



Management's Discussion and Analysis

For the Financial Results of Quarter 2 Year 2017

Ended June 30, 2017

ABBREVIATION

ADB	= Asian Development Bank
COD	= Commercial Operation Date
EBITDA	= Earnings before Interest, Taxes, Depreciation and Amortization
EDL	= Electricite Du Laos
EGAT	= Electricity Generating Authority of Thailand
ERC	= Energy Regulatory Commission
EPC	= Engineering, Procurement and Construction
EVN	= Electricity of Vietnam
FX	= Foreign exchange
IPO	= Initial public offering
IU	= Industrial user
JV	= Joint venture
KWh	= Kilowatt-hour
MWh	= Megawatt-hour
mmBtu	= Million Btu (unit of gas consumption)
NNP	= Normalized net profit
O&M	= Operations and maintenance
P.A.	= Per annum
PEA	= Provincial Electricity Authority (Thailand)
PPA	= Power purchase agreement
PTT	= PTT Public Company Limited
SG&A	= Selling, general & administrative expense

OUR PROJECTS

ABPIF	= Amata B.Grimm Power Plant Infrastructure Fund
ABP1	= Amata B.Grimm Power 1
ABP2	= Amata B.Grimm Power 2
ABP3	= Amata B.Grimm Power 3
ABP4	= Amata B.Grimm Power 4
ABP5	= Amata B.Grimm Power 5
ABPR1	= Amata B.Grimm Power (Rayong) 1
ABPR2	= Amata B.Grimm Power (Rayong) 2
ABPR3	= Amata B.Grimm Power (Rayong) 3
ABPR4	= Amata B.Grimm Power (Rayong) 4
ABPR5	= Amata B.Grimm Power (Rayong) 5
BGPSK	= B.Grimm Solar Power (Sakaeo) 1
BGSENA	= B.Grimm Sena Solar Power Limited
BGYSP	= B.Grimm Yanhee Solar Power
BIP1	= B.Grimm BIP Power 1
BIP2	= B.Grimm BIP Power 2
BPLC1	= B.Grimm Power (Laem Chabang) 1
BPLC2	= B.Grimm Power (Laem Chabang) 2
BPWHA1	= B.Grimm Power (WHA) 1
Nam Che	= Nam Che 1 Hydro Power Project
XXHP	= Xenamnoy 2 and Xekatom 1 Hydro Power Project

1. EXECUTIVE SUMMARY

1.1) Significant events

Commercial operation of XXHP

XXHP – the two hydro power projects located in Champasak province in the Lao People's Democratic Republic - has an installed capacity of 20.1 MW, and sells electricity to EDL under a 25-year PPA. The Project was able to achieve commercial operation on July 30, 2017 as scheduled in PPA, and the construction cost is in line with the budget approved by the lenders.

This achievement would enable us to keep record of managing the project to **commence COD in time and in budget for 25 consecutive projects during the last 6 years.**

Issuance of the project debentures

In April 2017, Amata B.Grimm Power SPV1 Limited issued 11 tranches of guaranteed debentures in an aggregate amount of Baht 11,500 million through a private placement offering (the "Debentures"). The Debentures are guaranteed by ABP3, ABPR1, and ABPR2 and have a term of between 3 and 15 years and an interest rate of between 2.7% and 4.8% p.a. with **an average interest rate of 3.8% p.a. for the first year.**

The proceeds from the issuance of the Debentures will be used to **refinance our higher interest rate borrowings** (note that the combined financing costs of ABP3, ABPR1 and ABPR2 is 5.5% p.a. for fiscal year end 2016).

ADB Facility

On June 16, 2017, B.Grimm Power entered into a facility agreement with ADB acting as trustee of the Canadian Climate Fund (the "Lender"), pursuant to which the Lender agreed to make available to B.Grimm Power a concessional term loan facility in **an aggregate amount of up to US\$20 million** ("the Concession Loan Facility") The purpose of the Concession Loan Facility is to finance B.Grimm Power's renewable energy projects in the Philippines, Lao PDR, Myanmar, Cambodia, Indonesia and Vietnam.

In addition, on August 10, 2017 we also entered into the Indicative Termsheet with ADB pursuant to a commercial corporate loan facility in **an aggregate amount of up to US\$235 million** for purpose of finance our power projects in ADB developing member countries, provided that such facility is subject to ADB's internal approvals, due diligence, and execution of mutually agreed definitive documentation.

Net proceed from IPO

In connection with our IPO, we received **net proceed from IPO in the amount of Baht 10,217 million** on July 17, 2017, NOT including over-allotment proceed of Baht 1,042 million. To illustrate on the additional of net proceed from IPO of Baht 10,217 million into our capital structure as of June 30, 2017, **the illustrated net interest-bearing debt to equity ratio would be 1.6 times.**

Development of Solar Projects

Pursuant to Notification of the State Agencies and Agricultural Cooperatives' Solar Farm Projects B.E. 2560 (2017) announced by ERC dated April 28, 2017 ("Notification"), we were selected to be a co-investor in **8 solar farm projects with a total capacity of 35.83 MW**, composing of

- 1) 5 solar farm projects with a total capacity of 23.58 MW with the War Veterans Organization of Thailand ("WVO") with the confirmation letter from WVO dated August 3, 2017; and
- 2) 3 solar farm projects with a total capacity of 12.25 MW with the agricultural cooperatives

In regards to the Notification, the solar farm project under this scheme will be eligible for feed-in tariff of 4.12 Baht per KWh with a 25-year PPA. ERC will announce the qualified sponsor on November 3, 2017 and enter into PPA with the qualified sponsors by March 2, 2018. However, ERC reserves its right to amend tentative schedule and there can be no assurance that ERC will confirm our selection as a co-investor in all. Therefore, the total capacity of the solar farm projects that we may co-invest in may be not equal to 35.83 MW.

1.2) Key financial highlight

Sales and service income, EBITDA, and NNP for 1H'2017 hit record high; EBITDA margin enhanced to 28%

	6M'2016 million Baht	6M'2017 million Baht	% change %
Sales and service income	13,609	15,615	14.7%
EBITDA	3,712	4,356	17.3%
Net profit	1,667	1,848	10.8%
Normalized net profit (NNP)*	1,322	1,479	11.8%
NNP - Owner of the parent	775	874	12.8%
EBITDA margin (%)	27.3%	27.9%	
NNP margin (%)	9.7%	9.5%	
% NNP - Owner of the parent	58.6%	59.1%	

Remark:

**Normalized net profit = Net profit – Unrealized gain (loss) from FX – Non-recurring income / (expense)*

Sales and service income

- **Sales and service income increased 14.7%** from Baht 13,609 million to Baht 15,615 million for the six months ended June 30, 2017, primarily due to an increase in revenue from the power plants that were fully developed and are in operation, namely
 - the inclusion of revenue from BPWHA1, located in Hemraj Industrial Estate, that started commercial operation dates on November 1, 2016; and
 - the inclusion of revenue for a full half-year operation in 2017 of ABP5, located in Amata Nakorn Industrial Estate, which started operation on June 1, 2016

EBITDA

- **EBITDA increased 17.3%** from Baht 3,712 million to Baht 4,356 million for six months ended June 30, 2017 which is in line with an increase in revenue and improvement on EBITDA margin
- **EBITDA margin improved to 27.9%** for the six months ended June 30, 2017, primarily due to high efficiency of our new power plants became commercial operation in recent years

Normalized net profit (NNP)

- **Normalized net profit increased 11.8%** from Baht 1,322 million to Baht 1,479 million for the six months ended June 30, 2017.
- **NNP margin maintained at 9.5%** for the six months ended June 30, 2017, primarily due to maintaining of our operating profit margin and capital structure.
- **Normalized net profit attributable to owner of the parent increased 12.8%** from Baht 775 million to Baht 874 million for six months ended June 30, 2017. The portion of NNP attributable to owner of the parent remained at 59.1% which is in line with economic ownership that we have in the operating projects.

2. FINANCIAL PERFORMANCE

2.1) Revenue structure

	6M'2016		6M'2017		% change %
	million Baht	%	million Baht	%	
<u>Electricity sales</u>					
Sales to EGAT	8,242	60%	9,715	62%	17.9%
Sales to IUs - Thailand	4,312	31%	4,564	29%	5.8%
Sales to IUs - Vietnam	578	4%	581	4%	0.4%
Sales to PEA	10	0%	35	0%	241.2%
Electricity sales	13,143	96%	14,894	95%	13.3%
Steam sales	283	2%	258	2%	-9.0%
Others	183	1%	463	3%	153.2%
Sales and services income	13,609	99%	15,615	100%	14.7%
Other revenues	113	1%	52	0%	-53.7%
Total revenues	13,722	100%	15,668	100%	14.2%

Electricity sales to EGAT

- **Electricity sales to EGAT increased 17.9%** from Baht 8,242 million to Baht 9,715 million for the six months ended June 30, 2017.
- **The volume of electricity sold to EGAT increased 23.2%** from 2,732,112 MWh to 3,365,025 MWh for the six months ended June 30, 2017, primarily due to the inclusion of the power plants which became commercially operational during the period, namely BPWHA1 and ABP5.
- **Electricity sales revenue from EGAT per unit decreased 4.3%** from Baht 3.02/KWh to Baht 2.89/KWh for the six months ended June 30, 2017 because the energy payment component of the EGAT electricity tariff is indexed to the price of natural gas for which there was a 6.6% decrease in average effective price for our gas-fired combined cycle cogeneration power plants from Baht 251.99/mmBtu to Baht 235.45/mmBtu for the six months ended June 30, 2017.

Electricity sales to Industrial Users (IUs) - Thailand

- **Electricity sales to industrial users in Thailand increased 5.8%** from Baht 4,312 million to Baht 4,564 million for the six months ended June 30, 2017.
- **The volume of electricity sold to industrial users in Thailand increased 11.6%** from 1,300,444 MWh to 1,451,780 MWh for the six months ended June 30, 2017, primarily due to
 - the inclusion of industrial users of BPWHA1 in Hemraj Industrial Estate and BIP2 in Bangkadi Industrial Park; and
 - an increase in demand load from existing customers of ABPR1 and ABPR2 in Amata City Industrial Estate
- **Electricity sales revenue from industrial users in Thailand per unit decreased 5.4%** from Baht 3.32/kWh to Baht 3.14/kWh for the six months ended June 30, 2017, primarily due to a decrease in natural gas price which resulted in a decrease of the PEA retail tariff and correspondingly, our selling price which is adjusted by reference to the PEA retail tariff.

Electricity sales to Industrial Users (IUs) - Vietnam

- **Electricity sales to industrial users in Vietnam increased 0.4%** from Baht 578 million to Baht 581 million for the six months ended June 30, 2017.
- **The volume of electricity on-sold to industrial users in Vietnam increased 13.7%** from 205,189 MWh to 233,282 MWh for the six months ended June 30, 2017, primarily due to an increase in demand load from existing customers.
- **Electricity sales revenue from industrial users in Vietnam per unit decreased 11.7%** from Baht 2.82/KWh to Baht 2.49/KWh for the six months ended June 30, 2017, primarily due to a decrease in

the prevailing retail tariff charged by the subsidiary of EVN which our power selling prices are set at a premium to.

Steam sales to Industrial Users (IUs)

- **Steam sales to industrial users in Thailand decreased 9.0%** from Baht 283 million to Baht 258 million for the six months ended June 30, 2017.
- **The volume of steam sold to industrial users in Thailand decreased 2.2%** from 256,483 tons to 250,854 tons for the six months ended June 30, 2017, primarily due to a decrease in steam dispatched from existing customers in Laem Chabang Industrial Estate, despite an increase in demand in Amata Nakorn Industrial Estate.
- **Steam sales revenue from industrial users in Thailand per unit decreased 6.9%** from Baht 1,104.17/ton to Baht 1,027.69/ton for the six months ended June 30, 2017, primarily due to a decrease in natural gas price as our steam price is generally adjusted to reflect changes in natural gas price.

Other sales and service income

- **Other sales and service income increased 153.2%** from Baht 183 million to Baht 463 million for the six months ended June 30, 2017, primarily due to a record of construction revenue which is recognized based on the percentage of completion of our hydro power projects in Lao PDR, namely XXHP and Nam Che.

Table 1) Revenue drivers: Sales volume

	6M'2016 MWh	6M'2017 MWh	% change %
Electricity sales to EGAT	2,732,112	3,365,025	23.2%
<u>Electricity sales to IU - Thailand</u>			
Amata Nakorn Industrial Estate	757,706	763,250	0.7%
Amata City Industrial Estate	158,814	169,437	6.7%
Laemchabang Industrial Estate	334,982	336,779	0.5%
Hemraj Industrial Estate	0	107,816	n/a
Bangkadi Industrial Park	48,942	74,498	52.2%
Electricity sales to IU - Thailand	1,300,444	1,451,780	11.6%
Electricity sales to IU - Vietnam	205,189	233,282	13.7%

	6M'2016 ton	6M'2017 ton	% change %
<u>Steam sales to IU - Thailand</u>			
Amata Nakorn Industrial Estate	61,646	65,059	5.5%
Amata City Industrial Estate	79,554	79,773	0.3%
Laemchabang Industrial Estate	115,283	106,021	-8.0%
Steam sales	256,483	250,854	-2.2%

Table 2) Revenue drivers: Price per unit

	units	6M'2016	6M'2017	% change
Electricity sales to EGAT	Baht/KWh	3.02	2.89	-4.3%
Electricity sales to IU - Thailand	Baht/KWh	3.32	3.14	-5.4%

	units	6M'2016	6M'2017	% change
Electricity sales to IU - Vietnam	Baht/KWh	2.82	2.49	-11.7%
Steam sales to IU - Thailand	Baht/Ton	1,104.17	1,027.69	-6.9%
Gas cost	Baht/mmBtu	251.99	235.45	-6.6%

2.2) Cost structure

	6M'2016		6M'2017		% change %
	million Baht	%	million Baht	%	
<u>Cost of sales and services</u>					
Natural gas	8,166	72%	9,040	70%	10.7%
Cost of electricity- Vietnam	514	5%	518	4%	0.7%
O&M	802	7%	825	6%	2.9%
Others	268	2%	611	5%	127.9%
Cost of sales and services	9,751	86%	10,994	86%	12.8%
SG&A	361	3%	460	4%	27.5%
Depreciation	1,196	11%	1,388	11%	16.1%
Total expenses	11,307	100%	12,842	100%	13.6%

Natural gas

- **Natural gas costs increased 10.7%** from Baht 8,166 million to Baht 9,040 million for the six months ended June 30, 2017, primarily due to an increase in gas consumption arising from the inclusion of the power plants, despite partly offset by a decrease in the average effective price of natural gas price which is tied to the weighted average price for the mass of natural gas from PTT's pool gas.

Cost of electricity- Vietnam

- **Cost of electricity purchased from subsidiaries of EVN increased 0.7%** from Baht 514 million to Baht 518 million for the six months ended June 30, 2017, primarily due to an increase in the volume of electricity on-sold to industrial users in Vietnam.

O&M

- **Operation and maintenance costs increased 2.9%** from Baht 802 million to Baht 825 million for the six months ended June 30, 2017, primarily due to an increase in operation and maintenance costs arising from the inclusion of the new power plants described above.

Other cost of sales and service

- **Other cost of sales and service income increased 127.9%** from Baht 268 million to Baht 611 million for the six months ended June 30, 2017, primarily due to a record of construction cost which is recognized based on our actual incurred construction costs of our hydro power projects in Laos, namely XXHP and Nam Che hydro power projects.

Selling, general & administrative expense

- **Selling, general & administrative expense increased 27.5%** from Baht 361 million to Baht 460 million for the six months ended June 30, 2017, primarily attributable to an increase in staff to support our business expansion and the inclusion of administrative expenses of the new power plants.

2.3) Non-operating items

	6M'2016 million Baht	6M'2017 million Baht	change %
Share of profit (loss) of associates and JV	102	116	14.0%
Gain (Loss) on exchange rate	135	(17)	-112.8%

Share of profit (loss) of associates and joint ventures

- **Share of profit from associates increased 14.0%** from Baht 102 million to Baht 116 million for the six months ended June 30, 2017. The increase was primarily attributable to profits at our associate, namely ABPIF, and our joint ventures, namely BGYSP and BGSENA.

Gain (loss) on exchange rate

- **We recorded a loss on exchange rate of Baht 17 million** for the six months ended June 30, 2017 compared to a gain on exchange rate of Baht 135 million for the six months ended June 30, 2016. The realized foreign exchange gains of Baht 135 million for the six months ended June 30, 2016 primarily arising from payment of consideration to the EPC contractor with respect to BIP2 after they became commercially operational due to the appreciation of the Baht against the U.S. dollar when actual payment was made.

2.4) Finance cost and tax

	6M'2016 million Baht	6M'2017 million Baht	% change %
<u>Finance cost</u>			
Interest expense from borrowing	989	1,215	22.9%
Interest expense from ABPIF	198	176	-10.7%
Unrealized loss/(gain) from FX	(366)	(688)	87.7%
Other financing costs	67	252	275.7%
Finance cost	887	956	7.8%
<u>Tax expense (income)</u>			
Tax on profits for the year	118	132	11.7%
Deferred tax	(20)	(12)	-41.6%
Tax expense (income)	98	120	22.7%

Finance cost

- **Finance costs increased 7.8%** from Baht 887 million to Baht 956 million for the six months ended June 30, 2017. The increase was primarily attributable to:
 - a 22.9% increase in interest expenses from borrowings from Baht 989 million to Baht 1,215 million for the six months ended June 30, 2017, primarily due to an increase in the interest incurred on the indebtedness used to fund the construction of ABP5, BGPSK and BPWHA1 after their commencement of commercial operation in 2016; and
 - a 10.7% decrease in interest expense from ABPIF of Baht 198 million compared to Baht 176 million for the six months ended June 30, 2017 based on the benefits transferred from the business operation of ABP1 and ABP2; and
 - a 87.7% increase in unrealized gain on exchange rate from financing activities relating to our U.S. dollar-denominated borrowings from an unrealized gain of Baht 366 million to an unrealized gain of Baht 688 million for the six months ended June 30, 2017 due to the

- appreciation of the Baht against the U.S. dollar at the ending of each financial statement period; and
- (iv) a 275.7% increase in other finance costs from Baht 67 million to Baht 252 million for the six months ended June 30, 2017, primarily due to a bond issuance of ABP3, ABPR1 and ABPR2 to refinance its project financing facilities resulting in a write-off of deferred financing fee and a payment of prepayment fee of project financing facilities.

Income tax expense

- Income tax expense increased 22.7% from Baht 98 million to Baht 120 million for the six months ended June 30, 2017. The increase was primarily attributable to an 11.7% increase in current tax expense on profits for the period from Baht 118 million to Baht 132 million for the six months ended June 30, 2017 due to an increase in taxable profit.

2.5) Normalized Net Profit

	6M'2016 million Baht	6M'2017 million Baht	% change %
Net profit for the period	1,667	1,848	10.8%
Add Unrealized (gain) on FX	(345)	(626)	81.5%
Add Non-recurring expenses	0	257	n/a
Normalized net profit	1,322	1,479	11.8%
Less Minority interest	(547)	(605)	10.5%
NNP - Owner of the parent	775	874	12.8%
NNP per share	0.4	0.5	12.8%
No. of shares in calculation*	1,890	1,890	

* Remark:

Number of shares used in calculation is based on a number of shares before IPO

- Normalized Net Profit increased 11.8% from Baht 1,322 million to Baht 1,479 million for the six months ended June 30, 2017. The adjustment on Normalized Net Profit for the six months ended June 30, 2017 was primarily attributable to:
 - an unrealized gain on exchange rate of Baht 626 million for the six months ended June 30, 2017 due to the appreciation of the Baht against the U.S. dollar at the ending of each financial statement period; and
 - non-recurring expenses of Baht 257 million for the six months ended June 30, 2017, primarily due to a bond issuance of ABP3, ABPR1 and ABPR2 to refinance its project financing facilities resulting in a write-off of deferred financing fee and a payment of prepayment fee in the amount of Baht 230 million and a provision of obsolete inventory in the amount of Baht 27 million.

3. FINANCIAL POSITION

3.1) Statements of Financial Position

	31 Dec 2016 million Baht	30 Jun 2017 million Baht	% change %	30 Jun 2017 (Illustration) million Baht
Cash and cash equivalents	8,322	9,287	11.6%	19,505
Total assets	76,047	80,710	6.1%	90,928
Total interest-bearing debts	55,205	58,486	5.9%	58,486
Total liabilities	64,513	67,300	4.3%	67,300
Total equities	11,534	13,410	16.3%	23,627
Total equities attributable to owner	5,900	6,786	15.0%	17,003
<i>Net-int debt to equity</i>	4.1	3.7		1.6
<i>Net debt to EBITDA</i>	6.3	5.6		4.5

Change in capital structure

- **Total assets increased 6.1%** from Baht 76,047 million as of December 31, 2016 to Baht 80,710 million as of June 30, 2017, due to an increase in cash and cash equivalents, an increase in property, plant and equipment, and an increase in intangible assets.
- **Total interest-bearing debts increased 5.9%** from Baht 55,205 million as of December 31, 2016 to Baht 58,486 million as of June 30, 2017 primarily due to borrowings for development of our projects under construction.
- **Total equities increased 16.3%** from Baht 11,534 million as of December 31, 2016 to Baht 13,410 million as of June 30, 2017 primarily due to an increase in retained earnings from improved business turnover for the six months ended June 30, 2017.
- **As a result of the foregoing, net interest-bearing debt to equity ratio improved** from 4.1 times as of December 31, 2016 to 3.7 times as of June 30, 2017

Illustration on our capital structure with net proceed from IPO

- In connection with our initial public offering, we received net proceed from the escrow account in the amount of Baht 10,217 million on July 17, 2017, NOT including over-allotment proceed of Baht 1,042 million. To illustrate on the additional of net proceed from IPO of Baht 10,217 million into our capital structure as of June 30, 2017, total cash would be Baht 19,505 million, and total equities would be Baht 23,627 million. **As a result, the illustrated net interest-bearing debt to equity ratio would be 1.6 time.** The remaining of cash in over-allotment proceed account will be paid up to the company after the end of stabilization period on August 17, 2017.

4. PROGRESS OF PROJECTS UNDER CONSTRUCTION (as of 31 July 2017)

Project	Location	Type of fuel	Ultimate Holding %	Installed capacity MW	Equity capacity MW	SCOD	% progress
ABPR3	Amata City	Gas	55%	133	74	1-Feb-2018	87.3%
ABPR4	Amata City	Gas	55%	133	74	1-Jun-2018	69.2%
ABPR5	Amata City	Gas	55%	133	74	1-Oct-2018	48.9%
XXHP	Laos	Hydro	70%	20	14	30-Jul-2017	100.0%
Nam Che	Laos	Hydro	72%	15	11	30-Jun-2018	18.3%