

Country Report
on
Progress of Power Development Plans and Transmission
Interconnection Projects



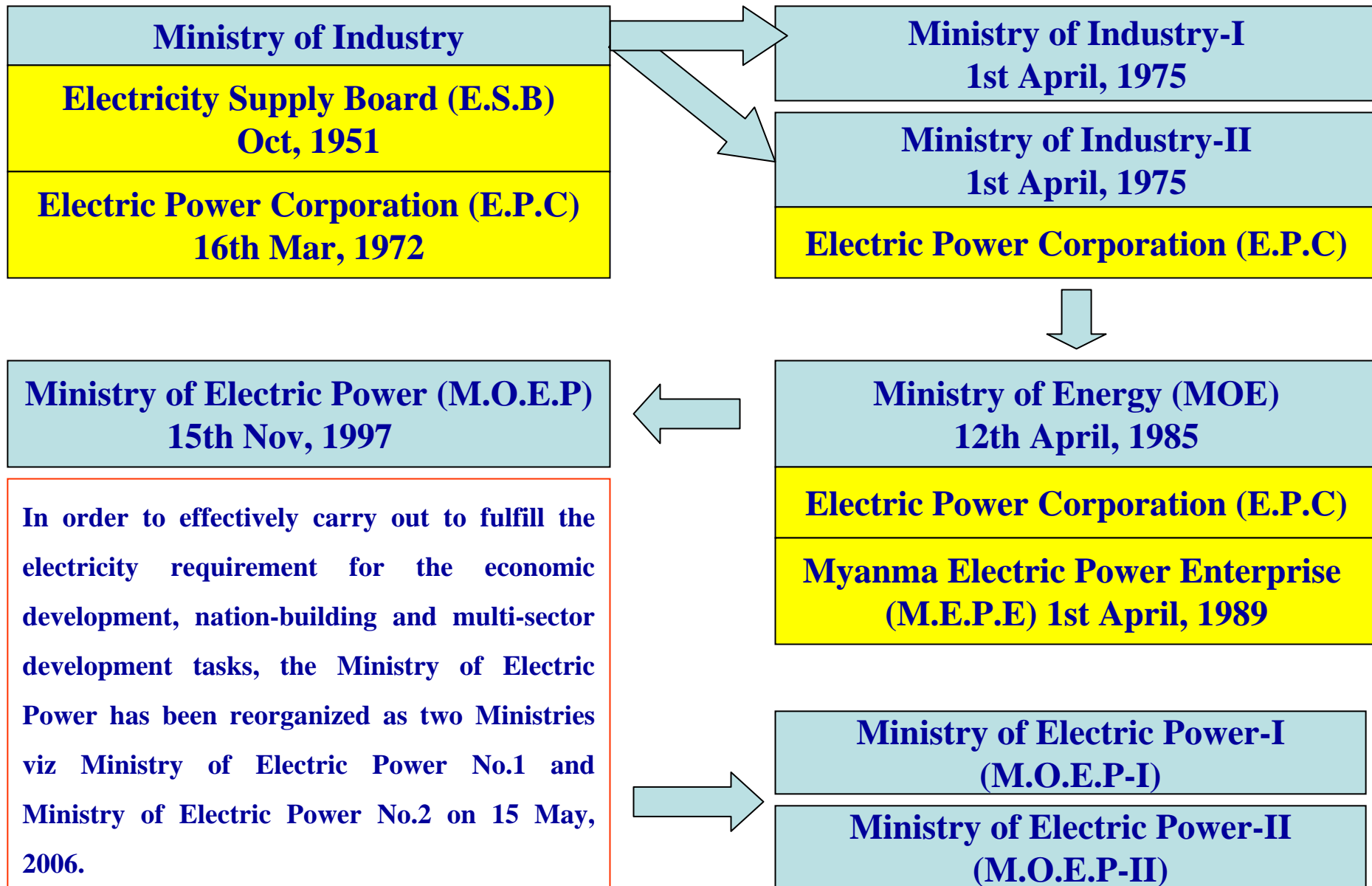
Ho Chi Minh City, Viet Nam

21.11.2008

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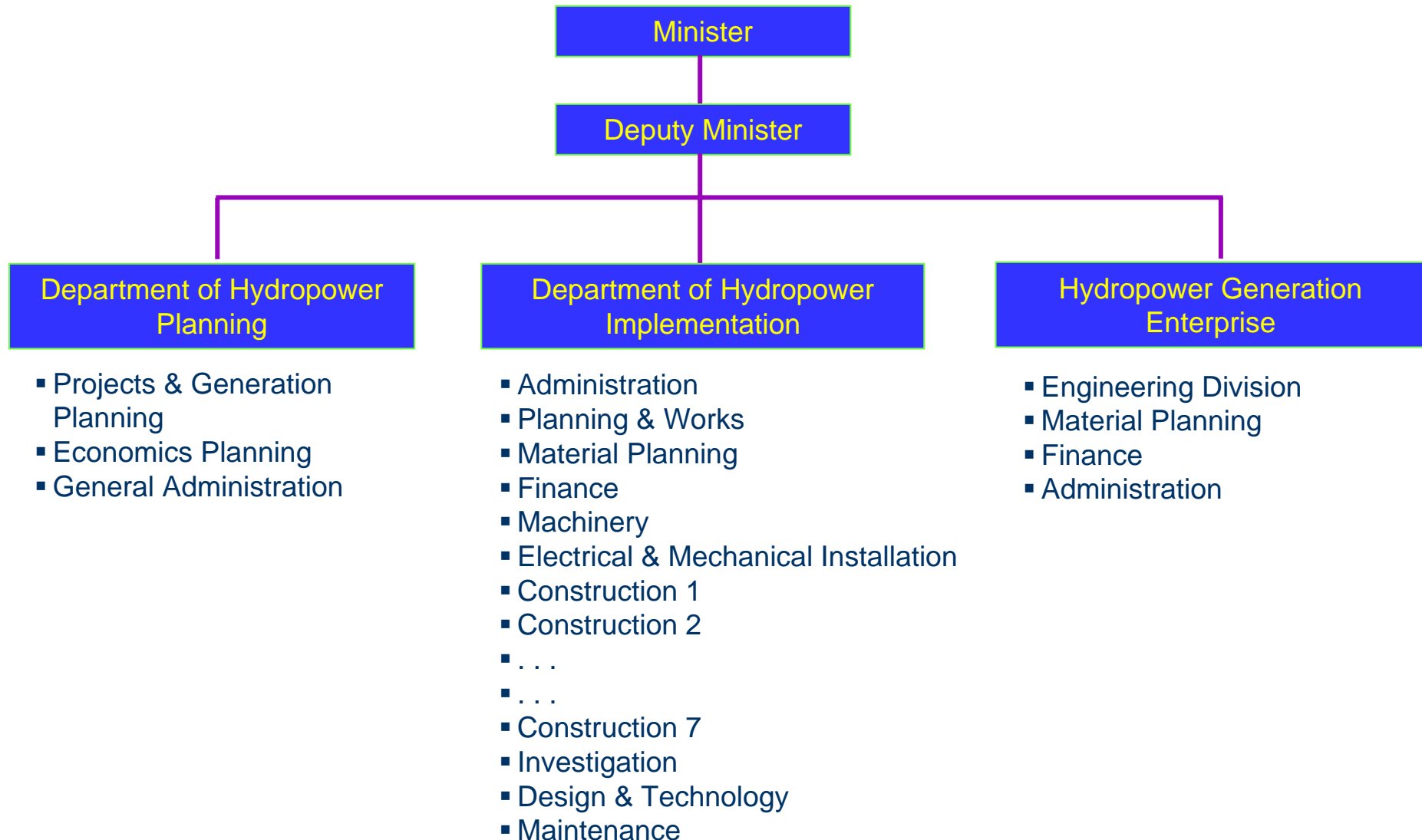
- (1) Developments in Institutional / Policy Framework for Electricity Sector**
- (2) Status of Electricity Demand and Supply**
- (3) Progress in Power Development Program**
- (4) Developments in Power Cooperation with GMS Neighbors**

(1) Developments in Institutional / Policy Framework for Electricity Sector



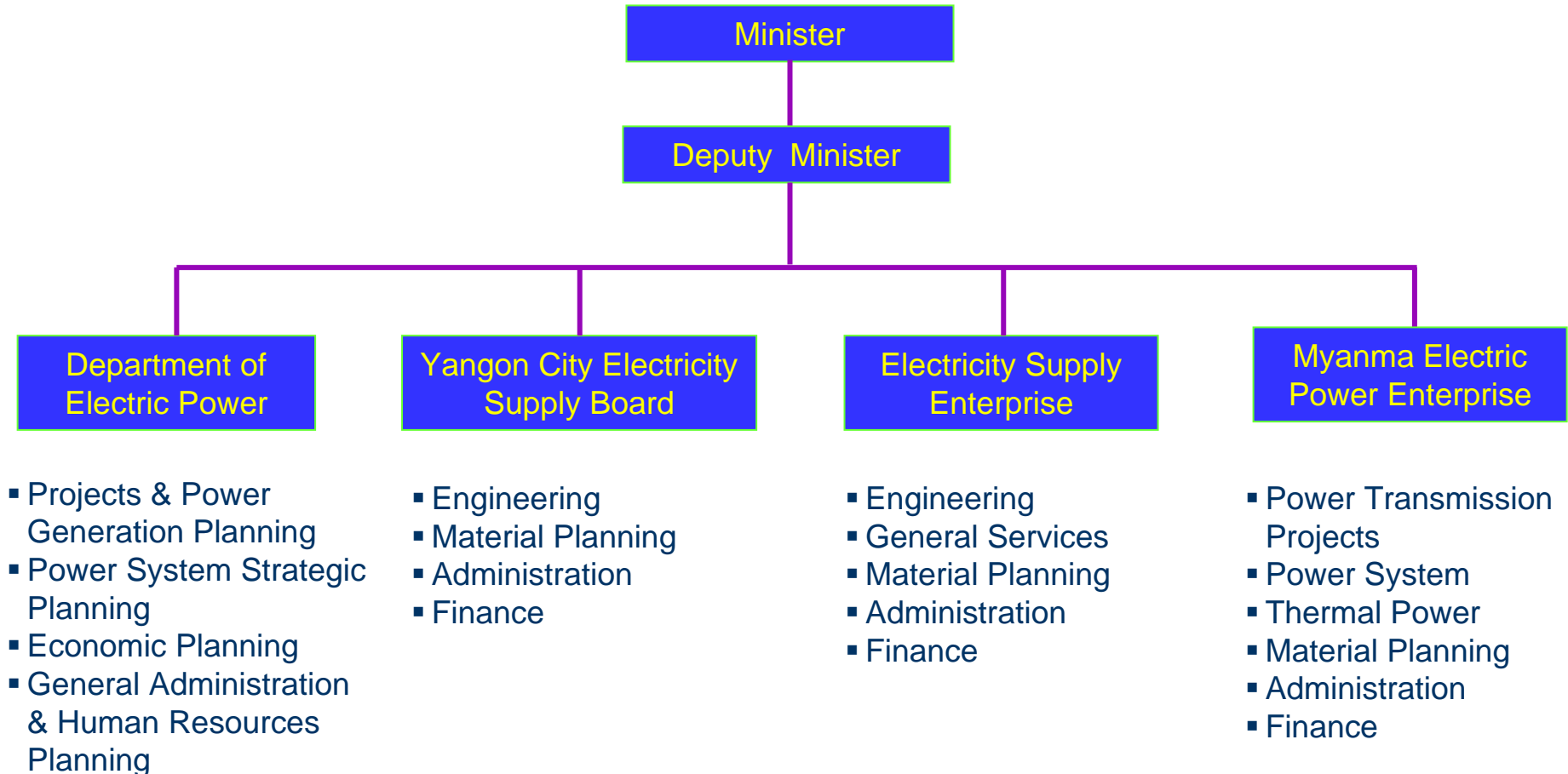
(1) Developments in Institutional / Policy Framework for Electricity Sector(Cont:)

Organization Chart for Ministry of Electric Power No. (1)



(1) Developments in Institutional / Policy Framework for Electricity Sector(Cont:)

Organization Chart for Ministry of Electric Power No. (2)



(1) Developments in Institutional / Policy Framework for Electricity Sector(Cont:)

Responsibilities for Ministry of Electric Power No.1

- ☐ **Development of new hydroelectric power projects.**
- ☐ **Operation and maintenance of existing hydroelectric power stations and coal fired thermal power station.**
- ☐ **Selling the electricity to the Ministry of Electric Power No.2**

Responsibilities for Ministry of Electric Power No.2

- ☐ **Planning and implementation of transmission lines and sub-stations compliance with the generation plan of both ministries**
- ☐ **Operation and maintenance of gas turbines, combined cycles and thermal power stations.**
- ☐ **Purchasing the electricity from the Ministry of Electric Power No.1**
- ☐ **Planning and implementation of distribution system and selling the electricity to the end users**

(1) Developments in Institutional / Policy Framework for Electricity Sector(Cont:)

Regulatory Frame Work

As electricity business has been subsidized by the government long ago, Ministry of Electric Power No.1 and No.2 in accordance with the guidance of the government take the responsibilities of regulator.

Challenges in REGULATION

- **Policy of Myanmar Power Sector is changing gradually towards privatization**
- **Regulation for new system is not ready yet and a lot of regulatory challenges ahead**
- **Opportunity to learn experiences of other ASEAN countries on regulatory issues**

Private Sector Participation

Local investors are allowed to participate in the scheme of Independent Power Producer (IPP) for medium hydropower projects

- ✓ **The MOU on Thaukyegat(2) Hydropower Project (120 MW) was signed between MOEP(1) and Asia World Company Limited on 2nd May 2008.**
- ✓ **The MOU on Baluchaung No.(3) Hydropower Project (48 MW) was signed between MOEP(1) and High Tech Concrete Technology Company Limited on 2nd May 2008.**

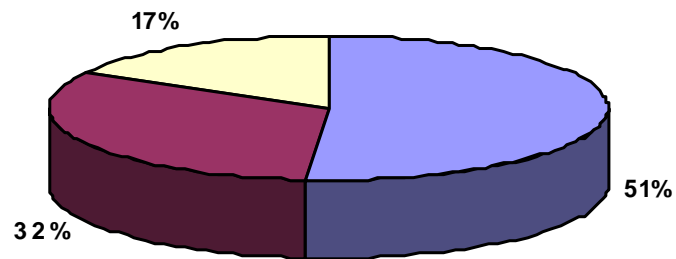
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(2) Status of Electricity Demand and Supply

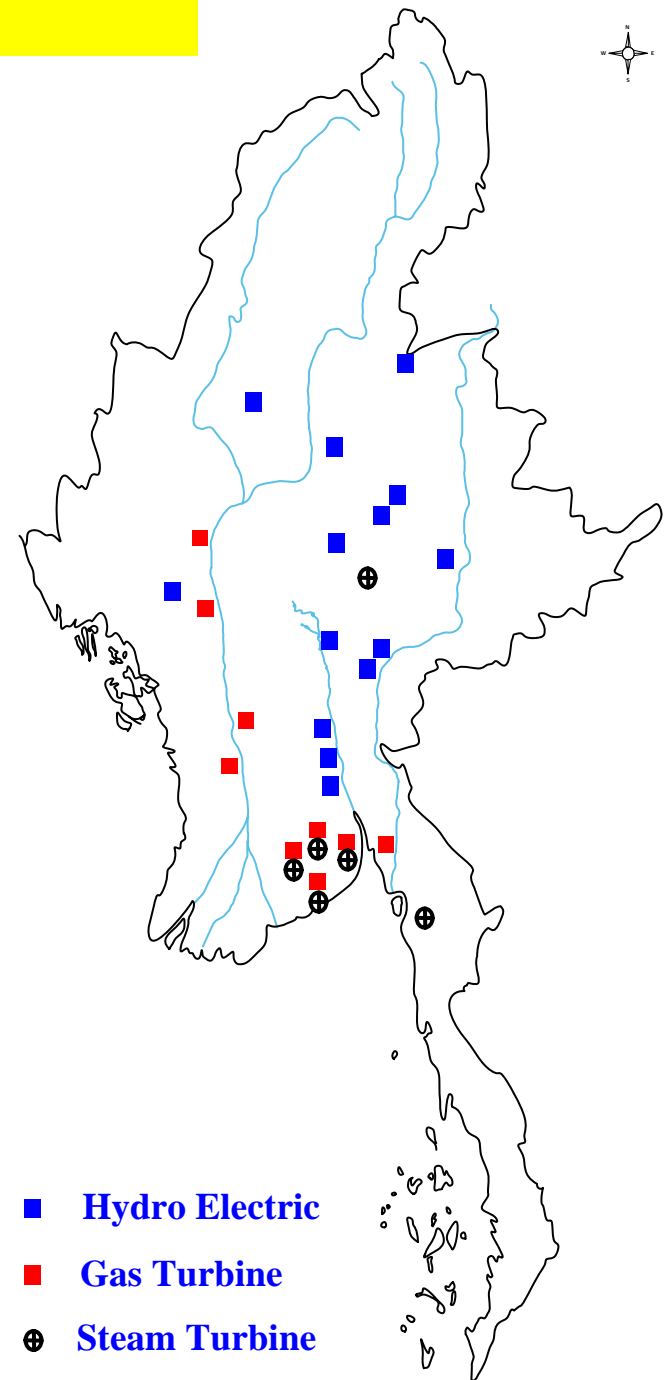
Installed Capacity for National Grid System

Sr	Type	Nos. of PS	Installed (MW)
1	Hydro Electric	14	885.0
2	Gas Turbine	9	549.9
3	Steam Turbine	6	285.0
Total		29	1719.9



■ Hydro Electric ■ Gas Turbine □ Steam Turbine

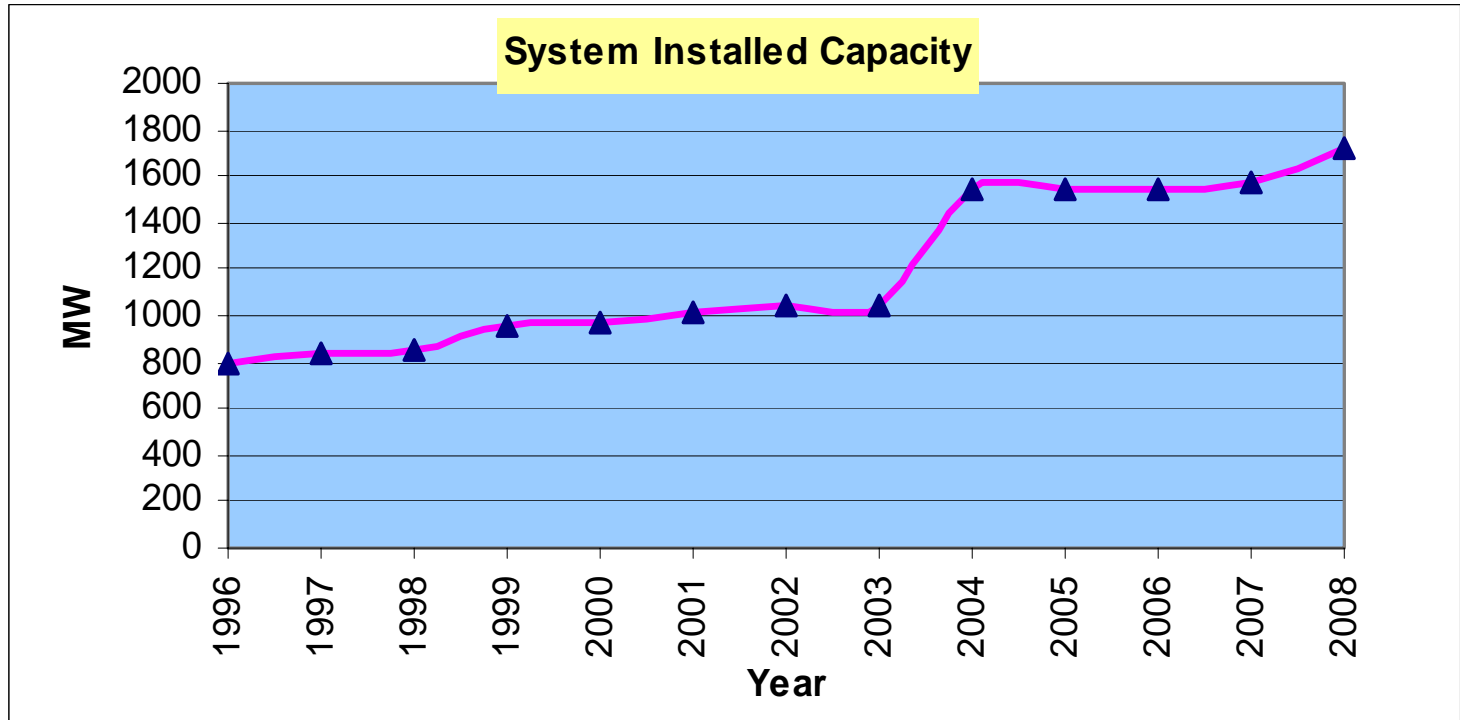
1	MOEP-I	15	1005.0
2	MOEP-II	14	714.9
Total		29	1719.9



(2) Status of Electricity Demand and Supply (Cont:)

System Installed Capacity

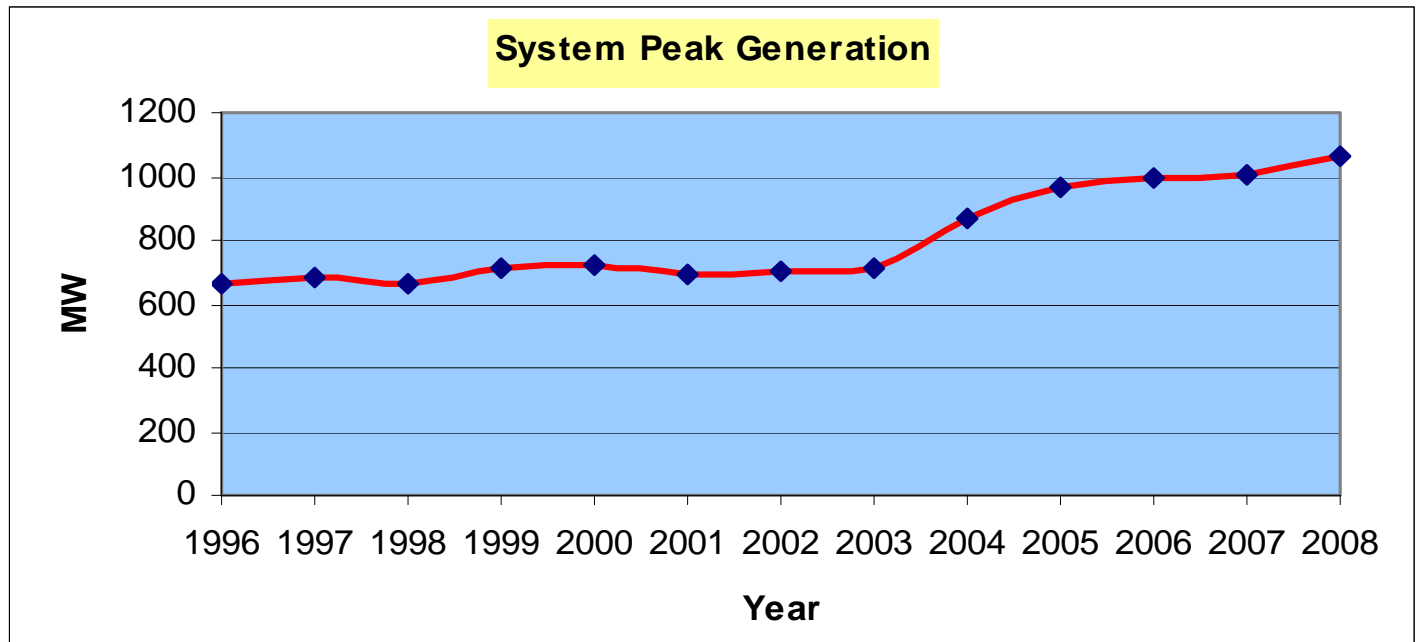
Year	MW
1996	800.4
1997	835.4
1998	847.4
1999	956.0
2000	976.0
2001	1008.5
2002	1038.5
2003	1038.5
2004	1546.9
2005	1546.9
2006	1546.9
2007	1571.9
2008	1719.9



(2) Status of Electricity Demand and Supply (Cont:)

System Peak Generation

Year	MW
1996	660.8
1997	682.6
1998	665.2
1999	715.5
2000	721.1
2001	692.5
2002	701.2
2003	708.3
2004	864.0
2005	966.4
2006	995.7
2007	1005.0
2008	1061.2



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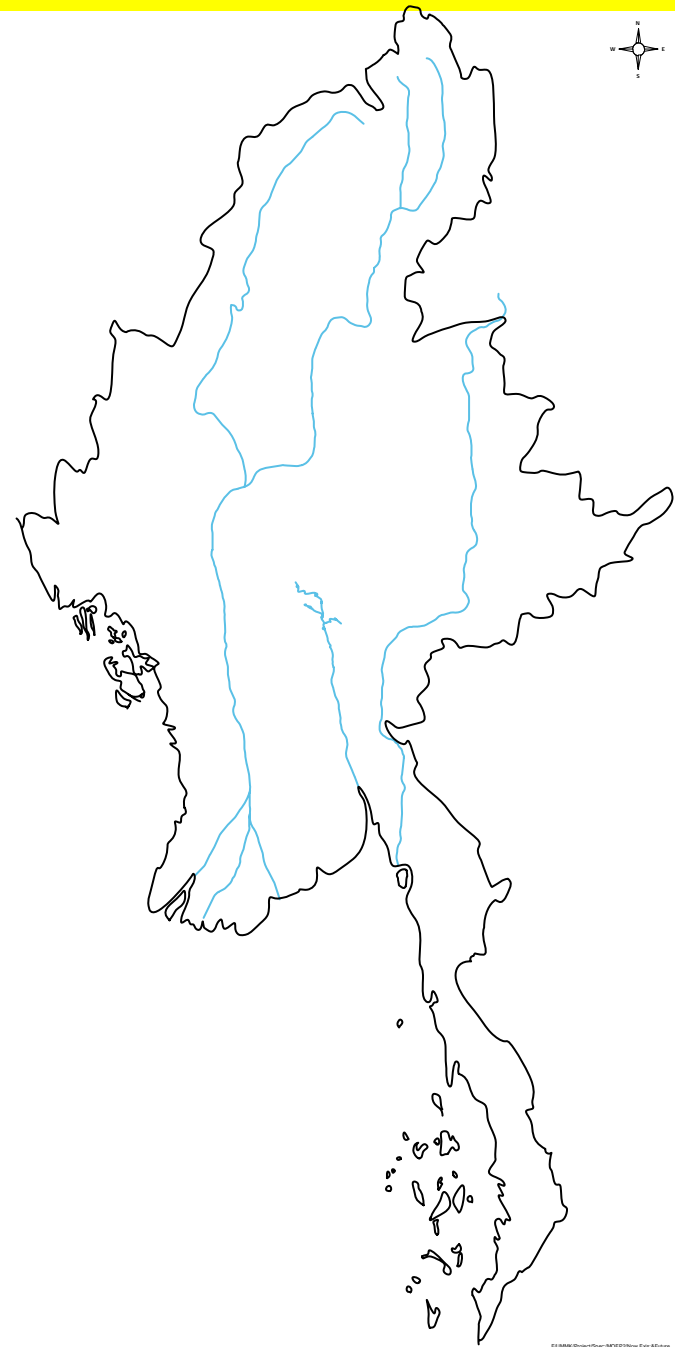
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(3) Progress in Power Development Program

Power Stations

	Nos. of Power Station	Installed (MW)
Existing	29	1,719.9
Under Construction	29	19,413.8
Future	14	13,971.5
Total	72	35,105.2

**There is no Under Construction Project
and Future Plan for new Gas Turbine
and Steam Turbine.**



(3) Progress in Power Development Program (Cont:)

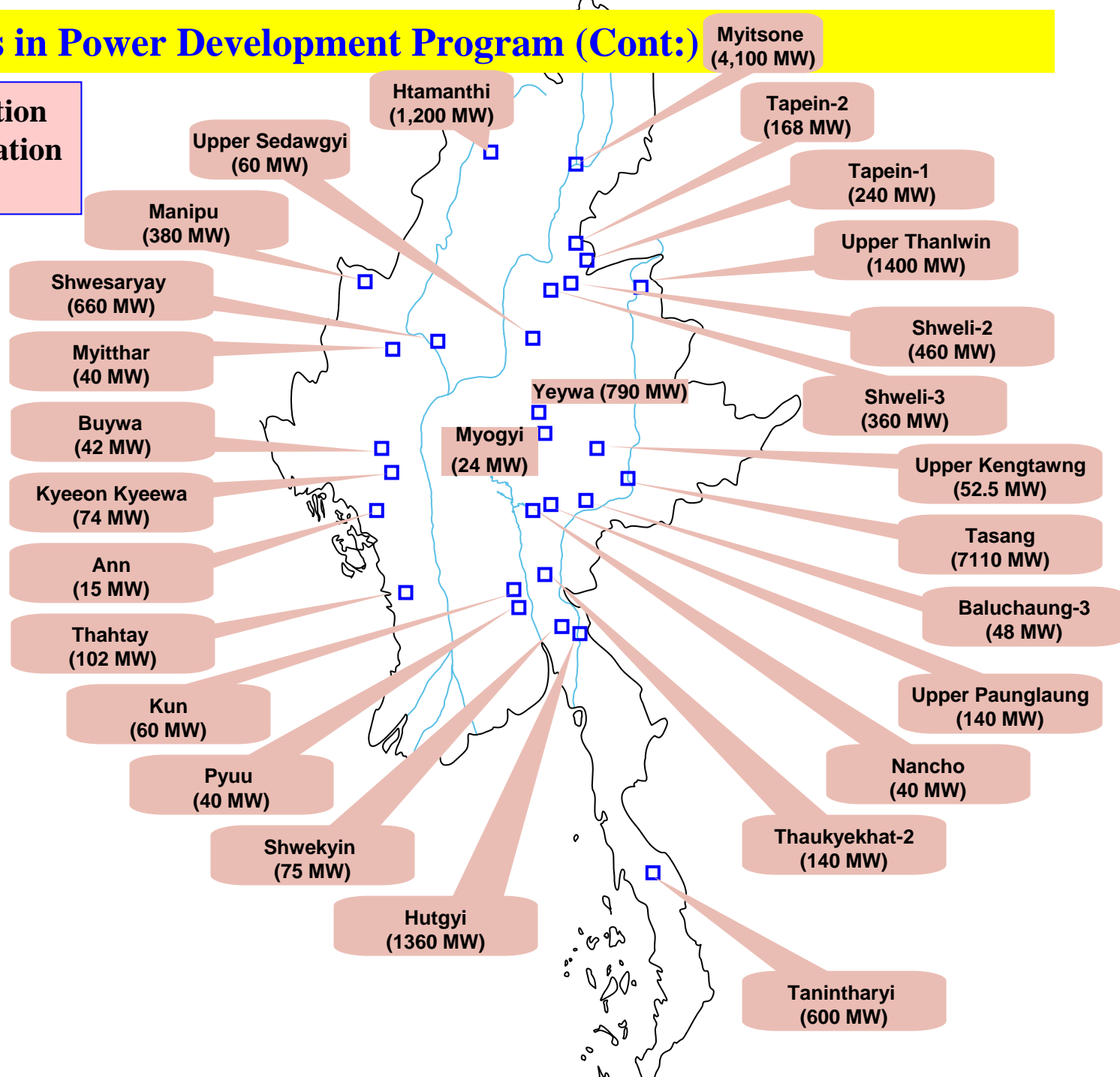
Under Construction Hydro Electric Power Projects			
Sr.	Project Name	Capacity (MW)	Remark
1	Kun	60	70%
2	Phyu	40	70%
3	Shwekyin	75	65%
4	Kyeeon Kyeewa	74	66.2%
5	Myithar	40	24.5%
6	Thahtay	102	6%
7	Upper Keng Tawng	52.5	-
8	Buu Ywa (Lower)	42	12.5%
9	Upper Sedaw Gyi	60	1.8%
10	Myogyi	24	46%
11	Yeywa	790	67%
12	Upper Paung Laung	140	27%
13	Ann	15	5%
14	Thaukyegat-2	140	Asia World, BOO
15	Anyarpya	9.3	-

(3) Progress in Power Development Program (Cont:)

Under Construction Hydro Electric Power Projects			
Sr.	Project Name	Capacity (MW)	Remark
16	Yarzagyo	4	22.1%
17	Tamanthi	1200	9%, NHPC MoU
18	Tasang	7110	Pre Construction
19	Nancho	40	26%
20	Hutgyi	1360	Under FS
21	Ayeyarwaddy Myitsone	4100	CPI
22	Ta Pein-1	240	DUHD
23	Ta Pein-2	168	DUHD
24	Shweli-2	460	YUPD
25	Shweli-3	360	YUPD
26	Upper Thanlwin	1400	Hanergy Holding Group Ltd
27	Shwe Sar Yay	660	NHPC
28	Tanintharyi	600	Italian-Thai
29	Baluchaung-3	48	High Tech Concrete Co.,
Total		19,413.8	

(3) Progress in Power Development Program (Cont:)

Under Construction Hydro Power Station Projects

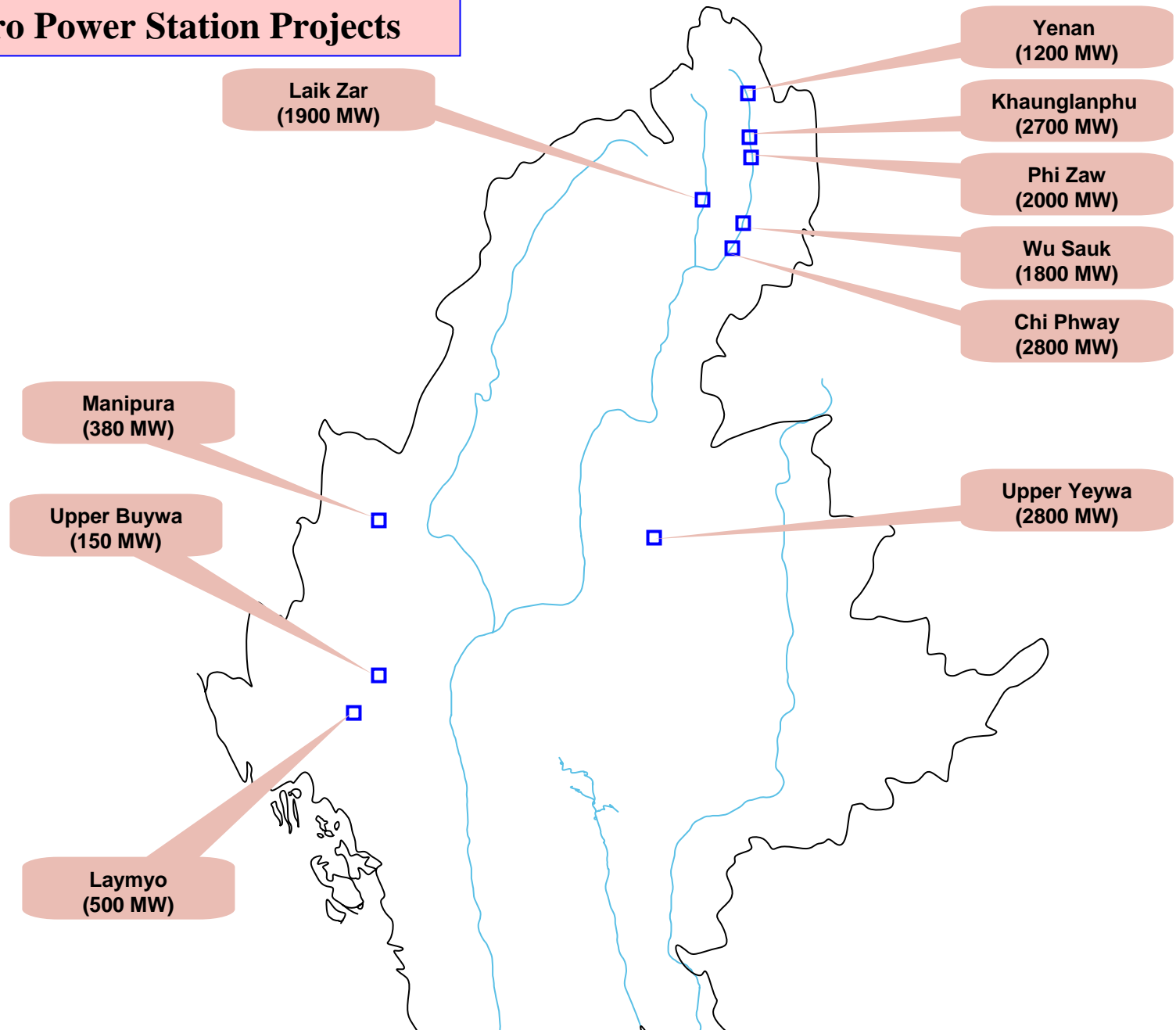


(3) Progress in Power Development Program (Cont:)

Future Hydro Power Station Projects		
Sr.	Project Name	Capacity (MW)
1	Yenan	1200
2	Khaung Lan Phu	2700
3	Phi Zaw	2000
4	Wu Sauk	1800
5	Chi Phway	2800
6	Laik Zar	1900
7	Sai Din	76.5
8	Bilin	280
9	Dayine Chaung	25
10	Tha Kyet	20
11	Lay Myo	500
12	Manipura	380
13	Upper Buywa	150
14	Upper Yeywa	140
Total		13,971.5

(3) Progress in Power Development Program (Cont:)

Future Hydro Power Station Projects



(3) Progress in Power Development Program (Cont:)

Transmission Lines

Existing		
kV	Nos. of Lines	Miles
230	20	1186
132	27	1206
66	70	1515
Total	117	3907

Under Construction		
kV	Nos. of Lines	Miles
230	15	599.15
132	6	98.67
66	2	52.74
Total	23	750.56

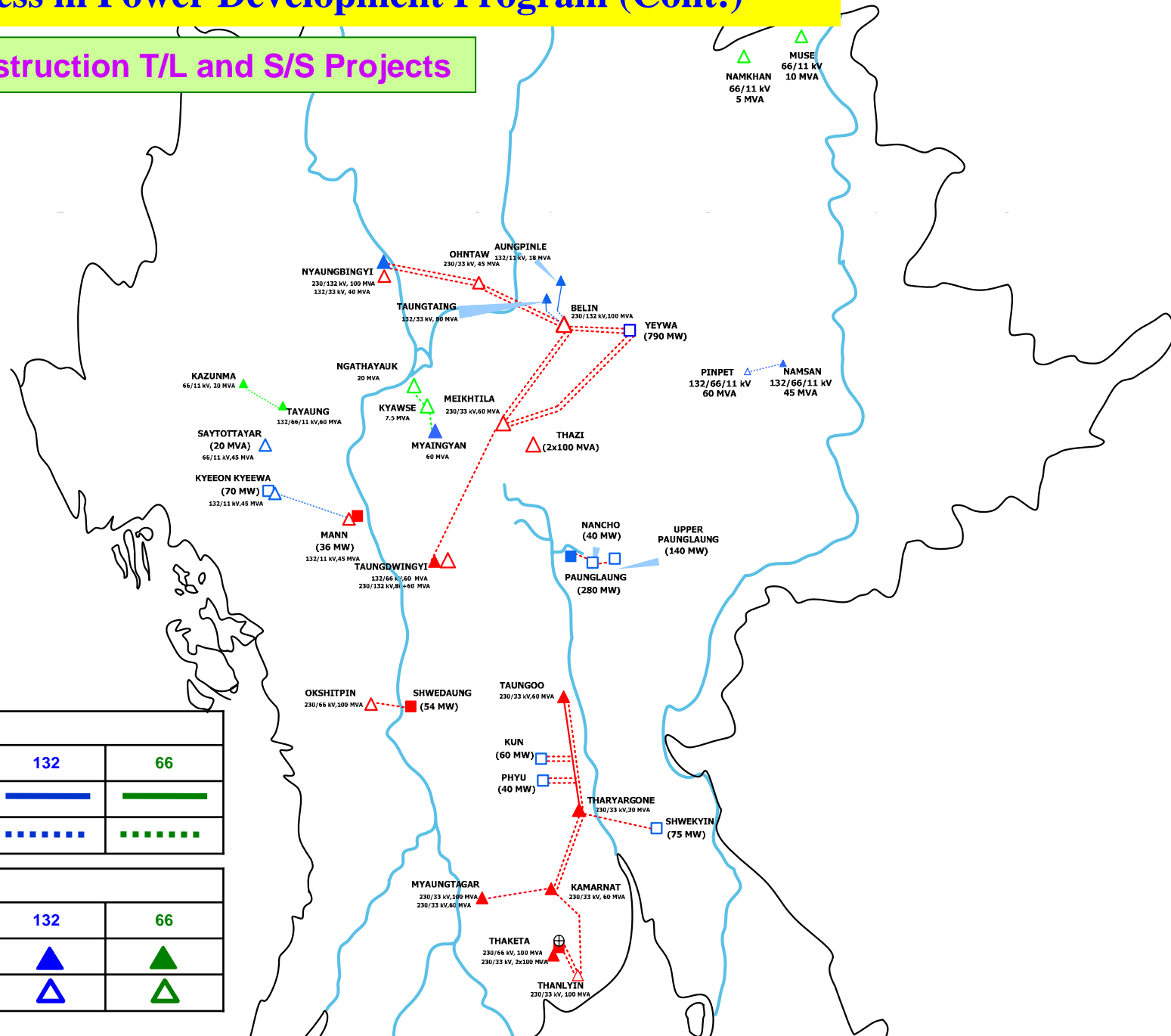
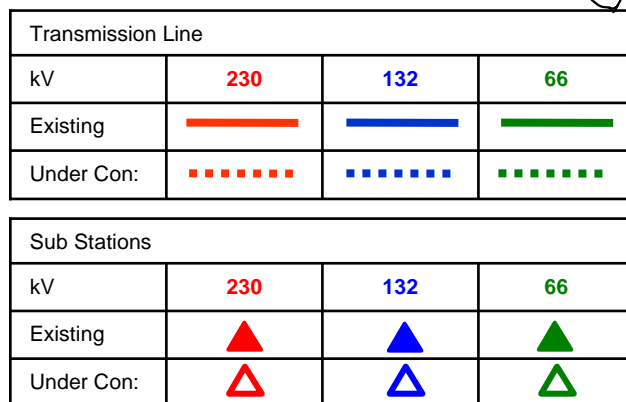
Substations

Existing		
kV	Nos. of S/S	MVA
230	23	2108
132	25	1013
66	52	939
Total	100	4060

Under Construction		
kV	Nos. of S/S	MVA
230	8	865.0
132	2	135.0
66	5	62.5
Total	15	1062.5

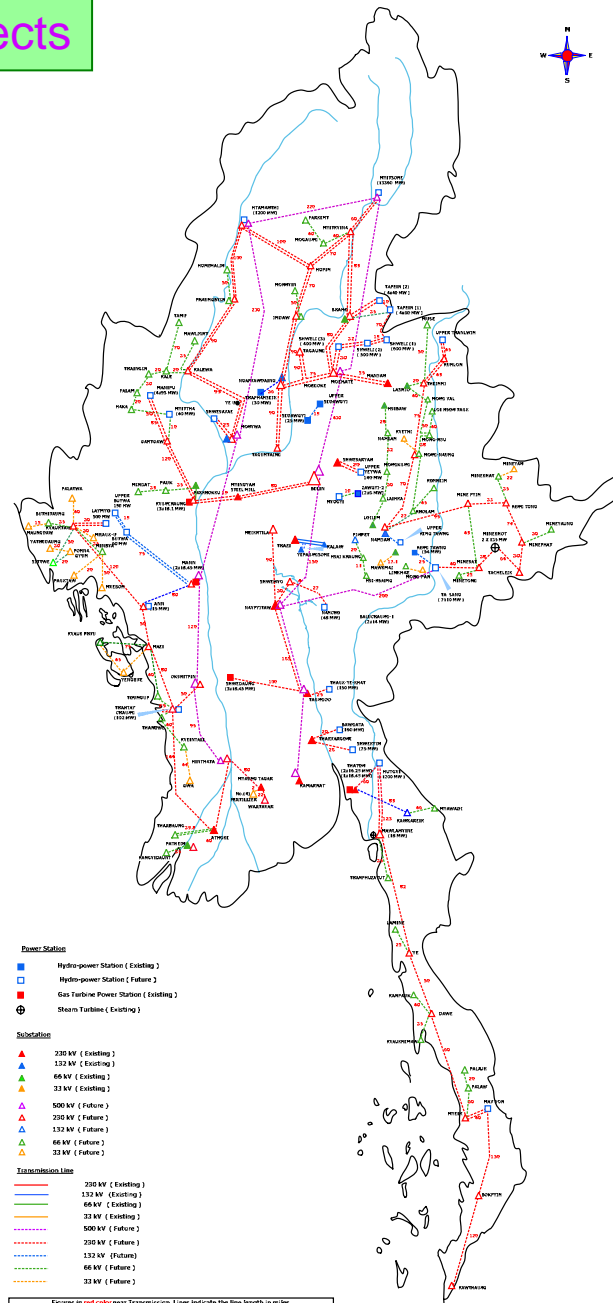
(3) Progress in Power Development Program (Cont:)

Under Construction T/L and S/S Projects



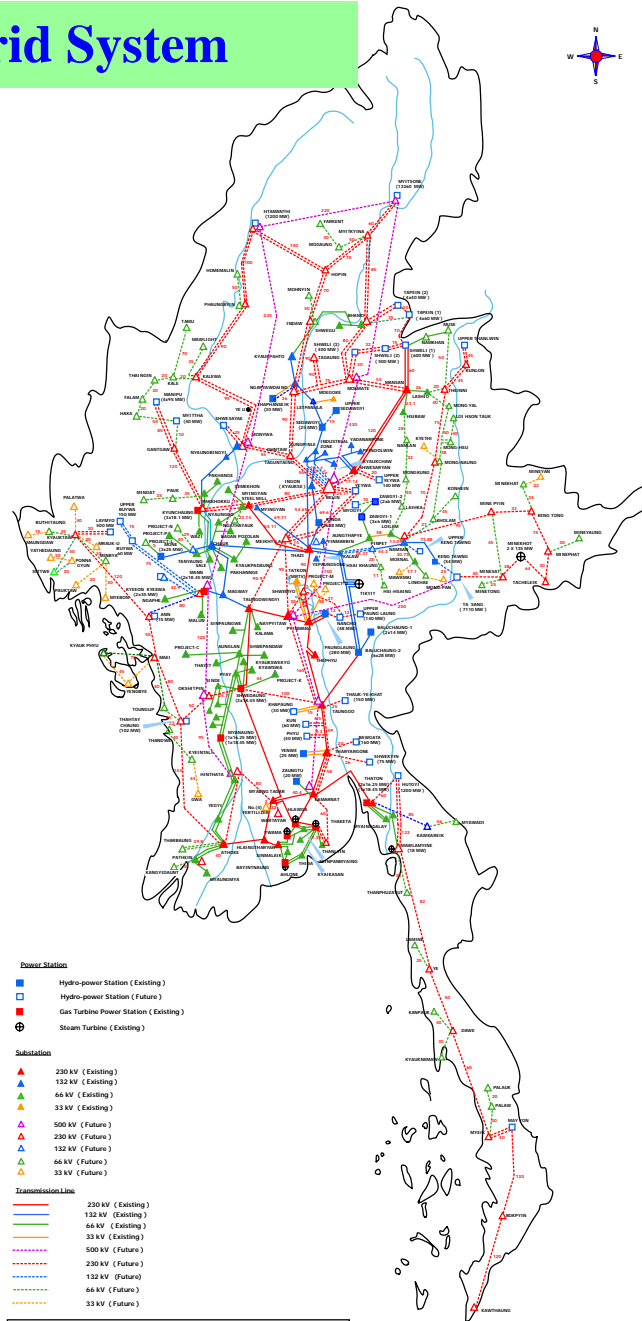
(3) Progress in Power Development Program (Cont:)

Future T/L & S/S Projects



(3) Progress in Power Development Program (Cont:)

Future National Grid System

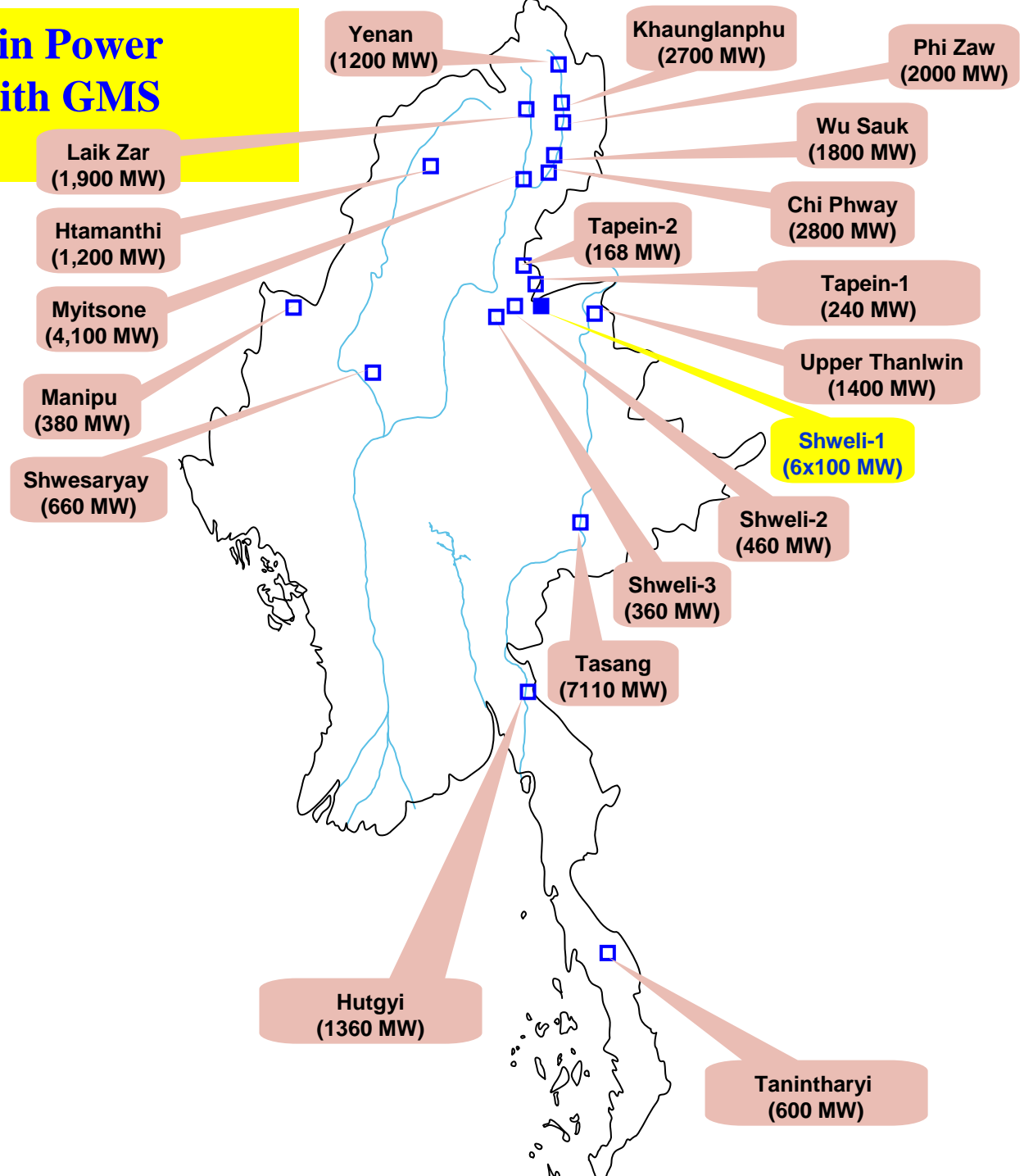


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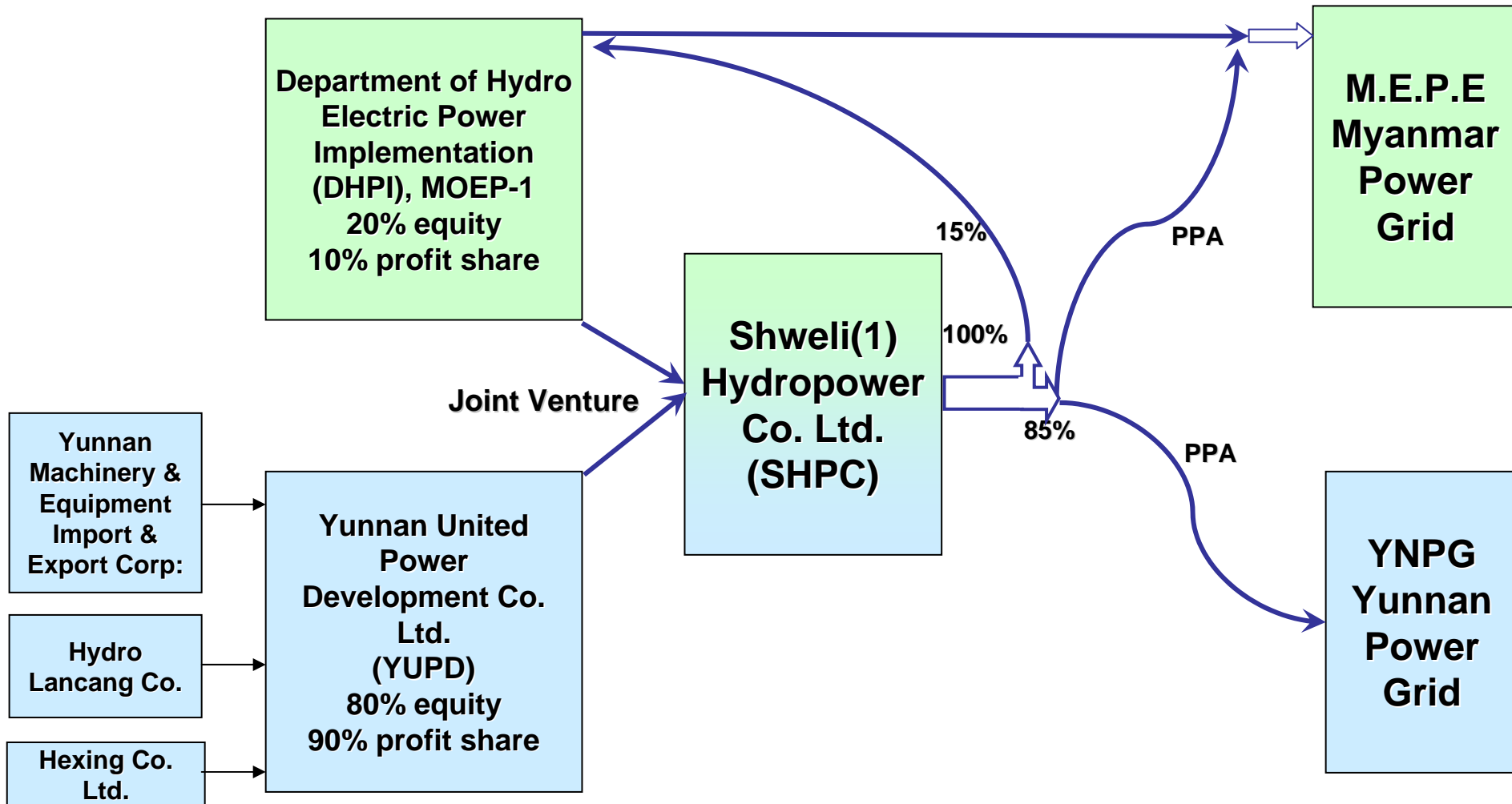
(4) Developments in Power Cooperation with GMS Neighbors

Hydro Power Station Projects to Cooperate with other countries



(4) Developments in Power Cooperation with GMS Neighbors (Cont:)

Shweli(1) Hydropower Co. Ltd. (SHPC)



(4) Developments in Power Cooperation with GMS Neighbors (Cont:)

Shwe Li Power Station	: 100 MW x 6 Nos.
No.(1) Machine	: 75 MW
No.(2) Machine	: 100 MW
No.(3) Machine	: 100 MW

Commercial Operation between MOEP-2 and YUPD start at 5th, November 2008.

At the moment Myanmar use only free energy 15%.

PPA between MOEP-2 and YUPD is under negotiation.
Myanmar shall be entitled to purchase up to 300 MW.

For Cross Border, 72 Hour Test Run successfully finished at (23.10.2008).

Cross Border Commercial Operation does not start yet.
Planned to start the Cross Border Commercial Operation with 100 MW.

“Cooperation for a Better World”

THANK YOU