



Report and Recommendation of the President to the Board of Directors

Project Number: 46914
September 2012

Proposed Loan Cofely Southeast Asia Pte. Ltd. Southeast Asia Energy Efficiency Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 17 September 2012)

Currency unit	–	euro/s (€)
€1.00	=	\$1.30
\$1.00	=	€0.76
Currency unit	–	Singapore dollar/s (S\$)
S\$1.00	=	\$0.82
\$1.00	=	S\$1.22
Currency unit	–	baht (B)
B1.00	=	\$0.03
\$1.00	=	B30.80
Currency unit	–	peso/s (P)
P1.00	=	\$0.02
\$1.00	=	P41.58
Currency unit	–	ringgit (RM)
RM1.00	=	\$0.33
\$1.00	=	RM3.04
Currency unit	–	rupiah (Rp)
Rp1.00	=	\$0.0001
\$1.00	=	Rp9,462.50

ABBREVIATIONS

ADB	–	Asian Development Bank
BOT	–	build–operate–transfer
DMC	–	developing member country
ESCO	–	energy service company
ESMS	–	environmental and social management system
GSES	–	GDF Suez Energie Services
Lao PDR	–	Lao People's Democratic Republic
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of Cofely Southeast Asia Pte. Ltd. ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

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PROJECT AT A GLANCE

1. Project Name: Southeast Asia Energy Efficiency Project		2. Project Number: 46914	
3. Country: Regional		4. Department/Division: Private Sector Operations Department Private Sector Infrastructure Finance 2	
5. Sector Classification:			
Sectors		Primary	Subsectors
Energy		✓	Energy Efficiency
6. Thematic Classification:			
Themes		Primary	Subthemes
Environmental Sustainability		✓	
Economic growth			Fostering physical infrastructure development
Private sector development			Private sector investment
6a. Climate Change Impact:		6b. Gender Mainstreaming:	
Adaptation		Gender equity theme	
Mitigation	✓	Effective gender mainstreaming	
Not applicable		Some gender benefits	
		No Gender Elements (NGE)	✓
7. Targeting Classification:		8. Location Impact:	
General Intervention	Targeted Intervention		
	Geographic dimensions of inclusive growth	Millennium development goals	Income poverty at household level
✓			
		Rural	
		Urban	
		National	
		Regional	High
9. Nonsovereign Operation Risk Rating : NSO4			
10. Safeguard Categorization:			
Environment		B	
Involuntary resettlement		C	
Indigenous peoples		C	
11. ADB Financing:			
Sovereign/Nonsovereign	Modality	Source	Amount (\$ million)
Nonsovereign	Corporate Loan	OCR	40.0
12. Cofinancing:			
Financier	Category	Amount (\$ million)	
-	-	-	
Total		-	
13. Counterpart Financing: Not Applicable			
14. Aid Effectiveness: Not Applicable			

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed multicurrency corporate loan up to the lower of 50% (or, if the loan is covered by a risk participation agreement, up to 75%) of Cofely Southeast Asia Pte. Ltd. (Cofely) assets and \$40 million equivalent in baht, peso, ringgit, rupiah, euro, or US dollar, supported by a comprehensive, irrevocable corporate guarantee from GDF Suez Energie Services S.A. (GSES) for the Southeast Asia Energy Efficiency Project. The report also describes proposed research and development technical assistance (TA) for Southeast Asia Regional Energy Efficiency Sector, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, will approve the research and development TA.

II. THE PROJECT

A. Project Identification and Description

1. Project Identification

2. The adverse effects of climate change can quickly unravel poverty reduction gains in Southeast Asia. With populations and infrastructure concentrated in coastal areas, economic development throughout the region remains exceedingly vulnerable to changing precipitation patterns and increased frequency of extreme weather events.¹ Though the region only contributed to 3.0% of energy-related carbon dioxide emissions in 2000, aggressive plans for economic growth place its energy sector as the fastest-growing contributor to emissions (footnote 1). The trajectory in energy-related emissions in Southeast Asia presents an untapped opportunity for cost-effective mitigation that can advance sustainable and low-carbon growth.

3. The Asian Development Bank (ADB) has been on the forefront of accelerating private sector investment in low-carbon infrastructure in Southeast Asia, where a broad-based opportunity for energy efficiency improvement persists. Cofely has a proven business model² to implement and operate energy efficiency investments, strong execution ability, deep technical expertise, and broad support from its parent company, GDF Suez. In developing its 2012–2016 regional business plan, Cofely identified a robust pipeline of energy and environmental efficiency projects across Southeast Asia. ADB supports Cofely's investment plan to build, upgrade, and expand energy efficiency infrastructure in Cambodia, Indonesia, the Lao People's Democratic Republic (Lao PDR), Malaysia, the Philippines, Thailand, and Viet Nam. Through financing and capacity development, ADB will demonstrate the limited risks and reliable returns associated with a relatively untapped, yet rich category of low-carbon investment.

2. Project Design

4. The project seeks to remove both the financial constraints and the information barriers that inhibit the development of the energy efficiency market through a loan and parallel research and development TA (para. 30). Specifically, it will support the investment program of Cofely to expand and upgrade energy efficiency services in Cambodia, Indonesia, the Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam. The loan will finance long-term energy efficiency solutions in ADB developing member countries (DMCs) in Southeast Asia that guarantee energy savings for hotels, hospitals, large commercial centers, office buildings, business districts, and industrial facilities, and the expansion of energy efficiency services and small-scale renewable energy generation. ADB and Cofely will finance the investment program

¹ ADB. 2009. *The Economics of Climate Change in Southeast Asia – A Regional Review*. Manila (p. 5).

² Guarantor and Borrower (accessible from the list of linked documents in Appendix 2).

on a consolidated basis to reduce financing transaction costs that typically beleaguer small energy efficiency projects. Cofely will be the borrower and will direct ADB funds to subprojects managed by its regional branches and subsidiaries. Moreover, ADB assistance will incorporate loan conditionalities such as the maintenance of satisfactory leverage ratios, a transparent corporate governance structure, and the design and implementation of an environmental and social management system (ESMS) consistent with ADB's Safeguard Policy Statement (2009). GSES will guarantee all principal and interest due to ADB through a comprehensive guarantee, available on first demand, designed to result in a full risk transfer of ADB's exposure to GSES.

3. The Borrower and/or Sponsor

5. Cofely is a wholly owned subsidiary of GSES, the world leader in energy and environmental efficiency services, and brings 60 years of GSES energy efficiency experience to Southeast Asia through offices in Singapore, Thailand, the Philippines and Malaysia. Cofely designs and implements solutions to help businesses achieve guaranteed cost savings from energy efficiency improvements. Revenue comes from Cofely receiving a designated percentage of cost savings achieved in exchange for energy services rendered. Cofely partners with large conglomerates and retailers, multipremise owners, hospital or hotel chains, and property developers through medium-term (5–6 years) and long-term (7–10 years) contracts offering comprehensive solutions: (i) detailed energy audits of all equipment; (ii) engineering (redesign, resize, retrofit, and replace); (iii) financing through build–operate–transfer (BOT) contracts; (iv) project management; and (v) long-term operation and maintenance.

6. A key driver of Cofely's market leadership includes its ability to keep project costs to the minimum because of its independence from equipment providers. It maintains a brand-neutral equipment policy and exercises buying power by negotiating acquisition and spare parts prices for equipment at the GDF Suez group level worldwide.

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4. The Guarantor

7. **Parent company.** GDF Suez is the largest utility company in the world with operations in 70 countries. It was formed in 2008 from the merger of energy company Suez and power company Gaz de France, and is active in electricity generation, gas, energy efficiency, waste, and water. It participates throughout the energy and environmental value chain via six main business lines: Energy France, Energy Europe & International, Infrastructure, Global Gas and Liquid Natural Gas, Energy Services, and Suez Environment. In 2011, GDF Suez had over 117 gigawatts in installed power generation capacity and revenues of €90.7 billion (\$118 billion). GDF Suez is rated A by Standard & Poor's and A1 by Moody's. Its excellent business risk profile is supported by the group's scale and diversification as the world's largest gas and electricity utility, as well as its sizable share of regulated and contracted operations, new and clean power generation assets, and broad and highly diversified gas sourcing.³

8. **Guarantor.** GSES is the leader in energy efficiency and environmental services and a wholly owned subsidiary of GDF Suez. With its various subsidiaries, GSES channels more than 60 years of experience in supplying locally produced energies and utilities to serve 130,000 customers, operate 180 heating and cooling networks, and manage 48 public–private partnerships in over 1,300 locations across 30 countries worldwide. Key GSES brands include Cofely, Axima, Endel, Ineo, Fabricom, and Tractebel Engineering. GSES' total revenues on a consolidated basis were €14.2 billion (\$18 billion)—representing an increase of 5.3% year-on-

³ Standard & Poor's. 2012. *Global Credit Portal – Summary: GDF Suez S.A.* Paris.

year and 15.7% of the GDF Suez group's total revenues—with €655 million (\$852 million) in operating income and €300 million (\$390 million) in net income in 2011. GSES benefits from tangible group-level support as a core subsidiary of GDF Suez.

9. **GDF Suez Energie Services' strategy for Asia.** The parent company, GDF Suez, has been active for many years in all its business areas across the Asia and Pacific region: electricity generation, liquid natural gas, and energy and environmental services. It has an existing installed capacity of 13 gigawatts and employs 11,000 people in the region. According to the 2011 Asia growth strategy, the group seeks to further accelerate its business in Asia over the next 5 years.⁴ Subsequently, GSES plans to scale up regional operations significantly by removing key hurdles that inhibit energy efficiency market growth, building on its successful services platform and vast experience as the world leader in energy efficiency.

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B. Development Impact, Outcome, and Outputs

10. **Impact.** The project will play a pioneering role in demonstrating the viability of smaller-scale clean energy projects in the Asia and Pacific region. The demonstration effect is expected to encourage more investment in clean energy, specifically energy efficiency in ADB Southeast Asia DMCs. Additionally, with reduced information barriers, proven net savings, and greater access to financing, the demand for energy efficiency solutions will grow, stimulating greater provision of energy efficiency services in the region and, subsequently, more qualified full-service ESCOs. Energy savings are a promising and cost-effective mechanism to close the gap between energy demand and supply. ADB DMCs in Southeast Asia must enable private sector participation to develop and finance a substantial amount of energy efficiency projects to help meet their growing energy demand and climate mitigation targets. The demonstrational effect will provide a model for other ESCOs to replicate and BOT investors to follow in terms of financial structuring and environmental and social standards.

11. **Outcome.** The project's expected outcome is the demonstrated viability of energy efficiency investment across several ADB DMCs through realized energy savings, emission reduction, and net savings. The research and development TA will further promote industry growth by raising awareness among senior managers across the region and by identifying specific opportunities with the highest energy savings potential.

12. **Outputs.** The project outputs will be (i) implementation and operation of energy efficiency projects in target ADB DMCs, and (ii) greater awareness and market information on energy efficiency investment benefits. The design and monitoring framework is in Appendix 1.

C. Alignment with ADB Strategy and Operations

13. **Consistency with Strategy 2020.** The Project is closely aligned with ADB's Strategy 2020,⁵ which aims to reduce poverty and improve living conditions and quality of life by scaling up private sector development and supporting environmentally sustainable models through projects that reduce greenhouse gas emissions and tackle climate change challenges.

⁴ GDF Suez. 2011. *Press File – GDF Suez, A Major Player in Asia-Pacific*. Paris.

⁵ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

14. **Consistency with sector strategy and relevant ADB operations.** The project is consistent with ADB's Energy Policy,⁶ which supports wider access to energy through investments in energy efficiency and renewable energy projects. In 2013, ADB will raise its clean energy investment target to \$2 billion a year from the present \$1 billion in a bid to accelerate low-carbon growth and reduce regional greenhouse gas emissions. ADB's country partnership strategies for various ADB DMCs (including two target DMCs, Thailand and the Philippines) echo the themes of the energy policy, promoting energy security and environmentally sustainable economic development.⁷

15. **Lessons from previous operations.** As discussed in the Independent Evaluation Department's recent review of ADB energy efficiency interventions, ADB has long considered energy efficiency improvement to be a highly cost-effective alternative to increasing energy availability: 1 megawatt of power capacity saved costs about half that of adding equivalent coal-fired power-generating capacity.⁸ Review of past ADB loans in energy efficiency indicate the need to focus on removing market barriers (i.e. poor awareness among energy users, high risk perception of most commercial banks and relatively poor credibility of ESCOs). Other development partners note that the efficacy of financial assistance can be heightened with TA for project origination. Current project design integrates these key lessons and aims to arrive at a more replicable and impactful model for the industry.

D. Project Cost and Financing Plan

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E. Implementation Arrangements

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Table 3: Summary of Implementation Arrangements

Aspects	Arrangements
Regulatory framework	Energy efficiency projects are developed through build–operate–transfer (BOT) or service contracts between private entities.
Management	GDF Suez Energie Services is the leader in energy efficiency and environmental services and a wholly owned subsidiary of GDF Suez. It channels over 60 years of experience in supplying locally produced energies and utilities to serve 130,000 customers, operate 180 heating and cooling networks, and manage 48 public–private partnerships in over 1,300 locations across 30 countries worldwide.
Implementation period	CONFIDENTIAL INFORMATION DELETED
Operational arrangements	
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Relevant parties	Projects are owned and operated by Cofely or one of its subsidiaries or branches (Cofely Malaysia Sdn. Bhd, Cofely SEA Utilities Ltd, and Cofely Philippines); procurement guidance and monitoring from GDF Suez, rated A by Standard & Poor's and A1 by Moody's.
Performance monitoring	Key performance indicators, including output and outcome indicators, will be reported by Cofely.

⁶ ADB. 2009. *Energy Policy*. Manila.

⁷ ADB. 2007. *Country Partnership Strategy: Thailand, 2007–2011*. Manila; and ADB. 2011. *Country Operations Business Plan: Thailand, 2012–2014*. Manila. ADB. 2011. *Country Partnership Strategy: Philippines, 2011–2016*. Manila.

⁸ ADB. 2011. *Evaluation Knowledge Brief on Review of Energy Efficiency Interventions*. Manila (p. i).

Source: Asian Development Bank.

III. THE PROPOSED ADB ASSISTANCE

A. The Assistance

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B. Technical Assistance

16. The research and development TA for Southeast Asia Regional Energy Efficiency Sector will be processed simultaneously with the loan. ADB will be the executing agency managing the funds and implementation.⁹ Through the \$600,000 research and development TA, ADB plans to raise awareness of energy efficiency throughout the region among commercial managers and industry associations, and facilitate further commercial financing in the sector through discussions with financial institutions. Similar to the loan, the target ADB DMCs are Cambodia, Indonesia, the Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam. Key tasks involve: establishing a tangible track record of heating, cooling and compressed-air energy efficiency investments through benchmarking analyses; preparing case studies for hotels, hospitals, and district cooling; and analyzing the ESCO competitive landscape. Planned awareness-raising workshops aim to facilitate dialogue among ESCOs, banks and leaders in hospitality, healthcare, finance, and food industries in cooperation with sustainable energy development authorities of the target countries. The scope of work and communication strategy will be refined in consultation with the Regional and Sustainable Development Department (RSDD), Southeast Asia Regional Department (SERD) and Department of External Relations (DER) to ensure that the TA complements ADB-wide energy efficiency strategy.

IV. POLICY COMPLIANCE

A. Safeguards and Social Dimensions

17. In compliance with ADB's Safeguard Policy Statement, the project is classified as category B for environment, category C for involuntary resettlement, and category C for indigenous peoples. The environment category was determined based on possible inclusion of category B projects in the future, although the current portfolio has only category C projects. The potential environmental and social impacts of the project have been defined and effective measures to avoid, minimize, mitigate, and compensate for the adverse impacts will be incorporated in the borrower safeguard reports and plans. The institutional capacity and commitment of Cofely to manage the project's social and environmental impacts are deemed adequate. Cofely will comply with ADB's Social Protection Strategy¹⁰ and report regularly to ADB on the compliance (including by contractors) with national labor laws and adherence to internationally recognized core labor standards. Information disclosure and consultations with affected people will be conducted in accordance with ADB requirements.¹¹

⁹ ADB will be the recruiting entity and the TA will be funded through ADB's Technical Assistance Special Fund (TASF-IV). ADB's Guidelines on the Use of Consultants (2010, as amended from time to time) will be applicable.

¹⁰ ADB. 2003. *Social Protection Strategy*. Manila (adopted in 2001).

¹¹ Summary Poverty Reduction and Social Strategy; and Safeguards and Social Dimensions Summary (accessible from the list of linked documents in Appendix 2).

B. Anticorruption Policy

18. Cofely was advised of ADB's policy of implementing best international practice relating to combating corruption, money laundering, and the financing of terrorism. ADB's review of the entity does not give ADB cause to believe that the entity has been established, or is being used for cross-border tax evasion, money laundering, or terrorism financing in the jurisdictions involved in the project. 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

19. The proposed loan is within the medium-term, country, industry, group, and single-project exposure limits for nonsovereign investments.

D. Assurances

20. Consistent with the Agreement Establishing the Asian Development Bank (the Charter),¹² no objection of the governments of Cambodia, Indonesia, the Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam to the proposed assistance to Cofely will be obtained prior to the disbursement of ADB funds for use by Cofely in the relevant developing member country. ADB will enter into suitable finance documentation, in form and substance satisfactory to ADB, following approval of the proposed assistance by its Board of Directors.

V. RECOMMENDATION

21. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of up to the lower of 50% (or, if the loan is covered by a risk participation agreement, up to 75%) of Cofely Southeast Asia assets and \$40,000,000 in baht, peso, ringgit, rupiah, euro, or US dollar for energy efficiency investments in Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Thailand, and Viet Nam from ADB's ordinary capital resources, 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.

Haruhiko Kuroda
President

20 September 2012

¹² ADB. 1966. *Agreement Establishing the Asian Development Bank*. Manila.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impacts Increased investment in clean energy (including energy efficiency) projects Increased provision of energy efficiency services in Southeast Asia	Financing for clean energy in the region increases from \$949.9 million (2011) ^a to at least \$1,187 million (25%) by 2022 At least 10 new ESCOs registered in Southeast Asia between 2013 and 2022	ADB: Clean energy investments report International Energy Agency ESCO accreditation registries ^b	Assumption Political will of ADB DMCs to support clean energy alternatives Risk Energy efficiency investments are less attractive than revenue-generating projects.
Outcome Demonstrated viability of energy efficiency investments	The project achieves annual energy savings of at least 150,000 MWh from energy efficiency projects by 2019. ^c The project results in average annual avoidance of 90,000 tons of carbon emissions by 2019. ^d Average annual net savings of \$10 million from energy efficiency projects by 2019 ^e	Savings estimates audited by independent, globally recognized energy auditor Project reports on operations and ESMS compliance reports Audited financial statements, technical reports	Assumption Improving policies and regulations for energy efficiency Risk Slower-than-expected growth in demand for energy efficiency solutions despite increased awareness
Outputs Energy efficiency projects implemented and performance achieved	Successful implementation of energy efficiency pipeline projects representing at least \$100 million in capital expenditure by 2017 in at least 3 target ADB DMCs 100% of energy efficiency projects issue detailed energy audit reports for baseline comparison within 6 months of completion. ESMS requirements met	Project reports on operations and audited financial statements Cofely energy audit reports Audited financial statements ESMS monitoring report.	Assumption Project sponsors committed to delivering high-quality energy efficiency projects Risk Energy savings through energy efficiency are lower than expected.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Greater awareness and market information regarding energy efficiency investment benefits	<p>Five industry workshops organized by the third quarter of 2013</p> <p>At least 5 case studies completed and disseminated by the fourth quarter of 2013</p>		
Activities with Milestones <ol style="list-style-type: none"> 1. Financial close of Southeast Asia Energy Efficiency Project by the fourth quarter of 2012 2. Research and development TA workshops conducted and knowledge products disseminated by the fourth quarter of 2013 			Inputs ADB: \$40 million CONFIDENTIAL INFORMATION DELETED Research and development TA: \$0.6 million

ADB = Asian Development Bank, DMC = developing member country, ESCO = energy service company, ESMS = environmental and social management system, GSES = GDF Suez Energie Services, MWhe = megawatt-hour equivalent, TA = technical assistance.

^a ADB. 2012. *2011 Clean Energy Investments: Project Summaries*. Manila. This value represents only ADB's investment in energy efficiency projects in its DMCs in 2011. The International Energy Agency is currently consolidating information on global clean energy investments by development finance institutions as well as commercial banks and other agencies. The design and monitoring framework figures will be updated as this information becomes available.

^b Department of Energy Development and Efficiency in Thailand, Department of Energy in the Philippines, Malaysian ESCO Association in Malaysia. Including Singapore, more than 110 ESCOs are now registered.

^c Based on investment program of 63 projects receiving ADB funding from 2012 to 2016: 26 compressed-air projects, 34 chilled-water projects, 2 biogas projects, and 1 cogeneration project.

^d Emission factors based on: Philippines CDM project #5356 (http://cdm.unfccc.int/Projects/DB/DNV_CUK1319454506.94/view); Other Association of Southeast Asian Nations CDM project #4906; (<http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1308122295.38/view>); Thailand CDM project # 6120 (<http://cdm.unfccc.int/Projects/DB/Germanischer1335441117.9/view>).

^e Cofely estimates based on gross savings less investments costs.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=46914-01-4>

1. Sector Overview
2. Details of Implementation Arrangements
3. Contribution to the ADB Results Framework
4. Financial Analysis
5. Economic Analysis
6. Country Economic Indicators
7. Summary Poverty Reduction and Social Strategy
8. Safeguards and Social Dimensions Summary

Supplementary Documents

9. Guarantor and Borrower
10. Research and Development Technical: Southeast Asia Regional Energy Efficiency Sector – Summary Terms of Reference
11. Financial Projections