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Hanoi, July 3, 2024

DECREE

MECHANISMS FOR DIRECT ELECTRICITY TRADING BETWEEN RENEWABLE ENERGY GENERATION UNITS AND CLIENTS WHO ARE LARGE ELECTRICITY CONSUMERS

Pursuant to the Law on Organization of the Government of Vietnam dated June 19, 2015; the Law on Amendments to the Law on Organization of the Government of Vietnam and the Law on Organization of the Local Government dated November 22, 2019;

Pursuant to the Law on Electricity dated December 3, 2004; the Law on amendments to the Law on Electricity dated November 20, 2012; the Law on amendments to the Law on Public Investment, the Law on Public-Private Partnership Investment, the Law on Investment, the Law on Housing, the Law on Procurement, the Law on Electricity, the Law on Enterprises, the Law on Special Excise Duties, and the Law on Civil Judgment Enforcement dated January 11, 2022;

Pursuant to the Law on Prices dated June 19, 2023;

Pursuant to the Law on Value-Added Tax dated June 3, 2008; the Law on amendments to the Law on Value-Added Tax dated June 19, 2013; the Law on amendments to Laws on taxation dated November 26, 2014; the Law on amendments to the Law on Value-Added Tax, the Law on Special Excise Duty, and the Law on Tax Administration dated April 6, 2016;

Pursuant to Resolution No. 103/2023/QH15 dated November 9, 2023 of the National Assembly of Vietnam on the Socio-Economic Development Plan in 2024;

At the request of the Minister of Industry and Trade of Vietnam;

The Government of Vietnam hereby promulgates a Decree prescribing the mechanisms for direct electricity trading between renewable energy generation units and clients who are large electricity consumers.

Chapter I

GENERAL PROVISIONS

Article 1. Scope

This Decree provides for the mechanisms for direct electricity trading between renewable energy generation units and clients who are large electricity consumers (hereinafter referred to as “clients”) through private connection lines and the national grid.

Article 2. Regulated entities

1. Entities involved in power trading through private connection lines include:

- a) Renewable energy generation units;
- b) Clients.

2. Entities involved in electricity trading through the national grid include:

- a) Units generating renewable energy from wind or sunlight with a generation capacity of at least 10 MW connected to the national electricity system directly participating in the competitive wholesale electricity market;
- b) Clients using electricity for production purposes purchasing electricity from power corporations or electricity retailers that are not power corporations connecting electricity with voltage levels from 22kV or higher;
- c) Electricity retailers in zones and clusters authorized by clients using electricity for production purposes to purchase electricity from power corporations or conclude forward power purchase agreements with renewable energy generation units (hereinafter referred to as “authorized electricity retailers”).

3. Other entities:

- a) Electricity system and market operation units;
- b) Electricity transmission units;
- c) Power corporations of Vietnam Electricity (hereinafter referred to as “power corporations”) and other electricity retailers;

d) Vietnam Electricity.

Article 3. Interpretation of terms

For the purpose of this Decree, the following terms shall be construed as follows:

1. "Quotation" refers to when a renewable energy generation unit offers electricity quotations for each generator set in the spot electricity market and sends such quotations to an electricity system and market operation unit following the quotation form under the regulation on operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.
2. "Trading period" is 30 minutes from the start of every 30 minutes in a trading day.
3. "Billing period" refers to a period for issuance of invoices and records for transactions in the electricity market within 1 month from the first day of each month.
4. "Connection points" refer to points specified in a connection agreement between an investor and an electricity grid management unit conformable with the planning approved by a competent authority.
5. "Delivered electricity" refers to all the electricity a seller delivers to a buyer used for payment between both parties.
6. "Renewable energy generation units" refer to electricity units possessing small hydropower plants, power plants generating electricity from sunlight, wind, biomass, geothermal heat, tides, waves, sea currents, and other forms of renewable energy, or rooftop solar systems licensed to engage in electricity or exempted from licenses concerning electricity generation as per regulation.
7. "Electricity retailers in industrial zones, economic zones, export-processing zones, industrial clusters, and hi-tech parks, centralized information technology parks, hi-tech application agricultural parks, and equivalents prescribed by competent authorities (hereinafter referred to as "electricity retailers")" are electricity units licensed to engage in electricity regarding electricity retail in the mentioned zones and clusters with purchased electricity of at least 200.000 kWh per month regarding the connection of electricity with voltage levels of 22 kV or higher.
8. "Electricity system and market operation units" are National Load Dispatch Centers or others depending on the level of electricity market development that carry out the dispatching function within the national grid and regulate transactions in the electricity market.
9. "Private connection lines" are the system of lines, electrical substations, and equipment serving the private electricity transmission invested in, developed, and operated by renewable energy generation units for direct sale to clients unless there are other agreements between concerned parties.
10. "Forward power purchase agreement" is a type of agreement where concerned parties agree and confirm their commitment to purchase or sell generated electricity at a determined price at a specific period in the future.
11. "Power purchase agreement in the spot market" applies to the electricity trading of each power plant that includes the main contents specific in Appendix I enclosed herewith.
12. "Clients" are organizations and individuals purchasing electricity for use and not for reselling purposes according to the regulations of the Ministry of Industry and Trade of Vietnam, conformable with each period of development of the electricity system or with electricity consumption at the time of applying for participation in direct electricity trading as follows:
 - a) Regarding regular clients: average consumption of at least 200.000 kWh per month (average of the 12 latest months);
 - b) Regarding new clients or clients with a use time of under 12 months: the electricity consumption shall be based on the registered electricity consumption, which must be from at least 200.000 kWh per month.
13. "National grid" is the system of electricity transmission lines, electricity stations, and equipment for electricity transmission within the territory of the Socialist Republic of Vietnam, excluding private connection lines.
14. "Year N" is the current year on the Gregorian calendar.
15. "Year N-1" is the year preceding the current year on the Gregorian calendar.
16. "Year N-2" is the year preceding the year N-1 on the Gregorian calendar.
17. "Month M" is the current month on the Gregorian calendar.
18. "Month M-1" is the month preceding the current month on the Gregorian calendar.
19. "Month M-2" is the month preceding the month M-1 on the Gregorian calendar.

20. "Spot electricity market" is the electricity trading market in trading periods carried out by electricity system and market operation units under the regulations at various levels of the competitive wholesale electricity market.

21. "Power corporations" are the Northern Power Corporation, Southern Power Corporation, Central Power Corporation, Power Corporation of Hanoi City, and Power Corporation of Ho Chi Minh City.

Article 4. Direct electricity trading mechanisms

Direct electricity trading means activities of electricity purchase, sale, and delivery carried out through the following 2 forms:

1. Direct electricity trading through private connection lines means activities of concluding agreements on power purchase and electricity delivery through private connection lines between renewable energy generation units and clients under Chapter II of this Decree.

2. Direct electricity trading through the nation grid means activities of electricity trading through forward power purchase agreements between renewable energy generation units and clients (or authorized electricity retailers), carried out under Chapter III of this Decree, including:

- a) Renewable energy generation units selling all of their produced electricity to the spot electricity market of the competitive wholesale electricity market;
- b) Clients or authorized electricity retailers concluding power purchase agreements with power corporations (or authorized/assigned units) to purchase all of the electricity meeting their demands;
- c) Renewable energy generation units and clients or authorized electricity retailers engaging in electricity trading through forward power purchase agreements.

Article 5. General requirements for renewable energy generation units and clients

Renewable energy generation units and clients shall comply with the law on planning and the law on investment (within the responsibilities of investors of electricity source works, including conformity with the national electricity development planning and provincial planning approved by competent authorities; regulations on electricity operation licensing (within the responsibilities of investors of electricity source works); regulations on electric safety and fire and explosion safety in construction, land, environmental protection, operation (electricity generation, transmission, and distribution), and electricity use safety; regulations on electricity trading and power purchase agreements and other relevant laws.

Chapter II

DIRECT ELECTRICITY TRADING THROUGH PRIVATE CONNECTION LINES

Article 6. Principles of direct electricity trading through private connection lines

1. Renewable energy generation units and clients prescribed in Article 2 of this Decree shall carry out direct electricity trading through private connection lines under the following principles:

a) A power purchase agreement between a renewable energy generation unit and a client in case the direct electricity trading through private connection lines as agreed on by both parties shall conform with Article 22 of the Law on Electricity and relevant legislative documents and include the following main contents: agreement parties; use purposes; standards and quality of services; rights and obligations of both parties; electricity price and payment methods and time limit; conditions for agreement termination; responsibilities upon breach of the agreement; duration of the agreement; responsibility for investing, developing, and managing private connection lines; other contents as agreed on by both parties;

b) Electricity price agreed on by both parties, excluding the case prescribed in Clause 4 of this Article.

2. Renewable energy generation units shall negotiate and conclude power purchase agreements regarding the generation capacity, generated electricity, and the price of excessive electricity with Vietnam Electricity (or authorized units) as per regulation.

3. Aside from direct electricity trading activities through private connection lines as prescribed in Clauses 1 and 2 of this Article, clients may engage in electricity trading with power corporations (or electricity retailers that are not power corporations) as per regulation.

4. In case electricity units engage in electricity generation and electricity retail in zones and clusters combined with electricity purchase from the national grid and other local electricity sources for electricity retail to clients in zones and clusters, the retail price for each client shall comply with the regulation on electricity prices promulgated by the Ministry of Industry and Trade of Vietnam.

Article 7. Responsibilities of renewable energy generation units

Renewable energy generation units shall comply with Article 39 of the Law on Electricity and the following regulations:

1. Renewable energy generation units shall be licensed to engage in electricity operations regarding electricity generation, excluding cases of exemption from licenses to engage in electricity operations as per regulation. In case of not purchasing electricity from the national electricity system and having electricity grids to carry out electricity retail operations, renewable energy generation units shall request the issuance of licenses to engage in electricity retail operations and electricity generation as per regulation.

2. While engaging in electricity operations, renewable energy generation units shall comply with regulations on the electricity transmission system and the electricity distribution system promulgated by the Ministry of Industry and Trade of Vietnam.

3. Renewable energy generation units shall implement the regulations on safety in electricity generation prescribed in Article 54 of the Law on Electricity (amended in 2012) and guiding documents. Renewable energy generation units that invest in electricity transmission grids or electricity distribution grids for direct connection to clients shall implement regulations on safety in electricity transmission and distribution prescribed in Article 55 of the Law on Electricity (amended in 2012) and guiding documents.

4. Renewable electricity generation units shall comply with investment, construction, electric safety, land, fire safety, fire and explosion safety, environmental protection laws, and relevant laws.

Article 8. Responsibilities of clients

Clients shall comply with Article 47 of the Law on Electricity and shall:

1. Comply with regulations on safety in electricity use prescribed in Article 57 of the Law on Electricity (amended) and relevant guiding documents.
2. Invest in the electricity grid infrastructure (applicable to cases where clients have electricity stations) in compliance with the National Technical Regulation on Electric Safety; comply with regulations on assurance of safe corridors for high voltage grid safety protection.
3. Have personnel manage and operate electricity grids (applicable to cases where clients have electricity stations) in conformity with regulations on electric safety; personnel must be trained in the electric specialty; trained, tested, and issued with electric safety cards as per regulation.

Chapter III

DIRECT ELECTRICITY TRADING THROUGH NATIONAL GRID

Section 1. ELECTRICITY SALE BY RENEWABLE ENERGY GENERATION UNITS THROUGH SPOT ELECTRICITY MARKET

Article 9. Power purchase agreements between renewable energy generation units and Vietnam Electricity

Vietnam Electricity and renewable energy generation units shall come to terms and conclude power purchase agreements in the spot electricity market following the main contents prescribed in Appendix I enclosed herewith.

Article 10. Quotation, scheduling of mobilization, billing calculation, and inspection and comparison of billing statement

1. Renewable energy generation units shall forecast the generation capacity of their power plants in each trading period of the coming day in compliance with the regulation on renewable energy forecast specified in regulations on the electricity transmission system and electricity distribution system promulgated by the Ministry of Industry and Trade of Vietnam and provide quotations for all of the forecasted generation capacity of their power plants according to the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.
2. Electricity system and market operation units shall, based on the quotations for the coming day and/or the coming trading period of renewable energy generation units, carry out comparison with the value of forecasted generation capacity from other independent forecast sources and the scheduling of mobilization of power plants according to the regulation on electricity transmission system, the regulation on the dispatch procedure of the national electricity system, and the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam and relevant laws.
3. Electricity system and market operation units shall formulate billing statements on the revenues of renewable energy generation units in the spot electricity market in specific trading periods and billing periods and disclose them under the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.
4. Renewable energy generation units shall inspect, compare, and confirm the statements on the website of the electricity market under the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.

Article 11. Spot price

The spot price is the full market price, formed by each trading period of the spot electricity market and equal to the sum of the market price and capacity-add-on price. Specifically, the market price and capacity-add-on price are determined based on the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam

Article 12. Amounts payable to renewable energy generation units on spot electricity market

The total amount payable to renewable energy generation units on the spot electricity market shall be determined according to the following formula:

$$R_g = \sum_{i=1}^I Q_{mq(i)} \times FMP_{(i)}$$

Where:

1. R_g : Total market electricity payments in a billing period (VND).
2. $Q_{mq(i)}$: Measured electricity generated by renewable energy generation units in trading period i (kWh).
3. i : Trading period i in a billing period.
4. I : Total trading periods in a billing period.
5. $FMP_{(i)}$: Spot price of trading period i (VND per kWh).

Article 13. Payment procedure

1. The renewable energy generation unit, electricity system and market operation unit, and Vietnam Electricity (or authorized units) shall prepare, disclose, compare, and confirm statements on the spot electricity market following the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.
2. The renewable energy generation unit and Vietnam Electricity (or authorized units) shall carry out tasks concerning payment (payment record preparation, invoice adjustment, payment, payment adjustment, and other tasks) according to agreements specified in the power purchase agreement concluded between both parties.

Section 2. ELECTRICITY TRADING WITH POWER CORPORATIONS

Article 14. General principles

1. Clients or authorized electricity retailers shall purchase electricity from power corporations to meet all of their demands.
2. If the electricity consumption of clients or the purchased electricity of authorized electricity retailers in a trading period is lower than the electricity generated by renewable energy generation units in the same trading period (converted at the delivery point of clients or authorized electricity retailers), all of the electricity consumption of clients or the purchased electricity of authorized electricity retailers shall be paid based on the following cost components:
 - a) The cost of purchasing electricity from power corporations shall follow the spot price according to the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam (including electricity loss on electricity transmission grids and electricity distribution grids);
 - b) The cost of the use of electricity system services, including electricity transmission, distribution - electricity retail, electricity system dispatch, and regulation of transactions in the electricity market, sector regulation – management;
 - c) The cost of offsetting differences according to Appendix IV enclosed herewith.
3. If the electricity consumption of clients or the purchased electricity of authorized electricity retailers in a trading period is higher than the electricity generated by renewable energy generation units in the same trading period (converted at the delivery point of clients or authorized electricity retailers), make payments as follows:
 - a) The electricity consumption of clients or the purchased electricity of authorized electricity retailers corresponding to the electricity generated by renewable energy generation units shall be paid under Clause 2 of this Article.
 - b) The electricity consumption of clients or the purchased electricity of authorized electricity retailers that is different from the electricity generated by the renewable energy generation units shall be paid following the retail electricity price applicable to respective clients regarding subjects, use purposes, voltage levels, and daily use time of electricity under the regulation on electricity prices promulgated

by the Ministry of Industry and Trade of Vietnam.

Article 15. Power purchase agreements between clients or authorized electricity retailers with power corporations

Clients or authorized electricity retailers and power corporations (or authorized or assigned units) shall negotiate, come to terms, and conclude power purchase agreements following the main contents prescribed in Appendix II enclosed herewith, ensuring compliance with Article 22 of the Law on Electricity and relevant laws.

Article 16. Payment between clients or authorized electricity retailers and power corporations

1. The total cost of electricity purchased from power corporations by clients or authorized electricity retailers in each billing period of year N under power purchase agreements concluded between both parties shall be determined according to the following formula:

$$C_{KH} = C_{TTD} + C_{BL}$$

Where:

a) C_{KH} : The total cost of electricity purchased from power corporations by clients or authorized electricity retailers (VND);

b) C_{TTD} : The cost of electricity purchased from power corporations by clients or authorized electricity retailers in the electricity market (VND), determined according to the following formula:

$$C_{TTD} = C_{DN} + C_{DPPA} + C_{CL}$$

Where:

C_{DN} : The cost of electricity paid at the electricity market price (VND), determined according to Clause 2 of this Article;

C_{DPPA} : The cost of the use of the electricity system (VND), determined according to Clause 4 of this Article;

C_{CL} : The cost of offsetting differences, determined according to Appendix IV enclosed herewith (VND).

c) C_{BL} : The cost of electricity purchased at the retail electricity price in each trading period according to Clause 3 Article 14 of this Decree (VND), specifically:

$$C_{BL} = \sum_{i=1}^I (Q_{KH(i)} - Q_{KHhc(i)}) \times P_{BL(i)}$$

Where:

$P_{BL(i)}$: Current retail electricity price in trading period i promulgated by the Ministry of Industry and Trade of Vietnam (VND per kWh);

$Q_{KH(i)}$: Actual electricity consumption of clients or purchased electricity of authorized electricity retailers in period i (kWh);

$Q_{KHhc(i)}$: Adjusted electricity consumption of clients or authorized electricity retailers in trading period i (kWh), determined according to the following formula:

$$Q_{KHhc(i)} = \text{MIN} (Q_{KH(i)}; Q_{m(i)})$$

Specifically, $Q_{m(i)}$ is the actual electricity generated by renewable energy generation units, converted following the loss coefficient specified in Clause 3 of this Article. Where a client or an authorized electricity retailer has forward power purchase agreements with many renewable energy generation units or a renewable energy generation unit has forward power purchase agreements with many clients or authorized electricity retailers, the actual electricity generated by renewable energy generation units shall be determined following the agreed principle according to Point dd Clause 1 Article 26 of this Decree.

2. The components of electricity costs at the electricity market price in each billing period of year N (C_{DN}) shall be determined according to the following formula:

$$C_{DN} = \sum_{i=1}^I Q_{KHhc(i)} \times CFMP_{(i)} \times K_{PP}$$

Where:

a) i: Trading period i in a billing period (corresponding to the trading period of the spot electricity market);

b) I: Total trading periods of a billing period;

c) $Q_{KHhc(i)}$: Adjusted electricity consumption of clients or authorized electricity retailers in trading period i (kWh), determined according to Clause 1 of this Article;

d) $CFMP_{(i)}$: Electricity purchase price of the power corporation in the spot electricity market in trading period i (VND per kWh), determined under the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam;

dd) K_{PP} : Conversion factor by loss of electricity on the electricity distribution grid of the power corporation, determined according to Clause 3 of this Article.

3. Method of determining conversion factors by loss of electricity on electricity distribution grids (K_{PP}) applicable to power corporations in year N

a) Where clients or authorized electricity retailers purchase electricity with voltage levels from 22kV to under 110kV, K_{PP} shall be determined according to the following formula:

$$K_{PP} = \frac{1}{1 - L_{HV}} \times \frac{1}{1 - L_{MV}}$$

Where:

L_{HV} (%): Percentage of electricity loss on the electricity distribution grid with voltage levels of 110kV or higher in year N of the power corporation;

L_{MV} (%): Percentage of electricity loss on the electricity distribution grid with voltage levels from 22kV to under 110kV in year N of the power corporation.

b) Where clients or authorized electricity retailers purchase electricity with voltage levels of 110kV or higher, K_{PP} shall be determined according to the following formula:

$$K_{PP} = \frac{1}{1 - L_{HV}}$$

Where:

L_{HV} (%): Percentage of electricity loss on the electricity distribution grid with voltage levels of 110kV or higher in year N of the power corporation.

4. The cost of the use of the electricity system (C_{DPPA}) shall be determined according to the following formula:

$$C_{DPPA} = \sum_{i=1}^I Q_{KHhc(i)} \times C_{DPPAdv}$$

Where:

a) i: Trading period i in a billing period (corresponding to the trading period of the spot electricity market);

b) I: Total trading periods of a billing period;

c) $Q_{KHhc(i)}$: Adjusted electricity consumption of clients or authorized electricity retailers in trading period i (kWh);

d) C_{DPPAdv} : The cost of the use of the electricity system for one unit of electricity of year N (VND per kWh), including the cost of the use of the following services: electricity transmission, electricity retail – distribution, electricity system dispatch, regulation of transactions in the electricity market, and sector management – regulation, determined by the total cost and revenue of the quotas for stages of the mentioned services divided by the total domestic commercial electricity of power corporations with data for calculation collected from respective data in the schemes for the annual average retail electricity price of year N developed by Vietnam Electricity and inspected, reviewed, and commented on by competent authorities under the mechanism for adjustments to the average retail electricity price promulgated by the Prime Minister of Vietnam.

In case of not having any scheme for the annual average retail electricity price of year N mentioned above, data used for calculating C_{DPPAdv} shall be data from the results of the inspection of the cost of electricity production and trading of year N-2 with the revenue of the quotas for stages of electricity transmission, electricity retail – distribution, electricity system dispatch, regulation of transactions in the electricity market, electricity system support services, and sector management – regulation, determined by the equity multiplied by the return on equity in the schemes for annual average retail

electricity price of year N-2. Clients or authorized electricity retailers and power corporations shall pay the cost of the use of electricity system services for billing periods implemented from the beginning of the year until before the billing period containing C_{DPPAdv} calculated following schemes for annual average retail electricity price of year N.

5. Aside from the costs of electricity purchase relevant to the direct electricity trading prescribed in this Decree, in cases where clients or authorized electricity retailers and power corporations have other electricity trading activities, concerned parties shall negotiate, come to terms, and make payments according to regulations prescribed in agreements and relevant laws.

Section 3. ELECTRICITY TRADING BETWEEN CLIENTS OR AUTHORIZED ELECTRICITY RETAILERS AND RENEWABLE ENERGY GENERATION UNITS

Article 17. Forward power purchase agreements

1. Renewable energy generation units and clients or authorized electricity retailers shall negotiate and conclude forward power purchase agreements following the main contents prescribed in Appendix III enclosed herewith.

2. The term of a forward power purchase agreement, the contractual price, and the committed electricity in the forward power purchase agreement for future trading periods shall be agreed on by both parties.

Article 18. Payment between clients or authorized electricity retailers and renewable energy generation units

1. The contractual electricity and the contractual price for trading periods in the spot electricity market shall be agreed on by both parties.

2. The reference price shall be the spot price calculated and disclosed by the electricity system and market operation units under the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.

3. Clients or authorized electricity retailers and renewable energy generation units shall calculate and pay the contractual electricity prescribed in forward power purchase agreements by relying on the differences between the committed price in the agreements and the spot price (reference price) according to the following formula:

$$R_c = \sum_{i=1}^I [P_{c(i)} - FMP_{(i)}] \times Q_{c(i)}$$

Where:

a) R_c : Revenue of the renewable energy generation unit according to the forward power purchase agreement in a billing period (VND);

b) i : Trading period i in a billing period;

c) I : Total trading periods in a billing period;

d) $P_{c(i)}$: Committed price in the forward power purchase agreement (VND per kWh);

dd) $FMP_{(i)}$: Spot price in trading period i (VND per kWh);

e) $Q_{c(i)}$: Committed electricity in the forward power purchase agreement in trading period i (kWh).

Section 4. RESPONSIBILITIES OF UNITS

Article 19. Responsibilities of Vietnam Electricity

1. Come to terms and conclude power purchase agreements with renewable energy generation units when receiving documents requesting the sale of electricity and relevant documents from renewable energy generation units.

2. Inspect the calculation results of power corporations regarding the expected percentage of electricity loss of year N (K_{PP}) and disclose it before November 30 of year N-1.

3. Calculate and submit reports on the calculation results to the Ministry of Industry and Trade of Vietnam before disclosing decisions on the costs prescribed in Article 16 of this Decree, including:

a) The cost of the use of the electricity system services for one unit of electricity applicable to clients of power corporations of year N according to Point d Clause 4 Article 16 of this Decree before December 15 of year N-1.

Where the disclosure of the cost of the use of the electricity system services for one unit of electricity applicable to clients of power corporations of year N happens before December 15 of year N-1, calculated based on the inspection results of the cost of electricity production and trading of year N-2,

update the cost of the use of the electricity system services for one unit of electricity of year N under Point d Clause 4 Article 16 of this Decree within 7 working days after the schemes for annual average retail electricity price of year N are inspected, reviewed, and commented on by competent authorities under the mechanism for adjustments to the average retail electricity price promulgated by the Prime Minister of Vietnam;

b) Before the 30th of month M-1, calculate and disclose the cost of offsetting differences of month M-2 (P_{CL}).

Article 20. Responsibilities of electricity system and market operation units

1. Manage the registration for participation in direct electricity trading between renewable energy generation units and clients through the national grid, ensuring that the total generation capacity of renewable energy does not exceed the total generation capacity of renewable energy by each type of electricity source as prescribed in the approved national electricity development planning.

2. Operate the electricity system and market in compliance with the regulation on the electricity transmission system, the regulation on the dispatch procedure of the national electricity system, and the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam and relevant laws.

3. Disclose lists and electricity consumption of clients participating in direct electricity trading with renewable energy generation units through the national grid monthly.

4. Disclose lists and generated electricity of renewable energy generation units participating in direct electricity trading with clients through the national grid monthly.

5. Supervise, detect, and submit reports to the Ministry of Industry and Trade of Vietnam on arising issues and acts with signs of violations during the implementation of mechanisms for direct electricity trading.

Article 21. Responsibilities of renewable energy generation units

1. Invest in the development and commercial operation of power plants while ensuring the committed progress in applications for participation in direct electricity trading.

2. Register participation in the competitive wholesale electricity market; comply with the regulation on the operation of the competitive wholesale electricity market promulgated by the Ministry of Industry and Trade of Vietnam.

3. Conclude power purchase agreements on the electricity market with Vietnam Electricity; negotiate and conclude forward power purchase agreements with clients.

4. Provide information on the implementation and arising issues and difficulties during the implementation of the direct electricity trading at the request of competent authorities.

Article 22. Responsibilities of power corporations

1. Come to terms and conclude power purchase agreements with clients participating in direct electricity trading within 7 working days after receiving sufficient documents requesting electricity purchase and relevant documents from clients.

2. Invest in and install electricity measurement systems (including the main measurement system and backup measurement system), systems of collection of remote measurement data at measurement and delivery points with clients for calculation and payment as per regulation, excluding cases where there are other agreements with clients.

3. Before November 15 of year N-1, calculate the expected percentage of electricity loss of year N (K_{PP}) according to Clause 3 Article 16 of this Decree and present it to Vietnam Electricity for inspection and disclosure.

4. Provide information on the implementation and arising issues and difficulties during the implementation at the request of competent authorities.

Article 23. Responsibilities of electricity retailers

1. Negotiate with clients about the retail costs in the boundaries of industrial zones, economic zones, export-processing zones, industrial clusters, hi-tech parks, centralized information technology parks, and hi-tech application agricultural parks in conformity with the regulations of the Ministry of Industry and Trade of Vietnam within 30 days after receiving requesting documents and sufficient applications from clients.

2. Terminate power purchase agreements concluded with clients participating in direct electricity trading within 7 working days after agreeing with such clients on the retail costs in the boundaries of industrial zones, economic zones, export-processing zones, industrial clusters, hi-tech parks, centralized information technology parks, and hi-tech application agricultural parks, excluding cases prescribed in Clause 3 of this Article.

3. Electricity retailers authorized by clients according to Point c Clause 2 Article 2 of this Decree shall:
 - a) Come to terms with power corporations regarding the conclusion of power purchase agreements according to Clause 1 Article 24 of this Decree;
 - b) Revise and conclude power purchase agreements with clients to guarantee commitments according to Point a of this Clause;
 - c) Agree on the retail costs in the boundaries of industrial zones, economic zones, export-processing zones, industrial clusters, hi-tech parks, centralized information technology parks, and hi-tech application agricultural parks (from the general electricity purchase meters of authorized electricity retailers to the retail electricity meters for clients) and the arising costs from forward power purchase agreements concluded between renewable energy generation units and authorized electricity retailers.

Article 24. Responsibilities of clients

1. Clients engaging in electricity trading with power corporations shall:
 - a) Negotiate and conclude power purchase agreements with power corporations and forward power purchase agreements with renewable energy generation units;
 - b) Provide information on principles of allocation of actual generated electricity of renewable energy generation units to clients in each trading period for electricity system and market operations units and power corporations;
 - c) Provide information on the implementation and arising issues and difficulties during the implementation at the request of competent authorities.
2. Where clients grant authorization to electricity retailers, they shall:
 - a) Agree on the revision and conclusion of power purchase agreements with authorized electricity retailers to guarantee commitments according to Clause 1 of this Article;
 - b) Agree on the retail costs in the boundaries of industrial zones, economic zones, export-processing zones, industrial clusters, hi-tech parks, centralized information technology parks, and hi-tech application agricultural parks (from the general electricity purchase meters of authorized electricity retailers to the retail electricity meters of clients) and the arising costs from forward power purchase agreements concluded between renewable energy generation units and authorized electricity retailers.

Chapter IV

IMPLEMENTATION AND REPORT

Article 25. Procedure for participation in direct electricity trading through private connection lines

1. Renewable energy generation units or investors of renewable energy generation projects shall implement regulations concerning the planning, investment, development, and electricity operation licenses for grid and source projects and works for direct electricity sales to clients in compliance with Article 5 of this Decree.
2. Renewable energy generation units and clients shall negotiate, come to terms, and conclude power purchase agreements according to Article 6 of this Decree.
3. Clients shall submit written reports on the conclusion of direct power purchase agreements with renewable energy generation units (enclosed with copies of power purchase agreements) in person or by post to Provincial People's Committees in their areas while providing written notices (enclosed with copies of power purchase agreements) for power corporations (operating in their areas) and electricity system and market operation units.
4. Reports shall include the following main contents: notice about the conclusion of direct power purchase agreements between clients and renewable energy generation units; information of clients (locations of electricity consumption facilities, electricity use purposes, electricity use situations (if any), physical facilities for participation in the electricity market, and current electricity price (if any)); situations of renewable energy generation units (types of power plants, generation capacity, situations of power plants, physical facilities for participation in the electricity market, and current electricity price).

Article 26. Procedure for participation in direct electricity trading through the national grid

1. Where clients or authorized electricity retailers and renewable energy generation units prescribed in Clause 2 Article 2 of this Decree have agreements on participation in direct electricity trading through the national grid, clients or authorized electricity retailers shall submit applications for participation in direct electricity trading to the electricity system and market operation units in person or by post. An application includes:
 - a) Written request for participation in direct electricity trading;

- b) Written agreement on the principles concluded between the renewable energy generation unit and the client or authorized electricity retailer regarding the electricity trading through forward power purchase agreements according to Article 17 of this Decree when participating in direct electricity trading, including information on the expected conclusion of the forward power purchase agreement between both parties and expected termination of the current power purchase agreement of the renewable energy generation unit to participate in direct electricity trading;
 - c) Report on the situations of the renewable energy generation unit (power plant type, generation capacity, situations of the power plants physical facilities for participation in the electricity market, and current electricity price);
 - d) Information of the client or authorized electricity retailer (locations of electricity consumption facility, electricity use purposes, electricity use situations, physical facilities for participation in the electricity market, and current electricity price (if any));
 - dd) Written agreement on the principle of allocation of actual generated electricity of renewable energy generation units to clients or authorized electricity retailers in each trading period (Qm_(i)).
2. Clients in industrial zones, economic zones, export-processing zones, industrial clusters, hi-tech parks, centralized information technology parks, and hi-tech application agricultural parks or authorized electricity retailers shall provide the following additional documents according to Clause 2 Article 2 of this Decree:
- a) Documents on agreement with power corporations on the responsibility for installing electricity meters of clients or authorized electricity retailers meeting the technical conditions as per regulation and the expected electricity purchase cost according to Article 18 of this Decree;
 - b) In case of terminating agreements with electricity retailers: documents on agreement with electricity retailers on the expected termination of power purchase agreements concluded between both parties when participating in direct electricity trading and the retail costs in the boundaries of industrial zones, economic zones, export-processing zones, industrial clusters, hi-tech parks, centralized information technology parks, and hi-tech application agricultural parks (from the general electricity purchase meters of electricity retailers to electricity retail meters for clients);
 - c) In case of continuing agreements with electricity retailers: written authorizations of clients and documents on agreements on the revision of power purchase agreements with clients to participate in direct electricity trading.
3. Within 5 working days after receiving applications for participation in direct electricity trading according to Clauses 1 and 2 of this Article, electricity system and market operation units shall:
- a) Send the applications to power corporations and electricity retailers managing clients and verify the applications of clients or authorized electricity retailers and the possibility of converting the current power purchase agreements to direct electricity trading;
 - b) Send the applications to Vietnam Electricity for verification of the possibility of concluding power purchase agreements in the spot electricity market with renewable energy generation units according to Article 9 of this Decree;
 - c) Review the conformity of applications of clients or authorized electricity retailers submitted under Point dd Clause 1 of this Article. Where the actual generated electricity of renewable energy generation units subject to forward power purchase agreements with clients or authorized electricity retailers is not determined, electricity system and market operation units shall instruct clients or authorized electricity retailers to come to terms with renewable energy generation units regarding the allocation principle.
4. Within 5 working days after receiving applications sent by electricity system and market operation units:
- a) Power corporations and electricity retailers shall issue written confirmations to applications of clients or authorized electricity retailers regarding the readiness and the expected time for the conversion of power purchase agreements with clients or authorized electricity retailers and send them to the electricity system and market operation units;
 - b) Vietnam Electricity shall issue written confirmations regarding the readiness and the expected time to conclude power purchase agreements in the spot electricity market with renewable energy generation units and send them to the electricity system and market operation units.
5. Within 5 working days after receiving written responses from Vietnam Electricity, power corporations, and electricity retailers and written agreements on the principle of the allocation of the actual generated electricity from clients or authorized electricity retailers according to Point dd Clause 1 of this Article, electricity system and market operation units shall issue written responses to clients or authorized electricity retailers concerning:

The expected time to conclude spot power purchase agreements between Vietnam Electricity and

renewable energy generation units.

The expected time for the conversion of current power purchase agreements between power corporations or authorized electricity retailers and clients.

The expected time to apply direct electricity trading.

6. Vietnam Electricity, power corporations, electricity retailers, renewable energy generation units, and clients or authorized electricity retailers shall proactively negotiate and conclude agreements according to Articles 9, 15, and 17 of this Decree.

7. Renewable energy generation units, clients or authorized electricity retailers, and relevant units shall invest in and equip infrastructures meeting the conditions for participation in direct electricity trading and send written documents to the electricity system and market operation units regarding the confirmation of the completion of conditions for participation in direct electricity trading. Applications enclosed with the mentioned documents include applications for participation in the electricity market of electricity generation units and copies of agreements according to Articles 9, 15, and 17 of this Decree.

8. Electricity system and market operation units shall inspect applications according to Clause 7 of this Article and send written notices to renewable energy generation units according to the regulation on the operation of the electricity market promulgated by the Ministry of Industry and Trade of Vietnam while sending written notices to Vietnam Electricity, power corporations, electricity retailers, and clients or authorized electricity retailers about the official time to initiate direct electricity trading between renewable energy generation units and clients or authorized electricity retailers.

Article 27. Suspension, termination, and reinstatement of participation in direct electricity trading

1. Suspension of participation in direct electricity trading

a) Suspension of participation in direct electricity trading shall apply to clients or authorized electricity retailers and renewable energy generation units in the following cases: intermission of the electricity market according to the regulation on the operation of the competitive wholesale electricity market; one of the agreements of the mechanisms for direct electricity trading is suspended or expired, affecting the benefits of concerned parties; there are acts of taking advantage of policies and regulations for profiteering; clients participated in direct electricity trading have an average electricity consumption (average of 12 consecutive months) of less than 200.000 kWh per month.

b) Payment in case of suspending participation in direct electricity trading of clients or authorized electricity retailers and renewable energy generation units: clients shall make payments following the retail electricity price schedule according to regulations promulgated by the Ministry of Industry and Trade of Vietnam; authorized electricity retailers shall purchase electricity from power corporations following the current electricity price schedule; renewable energy generation units shall sell electricity to Vietnam Electricity (or authorized units) and negotiate and come to terms regarding the electricity generation prices in the renewable energy generation price bracket promulgated by the Ministry of Industry and Trade of Vietnam or other current regulations on electricity prices.

2. Termination of participation in direct electricity trading

a) Concerned parties shall terminate their participation in direct electricity trading in one of the following cases: voluntary termination at the request of concerned parties; there are acts of taking advantage of regulations and policies for profiteering, causing irreparable consequences;

b) In case of terminating participation in direct electricity trading, renewable energy generation units, clients, authorized electricity retailers, and power corporations shall negotiate and conclude power purchase agreements according to the current regulations.

3. Reinstatement of participation in direct electricity trading

a) Concerned parties shall reinstate their participation in direct electricity trading in one of the following cases: violations have been rectified as confirmed by competent authorities; competent authorities issue decisions to continue the operation of the electricity market;

b) In case of reinstating participation in direct electricity trading, units shall continue to implement agreements in concluded power purchase agreements.

4. Competence in suspension, termination, and reinstatement of participation in direct electricity trading

a) The Minister of Industry and Trade of Vietnam shall decide on the suspension and reinstatement of participation in direct electricity trading of clients or authorized electricity retailers and renewable energy generation units based on reports and requests from Vietnam Electricity, electricity system operation units, or other relevant agencies and organizations;

b) The Minister of Industry and Trade of Vietnam shall decide on the termination of participation in

direct electricity trading of clients or authorized electricity retailers and renewable energy generation units after collecting written feedback from relevant agencies (if any).

Article 28. Report

1. Reporting regulation applicable to direct electricity trading through private connection lines

a) Report on relevant information when implementing direct electricity trading through private connection lines

Name of the report: Report on direct electricity trading;

Content: Information on agreement parties (seller, buyer); agreed electricity; electricity price; other contents;

Subjects: Clients;

Receiving authorities: Ministry of Industry and Trade of Vietnam and People's Committees of provinces and centrally affiliated cities (only receiving reports from clients in areas under their management);

Submission: Through postal services:

Submission time limit: Within 10 days after the conclusion of the agreement on direct electricity trading through private connection lines.

b) Report on the results of direct electricity trading through private connection lines of year N-1

Name of the report: Report on the results of direct electricity trading through private connection lines of year N-1;

Content: Information on agreement parties (seller, buyer); electricity subject to trading in the year; costs of direct electricity purchase monthly and yearly; difficulties and suggestions;

Subjects: Clients;

Receiving authorities: Ministry of Industry and Trade of Vietnam and People's Committees of provinces and centrally affiliated cities;

Submission: Through postal services:

Submission time limit: Before January 30 of year N;

Submission frequency: Every year.

2. Reporting regulation applicable to direct electricity trading through the national grid

a) Report on the results of direct electricity trading through the national grid of month M-1

Name of the report: Report on the results of direct electricity trading of the preceding month;

Content: The total number of renewable energy generation units and clients or authorized electricity retailers participating in direct electricity trading; information on agreement parties (seller, buyer); electricity subject to trading in the month; costs of direct electricity purchase in the month; difficulties and suggested solutions (if any);

Subjects: Electricity system and market operation units and power corporations;

Receiving authorities: Ministry of Industry and Trade of Vietnam and People's Committees of provinces and centrally affiliated cities (only receiving reports from power corporations in areas under their management);

Submission: Through emails or postal services:

Submission time limit: Before the 20th of month M;

Submission frequency: Every month.

b) Report on the implementation and results of the implementation of direct electricity trading through the national grid nationwide of the preceding quarter

Name of the report: Report on the implementation and results of the implementation of direct electricity trading through the national grid nationwide of the preceding quarter;

Content: The total number of electricity generation units and clients or authorized electricity retailers participating in direct electricity trading; information on agreement parties (seller, buyer); electricity subject to trading in the quarter; costs of direct electricity purchase in the quarter; difficulties and suggested solutions (if any);

Subjects: Vietnam Electricity;

Receiving authorities: Ministry of Industry and Trade of Vietnam;

Submission: Through emails or postal services:

Submission time limit: Before the 30th of the first month of the quarter;

Submission frequency: Every quarter.

c) Report on the results of the implementation of direct electricity trading through the national grid of year N-1

Name of the report: Report on the implementation and results of the implementation of direct electricity trading through the national grid nationwide of year N-1;

Content: The total number of electricity generation units and clients or authorized electricity retailers participating in direct electricity trading; information on renewable energy generation units and clients; electricity subject to trading in the year; costs of direct electricity purchase in the year; difficulties and suggested solutions (if any);

Subjects: Vietnam Electricity, electricity system and market operation units, and power corporations;

Receiving authorities: Ministry of Industry and Trade of Vietnam and People's Committees of provinces and centrally affiliated cities (only receiving reports from power corporations in areas under their management);

Submission: Through emails or postal services:

Submission time limit: Before January 30 of year N;

Submission frequency: Every year.

Chapter V

IMPLEMENTATION PROVISIONS

Article 29. Implementation responsibilities

1. The Ministry of Industry and Trade of Vietnam shall:

a) Assume responsibility before the Government of Vietnam for implementing the consistent state management of contents prescribed in this Decree to ensure the national electricity security and electricity system safety according to the approved planning; promptly submitting reports to the Prime Minister of Vietnam based on the technical and technological responsiveness, responsive capability of the electricity transmission grid, demands for the development of electricity sources for participation in direct electricity trading for considerations and decisions on adjustments to the electricity planning according to the law on planning;

b) Take charge and cooperate with ministries directing relevant agencies and units to implement direct electricity trading; instructing, monitoring, and settling arising issues during the implementation of direct electricity trading within their jurisdiction;

c) Provide feedback on reports and calculation results of the cost of the use of the electricity system for one unit of electricity applicable to clients of power corporations of year N reported by Vietnam Electricity according to Clause 4 Article 16 of this Decree;

d) Inspect, supervise, and settle complaints and handle violations during the implementation of direct electricity trading;

dd) Take charge and cooperate with ministries in advising the Prime Minister of Vietnam on the solutions to the termination of participation in direct electricity trading of clients and renewable energy generation units.

2. People's Committees of provinces and centrally affiliated cities shall:

a) Assume responsibility for the state management of contents prescribed in this Decree within their local management scope;

b) Direct agencies specializing in electricity to inspect and supervise the implementation of power purchase agreements according to this Decree and relevant laws;

c) Inspect, supervise, and settle complaints and handle violations during the implementation of direct electricity trading by areas under their management.

3. Vietnam Electricity shall:

a) Organize and direct its affiliates to implement direct electricity trading;

b) Instruct and direct power corporations to compile the draft contents of power purchase agreements between them and clients according to Article 15 of this Decree;

c) Provide guidelines for power corporations on the processes of business, management, billing calculation, negotiation, conclusion of agreements with clients, time limit for invoice issuance, payment

time limit, billing records, and invoice forms applicable to clients participating in direct electricity trading;

d) Provide guidelines for power corporations on the payment of components of the costs of direct electricity trading services (costs of electricity transmission, electricity distribution-retail, electricity system dispatch, electricity market transaction regulation, electricity system support services, and payment differences) for relevant service providers;

dd) Provide guidelines for power corporations on the calculation of the percentage of electricity loss on the electricity distribution grid by each voltage level according to Clause 3 Article 16 of this Decree;

e) Assess the direct electricity trading implementation and carry out the reporting regulation according to Article 28 of this Decree.

4. Electricity system and market operation units shall provide guidelines for units participating in direct electricity trading through the national grid according to Article 20 of this Decree.

Article 30. Entry into force

1. This Decree comes into force from the date on which it is signed.

2. During the implementation, if any legislative document referred to in this Decree is amended, supplemented, or replaced, comply with its new edition.

3. Difficulties arising during the implementation of this Decree shall be reported to the Ministry of Industry and Trade of Vietnam for research and consideration for requesting the Government of Vietnam to make appropriate amendments.

**ON BEHALF OF THE GOVERNMENT
PP. PRIME MINISTER
DEPUTY PRIME MINISTER**

Tran Hong Ha