



# Integrating Battery Energy Storage Systems to Support a Clean Energy Future

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### Content





- **BESS: Flexible Power System & Flexibility** *Resource*
- **EGAT's RE Growth Ambitions and BESS Goals**
- **EGAT's BESS Experiences & Key Challenges**
- **New Business Opportunity**



### **EGAT**for **ALL**





### Carbon Neutrality 2050

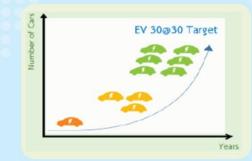








**New Car EV 30@30** 





EE > 30%



4D1E

Digitalization
Decarbonization
Electrification
Decentralization
De-regulation

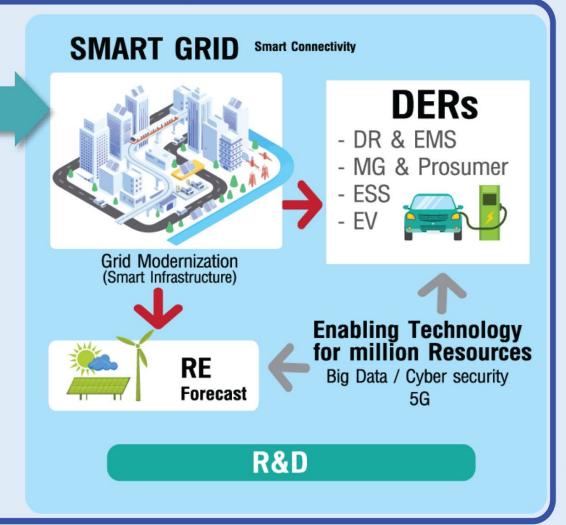
### **EGAT**for **ALL**

## Policy Direction to National Energy Plan (Cont.)



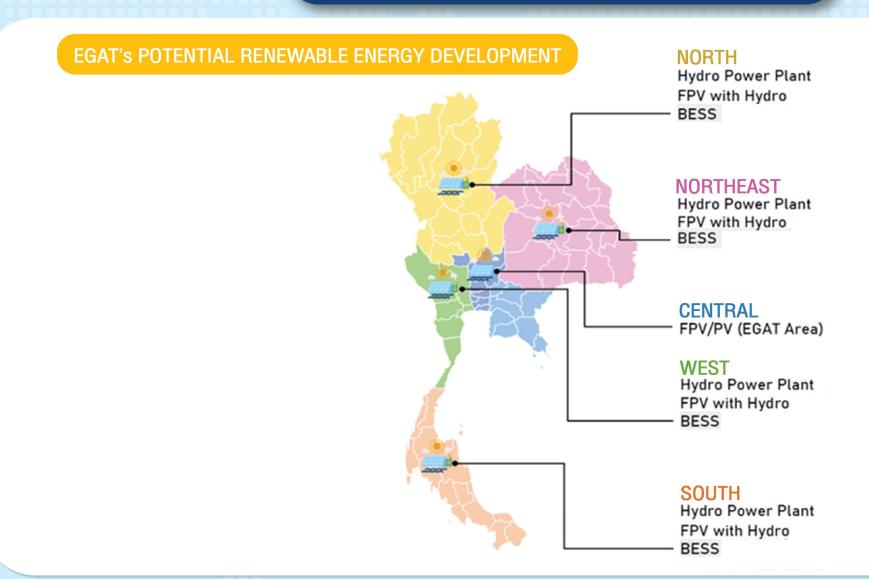








### **EGAT's RE Growth Ambitions and BESS Goals**





### **EGAT's BESS Experiences**

# Energy Storage System High-voltage Substations

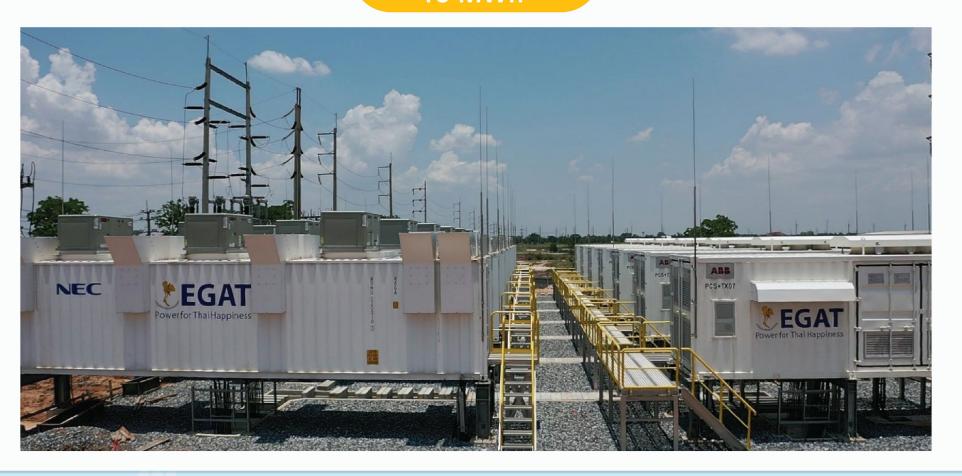
- Chai Badan High-Voltage Substations, Lopburi with the capacity of 21 MWh
- Bumnetnarong High-Voltage Substations with the capacity of 16 MWh

BESS technology is utilized to maintain the security and stability of EGAT'S electricity system in terms of voltage and frequency. The fluctuation problem of integrated renewable energy into the system will be solved by BESS installation including power loss reduction. EGAT provides the BESS pilot project at Bamnet Narong and Chaibadan High Voltage Substations to study, evaluate and collect information for developing applications and increasing efficiency of energy storage system.



### EGAT's BESS Experiences (Cont.)

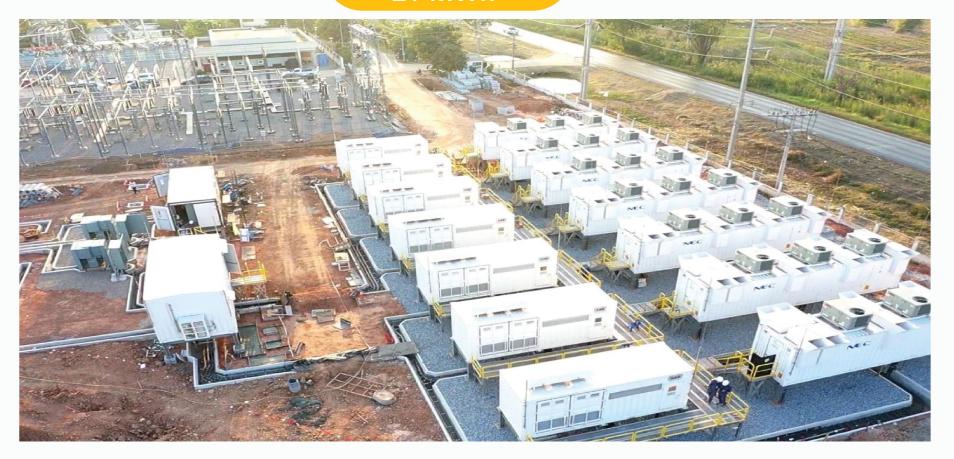
BNN's BESS 16 MWh





### EGAT's BESS Experiences (Cont.)

### CBD BESS 21 MWh





### BESS Experiences: Key Challenges

Opportunities, Obstructions, Challenges from Thailand's Battery Industrial Development

#### **Opportunities**



**Obstructions & Challenges** 



**Demand for EV** 



**Fund** 



Source of Raw Material



R&D

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# **THANK YOU**

