



Global Energy Alliance  
for People and Planet  
GEAPP

# EY Support in EVNHCMC's Pilot 5 MW/10 MWh BESS Project

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# Overview of EVNHCMC's Pilot 5 MW/10 MWh Battery Energy Storage System (BESS) Project

## EVNHCMC's Pilot BESS Project Overview

### Project Overview

- ▶ EVNHCMC pilot grid-connected BESS project. HCMC High Voltage Power Grid Company (HHVPGC) assigned to be project owner

### Project Location

- ▶ 110kV Tan Phu Trung substation, Cu Chi, Ho Chi Minh City (HCMC)

### Key Specifications

- ▶ 5 MW/10 MWh BESS system
- ▶ 0.5C rating, 20-year lifetime, two cycles (charge/discharge) daily operation

### Project Purposes

- ▶ Peak-shaving, load management
- ▶ Technical and technological basis for future projects

### Strategic Alignment

- ▶ Aligned with PM Decision 768/QĐ-TTg (2025) and national power plan to 2030-2050

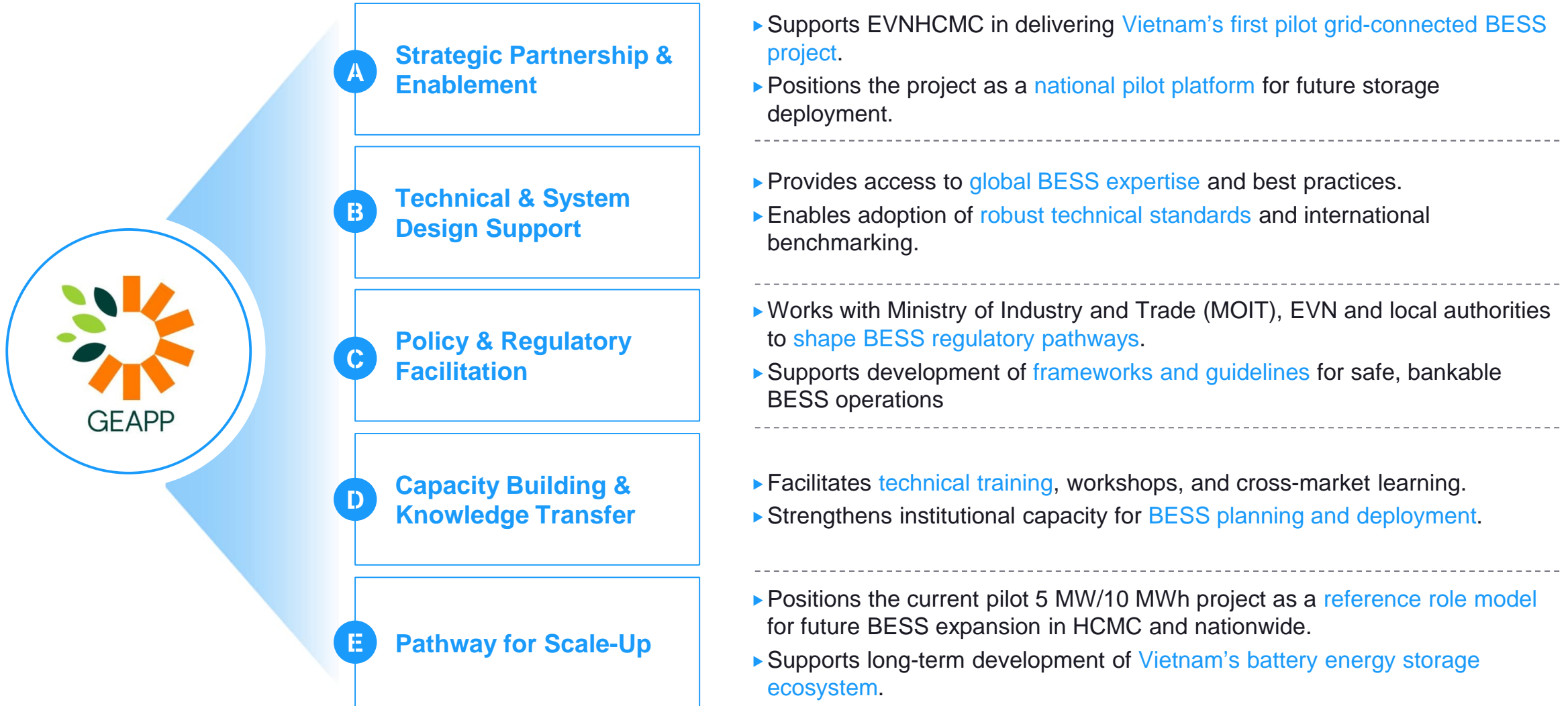
### Current Phase

- ▶ Feasibility Study conducted by Power Engineering Consulting Joint Stock Company 2 (PECC2), and reviewed by EY-Parthenon

## Directions for EVNHCMC's new 200MW BESS Project in 2026

- ▶ A new 200 MW BESS Project in the new HCMC region
- ▶ Alignment with The Revised Power Development Plan VIII (PDP8) and EVN's energy storage development roadmap.
- ▶ Purpose of the project: Peak-shaving, load management, grid-stability.
- ▶ Leveraging the knowledge and experience gained from the current 5 MW/10 MWh pilot BESS project, EVNHCMC expects to execute the 200 MW BESS project smoothly and efficiently in coming years.

# GEAPP's Roles & Support in the current pilot 5 MW/10 MWh BESS project



# How EY is supporting GEAPP in this technical assistance assignment

## Part I: Technical Feasibility Study Review

- ▶ Evaluation of the pilot BESS project's key specifications
- ▶ System configuration assessment
- ▶ Comparative analysis of various vendor options

## Part II: Commercial Feasibility Study Review

- ▶ Assessment of key technical and financial assumptions
- ▶ Evaluation of the feasibility of the financial modeling
- ▶ Review of the projected financial efficiency metrics
- ▶ Development of EY's scenario analyses and recommendations for Ho Chi Minh City High Voltage Power Grid Company (HHVPGC).

## Part III: Environmental Impact, Safety & Emissions Review

- ▶ Fire & environmental safety assessment
- ▶ Lifecycle & pollution risk evaluation
- ▶ Carbon-emissions impact modelling
- ▶ Regulatory & Environmental, social, and governance (ESG) alignment review

## Part IV: Scalability Roadmap & ESG Alignment

- ▶ Scalability roadmap design
- ▶ Market & technology readiness mapping
- ▶ ESG integration framework
- ▶ Policy & investment recommendations

# EY approach to delivering the assignment



**Document  
Research**



- ▶ Review all pilot project-related documentation and the Feasibility Study prepared by PECC2.
- ▶ Assess methodologies, technical assumptions, financial projections, and ESG considerations.
- ▶ Identify key issues and establish a structured evaluation framework.



**Experts  
Interview**



- ▶ Conduct interviews with HHVPGC, EVNHCMC, PECC2, regulators, and industry experts.
- ▶ Validate assumptions and clarify operational challenges, policy directions, and market perspectives.
- ▶ Incorporate stakeholder insights into the assessment.



**Data Analysis,  
Synthesis, Reporting**



- ▶ Analyse technical, financial, and regulatory inputs to develop actionable insights.
- ▶ Reassess feasibility assumptions, technology readiness, ESG implications, and implementation roadmap.
- ▶ Present consolidated findings and recommendations to GEAPP and HHVPGC to support strategic decision-making.

# EY Deliverables to date

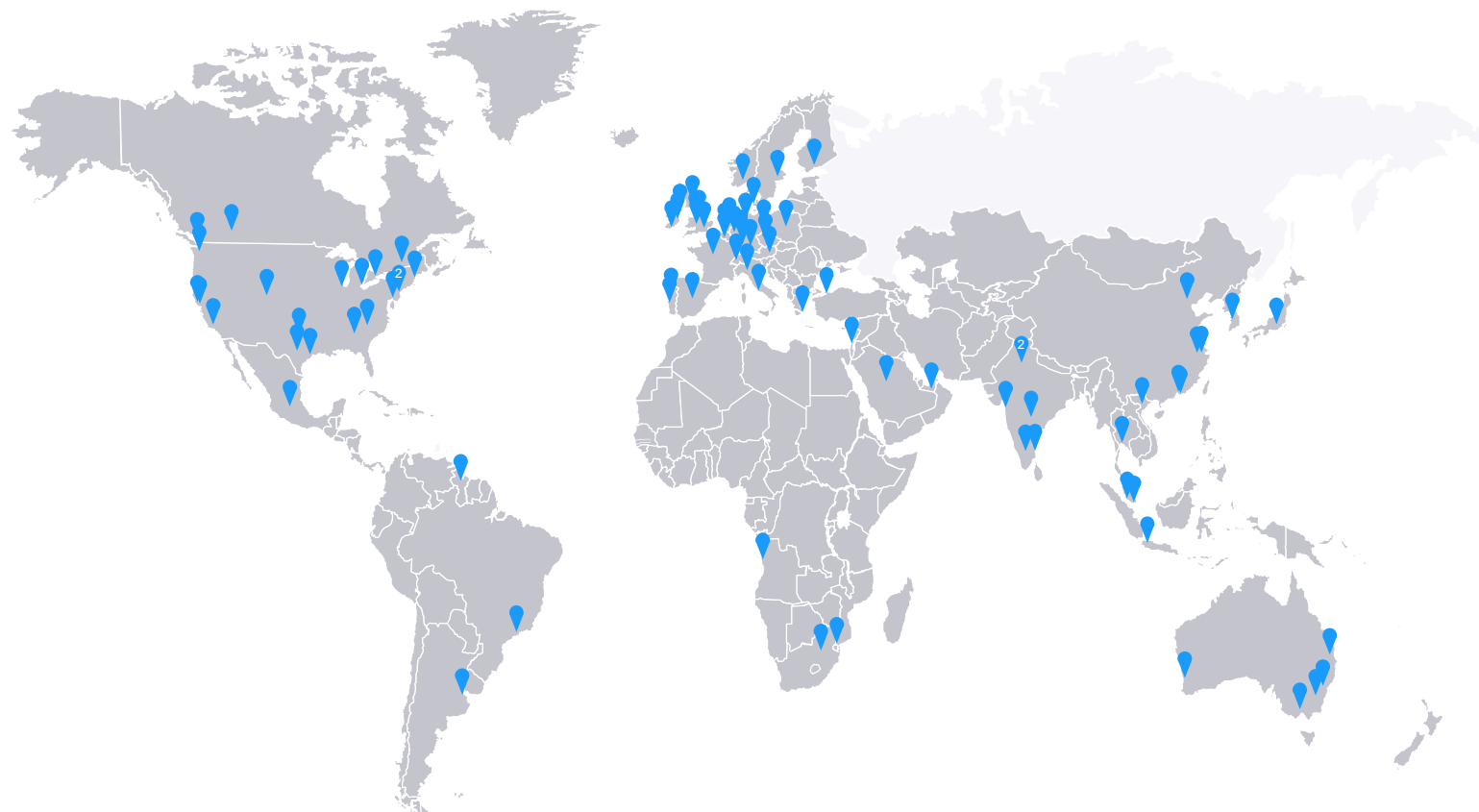
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## Part I: Technical Feasibility Study Review

- ▶ Evaluated and recommended the adjustment regarding the pilot BESS project's key technical specifications (C-rate, BESS capacity, operating temperature, installation elevation limit etc.).
- ▶ Assessed and recommended the adjustment regarding the project's operational specifications (charge/discharge frequency, Depth of Discharge (DOD)).
- ▶ Evaluated and recommended capable vendors for HHVPGC's considerations.

## Part II: Commercial Feasibility Study Review

- ▶ Evaluated the appropriateness of key technical and financial assumptions and proposed relevant adjustments.
- ▶ Assessed the feasibility of the proposed financial modeling.
- ▶ Reviewed the projected financial efficiency metrics (Net Present Value, Internal Rate of Return, Payback Period...)
- ▶ Developed EY's financial modeling based on revised assumptions, including scenario analyses and recommendations on the most optimal options for HHVPGC's consideration.



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