



ASIA CLEAN ENERGY FORUM 2025

EMPOWERING THE FUTURE: CLEAN ENERGY INNOVATIONS, REGIONAL
COOPERATION AND INTEGRATION, AND FINANCING SOLUTIONS.



CAMBODIA'S EFFORTS IN BUILDING RESILIENT ENERGY SYSTEM

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 ADB HQ, Manila, the Philippines

1. CURRENT STATUS OF POWER SECTOR DEVELOPMENT

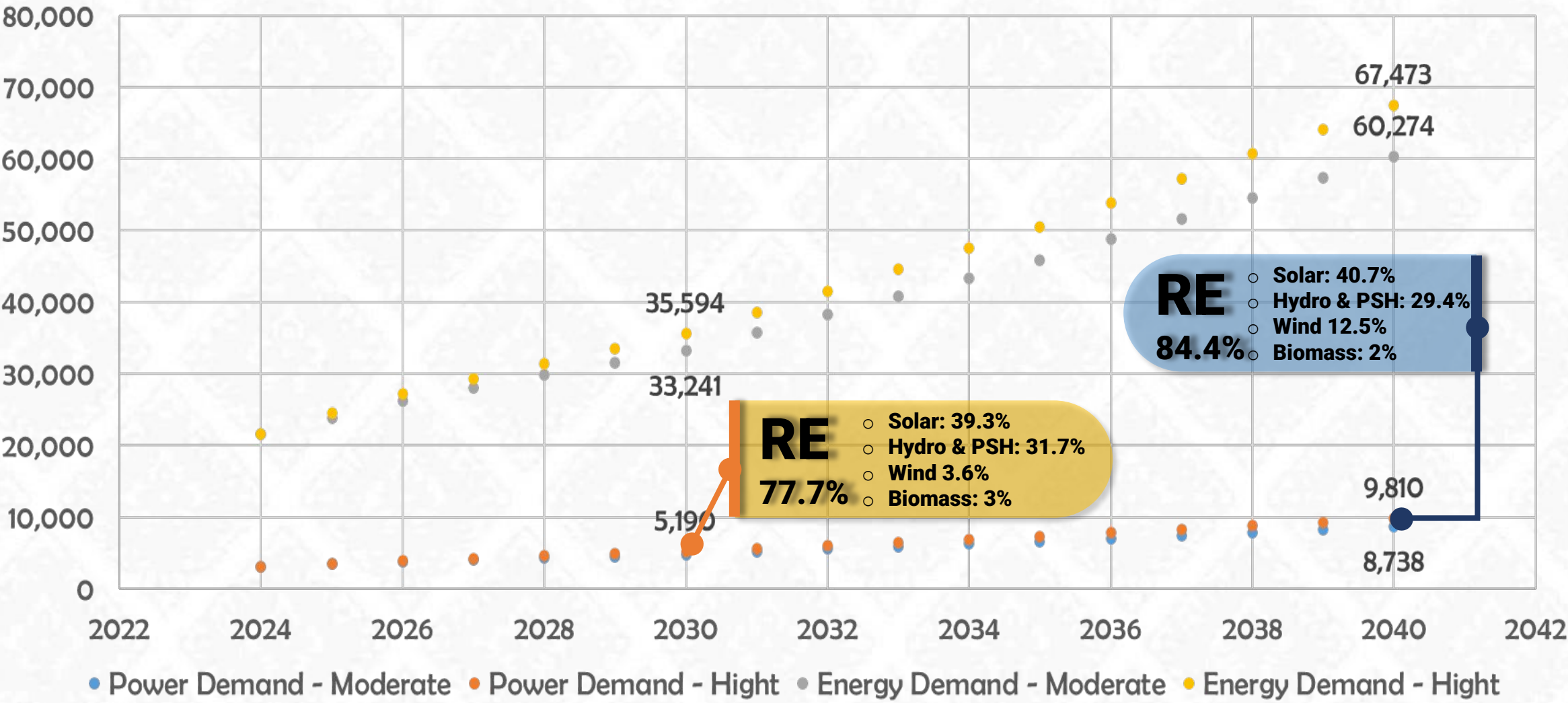
1.1. Energy Mix in 2024

- Two types of power sources: domestic generation accounted for approximately **4.4GW (86.67%)** , while the import remained **less than 14%** of the total installed capacity.
- Majority is renewable energy (**RE 61.11%**) , coming mainly from domestic **hydropower** and **solar PV** .
- Peak demand has increased to almost **3GW in 2024** ; (*currently reached more than 3GW*).

Power Sources	2023				2024			
	Capacity		Energy		Capacity		Energy	
	MW	%	GWh	%	MW	%	GWh	%
1. Power Sources directly connected to National Grid								
- Renewable Energy	2,277	57.25%	8,201.40	51.52%	2,672	61.11%	8,461.14	47.40%
+ Hydro Power	1,791	45.05%	7,333.41	46.06%	1,796	41.09%	7,312.23	40.96%
+ Solar Power	437	10.98%	805.06	5.06%	827	18.91%	1,072.13	6.01%
+ Biomass Power	49	1.22%	62.93	0.40%	49	1.11%	76.79	0.43%
- Non-renewable Energy	1,700	42.75%	7,718.41	48.48%	1,700	38.89%	9,390.21	52.60%
+ Coal	1,300	32.69%	7,665.13	48.15%	1,300	29.74%	8,895.12	49.83%
+ Fuel Oil	400	10.06%	53.28	0.33%	400	9.15%	495.09	2.77%
Total Power Sources directly connected to National Grid	3,977	100%	15,919.81	100%	4,372	100%	17,851.36	100%
2. Import Power Sources from Neighboring Countries								
- Thailand	277	41.24%	132.22	14.95%	277	41.24%	673.15	42.93%
- Vietnam	339	50.43%	686.95	77.66%	339	50.43%	888.74	56.68%
- Laos	56	8.33%	65.38	7.39%	56	8.33%	5.99	0.38%
Total Import Power Sources from Neighboring Countries	672	100%	884.55	100%	672	100%	1,567.88	100%
3. Power Sources								
- Total Power Sources directly connected to National Grid	3,977	85.54%	15,919.81	94.74%	4,372	86.67%	17,851.36	91.93%
- Total Import Power Sources from Neighboring Countries	672	14.46%	884.55	5.26%	672	13.33%	1,567.88	8.07%
Total Power Sources	4,649	100%	16,804.36	100%	5,044	100%	19,419.24	100%

2. FUTURE: REVISED PDP 2022-2040

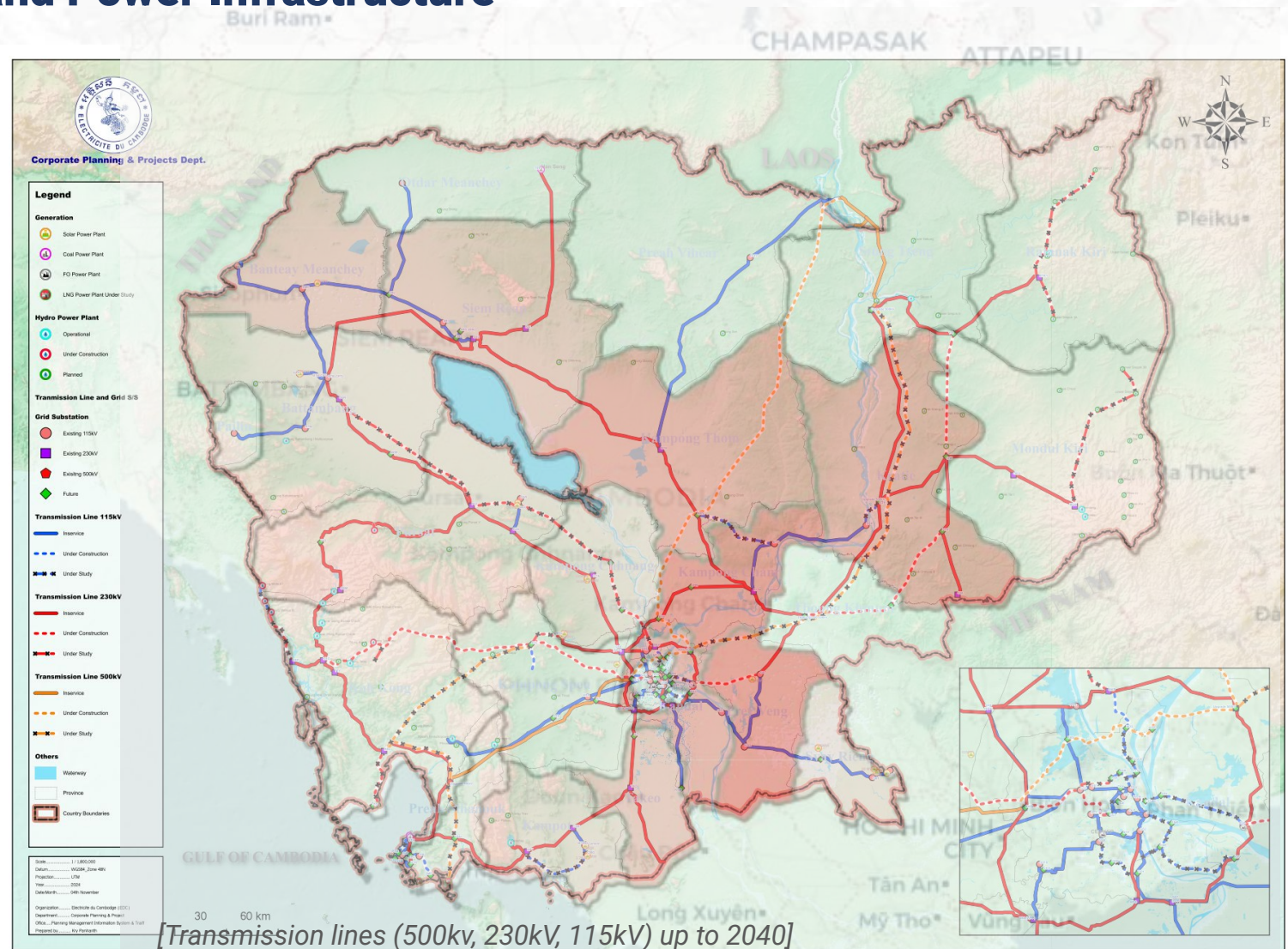
2.1. Installed Capacity (MW) & Energy Demand (GWh)



3. EXTREME WEATHER CONDITIONS

3.1. Extreme Weather Conditions and Power Infrastructure

- **Flood:** Projections indicate that without adaptation, the population exposed to extreme river floods could rise by approximately 4 million by the 2040s.
- **Droughts:** Over 30% of cropland suffers drought stress every five to six years in exposed provinces (**Map key:** Darker red indicates greater exposure)
- **Rising Temperatures :** Rising demand for cooling (already 45% of national electricity consumption) will strain the grid.



4. NATIONAL POLICIES, INVESTMENT AND CAPACITY BUILDING

4.1. Policies for Resilience (1/2)

Cambodia Climate Change Strategic Plan (CCCSP)

- Climate resilience through improving food, water and energy security
- Updated 2024: carbon neutrality and comprehensive climate resilience



Power Development Plan (PDP) 2022-2040

- Aims for affordable, reliable, stable energy, strengthening energy security and efficiency
- Prioritizes RE, VRE and Storage and decarbonization



National Energy Efficiency Policy (NEEP) 2022-2030

- Targets at least 19% reduction in total national energy consumption by 2030.
- Incorporated with the PDP, Energy Transition Roadmap, etc.



4. NATIONAL POLICIES, INVESTMENT AND CAPACITY BUILDING

4.1. Policies for Resilience (2/2)

Climate Change AP for Energy Sector 2021-2023

- Comprehensive strategy for the energy sector's climate response.
- Adaptation and mitigation
- Supported by ADB's ET SDP



Nationally Determined Contribution (NDC) 2.0

- Mitigation (energy efficiency, RE share) and adaptation actions
- Energy sector: target of 41.7% by 2030 (13.7 MtCO₂e).



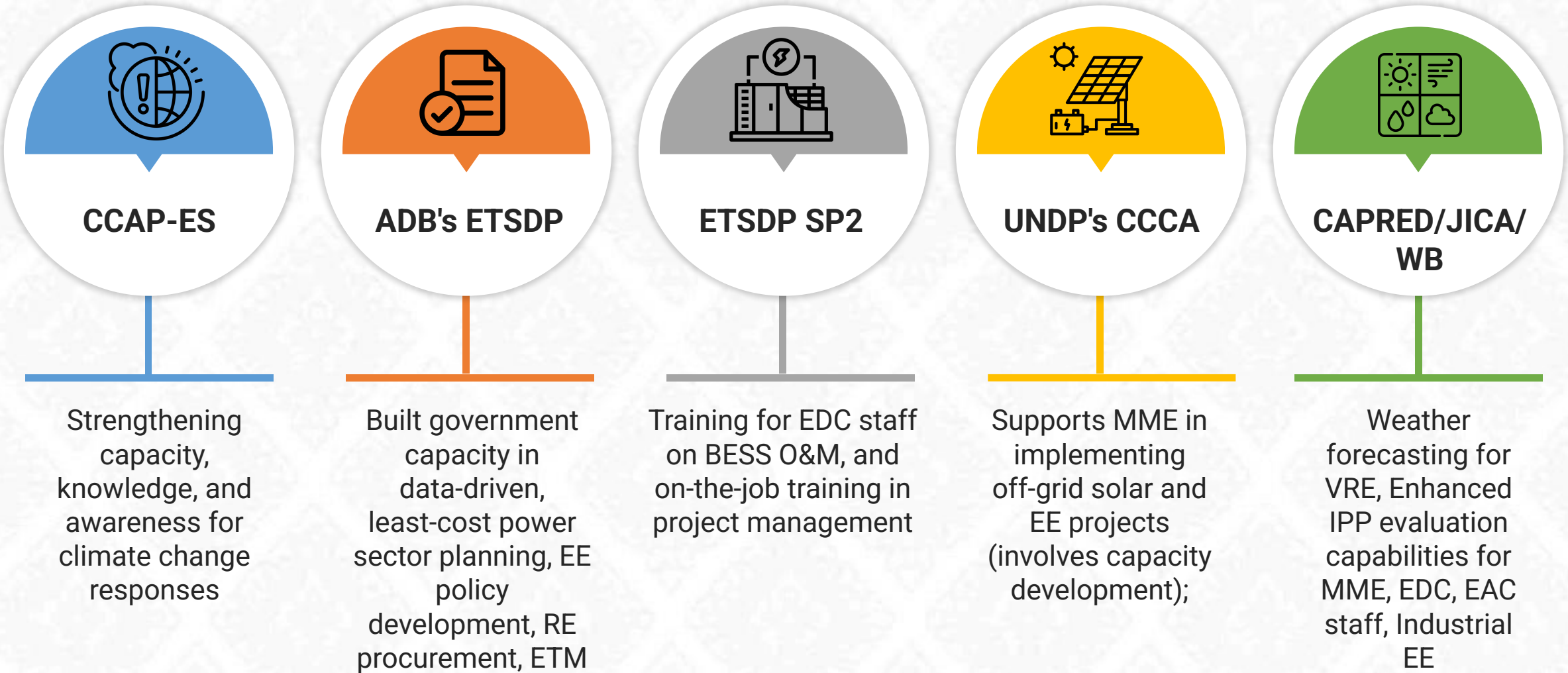
Long-Term Strategy for Carbon Neutrality (LTS4CN)

- Roadmap for net-zero emissions and climate-resilient development by 2050.
- Stringent EE standards and low-carbon fuel transition.



4. NATIONAL POLICIES, INVESTMENT AND CAPACITY BUILDING

4.2. Capacity Building for Climate-Resilient Energy System



THANKS

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