

VIETNAM SEALS THE DEAL: THE REGULATORY FRAMEWORK FOR BESS PPAS — PRICING, RISK ALLOCATION AND BANKABILITY

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Circular No. 62/2025/TT-BCT (“Circular 62”) issued on 10 December 2025 establishes Vietnam’s first comprehensive regulatory framework governing standalone Battery Energy Storage Systems (BESS) connected to the national power system. The Circular provides:

- The methodology for determining and approving annual electricity generation price brackets for BESS;
- The methods for calculating electricity generation service prices of BESS;
- Detailed pricing, adjustment, and settlement formulas, including foreign exchange adjustment mechanisms;
- A regulated Power Purchase Agreement (PPA) framework, including mandatory minimum contents.

Circular 62 issued by the Ministry of Industry and Trade of Vietnam (MoIT), effective 26 January 2026, is a key implementing instrument of the Law on Electricity 2024, directly impacting BESS investors, lenders, EVN, power corporations, electricity market operators, and off takers. While it adopts bankability-oriented principles (cost recovery, FX adjustment, IRR cap), pricing remains highly regulated and formula-driven.

Application and Exclusions

Regulated Entities

Circular 62 applies to:

- Owners of standalone BESS projects:
 - Voltage level: 110 kV or higher;
 - Capacity: 10 MW or higher;
 - Connected to the national power system;
 - Developed in accordance with the adjusted [Power Development Plan VIII](#) (2021–2030, vision to 2050);
- Electricity system and electricity market operators (including NSMO);
- Vietnam Electricity (EVN) and its member Power Corporations;
- Other relevant organizations and individuals.

Explicit Exclusions

The pricing methods and PPA contents under Circular 62 do not apply to:

- BESS integrated with renewable energy power plants under Circular 12/2025/TT-BCT;
- BESS invested by Power Corporations under Circular 17/2025/TT-BCT.

Electricity Generation Price Bracket

Structure

The electricity generation price bracket ranges from:

- Minimum price: 0 VND/kWh
- Maximum price: determined annually in accordance with Circular 62

Price Bracket Formula

Electricity generation price PC (VND/kWh):

$$P_c = P_{CD} + FOMC + P_{BD}$$

Where:

- P_{CD} – Average fixed cost (VND/kWh)
- FOMC – Fixed operation and maintenance cost (VND/kWh)
- P_{BD} – Variable price component (VND/kWh)

Average Fixed Cost (P_{CD})

Formula

$$P_{CD} = TC / E_{bq}$$

Where:

- TC – Annual converted investment capital (VND)
- E_{bq} – Average electricity delivered over multiple years (kWh)

Annual Converted Investment Capital (TC)

$$TC = (S_{DT} \times P_B) \times (1 + i)^n \times i / [(1 + i)^n - 1]$$

Where:

- S_{DT} – Investment rate (VND/kW)
- P_B – Installed capacity of BESS (kW)
- n – Economic life: 15 years
- i – Pre-tax weighted average cost of capital (WACC)

Discount Rate (i)

The discount rate ' i ' is determined based on the capital structure and cost components specified in Circular 62:

- Debt ratio (D): 70%
- Equity ratio (E): 30%

Borrowing cost (rd)

$$rd = D_F \times r_{d,F} + D_D \times rd,D$$

Where:

- D_F : 80% foreign-currency loans
- D_D : 20% VND loans
- $r_{d,F}$: 180-day average SOFR (36 consecutive months) + 3% margin
- rd,D : Average 12-month VND deposit rate (4 state-owned banks, 60 months) + 3% margin

Equity return (re)

$$r_e = r_{e,pt} / (1 - t)$$

Where:

- $r_{e,pt}$: Post-tax ROE = 12%
- t : Average corporate income tax rate (after applicable incentives)

Average Electricity Delivered (E_{bq})

$$E_{bq} = (P_B \times t_x \times T_{sx} / n) \times \eta_{RT} \times [1 - (k_v \times n)/2] \times (1 - t_{tt})$$

- **E_{bq}** : Average electricity delivered over the economic life
- P_B : Installed BESS capacity
- t_x : Discharge duration per cycle: 2 hours
- T_{sx} : Minimum charge–discharge cycles: 8,000
- n : Economic life (15 years)
- η_{RT} : Round-trip efficiency: 85%
- k_v : Average annual degradation rate
- t_{tt} : Self-use and loss rate

These parameters are applied over the entire economic life to determine average annual electricity delivered.

Variable Price Component (PBD)

$$P_{BD} = P_{mua} / [\eta_{RT} \times (1 - t_{tt})]$$

Where:

- P_{mua} : Retail electricity price during low-demand hours (VND/kWh)

Fixed Operation and Maintenance Cost (FOMC)

Formula

$$FOMC = TC_{FOMC} / E_{bq}$$

Total Fixed O&M Cost

$$TC_{FOMC} = SDT \times P_B \times k_{O\&M}$$

Where:

- $k_{O\&M}$: Fixed O&M cost ratio (%) based on approved feasibility study or reference benchmarks

Approval Procedure for Electricity Generation Price Bracket

- Within 15 days from approval of feasibility study and basic design: investor submits dossier to EVN;
- Before 1 November each year: EVN calculates (or appoints consultants to calculate) the price bracket and submits to the Electricity Authority;
- 05 working days: formal review of dossier completeness;
- 25 days: appraisal and submission to MoIT for approval;
- If a new bracket is not issued, the previous year's bracket applies temporarily.

Electricity Generation Service Price of BESS

Core Principles

- Recovery of reasonable and legitimate costs;
- Project IRR cap: 12%;
- Prices exclude VAT and statutory charges;
- Service price in the base year must not exceed the approved price bracket.

Components

- Capacity price (VND/kW)
- Energy price (VND/kWh)

Capacity Price and Energy Price (Base Year)

Capacity Price

$$P_{CS} = FC + FOMC_b$$

FC : Fixed average cost based on financial analysis as per template forms (Appendix III)

Energy Price

$$P_{DNb} = P_{mua} / [\eta_{RTB} \times (1 - t_{td})]$$

Where:

- $\eta_{RTB} \geq 85\%$
- t_{td} : Agreed self-use and loss rate

Price Adjustment Mechanisms

O&M Indexation

- Major repair and other costs: 2.5%/year;
- Personnel costs: CPI-based, capped at 2.5%/year.

Foreign Exchange Adjustment

$$FED = \sum_{i=1}^n \sum_{j=1}^m [D_{i,j} \times (\lambda_{i,j} - \lambda_{i,b})]$$

Where:

- $D_{i,j}$: Principal repayment of foreign currency i at time j
- $\lambda_{i,j}$: Actual exchange rate
- $\lambda_{i,b}$: Agreed base exchange rate

Power Purchase Agreement (PPA)

Mandatory Structure

- PPAs must follow Appendix IV;
- Vietnamese is the language; English version permitted for foreign investors;
- Monthly payment = capacity payment + energy payment;
- Availability thresholds:
 - <100 MW: 95%
 - ≥ 100 MW: 97%

Availability Penalties

Failure to meet availability requirements (excluding force majeure) triggers capacity compensation obligations.









Market Impact and Key Takeaways

- Circular 62 introduces Vietnam's first pro bankable standalone BESS regime;
- IRR cap and FX adjustment materially shape financing structures;
- Availability-driven revenue shifts risk to technical performance;
- Early alignment of feasibility study, lender model, and PPA is essential.





BESS PPA BANKABILITY MATRIX

Circular 62 – Appendix IV PPA





Overall Credit View (At a Glance)

Dimension	Assessment	Finance
Revenue predictability	 Strong	Regulated, formula-based
Availability risk	 High	Direct impact on cashflow
Dispatch risk	 Medium	Seller bears degradation
FX exposure	 Mitigated	Principal FX adjusted
Inflation risk	 Medium	O&M cap at 2.5%
Termination protection	 Weak	No full debt cover
Transfer / restructuring	 Medium	Buyer substitution risk
Overall bankability	 Bankable with mitigants	Conservative leverage

Revenue & Cashflow Structure




Item	PPA Position	Bankability Impact
Capacity payment	Availability-based	 Predictable base revenue
Energy payment	Cost pass-through	 Neutral
Dispatch dependency	None for capacity	 Removes market risk
Upside revenue	None	 No buffer for underperformance

Availability Risk (Core Credit Risk)

Aspect	Circular 62 / PPA Position	Finance Assessment
Availability threshold	95% (<100 MW) / 97% (≥100 MW)	 Aggressive
Penalty mechanism	Capacity payment reduction	 Direct DSCR impact
Cure period	Limited / annual reconciliation	 Weak
Cap on penalties	None	 Structural risk

Credit takeaway: Availability underperformance directly erodes debt service.

Dispatch & Operational Control

Item	Position	Risk Allocation
Dispatch authority	NSMO	Neutral
Seller control	None	 Medium
Degradation compensation	Not explicit	 Gap
Cycling optimization	Not permitted	 Medium

Finance concern: Dispatch-induced degradation risk is not explicitly compensated.

Pricing Adjustments & Indexation

Mechanism	Description	Credit Impact
IRR cap	12%	● Limits buffer
FX adjustment	Principal only	● Strong EM mitigant
O&M indexation	2.5% cap	● Long-term inflation risk
Interest FX	Not covered	● Partial hedge only

Offtaker & Payment Risk

Aspect	Position	Bankability
Buyer	EVN / PC	● State-backed
Government guarantee	None	● Standard VN risk
Payment security	Not mandated	● Weak
Payment history	Established	● Comfort factor

Finance response: DSRA + cash sweep.

Term & Termination Protection

Scenario	PPA Position	Finance View
Normal expiry	No tail protection	● Acceptable
Seller default	Limited compensation	● Risk
Buyer default	Regulatory compensation	● Partial
Debt outstanding cover	Not explicit	● Key gap

Change in Market Structure

Issue	Position	Credit Risk
Buyer transfer	Allowed without consent	● Counterparty risk
Seller transfer	Restricted	● Reduced flexibility
Step-in rights	Not explicit	● Requires workarounds

Security, Assignment & Step-In

Item	Status	Finance Position
Security assignment	Permitted	● Positive
Direct agreement	Not guaranteed	● Key negotiation
Step-in rights	Implied only	● Legal uncertainty

Force Majeure & Relief



Event

FM relief
Deemed availability
Long-stop

Treatment

Time relief
No
Not debt-protective

Bankability

Neutral
 Cashflow risk
 Medium

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