



CK Power Public Company Limited Company Presentation

June 2018

Disclaimer

The information contained in this presentation is intended solely for your personal reference only. This presentation is not intended to provide the basis for any investment decision, nor to substitute your own analysis and investigation, and should not be considered as a recommendation to any recipient of this presentation. Some statements made in this presentation are projections and forward-looking statements, with respect to CKP's corporate plans, strategies and beliefs and other statements that are not historical facts and are subject to various risks and uncertainties. These statements can be identified by the use of forward-looking terminology such as "may", "will", "expect", "anticipate", "intend", "estimate", "continue", "plan" or other similar words. The statements are based on the assumptions and beliefs of CKP's management in light of the information currently available to CKP. These assumptions involve risks and uncertainties which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Nothing in this presentation is, or should be relied on as a promise or representation of CKP as to the future.



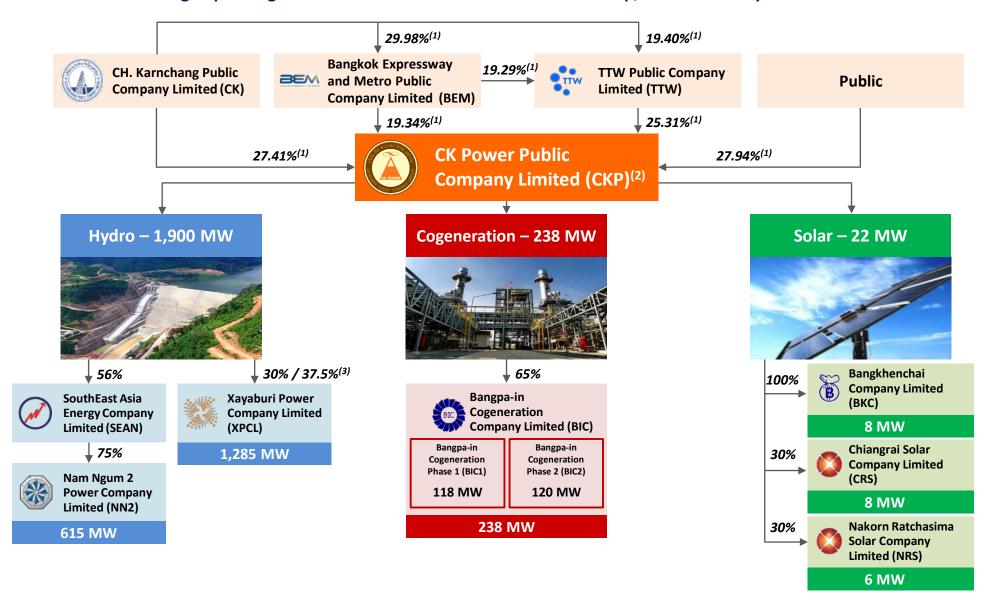
- 1. Business Overview
- 2. Financial Highlights
- 3. Looking Forward





Corporate Structure

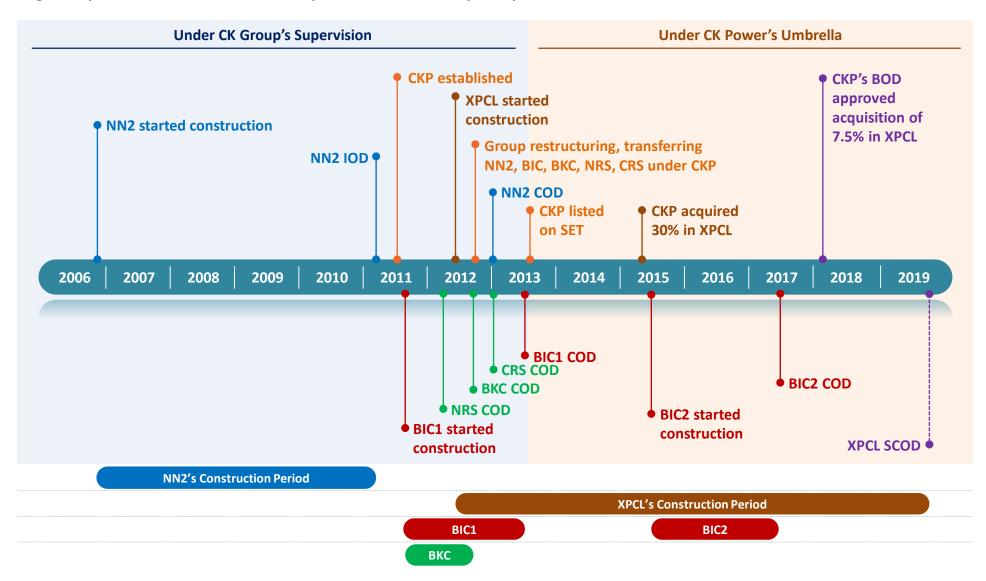
CKP focuses on investing in power generation and distribution assets for CK Group, which currently holds 72% of CKP.





CK Power Milestones

Since 2006, before the establishment of CKP in 2011, CK Group has already started developing multiple projects. These projects, along with platform of knowhow and expertise, were subsequently consolidated under CKP.

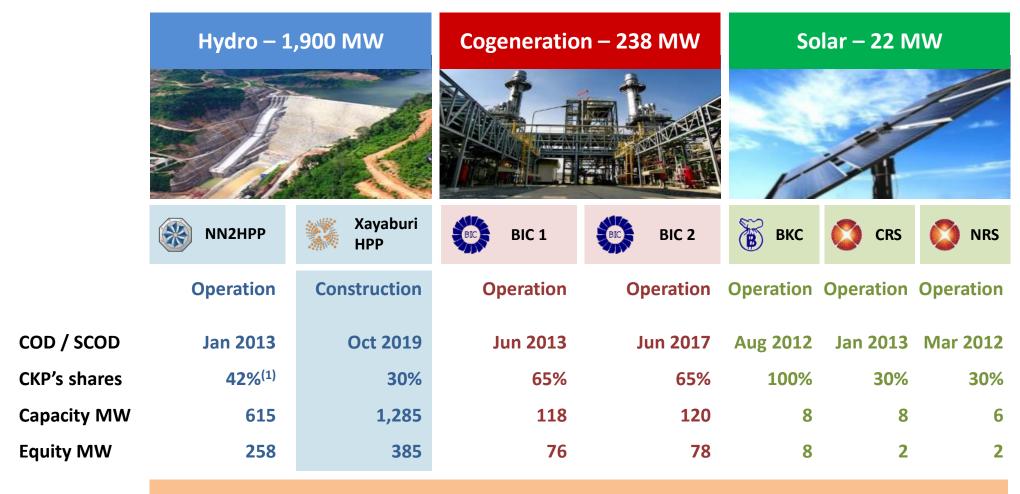






Portfolio Overview

CKP has diverse portfolio of 6 operating and 1 under-construction power plants with the majority of installed capacity concentrated in hydroelectric type of power generation.



Total Installed MW Capacity = 2,160 MW

Total Equity MW Capacity = 810 MW



Projects' Information

NAM NGUM 2 HYDROELECTRIC POWER PROJECT (NN2HPP)





Type : Hydroelectric Power Project (Storage Dam)

IOD⁽¹⁾ : March 2011

COD⁽²⁾ : January 2013

Concession Period : 25 years from COD with the GOL⁽³⁾

Installed Capacity : 615 MW

Power Purchase Agreement

615 MW with EGAT

25 years from COD with EGAT

Take or Pay

Power Generation : • Installed Capacity 615 MW (3x205 MW)

 Annual Supply Target 2,310 GWh plus Excess Energy

o PE 2,218 GWh per year

o SE 92 GWh per year

Shareholders : • SEAN 75.0%

• EdL-Gen⁽⁴⁾ 25.0%

(1) Initial Operation Date; (2) Commercial Operation Date; (3) Government of Lao PDR; (4) EdL Generation Public Company Limited; (5) Ratchaburi Electricity Generating Holding Public Company Limited

XAYABURI HYDROELECTRIC POWER PROJECT (XAYABURI HPP)





Гуре :	Hydroelectric Power Project (Run-of-River)
--------	--

SCOD⁽⁶⁾ : October 2019

Concession Period : 31 years from COD

Annual Energy Production

7,589 GWh

Installed Capacity : 1,285 MW

Power Purchase Agreement

• Turbines 7x175 MW = 1,225 MW with

EGAT

• Turbine 1x60 MW = 60 MW with EdL

5.0%

Average Monthly Inflow

3,890 cubic meters per second

Maximum Operating Level +275 m.asl.

Shareholders :

CK Power 30.0%⁽⁷⁾
 Natee Synergy 25.0%
 EdL 20.0%
 EGCO⁽⁸⁾ 12.5%
 BEM 7.5%

(6) Schedule Commercial Operation Date; (7) Under process of acquiring 7.5% shares from BEM; (8) Electricity Generatina Public Company Limited

PT (Sole)





Projects' Information

BANGPA-IN COGENERATION POWER PROJECT PHASE 1 (BIC1)





Type : Gas-fired Cogeneration

COD : June 2013

BOI⁽¹⁾ Privilege : Tax Privilege

Power Purchase Agreement

 90 MW with EGAT (minimum Take or Pay with gas price pass-through mechanism)

• 25 years from COD with EGAT

Selling the rest of electricity and steam to industrial estate users

Installed Capacity

• 118 MW of electricity

• 20 tons per hour of steam

Shareholders

• CK Power 65.0%

• GPSC⁽²⁾

25.0%

Others

10.0%

BANGPA-IN COGENERATION POWER PROJECT PHASE 2 (BIC2)



Shareholders



Type :	Gas-fired Cogeneration
COD :	June 2017
BOI Privilege :	Tax Privilege
Power Purchase : Agreement	 90 MW with EGAT (minimum Take or Pay with gas price pass-through mechanism) 25 years from COD with EGAT Selling the rest of electricity to industrial estate users
Installed Capacity :	• 120 ⁽³⁾ MW of electricity

(3) Excluding approximately 4 MW of additional electricity capacity converted from steam production capacity

CK Power

GPSC

Others

65.0%

25.0%

10.0%

⁽¹⁾ The Board of Investment of Thailand; (2) Global Power Synergy Public Company Limited



Projects' Information

BANGKHENCHAI SOLAR (BKC)



Type : Thin Film Solar Power Plant

COD : August 2012

BOI⁽¹⁾ Privilege : Tax Privilege (8 years from January 2012)

Power Purchase Agreement

Provincial Electricity Authority (PEA)

• 5 years from COD with automatic renewal

Adder: 8 Baht/kWh for 10 years from COD

Installed Capacity : 8 MW

Shareholders : CK Power 100.0%

(1) The Board of Investment of Thailand

NAKORN RATCHASIMA SOLAR (NRS)





Type : Thin Film Solar Power Plant

COD : March 2012

Power Purchase Agreement

Provincial Electricity Authority (PEA)

• 5 years from COD with automatic renewal

Adder: 8 Baht/kWh for 10 years from COD

70.0%

Installed Capacity: 6 MW

Shareholders

0

• CK Power 30.0%

Sonnedix Thailand One

CHIANG RAI SOLAR (CRS)





Type : Multi-crystalline Solar Power Plant

COD : February 2013

Power Purchase Agreement

Provincial Electricity Authority (PEA)

• 5 years from COD with automatic renewal

• Adder: 8 Baht/kWh for 10 years from COD

Installed Capacity: 8 MW

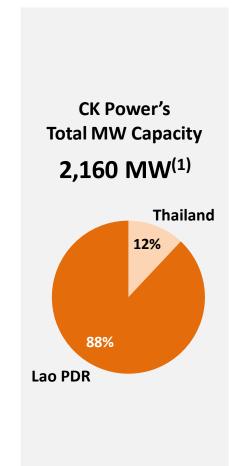
Shareholders : • CK Power 30.0%

Sonnedix Thailand Two 70.0%



Asset Locations

The majority of CKP's current installed capacity is located in Lao PDR with the rest located in Thailand.







Nam Ngum 2 Hydroelectric Power Project (NN2HPP) Vientiane, Lao PDR

2.

Xayaburi Hydroelectric Power Project (Xayaburi HPP) Xayaburi, Lao PDR



Bangpa-in Cogeneration
Power Project (BIC1, BIC2)
Ayutthaya, Thailand

4.

Bangkhenchai Solar Power Plant Nakhon Ratchasima, Thailand



Nakhon Ratchasima Solar Power Plant Nakhon Ratchasima, Thailand

6.

Chiang Rai Solar Power Plant Chiang Rai, Thailand



1. Business Overview

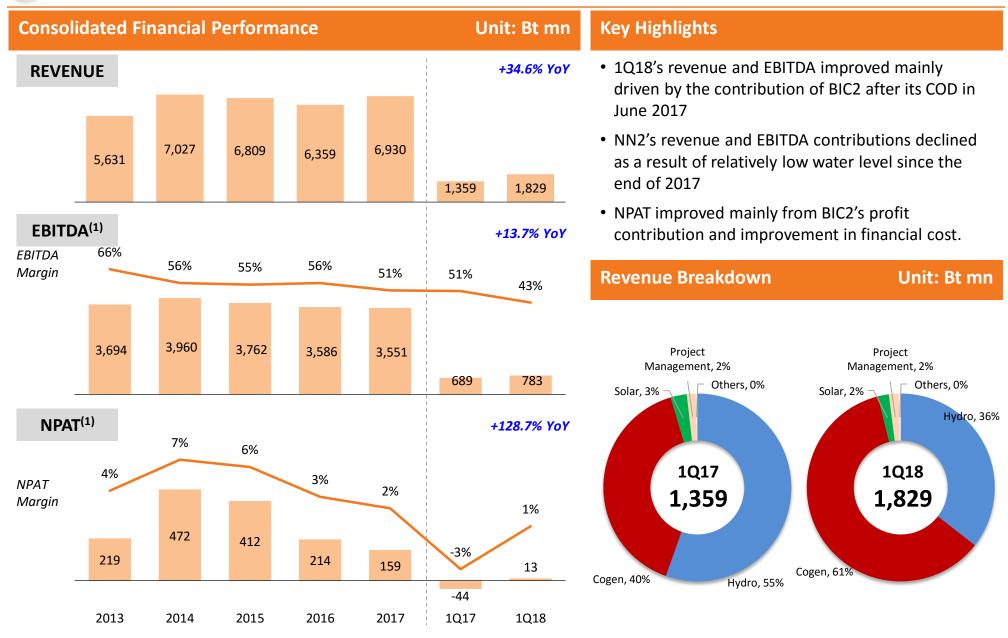


3. Looking Forward





CKP's 1Q2018 Consolidated Performance





Key Developments YTD



Nam Ngum 2's Debenture 1/2018

Issue Date : 30 March 2018

Issue Rating : A- / Stable (TRIS Rating)

Issue Size : Bt 3,000 mn

Interest Rate : Fixed rate 3.98% p.a.

Tenor : 12 years with early redemption

Interest Payment : Semi-Annual on every 30 March and 30 September



Company Rating

TRIS

Company Rating : A

Outlook : Stable



Additional 7.5% Shares in XPCL Planned Completion by June 2018

Transaction: Acquire 7.5% of XPCL from BEM

Amount : Bt 2,065 mn plus additional

capital injection obligation of approximately up to Bt 399.2 mn

Source of Fund : Debenture issuance

CKP's Equity MW in XPCL				
386	482			
300	96			
386	386			
Before	After			



CKP's Debenture 1/2018

Issue Date : 18 June 2018

Issue Rating : A- / Stable (TRIS Rating)

Issue Size : Bt 6,500 mn

Interest Payment : Semi-Annual on every 18 June and 18 December

Debenture	Interest Rate (% p.a.)	Tenor	Maturity Date	Amount (Bt mn)
Tranche 1	2.56%	3 years	18 June 2021	4,000
Tranche 2 ⁽¹⁾	4.06%	10 years	18 June 2028	2,500
Total				6,500

(1) CKP has early redemption right after the fifth year from issue date.



Xayaburi HPP Construction Progress

O Mai

March 2018 SCOD 91.58% October 2019



2017

December 2017

88.12%

2018

2019











NN2's 1Q2018 Performance

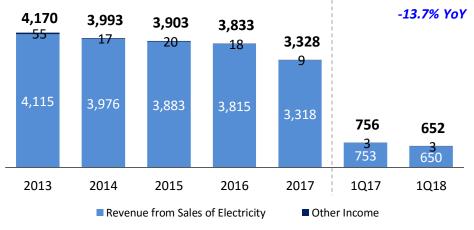




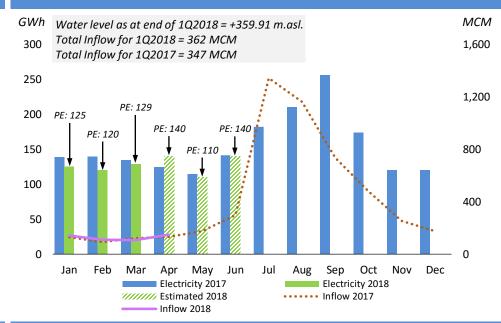
Total Revenue⁽¹⁾

Unit: Bt mn

- 1Q18 revenue declined 13.7% YoY mainly due to low water level in the reservoir since the end of 2017.
- NN2 adopted conservative water management and electricity production to ensure adequate water level for 2018.



Monthly Electricity Sales and Water Inflow



Tariff Structure

		PE T	ariff	SE Tariff	EE Tariff
Year	US\$/ kWh	Bt/ kWh	Total Bt equivalent ⁽²⁾ / kWh	Bt/ kWh	Bt/ kWh
2011-2012 (IOD Period)	0.02475	0.963	1.805	1.253	1.060
2013-2018 (First 6 years from COD)	0.02475	0.965	1.807	1.255	1.062
2019 Onward	0.02668	1.041	1.948	1.353	1.145

Electricity Sales Volume

Unit: GWh

Components	2013	2014	2015	2016	2017	1Q17	1Q18
PE	2,218	2,116	2,058	2,032	1,829	413	374
SE	92	7	41	71	25	-	-
EE	151	88	-	-	-	-	-
TE	9	4	6	7	4	-	-
Account-PE	-	102	94	-	-	-	-
Account-SE	-	9	-	-	-	-	-
Total	2,469	2,326	2,199	2,109	1,857	413	374



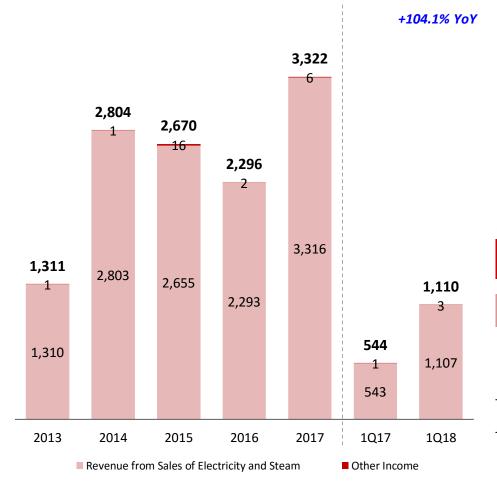
BIC's 1Q2018 Performance



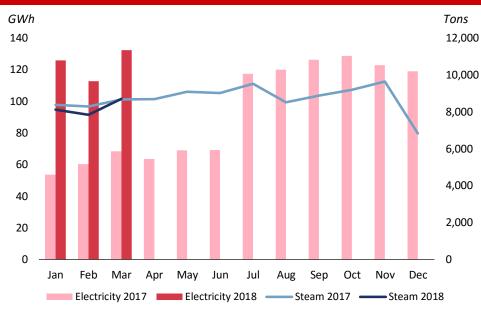


Total Revenue Unit: Bt mn

 1Q18 revenue increased 104.1% YoY, driven by COD of BIC2 at the end of 2Q17.



Monthly Electricity and Steam Production



Electricity and Steam Sale Volume Unit: GWh/Tons

	2013	2014	2015	2016	2017	1Q17	1Q18
EGAT	332	647	636	617	959	148	324
IUs	39	114	123	136	158	34	47
Total (GWh)	370	761	759	753	1,117	182	371
Steam (Tons)	24,454	94,329	97,312	97,503	104,645	25,335	24,642
Avg. gas price (Bt/MMBTU)	321	325	300	240	235	232	237





BKC's 1Q2018 Performance



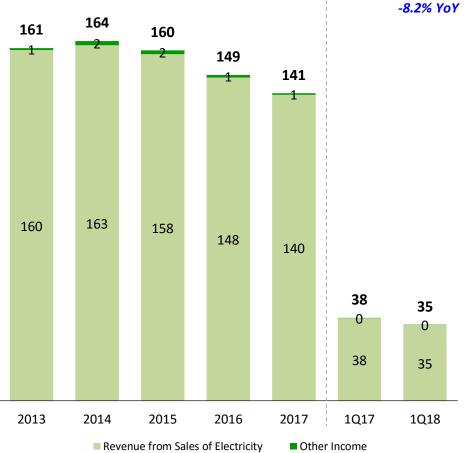


Total Revenue

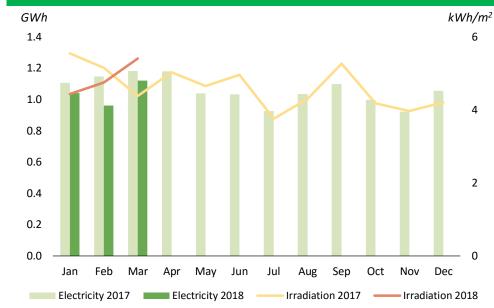
Unit: Bt mn

• 1Q18 revenue declined 8.2% YoY primarily from the lower irradiation compared to the same period last year.

• Ft remained negative during 1Q18



Monthly Electricity Production and Irradiation



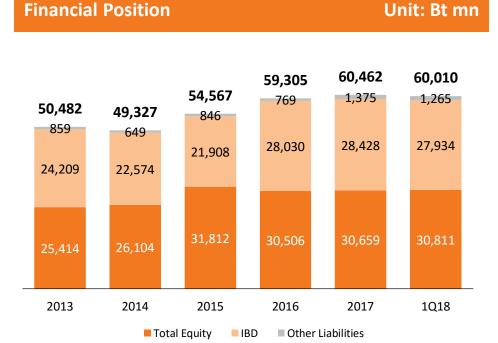
Electricity Sales Volume

Unit: GWh

	2013	2014	2015	2016	2017	1Q17	1Q18
PEA (GWh)	14.01	14.08	13.98	13.36	12.71	3.43	3.12
Avg. Ft (Bt/kWh)	0.41	0.52	0.32	(0.33)	(0.35)	(0.44)	(0.32)

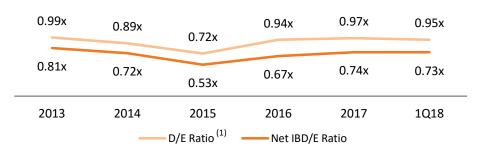


Consolidated Financial Position

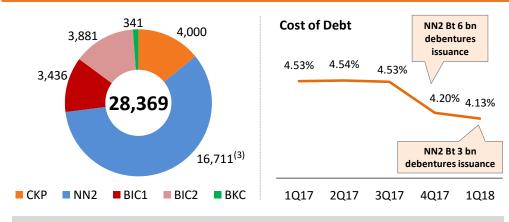


Leverage Ratios

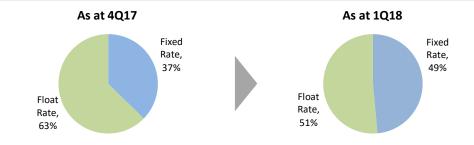
CKP's Debentures Covenant: Net IBD/E not exceeding 3.00x



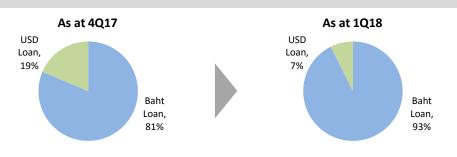
Long-term Loan⁽²⁾



Fixed-Float Rate Loan Proportion



USD-Baht Loan Proportion



Unit: Bt mn



- 1. Business Overview
- 2. Financial Highlights
- 3. Looking Forward





Long-term Strategic Plans

Three key strategic goals are to enhance growth, improve profitability and ensure long-term sustainability of CKP.



To be a Leading Power Business Company in Thailand and the ASEAN Region, with Efficient Operation

To Generate an Optimal, Stable and Fair Return for Shareholders

To be Responsible to the Environment, Community and All Stakeholders

Growth

Increase Generation Capacity with Enhanced Engineering Capability

 Achieve 5,000 MW of Installed Capacity by 2025

Profitability

Enhance Profit Margin to Provide Fair Returns for Shareholders and to Invest in Future Opportunities

- Achieve Financial Goals & Margin
- Ensure Top-level Shared Service
- Optimize Financial Structure
- Enhance Productivity

Sustainability

Build One CKP Culture and Brand to Ensure On-going Success and Acceptance from Communities

- Strengthen corporate governance
- Build One CKP Culture
- Enhance CSR functions

Engineering, Technology and Support Platforms & Network

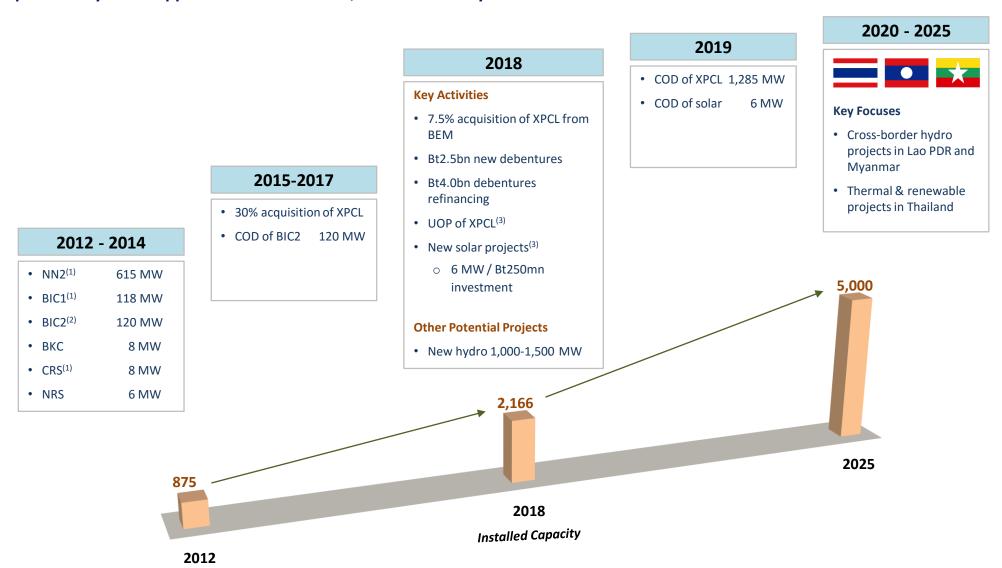
People, Culture and Core Value





Looking Forward

Our 2025 target of 5,000 MW installed capacity will be supported by investment opportunities across ASEAN regions, particularly those opportunities in Thailand, Lao PDR and Myanmar.





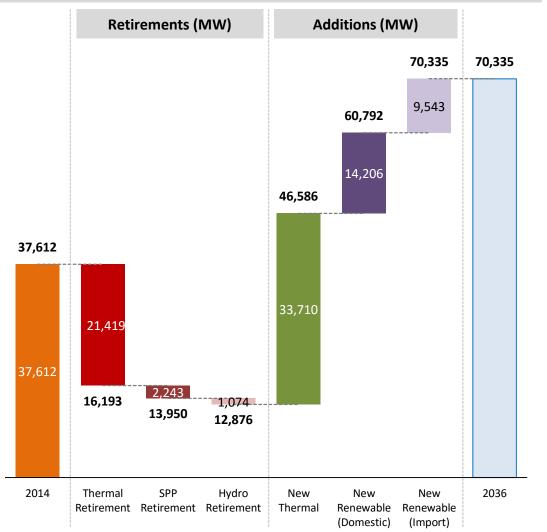
Industry Outlook: Thailand



For Thailand, domestic renewable energy and imported hydro energy will be the two key drivers to feed Thailand's electricity demand going forward.

PDP 2015: Changes in Thailand's Planned Installed Capacity by Type (MW)





Fuel Type	2014 Mix	2036 Mix	Estimated CAGR ⁽²⁾
Imported Hydro	7%	15% - 20%	7% - 8%
Renewable ⁽¹⁾	8%	15% - 20%	6% - 7%
Clean Coal including Lignite	20%	20% - 25%	3% - 4%
Natural Gas	64%	30% - 40%	-1% - 1%
Nuclear	-	0% - 5%	-
Diesel/Fuel Oil	1%	-	-100%
TOTAL	100%	100%	3%



Industry Outlook: Lao PDR



Lao PDR aims to be the Battery of Asia by Exporting Electricity to Neighboring Countries, including Thailand. Lao PDR signed MOU to sell electricity to Thailand for 9,000 MW.



- Lao PDR has 9,000 MW MOU to sell electricity to Thailand
- Excluding mainstream Mekong⁽¹⁾ river, there is about 26,500 MW of hydroelectric potential in the country
- Of which, 18,000 MW is technically exploitable

Status	Project ⁽²⁾	Туре	Contracted Capacity with Thailand (MW)	Major Shareholders ⁽³⁾
	Theun-Hinboun HPP	Hydro	214	EdL-Gen (Lao)Nordic Group (Norway)GMS Power (Thailand)
	Houay Ho HPP	Hydro	126	• GLOW (Thailand) • EdL (Lao)
In operation	Nam Theun 2 HPP	Hydro	948	•EDF (France) •EGCO (Thailand) •LHSE (Lao)
in operation	Nam Ngum 2 HPP	Hydro	597	• SEAN (Thailand) • EdL-Gen (Lao)
	Theun-Hinboun HPP (Expansion)	Hydro	220	EdL-Gen (Lao)Nordic Group (Norway)GMS Power (Thailand)
	Hongsa	Lignite	1,473	• BANPU (Thailand) • RATCH (Thailand) • LHSE (Lao)
Total			3,578	
	Xe Pian Xe Namnoy (2019)	Hydro	354	SK Engineering (Korea)Korea Western Power (Korea)RATCH (Thailand)LHSE (Lao)
Under construction	Nam Ngiep 1 (2019)	Hydro	269	Kansai Electric (Japan)EGAT International (Thailand)LHSE (Lao)
	Xayaburi HPP (2019)	Hydro	1,220	• CK Power (Thailand) • Natee Synergy (Thailand) • EdL (Lao)
	Nam Thuen 1 (2022)	Hydro	515	Ponesack Group (Lao)EGCO (Thailand)
Total			2,358	
GRAND TOTAL			5,936	



Industry Outlook: Lao PDR



Lao PDR's section of the Mekong River has potential for several large site hydro power plant projects with XPCL being the first project on this river section.

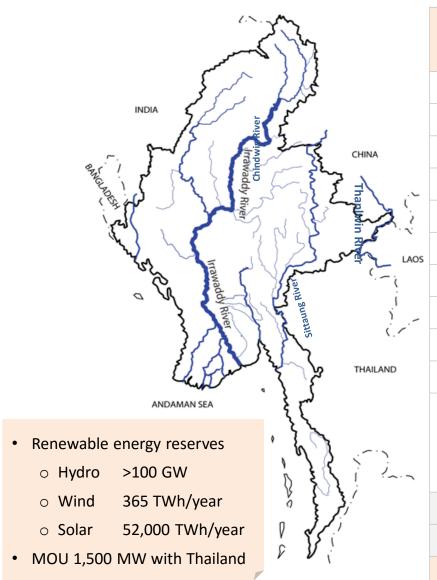
		Installed Cap	pacity (MW)	
2	Project	Construction	Planned	
Lao PDR	1. Pak Beng		912	
3	2. Luang Prabang		1,410	
4	3. Xayaburi HPP	1,285		
5 6	4. Pak Lay		1,320	
7	5. Sanakham		570	
Thailand	6. Pak Chom		1,079	
9 0	7. Ban Khoum		1,872	
Cambodia 10	8. Lat Sua		800	
5 11	9. Don Sahong	360		
Viet nam	10. Stung Treng		980	
	11. Sambor		460	
	Total	1,645	9,403	



Industry Outlook: Myanmar

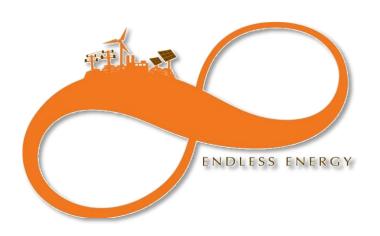


Myanmar also has Significant Untapped & Diverse Types of Renewable Energy Potentials.



State / Region	Potential H	ydro Sites	Capacity (MW)
State / Negion	10 – 50 MW	>50 MW	Capacity (ivivv)
Kachin State	5	14	18,744.5
Kayah State	2	3	954.0
Kayin State	1	8	7,064.0
Sagaing Region	2	4	2,830.0
Taninthayi Region	5	1	711.0
Bago Region	4	4	538.0
Magway Region	2	3	359.0
Mandalay Region	3	6	1,555.0
Mon State	1	1	290.0
Rakhine State	3	3	764.5
Shan States	1 3 -	3 5 5	719.8 7,569.5 4,000.0
>10 MW	32	46,099.3	
<10 MW	21	231.3	
Total	30	46,330.6	

Thank You





Contact Information

Investor Relations Department



+66 (0) 2 691 9720 # 2035



ir@ckpower.co.th



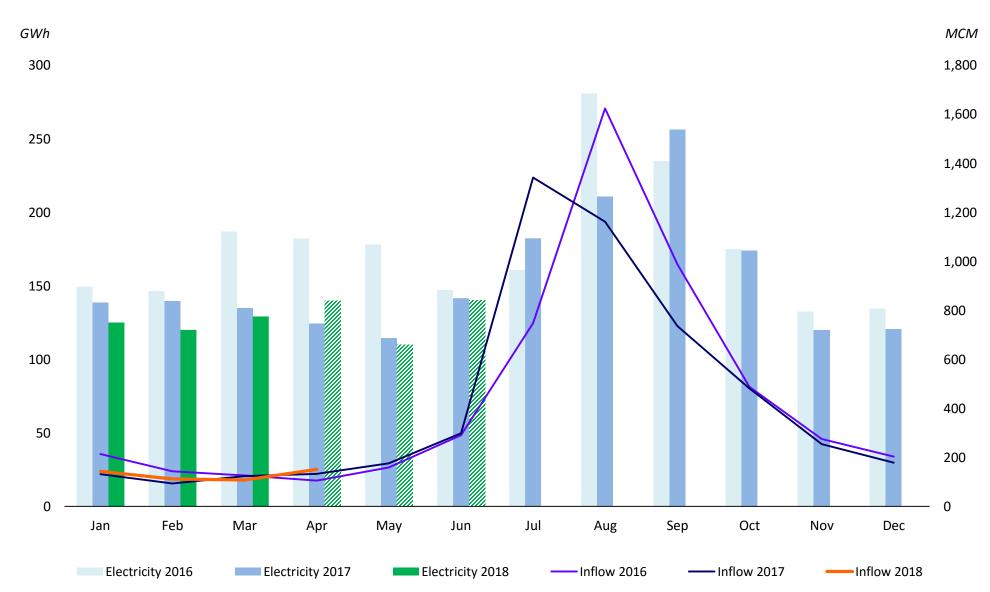
www.ckpower.co.th



Nam Ngum 2 Hydroelectric Power Project (NN2HPP)



Monthly Historical Electricity Sales and Water Inflow

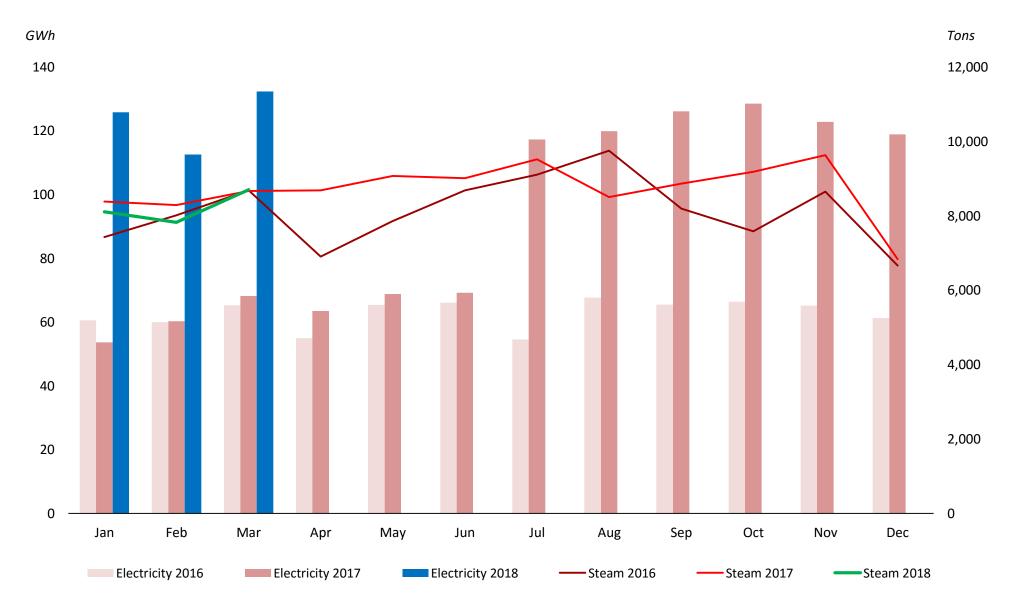




Bangpa-in Cogeneration Power Project (BIC)



Monthly Historical Electricity and Steam Production

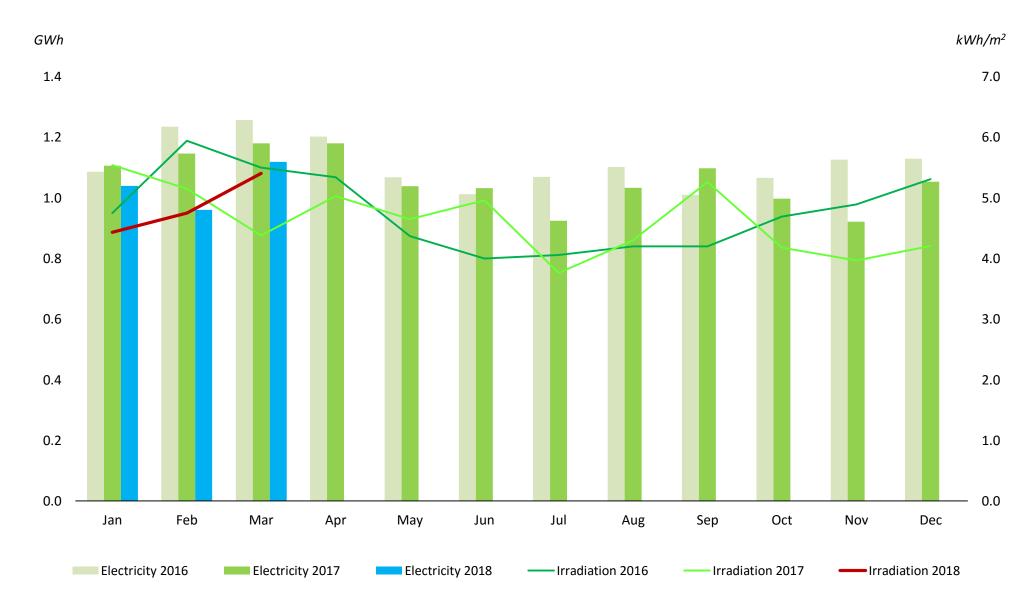




Bangkhenchai Solar (BKC)



Monthly Historical Electricity Production and Average Irradiation





Hydroelectric Power Projects on Mekong River and its Tributaries

