



# Report and Recommendation of the President to the Board of Directors

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Project Number: 50410  
April 2017

## Proposed Equity Investment and Administration of Loan B.Grimm Power Public Company Limited ASEAN Distributed Power Project (Regional)

This is an abbreviated version of the document approved by ADB's Board of Directors that excludes information that is subject to exceptions to disclosure in accordance with paragraph 97 (v) and (viii) of ADB's Public Communications Policy 2011.

Asian Development Bank



## CURRENCY EQUIVALENTS

(as of 27 March 2017)

Currency unit	–	baht (B)
B1.00	=	\$0.029
\$1.00	=	B34.42

## ABBREVIATIONS

ADB	–	Asian Development Bank
ASEAN	–	Association of Southeast Asian Nations
CEFPF	–	Clean Energy Financing Partnership Facility
CCFPS	–	Canadian Climate Fund for the Private Sector in Asia
EGAT	–	Electricity Generating Authority of Thailand
IPO	–	initial public offering
Lao PDR	–	Lao People's Democratic Republic
MW	–	megawatt
PEA	–	Provincial Electricity Authority
PPA	–	power purchase agreement
SPP	–	small power producer
VSPP	–	very small power producer

## NOTES

- (i) The fiscal year of B.Grimm Power Public Company Limited ends on 31 December.
- (ii) In this report, "\$" refers to US dollars

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## PROJECT AT A GLANCE

1. Basic Data		Project Number: 50410-001	
Project Name	ASEAN Distributed Power Project	Department /Division	PSOD/PSIF2
Country	REG		
Investee/Borrower	B.Grimm Power Public Company Limited		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Energy	Renewable energy generation - solar		75.00
		Total	75.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Mitigation (\$ million)	75.00
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	CO <sub>2</sub> reduction (tons per annum)	61,056
		Climate Change impact on the Project	High
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Partnerships (PAR)	Commercial cofinancing Private Sector	No gender elements (NGE)	✓
Private sector development (PSD)	Promotion of private sector investment		
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Nation-wide	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG7		
6. Nonsovereign Operation Risk Rating - NA			
Obligor Name		Final Project Rating	Facility Risk Rating
B.Grimm Power Public Company Limited			
7. Safeguard Categorization	Environment: B	Involuntary Resettlement: B	Indigenous Peoples: B
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		75.00	
Nonsovereign Direct Investment: Ordinary capital resources		75.00	
B-Loans		0.00	
None		0.00	
Official Cofinancing <sup>a</sup>		20.00	
Nonsovereign Concessional Loan: Canadian Climate Fund for the Private Sector in Asia under the Clean Energy Financing Partnership Facility		20.00	
Others <sup>b</sup>		375.60	
Others		375.60	
Total		470.60	

<sup>a</sup> Concessional financing from external sources.<sup>b</sup> Derived by deducting ADB financing, B Loans and Official Cofinancing from Project Total Cost.



## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed equity investment of up to \$75,000,000 (or its equivalent in baht) to B.Grimm Power Public Company (B.Grimm) for the ASEAN Distributed Power Project. The report also describes the proposed administration of a loan of up to \$20,000,000 to be provided by the Canadian Climate Fund for the Private Sector in Asia (CCFPS) under the Clean Energy Financing Partnership Facility (CEFPF). If the Board approves the proposed equity investment described above, I, acting under the authority delegated to me by the Board, approve the administration of the loan from CCFPS.

## II. THE PROJECT

### A. Project Identification and Description

2. **Project identification.** Demand for electricity in Thailand increased by an average of 3.6% per year during 2005–2016. Total electricity consumption was 182,846 gigawatt-hours in 2016, up 4.6% from the 2015 level of 174,834 gigawatt-hours. As of January 2017, Thailand's installed power generation capacity was 41,242 megawatts (MW). Production of electricity depends heavily on fossil fuels—63% is generated from natural gas, 11% from lignite, and 7% from coal. Although renewable energy sources currently contribute only 8%, the Government of Thailand's promotion of alternative energy under the Alternative Energy Development Plan, 2015–2036 is expected to increase renewable energy capacity to 19,684 MW (30% of total capacity) by 2036, with 6,000 MW coming from solar power and 3,000 MW from wind power.<sup>1</sup> The plan was prepared as part of the government's strategy to diversify the energy mix and promote renewable energy, and (i) notes the significant potential of renewable energy in Thailand, and (ii) indicates that energy imports can be avoided through development of domestic renewable energy projects with private investment.

3. Countries in the Association of Southeast Asian Nations (ASEAN) region face a rapid increase in energy demand, driven by socioeconomic factors that include rapid population growth, sustained economic growth, growing urbanization, an expanding middle class population, and increased access to electricity. According to the Organisation for Economic Co-operation and Development, electricity consumption by countries in the ASEAN region will grow 8.04% per year during 2009–2030. This poses major challenges to achieving and balancing energy policy objectives in the region, including energy security, sustainable development, energy access, and affordability.

4. ADB identified the opportunity to provide financial assistance to B.Grimm through close cooperation and strong relationships that ADB has built over the last 5 years with key players in the Thai energy sector, with the goal of (i) implementing ADB's Midterm Review of Strategy 2020 and the country operations business plan, 2017–2019 for Thailand, which emphasize support for clean energy and environmentally sustainable growth;<sup>2</sup> and (ii) supporting the recently adopted Sustainable Development Goals, which seek to substantially increase the share of renewable energy in the global energy mix.<sup>3</sup>

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<sup>1</sup> Government of Thailand, Ministry of Energy. 2015. *Alternative Energy Development Plan, 2015–2036*. Bangkok.

<sup>2</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila; ADB. 2016. *Country Operations Business Plan: Thailand, 2017–2019*. Manila.

<sup>3</sup> United Nations. Sustainable Development Goals. <http://www.un.org/sustainabledevelopment/energy/>

5. **Project design.** CONFIDENTIAL INFORMATION DELETED

6. **Borrower and/or investee.** B.Grimm, established in 1993 in Thailand, is an energy company that focuses on the development, financing, construction and operation of greenfield power plants. B.Grimm is a part of B.Grimm Group, Thailand's oldest infrastructure and industrial group in operation, which was founded in 1878.

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**B. Development Impact, Outcome, and Output**

7. **Impacts.** The impacts will be (i) regional progress ensured in increasing substantially the share of renewable energy in the global energy mix by 2030;<sup>4</sup> and (ii) the energy mix diversified through the addition of alternative energy capacity and more electricity consumption from renewable sources.<sup>5</sup>

8. **Outcome.** The outcome will be the sustained operation of private sector renewable power projects in the ASEAN region.

9. **Output.** The output will be the rollout and operation of renewable power projects in the ASEAN region.

**C. Alignment with ADB Strategy and Operations**

10. **Consistency with ADB strategy and country strategy.** The project is consistent with the ADB Midterm Review of Strategy 2020 (footnote 2) for (i) environmentally sustainable development; (ii) the role of the private sector in meeting growing energy demand in the region; and (iii) capitalizing on ADB's operating strengths in infrastructure development, finance, and other areas. The midterm review also supported the expansion of environment-friendly technologies for clean and efficient energy generation and use, as well as a larger role for private sector financing of infrastructure. ADB's country partnership strategies for various ADB developing member countries echo the themes of the energy policy, including the promotion of environmentally sustainable economic development and energy security.

11. **Consistency with sector strategy and relevant ADB operations.** The project is consistent with ADB's Energy Policy, which supports wider access to energy through investments in energy efficiency and renewable energy projects.<sup>6</sup> The project will contribute to ADB's target of \$6 billion in annual financing for climate mitigation and adaptation by 2020, and catalyze further private sector resources in the clean energy sector.

**D. Project Cost and Financing Plan**

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**E. Implementation Arrangements**

12. Table 4 summarizes the implementation arrangements.<sup>7</sup>

<sup>4</sup> In support of Goal 7 of the Sustainable Development Goals (footnote 3, above).

<sup>5</sup> In support of the Alternative Energy Development Plan (para. 2, above).

<sup>6</sup> ADB. 2009. *Energy Policy*. Manila.

<sup>7</sup> Details of Implementation Arrangements (accessible from the list of linked documents in Appendix 2.)



**Table 4: Summary of Implementation Arrangements**

<b>Aspects</b>	<b>Arrangements</b>
Regulatory framework	B.Grimm's existing distributed gas-fired cogeneration plants are developed under Thailand's SPP program, which allows private developers to build, own, and operate energy power projects in the 10–90 MW capacity range and to enter into PPAs with EGAT in close proximity to power and steam demand to ensure high efficiency and eliminate transmission losses. B.Grimm's existing solar power projects are developed under Thailand's VSPP program, which allows private developers to build, own, and operate energy power projects with capacity of up to 10 MW and enter into PPAs with the PEA.
Management	B.Grimm's senior management is composed of professional management teams, who have been with the company for an average of 12.5 years. They have extensive managerial and technical knowledge in the power sector.  CONFIDENTIAL INFORMATION DELETED
Implementation period	CONFIDENTIAL INFORMATION DELETED
Revenue structure	CONFIDENTIAL INFORMATION DELETED
Major cost structure	CONFIDENTIAL INFORMATION DELETED
Contractor selection	CONFIDENTIAL INFORMATION DELETED
Operation and maintenance	CONFIDENTIAL INFORMATION DELETED
Performance monitoring	The company will submit quarterly unaudited financial statements and annual audited financial statements on a consolidated basis.

EGAT = Electricity Generating Authority of Thailand, EPC = engineering–procurement–construction, MW = megawatt, PEA = Provincial Electricity Authority, PTT = PTT Public Company Limited, PPA = power purchase agreement, SPP = small power producer.

Source: B.Grimm.

## **F. Projected Financial and Economic Performance**

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## **III. THE PROPOSED ADB ASSISTANCE**

### **A. The Assistance**

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### **B. Value Added by ADB Assistance**

13. ADB's assistance will support B.Grimm in the diversification and expansion of its renewable energy portfolio in the ASEAN region. By working with a well-established energy company with a strong track record of successful execution, ADB will be able to extend its reach to multiple energy and renewable power projects, which would be difficult to assist directly. ADB's participation in the IPO will play an important role not only in providing direct financing but also in attracting third-party investors and establishing more confidence in B.Grimm's future access to capital markets. ADB's presence as an equity investor will also ensure that B.Grimm will adopt and implement ADB's environmental and social safeguards standards.

14. The CCFPS loan will contribute to the diversification of the ASEAN region's energy mix by adding renewable energy capacity, in particular distributed solar energy, thereby helping the region achieve sustainable long-term economic growth and transition to a low-carbon economy.

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15. The CCFPS loan will also help the company establish renewable energy solutions in some of the ASEAN region's more challenging legal and regulatory contexts. Countries such as Cambodia, Myanmar, the Lao PDR, Indonesia and Viet Nam are only recently beginning to develop distributed renewable power options such as solar and wind, and new developers face a range of technical, legal, regulatory and financing challenges. Through the use of concessional finance, ADB will help to demonstrate a track record of successful financing to encourage private sector developers to take on the higher risk associated with these projects.

### **C. Risks**

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## **IV. POLICY COMPLIANCE**

### **A. Safeguards and Social Dimensions**

16. In compliance with ADB's Safeguard Policy Statement (2009), the project is classified as category B for environment, involuntary resettlement and indigenous peoples.

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17. B.Grimm will comply with national labor laws and, pursuant to ADB's Social Protection Strategy (2001), will take measures to comply with the internationally recognized core labor standards.<sup>8</sup> B.Grimm will report on an annual basis to ADB on (i) its compliance with such laws and (ii) the measures taken. Information disclosure and consultation with affected people will be conducted in accordance with ADB requirements.<sup>9</sup>

### **B. Anticorruption Policy**

18. B.Grimm was advised of ADB's policy of implementing best international practice relating to combating corruption, money laundering, and the financing of terrorism. ADB will ensure that the investment documentation includes appropriate provisions prohibiting corruption, money laundering, and the financing of terrorism, and remedies for ADB in the event of noncompliance.

### **C. Investment Limitations**

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<sup>8</sup> ADB. 2003. *Social Protection*. Manila (adopted in 2001).

<sup>9</sup> Summary Poverty Reduction and Social Strategy; Safeguards and Social Dimensions Summary (accessible from the list of linked documents in Appendix 2).

**D. Assurances**

19. Consistent with the Agreement Establishing the Asian Development Bank (the Charter),<sup>10</sup> ADB will proceed with the proposed assistance upon establishing that the Government of Thailand has no objection to the proposed assistance to B.Grimm Power Public Company Limited. ADB will enter into suitable finance documentation, in form and substance satisfactory to ADB, following approval of the proposed assistance by the Board of Directors.

**V. RECOMMENDATION**

20. I am satisfied that the proposed equity investment would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the equity investment of up to \$75,000,000 (or its equivalent in baht) from ADB's ordinary capital resources to B.Grimm Power Public Company Limited for the ASEAN Distributed Power Project, with such terms and conditions as are substantially in accordance with those set forth in this report, and as may be reported to the Board.

Takehiko Nakao  
President

12 April 2017

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<sup>10</sup> ADB. 1966. *Agreement Establishing the Asian Development Bank*. Manila.

## DESIGN AND MONITORING FRAMEWORK

### Impacts the Project is Aligned With

Regional progress ensured in achieving one of the Sustainable Development Goal 7 targets:  
Increasing substantially the share of renewable energy in the global energy mix by 2030<sup>a</sup>

Energy mix diversified through the addition of alternative energy capacity and more electricity consumption from renewable sources (Alternative Energy Development Plan, 2015–2036)<sup>b</sup>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<b>Outcome</b> Private sector renewable power project operations in the ASEAN region sustained	CONFIDENTIAL INFORMATION DELETED	a–c. ADB's annual development effectiveness monitoring reports	Weak power demand caused by adverse macroeconomic shock
<b>Output</b> Renewable power projects in the ASEAN region rolled out and operational	CONFIDENTIAL INFORMATION DELETED	ADB's annual monitoring reports	Delayed commissioning resulting from force majeure events

### Key Activities with Milestones

Renewable power projects in the ASEAN region rolled out and operational

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### Inputs

ADB equity investment: Up to \$75.0 million (or its equivalent in baht)

Canadian Climate Fund for the Private Sector in Asia under the Clean Energy Financing Partnership Facility: Up to \$20.0 million

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### Assumptions for Partner Financing

Not applicable

ADB= Asian Development Bank, ASEAN = Association of Southeast Asian Nations, MW = megawatt.

<sup>a</sup> United Nations. Sustainable Development Goals. <http://www.un.org/sustainabledevelopment/energy/>

<sup>b</sup> Government of Thailand, Ministry of Energy. 2015. *Alternative Energy Development Plan, 2015—2036*. Bangkok.

<sup>c</sup> Emission factor of 0.5088 tons of carbon dioxide per MW-hour for Thailand.

Source: Asian Development Bank.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=50410-001-4>

1. Sector Overview
2. Client Information
3. Details of Implementation Arrangements
4. Contribution to the ADB Results Framework
5. Financial Analysis
6. Economic Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Safeguards and Social Dimensions Summary
10. Findings of the Corporate Safeguards Audit: Environmental and Social Management System Arrangement

**Supplementary Document**

11. Integrity Disclosure