through renewable energy sources; (2) desalinating water; and (3) producing and utilizing green hydrogen (including various energy vectors), all sponsors and lenders will be concerned about integrating these components into a single interdependent project. How investors handle the overall delivery of the entire project will be a crucial structuring decision, especially since no large-scale green hydrogen projects in Indonesia have been completed to date.

The strategy for construction and technology procurement will be a fundamental aspect of the overall risk profile for any green hydrogen project. Important factors will include: (1) project parameters (e.g., whether the project will generate power or procure it from a third party or whether the project will be integrated or non-integrated); (2) financing strategy (e.g., support for completion or cost overruns and the creditworthiness of sponsors); and (3) the track record of sponsors and contractors in delivering the components of any green hydrogen project and their general credibility.

Notwithstanding of the green hydrogen-specific considerations above, in this section, we will set out finance documents typically required for project financing in Indonesia which will be relevant for the project financing of a green hydrogen project.

3.1. Facility Agreement and Common Terms Agreement

The Facility Agreement is signed between (amongst others) the finance parties and the borrower. In a relatively simple project finance transaction with only one tier of debt, there is usually a single facility agreement which contains all the terms of the external debt funding for the project. The Facility Agreement contains provisions such as definitions, representations, covenants/undertakings, events of default and conditions precedent.

In more complex project financings, the parties will enter into a Common Terms Agreement (**CTA**), an agreement signed directly between (amongst others) the finance parties and the borrower (i.e. the project company) in the financing. The CTA is used in more complicated transactions involving numerous loan facilities from multiple sources and is typically used in conjunction with individual facility agreements. The CTA will include provisions applicable/common to all loan facilities in the financing.

In project financings where the parties enter into a CTA, the Facility Agreement will incorporate the common terms by reference to the CTA and contains additional provisions specific to that particular tranche. This is aimed to avoid multiple bilateral negotiations between the borrower and its lenders over terms which are common to all tranches of debt and ensures that each lender is treated equally with regard to common provisions between them.

Where the parties enter into a CTA, each Facility Agreement will also include other key provisions such as facility-specific CPs, facility specific undertakings/covenants, representations and warranties and events of default and commercial terms (such as margins, fees, repayment, interest period, etc.).

Below are the key terms commonly found in a Facility Agreement or CTA for a project financing transaction.

3.1.1. Representations and warranties

These are extensive legal and factual basis for lenders to make the loan facilities available to the borrower.

The representations and warranties typically included in a project finance Facility Agreement or CTA are, among others:

(a) legal status/capacity;

(b) authorizations;

(c) compliance with laws;

(d) no conflict with other contractual obligations;

(e) no misleading information;

(f) no third-party security; and

(g) no litigation.

3.1.2. Undertakings/covenants

These are designed to ensure that the borrower develops, constructs and operates the project within the parameters agreed with the lenders. These include information, financial, positive and negative undertakings/covenants, among others, as follows:

(a) information covenants/reporting;

(b) financial covenants;

(c) E&S compliance;

(d) insurances;

(e) hedging;

(f) negative pledge;

(g) ABAC/sanctions; and

(h) change of control.

3.1.3. Events of default

The events of default provision in the Facility Agreement or CTA is designed to give lenders a mechanism under which they can, if they choose, take action against the borrower for breach of its obligations under the Facility Agreement or CTA or other finance documents if certain events occur.

Typical events of default in a project financing include, among others:

(a) non-payment;

(b) breach of obligations;

(c) misrepresentation;

(d) cross default;

(e) repudiation of finance documents; and

(f) material adverse change to borrower's business.

3.1.4. other provisions

The Facility Agreement or the CTA will also include other provisions relating to the commercial arrangement of the loans and mechanism in relation to the drawing and repayment of the loans. This may include:

(a) conditions precedent and subsequent;

(b) disbursement;

(c) prepayments/cancellation

(d) interest; and

(e) other boilerplate provisions (typically based on APLMA form).

3.2. Intercreditor Documents

Intercreditor documents are used where there are competing debt interests in the borrower and there is more than one type of secured creditor. Depending on the debt structure/nature of the lenders, it could be an intercreditor agreement/deed, security trust and intercreditor deed or built directly into the CTA. The Intercreditor document will set out the voting mechanism and enforcement mechanics across the types of creditors.

Key provisions included in an Intercreditor document are, among others:

1. ranking and subordination;

2. restrictions on payments to junior creditors;

3. lender controls on amending transaction documentation;

4. restrictions on certain creditors taking enforcement action;

5. control of enforcement strategy; and

6. release of security and claims.

3.3. Equity Documents

This is an agreement entered into directly by the sponsors, shareholders, the borrower and the intercreditor/facility agent (acting on behalf of the finance parties).

Equity documents (such as shareholder agreement, shareholder support agreement, shareholder loan agreement or equity subscription agreement, etc) typically impose binding obligations on the sponsor to make funds (by way of shares or subordinated loans) or other support available to the project company at specified times. Alternatively, it can provide a framework for the equity support arrangements with

further contracts being required to detail each contribution, such as following a funding shortfall, equity cure for breach of financial covenants or other events.

The equity document will govern how much equity support each sponsor is going to contribute and when. It will also govern how the equity support will be contributed (such as by way of shareholder loan or capital injection). The document will also typically include restrictions on share transfer.

3.4. Security Documents

Project finance lenders generally want to take security over all of the project assets so that on enforcement they can sell the project as a going concern. The project company will usually provide the bulk of the security but other companies in the group may also grant security over certain assets.

A typical all-asset security packaged in a project financing deal in Indonesia will include, among others:

1. *hak tanggungan* (land mortgage) over the land plots and buildings of the Project;

2. pledge of the shareholders' shares in the borrower and (if required by lenders) sponsors' shares in the shareholders;

3. pledge of project accounts;

4. fiducia security over the tangible assets of the project company;

5. fiducia security over the insurance and reinsurance claims of the Project;

6. fiducia security over the receivables of the project company. This should cover all receivables of the project company including under offtake contracts, EPC contracts, etc; and

7. fiducia security over building not covered under the land mortgage.

In addition to the security documents above, which are recognized as asset security under Indonesian law thus granting lenders priority over such secured asset in the event of insolvency, there are other security documents typically required by lenders that are not considered as asset security under Indonesian law. As such, for these other security documents, lenders will not be granted priority right in the event of borrower's insolvency. This typically includes the conditional assignment over project documents and conditional assignment over shareholder loans provided to the borrower.

In addition to the Indonesian security documents, lenders will also typically require offshore security documents covering offshore assets of the Project such as share pledge over the shares of offshore intermediary SPVs, pledge over offshore project accounts and assignment of offshore project documents.

3.5. Direct Agreements

A direct agreement is signed between the borrower/project company, the security agent (acting on behalf of the finance parties) and a project document counterparty (offtaker, contractor, fuel supplier, etc.).

A direct agreement is an agreement which gives the lenders to the project direct rights in respect of certain key project documents and ensure that a project document is not immediately terminated following default by the project company.

The key terms of a direct agreement include:

1. standstill periods: the counterparty is delayed from taking hostile action (such as terminating the relevant project document) while lenders assess the situation;

2. step-in/step-out rights: the counterparty is further delayed from taking hostile action while lenders cure any default by the project company;

3. novation: lenders will have an option to replace the project company in that particular project document;

4. other provisions: acknowledgment and consent to security interest in relation to the conditional assignment over project documents and fiducia over receivables, information rights and payment instructions.

3.6. Accounts Agreement

As a means of controlling cash flow in the project, project finance lenders usually require the borrower to establish a number of bank accounts (known as the project accounts) and prohibit the borrower from opening any other bank accounts other than the project accounts.

Each project account has a specified purpose relating to the project and the lenders will impose tight restrictions on how the accounts are operated. Matters relating to the project accounts (including the types of accounts that are required, the manner in which they must be operated and the relationship between the borrower, the lenders and the account bank) are often dealt with in an accounts agreement (or built into the CTA).

Common types of project accounts in a project financing transaction include disbursement account, proceeds account, operating account, debt service reserve account, maintenance reserve account, insurance proceeds and compensation account and distribution account.

The accounts agreement or accounts provision in the CTA will typically include key provisions relating to inflow and outflow of cash from project accounts, maintenance of adequate reserves and enforcement regime following an event of default.

3.7. Hedging Documents

Project lenders would typically require hedging arrangements to be put in place against the following risks:

1. increased funding costs under the loan due to a variable interest rate - by entering into an interest rate swap;

2. fluctuations in exchange rate - by entering into a currency swap (applicable where the currency of the borrower's income is different to the currency of the loan); and

3. fluctuations in commodity prices - by entering into a commodity swap (applicable where the cash flow of the borrower depends on fluctuating commodity prices).

Typically, hedging arrangements will be documented under ISDA documentation in the form of:

1. an ISDA Master Agreement;

2. a schedule to the ISDA Master Agreement, which includes elections and amendments specific to the transaction; and

3. a confirmation, which records the details of the swap transaction.