

DIRGAHAYU  
REPUBLIK INDONESIA



Powering Prosperity and Enabling Sustainability in South East Asia

# SMART GRID SOLUTIONS IN ACCELERATING ENERGY TRANSITION IN SOUTHEAST ASIA



TUESDAY, AUGUST 30 2022 | 2PM (GMT +8)



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**Commission for the Management of State Capital  
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**ỦY BAN QUẢN LÝ VỐN NHÀ NƯỚC TẠI DOANH NGHIỆP**

# **RENEWABLE ENERGY DEVELOPMENT STRATEGY IN VIET NAM & POWER NETWORK INVESTMENT DEMAND**

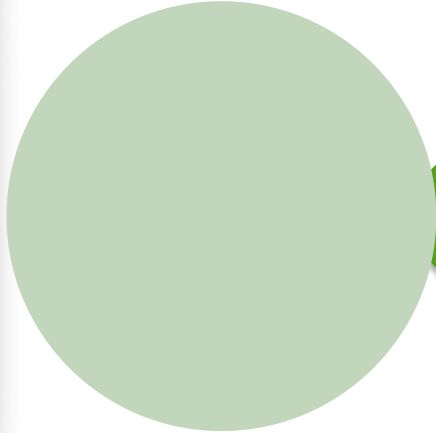


**Presented by: Cao Hoang Viet (Mr.)**

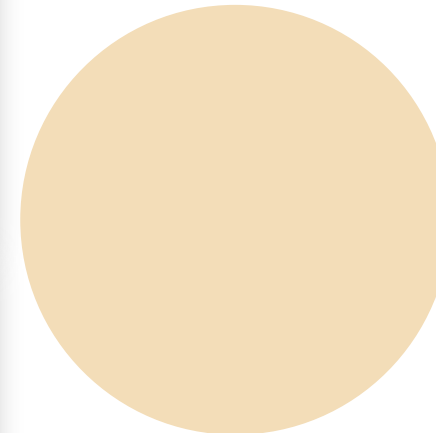
**Energy Department, Commission for the Management of State Capital at Enterprises**



# Contents



Commission for the Management of State Capital at Enterprise – CMSC Overview



RE development strategy in Viet Nam & power network investment demand





# PART 1

## CMSC OVERVIEW





# CMSC

- ▶ **Commission for the Management of State Capital at Enterprises – CMSC** is a Government agency; assigned by the Government to exercise the rights and responsibilities of the state owner's representative for enterprises in which 100% of charter capital is held by the State and the state's investment capital in joint stock companies, limited liability companies with two or more members.
- ▶ **CMSC** is currently assigned to manage state capital in 19 corporations including 03 energy groups: Electricity of Vietnam – EVN, Vietnam Oil and Gas Group – Petrovietnam, Vietnam National Coal and Mineral Industries Group – Vinacomin.



## PART 2

# RENEWABLE ENERGY DEVELOPMENT IN VIET NAM & POWER NETWORK INVESTMENT DEMAND







## 2.1. Renewable energy development strategy

- ▶ Strategic orientations for national energy development to 2030 with a vision to 2045 (Resolution 55-NQ/TW dated February 11, 2020 of the Politburo)
  - Objective: The proportion of renewable energy sources in the total primary energy supply will reach about 15-20% by 2030; 25-30% in 2045.
- ▶ Viet Nam's renewable energy development strategy to 2030, vision to 2050 (Decision No. 2068/QD-TTg dated November 25, 2015 of the Prime Minister)
  - Objectives: (i) contribute to the realization of sustainable environmental goals and the development of a green economy; (ii) reduce fuel imports for energy purposes: reduce about 40 million tons of coal and 3.7 million tons of oil products by 2030; reduce about 150 million tons of coal and 10.5 million tons of oil products by 2050...
- ▶ Viet Nam's at COP 26
  - Viet Nam has joined nearly 150 countries in committing to bring net emissions to "zero" by 2050; with 48 countries to join the Global Declaration on converting coal power to clean energy...



## 2.2. Draft Power Development Plan (Base-load Scenario)

### Power Sources Development Plan

Target\Year	2025	2030	2045
<b>Installed Capacity (MW)</b>	<b>103,067</b>	<b>131,450</b>	<b>305,380</b>
<b>Proportion of types of power sources (%)</b>			
Coal thermal/biomass/amoniac	30.8	31.0	13.2
New combined cycle gas turbine use LNG/Hydrogen	3.7	12.2	10.0
Combined cycle gas turbine + domestic gas thermal power, converting to LNG/Hydrogen	11.6	12.3	5.2
Hydro	27.5	22.1	11.7
<b>Onshore wind</b>	11.4	9.7	12.7
<b>Offshore wind</b>	0	0	10.5
<b>Solar</b>	9.3	7.2	20.6
Pumped Storage + Battery	0	1.0	5.4
Others	5.7	4.5	10.7

# 2.2. Draft Power Development Plan (Base-load Scenario)

## Transmission Grid Development Plan

Volume/Period	2021 - 2030	2031 - 2045
<b>Estimated investment volume</b>	<ul style="list-style-type: none"> <li>New construction of around 46,600 MVA of 500 kV substation and 11,000 km of 500 kV transmission lines;</li> <li>New construction of around 70,800 MVA of 220 kV substation; 15,600 km of 220 kV transmission line.</li> </ul>	<ul style="list-style-type: none"> <li>New construction of around 52,000 MVA of 500 kV substation and 7,400 km of 500 kV transmission lines;</li> <li>New construction of around 71,000 MVA of 220 kV substation; 7.400 km of 220 kV transmission line.</li> </ul>

## Estimated Total Investment Capital

Capital/Period	2021 - 2030	2031 - 2045
<b>Estimated investment capital (power source &amp; grid of 220-500kV)</b>	107 billion US dollar (10.7 billion USD/year)	225.5 billion US dollar (15 billion USD/year)





THANK YOU  
FOR YOUR ATTENTION!

