



Country Update Thailand

The 25th Regional Power Trade Coordination Committee
Meeting (RPTCC-25 Meeting)

21 – 22 March 2019

Bangkok, THAILAND

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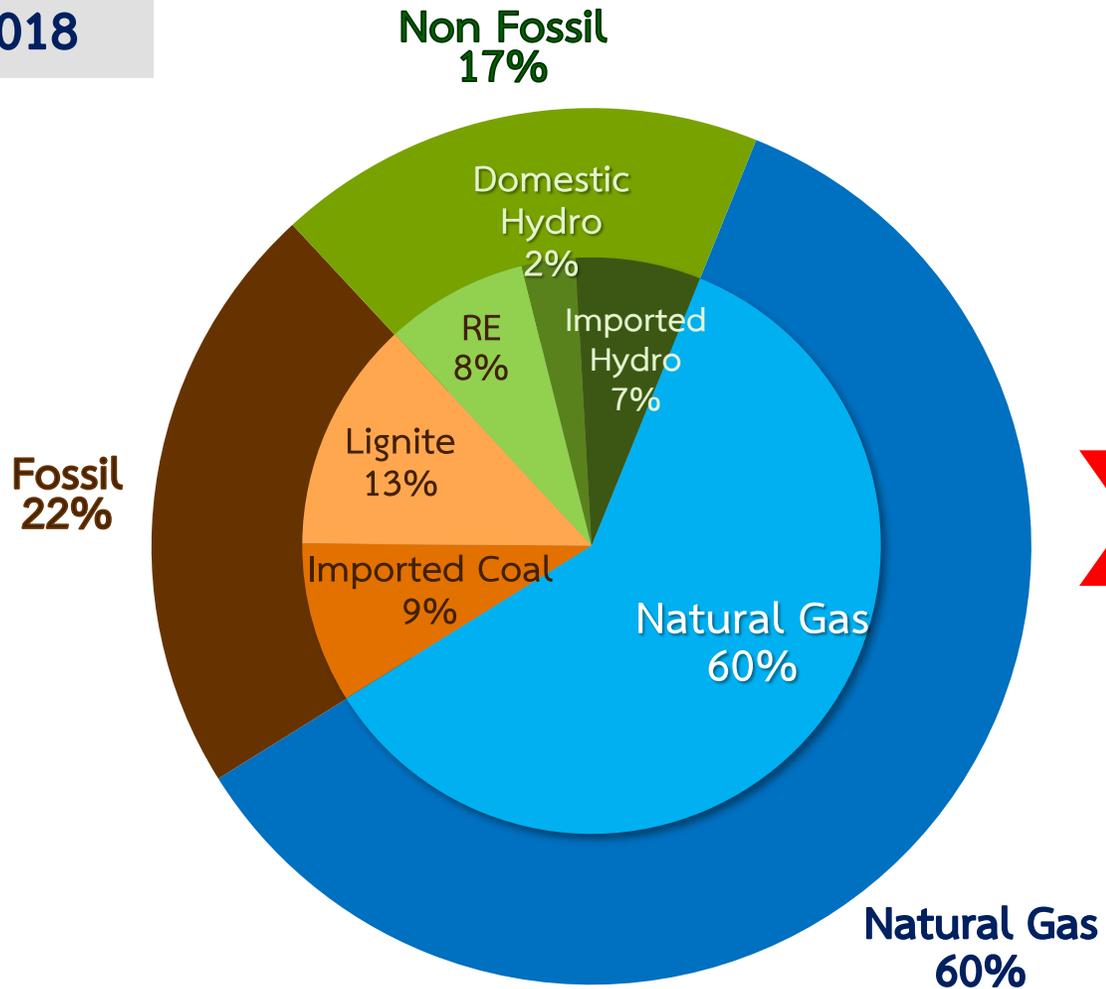
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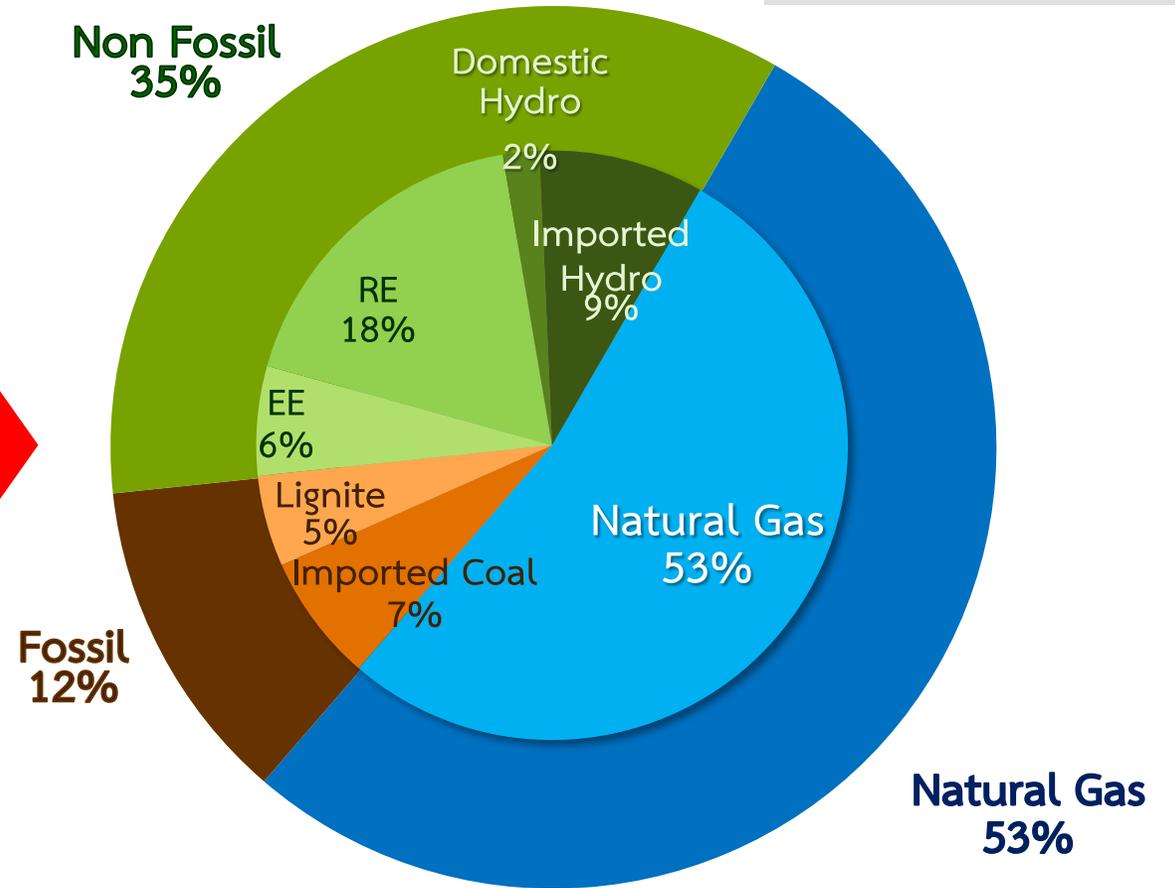
Update on Latest Power Projects:
Generation Transmission and Distribution

Generation in Thailand

2018



2037



Contracted Capacity @ 2018 => 48,002 MW

Contracted Capacity @ 2037 => 77,211 MW

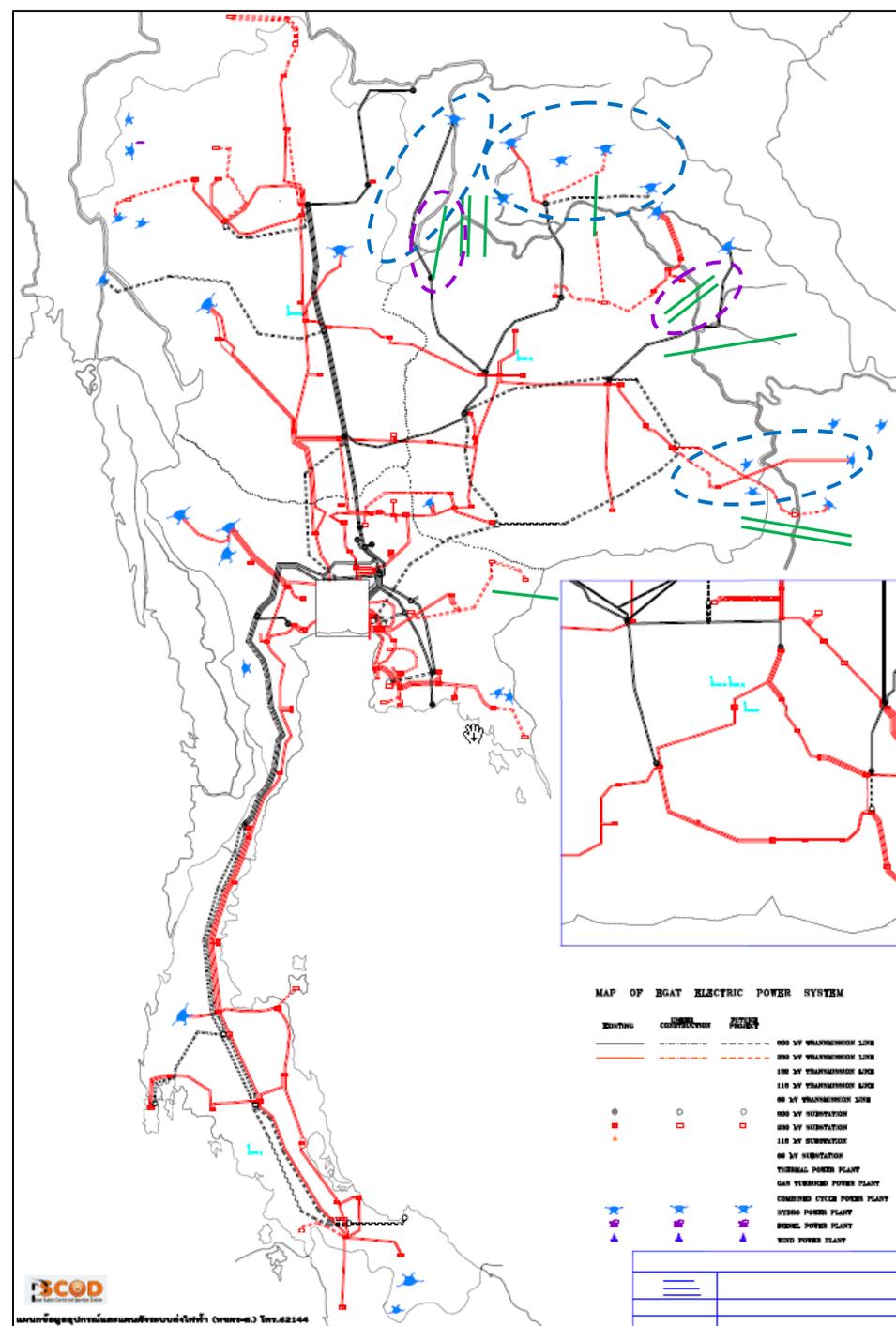
Existing Transmission & Distribution System in Thailand

Substation, Transformer Rated & Transmission Line Length

February 2019

	Voltage Level	Substation		Transmission Line Length (Circuit-Kilometers)
		Number of Substation	Transformer Rated (MVA)	
	500 kV	20	36,949.74	6,527.386
	230 kV	82	63,200.01	14,712.730
Summation of Transmission System (EGAT)	115 kV	126	14,933.16	13,198.124
	132 kV	-	133.40	8.705
	69 kV	-	-	18.800
	300 kV HVDC	-	388.02	23.066
Total		228	115,604.33	34,488.811
Summation of Distribution System (MEA & PEA)	230 kV	3	3400	57.53
	115 kV and Below	602	107,290.00	327,178.990
Total		605	110,690.00	327,236.520
Grand Summation		833	226,294.33	361,725.331

Foreign Generation, Interconnection & Transmission Plan



		Contract Capacity (MW)	Interconnection	Circuits	Complete
FIPP	Xe-Pain Xe-Namnoy	390	230 kV Ubon Ratchathani 3 - Xe-Pain Xe-Namnoy	2	6 DEC 2019
	Xayaburi	1,285	500 kV Thali - Xayaburi	2	29 OCT 2019
	Nam Ngieb	261	500 kV Udon Thani 3 - Nabong (existing)	2	12 AUG 2019
	Nam Theun1	523	500 kV Udon Thani 3 - Nabong (existing)	2	23 MAY 2022
Interconnection	EDL		115 kV Nakhon Phanom - Thakhek *	2	Waiting for Laos
	EDL		115 kV Sirindhorn 2 - Bangyo	2	JUN 2019
	EDL		115 kV Thali - Paklai	1	JAN 2021

* Upgrade existing line

		Future 500 kV Transmission Line	Circuits	Complete
North-Eastern Area		500 kV Chaiyaphum 2 - Roi Et 2	2	DEC 2019
		500 kV Roi Et 2 - Ubon Ratchathani 3	2	MAR 2020
		500 kV Nakhon Ratchasima 3 - Ubon Ratchathani 3	2	SEP 2023
		500 kV Nakhon Ratchasima 3 - Chaiyaphum 2	2	SEP 2023
Metropolitan Area		500 kV Nakhon Ratchasima 3 - Khlong Mai	2	OCT 2023
		500 kV Tha Tako - Sam Khok	2	OCT 2022
Southern Area		500 kV Chom Bung - Bang Saphan 2	2	SEP 2021
		500 kV Bang Saphan 2 - Surat Thani 2	2	SEP 2021
		500 kV Surat Thani 2 - Puket 3	2	SEP 2021
		500 kV Surat Thani 2 - Thung Song	2	DEC 2022
	500 kV Thung Song - Hat Yai 3	2	DEC 2022	

Update of Rural Electrification

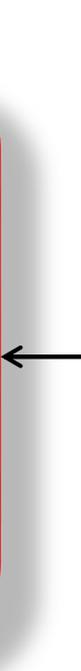
Rural Electrification

Village Level		Unit (Village)
Number of Village in Thailand		74,304
With Access		74,300
- Distribution System		74,023
- Solar Mini Grid		268
- Other (Electricification from another department eg. Military Area, DEDE, Royal Irrigation)		9
Without Access		4
- Restricted area with department's authorize		2
- Restricted area eg. Conserved forest, national park		2
Electrification Rate 99.99% of total village in Thailand		
Household Level		Unit (Household)
Number of Household in Thailand		21,885,053
With Access		21,834,757
- Distribution System		21,772,856
- Solar Mini Grid		59,925
- Other (Electricification from another department e.g. Military Area, DEDE, Royal Irrigation)		1,976
Without Access		50,296
- Waiting for installment		23,559
- Restricted area with department's authorize		436
- Restricted area e.g. Conserved forest, national park		25,794
- Limitation of PEA's regulation		507

- Restricted area eg. Conserved forest, national park

- Limitation of PEA's regulation

Nearly 100% of population are access to electricity.



Electrification Rate 99.77% of total household in Thailand

Update of GMS Cooperation Initiatives

GMS cooperation initiatives

The Main RIF Projects in Thailand



Bangyai-Kanchanaburi Motorway
Construction Project



The 5th Thai-Laos Friendship Bridge
Construction Project (Bueng Kan-Paksan)
(in the process of finding financial sources)



Tak-Mae Sot Highway
Construction Project



The 2nd Thai-Myanmar Friendship Bridge
Construction Project



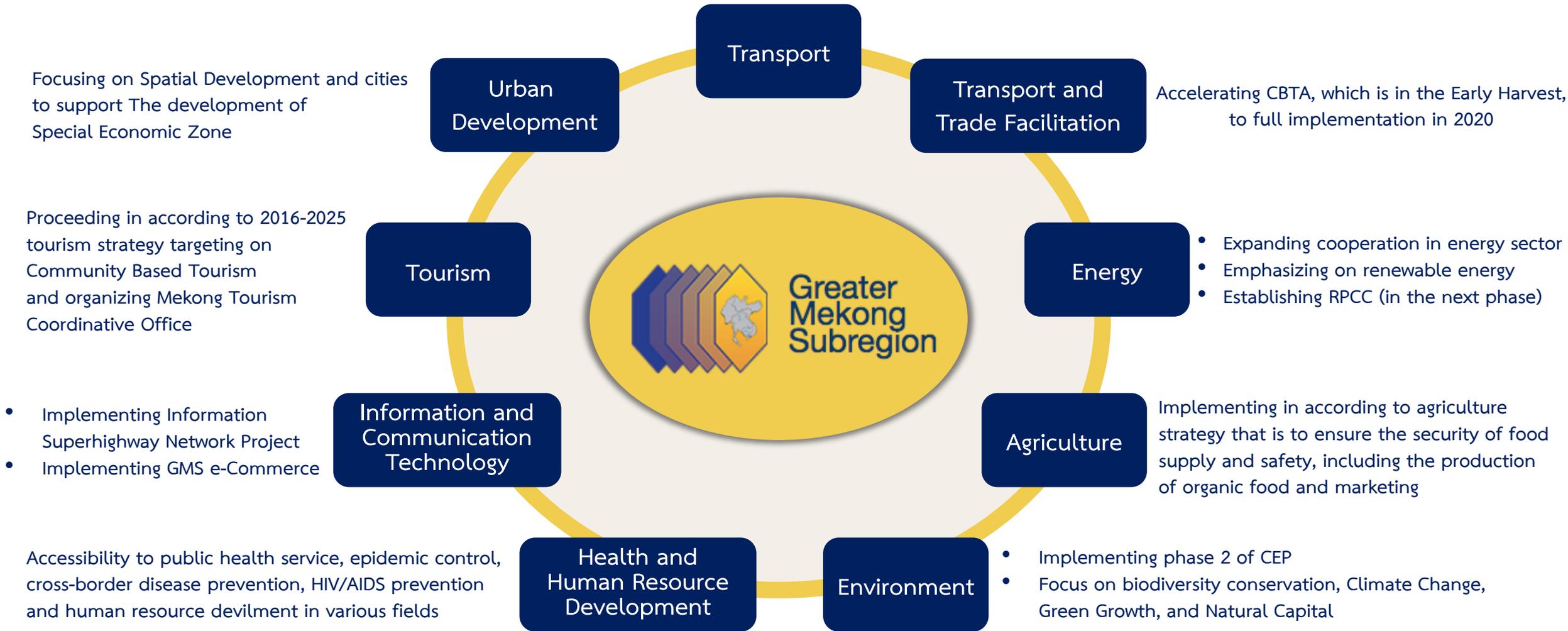
Establishing the Common Control Area
(CCA) in Mukdahan-Savannakhet

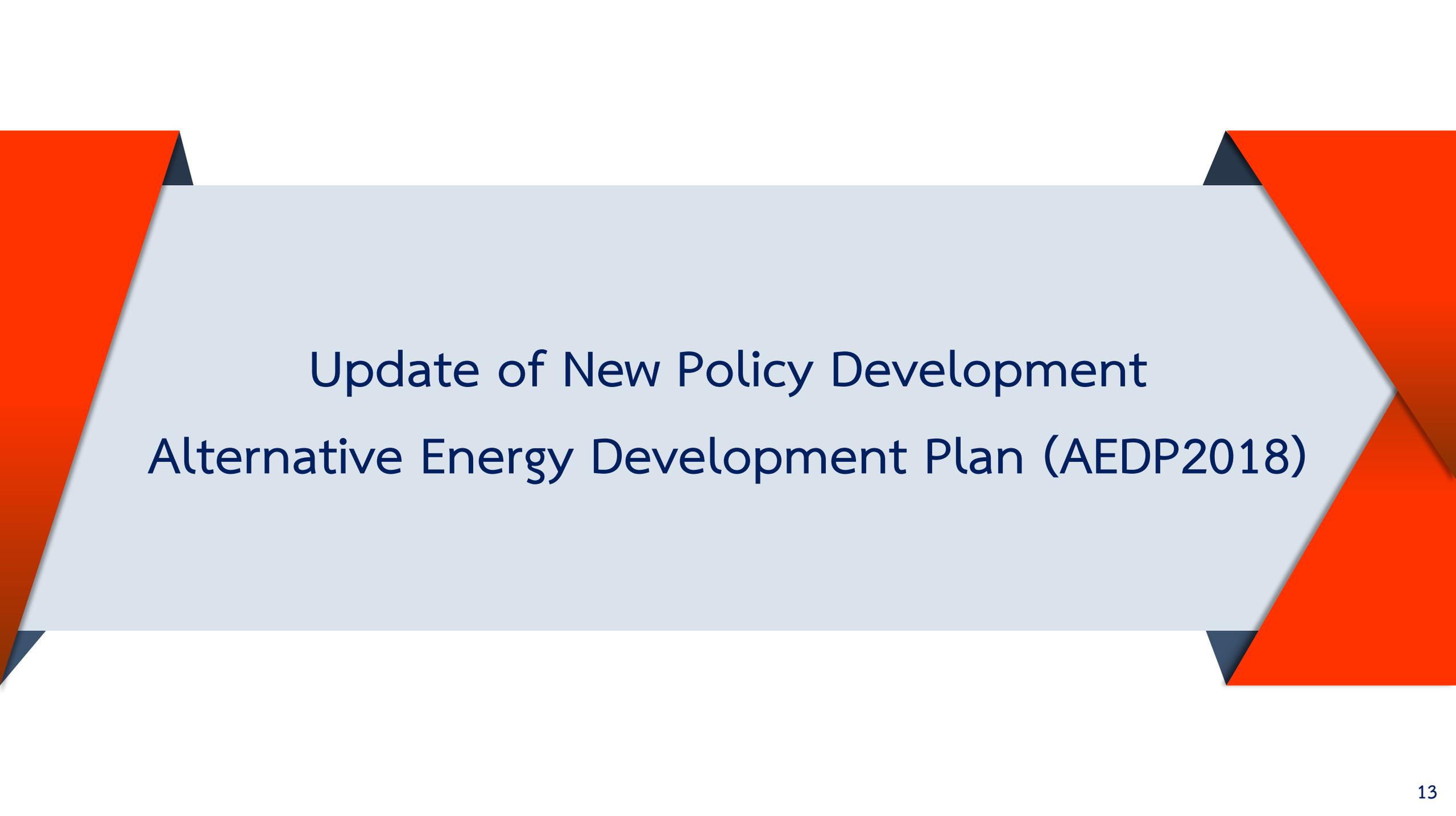


Laem Chabang Sea Port Development
Phase 3

The Focusing Plans in GMS for each Cooperated Area

Expanding roads along the GMS Economic Corridor
with emphasis on road safety and development of rail transportation system
by organizing GMS Railways Association





Update of New Policy Development
Alternative Energy Development Plan (AEDP2018)



Reliable (MW)	2032	2033	2034	2035	2036	2037
EE	354	556	1,415	2,440	3,300	4,000



THANK YOU
For your kind
Attention