Vietnam: New circular on tariff determination and model power purchase agreement (PPA) for IPP/private investment LNG-to-power and conventional power projects

In brief

The Ministry of Industry and Trade of Vietnam (MOIT) recently issued Circular No. 57/2020[1] replacing Circular No. 56/2014,[2] on the method of determining tariffs and PPA negotiation and appraisal procedures for conventional power projects (including LNG-to-power, hydropower and other thermal power). Circular No. 57 generally retains the key principles on tariff determination and negotiation of the PPA draft, and provides for, among other things, updates to the principles and method of determining tariffs and the re-introduction of re-negotiation on tariffs and the PPA based on the finalized investment capital of the project. Circular No. 57 aims to provide for a more streamlined regulation with regard to the negotiation and implementation of tariff and the PPA, which is one of the key concerns of investors/developers of conventional power projects.

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Key takeaways

Circular No. 57 provides for the following key points with regard to the principles for tariff determination, as well as negotiation and appraisal of PPAs:

- introducing specialized interconnection price as a component to determine the power-generating tariff
- re-introducing the method for re-negotiation on tariffs and the PPA based on the finalized investment capital of the relevant project
- making amendments and supplements to the PPA upon change in laws or policies as promulgated by the state agencies
- principles for tendering/selection of fuel suppliers and/or fuel transporters

In depth

Principles for the determination of power-generating tariff

Under Circular No. 57, the tariffs shall be determined based on the following principles:

1. The key bases for formulation of power-generating tariff are as follows:
    - the appropriate expenses paid by the investor for the entire economic life of the project
    - the financial internal rate of return (IRR) not exceeding 12%

[1] Circular No. 57/2020/TT-BCT of the Ministry of Industry and Trade dated 31 December 2020 on the method of determining tariffs and PPA ("**Circular No. 57**").

[2] Circular No. 56/2014/TT-BCT of the Ministry of Industry and Trade dated 19 December 2014 on method of determining tariffs and procedures of appraising PPA ("**Circular No. 56**").

2. The two components of power-generating tariff are as follows:

   i) PPA price, which will be agreed upon by two parties to the PPA

   ii) Specialized interconnection price (i.e., the price to recover specialized interconnection cost being invested by the investors of power plants, which shall be agreed upon by two parties to the PPA), which is defined as the cost of building transmission lines and substations from distribution grounds of the power plants in order to absorb generating capacity of the power plants to the connection point.

3. Power-generating tariff is exclusive of value-added tax (VAT), water resources consumption tax, water exploitation right fee, forest environment service fee, environmental protection fee for solid waste and industrial wastewater (applicable to thermal power plants), other taxes, and charges per the state regulations (except taxes and charges included in the tariff plan).

4. The PPA price must fall within the power-generation tariff bracket in the base year as issued by the MOIT, in which the PPA price of thermal power plants, for comparison with the power generation price bracket in the base year, will be calculated on the basis of cost components corresponding to those for calculating the power-generation tariff bracket.

Principles for the determination of the annual fixed charges of the PPA

The two parties to the PPA may apply an average fixed charge agreed throughout the PPA's contract term. In case the two parties agree to convert the average fixed charge as agreed into the fixed price of each year, the determination of this price must comply with the principles below.

Based on conditions for actual loans and the project's financial capability, the two parties may agree to convert the average fixed charge of the power plant into the annual fixed charge (FCj in year j), provided that the average fixed charge remains unchanged in comparison with the price agreed on by the two parties and conforms to the following principles:

- The financial discount rate in the calculation of the annual fixed charge agreed by the two parties according to the IRR of the power plant must be used.
- The investor must repay loans for the construction of the power plant per the term of repayment.

Principles for adjustments to the annual power-generating tariff of the PPA

Components of the operation and maintenance charge of power plants may be adjusted or revised in accordance with the following principles:

- The operation and maintenance charge components by major repair cost and other expenses are adjusted based on the average inflation rate. The two parties shall study and propose a mechanism for the revision of the operation and maintenance charge components by major repair cost and other expenses for foreign-currency-based items.
- The operation and maintenance charge components by workforce cost are revised based on fluctuation of regional minimum wages at the date of payment or by the CPI issued by the General Statistics Office, but must not exceed 2.5% per annum.

Annually, based on the total foreign currency loans, the plan to repay the loan in foreign currency, the actual data of principal repayments, the exchange rate agreed upon by the two parties in the tariff projection, and the exchange rate in the previous year, the two parties to PPA may determine/calculate the exchange rate difference and propose a payment plan to the Electricity Regulatory Authority (ERAV) for examination and submission to the MOIT for consideration and decision on such payment plan.

Method for the determination of tariff re-negotiated according to finalized investment capital

With regard to the power plants for which the parties are eligible for requesting to re-negotiate the tariff according to the finalized investment capital, after the finalized investment capital has been made available, the power developer/seller will deliver the investment capital finalization documents to the power purchaser. The two parties will then re-negotiate the tariff based on certain principles as set out below:

1. It needs to be based on the method for the determination of PPA price as provided under Circular No. 57.
2. It needs to be based the parameters for determining/calculating the PPA price as provided under Circular No. 57, with updated input parameters as of the point of time when the finalized investment capital is determined.
3. The PPA price for comparison to the tariff bracket must fall within the tariff bracket of the year in which the finalized investment capital is approved.
4. The two parties to the PPA may not adjust the annual fixed charge of the years prior to the signing of the contract amending and supplementing an existing PPA per the new tariff determined by the finalized investment capital.

Procedure for the negotiation and appraisal of PPA

Circular No. 57 provides for a revised template of model PPA, which will be applied to new power plants and existing power plants with PPAs that have expired, but have not ended their economic life. The power developer/seller and EVN as power purchaser will negotiate, agree with or supplement terms reflecting the actual conditions of the power plant (as necessary). The power developer/seller and EVN will be required to submit the PPA negotiation results to the ERAV as required under Circular No. 57.

Specifically, the detailed procedure for negotiation of the PPA is as follows:

1. For new power plants, the PPA between the parties must be signed before the commencement date of the work construction.
2. The power developer/seller must send a request dossier to EVN for the negotiation of PPA and implementation of procedures for the signing of PPA.
3. Within 15 working days from the date of receipt of the full and eligible request dossier for the negotiation of the PPA from the investor, EVN must negotiate with the power developer/seller on the PPA. At the end of the negotiation process, the two parties must initial the final draft PPA.
4. After the final draft PPA is initialed, the power developer/seller and EVN must report to the ERAV for the appraisal of the PPA.

In terms of request dossiers for the negotiation of the PPA, under Circular No. 57, for a new power plant, the developer/power seller is required to submit a request dossier for negotiation of the PPA for new power plant, including but not limited to the following items:

a) written request for negotiation of the PPA
b) draft PPA prepared in accordance with the model PPA with amendment/supplement proposals reflecting the actual conditions of the power plant (if necessary)
c) investment policy approval/investment policy decision/investment registration certificate of the project
d) decision on project investment and construction enclosed with explanations and reports on investment project assessment by independent consultants, and other relevant documents
e) decision on the approval of the first total investment capital or the adjusted total investment capital effective at the time of tariff negotiation, and main contents in basic design of the project relating to the PPA negotiation, basic design assessment report

f) grid interconnection agreement of the power plant to the national electricity system, enclosed with interconnection plan, SCADA/EMS agreement, agreement on protective and automatic relay system

g) loan contracts or any document of the investor and lenders, planed or actual disbursement of loans

h) contract for supply of fuel to power plant with specification on cost of fuel for generation of electricity, price of transport of fuel, price for LNG storage, regasification and distribution and associated surcharges, point of delivery of fuel, time limit for supply of fuel

i) documents calculating net heat consumption rate for thermal power plants

j) documents calculating fuel loss rate of coal-fired power plants or heat loss rate of gas turbine power plants

k) tariff proposal/plan

l) other relevant documents

For an existing power plant which has been operated commercially, the request dossiers for negotiation of PPA include but are not limited to the following items:

a) written request for negotiation on the PPA

b) draft PPA prepared in accordance with the model PPA

c) existing documents of PPA

d) technical documents of the plant, technical specification of SCADA/EMS, protective and automatic relays, P-Q operational specification of plant units

e) contracts for the supply of fuel to power plants

f) tariff proposal/plan

g) audited financial statement of the power plant of the most recent year as of the date of PPA negotiation

Amendments, supplements to the PPA upon change in laws or policies promulgated by state agencies

1. In case of changes in laws and policies promulgated by competent state agencies that adversely affect the lawful interests of the power developer/seller and purchaser, the two parties may re-negotiate and agree on the tariff.

2. In case the power seller/developer is assigned to upgrade, renovate the power transmission lines and substations per the master plans, the two parties may negotiate on supplementing specialized interconnection price to ensure that the investor in the power plant can recover costs of construction, management, operation and maintenance in accordance with laws.

3. In case a power plant in operation is in need of upgrading, renovating equipment to meet national technical regulations on environment, the power developer/seller and EVN will need to agree to add these costs to the tariff of the power plant. The determination/calculation of tariff must be in accordance with the tariff calculation method as agreed by the power developer/seller and EVN in the signed PPA, with reports to the MOIT and the ERAV for appraisal.

4. In case any power plant has a plan for treatment and consumption of ash and slag approved by an authorized state agency to ensure that the standards on waste, emissions and environmental protection are met, the power developer/seller and EVN may agree to supplement these costs to the ash and slag treatment price component as a specialized component under the PPA, ensuring that the following key principles are followed: (i) the scope of investment, operation process of ash and slag treatment projects is approved by competent State agencies; (ii) the selection of entities carrying out the ash and slag treatment must comply with the laws and promote competition and transparency; (iii) the two parties must settle the costs of ash and slag treatment based on the actual situation of the preceding

year. The plant's revenue from the sale of ash and slag may be used to offset the ash and slag treatment costs and reduce the power plant's tariff.

Key responsibilities of the power developer/seller

Under Circular No. 57, the power developer/seller must accomplish the following:

a) Together with EVN, negotiate for the PPA and report to the ERAV for appraisal and signing of the PPA before the commencement date of construction works; take responsibility for ensuring the accuracy, reasonableness and validity of the data and documents provided.

b) Formulate investment projects to build transmission lines and substations to absorb generating capacity of the power plants when assigned for investment by the relevant state agencies in accordance with the power development master plans. Transmission lines and substations must ensure that their operation may absorb the full capacity and power output of the relevant power plants in the relevant locality under the approved master plans.

c) Allow power plants provided in the national/provincial power development master plans to connect to the transmission lines and substations as assigned for investment in order to generate electricity to the national power system.

d) Negotiate and come to an agreement with the investors of the other relevant power plants on the allocation of specialized interconnection costs and adjustment of specialized interconnection prices (if any) to ensure that the investors would be able to recover construction, management, operation and maintenance costs of transmission lines and substations.

e) Be responsible for the management, operation and maintenance of transmission lines and substations as assigned for investment and construction in accordance with current laws.

f) Provide adequate information, ensuring accuracy, appropriateness and eligibility of figures and documents provided to relevant agencies during the negotiation and appraisal of the PPA.

g) Be responsible for organizing the selection of fuel suppliers and/or fuel transporters in accordance with the tendering law, other relevant legal regulations, as well as be responsible before the law for ensuring fairness, competition and transparency, except in the following cases:

- EVN has signed a medium-term and long-term fuel supply contract with the fuel supplier.
- Contracts for the supply of natural gas and charges for collection, transportation and distribution of natural gas must comply with the regulations of the relevant state authority.

In case it is not possible to select a fuel transporter via bidding for special reasons (other than the cases specified above), the power developer/seller will need to make an agreement with the fuel supplier/transporter based on the unit price as issued by the state agencies. If unit price issued by the relevant state agency is not yet available, the power developer/seller may arrange with the fuel supplier/transporter on the unit price based on the internal unit price of the selected fuel supplier/transporter. The arrangement must ensure efficiency and competition. Notably, the selected transportation unit price must not be higher than the unit price of other entities doing the same transportation method (if any), while the price of fuel transported to the power seller's terminal must not be higher than the price of fuel (of the same type) provided to the power seller by any other entity.

Prior to entering into a contract for the transportation of fuel not through a bidding process, the power seller must provide documents to EVN in accordance with the provisions agreed in the PPA. No longer than 20 days from the date on which the power seller provides sufficient documents to EVN and EVN has not given any opinions on the selection of the fuel transporter, the power seller and the fuel supplier may enter into the contract for the transportation of the fuel according to the agreed terms.

The power seller is responsible for signing the contract for purchase and transportation of fuel according to the relevant regulations, ensuring that prices are competitive and transparent.

h) Be responsible for all input parameters to calculate the PPA price and for controlling and bidding for the fuel supply and transportation contracts to ensure the legitimate source of fuel, as well as a competitive and transparent price.

i) Prior to 15 January of each year, report to the ERAV on the implementation of the PPA with EVN in the preceding year, on difficulties arising during the implementation of PPA, and on proposals for solutions (if any).

Prior to 31 January of each year, cooperate with EVN to calculate exchange differences during the implementation of the PPA in the preceding year, and submit to EVN for reports to the ERAV for appraisal.

Parameters for determining PPA price

Under Circular No. 57, the detailed parameters with which to determine PPA tariff are provided as follows.

On an annual basis, the ERAV will need to compile opinions from power-generating entities on the below input parameters for the calculation of PPA prices, then report to the MOIT for review and approval/decision on any changes or amendments (if applicable).

No.	Item	Parameter
I	**Economic life**	
1	Coal-fired thermal power plant	30 years
2	Combined - cycle gas turbine power plant	25 years
3	Hydropower plant	40 years
II	**Proportion of thermal power plant's operational and maintenance costs (%)**	
1	Proportion of major repair cost and other expenses (k_{scl})	
1.1	Coal-fired thermal power plant	2.5%
1.2	Combined - cycle gas turbine power plant	4.37%
2	Proportion of workforce cost (k_{nc})	
2.1	Coal-fired thermal power plant	1.5%
2.2	Combined - cycle gas turbine power plant	1.9%
III	**Proportion of hydropower plant’s operational and maintenance costs (%)**	
1	Proportion of major repair cost and other expenses (k_{scl})	
1.1	Capacity scale at 150 MW or lower	1.2%
1.2	Capacity scale from 151 MW to 300 MW	0.9%
1.3	Capacity scale at 301 MW or higher	0.6%
2	Proportion of workforce cost (k_{nc})	
2.1	Capacity scale at 150 MW or lower	0.8%
2.2	Capacity scale from 151 MW to 300 MW	0,5%

3.3	Capacity scale at 301 MW or higher	0,3%
IV	**Number of hours of operation at maximum capacity averaged over multiple years - T_{max} (hours)**	
1	Coal-fired thermal power plant	6.500
2	Combined - cycle gas turbine power plant	6.000
V	**Proportion of performance attenuation averaged over the entire economic life of thermal power plant (%)**	
1	Coal-fired thermal power plant	1.3%
2	Combined - cycle gas turbine power plant	3%
VI	**Proportion of annual cost for repair and regular maintenance (%)**	
1	Coal-fired thermal power plant	0.8%
2	Combined - cycle gas turbine power plant	0.8%
VII	**Average inflation rate (% per year)**	
1	Inflation rate of operation and maintenance charge by major repair cost and other expenses	2.5% per year
2	Inflation rate of variable charge on the basis of other changes	2.5% per year
VIII	**Average load of thermal power plant**	**85%**