

Vietnam: Draft circular on tariff determination and model power purchase agreement (PPA) for IPP/private investment power projects

In brief

The Ministry of Industry and Trade of Vietnam (MOIT) recently released a draft circular for public comments ("**Draft Circular**"), which if adopted would replace Circular No. 57/2020 on tariff determination for power projects (including LNG-to-power, other thermal and large-scale hydropower projects).

The Draft Circular generally retains the key principles from Circular No. 57/2020 on tariff determination and negotiation of the PPA for LNG-to-power, other thermal and large-scale hydropower projects, but extends its application to other types of generation (including biomass, solid waste, solar, wind, hydrogen and ammonia). The Draft Circular is open for public comments until 4 March 2024.

Key takeaways

The Draft Circular provides for the following key points with regard to the principles for tariff determination:

- The tariff should be set based on the basic principle that sponsors will recover their investment and make a return on investment not exceeding 12%.
- The tariff for new power plants will be broken down between fixed costs (covering investment costs and fixed operation and maintenance (O&M) costs) and variable costs (covering, among others, fuel costs and transportation costs).
- The calculation of fixed costs will incorporate certain financing costs, such as interest rates, but the Draft Circular now provides a ceiling up to which interest rates will be considered for tariff calculation purposes.
- The calculation of various portions of the tariff (including in relation to fuel costs) will not necessarily be based on actual plant conditions but rather on predetermined technical parameters (see Appendix).
- The tariff remains denominated and payable in Vietnamese dong, although the Draft Circular leaves room to index the tariff for foreign-currency-denominated loans.

In this issue

Key takeaways

In depth

Principles for tariff determination
Determination of fixed costs
Determination of variable costs
Selection of fuel suppliers and transporters for thermal projects
Wind and solar power projects
Tariff determination method for hydropower projects
Currency
Model PPA
Change in law risk
Appendix – Technical parameters for PPA tariff determination

In depth

Principles for tariff determination

The Draft Circular largely retains the principles for tariff determination that were provided under Circular No. 57/2020, including the following:

1. The basic principle for tariff determination is that sponsors should be able to recover their investment over the project term in addition to a return on equity not exceeding 12%. The term of a project is set depending on the type of generation and ranges

from 20 years for solar and wind power plants, 25 years for combined cycle gas turbine (CCGT) power plants, and up to 40 years for large scale hydropower plants.¹

2. However, the initial tariff agreed on by the authorities must remain within the tariff bracket published by the MOIT in the year during which the power project is approved for investment.
3. The tariff agreed on in the PPA will be exclusive of taxes and charges, including Value Added Tax.
4. The tariff for new power plants itself will be broken down between fixed costs and variable costs, as further discussed below.

Determination of fixed costs

Fixed costs themselves are divided between capital expenditures / investment costs and fixed O&M costs:

No.	Components	Items
1	Capital expenditures / investment costs(VND/kWh)	<p>Investment costs are based on the following:</p> <ul style="list-style-type: none"> (i) Total investment, including power plant, infrastructure, wharfs for power plant, LNG import terminal and other relevant infrastructures² (ii) Economic life of the project (see Appendix to this Client Alert for duration per type of generation) (iii) Electricity generated on average over multiple years based on the following: <ul style="list-style-type: none"> a. Approved design b. Average number of hours during which the power plant operates at maximum capacity (for thermal power plants only) (iv) Self-consumed electricity and loss at step-up transformer (v) Asset depreciation as set by the Ministry of Finance (vi) Debt-to-equity ratio (vii) Financing conditions (subject to a ceiling set by the MOIT, being 180-Day Average SOFR +3% for loans denominated in foreign currency and the average +3.5% of the 12-month deposit rate offered by various Vietnamese commercial banks) (viii) Corporate income tax
2	Fixed O&M costs (VND/kWh)	<ul style="list-style-type: none"> (i) Major repair O&M costs (VND) (ii) Overhead (VND) <p>In each case, as divided by the average electricity generated by the project (in kWh) "over many years" (and as further discussed below).</p>

A number of those factors (including economic life, number of operating hours, etc.) will, however, not be based on the actual conditions of the project but on predetermined factors that are included in the Draft Circular. Those ratios are provided for information in the Appendix to this client alert. For instance, the fixed O&M costs will be determined based on an average of electricity generated by the project "over many years." For CCGT projects, that average will be calculated based on (among other factors) the installed (designed) capacity of the project and assuming an average of 6,500 operating hours. For hydropower projects, that average will be based on the approved basic design.

In relation to item (vii) of the fixed costs component, please take note of the cap/ceiling on the interest rates that will be considered by Vietnam Electricity (EVN) for tariff determination purposes. Any interest rates in relation to the financing of a power plant that are above that cap would therefore not be covered by way of the fixed costs component.

The Draft Circular also leaves room for annual adjustment to those costs. For instance, overhead costs can be adjusted for inflation based on the Consumer Price Index issued by the General Statistics Office (subject to a cap of 2.5% per year).

¹ Each period start from the plant's commercial operation date.

² The Draft Circular leaves some room for adjustment of the capital expenditures / investment costs after construction to take into account the effects of force majeure events, factors that bring higher efficiency, changes in construction planning, and changes in construction price index as published by the Ministry of Construction or the local provincial People's Committee.

Determination of variable costs

Thermal power plants (VND/kWh)

For thermal projects, variable costs include costs for primary fuel, secondary fuel, fuel transportation costs and other miscellaneous costs.

No.	Components	Factors
1	Primary fuel	(i) Average heat consumption rate agreed by both parties (ii) Weighted average of fuel purchase contracts based on volume of invoices (copper/kcal, copper/kJ or copper/BTU)
2	Secondary fuel	(i) Average net fuel consumption (kg/kWh) (ii) Price of secondary fuel according to regulations (VND/kg)
3	Miscellaneous costs	The sum of the following, as divided by the average electricity generated by the project (in kWh) "over many years" (and as further discussed above): (i) Cost of auxiliary material (VND) (ii) Start-up costs (VND) (iii) Regular O&M costs (VND)
4	Fuel transportation costs	(i) Average heat consumption rate agreed on by both parties (ii) Transportation costs of primary fuel (copper/kcal, copper/kJ or copper/BTU) (of note, these costs will also include regasification costs for LNG projects)

The formula for the payment of variable costs imply that fuel costs are incorporated in the tariff formula and will follow the actual amounts paid rather than a predetermined amount. However, please note that the amounts considered for tariff calculation purposes will not necessarily align with the actual costs incurred by sponsors.

For instance, the calculation of primary fuel costs and transportation costs will be based on a pre-agreed heat consumption rate (based on a deemed 85% load level) and will therefore not necessarily reflect actual plant conditions.

Other power plants (non-thermal)

Of note, the Draft Circular does not provide details to determine the tariff for power plants other than thermal or hydropower or the variable costs for non-thermal power plants. Instead, the Draft Circular provides that this should be agreed as part of PPA negotiations "based on the reality of the power plant."

Selection of fuel suppliers and transporters for thermal projects

To the extent that the Draft Circular hints at fuel costs being (at least in part) repaid by EVN as a variable cost, the authorities wish to have a degree of oversight over the selection of fuel suppliers and fuel transporters (including regasification services for LNG projects).

In particular, sponsors will need to organize a tender for their selection, subject to certain exceptions (including the execution of a long-term fuel supply agreement with fuel suppliers or contracts for gas storage, regasification and storage services).

For those contracts that are not executed following a tender, those agreements will have to comply with the principles of efficiency and competitiveness. In practice, drafts of these agreements will have to be submitted to EVN for review, along with the application for PPA negotiations.

Wind and solar power projects

The Draft Circular addresses the issue of projects "which have signed power purchase agreements and do not have official electricity generation prices," i.e., those wind and solar power projects that missed the Feed-in-Tariff COD deadline.

The Draft Circular expressly provides that it will apply to the tariff of those transitional and under-development projects. It is also unclear whether sponsors of those transitional and under-development projects who have already submitted a proposal to seek agreement on their tariff will have to resubmit a proposal once (and if) the Draft Circular is adopted.

In addition, the tariff for transitional projects will have to remain within the bracket set by the MOIT. As a reminder, the ceiling tariff for transitional projects was set by the MOIT in January 2023³ was as follows:

No.	Type	Ceiling tariff (VND/kWh)
1	Ground solar	1,184.90
2	Floating solar	1,508.27
3	Onshore wind	1,587.12
4	Offshore wind	1,815.95

Tariff determination method for hydropower projects

The Draft Circular also provides clarification around tariff determination for hydropower projects whose tariff is expiring during the term of the PPA. The new tariff will be determined with a view to ensuring that the sponsors recover their investment costs with a reasonable profit (however, what constitutes a reasonable profit is not clarified by the Draft Circular).

Currency

The tariff in the PPA is denominated and payable in Vietnamese dong. As such, sponsors will have to consider how to manage the foreign exchange risk that the project will assume (notably regarding repayment of debt and fuel costs denominated in foreign currency).

However, under the model PPA, one of parameters for tariff determination is the exchange rate for repayment of foreign currency loans. In this regard, under the model PPA and the Draft Circular, the power seller can work with EVN on an annual basis to determine Foreign Exchange Difference (FED) for the previous year. Specifically, every year, the two parties will calculate the exchange rate adjustment based on various criteria (including total foreign currency loan amount, debt repayment plan and foreign exchange fluctuations during the previous year). Note that Circular No. 57/2020 required the FED calculation to be submitted to the Electricity Regulatory Authority of Vietnam (ERAV) for approval after EVN and the project company have agreed on the adjustment. This ERAV approval is removed in the Draft Circular, which simplifies the process for FED adjustment. This provides more comfort to sponsors on the certainty of the FED adjustment agreed with EVN.

Model PPA

The Draft Circular retains the model PPA for thermal projects (which was already annexed to Circular No. 57/2020, with only minor adjustments). It also provides that other types should continue to follow the model PPAs issued in other circulars.

No material changes are made to the model PPA, which remains based on the following:

- (i) Pure energy payments at the tariff based on the level of energy dispatched by EVN (before a project participates in the Vietnam competitive electricity market)
- (ii) Energy payments based the difference between the tariff and the market price based on a contractual output to be agreed between the parties (after a project participates in the Vietnam competitive electricity market)

Note that the risk matrix adopted in Circular No. 57/2020 has not changed and a number of issues that have been raised by the private sector remain, including the following:

- (a) There is no minimum offtake obligation from EVN or capacity payments.
- (b) There are no deemed energy payments in case EVN is not able to accept the delivery of energy because of certain exception events (such as governmental force majeure).
- (c) There is no predetermined termination payments in case of early termination of the PPA.

³ Decision No. 21/QD-BCT dated 7 January 2023 on promulgating the electricity generation price bracket application to transitional solar power plants and wind power plants.

(d) The PPA is not subject to arbitration in case of a dispute.

Change in law risk

Although the model PPA itself does not include a change in law provision, the Draft Circular provides certain adjustments in case of changes in law or policies, including the following:

- (i) If a change in law or policy or if the conclusions of inspection and auditing agencies⁴ adversely affect the obligation of the generator or of the buyer, both parties have the right to renegotiate the tariff.
- (ii) If a power plant needs to be upgraded in order to meet national technical regulations on environment, related costs can be added to the construction costs for tariff (re)determination purposes.

Sponsors will undoubtedly carefully consider how these provisions would apply when Vietnam introduces its upcoming carbon tax.

⁴ Note that the reference to conclusions of inspections and auditing agencies is new compared to Circular No. 57. This may imply that EVN may request an adjustment or renegotiation of the tariff based on such reports.

Appendix – Technical parameters for PPA tariff determination

TT	Category	Parameter	Comments
I	Economic life		
1	Coal thermal power plant	30 years	
2	Combined cycle gas turbine plant	25 years	
3	Hydroelectric plant		Circular No. 57/2020 provided that the expected economic life of all hydropower plants was 40 years. The Draft Circular now differentiates hydropower facilities based on their installed capacity.
3.1	Over 20 MW	40 years	
3.2	From 3 MW to 20 MW	35 years	
3.3	Less than 3 MW	25 years	
4	Solar power plant	20 years	New
5	Wind power plant	20 years	New
6	Garbage power plant	20 years	New
7	Biomass power plant	20 years	New
II	Ratio of operating and maintenance costs of thermal power plants (%)		
1	Ratio of major repair costs and other costs (k_{scl})		
1.1	Coal thermal power plant	2.5%	
1.2	Combined cycle gas turbine plant	4.37%	
1.3	Garbage power plant	...	New
1.4	Biomass power plant	...	New
2	Labor cost ratio (k_{nc})		
2.1	Coal thermal power plant	1.5%	
2.2	Combined cycle gas turbine plant	1.9%	
2.3	Garbage power plant	...	New
2.4	Biomass power plant	...	New
III	Ratio of operating and maintenance costs of hydroelectric plants (%)		
1	Ratio of major repair costs and other costs (k_{scl})		
1.1	Capacity of 150 MW or less	1.2%	
1.2	Capacity ranges from 151 MW to 300 MW	0.9%	
1.3	Q capacity from 301 MW or more	0.6%	
2	Labor cost ratio (k_{nc})		
2.1	Capacity of 150 MW or less	0.8%	
2.2	Capacity ranges from 151 MW to 300 MW	0.5%	
3.3	Q capacity from 301 MW or more	0.3%	
IV	Ratio of operating and maintenance costs of wind and solar plants (%)		
1	Onshore/Inland wind power plant	...	New
2	Wind power plant at sea	...	
3	Offshore wind power plant	...	
4	Ground solar power	...	
5	Floating solar power	...	

TT	Category	Parameter	Comments
V	Average number of operating hours at maximum capacity over many years - T max (hours)		
1	Coal thermal power plant	6,500	
2	Combined cycle gas turbine plant	6,000	
3	Garbage power plant	...	
4	Biomass power plant	...	
VI	Average rate of performance decline in the economic life of a thermal power plant (%)		
1	Coal thermal power plant	1.3%	
2	Combined cycle gas turbine plant	3%	
3	Garbage power plant	...	
4	Biomass power plant	...	
VII	Percentage of annual regular repair and maintenance costs (%)		
1	Coal thermal power plant	0.8%	
2	Combined cycle gas turbine plant	0.8%	
3	Garbage power plant	...	
4	Biomass power plant	...	
VIII	Average cost slippage rate (%/year)		
1	Sliding ratio of operating and maintenance price components according to major repair costs and other costs	2.5%/year	
2	The price component slippage rate changes according to other fluctuations	2.5%/year	
IX	Average load level of thermal power plant	85%	

Contact Us



Thanh Hai Nguyen
Partner
Hanoi
thanhhai.nguyen
@bakermckenzie.com



Charles Magdelaine
Senior Associate
Hanoi
charles.magdelaine
@bakermckenzie.com

© 2024 Baker & McKenzie. **Ownership:** This site (Site) is a proprietary resource owned exclusively by Baker McKenzie (meaning Baker & McKenzie International and its member firms, including Baker & McKenzie LLP). Use of this site does not of itself create a contractual relationship, nor any attorney/client relationship, between Baker McKenzie and any person. **Non-reliance and exclusion:** All information on this Site is of general comment and for informational purposes only and may not reflect the most current legal and regulatory developments. All summaries of the laws, regulation and practice are subject to change. The information on this Site is not offered as legal or any other advice on any particular matter, whether it be legal, procedural or otherwise. It is not intended to be a substitute for reference to (and compliance with) the detailed provisions of applicable laws, rules, regulations or forms. Legal advice should always be sought before taking any action or refraining from taking any action based on any information provided in this Site. Baker McKenzie, the editors and the contributing authors do not guarantee the accuracy of the contents and expressly disclaim any and all liability to any person in respect of the consequences of anything done or permitted to be done or omitted to be done wholly or partly in reliance upon the whole or any part of the contents of this Site. **Attorney Advertising:** This Site may qualify as "Attorney Advertising" requiring notice in some jurisdictions. To the extent that this Site may qualify as Attorney Advertising, PRIOR RESULTS DO NOT GUARANTEE A SIMILAR OUTCOME. All rights reserved. The content of the this Site is protected under international copyright conventions. Reproduction of the content of this Site without express written authorization is strictly prohibited.

