ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

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WEDNESDAY, THE TENTH DAY OF SEPTEMBER
TWO THOUSAND AND TWENTY-FIVE

(10.09.2025)

Present:

Sri P.V.R.Reddy,
Member & Chairman i/c

In the matter of the Andhra Pradesh Electricity Regulatory Commission [Planning, Procurement, Deployment, and Utilisation of Battery Energy Storage Systems (BESS)] Regulations, 2025

Statement of Reasons/Order

The Ministry of Power, Government of India, issued guidelines on 11.03.2022 for the procurement, utilisation, and integration of Battery Energy Storage Systems (BESS) as part of generation, transmission, and distribution assets, and for providing ancillary services in the electricity grid. Subsequently, in August 2023, the Government of India notified the National Framework for Energy Storage Systems to facilitate renewable energy integration, maintain grid stability, and enable market-based participation of storage technologies.

BESS has since emerged as a vital instrument for enhancing grid flexibility, maintaining frequency and voltage stability, managing peak demand, supporting the integration of renewable energy, and providing ancillary and balancing services.

In furtherance of these national initiatives, the Government of Andhra Pradesh notified the “Integrated Clean Energy Policy, 2024,” setting ambitious targets of adding over 160 GW of renewable energy capacity in the State and developing approximately 25 GWh of BESS under various modes. The policy aims to position Andhra Pradesh as a hub for clean energy and a storage capital of the country. In exercise of its powers under Section 108 of the Act, the Government requested the Commission to devise guidelines

and regulations for the development of BESSs and ancillary services within the State, in line with the MoP guidelines.

Considering all the above, the Commission published a Public Notice along with a copy of the draft regulation on its website on June 30, 2025, inviting comments/suggestions/objections from all stakeholders and interested parties on the draft regulation. In response, the Commission received comments/suggestions /objections on the draft regulation from 11 stakeholders. The following paragraphs discuss the comments/suggestions/objections received on the draft regulation, as well as the Commission's analysis and decisions on these. The Commission, in the course of its deliberations, has also taken the liberty of elaborating specific clauses to provide better clarity and address practical implementation requirements.

Comments received from stakeholders, along with the Commission's analysis and decisions.

1. **Clause 2(b): Aggregator(s) or Distributed Energy Resources (DER) Aggregators**

   Draft

   "Aggregator(s) or Distributed Energy Resources (DER) Aggregators" means an entity registered/ appointed with/ by the distribution licensee to provide aggregation of one or more services like demand response services under the demand response mechanism, Distributed Generation, Energy Storage, etc., within a control area. The aggregators shall support the DISCOM in the implementation of Distributed Generation like Solar Rooftop projects for residential & subsidised aggregation of consumers, DSM measures like Demand Aggregation of Industrial Consumers, empanelling vendors, construction of systems, disbursement of subsidies of the GoI, etc."

   Commission's analysis and decision

   The Commission considers that the role of DERAs should not be limited to residential or subsidised consumers, as was implied in the draft, but should extend to all categories of consumers. This ensures that DERAs can facilitate distributed generation and storage solutions for industrial, commercial, agricultural, and other consumers, thereby maximising system-wide benefits and ensuring equity in access. Accordingly, the responsibilities of DERAs have been broadened to include management, dispatch, metering, and settlement of DER energy, disbursement of rooftop subsidies within their aggregation, and empanelment of vendors and construction of systems, as applicable.

   Accordingly, the Commission is inclined to modify the clause as follows:

   "Distributed Energy Resources Aggregator or DERA" means an entity registered/

appointed with/by the distribution licensee to provide aggregation of one or more services such as demand response services under the demand response mechanism, Distributed Generation, Energy Storage, etc., within a license area. The aggregators shall assist the DISCOMs, inter alia, in the promotion of Distributed Generation/storage like Solar Rooftop projects with/without storage for all categories of consumers by managing, dispatching, metering, and settling the individual Distributed Energy Resources (DERs) energy, disbursement of rooftop subsidies, within their aggregation, as well as empanelling of vendors, and construction of systems, etc."

2. Clause 2(f): Banking

Draft

"2(f) "Banking" means a facility through which the unutilised portion of energy (underutilisation by the consumer or excess generation over and above the schedule by the generator) from any of the Green Energy Sources during a billing month is kept in a separate account and such energy accrued shall be treated in accordance with the conditions laid down in the Andhra Pradesh Electricity Regulatory Commission (Green Energy Open Access, Charges, and Banking) Regulation, 2024 (Regulation No 3 of 2024) as amended from time to time."

Comments received from Stakeholders

APCPDCL suggested modifying the definition of "Banking" to align with the Green Energy Open Access (GEOA) Regulation, 2024, by referring to "underutilization by the consumer within the day-ahead schedule.

Commission's analysis and decision

The Commission has examined the suggestion. The definition provided in the draft is already aligned with the provisions of the Andhra Pradesh Electricity Regulatory Commission (Green Energy Open Access, Charges, and Banking) Regulation, 2024 (Regulation No. 3 of 2024), which comprehensively governs the treatment of banked energy. Hence, there is no need to make further modifications to this clause. The draft definition is therefore retained as proposed.

3. Clause 2(g): Battery Energy Storage Systems

Draft

""Battery Energy Storage Systems" or "BESS" shall mean the system(s)/projects utilising methods and technologies such as electrochemical batteries (Lead Acid, Li-ion, solid state batteries, flow batteries, etc.), providing a facility that can store chemical

energy and deliver the stored energy in the form of electricity, including but not limited to ancillary facilities (grid support, for example). Such systems may be co-located with RE Generating Stations or may be operated/connected on a standalone basis at a Grid substation or a Distribution substation."

Comments received from Stakeholders

Sri Subrahmanyam Pulipaka suggested the inclusion of additional definitions:

"Long-Duration Energy Storage (LDES)" as storage systems capable of discharging for six hours or more, including technologies such as pumped hydro and flow batteries. "Thermal Energy Storage (TES)" is a system that stores energy in the form of heat for subsequent use.

Commission's analysis and decision

With respect to the suggestion to include definitions of "Long-Duration Energy Storage (LDES)" and "Thermal Energy Storage (TES)," the Commission notes that the present Regulation is confined to Battery Energy Storage Systems (BESS). Therefore, inclusion of technologies outside the defined scope of BESS is not warranted. All suggestions received about other technologies, such as thermal storage, are accordingly not considered in the present analysis under this or any other clause.

In the draft definition, a reference was made to BESS being co-located with renewable energy generating stations or operated on a standalone basis at grid or distribution substations. The Commission considers that these aspects relate to deployment configurations and connectivity arrangements, which are already addressed under the substantive provisions of the Regulation. Retaining them in the definition may lead to unnecessary duplication and restrict the definition to only specific configurations. To maintain a clear and technology-neutral definition, this reference is removed.

The Commission has reviewed the draft definition to ensure clarity, consistency with the overall framework of the Regulation, and alignment with evolving national policy and technological developments. Accordingly, the Commission is inclined to modify the definition as follows:

""Battery Energy Storage Systems" or "BESS" shall mean the system(s)/projects utilising methods and technologies such as electrochemical batteries (Lead Acid, Li-ion, solid state batteries, flow batteries, etc.), or any other battery technology as per the definitions, guidelines and directions issued by the Ministry of New and Renewable Energy (MNRE) from time to time, providing a facility that can store chemical energy

and deliver the stored energy in the form of electricity."

4. **Addition of a New definition as Clause 2(h): Battery Energy Storage System Developer**

Commission's analysis and decision

The Commission has, on a suo motu basis, examined the draft framework and observed that while definitions for "Battery Energy Storage System (BESS)" and "Aggregator" are provided, there is a need to add a definition for **Battery Energy Storage System Developer.** Accordingly, the Commission is inclined to insert the following definition as Clause 2(h):

"Battery Energy Storage System Developer" or "BESSD" or "Developer" *shall mean the entity owning/operating the BESS facility for the supply of power under this regulation."*

5. **Clause 2(k): Force Majeure**

Draft

""Force Majeure" means any event or circumstance which is beyond the reasonable direct or indirect control and without the fault or negligence of the Clean Energy Producer or Developer and which results in Clean Energy Producer's/Developer's inability, notwithstanding its reasonable best efforts, to perform its obligations in whole or in part and may include rebellion, mutiny, civil unrest, riot, strike, fire, explosion, flood, cyclone, lightning, earthquake, act of foreign enemy, war or other forces, theft, burglary, ionising radiation or contamination, Government action, inaction or restrictions, accidents or an act of God or other similar causes."

Comments received from Stakeholders

APTRANSCO requested a review of the inclusion of "theft, burglary" under the definition of "Force Majeure," as such risks are insurable and may not qualify as uncontrollable events.

Commission's analysis and decision

The Commission has examined the suggestion. It is noted that while such risks may be insurable, they are nevertheless circumstances beyond the reasonable control of an Energy Producer or Developer, and may materially affect the performance of contractual obligations. The principle underlying Force Majeure is that a party should not be penalised for non-performance where the cause is outside its control and not attributable to its negligence. The Commission also notes that recognition of

theft and burglary under Force Majeure is consistent with the enabling framework of the Andhra Pradesh Integrated Clean Energy Policy, 2024, which accounts for such contingencies in renewable energy project development.

Furthermore, the Commission notes that the draft definition refers explicitly to "Clean Energy Producer or Developer." To maintain consistency with the broader applicability of this Regulation, it is appropriate to adopt the more neutral terminology of "Energy Producer or Developer."

Accordingly, the Commission is inclined to modify the clause as follows:

2(l): ""Force Majeure" means any event or circumstance which is beyond the reasonable direct or indirect control and without the fault or negligence of the Energy Producer or Developer and which results in Energy Producer's/Developer's inability, notwithstanding its reasonable best efforts, to perform its obligations in whole or in part and may include rebellion, mutiny, civil unrest, riot, strike, fire, explosion, flood, cyclone, lightning, earthquake, act of foreign enemy, war or other forces, theft, burglary, ionising radiation or contamination, Government action, inaction or restrictions, accidents or an act of God or other similar causes."

6. Addition of New definition as Clause 2(u): Standalone BESS

Commission's analysis and decision

The Commission, on a suo motu basis, considers it necessary to define standalone Battery storage systems. Independent merchant storage facilities are expected to play a significant role in energy markets, capacity services, and ancillary services. To provide clarity, the definition of "Standalone BESS" is included in this Regulation as Clause 2(u):

***"Standalone BESS**" means a BESS operating independently as a merchant unit that has the capability to engage in energy or capacity trading in power markets or AS, in accordance with this Regulation.*

7. Addition of new definitions

Comments received from Stakeholders

Sri Praveen Kumar Sahukari suggested that "SRT" (Solar Rooftop) be explicitly defined in the Regulation to avoid ambiguity.

Commission's analysis and decision

The Commission observes that the definition of "SRT" (Solar Rooftop) is already explicitly provided in the APERC (Grid-Interactive Solar Rooftop Photovoltaic System

under Gross/Net Metering) Regulation, 2023 (Regulation No. 4 of 2023). Hence, no separate definition is required in the present Regulation.

8. Clause 4: Ownership and Business Models

Draft

"4.1 BESS may be developed and owned by:

- *Distribution Licensees;*
- *Transmission Licensees;*
- *System operators*
- *GENCOs*
- *Independent Power Producers (IPPs);*
- *Renewable Energy Developers;*
- *An independent energy storage service provider*
- *Aggregators;*
- *Any other third-party investors.*

4.2 BESS may be deployed as:

- *Co-located with renewable or conventional generators;*
- *Standalone grid-connected storage;*
- *Embedded in distribution or transmission networks;*
- *Behind-the-meter (consumer-level) storage.*

4.3 The Energy Storage System shall be utilised either as an independent energy storage system or as part of the generation, transmission, or distribution system or integrating the consumer's load with RE sources co-located behind the meter.

4.4 The Energy Storage System can be developed, owned, leased, or operated by a generating company, a transmission licensee, a distribution licensee, a consumer, a system operator, or an independent energy storage service provider.

4.5 The Energy Storage System shall have the same legal status as that of the owner: Provided that if such an Energy Storage System is not co-located with, but owned and operated by, the generating station or distribution licensee or consumer, the legal status shall still be that of the owner but for the purpose of scheduling and dispatch and other matters it shall be treated at par with a separate storage element."

Comments received from Stakeholders

Dr. Alejandro Hernandez submitted that the ownership role of regulated entities such as DISCOMs, APTRANSCO, and System Operators in BESS should be minimised, except where market failure occurs, to promote a competitive and independent ESS provider market. However, regulated entities may be allowed to own storage assets embedded in their networks, and safeguards should be introduced to avoid stifling competition.

APTRANSCO sought clarification on whether Transmission Licensees and System Operators can own BESS in light of Section 41 of the Electricity Act, 2003, which restricts transmission licensees from engaging in electricity trading. They also requested clarity on how BESS ownership would be reflected in ARR filings, how input/output energies would be treated, and whether BESS ownership by SLDC is consistent with Section 32 of the Act. Further, APTRANSCO suggested reviewing the boundary conditions for behind-the-meter BESS.

Sri Praveen Kumar Sahukari suggested bifurcating the category "Embedded in Distribution and Transmission" into two separate categories based on connection voltage: 6.6 to 33 kV for distribution, and above 33 kV for transmission.

Commission's analysis and decision

The Commission notes that the Electricity Act, 2003, provides a clear demarcation of functions for transmission licensees and distribution licensees. While Section 41 restricts transmission licensees from engaging in the business of electricity trading, it does not preclude ownership of assets such as BESS if they are integral to grid operation and network stability. Similarly, DISCOMs may deploy BESS assets where justified in the interest of consumer service and system efficiency, subject to a prudence check, and their costs shall be allowed in the ARR in line with applicable regulatory principles. Input and output energy treatment will follow accounting and settlement procedures to be separately notified, and stakeholders need not have apprehensions in this regard.

The Commission further notes that the National Framework for Promoting Energy Storage Systems (MoP, 2023) explicitly provides that *"independent energy storage systems shall be a delicensed activity at par with a generating company in accordance with Section 7 of the Act."* This reinforces the principle that an independent ESS market should be promoted, while permitting regulated entities to own storage assets embedded in their networks, where necessary, for operational requirements.

To address stakeholder concerns about competitive neutrality and promote a level

playing field, the Commission ensured that procurement of BESS by Licensees shall be undertaken through transparent competitive bidding.

Regarding ownership by SLDC, the Commission notes that SLDCs are System Operators whose primary role is to operate the State grid securely and economically under Section 32 of the Act. SLDC is permitted to own and operate BESS systems in accordance with this Regulation to achieve the broad aim of the Act. Its investment recovery will be considered as proposed by SLDC.

Regarding the "behind-the-meter" BESS boundary, as the name implies, the billing meter serves as the boundary.

Regarding the proposal to bifurcate the category "Embedded in Distribution and Transmission" based on connection voltage, the voltage levels to be handled by APTRANSCO and DISCOMS have already been notified in the AP State Grid Code.

The Commission notes the inclusion of deployment of BESS integrated with Electric Vehicle (EV) Charging Stations, Battery Swapping Stations, and with Electric Vehicles for Vehicle-to-Grid (V2G) and Grid-to-Vehicle (G2V) services. These applications align with the evolving national and state-level frameworks for electric mobility and distributed storage.

Considering the Integrated Clean Energy Policy, 2024 of the Government of Andhra Pradesh, which promotes EV adoption and enabling infrastructure, the Commission finds it appropriate to provide for such deployment categories explicitly. The participation of EVs, charging stations, and battery swapping facilities in storage markets can enable demand response services, strengthen distribution networks, and contribute to overall grid reliability.

After detailed analysis, the Commission is inclined to modify the draft as follows:

"4.1 BESS may be developed and owned by:

- *Distribution Licensees;*
- *Transmission Licensees;*
- *System operators*
- *GENCOs*
- *Independent Power Producers (IPPs);*
- *Renewable Energy Developers;*
- *An independent energy storage service provider*
- *Aggregators;*
- *Any other third-party investors.*

4.2 BESS may be deployed as:

- *Co-located with renewable or conventional generators;*
- *Grid-connected standalone storage;*
- *Embedded in distribution or transmission networks;*
- *Behind-the-meter (consumer-level) storage;*
- *Integrated with Electric Vehicle Charging stations and battery swapping stations;*
- *Integrated with Electric Vehicles for Vehicle-to-Grid (V2G) services and Grid-to-Vehicle (G2V) services.*

4.3 The Battery Energy Storage System shall be utilised either as an independent battery energy storage system or as part of the generation, transmission, or distribution system or integrating the consumer's load independently or with RE sources co-located behind the meter.

4.4 The Battery Energy Storage System can be developed, owned, leased, or operated by a generating company, a transmission licensee, a distribution licensee, a consumer, a system operator, or an independent battery energy storage service provider.

4.5 The Battery Energy Storage System shall have the same legal status as that of the owner:

Provided that if such a Battery Energy Storage System is not co-located with, but owned and operated by, the generating station or distribution licensee or consumer, the legal status shall still be that of the owner, but for the purpose of scheduling and dispatch and other matters, it shall be treated at par with a separate storage element."

9. Clause 5: Planning and Procurement

Sub-clauses 5(1), 5(2), 5(3) and 5(4)

Draft

"5.1 The reverse power flow from lower voltage to higher voltage at various substations shall be the criterion for finalising the BESS locations in the Distribution System or Transmission System by Distribution/Transmission licensees.

5.2 Preference shall be given to co-located BESS for the procurement of ancillary services by DISCOMS/TRANSCO/SLDC, as it will save grid integration costs.

5.3 Minimum individual project size of power rating of 1MW and above, with a suitable energy rating of at least four hours based on the application at one site.

5.4 The Distribution Licensees may also set up BESS at the DTR level to store the

power from SRTs locally. In such cases, the capacity as specified in clause 5.3 would not apply."

Comments received from Stakeholders

Sri Praveen Kumar Sahukari suggested revising the site selection criteria to prioritise factors such as maximising utilisation of existing transmission assets and reducing network congestion.

Sri Praveen Kumar Sahukari, APCPDCL, APSPDCL, and APTRANSCO suggested reducing the minimum energy rating from four hours to two hours. Some suggested defining it as at least one hour (1 MWh per 1 MW project size), to encourage participation of smaller players. APSPDCL suggested specifically revising Clause 5.3 to prescribe a minimum size of 1 MW/1 MWh instead of 1 MW/4 MWh.

Sri B.N. Prabhakar proposed removing the capacity of 1 MWh per 1 MW project size for open access or captive use.

Struja Consultancy suggested that the draft provision requiring at least four hours of storage does not account for two-hour storage configurations, which have been specified in several early-stage BESS tenders. It was recommended that minimum two-hour applications also be permitted. Instead of seeking approval for each procurement, the Commission may notify a benchmark cost (Rs./MWh) for BESS capacity, thereby streamlining the approval process and reducing the burden on both licensees and the Commission.

Dr. Alejandro Hernandez questioned the preference for co-located BESS, submitting that compensation should be based on the value of service provided rather than location.

Commission's analysis and decision

On procurement preference to co-located BESS, it may be noted that the Regulation does not mandate preferential treatment in procurement; instead, it seeks to encourage co-located installations, as such projects can reduce grid integration costs, minimise curtailment of renewable energy, and enhance reliability of supply.

On the minimum energy rating, the Commission notes that BESS with very short discharge durations may not provide meaningful grid support. However, the Commission recognises the need to encourage smaller participants, particularly at the consumer and distribution transformer level, where flexibility is required. Therefore, considering the suggestions, the four-hour energy rating requirement for grid-connected BESS projects of 11 kV and above is changed to two hours; for

behind-the-meter and LT-level installations, open access and captive users, this may be as per the consumer's choice.

On the suggestion for benchmark cost specification, the Commission considers that technology costs are rapidly evolving and are best discovered through competitive bidding. Hence, the Commission does not find it appropriate to fix a benchmark cost at this stage.

Accordingly, the Commission is inclined to modify the clauses as follows:

"5.1 The reverse power flow from lower voltage to higher voltage at various substations shall be the criterion for finalising the BESS locations in the Distribution System or Transmission System by Distribution/Transmission licensees

5.2. The DISCOMs/TRANSCO shall encourage the installation of BESS at the co-location at the generation point for ancillary services, as this will reduce grid integration costs.

5.3 Minimum individual project size of power rating of 1MW and above, with a suitable energy rating of at least two hours based on the application at one site, connected at 11 kV or above.

5.4 The Distribution Licensees may also set up BESS at the DTR level to store the power from SRTs locally. In such cases, the capacity as specified in clause 5.3 would not apply. For OA/captive users, consumers installing behind-the-meter BESS at any voltage level and the LT level, the ratings may be as per their choice."

10. Clause 6: Utilisation for Ancillary Services

Draft

"BESS shall be eligible to provide:

- *Frequency regulation (primary, secondary, tertiary);*
- *Spinning and non-spinning reserves;*
- *Voltage support;*
- *Black start services."*

Comments received from Stakeholders

Dr. Alejandro Hernandez suggested expanding the listed benefits of BESS to include energy arbitrage and its use as a capacity resource.

Dr. Alejandro Hernandez and Dr. Himanshu Anand suggested that BESS services should explicitly include "capacity resource" and "resource adequacy." They recommended a comprehensive assessment of BESS requirements, optimised

resource adequacy planning, estimation of storage requirements considering discharge duration and technology, comprehensive evaluation of reserve requirements, and clearer definitions of the role of BESS in ancillary services.

Commission's analysis and decision

The Commission notes that the draft regulation already provides a broad framework for the utilisation of BESS in ancillary services. Suggestions were received to recognise BESS as a "capacity resource" and to integrate it into "resource adequacy" assessments. The Commission observes that BESS, by virtue of its capability to both absorb energy (sink) and discharge energy (source), can provide valuable flexibility in balancing demand and supply and supporting grid reliability. Accordingly, while BESS shall not be treated as conventional generation, its contribution shall be considered in resource adequacy planning frameworks, subject to appropriate assessment of duration, performance, and availability.

The Commission also recognises that BESS can support emerging demand response applications, particularly in coordination with electric vehicles (EVs) and battery swapping stations. To capture this flexibility, the draft clause is expanded to include demand response services explicitly as below.

"BESS shall be eligible to provide:

- *Frequency regulation (primary, secondary, tertiary);*
- *Spinning and non-spinning reserves;*
- *Voltage support;*
- *Black start services;*
- *Demand response services."*

11. Clause 7: Role of Aggregators

Draft

"7.1 Aggregators may aggregate BESS resources from multiple sites to provide services to the grid or to market participants.

7.2 Aggregators shall register with SLDC and obtain approval from it following the notified eligibility conditions."

Comments received from Stakeholders

Dr. Alejandro Hernandez suggested that aggregators of ESS should require approval by the State Commission to ensure consumer protection and financial adequacy.

Sri B.N. Prabhakar suggested exempting developers and aggregators who have

agreements with DISCOMs from SLDC registration requirements, to encourage smaller investors.

Sri B.N. Prabhakar, APCPDCL, and APSPDCL suggested allowing distribution licensees to act as aggregators for smaller developers and that aggregators should be permitted to pool BESS and DER across multiple sites. They sought clear definitions of the scope of work, responsibilities, cost-sharing, and revenue-sharing mechanisms for aggregators.

APCPDCL and APSPDCL suggested the insertion of a new clause requiring the SLDC, in consultation with DISCOMs, to prepare eligibility conditions and operating procedures for aggregators within three months of notification of the Regulation, subject to Commission approval.

Commission's analysis and decision

The Commission has examined the suggestions carefully. The approval of aggregators by the Commission, as suggested, may not require such licensing and prudential checks are better addressed through protocols established by SLDC in consultation with DISCOMs. Therefore, explicit Commission approval is not required. As Aggregators are required to be registered with the DISCOMs, registration with SLDC is redundant. If the DISCOMS propose themselves in aggregate, they are not prevented by this Regulation.

With respect to the suggestion for SLDC to prepare detailed eligibility conditions and operating procedures in consultation with Licensees, the Commission notes that this aspect has already been addressed under Clause 14 of the Regulation.

Accordingly, the draft is modified ss follows:

"7.1 Aggregators may aggregate BESS resources (co-located storage, grid-connected standalone storage, EVs, EV charging stations with BESS, battery swapping stations, distributed renewable energy resources with BESS, etc.) from multiple sites to provide services to the SLDC/TRANSCO/DISCOMs or other market participants.

7.2 Aggregators registered/appointed with/by the DISCOMs shall follow the protocols issued by SLDC."

12. Clause 8: Commercial Agreements

Draft

"Aggregators and AS providers may enter into commercial agreements with Licensees or other market participants for the provision of BESS services."

Comments received from Stakeholders

Sri B.N. Prabhakar suggested that since licensees already require the Commission's approval for BESS procurement through competitive bidding, they may be permitted to enter into commercial arrangements with aggregators without separate clearance. In such cases, the DISCOM could act as an aggregator by partnering with solar projects integrated with BESS and selling the power on the exchange at the discovered price, thereby earning a margin of seven paise per unit while facilitating the faster deployment of RE–BESS projects in the distribution network. This arrangement would also provide the DISCOM with assured backup power from BESS systems in situations where exchange procurement is not successful.

Commission's analysis and decision

The draft provision already enables licensees and market participants to enter into commercial agreements, as the case may be. Suggestion that the DISCOMS may collect trading margin for acting as an aggregator, blanket permission to enter contracts with parties, will lead to unnecessary issues. However, the APDISCOMS were not prevented from developing a draft commercial arrangement for aggregating BESSs from small consumers and submitting it to the Commission for approval.

The draft is retained as notified.

13. Clause 9: Tariff and Market Participation

Draft

"9.1 Cost recovery for Licensee-owned BESS assets shall be through tariff determination by the Commission based on prudent investment norms. For procurement from BESS service providers, the Commission will adopt the tariff determined under competitive bidding.

9.2 Market-linked BESS services shall be compensated based on market-clearing prices in the ancillary services market or other mechanisms approved by the Commission."

Comments received from Stakeholders

Sri Praveen Kumar Sahukari suggested making tariff-based competitive bidding mandatory for all BESS projects, including those owned by distribution licensees.

Dr. Alejandro Hernandez suggested that BESS resources may require additional financial support beyond market-based ancillary service revenues and recommended that the Commission explore mechanisms to complement market revenues.

APSPDCL suggested inserting a clause to ensure transparency, fairness, and open access in competitive bidding for BESS services, with discovered tariffs benchmarked against national-level bids (e.g., SECI, NHPC, NTPC). They also suggested introducing a clause to encourage pooled procurement at the DISCOM level to capture economies of scale.

Commission's analysis and decision

The draft regulation already stipulates that procurement from BESS service providers will be through tariff-based competitive bidding. Further clarity will be provided in the final Regulation.

Regarding the suggestion that BESS resources may require additional financial support beyond market-based ancillary service revenues, it may be that electrochemical battery technologies, particularly lithium-ion, have attained commercial maturity and are being widely deployed in global power systems for frequency regulation, reserves, and peak support. The revenue recovery is accordingly provided in the Regulation for procurement by the Licensees.

The Regulation is therefore designed on the basis that BESS shall primarily recover costs through market-based mechanisms. At the same time, the Regulation does not restrict the applicability of any additional support schemes such as Viability Gap Funding, subsidies, or concessional finance that may be notified by the Central or State Government or considered by the Commission through separate instruments.

The Commission also notes that the National Framework for Promoting Energy Storage Systems (MoP, 2023) provides that *"ESSs that use renewable energy for charging may be provided with carbon credits, with the detailed methodology for accounting to be released separately."* Such instruments, when operationalised, would supplement market revenues and further incentivise renewable energy–linked storage deployment. The Commission clarifies that these benefits, if made available, would operate in complement to market-based revenues, but are not a precondition for the commercial deployment of BESS under this Regulation.

The Commission further observes that BESS can act as a critical enabler for renewable energy integration, and consumption of RE stored in BESS should retain its renewable character. To incentivise storage-backed RE consumption, the Commission considers it appropriate to allow RPO/RCO benefit to obligated entities and consumers for renewable energy procured, stored in BESS, and subsequently consumed.

On the suggestion to incorporate a separate clause to encourage pooled procurement

at the DISCOM level to capture economies of scale, the Commission already discussed this issue in earlier paragraphs.

Based on the above analysis, the draft is modified as follows:

"9.1 All procurement of BESS capacity and services by Licensees shall be undertaken only through tariff-based competitive bidding.

9.2 The Commission shall determine the cost recovery for Licensee-owned BESS assets based on prudent investment norms and the relevant regulations.

9.3 Market-linked BESS services shall be compensated based on market-clearing prices in the ancillary services market or other mechanisms approved by the Commission.

9.4 Renewable energy procured and used for charging BESS shall retain its renewable character upon discharge and consumption. Accordingly, obligated entities or consumers shall be eligible to claim the RPO/RCO benefit for such consumption."

14. Clause 10: Technical Standards

Draft

"10.1 BESS installations shall conform to technical standards specified by the CEA and other relevant authorities. BESS shall comply with technical specifications approved by MNRE.

10.2 BESS providers shall submit periodic data to SLDC and the Commission in the prescribed formats notified by SLDC."

Comments received from Stakeholders

APTRANSCO suggested mandating live SCADA data submission in addition to periodic reporting requirements.

Commission's analysis and decision

Considering the suggestion, the Commission is inclined to modify the clause as follows:

"10.1 BESS installations shall conform to technical standards specified by the Central Electricity Authority (CEA), MNRE and other relevant authorities. They shall abide by all the relevant rules and regulations framed under the Electricity Act, 2003, including the Indian Electricity Grid Code (IEGC), Grid Connectivity Standards, and other relevant rules/procedures issued by the Commission from time to time.

10.2 BESS providers shall submit real-time and periodic data to SLDC in the prescribed formats notified by SLDC."

15. Clause 11: Safety, Cybersecurity, and Environmental Norms

Sub-clauses 11(2) and 11(3)

Draft

"11.2 Cybersecurity and communication protocols shall adhere to the guidelines of the Ministry of Electronics and Information Technology (MeitY), the Central Electronics Authority (CEA), and the Ministry of Power (MoP).

11.3 Environmental management and end-of-life disposal of batteries shall be in accordance with the guidelines/regulations of the SPCB, MoEF&CC."

Comments received from Stakeholders

APTRANSCO suggested including end-of-life battery disposal within the responsibilities of the BESS Owner/Developer.

APCPDCL suggested replacing the Central Electronics Authority with the Central Electricity Authority for alignment with national cybersecurity protocols.

Commission's analysis and decision

Considering the suggestions, the draft is modified as follows:

"11.2 Cybersecurity and communication protocols shall adhere to the guidelines of the Ministry of Electronics and Information Technology (MeitY), the Central Electricity Authority (CEA), and the Ministry of Power (MoP).

11.3 Environmental management and end-of-life disposal of batteries shall be in accordance with the guidelines/regulations of the Government of India/GoAP. The responsibility of disposal shall lie with the owner of the BESS."

16. Clause 12: Role of Distribution Licensees

Draft

"12.1 The Distribution Licensees shall publish potential sites at the 11 kV voltage level in their 33/11 kV substations for establishing a BESS of the required capacities based on the feeder level solarisation and SRT installations in the feeder purview. This data shall be updated annually.

12.2 Licensees shall include BESS in their resource planning and file their proposals for Commission approval through investment plans, MYT filings, or other regulatory mechanisms.

12.3 BESS procurement by Licensees shall be undertaken through competitive bidding, subject to guidelines issued by the Government of India, if any."

Comments received from Stakeholders

Sri Praveen Kumar Sahukari suggested that the Commission publish annually, on its website, the identified BESS deployment sites to ensure transparency and informed participation.

APSPDCL suggested inserting a clause permitting recovery of prudent BESS costs through ARR in the annual tariff process, and creating a dedicated Viability Gap Funding (VGF) mechanism using penalty amounts from RPPO/DSM to support BESS procurement.

Commission's analysis and decision

Regarding the publication of information on the Commission's website, the Regulation already stipulates that such information is available on the DISCOMS' websites. However, the Commission also considers it appropriate to strengthen the transparency requirements by mandating that Licensees publish not only feeder/substation level information but also the list of Distribution Transformers (DTs) where rooftop solar (SRT) systems exceed 50% of the DTR capacity. Transparent publication of such DTs will enable proactive planning for BESS deployment to mitigate intermittency, manage reverse flow, and ensure safe and reliable operation of the distribution system. It will also provide developers and aggregators with greater visibility of grid constraints, thereby facilitating more efficient siting of storage assets and enhancing system resilience. Further, to promote openness in the market, Distribution Licensees shall also publish on their websites the list of Aggregators registered or approved under these Regulations.

It is appropriate to clarify the applicability of competitive bidding requirements. To avoid overlap with the provisions for Distribution Licensee–owned BESS installations specified under Clause 9.2, it is therefore specified that competitive bidding shall apply in all cases except those explicitly covered therein.

On the issue of cost recovery, the Commission accepts that prudent and approved BESS-related costs shall be recoverable through ARR in the tariff process, subject to prudence checks and performance conditions.

Regarding a Viability Gap Funding mechanism using RPPO/DSM penalties, the same will be examined at the time of passing relevant Orders on the subject matter.

Additionally, the Commission notes that behind-the-meter BESS installations, if their database is not recorded, may remain unknown to the DISCOMs, affecting network planning, load management, and system reliability. Maintaining a database of such

systems is therefore essential for effective planning.

Further, for orderly participation of BESS resources in ancillary services, the responsibility for registering AS providers and Aggregators must rest with the DISCOMs, as they are the first point of interface with consumers and prosumers.

Based on the above analysis, the draft is modified as follows.

"12.1 The Distribution Licensees shall publish on their websites potential sites at the 11 kV voltage level in their 33/11 kV substations for establishing a BESS of the required capacities based on the feeder-level solarisation and SRT installations in the feeder purview. The Distribution Licensees shall also identify Distribution Transformers (DTs) where Solar Rooftop (SRT) systems have capacities exceeding fifty percent of the DTR capacity, and shall publish such list on their websites, updating it on an annual basis.

12.2 The DISCOMs shall register the AS providers and Aggregators in accordance with this Regulation.

12.3 The Distribution Licensees shall include BESS in their resource planning and file their proposals for Commission approval through investment plans, MYT filings, or other regulatory mechanisms. All approved expenditure on BESS shall be recoverable through ARR:

a. *Payments for BESS ancillary services procurement shall be claimed under Power Purchase Cost (PPC) as a separate sub-head titled "Expenditure on Ancillary Services / Energy Storage Services" in the ARR of Retail Supply Business.*
b. *Expenditure on Licensee-owned BESS assets shall be treated as capital expenditure and recovered through depreciation, RoE/RoCE, and O&M in the Distribution Business ARR, under a dedicated budget head for energy storage.*
c. *Where BESS procurement is undertaken through competitive bidding by paying a fixed cost, such expenditure shall be claimed under a separate head, under other relevant expenditure in the Distribution Business ARR, to ensure transparency and proper regulatory scrutiny.*

12.4 BESS procurement by Licensees, in cases not covered under clause 9.2, shall be undertaken only through competitive bidding, subject to guidelines issued by the Government of India, if any.

12.5 The DISCOMs shall maintain a database of information regarding the behind-the-meter BESS systems installed within their licensed area for planning purposes.

12.6.The Distribution Licensees shall also publish on their websites the list of Aggregators registered/approved under these Regulations."

17. Clause 13: Role of APTRANSCO

Draft

"13.1 Licensees shall include BESS in their resource planning and file their proposals for Commission approval through investment plans, MYT filings, or other regulatory mechanisms.

13.2 BESS procurement by Licensees shall be undertaken through competitive bidding, subject to guidelines issued by the Government of India, if any.

13.3 APTRANSCO shall prepare the standard agreement format for procuring ancillary services and obtain the Commission's approval before entering into agreements."

Comments received from Stakeholders

APCPDCL suggested replacing "APTRANSCO" with the generic term "Transmission Licensee" to account for future sector developments.

Commission's analysis and decision

On the suggestion of APCPDCL to replace "APTRANSCO" with the generic term "Transmission Licensee," it may be noted that under the present sector structure, APTRANSCO is both the designated State Transmission Utility (STU) and the Transmission Licensee in Andhra Pradesh. Assigning responsibility specifically to APTRANSCO, therefore, reflects the prevailing statutory arrangement. The responsibility to prepare the standard agreement for procuring ancillary services is confined to APTRANSCO alone and is not extended to other licensees, as their scope of operation is limited and does not encompass system-level ancillary service procurement.

However, on the issue of cost recovery by APTRANSCO, the draft requires modification. Also, to avoid overlap with the provisions for licensee-owned BESS installations specified under Clause 9.2, it is appropriate to specify that competitive bidding shall apply in cases other than those explicitly covered therein.

Additionally, the Commission notes that behind-the-meter BESS installations connected to APTRANSCO's network, if their database is not recorded, may remain unknown to APTRANSCO, affecting network planning, load management, and system reliability. Maintaining a database of such systems is therefore essential for effective planning

Based on the above analysis, the Commission is inclined to modify the draft as follows:

"13.1 Licensees shall include BESS in their resource planning and file their proposals for Commission approval through investment plans, MYT filings, or other regulatory mechanisms. All approved expenditure on BESS shall be recoverable through ARR:

a. *Expenditure on Licensee-owned BESS assets shall be treated as capital expenditure and recovered through depreciation, RoE/RoCE, and O&M in the Transmission Business ARR, under a dedicated budget head for energy storage.*

b. *Where BESS procurement is undertaken through competitive bidding by paying a fixed cost, such expenditure shall be claimed under a separate head, under other relevant expenditure in the Transmission Business ARR, to ensure transparency and proper regulatory scrutiny.*

13.2 BESS procurement by Licensees, in cases not covered under Clause 9.2, shall be undertaken only through competitive bidding, subject to guidelines issued by the Government of India, if any.

13.3 APTRANSCO shall prepare the standard agreement format for procuring ancillary services and obtain the Commission's approval before entering into agreements.

13.4 The APTRANSCO shall maintain a database of information regarding the behind-the-meter BESS systems installed within its licensed area for planning purposes."

18. Clause 14: Role of Nodal Agency (APSLDC)

Draft

"13.4 APSLDC shall verify the governor settings of all generators regarding their automatic primary response to changes in the system frequency, as per IEGC, for the automatic adjustment of generation to meet demand in the System. The action taken and status report shall be posted on its website within three months from the date of the publication of this Regulation. The report shall also specify the requirements for the BESS capacity required under SRAS or TRAS, as well as the locations in the Grid Substations. The report shall be updated annually.

13.5 The SLDC shall estimate the requirement of SRAS and TRAS for each DISCOM area for the specified period, using an appropriate methodology, and publish the same on its website. It shall reassess the requirement of SRAS and TRAS on a day-ahead basis, along with any incremental requirements on a real-time basis, and update this information on its website.

13.6 The SLDC shall register eligible BESS resources for ancillary services through Aggregators/AS, based on technical criteria and operational performance. The SLDC shall prepare the eligible conditions for registration of Aggregators/AS providers within one month from the date of the notification of this Regulation.

13.7 The SLDC shall prepare a procedure for Scheduling, Metering, Accounting, mechanisms for remuneration, settlement, and verification of ancillary service provision for approval of the Commission within one month from the date of publication of this Regulation.

13.8 The SLDC shall monitor:

- *State of Charge (SoC),*
- *Round-Trip Efficiency,*
- *Availability and response time,*
- *Aggregated performance metrics.“*

Comments received from Stakeholders

APTRANSCO suggested a review of the statement regarding governor settings for all generators, noting that this requirement is more applicable to thermal plants than BESS. It also suggested specifying that BESS resources connected at 33 kV and above should be covered under ancillary services registration procedures, and clarifying that scheduling, metering, and accounting procedures are applicable for BESS connected at 33 kV and above.

Commission’s analysis and decision

Regarding the suggestion on verification of governor settings, the draft by omission has not mentioned thermal generators. APSLDC’s assessment of primary response shall serve as an input for determining the additional PRAS (Primary Response Ancillary Services) requirements from BESS. Similarly, the requirement to estimate ancillary service needs should be expanded to cover PRAS, SRAS, and TRAS in a systematic manner, with both forward-looking and real-time assessments published on the SLDC’s website.

Regarding registration, the Commission notes that the registration of BESS resources for ancillary services should be based on technical criteria and operational performance. Since effective implementation requires coordination across transmission and distribution utilities, the SLDC shall prepare the eligibility conditions for registering aggregators/AS providers in consultation with APTRANSCO and the DISCOMs for all voltage levels, as APSLDC is the system operator.

Based on the above analysis, the draft is modified as follows.

"14.1 APSLDC shall verify the governor settings of all thermal generators regarding their automatic primary response to changes in the system frequency, as per IEGC, for the automatic adjustment of generation to meet demand in the System. The action taken and status report shall be posted on its website within three months from the date of the publication of this Regulation. Accordingly, it shall arrive at the PRAS required from BESS. The report shall also specify the requirements for the BESS capacity required under SRAS or TRAS, as well as the locations in the Grid Substations. The report shall be updated annually and published on its website.

14.2 The SLDC shall estimate the requirements of PRAS, SRAS, and TRAS for each DISCOM area for the specified period, using an appropriate methodology, and publish the results on its website. It shall reassess the requirement of SRAS and TRAS on a day-ahead basis, along with any incremental requirements on a real-time basis, and update this information on its website.

14.3 The SLDC shall specify eligibility criteria for BESS resources to provide ancillary services, based on technical criteria and operational performance, and publish on its website within one month from the date of notification of this Regulation.

14.4 The SLDC, in consultation with TRANSCO and DISCOMs, shall prepare and publish on its website the eligibility criteria for the registration of Aggregators/AS providers within one month from the date of notification of this Regulation.

14.5 The SLDC shall prepare a procedure for Scheduling, Metering, Accounting, Settlement, and Commercial mechanisms for the operationalisation of ancillary services, for approval by the Commission, within two months from the date of publication of this Regulation.

14.6 The SLDC shall monitor:

- *State of Charge (SoC),*
- *Round-Trip Efficiency,*
- *Availability and response time,*
- *Aggregated performance metrics."*

19. Clause 15: Role of GENCOS/IPPs/CPPs

Draft

"RE developers may establish BESS at the generation point, or co-location, or separately and participate in the competitive bidding conducted by licensees, or may participate in the ancillary market as per the Central Electricity Regulatory Commission

(Ancillary Services) Regulations, 2022, as amended from time to time. RE IPPs may also establish BESS at the point of generation for their own use or their consumers through open access."

Commission's analysis and decision

The Commission has undertaken a suo motu review of this provision to ensure clarity, inclusiveness, and consistency with the overall framework of the Regulation. The draft clause confined the participation of storage largely to renewable energy developers. The Commission observes that storage facilities may be established not only by renewable energy developers but also by generating companies (GENCOs), independent power producers (IPPs), captive power plants (CPPs), and independent Battery Energy Storage System Developers (BESSDs).

Explicitly recognising BESS Developers as eligible entities ensures regulatory clarity, provides a level playing field for independent storage providers, and aligns with the policy objective of creating a competitive storage market in the State. Further, requiring registration with the concerned Distribution Licensee establishes accountability, enables visibility of such resources in system planning, and facilitates their participation in ancillary services in coordination with SLDC.

The Commission is therefore inclined to modify the draft as follows:

*"**Clause 15: Role of GENCOS/IPPs/CPPs/BESS Developers***

GENCOS/IPPs/CPPs may establish BESS at the generation point, in co-location, or as a grid-connected stand-alone unit, and may participate in the ancillary market under this regulation or the Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022, as amended from time to time. BESS installed at the generation point by GENCOS/IPPs/CPPs may be used for their own use or for their consumers through open access/providing AS. BESSDs may establish BESS at any point in the system after obtaining due approvals from the concerned licensees. GENCOS/IPPs/CPPs/BESSD shall register with the distribution licensee to provide AS."

20. Clause 16: Consumers/Prosumers

Draft

"Consumers/Prosumers not covered under net-metering/billing may establish behind-the-meter BESSs along with Solar power plants without requiring permission from the concerned DISCOMs/Transcos. However, all such systems shall comply with the technical standard for connectivity Regulations issued by the CEA. The

DISCOMS/APTRANSCO shall be informed before commissioning behind the meter. If there is any lapse on such standards, they shall be rectified and get certified by DISCOMS/Transco before integration with the Grid. However, if the system is operated standalone, such inspections are not required."

Commission's analysis and decision

The Commission has undertaken a suo motu review of this provision to ensure clarity and consistency with the overall regulatory framework. It is noted that limiting the applicability of behind-the-meter BESS only to cases where such systems are installed along with solar plants may unnecessarily restrict consumer choice. Behind-the-meter BESS should be permitted irrespective of whether it is paired with solar, provided the systems adhere to the applicable technical standards. This approach is consistent with the principles of consumer flexibility, promotes wider adoption of storage technologies, and ensures compliance with safety and grid standards.

Further, recognising the potential of consumer/prosumer-owned BESS to contribute to grid stability, the Commission considers it appropriate to enable their participation in the ancillary services market. Consumers/prosumers with eligible behind-the-meter BESS may, in addition to self-utilisation, provide ancillary services either directly or through an Aggregator. To ensure proper visibility, coordination, and settlement, consumers/prosumers intending to participate directly in ancillary services shall register with the concerned DISCOM in accordance with this Regulation.

Accordingly, the Commission is inclined to modify the draft as follows:

"All Consumers, including those covered under net-metering/billing, may establish behind-the-meter BESSs with or without Solar power plants, without requiring permission from the concerned DISCOMs or TRANSCO, as the case may be. However, all such systems shall comply with the technical standards as per the Connectivity Regulations issued by the CEA. The DISCOMs or TRANSCO, as the case may be, shall be informed before commissioning behind-the-meter BESS. If there is any lapse on such standards, they shall be rectified and get certified by DISCOMs or TRANSCO, as the case may be, before integration with the Grid. However, if the system is operated standalone, not connected with the grid, such inspections are not required.

Consumers/prosumers with eligible behind-the-meter BESS, in addition to self-utilisation, may participate in the ancillary services market directly or through an Aggregator. All consumers/prosumers intending to provide AS directly shall register

with the concerned DISCOM in accordance with this Regulation."

21. Clause 17: Open Access to BESS

Draft

"The APERC Green Energy Open Access Charges and Banking Regulation 2024, as amended from time to time, shall govern the open Access and charges."

Comments received from Stakeholders

Struja Consultancy suggested that BESS co-located with solar or wind projects should be given preference under the Green Energy Open Access framework, and that captive/group captive models should also be permitted for standalone BESS.

Commission's analysis and decision

Regarding the suggestion, the Green Energy Open Access framework is technology-neutral and applies uniformly to green energy transactions, irrespective of whether the storage is co-located or standalone. Preferential treatment in favour of co-located projects is therefore not warranted. This position is consistent with Clause 5.2, which encourages but does not mandate co-location of BESS, leaving both co-located and standalone configurations to compete on equal terms.

On the issue of captive and group captive models, the Commission notes that the Electricity Act, 2003, read with Rule 3 of the Electricity Rules, 2005, permits captive and group captive arrangements subject to prescribed shareholding and consumption criteria. Standalone captive/group captive BESS projects, when charged from renewable energy for captive consumption, will be governed by the Green Energy Open Access Rules, 2022 and the APERC (Green Energy Open Access Charges and Banking) Regulation, 2024. Where such standalone captive/group captive BESS projects are charged from conventional sources, they will be governed by the provisions of the Electricity Act, 2003, the Electricity Rules, 2005, and the Commission's Open Access Regulations, and will be subject to normal open access charges, without the benefit of concessional treatment under the Green Energy Open Access framework.

Accordingly, the Commission considers it appropriate to retain the clause as drafted.

22. Clause 18: Role of the Commission

Draft

"The Commission shall:

- *Approve capacities, investment and tariff proposals for BESS*

deployment/procurement by Licensees;

- *Approve the Procurement by SLDC under SRAS/TRAS*
- *Approve the Procedures and eligibility conditions prepared by the Nodal Agencies*
- *Approve the Agreement formats prepared by the licensees*
- *Monitor implementation of these regulations through reports and compliance filings.“*

Commission’s analysis and decision

The Commission has undertaken a suo motu review of this clause to enhance clarity and ensure consistency with the overall modifications made to various provisions. Accordingly, the draft is modified as follows:

“The Commission shall:

- *Approve capacities, investment and tariff proposals for BESS deployment/procurement by Licensees;*
- *Approve the procurement by SLDC under PRAS, SRAS and TRAS;*
- *Approve the procedures and eligibility conditions prepared by the Nodal Agency;*
- *Approve the agreement formats prepared by APTRANSCO/licensees;*
- *Monitor implementation of these Regulations through reports and compliance filings;*
- *Whenever considered necessary, through separate Orders, mandate the integration of BESS with rooftop solar or other renewable energy systems or specify a percentage of BESS obligation to obligated entities in the interest of grid stability and security.”*

23. Insertion of a new clause as 19 on Dispute Resolution

Comments received from Stakeholders

Struja Consultancy suggested that the draft lacks an explicit dispute resolution mechanism for conflicts between stakeholders such as BESS providers, licensees, or aggregators. A clear and time-bound process through arbitration, mediation, or a forum within APERC was recommended to ensure legal certainty, reduce litigation risks, and create a more stable investment environment.

Commission’s analysis and decision

The Commission finds merit in incorporating such a provision in order to ensure clarity, legal certainty, and effective enforcement of the framework. It is necessary to delineate jurisdiction between consumer-related grievances and disputes arising out

of regulatory implementation.

Consumer-related disputes are appropriately addressed through the Consumer Grievance Redressal Forum (CGRF) and the Ombudsman mechanism established under Section 42(5)–(7) of the Electricity Act, 2003. Other disputes that may arise under this Regulation, but which do not fall within the purview of the CGRF, fall within the adjudicatory jurisdiction of the Commission under Sections 86(1)(f) of the Act. Accordingly, the Commission is inclined to insert the following new clause as Clause 19:

"***Clause 19: Dispute Resolution***

All consumer-related disputes shall be dealt with by the Consumer Grievance Redressal Forum (CGRF). Any other dispute arising under this Regulation that does not fall under the purview of the CGRF shall be adjudicated by the Commission."

24. General Objections and Suggestions

Comments received from Stakeholders

Dr. Alejandro Hernandez suggested that the Regulations should specify a clear period for achieving BESS targets, supported by a roadmap for storage development. He also recommended adoption of a Benefit-Cost Analysis (BCA) framework, such as a societal cost test, for guiding cost-effective deployment.

Struja Consultancy suggested that the draft Regulation should include a methodology for long-term BESS capacity planning and forecasting. They also emphasised the need for explicit performance-linked incentives, grid integration protocols, technology-specific safety and disposal standards, and longer consultation timelines (more than 21 days).

Sai Bioenergy Private Limited suggested aligning the Regulations with the National Framework for Energy Storage Systems (August 2023), ensuring technology-agnostic procurement with separate planning for Long Duration (LDES) and Short Duration Energy Storage (SDES). They proposed a minimum procurement term of 30 years for BESS, detailed performance parameters for BESS, and mandating bid evaluation on the levelised cost of discharge (INR/kWh) across the contract term.

Sri Anil Kothamasu suggested that the Regulation should specify the anticipated date of final publication in the Andhra Pradesh Gazette, indicate where the final public notice will be accessible, and clarify whether any further steps or consultation periods are required before notification is issued.

Dr. Himanshu Anand emphasised that BESS should be used for operational benefits

rather than speculative profit and suggested stronger coordination between DISCOMs, APTRANSCO, and SLDC. He also proposed performance-based incentives and regulatory frameworks for EVs and battery-swapping stations to support grid stability.

Commission's analysis and decision

All the suggestions are broadly taken into consideration while finalising the Regulation, except for the targets. The ICE policy issued by GoAP has provided some targets. However, this Commission will issue approval based on the study undertaken by licensees as per this Regulation to protect the consumer's interest.

The final Regulation, after publication in the Gazette, will be available on the Commission's website, and no further consultations will be conducted after the Commission finalises the Regulation.

25. Except for the changes discussed above, the remaining provisions in the draft were adopted in the final Regulation without modification. The list of objectors is attached as Annexure I, and the final Regulation is attached as Annexure II.

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Sd/-
Sri P.V.R.Reddy,
Member & Chairman i/c

Annexure-I

List of Objectors

S.No	Name of the Objector
1	Dr. Alejandro Hernandez, Director, India and Energy Systems Innovation Program
2	Sri Praveen Kumar Sahukari, Central Power Engineering Service (CPES) Deputy Director, Central Electricity Authority (CEA)
3	Sri B.N.Prabhakar, President, Society for Water, Power & Natural Resources Conservation Awareness and Monitoring
4	Sri Subrahmanyam Pulipaka, Chief Executive Officer, National Solar Energy Federation of India
5	Struja Consultancy
6	APTRANSCO
7	Dr. Himanshu Anand, PhD Thapar University
8	APCPDCL, Vijayawada
9	APSPDCL, Tirupathi
10	Sri Anil Kothamasu, Solar AMS, AP
11	Sai Bioenergy Private Limited

Annexure-II

ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION
[Regulation No. 5 of 2025]

Andhra Pradesh Electricity Regulatory Commission [Planning, Procurement, Deployment, and Utilisation of Battery Energy Storage Systems (BESS)] Regulations, 2025

Preamble

The Electricity Act, 2003, empowers the State Electricity Regulatory Commissions to promote efficiency, economy, and competition in the electricity sector, and to regulate the purchase, distribution, supply, and utilisation of electricity within the State.

And whereas the Ministry of Power, Government of India, has issued guidelines dated 11 March 2022 for the procurement, utilisation, and integration of Battery Energy Storage Systems (BESS) as part of generation, transmission, and distribution assets, as well as for the provision of ancillary services in the electricity grid.

And whereas the Government of India has further notified a National Framework for Energy Storage Systems in August 2023 to support the integration of renewable energy, ensure grid stability, and enable market-based participation in energy storage technologies.

And whereas Battery Energy Storage Systems have emerged as a critical enabler for enhancing grid flexibility, maintaining frequency and voltage stability, managing peak loads, facilitating the integration of renewable energy, and providing ancillary and balancing services.

And whereas the Government of Andhra Pradesh has issued the "Andhra Pradesh Integrated Clean Energy Policy, 2024" with a commitment to promote renewable energy generation by creating a more conducive policy and investment framework to spur competition and private participation in the sector, while maintaining a balance in the interests of all stakeholders. The objectives of the policy inter alia are to promote decentralisation of renewable energy generation and develop an ecosystem for distributed Solar generation, to create an energy storage market in the State to integrate more RE into the grid and offer grid support services, such as peak reduction, curtailment management, contribution to reliability needs, transmission deferrals, intraday and seasonal variation management and to develop AP as a storage capital and clean energy hub in the country and the preferred destination for clean energy innovative projects. This policy aims to add over 160 GW of renewable energy capacity in the State and set a target for the addition of approximately 25 GWh of BESS under various modes.

In order to successfully implement the policy above, the Government of Andhra Pradesh (GoAP), acting through the Special Chief Secretary of the Energy Department, and invoking Section 108 of the Electricity Act, 2003, addressed a letter to the Commission. In the letter, the GoAP requested that the Commission devise appropriate guidelines and regulations in line with the MoP guidelines dated March 11, 2022, to promote the development of BESS and create a market for ancillary services within the State. The letter also stated that this will enable and enhance market penetration of Battery Energy Storage Systems (BESS) and support grid stability through ancillary services.

In light of the above, there is a need to establish a comprehensive regulatory framework for the deployment, ownership, operation, and market participation of BESS in the State of Andhra Pradesh, in line with the evolving needs of the electricity market and grid management practices.

Therefore, the Andhra Pradesh Electricity Regulatory Commission issued the draft Regulation. Following the previous publication under Sub-section (3) of Section 181 of the Electricity Act, 2003, read with the Electricity (Procedure for Previous Publication) Rules, 2005, after stakeholder consultation as discussed in the Order dated 10.09.2025, in exercise of the powers conferred under subclause (zp) of Section 181(2) read with Sections 61, 66, and 86(1)(e) of the Electricity Act, 2003, and all other powers enabling it in this behalf, the Commission hereby issues following final Regulation:

1. Short Title, Commencement, and Applicability

1.1 These Regulations may be called the Andhra Pradesh Electricity Regulatory Commission [Planning, Procurement, Deployment, and Utilisation of Battery Energy Storage Systems (BESS)] Regulations, 2025.

1.2 These Regulations shall come into force from the date of their publication in the Andhra Pradesh Gazette.

1.3 These Regulations shall apply to all Licensees, Generating Companies, Renewable Energy Developers, Aggregators, Battery Energy Storage System (BESS) Service Providers, and other entities involved in the deployment, operation, or utilisation of Battery Energy Storage Systems within the State of Andhra Pradesh.

2. Definitions

(1) In these Regulations, unless the context otherwise requires:

a) **"Act"** means the Electricity Act, 2003 (36 of 2003);

b) **"Aggregator(s) or *"Distributed Energy Resources Aggregator or DERA"*** *means an entity registered/ appointed with/by the distribution licensee to provide*

aggregation of one or more services like demand response services under the demand response mechanism, Distributed Generation, Energy Storage, etc., within a license area. The aggregators shall assist the DISCOMs, inter alia, in the promotion of Distributed Generation/storage like Solar Rooftop projects with/without storage for all categories of consumers by managing, dispatching, metering, and settling the individual Distributed Energy Resources (DERs) energy, disbursement of rooftop subsidies, within their aggregation, as well as empanelling of vendors, and construction of systems, etc."

c) **"Automatic Generation Control" or "AGC"** means a mechanism through which the generation of the SRAS Provider in a control area is automatically adjusted in response to the Secondary Control Signal.

d) **"Ancillary Service" or "AS"** in relation to power system operation, means the service necessary to support the grid operation in maintaining power quality, reliability and security of the grid and includes Primary Reserve Ancillary Service, Secondary Reserve Ancillary Service, Tertiary Reserve Ancillary Service, active power support for load following, reactive power support, black start, and such other services as defined in the Indian Grid Code/ AP Grid Code/this Regulation.

e) **"AS capacity obligation"** is the capacity signalled for despatch by the Nodal Agency under SRAS or the capacity procured by the Nodal Agency under TRAS;

f) **"Banking"** means a facility through which the unutilised portion of energy (underutilisation by the consumer or excess generation over and above the schedule by the generator) from any of the Green Energy Sources during a billing month is kept in a separate account and such energy accrued shall be treated in accordance with the conditions laid down in the Andhra Pradesh Electricity Regulatory Commission (Green Energy Open Access, Charges, and Banking) Regulation, 2024 (Regulation No 3 of 2024) as amended from time to time.

g) **"Battery Energy Storage Systems" or "BESS" shall** mean the system(s)/projects utilising methods and technologies such as electrochemical batteries (Lead Acid, Li-ion, solid state batteries, flow batteries, etc.), or any other technology as per the definitions, guidelines and directions issued by the Ministry of New and Renewable Energy (MNRE) from time to time, providing a facility that can store chemical energy and deliver the stored energy in the form of electricity.

h) **"Battery Energy Storage System Developer" or "BESSD" or "Developer"** shall mean the entity owning/operating the BESS facility for the supply of power under this regulation.

i) **"Commission"** means the Andhra Pradesh Electricity Regulatory Commission.

j) "**Distribution Licensee", "Transmission Licensee", "Generating Company", and "SLDC**" shall have the meanings assigned to them under the Act.

k) **"Firm and Dispatchable RE Power" means** the power profile configuration that is defined in the RfS that is sought to be met by RE power sources and will include configurations like assured peak power, Round the Clock RE with firm delivery of power at rated capacity at any hour of the day as per demand or load following power delivery as specified by DISCOM, Clean Energy Project with firm delivery of power for fixed hours of requirement by DISCOMs, etc.

l) **"Force Majeure"** means any event or circumstance which is beyond the reasonable direct or indirect control and without the fault or negligence of the Energy Producer or Developer and which results in Energy Producer's/Developer's inability, notwithstanding its reasonable best efforts, to perform its obligations in whole or in part and may include rebellion, mutiny, civil unrest, riot, strike, fire, explosion, flood, cyclone, lightning, earthquake, act of foreign enemy, war or other forces, theft, burglary, ionising radiation or contamination, Government action, inaction or restrictions, accidents or an act of God or other similar causes.

m) **"Fuel Cell" means** an electrochemical cell that converts the chemical energy of a fuel and an oxidising agent (often oxygen) into electricity through a pair of redox reactions.

n) **"Nodal Agency"** means the Andhra Pradesh State Load Despatch Centre, which shall be responsible for the implementation of the Ancillary Services at the intra-state level through the Area Load Despatch Centres.

o) **"Primary Reserve Ancillary Service" or "PRAS"** means the Ancillary Service which immediately comes into service through the governor action of the generator or through any other resource in the event of a sudden change in frequency.

p) **"Secondary Control Signal"** means an automated signal generated from the Nodal Agency through which injection or drawal, or consumption of an SRAS provider is adjusted, and includes AGC signal.

q) **"Secondary Reserve Ancillary Service" or "SRAS"** means the Ancillary Service comprising SRAS-Up and SRAS-Down, which is activated and deployed through a secondary control signal.

r) **"Secondary Reserve Ancillary Service Provider" or "SRAS Provider"** means an entity which provides SRAS-Up or SRAS-Down in accordance with these regulations;

s) **"SRAS-Down"** means an SRAS that reduces active power injection or increases drawal or consumption, as the case may be, in response to a secondary control signal from the Nodal Agency.

t) **"SRAS-Up"** means an SRAS that increases active power injection or decreases drawal or consumption, as the case may be, in response to a secondary control signal from the Nodal Agency.

u) **"Standalone BESS**" means a BESS operating independently as a merchant unit that has the capability to engage in energy or capacity trading in power markets or AS, in accordance with this Regulation.

v) **"Tertiary Reserve Ancillary Service" or "TRAS"** means the Ancillary Service comprising TRAS-Up and TRAS-Down and consists of spinning reserve or non-spinning reserve, which responds to despatch instructions from the Nodal Agency;

w) **"TRAS-Down"** means a TRAS that reduces active power injection or increases drawal or consumption, as the case may be, in response to despatch instructions of the Nodal Agency;

x) **"TRAS-Down Provider"** means an entity which provides TRAS-Down in accordance with these regulations.

y) **"TRAS-Up"** means a TRAS that increases active power injection or decreases drawal or consumption, as the case may be, in response to despatch instructions of the Nodal Agency;

z) **"TRAS-Up Provider"** means an entity which provides TRAS-Up in accordance with these regulations.

aa) **"Un-Requisitioned Surplus" or "URS"** means the capacity in a generating station that has not been requisitioned and is available for despatch, and is computed as the difference between the declared capacity or maximum possible generation (Pmax), as the case may be, of the generating station and its total schedule.

(2) Save as aforesaid and unless repugnant to the context or the subject-matter otherwise requires, words and expressions used in these regulations and not defined, but defined in the Act, or the Grid Code or any other regulation of the

Commission/CERC shall have the meaning assigned to them respectively in the Act or the Grid Code or such other regulation.

(3) Reference to any Act, Rules and Regulations shall include amendments or consolidations or re-enactment thereof.

3. Objectives

The primary objectives of these Regulations are:

(a) To enable deployment and utilisation of BESS as part of generation, transmission, and distribution assets;

(b) To facilitate the participation of BESS in ancillary services and energy markets;

(c) To promote cost-effective energy storage solutions that support grid stability, frequency management, and renewable energy integration;

(d) To establish a framework for Aggregators and third-party BESS developers to participate in the electricity market.

4. Ownership and Business Models

4.1 BESS may be developed and owned by:

- Distribution Licensees;
- Transmission Licensees;
- System operators
- GENCOs
- Independent Power Producers (IPPs);
- Renewable Energy Developers;
- An independent energy storage service provider
- Aggregators;
- Any other third-party investors.

4.2 BESS may be deployed as:

- Co-located with renewable or conventional generators;
- Grid-connected standalone storage;
- Embedded in distribution or transmission networks;
- Behind-the-meter (consumer-level) storage.
- Integrated with Electric Vehicle Charging stations and battery swapping stations.
- Integrated with Electric Vehicles for Vehicle-to-Grid (V2G) services and Grid-to-Vehicle (G2V) services.

4.3 The Battery Energy Storage System shall be utilised either as an independent battery energy storage system or as part of the generation, transmission, or distribution system or integrating the consumer's load independently or with RE sources co-located behind the meter.

4.4 The Battery Energy Storage System can be developed, owned, leased, or operated by a generating company, a transmission licensee, a distribution licensee, a consumer, a system operator, or an independent battery energy storage service provider.

4.5 The Battery Energy Storage System shall have the same legal status as that of the owner:

Provided that if such a Battery Energy Storage System is not co-located with, but owned and operated by, the generating station or distribution licensee or consumer, the legal status shall still be that of the owner, but for the purpose of scheduling and dispatch and other matters, it shall be treated at par with a separate storage element.

5. Planning and Procurement

5.1 The reverse power flow from lower voltage to higher voltage at various substations shall be the criterion for finalising the BESS locations in the Distribution System or Transmission System by Distribution/Transmission licensees.

5.2 The DISCOMs/TRANSCO shall encourage the installation of BESS at the co-location at the generation point for ancillary services, as this will reduce grid integration costs.

5.3 *Minimum* individual *project size of power rating of 1MW and above, with a suitable energy rating of at least two* hours *based on the application at one site, connected at 11 kV or above*

5.4 The Distribution Licensees may also set up BESS at the DTR level to store the power from SRTs locally. In such cases, the capacity as specified in clause 5.3 would not apply. *For OA/captive users, consumers installing behind-the-meter BESS at any voltage level and the LT level, the ratings may be as per their choice.*

5.5 The licensees shall obtain prior approval from the Commission for BESS capacity procurement.

6. Utilisation for Ancillary Services

BESS shall be eligible to provide:

- Frequency regulation (primary, secondary, tertiary);
- Spinning and non-spinning reserves;
- Voltage support;
- Black start services;
- Demand response services.

7. Role of Aggregators

7.1 Aggregators may aggregate BESS resources (co-located storage, grid-connected standalone storage, EVs, EV charging stations with BESS, battery swapping stations, distributed renewable energy resources with BESS, etc.) from multiple sites to provide services to the SLDC/TRANSCO/DISCOMs or other market participants.

7.2 Aggregators registered/appointed with/by the DISCOMs shall follow the protocols issued by SLDC.

8. Commercial Agreements

Aggregators and AS providers may enter into commercial agreements with Licensees or other market participants for the provision of BESS services.

9. Tariff and Market Participation

9.1 All procurement of BESS capacity and services by Licensees shall be undertaken only through tariff-based competitive bidding.

9.2 The Commission shall determine the cost recovery for Licensee-owned BESS assets based on prudent investment norms and the relevant regulations.

9.3 Market-linked BESS services shall be compensated based on market-clearing prices in the ancillary services market or other mechanisms approved by the Commission.

9.4 Renewable energy procured and used for charging BESS shall retain its renewable character upon discharge and consumption. Accordingly, obligated entities or consumers shall be eligible to claim the RPO/RCO benefit for such consumption.

10. Technical Standards

10.1 BESS installations shall conform to technical standards specified by the Central Electricity Authority (CEA), MNRE and other relevant authorities. They shall

abide by all the relevant rules and regulations framed under the Electricity Act, 2003, including the Indian Electricity Grid Code (IEGC), Grid Connectivity Standards, and other relevant rules/procedures issued by the Commission from time to time.

10.2 BESS providers shall submit real-time and periodic data to SLDC in the prescribed formats notified by SLDC.

11. Safety, Cybersecurity, and Environmental Norms

11.1 BESS systems shall comply with applicable regulations, standards and codes issued by the Central Electricity Authority (CEA) regarding safety.

11.2 Cybersecurity and communication protocols shall adhere to the guidelines of the Ministry of Electronics and Information Technology (MeitY), the Central Electricity Authority (CEA), and the Ministry of Power (MoP).

11.3 Environmental management and end-of-life disposal of batteries shall be in accordance with the guidelines/regulations of the Government of India/GoAP. The responsibility of disposal shall lie with the owner of the BESS.

12. Role of Distribution Licensees

12.1 The Distribution Licensees shall publish on their websites, potential sites at the 11 kV voltage level in their 33/11 kV substations for establishing a BESS of the required capacities based on the feeder level solarisation and SRT installations in the feeder purview. The Distribution Licensee shall also identify Distribution Transformers (DTs) where Solar Rooftop (SRT) systems have capacities exceeding 50 percent of the DTR capacity, and shall publish such list on its website, updating it on an annual basis.

12.2 The DISCOMs shall register the AS providers and Aggregators in accordance with this Regulation.

12.3 *The Distribution Licensees shall include BESS in their resource planning and file their proposals for Commission approval through investment plans, MYT filings, or other regulatory mechanisms. All approved expenditure on BESS shall be recoverable through ARR:*

a. Payments for BESS ancillary services procurement shall be claimed under Power Purchase Cost (PPC) as a separate sub-head titled "Expenditure on Ancillary Services / Energy Storage Services" in the ARR of Retail Supply Business.

b. *Expenditure on Licensee-owned BESS assets shall be treated as capital expenditure and recovered through depreciation, RoE/RoCE, and O&M in the Distribution Business ARR, under a dedicated budget head for energy storage.*

c. *Where BESS procurement is undertaken through competitive bidding by paying a fixed cost, such expenditure shall be claimed under a separate head, under other relevant expenditure in the Distribution Business ARR, to ensure transparency and proper regulatory scrutiny.*

12.4 BESS procurement by Licensees, in cases not covered under clause 9.2, shall be undertaken only through competitive bidding, subject to guidelines issued by the Government of India.

12.5 The DISCOMs shall maintain a database of information regarding the behind-the-meter BESS systems installed within their licensed area for planning purposes.

12.6 The Distribution Licensee shall also publish on its website the list of Aggregators registered/approved under these Regulations.

13. Role of APTRANSCO

13.1 Licensees shall include BESS in their resource planning and file their proposals for Commission approval through investment plans, MYT filings, or other regulatory mechanisms. All approved expenditure on BESS shall be recoverable through ARR:

a. Expenditure on Licensee-owned BESS assets shall be treated as capital expenditure and recovered through depreciation, RoE/RoCE, and O&M in the Transmission Business ARR, under a dedicated budget head for energy storage.

b. Where BESS procurement is undertaken through competitive bidding by paying a fixed cost, such expenditure shall be claimed under a separate head, under other relevant expenditure in the Transmission Business ARR, to ensure transparency and proper regulatory scrutiny.

13.2 BESS procurement by Licensees, in cases not covered under Clause 9.2, shall be undertaken only through competitive bidding, subject to guidelines issued by the Government of India, if any.

13.3 APTRANSCO shall prepare the standard agreement format for procuring ancillary services and obtain the Commission's approval before entering into agreements.

13.4 The TRANSCO shall maintain a database of information regarding the behind-the-meter BESS systems installed within its licensed area for planning purposes.

14. Role of Nodal Agency (APSLDC)

14.1 APSLDC shall verify the governor settings of all thermal generators regarding their automatic primary response to changes in the system frequency, as per IEGC, for the automatic adjustment of generation to meet demand in the System. The action taken and status report shall be posted on its website within three months from the date of the publication of this Regulation. Accordingly, it shall arrive at the PRAS required from BESS. The report shall also specify the requirements for the BESS capacity required under SRAS or TRAS, as well as the locations in the Grid Substations. The report shall be updated annually and published on its website.

14.2 The SLDC shall estimate the requirements of PRAS, SRAS, and TRAS for each DISCOM area for the specified period, using an appropriate methodology, and publish the results on its website. It shall reassess the requirement of SRAS and TRAS on a day-ahead basis, along with any incremental requirements on a real-time basis, and update this information on its website.

14.3 The SLDC shall specify eligibility criteria for BESS resources to provide ancillary services, based on technical criteria and operational performance, and publish on its website within one month from the date of notification of this Regulation.

14.4 The SLDC, in consultation with TRANSCO and DISCOMs, shall prepare and publish on its website the eligibility criteria for the registration of Aggregators/AS providers within one month from the date of notification of this Regulation.

14.5 The SLDC shall prepare a procedure for Scheduling, Metering, Accounting, Settlement, and Commercial mechanisms for the operationalisation of ancillary services, for approval by the Commission, within two months from the date of publication of this Regulation.

14.6 The SLDC shall monitor:

- State of Charge (SoC),
- Round-Trip Efficiency,
- Availability and response time,
- Aggregated performance metrics.

15. Role of GENCOS/IPPs/CPPs/BESS Developers

GENCOS/IPPs/CPPs may establish BESS at the generation point, in co-location, or as a grid-connected stand-alone unit, and may participate in the ancillary market under this regulation or the Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022, as amended from time to time. BESS installed at the generation point by GENCOS/IPPs/CPPs may be used for their own use or for their consumers through open access/providing AS. BESSDs may establish BESS at any point in the system after obtaining due approvals from the concerned licensees. GENCOS/IPPs/CPPs/BESSD shall register with the distribution licensee to provide AS.

16. Consumers/Prosumers

All Consumers, including those covered under net-metering/billing, may also establish behind-the-meter BESSs with or without Solar power plants, without requiring permission from the concerned DISCOMs or TRANSCO, as the case may be. However, all such systems shall comply with the technical standards as per the Connectivity Regulations issued by the CEA. The DISCOMs or TRANSCO, as the case may be, shall be informed before commissioning behind-the-meter BESS. If there is any lapse on such standards, they shall be rectified and get certified by DISCOMs or TRANSCO, as the case may be, before integration with the Grid. However, if the system is operated standalone, not connected with the grid, such inspections are not required.

Consumers/prosumers with eligible behind-the-meter BESS, in addition to self-utilisation, may participate in the ancillary services market directly or through an Aggregator. All consumers/prosumers intending to provide AS directly shall register with the concerned DISCOM in accordance with this Regulation.

17. Open Access to BESS

The APERC Green Energy Open Access Charges and Banking Regulation 2024, as amended from time to time, shall govern the open Access and charges.

18. Role of the Commission

The Commission shall:

- Approve capacities, investment and tariff proposals for BESS deployment/procurement by Licensees;
- Approve the Procurement by SLDC under PRAS, SRAS and TRAS;
- Approve the Procedures and eligibility conditions prepared by the Nodal Agencies;

- Approve the Agreement formats prepared by the licensees;
- Monitor implementation of these regulations through reports and compliance filings;
- Whenever considered necessary, through separate Orders, mandate the integration of BESS with rooftop solar or other renewable energy systems or specify a percentage of BESS obligation to obligated entities in the interest of grid stability and security.

19. Dispute Resolution

All consumer-related disputes shall be dealt with by the Consumer Grievance Redressal Forum (CGRF). Any other dispute arising under this regulation that does not fall under the purview of the CGRF shall be adjudicated by the Commission.

20. Power to give directions

The Commission may, from time to time, issue such directions and orders as it considers appropriate for the implementation of these Regulations.

21. Power to relax

The Commission may, by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

22. Power to amend

The Commission may, from time to time, add to, vary, alter, suspend, modify, amend, or repeal any provision of these Regulations.

23. Power to remove difficulties

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by an order, make such provisions, not inconsistent with the provisions of the Act and these Regulations, as may be necessary for removing the difficulty.

(By Order of the Commission)

Sd/-10.09.2025
P.KRISHNA
Commission Secretary i/c

Place: Kurnool
Date: 10.09.2025.