



Legal Update

LNG-TO-POWER



AUGUST 2021

1. Overview

Despite a growing appetite for clean energy, Vietnam is still a carbon fuel-intensive economy that relies heavily on traditional energy resources such as coal, oil and gas. Given the global climate change impact on Vietnam, liquefied natural gas (*LNG*) to power and other clean energy sources have been shaping a promising landscape for the power development plan of Vietnam for the last decade with a focus on the future.

According to the draft national power development master plan for the period from 2021 to 2030 with a vision to the year 2045 (*Draft PDP VIII*), Vietnam plans to increase its total installed power capacity in respect of LNG-to-power to 27,000MW in 2030 (23% of the total generation of all types) and 51,000MW in 2045 (26% of the total generation of all types). It is expected there will be a rapid upscale-up of the LNG-to-power sector in Vietnam in the coming years, which will create significant opportunities for both domestic and international investors. Schedule 1 of this Legal Update depicts an extensive list of the LNG-to-power projects that are included in Draft PDP VIII.

Nonetheless, the development and financing of LNG-to-power projects also face numerous hindrances. First, LNG-to-power plants would require complex infrastructure which envisages extensive investment capital, technology, expertise and associated risks during the implementation process. Second, the regulatory framework for the LNG-to-power sector is still under development and is being tested for both public-private partnership projects and independent power projects in which there are an array of bankability issues from an international limited recourse financing perspective. Finally, domestic gas production does not satisfy the demand of LNG-to-power plants which still primarily depend on the supply of imported LNG.¹

From a high level perspective, the development of a fully integrated LNG-to-power project may be subject to different national and/or provincial master plans including the national power development plan, the gas development master plan, the marine spatial master plan and the seaports master plan in which the marine spatial master plan is still being constructed. The Ministry of Industry and Trade (*MOIT*) is the key Government body that has been assigned by the Prime Minister to prepare the national power development plan and the gas master plan, being also the key regulator to process any application for the inclusion of new projects into the aforementioned master plans.

For the time being, the power generation sector is still a State-dominated market in which Vietnam Electricity (*EVN*) and its authorised member entities remain the sole off-takers. Nevertheless, the Government has put forward a roadmap to restructure the power market and establish a competitive market-driven environment, which comprises three phases namely (i) the

¹ According to the Gas Master Plan, Vietnam will import in the range of 1 to 4 billion m³ of gas per annum for the period from 2021 to 2025 and in the range of 6 to 10 billion m³ of gas per year for the period from 2026 to 2035.

competitive electricity generation market, (ii) the competitive electricity wholesale market, and (iii) the competitive electricity retail market. Currently, Vietnam has undertaken the first two phases and now is in the process of preparation for the third phase.

2. Regulatory framework

Generally speaking, there is no foreign ownership restriction in doing business in the LNG-to-power sector, meaning that foreign investors may hold up to 100% of the total charter capital of project companies in this sector. That being said, certain activities of fully integrated projects (such as logistics services) may be arguably conditional to foreign investment which caps the foreign ownership at 49% of the total equity contribution in such projects. Moreover, project companies of LNG-to-power projects, depending on the selected structure, may also be subject to additional permits to carry out specific activities. For the time being, Decree No. 87/2018/ND-CP of the Government dated 15 June 2018, as amended by Decree No. 17/2020/ND-CP dated 5 February 2020 (*Decree 87*) is the main legislation which sets out the conditions for doing business in respect of importation, exportation and distribution of gas products. Accordingly, any activities relating to the importation and trading of LNG will be subject to a trading license as issued by the MOIT.

(a) Gas importation

Enterprises which carry out the importation of gas products (including LNG) are required to obtain a certificate on satisfaction of business conditions which is issued by the MOIT. However, it is unclear under Decree 87 as to whether a power plant project is subject to such licensing requirement in case the project companies are to import LNG for the operation of the power plants, but not for trading purposes. Obviously, if the project companies import LNG via a third party like PetroVietnam Gas JSC (*PVGas*), such license requirement would not be applicable.

(b) FSRU

As a general comment, the regulatory framework of FSRU operation is still under development in Vietnam. The operation of an FSRU will be subject to both maritime and gas business legislation. It requires both a certificate on satisfaction of business conditions as provided under Decree 87 above and other certificates relating to maritime safety and security as applicable for vessels in general.

At a very high level, Figure 1 and Figure 2 below illustrate an outline of procedural steps for greenfield investment and private acquisition respectively in LNG-to-power projects in Vietnam

Figure 1: Legal framework for greenfield investment in LNG-to-power sector

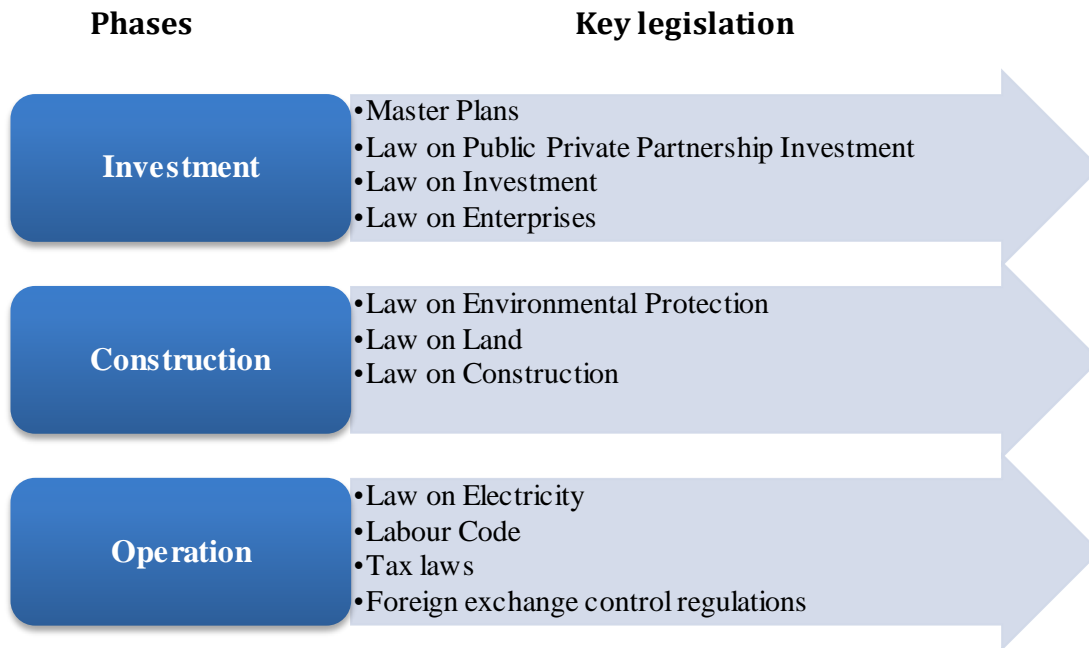
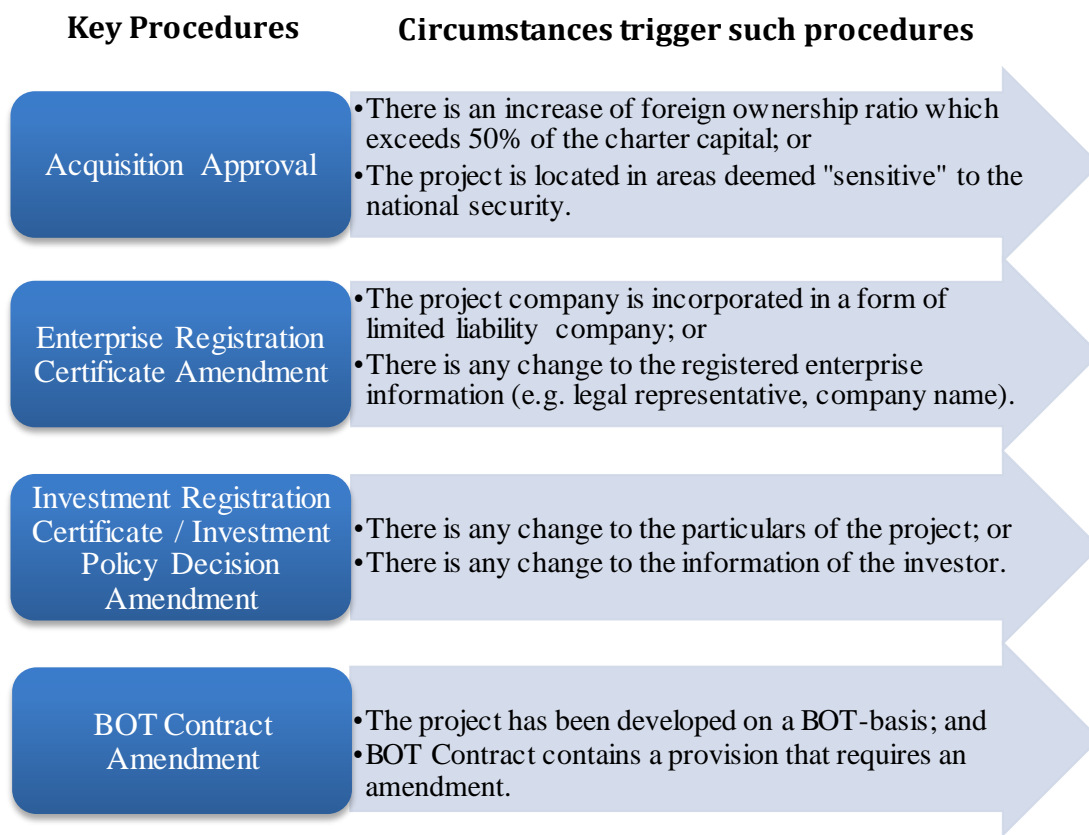


Figure 2 – Legal framework for private acquisition of LNG-to-power projects



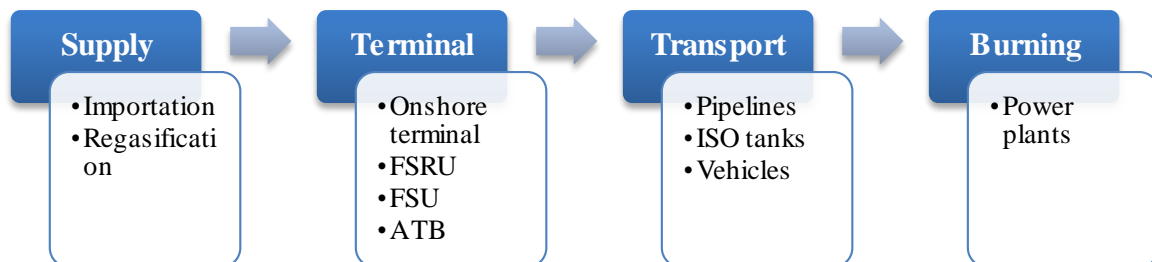
3. Project structures and models

3.1 Fully integrated vs. standalone projects

In a typical LNG-to-power chain, it would involve multiple stages, which comprises:

- (a) Supply of LNG by importation or regasification of domestic LNG;
- (b) Construction and operation of LNG terminal which may encompass onshore terminal, floating storage regasification unit (*FSRU*), floating storage unit (*FSU*), articulated tug barge (*ATB*) for the purposes of receiving and storing the imported LNG or domestic LNG;
- (c) Transportation of the LNG from the LNG terminal to the power plants via pipelines, ISO tanks, other vehicles; and
- (d) Burning gas to power at the power plants.

Figure 3 – Fully integrated LNG-to-power projects



Investors may decide to develop LNG-to-power projects as a standalone structure, a fully integrated structure or a cross-ownership structure. Under the standalone structure, the project company will only construct and operate the LNG-to-power plant at the last stage of the full project chain. Under the fully integrated structure, the project company will be responsible for the construction and operation of all facilities and infrastructure as described in Figure 3 above. The cross-ownership structure contemplates the equity interests of the developer in both the power plant and some of the other infrastructure or facilities in the supply chain. A fully integrated structure or a cross-ownership structure will provide the developer a level of assurance and control over the supply of LNG to the power plant. On the other hand, such structures obviously require more investment capital than a standalone structure.

3.2 BOT vs IPP

Development of LNG-to-power projects may be implemented on a public private partnership (**PPP**) basis or an independent power producer (**IPP**) basis in Vietnam. Each investment model will be subject to specific legislation in terms of investment procedures. However, there is common legislation which will apply to both models of investment such as tax, land, construction and environment.

Investors may develop power projects on a build-own-transfer (**BOT**) basis subject to the bidding and investment procedures stipulated under the Law on Public Private Partnership Investment (*the New PPP Law*) if the total investment capital is VND1,500 billion (approximately U\$65.2 million) or above. Historically, the BOT investment model has been applied to most of the coal-fired thermal projects when the old PPP legislation was effective. Since the New PPP Law took effect on 1 January 2021 to date, there has been no public record of any power projects that were successfully approved on a BOT basis.

Investors of BOT projects are selected, or directly appointed as the case may be, following a tendering procedure as provided by the New PPP Law and will enter into BOT contracts with the MOIT as the authorised State contracting party. The entire investment procedures for a BOT project, therefore, are more complex and lengthy than those of an IPP project. However, there are certain procedural steps that investors and their project companies under both forms of investment would be required to adhere to. The following figure describes the key differences in the investment procedures of LNG-to-power projects in the two investment models.

Figure 4 – Investment procedures of LNG-to-power projects

	BOT projects	IPP projects
Minimum investment capital	VND1,500 billion (approx. U\$65.2 million)	N/A
Gearing ratio	Not less than 15% of the total investment capital ²	20% of the total investment capital if using land of less than 20ha and 15% if using land of 20ha or above
Selection of investors	Subject to tendering procedures under the New PPP Law	N/A

² This total investment capital should exclude the State capital contribution with respect to the construction of infrastructure, site compensation and clearance and construction of temporary works.

In-principle Investment Decision	Yes	Yes
PPP Investment Approval	Yes	N/A
Investment Registration Certificate	N/A	Yes
Enterprise Registration Certificate	Yes	Yes
BOT Contract	Yes	N/A

Investors may prefer investment in LNG-to-power projects on a BOT basis on the grounds that there are more investment incentives available to PPP projects than IPP projects. The incentives available only to PPP projects include a guarantee on foreign exchange convertibility and a risk sharing mechanism.

(a) Foreign exchange convertibility

"Significant PPP projects"³ are entitled to a guarantee for the conversion of not more than 30% of the net revenue in Vietnam Dong (i.e. after deducting VND operational costs) into foreign currency. Although this foreign currency guarantee was not uncommon in recent BOT projects prior to the enactment of the New PPP Law, the codification of such foreign currency guarantee in the PPP Law is a further assurance for the bankability of PPP projects.

(b) Risk allocation

The New PPP Law introduces a risk allocation regime between the PPP investors/project companies with the State of Vietnam in the event of any revenue surplus or shortfall. Accordingly, when the actual revenue of a PPP project reaches more than 125% of the base case revenue as set out in the PPP project contract, the PPP investor and project company will share with the State half of the revenue exceeding the 125% threshold; when the actual revenue of a PPP project falls below 75% of the base case revenue, the State shall make up half of the revenue shortfall below the 75% threshold in favour of the PPP project company or investor.⁴

³ "Significant PPP projects" means projects for which the Investment Policy Decisions are approved by the National Assembly and the Prime Minister.

⁴ Sharing revenue shortfall shall only apply to BOT, BTO or BOO projects provided that (i) there is a change in master planning, policies or laws which result in the revenue shortfall, (ii) PPP investors and project companies have taken all measures to remedy the shortfall including adjustment of costs of products or public service fees, amendment to the PPP project contract, and (iii) the shortfall has been audited by the State Audit Office.

In addition to the above investment incentives, subject to the location of the LNG-to-power projects, project companies, whether undertaking BOT or IPP projects, may be entitled to land rental exemption for the entire project term and the following tax incentives:

- (c) Corporate income tax (*CIT*) rate of 10% for a fixed period of time, CIT exemption for up to 4 years and a subsequent CIT reduction of 50% for up to 9 years;
- (d) Exemption for import tax with respect to goods forming fixed assets, and domestically unavailable materials and components within 5 years as from the commencement of production.

4. Tariff

Unlike wind and solar energy in which the Government provides support in the form of feed-in-tariffs (*FiT*), LNG-to-power investors on an IPP basis will formulate the power-generating tariff and PPA price according to the guidance provided under Circular 57/2020/TT-BCT of the MOIT dated 31 December 2020 (*Circular 57*). Accordingly, the power generating tariff is based on the appropriate expenses paid by the investor for the entire economic life of the project and a financial internal rate of return not exceeding 12%.

The PPA price must fall within the ambit of the power-generation tariff bracket in the base year promulgated by the MOIT. The annual PPA price will be determined on the basis of the following formula:

$$\text{PPA price} = \text{FC} + \text{FOMCb}$$

Specifically:

- (a) FC = Average fixed charge

The FC is formulated on the basis of the project financial analyses comprising the following parameters:

- the total investment capital (including the construction of the power plant, infrastructure, terminals, storage facilities);
- economic life (25 years for combined cycle gas turbine power plant);
- average electricity energy generated at generator terminals over multiple years;
- rate of auxiliary power and voltage-increasing transformer losses of a power plant and transmission line losses from the voltage-increasing transformer of the power plant to the connection point (if any);
- depreciation period of each category of the main fixed assets;
- Equity to debt ratio (minimum 15%) and investment capital phases in the total investment capital;

- loan interest rates and repayment term; and
 - corporate income tax rate and other taxes and charges.
- (b) Fixed operation and maintenance costs of the base year (*FOMC_b*)

The *FOMC_b* is the aggregate of (i) the fixed operation and maintenance cost according to major repair costs and other costs in the base year, and (ii) the operation and maintenance cost according to labour cost in the base year.

Circular 57 does not apply to LNG-to-power projects on a BOT basis. For the time being, there has not been any specific regulation on the tariff or PPA price for this investment model. As a matter of practice for BOT coal-fired thermal projects, the project company and EVN set out a detailed formula which takes into account the costs of construction of the power plant (but not other infrastructure). We understand that this is a matter of negotiation between the investor or the project company with EVN and it is likely that, for fully integrated projects, the construction costs in respect of LNG infrastructure would be a parameter to formulate the PPA price. In practice, the development of many LNG-to-power projects has been delayed primarily because of the time-consuming negotiation of the PPA price with EVN (e.g. Bac Lieu LNG project).

5. Major project documents

5.1 BOT contract

In our experience with coal-fired thermal projects on a BOT basis prior to the New PPP Law coming into effect, the MOIT was relatively flexible on inserting bankable terms such as the right of the project company to mortgage land use rights and attached assets to an onshore security agent in favour of international lenders, the step-in rights of lenders, foreign governing law and international arbitration for dispute resolution.

The New PPP Law and its implementing decree provide a guidance on how to construct a model PPP contract for all types of PPP project contracts (*the PPP Contract Guidance*). The PPP Contract Guidance only sets out very fundamental heads of terms for the parties to negotiate and elaborate further. Notwithstanding, it is still not clear as to whether it is permissible under the law and practically acceptable to the Vietnam contracting State party to introduce additional provisions which are not provided under those heads of terms (e.g. State immunity clause, lenders' step-in rights) and how flexible the MOIT, as the contracting State party of the BOT contracts, would be in the negotiation of the additional terms.

Concerns should be raised by international lenders as to the bankability of the BOT contracts in light of the New PPP Law. Specifically:

(a) Governing law

The New PPP Law compels BOT contracts [and other project documents] which are entered into by and between BOT investors and/or a project company on one side and Vietnam State authorities on the other side, to be governed by the laws of Vietnam. Even though the New PPP Law provides some flexibility for the parties to reach agreement on any issues that are not regulated by Vietnamese laws in PPP project contracts (but not expressly including other project documents like the PPA, onshore security documents, gas supply contract) provided that such agreement does not violate the fundamental principles of the laws of Vietnam, it may be seen as an uncertainty from the perspectives of foreign investors and international lenders to the extent that the fundamental principles of Vietnam law could be broadly interpreted by Vietnam authorities and courts in practice (as we have seen with respect to the enforcement of foreign arbitral awards in Vietnam that have not been enforced or they are contrary to the fundamental principles of Vietnam law).

(b) No step-in rights

Although the New PPP Law upholds the rights of lenders under the finance documents and PPP project contracts and other relevant laws and regulations, it does not explicitly recognise the step-in rights of lenders as was provided for under the previous PPP legislation. There is also no further guidance from the PPP Contract Guidance in this regard.

Step-in rights of lenders are considered as relatively common and conventional according to the international standards of the project finance market. Given the absence of step-in rights language under the New PPP Law, lenders may have reasonable grounds to be concerned with the enforceability of their step-in rights in practice in the event that such rights are agreed to by the parties under the finance documents (but not expressly recognised at law).

5.2 Power purchase agreement

Circular 57 provides a model PPA (*Model PPA*) for all IPP power plants with installed capacity exceeding 30MW, but excludes BOT power plants, biomass energy, wind energy, solar energy, waste-to-power projects. As compared to the model PPAs for wind and solar energy, the Model PPA is considered as more bankable, in particular:

- The definition of a force majeure event is more extensive and covers any decision of the court or State authority that may adversely impact the performance of obligations for any party to the PPA and any failure of the power seller to obtain

any permits or authorisations from the State authorities, despite its compliance with the obligations and requirements relating to the issuance of such authorisations.

- The parties may agree on circumstances which give rise to liability exclusion.
- The power seller may assign the PPA to another party as contemplated under the finance documents without having to obtain the power purchaser's consent.
- Whilst the model PPA for wind energy does not explicitly provide for whether the parties may agree on dispute resolution by forums other than the Electricity Regulatory Authority of Vietnam (*ERAV*) as provided under Circular No. 40/2010/TT-BCT of the MOIT dated 13 December 2020 providing procedures for the settlement of disputes in the power market, the Model PPA expressly recognises the choice of other dispute resolution mechanisms in addition to ERAV (including both arbitration and litigation in Vietnamese courts).

The lack of a model PPA for LNG-to-power projects on a BOT basis has both advantages and disadvantages from the perspectives of developers and lenders. It has been observed from other BOT coal-fired thermal projects in the past that the terms of the PPA in such projects are relatively comprehensive and bankable in the context of international financing. The fact that there is no specific model PPA for BOT LNG-to-power projects may offer the project companies more leverage during the drafting and negotiation of PPA terms, similar to the case of BOT coal-fired thermal projects. However, it is also uncertain as to how much EVN is willing to deviate from the conventional terms as can be seen in the model PPAs for solar and wind energy projects.

5.3 Government guarantee and undertaking

Under the previous PPP legislation, the Government was able to grant guarantees as security for the performance of obligations by State owned enterprises with respect to the supply of materials, product consumption, and the sale of fuel or raw materials in favour of PPP investors, project companies or other third parties (*GGU*). Nevertheless, the New PPP Law as well as the Law on Investment are silent on the availability of a GGU for both BOT and non-BOT investment projects. It is also observed that the Government has been more and more reluctant to offer GGUs in BOT projects in the recent years and the extent of any guarantees provided have gradually been reduced.

5.4 Onshore security agreements

Obviously, energy power projects on a BOT basis would require an intensive capital injection which may not be sufficiently funded by owner's equity, but would be subject to long-term borrowings. On the other hand, domestic credit institutions lack competence in assessing the technicality and feasibility aspects of large-scale energy projects, and therefore, hesitate to

provide long-term financing to such projects. Whilst BOT energy projects appear appealing to international financial institutions (such as JBIC, KEXIM, ADB, IFC) and other international lenders, in addition to bankability issues in relation to the project documents as discussed above, international lenders also raise concerns as to whether they are able to obtain a comprehensive security package (i.e. all of the movable and immovable assets of the project company and the equity interests in the project company) especially given the unavailability of a GGU.

However, generally, international lenders cannot take the benefit of security over immovable assets in Vietnam (except for BOT projects via an onshore security agent on a case-by-case basis). For non-BOT projects, there may be alternative structures that can be considered in order to obtain financing from international lenders such as a guarantee from a local Vietnamese bank which shall take a back-to-back security over immovable assets, but this would provide an extra layer of complexity to the financing transaction.

SCHEDULE 1

PROPOSED LNG-TO-POWER PROJECTS UNDER DRAFT PDP VIII

Province	Projects	Capacity (MW)
Ba Ria Vung Tau	Long Son (Phase 1, 2, 3 and 4) and Phu My	3,850
Bac Lieu	Bac Lieu (Phase 1 & 2)	3,200
Binh Thuan	Son My I, Son My II and Ke Ga (Phase 1 & 2)	7,500
Ca Mau	Ca Mau (Phase 1 & 2)	3,000
Dong Nai	Nhon Trach 3&4	1,500
Ha Tinh	Vung An 1&2	3,000
Hai Phong	Hai Phong I (Phase 1 & 2) and Hai Phong II	4,500
Hue	Chan May (Phase 1 & 2)	4,000
Ho Chi Minh City	Hiep Phuoc (Phase 1 & 2)	2,700
Khanh Hoa	Khanh Hoa (Phase 1, 2 & 3)	4,500
Long An	Long An I (Phase 1 & 2) and Long An II	3,000
Ninh Thuan	Ca Na (Phase 1, 2 & 3)	6,000
Quang Ninh	Quang Ninh & Quang Ninh 2	3,000
Quang Tri	Hai Lang (Phase 1&2) and Hai Lang 1	4,500
Thai Binh	Thai Binh (Phase 1, 2 & 3)	4,500
Thanh Hoa	Nghi son (Phase 1, 2, 3 & 4)	9,600

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