

ENDLESS ENERGY

CK Power Public Company Limited (CKP)

*Stable Income, Diversified Portfolio and High Growth Company*

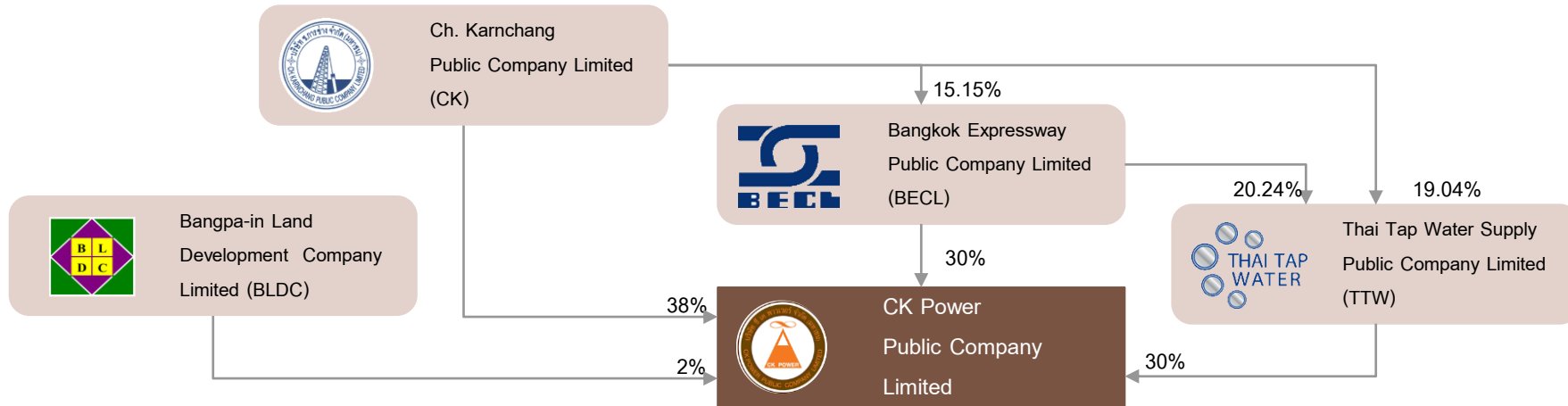


# COMPANY STRUCTURE

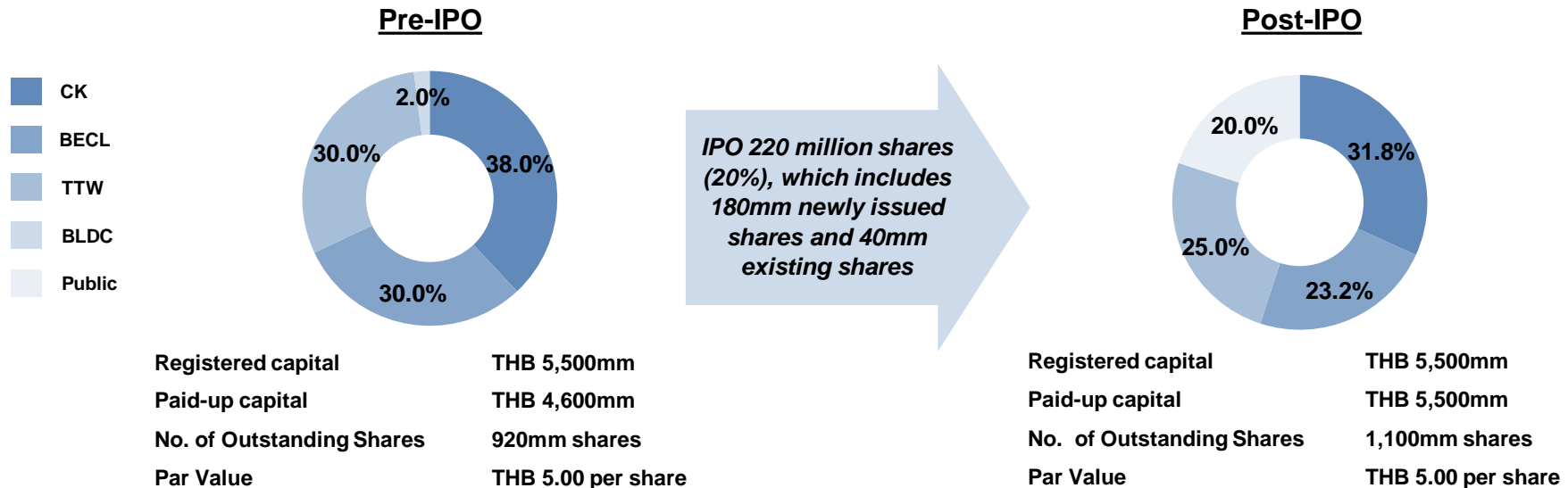


# Company and Shareholding Structure

## Current Shareholding Structure

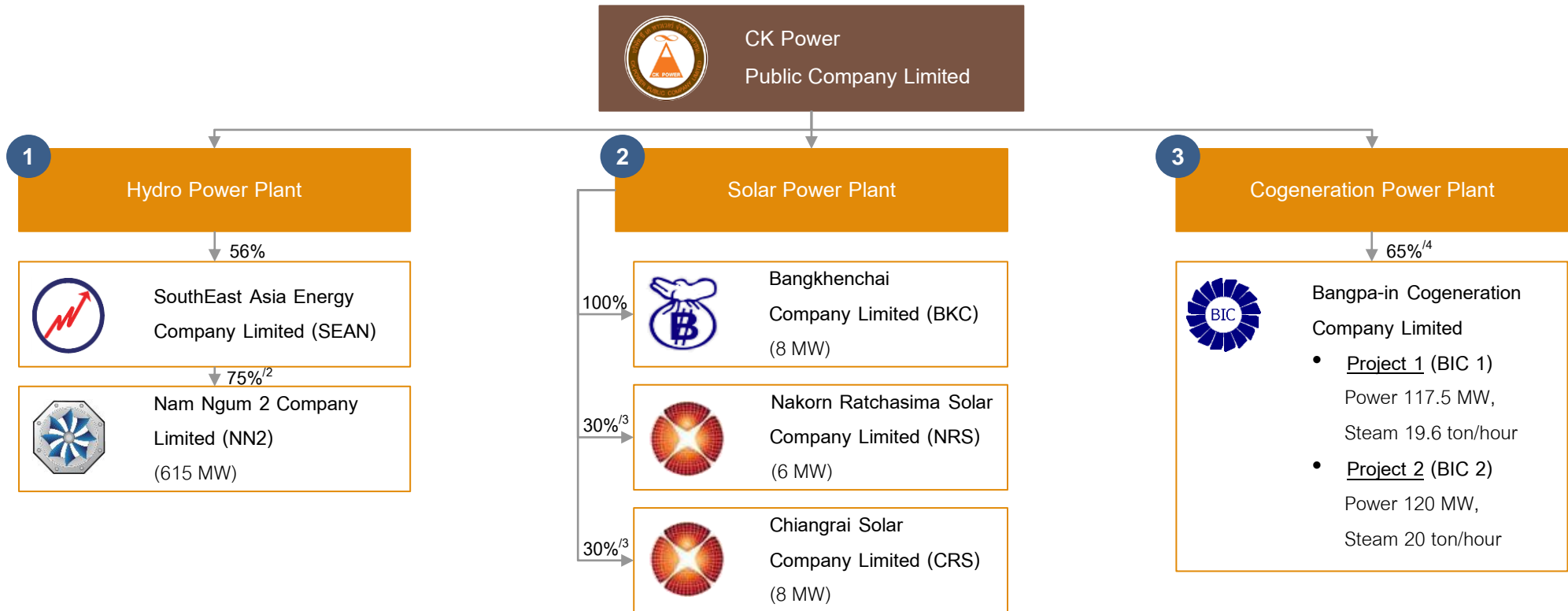


## Shareholding Structure Pre and Post-IPO

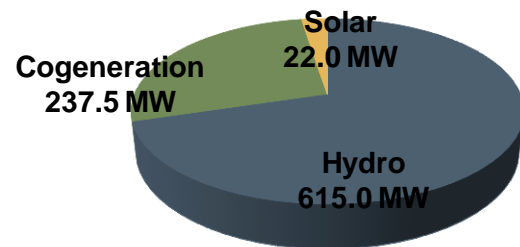


# Current Group Structure

**CK Power is a power developer with diversified portfolio, strong pipeline and high growth potential**



## CK Power's Effective Equity MW



**Total 874.5MW <sup>/1</sup>**

**Note:** /1 Total MW calculated on power projects with signed PPAs, while Effective Equity MW is 424.9 (Hydro 258.3 MW, Cogeneration 154.4 MW and Solar 12.2 MW)

/2 25% held by EDL GEN

/3 70% held by Sonnedix

/4 25% held by PTT, 8% by IEAT and 2% held by others



# COMPANY HIGHLIGHT



# Company Highlight

- CK Power is the flagship power development company of CK Group:
- Diversified portfolio
- Experienced management with development and operational excellence
- Solid project pipeline
- High growth company
- Stable stream of income




# 1 Diversified Portfolio

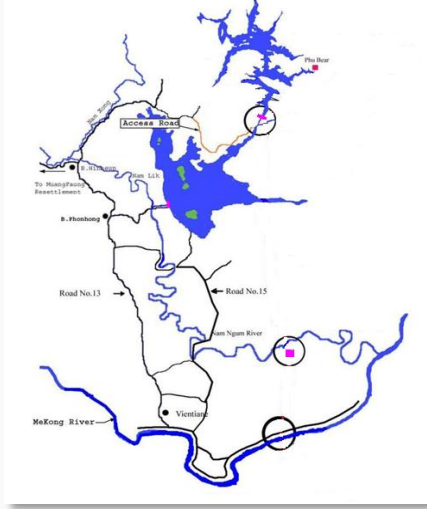
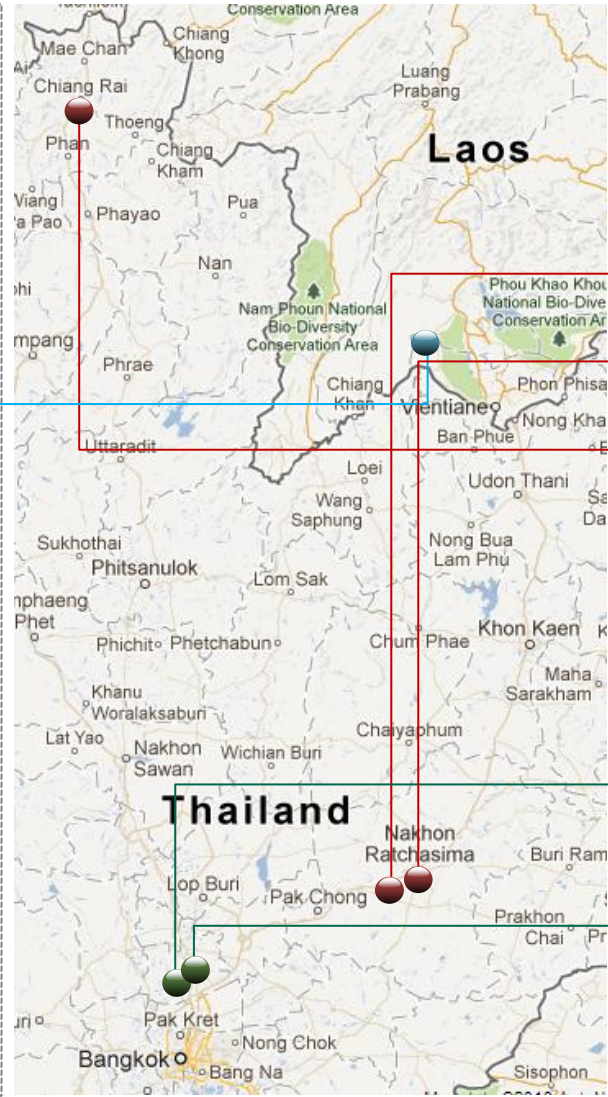
## CK Power's assets spread in Thailand with NN2 Power Plant in the Lao People's Democratic Republic

**1 Hydro Power Plant (Lao PDR)**

- > Nan Ngum river is an abundant source of water
- > Reliable 50 years historical water level information from NN1 Hydro Power Dam




**Nam Ngum 2**  
615 MW  
(IOD March '11;  
COD January '13)

**2 Solar Power Plants (Nakorn Ratchasima & Chiangrai)**

- > CKP's solar plants are at high irradiation locations in Thailand
- > Low-risk flood areas


- Bangkhenchai**  
8 MW (COD August '12)
- Nakorn Ratchasima Solar**  
6 MW (COD March '12)
- Chiangrai Solar**  
8 MW (COD January '13)



**3 Cogeneration Power Plants (Bang Pa-in Industrial Estate, Ayudthaya)**

- > Strong existing industrial estate users
- > Adjacent to national gas pipeline and power grid

- BIC 1**  
Power 117.5 MW  
Steam 19.6 ton/hour  
(SCOD June '13)
- BIC 2<sup>1</sup>**  
Power 120 MW  
Steam 20 ton/hour  
(SCOD June '17)

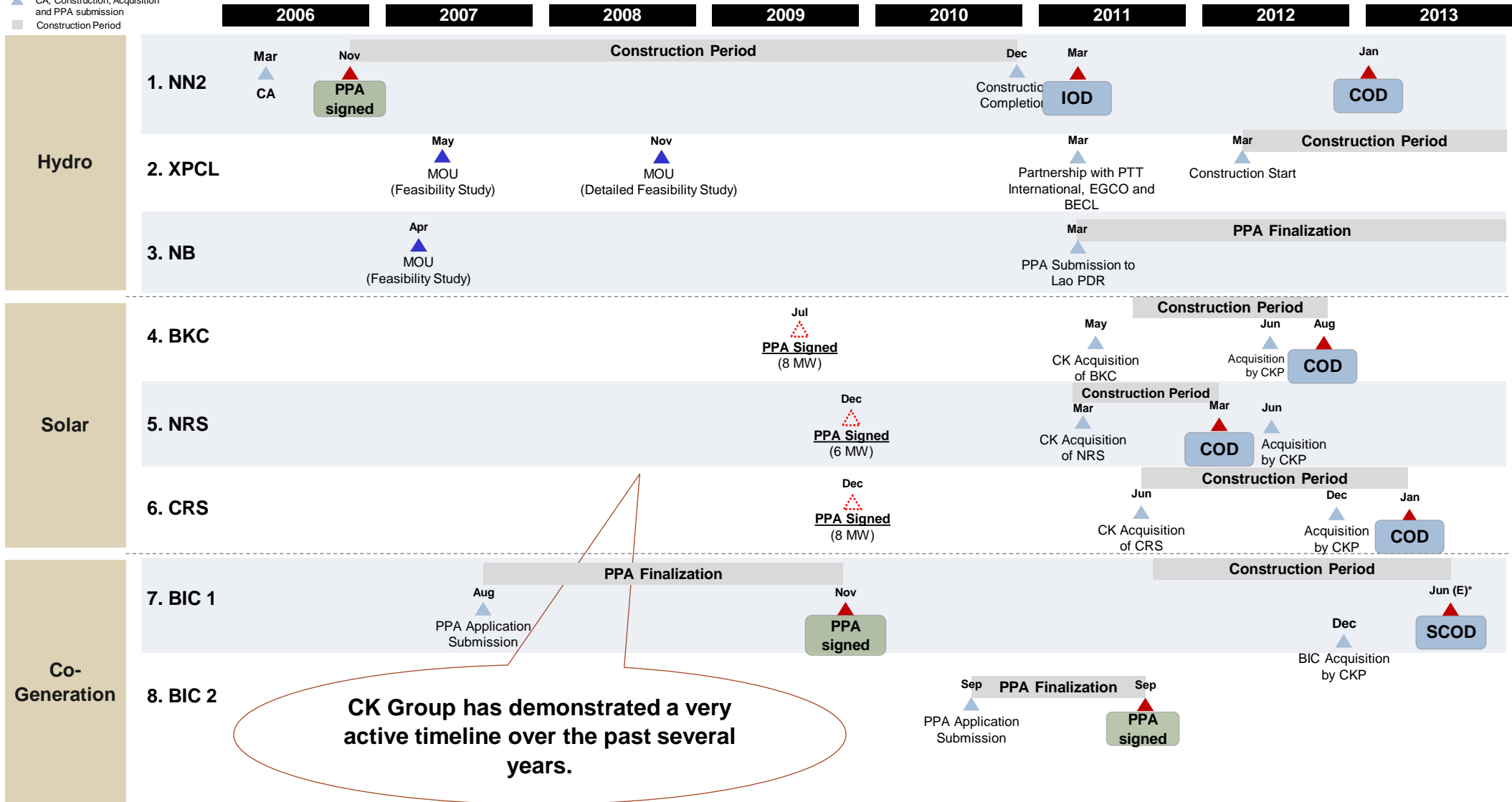


**Note:** 1/ BIC2 has signed firm PPA with the EGAT  
2/ IOD = Initial Operation Date  
COD = Commercial Operation Date  
SCOD = Schedule Operation Date



## CK Power embodies the expertise of the CK Group with its strong track record of power project development, acquisition, construction and operation

- ▲ COD and PPA Signed
- ▲ MOU
- ▲ CA, Construction, Acquisition and PPA submission
- Construction Period



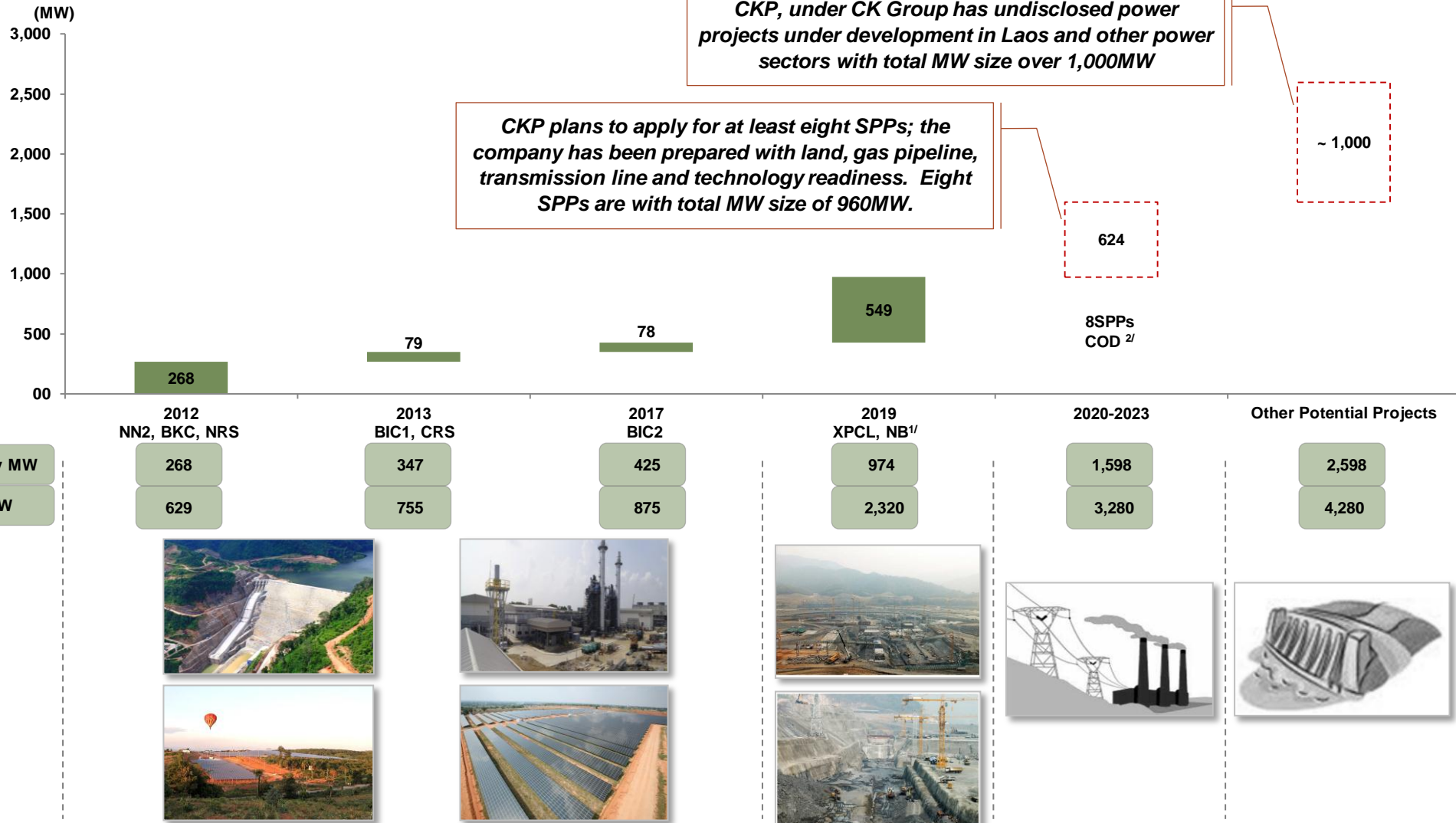
Source: CKP Filing 69-1  
 \*BIC 1 COD expected in June 2013





## CK Power demonstrates a strong project development pipeline

### CK Power Project Pipeline

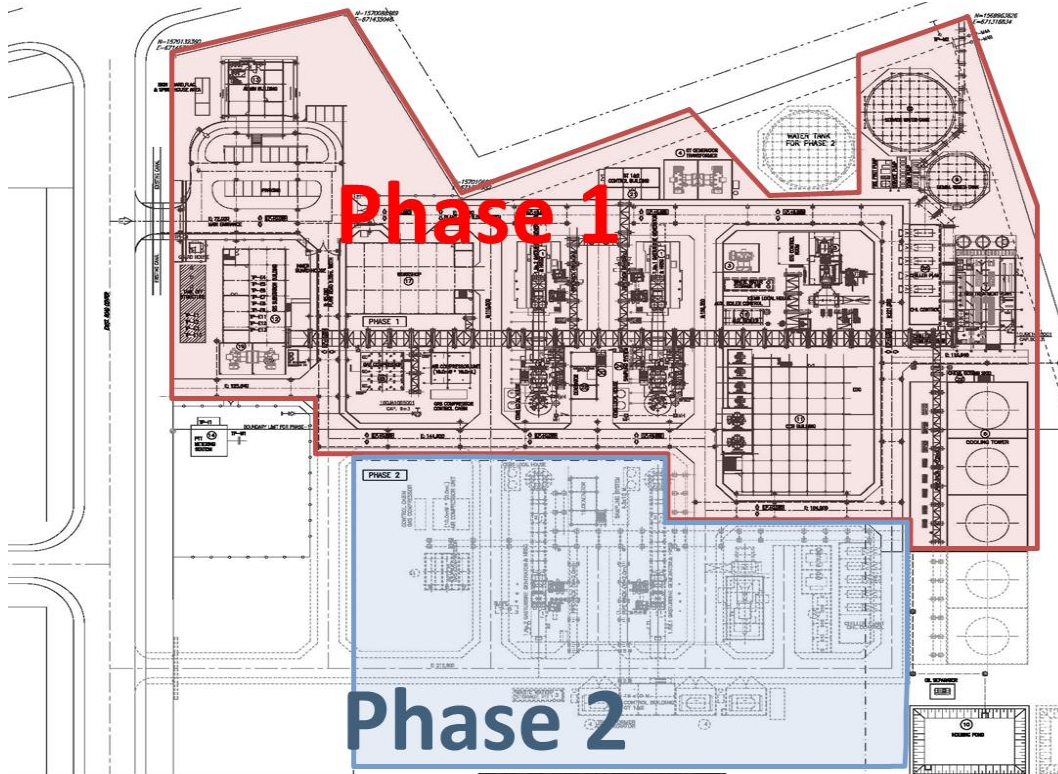


**Note:** 1/ XPCL = Xayaburi Power Company Limited. NB = Nam Bak. Assume CKP acquire CK's 30% and BECL's 7.5% stake in XPCL, acquisition price to be determined. Assume NB proceeds as planned to COD in 2019

2/ Assume CKP holds minimum 65% in all eight SPPs projects to apply for PPA in the upcoming SPP application round



Bangpa-in Cogeneration 2 (BIC 2)



General Description

- Adjacent to BIC 1 at Bangpa-In Industrial Estate

Capacity

- 120 MW of power
- 20ton/ hour of steam

Off-Taker

- PPA with the EGAT of 90MW for 25 years
- Selling the rest of power and steam to industrial estate users

Project Cost

- THB 4,750mm

Significant Events

- September 13, 2011: PPA with the EGAT signed with SCOD on June 1, 2017

Current Status

- Currently BIC2 is under pre-construction phase
- Construction phase to start in 2014 with completion in 30 months

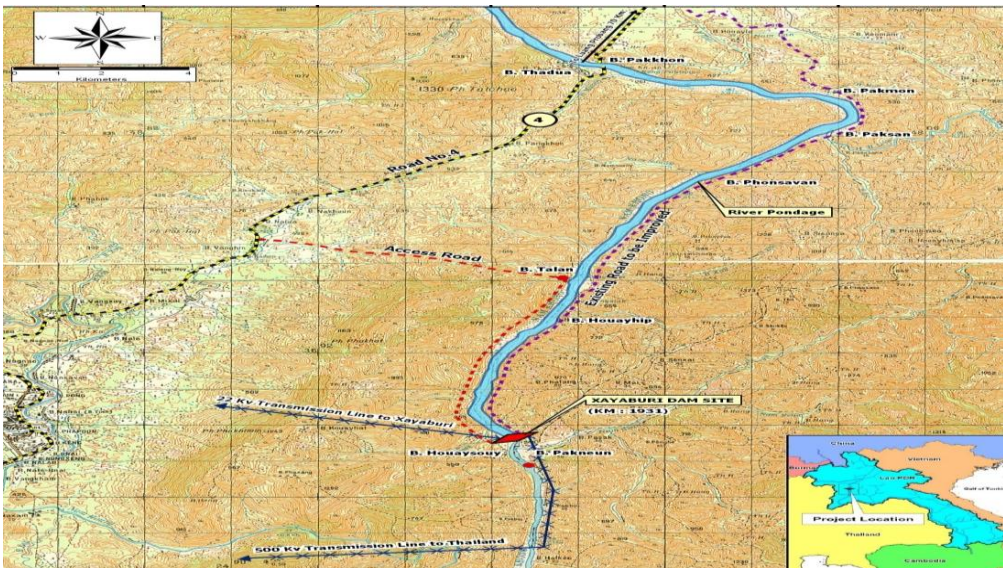




## Xayaburi Power



## XAYABURI POWER



## General Description

- Located on Mekong River, Xayaburi Province in Laos
- Run-of-River barrage

## Capacity

- 1,285 MW

## Off-taker

- 1,220 MW to the EGAT
- 60MW to EDL

## Project Cost

- THB 115,000mm

## Significant Events

- CK founded XPCL and currently CK holds 30% in XPCL
- Concession with Laos PDR as BOOT for 29 years from COD
- Construction started on March 15, 2012

## Current Status

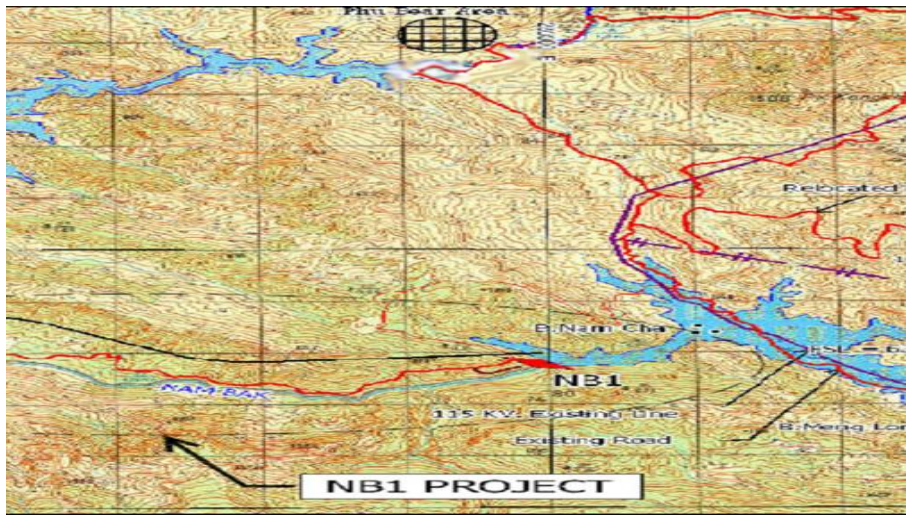
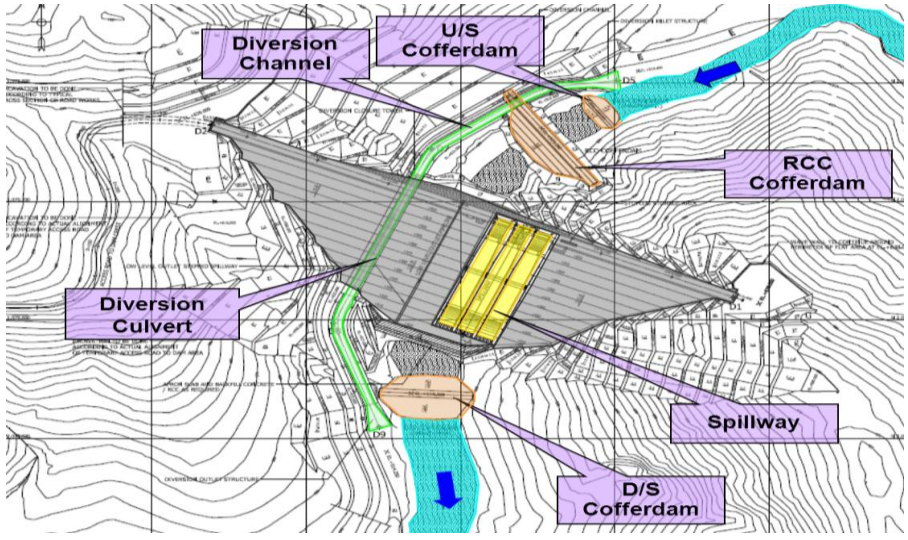
- During construction phase to SCOD in 2019

## Other notes

- CK has policy to sell its equity stake in XPCL to CKP and will not compete with CKP in power business



Nam Bak



<b>General Description</b>	<ul style="list-style-type: none"> <li>• Hydro Power Plants in Laos PDR</li> <li>• Roller-Compacted-Concrete Dam</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>• 160 MW</li> </ul>
<b>Off-taker</b>	<ul style="list-style-type: none"> <li>• EDL</li> </ul>
<b>Project Cost</b>	<ul style="list-style-type: none"> <li>• To be determined</li> </ul>
<b>Significant Events</b>	<ul style="list-style-type: none"> <li>• On April 11, 2007, SEAN signed MOU with Laos PDR to develop Nam Bak</li> <li>• January 9, 2008 SEAN transferred right to develop Nam Bak to NN2</li> </ul>
<b>Current Status</b>	<ul style="list-style-type: none"> <li>• NN2 is developing detailed design of Nam Bak</li> <li>• NN2 is in the process of discussion and negotiation on the PPA with the EDL</li> </ul>

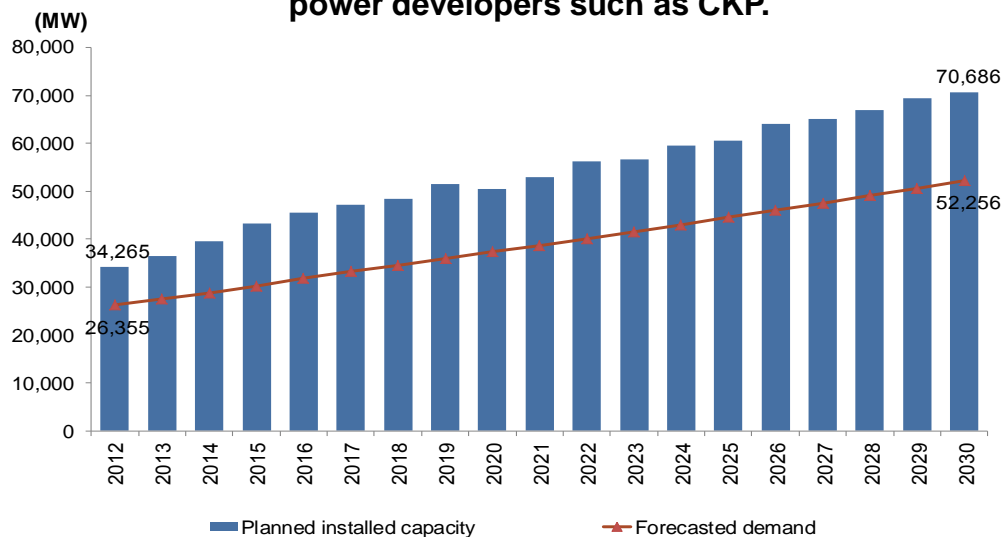


# 5 High Growth Potential w/ Thailand's and Lao PDR's Growing Power Industries

## CK Power will reap benefits from high-growth cogeneration and solar industries in Thailand

### Thailand Electricity Outlook

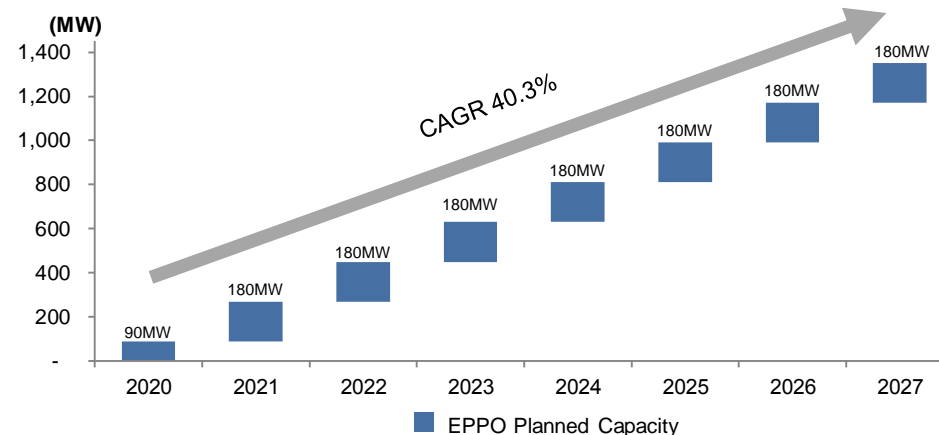
Thailand's established power development plan provides clear development opportunity for power developers such as CKP.



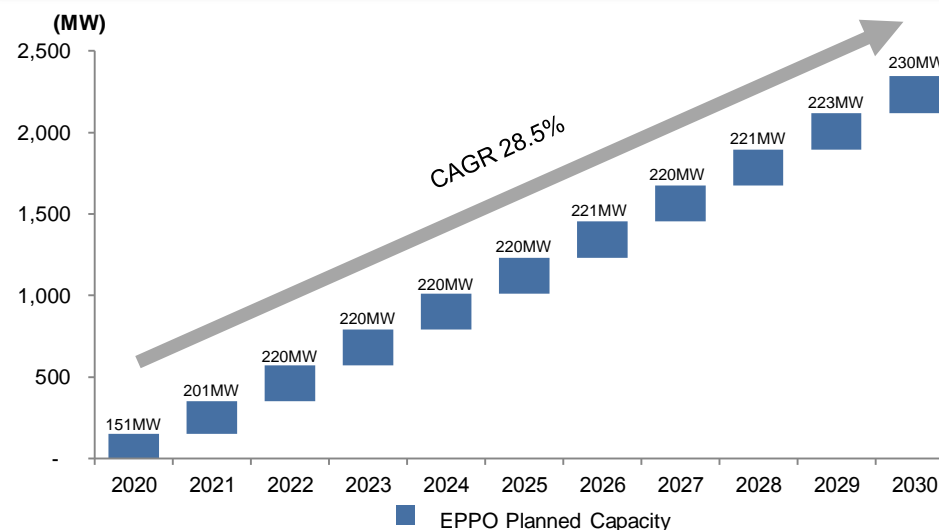
Thailand's Forecasted Electricity Demand and Planned Installed Capacity from 2012 - 2030



### Thailand Cogeneration Outlook



### Thailand Solar Energy Outlook



Note: sources from EPPO (Energy Policy and Planning Office)

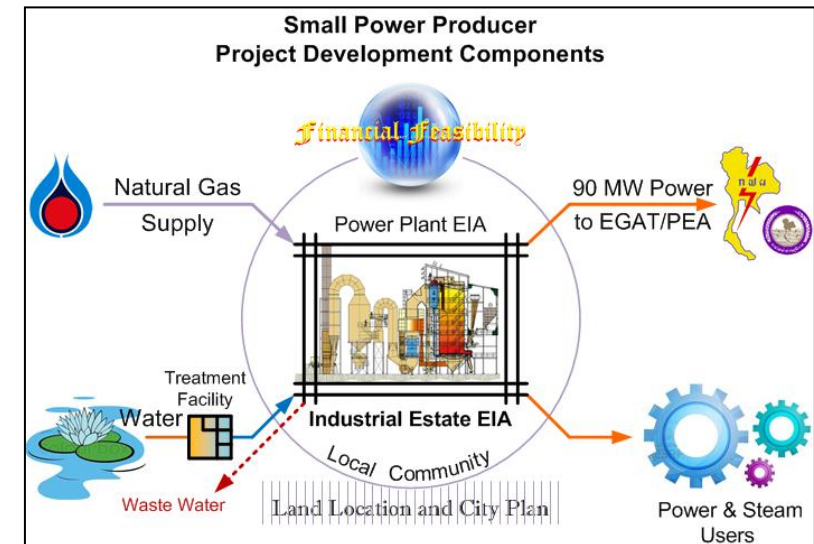
For Thailand Solar Energy Outlook assume planned installed capacity proportionately increase to total additional planned installed capacity of 2,347MW from 2020 to 2030





## CKP plans to propose 8 Cogeneration Plants in the next SPP solicitation round

- Impressive track record with PPA for BIC 1 & 2 from 2007 and 2010 solicitation
- Preliminary Study is well carried out
- Identified industrial users, gas pipeline and transmission connection
- 4 locations in central region and northeastern region
- 2 projects for each location total 960 MW.

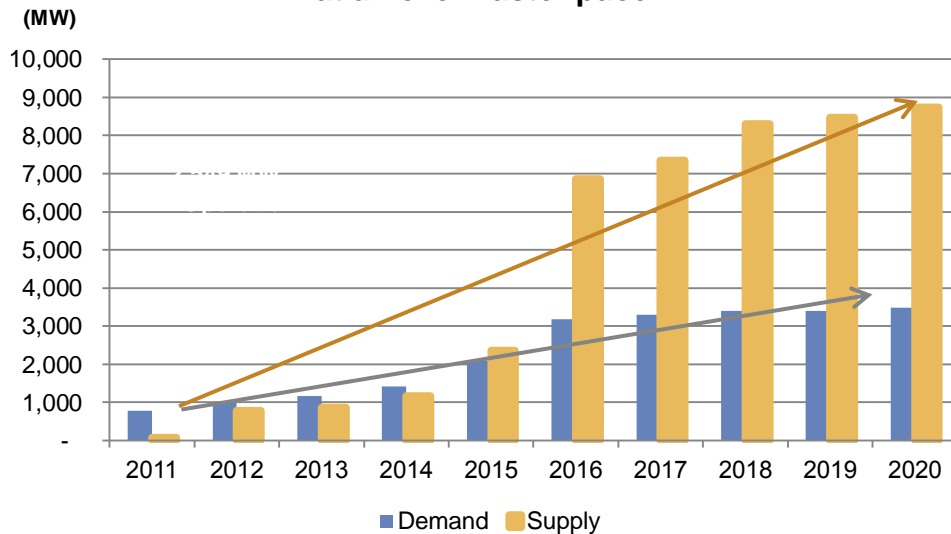


# 4 High Growth Potential – Lao PDR’s Battery of Asia Vision

**CKP’s strong hydro power development experience in the Lao PDR provides the company with key competitive advantages in taking on Lao PDR’s planned capacity still open for development**

## Lao PDR Power Demand and Supply

While domestic demand is expected to increase considerably, power generation is planned to grow at an even faster pace



With abundant natural resources, the Lao PDR is envisioned as the “Battery of Asia” by exporting its power to the neighboring countries

## Lao PDR Planned IPP Capacity

Over 65% of planned Independent Power Producer (IPP) in Lao PDR is still open for development – this is an opportunity CKP stands to benefit from

(Unit: MW)

	In Operation	Under Construction	Open for Development		
Nam Theun 2	1,075	Hongsas	1,878	Ban Koum 1,872	
Nam Ngum 2	615	Xayabouri	1,285	Pak Lay 1,320	
Theun-Hinboun	220	Nam Ou 2,5,6	540	Luangprabang 1,200	
Nam Ngum 1	155	Xekaman 1	322	Pakbeng 921	
Houay Ho	152	Theun-Hinboun (Exp.)	280	Sanakham 660	
Nam Lik 1-2	100	Xekaman 3	250	Phou Ngoy 651	
Se Xet 2	76	Nam Ngiep	180	Sekong 4 600	
Nam Leuk	60	Nam Ngum 5	120	Nam Theun 1 523	
Se Xet 1	45	Xenamnoy 1	22	Nam Ngum 3 460	
Nam Mang 3	40	Nam Sim	8	Nam Et 1,2,3 420	
Others	11	Others	8	Others 5,162	
<b>Total</b>	<b>2,549</b>	<b>Total</b>	<b>4,893</b>	<b>Total</b>	<b>13,789</b>

**Total 21,230 MW**

Source from www.poweringprogress.org, Mekong River Commission, EDL

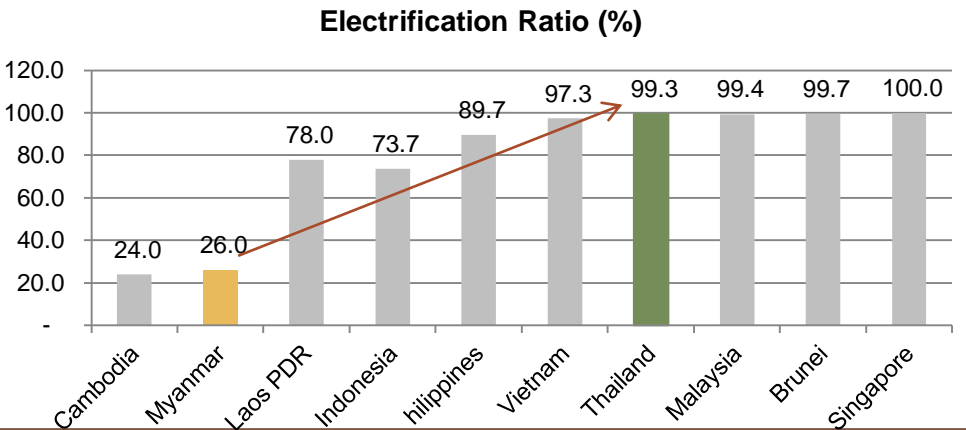
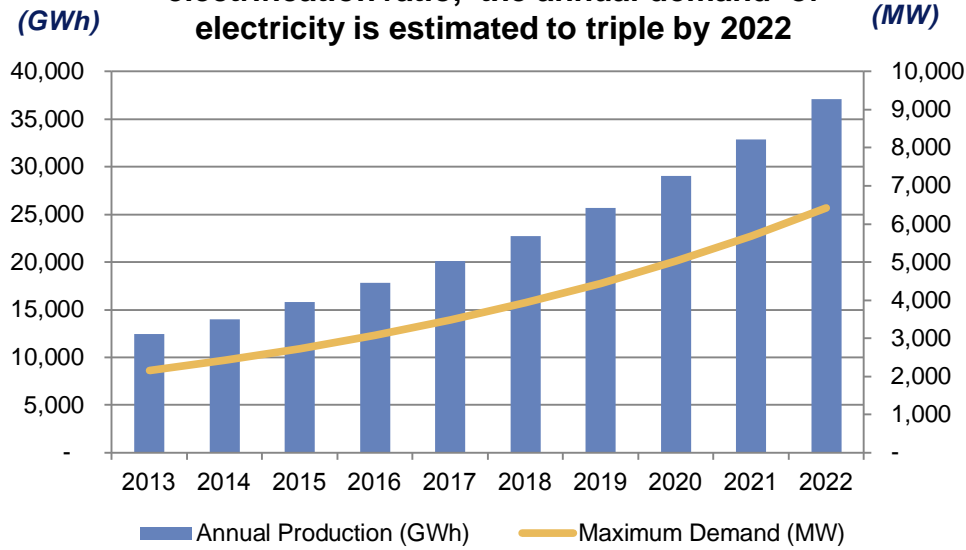


# 4 High Growth Potential – Myanmar is new prospect

## CK Power has potential and capability to explore Myanmar's untapped high-growth market

### Myanmar Electricity Outlook

With expected high GDP growth and improved electrification ratio, the annual demand of electricity is estimated to triple by 2022



### Myanmar Hydropower Outlook

- The source of huge hydropower potential is estimated to be more than 100,000 MW
- Myanmar has identified **92 potential large hydropower projects**

River Basin	No of Promising projects	Installed Capacity (MW)
1 Ayeyarwaddy	34	21,821
2 Chindwin	8	3,015
3 Sittaung	11	1,128
4 Thanlwin	21	17,641
5 Mekong	4	720
6 Others	14	1,776
<b>Total</b>	<b>92</b>	<b>46,101</b>

### Myanmar Gas Supply Outlook

- Myanmar is the second largest gas exporter in the region, second only to Indonesia
- 34 geological sedimentary basins** have been identified, only six of which have been thoroughly explored

Source from Myanmar Energy Sector Initial Assessment by ADB, October 2012





### *Stable income from secured long-term power purchase agreement with transparent tariff structure*

#### HYDRO

- NN2 income stream is stable with fixed tariff rates throughout the **PPA of 25 years and annual generation target of 2,310 GWh**
- NN2 may also sell energy as PE/ SE account after NN2 reaches its annual target and use PE/ SE account as credit in subsequent shortage years. This **mechanism enhances NN2 revenue stability.**



#### SOLAR

- PPA contract w/ PEA as VSPPs off-taker has term of 5 years with **automatic renewal**
- With “**adder**” of **THB 8/ Kwh**, revenue from solar per unit will contribute significantly to CK Power’s bottom line



#### COGENERATION

- **25-year Firm PPA** w/ EGAT under standard terms and conditions
- **Strong demand** of electricity and steam from industrial estate users provides solid opportunities for future expansion



# Key Takeaways

CK Power is the flagship power development company of CK Group:

- **Diversified portfolio**
- **Experienced management with development and operational excellence**
- **Solid project pipeline**
- **High growth company**
- **Stable stream of income**

