Green Hydrogen Contracting Guidance

Land Acquisition and Use

Key considerations

- Land tenure risks are the risks associated with acquiring rights to land in jurisdictions where land governance is less developed, land rights are not clearly documented, or where there may be pre-existing claims to land which can be difficult for project sponsors to diligence. The risk of a potential future dispute between investors and local communities over land is common and is crucial for green hydrogen projects to navigate.

- Project developers will need to gain a clear understanding the nature of the legal and regulatory regime surrounding land acquisition and use in the host country, and assess the land tenure risks and considerations related to indigenous peoples, existing land rights and fair and just compensation.

- Governments, on the other hand, will want to ensure that the opportunities to benefit from its land resources are maximized while also incentivizing project developers to research project development potential in their countries. Consistent and transparent rules and regulations related to land acquisition will need to be put in place, considering key matters such as payment obligations and exclusivity entitlements.

- All involved partners will need to ensure that indigenous peoples rights are safeguarded and that local communities are consulted where a project involves the acquisition of community lands.

This brief forms part of a set of guidance from the initiative on Green Hydrogen Contracting – for People and Planet. The project supports governments, communities and companies in developing contracting practices for green hydrogen projects that ensure rapid expansion to everyone's benefit. The guidance has been developed by a working group consisting of governments, law firms, companies and civil society groups to draw lessons learned from emerging practices in the green hydrogen industry. For further information, visit gh2.org/green-hydrogen-contracting or contact the GH2 Secretariat (ines.marques@gh2.org).

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1. Introduction

Many early green hydrogen projects around the world have been relatively small in scale, funded from sponsors' own balance sheets and implemented on land already owned by one of the sponsors. Often, these projects have been located in countries with mature legal and land right systems.

The rapid deployment and scalability of green hydrogen has opened the door to the development of larger-scale green hydrogen projects, a number of which are likely to be located in jurisdictions where there is a less developed legal framework for land use rights of the type required to facilitate the assessment, appraisal, development, operation, and/or financing of major green hydrogen energy projects.

If the green hydrogen economy is to realise its full potential, it is vital for stakeholders to carefully consider land acquisition and use issues, including by using the lessons learnt from the extractive and renewable energy industries. The economic and social costs of not doing so are high. For instance, in the purely economic context it has been estimated that in the mining and extractive sectors, a major, world-class project suffered roughly USD 20 million per week of delayed production loss in net present value terms as a direct result of land use conflict.[1] In addition to economic losses, land use conflicts may also bring significant reputational damage, as well as litigation and liability risk, as a result of heightened awareness and scrutiny of environmental, social, and governance-related matters. Ultimately, it could result in the operation losing its social licence to operate. This presents an existential threat to the project.

This brief provides an overview of some of the key issues that stakeholders ought to consider when determining how green hydrogen projects should structure land acquisition and use, together with a review of some early themes and good practices that are emerging in this nascent industry.

For many indigenous communities land is central to their identity. As many future green hydrogen production plans may be constructed on land which is currently owned (either individually or collectively) by indigenous people, it is critical that project developers are sensitive to the affected communities' rights and needs.[2]

[1] Franks, Daniel et al (Conflict translates environmental and social risk into business costs https://www.pnas.org/doi/pdf/10.1073/pnas.1405135111

[2] It is advisable to read this brief alongside the guidance on *Community engagement and transparency*.

One of the challenges of a "one size fits all" guidance to land use is the sheer diversity of green hydrogen projects. At one end of the spectrum might be the relatively straightforward addition of an electrolyser to an existing source of renewable electricity in order to displace existing "grey hydrogen" demand at a specific site. At the other end is a much more complex multi-phase project on a remote greenfield site involving the construction and development of a renewable electricity generation project across large tracts of land, in addition to newbuild infrastructure for the production, storage, transportation, export shipping and conversion of hydrogen and ancillary feedstocks/inputs, utilities, services and logistics for both the construction and operational periods of the project. In accordance with global standards on corporate responsibility and human rights, the guidance applies for the entire value chain of green hydrogen companies and projects, as each stage of these value chains may carry various risks and impacts.[3]

This brief seeks to provide guidance that will be of greater or lesser relevance to many green hydrogen projects, regardless of technology and jurisdiction. As the market is very much in its earliest stage, the guidance will be further refined in consultation with stakeholders over time.

For the purposes of this brief it is presumed that the host country will be responsible for granting land rights to the relevant project. In some jurisdictions it may be that land rights are to be negotiated directly by sponsors with private landowners, perhaps supported by legal powers granted to sponsors to acquire land in circumstances where negotiations are unsuccessful. However, such approaches are outside the scope of this brief.

[3] The UN Guiding Principles on Business and Human Rights, the global standard on the corporate responsibility to respect human rights, clarifies the corporate responsibility to conduct human rights due diligence in companies' operations and across their whole value chains, both upstream and downstream. While managing human rights risks will be different in a company's operations or its own projects compared to several tiers upstream in a global supply chain, for example, companies are expected to know about and act on these risks. Mandatory human rights and environmental due diligence laws also extend the corporate responsibility beyond companies' own operations.

2. Relevant practices and international trends

2.1 Understanding the legal/regulatory regime

Lands rights for construction of green hydrogen facility

E.g. concession, license or lease, awarded through tender or direct negotiation

Other approvals that may be required

- Storage, transportation, distribution
- Sourcing and supply of water
- Access to electricity transmission or distribution infrastructure
- Development of roads, ports, or airports to support the project

The first step in a project's consideration of land use issues is to understand the nature of the legal and regulatory regime surrounding land acquisition and use in the host country. What laws govern the acquisition, clearing, change in use and/or development of land, and which governmental agencies have the authority to issue any required authorisations? Generally, the project would be required to seek and obtain various authorisations and consents from a number of different host government departments or ministries. Some host governments may also require approval from government agencies that are not usually involved in land contracting to the extent that the green hydrogen project is classified as a project of national/strategic interest (or similar).

Outside of approvals for the construction of the core hydrogen facility, additional approvals may also be required in respect of secondary activities required for the project to be viable, such as the storage, transportation and distribution of hydrogen, the sourcing and supply of water, access to other utilities or to electricity transmission or distribution infrastructure or the development of roads, ports, or airports to support the construction and/or operation of the project. If the project will involve the use of sub-surface caverns, additional laws/regulations from the extractive mining industries may apply to the development of sub-surface rights.

The grant of a land concession by a host state will typically either be done on a tender/procurement-basis or on the basis of a standalone private agreement between the host country and sponsors. In each case, private sponsors and their financiers will want to make sure that the award of their contract, and all other aspects of the procurement of the relevant land rights, has been done in accordance with all applicable laws and other procedures and policies (including in respect of anti-bribery and corruption).

Some countries impose specific legal requirements where a project involves the acquisition of community lands, and non-compliance could result in administrative fines, criminal penalties, risk of litigation, nullification of land title deeds for the project site or project suspension and termination. These requirements include, for example, including community compensation and benefit sharing provisions in agreements pertaining to investments in community lands, conducting community consultation and participation, obtaining free, prior and informed consent, and in a few instances, limitations on the transfer of certain land to preserve Indigenous ownership. In certain jurisdictions, companies and governments are required to lease land from communities themselves, who hold legal title.[4]

It is also important for stakeholders to determine to what environmental and social regulation the project will be subject to. While this will depend upon the nature and characteristics of each project, renewable energy projects are usually required to conduct an environmental and social impact assessment or "ESIA" as a pre-requisite to obtaining the necessary permits. ESIAs require detailed assessment of environmental and social consequences, both positive and negative, of the proposed project. It is important to note that environmental permitting regimes can be complex and often include requirements to meaningfully engage with project-affected communities, and where relevant, obtain their free, prior and informed consent. Project developers should also consider transboundary and cumulative impacts.

Projects seeking external financing from export credit agencies, multilateral institutions, and certain commercial lenders may need to upgrade impact assessments carried out under local laws to reflect the requirements of international standards such as the IFC Performance Standards and World Bank Group EHS Guidelines (applied through the Equator Principles and OECD Recommendations). They may also need to satisfy individual financier policy requirements. As with many domestic legal regimes, comprehensive environmental and social impact assessment processes will typically be required, including the requirement to assess specific climate change and human rights

[4] Examples are available from CCSI's Legal Risk Primer for Commercial Wind and Solar Project Deployment (p. 6).

risk assessments. While the scope of ESIA requirements under domestic law and international standards might differ, a comprehensive approach to the impact assessment process is always good practice in order to mitigate legal risk.

Impacts that may attract particular attention in the context of land acquisition and development for a green hydrogen project include biodiversity loss, compensation and resettlement, and community impacts such as adverse impacts on livelihoods (including through loss of ecosystem services). Where indigenous peoples are present, additional requirements will apply, including the duty to consult widely and in some instances seeking and obtaining the free, prior and informed consent of the community.

2.2 Land tenure risks

i. Indigenous peoples

From the outset it is important to recognise that land is central to the cultural and spiritual identity of many indigenous peoples and local communities. As many future green hydrogen production plans may be constructed on land which is currently owned (either individually or collectively) by indigenous people, it is very important that project developers are sensitive to and respect the affected communities' rights and needs.

It is equally important to acknowledge that project-related land acquisition and restrictions on land use can have an array of impacts (positive and negative) on communities and persons. According to the International Bank for Reconstruction and Development[5] project-related land acquisition[6] or restrictions on land use[7] may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources

[5] International Bank for Reconstruction and Development/The World Bank "ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement" Environmental and Social Standards (ESS) (2017) last accessed from https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards#ess5

[6] "Land acquisition" refers to all methods of obtaining land for project purposes, which may include outright purchase, expropriation of property and acquisition of access rights, such as easements or rights of way. Land acquisition may also include: (a) acquisition of unoccupied or unutilized land whether or not the landholder relies upon such land for income or livelihood purposes; (b) repossession of public land that is used or occupied by individuals or households; and (c) project impacts that result in land being submerged or otherwise rendered unusable or inaccessible. "Land" includes anything growing on or permanently affixed to land, such as crops, buildings and other improvements, and appurtenant water bodies. (*Ibid* at p53)

[7] "Restrictions on land use" refers to limitations or prohibitions on the use of agricultural, residential, commercial or other land that are directly introduced and put into effect as part of the project. These may include restrictions on access to legally designated parks and protected areas, restrictions on access to other common property resources, and restrictions on land use within utility easements or safety zones.

or other means of livelihood[8]), or both. Such impacts also implicate a broader set of tenure rights, violation of which could lead to adverse implications for stakeholders. This encompasses a range of rights including the right to access, right to use, control, or transfer a parcel of land. Most customary tenure rights are not yet formally recognized by national laws, but are legitimate and should be respected.[9]Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement. Empirical research suggests that in most cases, the opportunities or benefits available to resettled communities generally fail to prevent further impoverishment and is incapable of fully replenishing what a community loses when it is transplanted.[10] It is therefore important that this paper is read with the guidance on *Community engagement and Transparency*, which among other things considers the form and content of meaningful public participation processes.

ii. Identifying land rights

Land tenure risks are the risks associated with acquiring rights to land in jurisdictions where land governance is less well developed, land rights are undocumented, or where there may be pre-existing claims to land which are difficult for project sponsors to diligence. **The risk of a potential future dispute between investors and local communities over land or natural resource claims is common to many emerging markets and is a crucial risk for green hydrogen projects to navigate**. Failing to account for and mitigate these risks can create significant financial, operational, legal, and reputational risks for project sponsors.

Box: From 6-7 of CCSI's Legal Risk Primer for Commercial Wind and Solar Project Deployment.

> **HRDD as a tool to avoid complicity**
> Most national jurisdictions prohibit complicity in the commission of a crime, and several extend this liability to companies. In these fora, corporate liability for complicity may arise where a company contributes to an adverse human rights impact caused by another party that is criminally prosecutable. Tests for

[8] "Livelihood" refers to the full range of means that individuals, families and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, petty trade, and bartering.
[9] This is in accordance with the requirements of the United Nations Voluntary Guidelines on the Responsible Governance of Tenure. Further examples on the range of tenure rights mentioned are available from CCSI's Legal Risk Primer for Commercial Wind and Solar Project Deployment (pages 6-7).
[10] Michael M. Cernea, For a New Economics of Resettlement: A Sociological Critique of the Compensation Principle, 175 INT'L SOC. SCI. J. (2003),

complicity vary by jurisdiction but typically assess liability in terms of both the degree of culpability (intentional, knowing, reckless, or negligent) and the degree of assistance provided (material, substantial). This legal risk is heightened in conflict-affected areas. Conducting HRDD can help a company to avoid exposure to complicity in the first place, as well as serve to potentially reduce the risk of legal liability by showing that it has taken proactive measures and all reasonable steps to avoid being complicit in adverse human rights impacts.

Supply chain forced labor

Although legal risks regarding supply chain forced labor fall beyond the scope of this primer, one particular risk is important to mention here given its salience. Allegations concerning the use of state-directed forced labor in Xinjiang, China for the manufacture of polysilicon used in solar panels have attracted global attention,60 led to import bans on Xinjiang-produced polysilicon and goods that contain it,61 and caused some audit firms to cease labor audits in the region amidst concerns of restricted access.62 The US introduced the Uyghur Forced Labor Prevention Act to prevent goods made with forced labor in Xinjiang from entering US markets.63 Crucially, 95% of solar modules require solargrade polysilicon and 45% of that polysilicon is produced in Xinjiang, thereby pervading the supply chains of solar companies globally.

Land rights can be seen as falling under two broad categories. First, land rights that are formally defined according to law (such as constitutions, national laws, and regulations) and officially documented in land use registries. Such rights can be verified through conducting appropriate due diligence. Second, informal or “customary” rights that are socially recognized and applied, but which may or may not be formally recognized by the law or documented. This may include a claim to the land. In some jurisdictions, particularly developing countries, both categories of land rights may exist.

The existence of formal land rights will inevitably be the subject of detailed due diligence carried out by sponsors at relevant land use registries. The presence of informal or “customary” rights, however, represents a greater risk to international sponsors. Many jurisdictions allow local communities to hold “customary” rights to land, and in certain jurisdictions a significant percentage of land rights can be held in this

way. The UN Voluntary Guidelines on the Responsible Governance of Tenure similarly require States and business to respect all legitimate tenure rights, regardless of whether they have been formally documented.

Additionally, in many jurisdictions land rights can be held on multiple and overlapping levels – for instance, the government may legally own land that has been used or lawfully occupied for generations by local communities based on, for example, customary rights. Private landowners may similarly own legal title to land to which pastoral communities have customary access. This increases the risk of land tenure conflicts and requires sponsors to perform a much greater scrutiny of the various overlapping claims to land rights.

iii. Land acquisition and compensation

As above, the site chosen for the development of energy projects, including green hydrogen projects, will sometimes inevitably overlap with land that belongs to, or is enjoyed by, private actors. Most countries' laws empower governments to compulsorily acquire property in the public interest subject to the payment of prompt, adequate, and effective compensation. [11] The duty to pay compensation is enshrined, for instance, in the African Charter on Human and Peoples' Rights (1981), the European Convention on Human Rights (1952) and the American Convention of Human Rights (1969).

When determining the level of compensation to be provided to displaced communities, the host government will need to find a balance between the compensation being just, fair and adequate (in accordance with national and international best practices), and between the overall economics of the green hydrogen project. Project sponsors will, in their turn, have an interest in ensuring that the acquisition and compensation process has been transparent and fair with a view towards preventing future challenges to their legal title over the acquired land, in part because export credit agencies and certain commercial lenders will wish to ensure that resettlement processes have been undertaken (and compensated) to international standards, and appropriate livelihood restoration programmes (if relevant) implemented. Where indigenous peoples are involved, additional requirements will apply (see below). Reputational risk may be particularly high in the latter scenario.

[11] Dr Caroline Breton and Mr Antolín Fernández Antuña Compensation Standards (19 May 2022)

Ultimately, it is important that where compensation is due, the project developer relies on pre-determined standards for categories of land and fixed assets. These standards should be disclosed to interested and affected parties during the initial consultation processes and applied consistently wherever land is acquired. Where different rates are applied, the project developer should disclose information on the basis for calculation of compensation. The payment of any compensation must also be documented.[12]

iv. Land rights disputes

Given the nature of historic land rights, one of the first steps in the structuring of an energy project (including a green hydrogen project) should be a detailed due diligence of any historic land disputes which the project may inherit despite itself having adhered to all international best practices.

Before the development of the project gets under way, it is also crucial for project sponsors to work with communities and governments to create appropriate grievance or dispute resolution processes to address land disputes arising from the project over time. This, too, is in keeping with the IFC Performance Standards mentioned above.

v. Resettlement[13]

Where possible, involuntary resettlement should be avoided. In the context of Indigenous Peoples, the resettlement must only take place with their free, prior and informed consent. Where such consent cannot be obtained, domestic laws may provide further guidance on appropriate procedures, such as conducting public inquiries and ensuring Indigenous Peoples are effectively represented in such processes. The UN Basic Principles and Guidelines on Development Based Evictions and Displacement provide helpful guidance on the resettlement process and standards.[14]

If, however, involuntary resettlement is unavoidable, any resettlement operations should be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) must be carefully planned and implemented. Such measures include:

- Undertaking a census during the initial phase of the project to identify the persons who will be affected by the project, to establish an inventory of land and assets that will be affected, to determine who will be eligible for compensation

[12] International Bank for Reconstruction and Development/The World Bank op cit note 2 at 56.
[13] See International Bank for Reconstruction and Development/The World Bank ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement *Environmental and Social Standards (ESS)* (2017)
[14] Basic Principles and Guidelines on Development-Based Evictions and Displacement, Annex 1 of the report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, U.N. Doc. A/HRC/4/18 (June 11, 2007).

and assistance, and to discourage ineligible persons, such as opportunistic settlers, from claiming benefits; Paying fair and adequate compensation according to standards which are published and shared with the community members before the land is acquired, including shouldering costs incurred;

- Where possible, providing the option for return as soon as grounds for relocation cease to exist;
- Offering displaced persons an option for replacement land wherever equivalent replacement land is available, particularly when livelihoods of displaced persons are land-based, or where land is collectively owned. Such replacement land must be of quality and legal status at least equal to that of the lands previously occupied by them, suitable to provide for their present needs and future development;
- Whenever possible, providing options and alternatives from which affected persons may choose when resettlement and livelihood restoration occurs. As part of the process the project developer should disclose relevant information and establish opportunities for meaningful participation of affected communities and persons. The consultation processes should continue to run during the planning, implementation, monitoring, and evaluation of the compensation process, livelihood restoration activities, and relocation process.
- Developing and publishing a relocating plan. The plan should be prepared in consultation with interested and affected parties and designed to mitigate the negative impacts of displacement and enhance positive development opportunities. The plan should also provide for (among other things) ongoing monitoring of and reporting on the implementation of undertakings provided by the project developer. Once the resettlement process is finalized, the plan could also be used as the standard against which the process will be evaluated to determine if the undertakings were achieved. The World Bank provides a template Environmental and Social Framework Resettlement Plan.[15]

[15] International Bank for Reconstruction and Development/The World Bank ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement - ESS5—Annex 1. Involuntary resettlement instruments - Template Resettlement Plan.

- Establishing a grievance mechanism for the project to address specific concerns about compensation, relocation, or livelihood restoration measures. If possible, the grievance mechanisms should utilize existing formal or informal grievance mechanisms suitable for project purposes, supplemented as needed with project-specific arrangements designed to resolve disputes in an impartial manner.

4. Guidance on best practice

Given the nascent nature of the green hydrogen industry and the fact that the first set of greenfield projects is only now starting to be under way, we are not yet at a point where a best practice has emerged in relation to each of the topics highlighted in this note. Several pointers may, however, be taken from international standards and guidance provided by international organisations in other industries.

International best practice around concerns as to land tenure has typically focused on three broad considerations: *certainty, transparency, and fairness*.

Certainty involves stakeholders knowing who has tenure over the land in question, and that the land tenure granted by host governments to projects will be enforceable against third parties.

Transparency around the award of the land tenure ensures that national and international best practices are followed when awarding contracts to project sponsors and that these do not risk challenge from local communities or other stakeholders or private participants.

Finally, the consideration of **fairness** provides for benefits from the project to be shared in an equitable way between host governments, local communities and project sponsors.

It is, of course, impossible to entirely separate one from the other. For instance, a system that is not transparent will not be fair, and a system that is not fair may subsequently be challenged in court and therefore be uncertain.

Export credit agencies, multilateral institutions, and certain commercial lenders will apply international environmental and social standards such as the IFC Performance Standards and World Bank Group EHS Guidelines (applied through the Equator Principles and OECD Recommendations) as well as individual financier policy

requirements.[16] These govern all aspects and stages of the development, construction, operation, and decommissioning of any project to which they apply. They are flexible in nature and expert support is typically required to ensure they are implemented throughout the project lifecycle in accordance with financier expectations. In the context of land tenure in particular, they set expectations in relation to the mitigation of environmental impacts, biodiversity risk management, stakeholder engagement (including with indigenous peoples where more stringent requirements apply – see below), community relations, resettlement and livelihood restoration, amongst other things.

In light of the above, project sponsors who are looking to develop green hydrogen projects have a strong incentive to:

i. Conduct comprehensive due diligence. This has several aims, including to:

- Understand the legal and regulatory regime applicable to the site, including obtaining of permits (including planning and environmental permits) and the timeframes applicable to obtaining those permits and any procurement process that must be complied with;
- Identify, understand, and recognize all legitimate land rights based on a comprehensive review of national and federal land registries;
- Identify pre-existing legal disputes that may affect the site;
- Identify any competing future development plans for the proposed land by government bodies or other stakeholders; and
- Conduct an environmental and social impact assessment compliant with international standards.

ii. Engage with governments and local communities (and in particular indigenous peoples) from the outset, and on an ongoing basis with a view to:

- Apprise all relevant stakeholders of the proposed project and its objectives as early as possible (at the very least, project developers ought to do so during the project design phase). This would also give the project the opportunity to invite objections from stakeholders and to understand all tenure claims to the

[16] More in the guidance on financing.

specified land so as to accurately determine legitimate land rights, especially where those rights are undocumented or arise from the affected community's customs;

- Conduct open engagements with all community members to the extent possible. Engage with local companies or community leaders who are trusted by the community to represent the best interests of all community members in negotiations;
- Determine whether the appropriate level of engagement had been conducted, and whether free, prior and informed consent has been obtained from all stakeholders who have been identified as having legitimate land rights; and
- Establish an ongoing relationship with community stakeholders through the life of the project so that any future disputes can in the first instance be addressed in a constructive and collaborative manner.

This guidance should be read in conjunction with standards outlined in the Green Hydrogen Contracting Guidance on Community Consultation and Transparency. CCSI's *Business Guide for Commercial Wind and Solar Project Deployment* also provides further guidance on free, prior and informed consent and community engagements.[17]

5. Guidance for decision makers

[17] CCSI's Business Guide for Commercial Wind and Solar Project Deployment, page 15.

5.1 Documentation of land use concession

Several early-stage green hydrogen projects will be the subject of a memorandum of understanding (MoU), framework agreement, cooperation agreement or similar arrangements between the project sponsor and the host country. The MoU may cover the investigation, appraisal, development, and operation of hydrogen opportunities either at a site-specific level or a country-wide level. Stakeholders will need to consider whether the MoU should be a legally binding document (and if so, the appropriate dispute resolution procedure if it were to be challenged[18]) and the level of detail and commitment that the MoU should contain regarding individual projects.

When it comes to documenting an individual project's land rights, stakeholders will need to consider whether the land-use concession should be structured as a lease, licence or other local format.

i. Duration of tenure

The duration of the land-use concession will clearly be an important topic to consider.

For certain projects, it may be appropriate to adopt a phased approach such as:

- an initial investigative/exploratory phase during which preliminary analysis is undertaken, potentially over large geographic areas, in order to identify those specific areas (if any) where project sponsors wish to develop a project;
- an appraisal phase during which detailed analysis and project development work is undertaken in the lead up to a final investment decision; and
- an implementation phase following a final investment decision during which project development and operational activities take place.

The duration of each phase (including any extension rights), the activities that may be undertaken, the obligations to be discharged, the ownership and transparency of site information developed during the term, the conditions to be satisfied to move from one phase to the next, the circumstances in which the concession may be suspended or terminated prior to its expiry (including due to force majeure and/or breach) and site restoration obligations at the end of the term will all be important considerations in ensuring an appropriate balance between the legitimate interests. The interests that will need to be considered are those of (a) the host country in maximising the opportunities inherent in the state's natural resources and protecting the interests of local

[18] See Green Hydrogen Contracting Guidance on Dispute Resolution.

communities and (b) investors in realising a return on their investment commensurate with the level of risk to which that investment is exposed.

Payment obligations and exclusivity entitlements (both contemplated below) will also be key matters of focus for both host country stakeholders and for project sponsors. Sponsors are likely to also be focused on broader questions relevant to their investment (including applicable fiscal terms, local incorporation/registration requirements, economic and legal stability) as part of the concession terms.

ii. Exclusivity

A crucial issue to determine when structuring the land-concession agreement is the extent of exclusivity that will be granted to the sponsors in relation to the relevant site(s) and to what extent third parties (including other governmental agencies) will be prevented from pursuing competing activities (a) on the relevant site(s) and (b) in the host country. This is likely to be a key early focus for project sponsors given the limited number of sites that may be suitable for the development of green hydrogen projects.

As green hydrogen projects (especially those involving the construction of greenfield renewable electricity facilities) will often require large tracts of land, host countries will wish to consider how to ensure that concession arrangements achieve the appropriate balance between granting such rights to sponsors as are sufficient to attract and secure investment, while not unnecessarily foreclosing access to third parties. This might include, for example, concession fees being linked to the size of the area over which the concession applies, obliging or incentivising sponsors to surrender a portion of the concession area from time to time prior to final site selection as their investigations narrow down the potential site area(s), ensuring that the duration of each phase of the concession is appropriate for the activities envisaged to be conducted during that phase.

Where concession holders may require access to existing or planned critical infrastructure (such as port facilities), they are likely to seek assurances in the concession and/or applicable law as to their access and/or development rights (whether on an exclusive, priority or shared basis) in respect of such infrastructure, particularly in circumstances where competing projects may emerge.[19]

The direct and indirect transferability of interests under or in respect of the concession will be of fundamental importance to sponsors. While host countries will wish to ensure that there are appropriate controls on the transfer of interests, and to ensure that concession holders are motivated and capable to perform the activities contemplated

[19] See *Green Hydrogen Contracting Guidance on Infrastructure Access and Common Use*

by the concession. In practice, however, concession holders will wish to retain the flexibility to introduce additional sponsors to the project in order to bring further technical, commercial, and/or financial support to the project as well as to share risk. Concession holders may also wish to be entitled to grant security rights over their concession interests in connection with third party debt financing arrangements, particularly any project financing of the green hydrogen project infrastructure to be developed under it. The extent to which such interests may be granted and enforced will be a key area of focus for third party financiers and thus for sponsors intending to raise such finance.

iii. Payment terms

Fiscal arrangements for green hydrogen projects are outside the scope of this note,[20] though there will naturally be an interaction between (a) the benefits accrued by the host country and local communities through these fiscal arrangements and (b) the payments to be made under applicable land concession arrangements.

Payments for land concession rights may assume various forms and will likely vary greatly depending on the characteristics of the applicable land and regulatory regime as well as the broader economics of the project in question. Examples include:

- a fee payable on award of the concession;
- a periodic fee payable by reference to the geographic area covered by the concession from time to time (which fee may vary depending on the phase of the concession); and/or
- fees or royalties linked to production and/or sales and/or net profits; and/or
- direct equity participation rights for a nominee of the host country.

Host countries will have to balance the desire to mobilise revenues from land concession rights, with the need to incentivize project developers to invest in the research and pre-feasibility phase of a potential project within the land in question.

[20] See Green Hydrogen Contracting Guidance on *Fiscal terms and incentives*.