ERGO

From Capex to Service: MNRE's Model 'Electrolyser as a Service' Agreement

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The principal obstacle in the adoption of green hydrogen for reduction of carbon emissions has been commercial rather than technological, as industrial users seeking to transition must fund and operate a dedicated electrolyser plant for a term of fifteen years or more. The "Electrolyser as a Service" (EaaS) model addresses this constraint. Under the EaaS model, a technology provider (Service Provider) designs, finances, constructs, owns, operates and maintains an electrolytic hydrogen generation plant (Project) on a build-own-operate basis at the premises of the industrial user (Consumer). The Consumer thereby secures a reliable, on-site supply of green hydrogen without any upfront capital outlay and acquires no title to the Project. Capital expenditure risk is thereby mitigated and converted into a predictable operating cost, while construction, technology and performance risks pass to the party best placed to manage them.

Recognising that such arrangements are novel and have so far been negotiated from first principles, the Ministry of New and Renewable Energy (MNRE) has, by office memorandum dated 23 July 2026, published the "Model Service Agreement for Electrolyser as a Service" (the Model Agreement) under the National Green Hydrogen Mission. While the Model Agreement is facilitative and non-binding in nature, it provides developers, consumers and lenders with a framework to simplify contract negotiations and reduce transaction costs, while preserving the flexibility to adapt its provisions to project-specific requirements.

Ownership, Financing and Security

The Model Agreement separates ownership from use. The Consumer acquires no title to the Project, despite it being installed on the Consumer's premises, and holds only the contractual right to receive green hydrogen at the delivery point. The title vests in the Service Provider, and it may accordingly mortgage, charge or otherwise encumber the Project upon prior written intimation and without the Consumer's consent.

The Model Agreement allows flexibility to address certain lender protections through project-specific documentation. It also permits security to be created over the Project but does not, in its present form, afford financiers a contractual step-in right prior to termination. Further, a default by the Service Provider entitles the Consumer to terminate the contract, following which the Service Provider is obliged to dismantle and remove the Project within six months. Parties may therefore consider conferring a step-in right that enables financiers to cure a Service Provider default or novate the Project to a replacement operator before dismantling is triggered, offering a more commercially viable means of preserving asset value while leaving the Consumer's supply uninterrupted.

Any funding extended by an overseas lender will need to be tested against the foreign exchange laws governing cross-border borrowing, including the external commercial borrowing regime, depending on the structure of the financing.

A connected question is whether the inclusion of a lease or asset-use component in the Fixed Monthly Payment has any bearing on the Service Provider's regulatory classification as a non-banking financial company (NBFC). In particular, where the commercial structure resembles financing rather than the provision of hydrogen as a service, or where leasing or financing activities constitute the Service Provider's principal business, the applicability of the NBFC framework will require careful assessment.

Consideration and Payment

The Consumer pays a single Fixed Monthly Payment comprising lease, operation and maintenance charges, with one component escalating annually in line with the consumer price index for industrial workers and the balance remaining fixed for the term. The payment obligations are secured through an upfront deposit and a revolving letter of credit, with excess supply priced separately.

Together, these provisions place the financial and regulatory variability of the arrangement on the Consumer, who bears taxes, stamp duty and change in law costs, including those relating to greenhouse gas emissions. At the same time, the Service Provider’s payment stream remains secured, escalates automatically and is largely insulated from cost movements that would ordinarily fall on an asset owner.

Although the Monthly Consideration is defined as adjustable for supply availability and offtake levels, the operative payment provisions provide for adjustment only in cases of availability shortfalls and excess supply, with no corresponding reduction where the Consumer draws less than the committed quantity. The obligation is therefore, in substance, take-or-pay, providing greater revenue certainty for the Service Provider and its financiers.

The Performance Guarantee

The Service Provider guarantees the Project’s availability and the purity and volume of hydrogen and oxygen supplied, which is demonstrated through a performance guarantee test. Thereafter, the Project’s performance is monitored against a threshold energy consumption benchmark agreed at the outset, which tightens annually over the fifteen-year term to account for expected degradation. As the Consumer bears the electricity cost, excess consumption above the benchmark attracts a penalty payable by the Service Provider, while consumption below it earns the Service Provider an incentive payable by the Consumer, albeit at a reduced rate. Until the performance guarantee test is successfully completed, the Consumer's obligation to pay remains suspended.

Availability is computed by treating scheduled shutdown hours as available hours, and the Fixed Monthly Payment is adjusted only where the shortfall is solely attributable to the Service Provider. With respect to product quality, where the hydrogen supplied does not conform to the agreed specifications, the Consumer's sole and exclusive remedy is to notify the Service Provider, with all warranties of merchantability and fitness for purpose being expressly excluded, and the Service Provider’s responsibility ceasing at the delivery point. The Consumer is accordingly protected against underperformance by the Service Provider, but not against interruption in supply.

The Consumer Obligations

The Consumer is responsible for the timely provision of the site, its civil and structural works, and the utilities upon which the Project depends, each of which is a condition precedent to the Service Provider’s obligations. It also obtains and maintains, in its own name and cost, all statutory approvals required for the Project and bears responsibility for certifying the output as green hydrogen, although such certification depends on production and consumption data that only the Service Provider is positioned to generate.

While the Consumer benefits from the EaaS model by avoiding direct investment in the core energy generation assets, its financial commitment is not limited to the Fixed Monthly Payment. The Consumer is also responsible for the costs of civil works, utility infrastructure, the security deposit and the letter of credit, which together represent capital and working capital commitments. Further, although the Consumer neither owns nor operates the Project, the statutory approvals are obtained in its name, even though operational control rests with the Service Provider.

Public Procurement Requirements

Where the entity procuring green hydrogen under the Model Agreement is a government body, public sector undertaking or similar entity, the Model Agreement requires the Service Provider to comply with local content requirements under the public procurement framework.

The local content obligation discussed above sits alongside a broader, incentive-led push to build domestic electrolyser manufacturing capacity. Under the National Green Hydrogen Mission, the Strategic Interventions for Green Hydrogen Transition (SIGHT) programme earmarks approximately INR 4,440 crore towards a production-linked incentive scheme for domestic electrolyser manufacturing, administered through competitive bidding conducted by the Solar Energy Corporation of India. Successful bidders receive a per-unit incentive on electrolysers manufactured in India for up to five years, subject to progressively increasing domestic value addition thresholds. The underlying policy objective is to build an indigenous manufacturing base rather than merely incentivise the assembly of imported components.

Since the SIGHT programme's rollout, cumulative manufacturing capacity of approximately 3,000 MW per annum has been awarded across established engineering groups and newer entrants alike. Set against India's stated ambitions under the National Green Hydrogen Mission, however, near-term domestic capacity remains modest.

From an investment perspective, these localisation requirements may also encourage strategic partnerships between domestic manufacturers, international technology providers and financial investors, particularly where foreign participants seek to establish manufacturing capacity within India rather than supply imported equipment.

Risk Allocation and Liability

Under the Model Agreement, the provisions governing liability and indemnity are less mutual than their language suggests. Although the indemnity provisions appear balanced, the liability regime is not. While liability for consequential loss is excluded on both sides, the Service Provider's liability is capped both annually and over the term, except in cases of fraud, wilful default or gross negligence. By contrast, the Consumer's liability is not subject to any corresponding cap.

Term, Default and Exit

The Model Agreement provides for a fixed term of fifteen years from the commencement date, and neither party is entitled to terminate for convenience. Notably, a delay in commissioning beyond sixty days, for reasons not attributable to the Service Provider, is deemed to be the commencement date, triggering the Consumer’s payment obligations. Exit from the arrangement is otherwise limited to specified events of default that remain uncured following prescribed notice and cure periods, such that a party dissatisfied with the arrangement for reasons short of default has no contractual route out prior to the expiry of the term.

Upon termination for a Consumer event of default, the Consumer must pay termination compensation calculated as a percentage of the residual lease charges. On any termination or expiry, the Service Provider retains the right to dismantle and remove the Project, supported by an irrevocable licence of access for that purpose. The engagement to operate and maintain the Project is itself made irrevocable and exclusive, preventing the Consumer from appointing another operator during the term.

Assignment and Transfer

The Model Agreement adopts an asymmetric approach to transfer. Neither party may assign or transfer its rights without the other’s prior written consent, but the Service Provider is carved out of this restriction in case the assignee is its own affiliate or successor, requiring only prior intimation rather than consent. This asymmetry has implications for mergers and acquisitions, corporate restructurings and refinancing transactions, and also shapes what a prospective investor or acquirer must verify before stepping into either party’s shoes.

The Model Agreement is a significant step towards standardising contractual arrangements for India’s nascent green hydrogen market. It provides a structured framework for allocating ownership, operational responsibilities and commercial risks between the parties.

Viewed from an investment perspective, the Model Agreement represents an important step towards establishing a standard contractual platform capable of supporting the financing and deployment of distributed green hydrogen infrastructure. While project-specific issues will continue to require bespoke drafting, particularly where third-party financing is involved, the framework provides a sound basis upon which bankable EaaS projects can be structured and financed.

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