Enabling SME access to finance for sustainable consumption and production in Asia

An overview of finance trends and barriers in Indonesia, Malaysia, and Thailand

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ASrIA
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The goal of the European Commission's SWITCH-Asia programme is to promote economic prosperity and help reduce poverty in Asia by encouraging sustainable growth with low environmental impact from industries and consumers, in line with international environmental agreements and processes. More specifically, it aims to promote sustainable products, processes, services and consumption patterns in Asia by improving cooperation with European retailers, producer and consumer organisations and the public sector.

The SWITCH-Asia Network Facility is one of the components of the SWITCH-Asia programme funded by the EU and is implemented by the GFA Consulting Group and the Collaborating Centre on Sustainable Consumption and Production (CSCP). Within the SWITCH-Asia programme, the Network Facility helps effectively share knowledge, disseminate and promote replication of successful project practice, facilitate networking between Asian and European stakeholders, produce publications on sustainable consumption and production (SCP) practice.
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Key Insights

- **"Green finance" – funding for sustainable consumption and production – represents only a small fraction of total commercial lending and financial products available, and is sold at a premium to non-green finance.** In this regional, cross-country assessment focusing on three ASEAN countries, Thailand has demonstrated the most promising progress, helped by an early start in government-led initiatives and capacity building compared with Indonesia and Malaysia. Alternative sources for finance, such as factoring and lease financing, could help enable Small and Medium Enterprises (SMEs) to invest in sustainable consumption and production, are being developed and still nascent all three countries.

- **Available financing solutions typically focus on expanding existing or adding new sources of finance through public support initiatives, such as funded facilities that target SMEs or green finance.** Targeting the combination of both SMEs and green activities is not yet a priority intersection for policy makers, therefore new solutions are required. Initiatives specifically geared towards SME-sponsored green projects are not common, but stakeholders confirm that it is compelling market niche with clear potential.

- **In-country research and interviews with subject matter experts and practitioners have revealed a wide variety of structural, supply-side and demand-side barriers that all stakeholders face in enabling SME access green finance.** Barriers range from over-reliance on relationship-based lending that is difficult to scale, higher perception of risk of SME clients or green projects, to inefficient coordination among government agencies. This report finds that deficiencies in each country's enabling environment, in terms of both (a) financial infrastructure, such as credit bureaux or collateral registries, and (b) the overall legal and regulatory framework for financial institutions and instruments, are potentially the most significant impediments to unlocking substantial green finance flows from private sector sources from domestic or international sources. Credit guarantees have proven to be an effective policy response to a key challenge – SMEs' lack of collateral. However, credit support schemes are most effective when coupled with initiatives to strengthen financial infrastructure. Centralised credit reference systems and SME-relevant scoring systems are critical enabling environment components that could make finance more accessible.

- **Despite these promising developments, a key issue merits continuing attention: the need for capacity building and awareness of sustainable consumption and production.** SMEs and financiers both lack capabilities and skills required for widespread implementation of green technologies and processes. In order for businesses to develop a more long-term oriented view and recognise the benefits of sustainable production and consumption, large-scale, nation-wide education campaigns may be needed for significant impact. Interviews also revealed a lack of dialogue between SMEs, policy makers and financiers. Greater understanding between stakeholders could overcome many of the demand-supply barriers related to SMEs' enabling capacity, ability to navigate financing applications, or financiers' nascent exposure to green loans.

- **A government-led, top-down approach will be essential to enforcing and stimulating greater SME access to green finance, and raising awareness of sustainable consumption and production.** Economic incentives for banks should be considered to help them overcome inertia and initially higher transaction costs. National regulations, such as quotas for commercial lending to SMEs for green projects, would be a strong market signal to advance progress toward greener and more inclusive financial services in all three countries.

Introduction

Small and Medium Enterprises (SMEs) are an important driver of Asia's economy. Throughout the region, SMEs represent about 98% of total businesses, contributing an estimated 38% (2007 – 2012) to the region's gross domestic product (GDP) (ADB, 2013).

As major contributors to industrial pollution in Asia, SMEs are critical enablers of initiatives for more sustainable consumption and production. To access finance for investment in resource efficient processes, SMEs face a variety of barriers, from financial infrastructure shortcomings, to a lack of credit evaluation processes catered to SMEs, as well as their own technical or financial capabilities to develop and operate green technologies. Investments for 'green improvements' are typically at a disadvantage because of higher upfront costs, longer payback periods and perceived higher risk in comparison to traditional investments, making them less attractive to financial institutions.

Today's landscape of SME finance in Asia mainly covers short-term working capital and term loans for asset acquisition, or business expansion financing provided by commercial banks. The combination of SME focus and finance for green projects is rare. Capital markets, as a source of lower cost growth financing or as an exit path for investors, have traditionally been inaccessible to SMEs. Alternative financing mechanisms such as factoring and leasing are even less common and typically only available to well-established medium to large-sized enterprises.

Yet SMEs have to be part of the solution. As the backbone of regional economies, small businesses are closely interwoven into local communities. Systemic resilience and more inclusive green growth cannot be achieved without them. With adequate support and a more conducive framework for accessing finance, SMEs can play a critical role in Asia's transition to more sustainable growth.

Methodology and definitions

This report aims to (i) identify the most important challenges SMEs face in accessing green finance in Indonesia, Thailand and Malaysia, (ii) illustrate relevant case studies and (ii) identify key trends and emerging best practice across all three countries.

As a cross-country assessment, this report aims to enable readers to compare (i) financial services and funding targeting SMEs and green investments, (ii) enabling environments, specifically, legal and regulatory initiatives and existing financial infrastructure, and (iii) public support schemes, such as funded financing facilities and credit guarantee corporations.

The purpose of the report is to improve dialogue between stakeholders and encourage the development of more targeted solutions that holistically consider SME and green finance needs, and positively contribute to advancing green finance for Asia's SME sector, specifically through addressing the following questions:

- What is the current state of SME finance and 'green finance'?
- What type of barriers do SMEs face when trying to access 'green finance'?
- What needs to be done to promote better access for SMEs to green finance?

Report findings are derived from primary and secondary research, yielding insights into current SME financing trends and the state of SME green finance in each of the three countries. Primary research was conducted in each country through in-person interviews with senior executives and officials from local commercial banks, financial institutions, SMEs, and government departments, as well as other subject matter experts. Secondary research was conducted through a review of publicly available literature on SME finance and green finance in the emerging markets, with a focus on Asian countries and ASEAN Member States.

The following list provides an overview of the terminology and definitions central to the research to guide the reader and ensure consistent application throughout the report:

Green Finance	The financing of public and private green investments (including preparatory and capital costs) in the following areas: Environmental goods and services, such as water management, protection of biodiversity and landscapes, resource efficiency, waste management, and renewable energy; Prevention, minimisation and compensation of damage to the environment and to the climate, such as energy efficiency or dams (Lindenberg, 2014).
Green Loan	Return-driven investments, which finance assets that reduce or mitigate humanity's environmental footprint or facilitate adaptation to climate change (Malk, 2011).
Small and medium enterprises (SMEs)	SMEs do not share a single definition across the region, but are categorised according to local regulations: **Indonesia:** Indonesian law defines SMEs as productive entities with annual revenues below 50 billion IDR (USD 4.07 million) or a maximum of 50 billion IDR (USD 4.07 million) net assets (ADB, 2013); **Thailand:** The Ministry of Industry has defined SMEs in the manufacturing sector as establishments with fewer than 200 employees and up to BHT200 million (USD 6.1 million) net assets (ADB, 2013); **Malaysia:** Businesses within the manufacturing space are officially categorised as SMEs, if they generate annual revenue of up to RM 50 million (USD 14.6 million) or employ fewer than 200 full-time employees (ADB, 2013).

Regional Perspective for Cross Country Learning

As ASEAN Member States, Indonesia, Malaysia, and Thailand share ambitions of regional integration and complementary development paths, articulated through the ASEAN Economic Community (AEC) Blueprint since the 2007 Cebu Declaration.

As consumers of raw materials and energy, exporters of finished goods, and contributors to pollution, SMEs are also critical enablers of national and regional initiatives to shift the region towards a sustainable development pathway. It follows that development of the SME sector is embedded in the third pillar of the AEC Blueprint, namely, equitable economic development (ERIA, 2014), and is highlighted as a key actor in each countries' national climate change policy and sustainable development roadmaps. By identifying country-level SME finance trends, barriers to access, and case studies in these three countries, this report aims to facilitate cross-country learning and encourage implementation of effective SME green finance models.

State of SME Finance in Indonesia, Malaysia, and Thailand

Role of SMEs in economies

Across the Asia-Pacific and South East Asia regions, leaders recognise that SMEs are major drivers for employment, innovation, and economic growth.

Indonesia has more than 56.5 million SMEs more than half of which are active in primary industries, namely fishery, agriculture, and forestry, followed by trade, which accounts for about one third of total SMEs. The number of SMEs has been growing steadily at about 2% p.a. from 2007 to 2012. Total establishments account currently for 99.9% of local enterprises, contributing about 60% to the gross domestic product (GDP) in 2012. About 6% of SMEs operate in the manufacturing sector, holding a share of more than 16% of total SME contribution to GDP (ADB, 2013).

More than 2.7 million SMEs were registered in Thailand in 2012, representing 98.5% of total businesses, contributing 37% to national GDP. About 80% of total employment is covered by SMEs. Small enterprises focused on services have a share of 34.1% of total SME GDP, followed by manufacturing (30.9%), and trade and maintenance (27.7%).

Malaysia has more than 600 000 registered SMEs representing 97.3% (2010) of total businesses in Malaysia, contributing 33.1% (2013) to its GDP, up from 32.7% in 2012 (The Office of the Chief Statistician. Department of Statistics, Malaysia 2014). En route to a 41% contribution by 2020, SMEs already supply multinational corporations (The Star Online, 2014).

SME finance trends

In exploring various SME finance models and market trends, this report provides highlights of the following types of SME finance interventions:

- **Private sector initiatives** by primary providers of financial services for SMEs, including debt from commercial banks (and majority state-owned banks), equity from funds, and capital markets. Financiers provide a range of products from term loans for asset finance to short-term working capital for trade finance, as well as venture and growth capital and alternative products such as factoring or lease finance;
- **Public support schemes**, such as (i) credit guarantee corporations, (ii) funded financing facilities that may also include technical capacity building activities or (iii) fiscal incentives; and
- **Enabling environment initiatives** designed to correct structural failures stemming from legal and regulatory effects, or financial infrastructure deficiencies, such as improved credit bureaux or more sophisticated insolvency regimes that feature collateral registries and classification of creditors.

Private sector finance trends – Sources of Debt

In 2013 in Indonesia, commercial loans to SMEs represented about 19% of total loans, of which 6% were targeted at the manufacturing sector. Working capital remains the most common type of financing provided to SMEs, comprising 73.4% of total SME loans outstanding in 2013.

State-owned banks are important actors in the Indonesian landscape, and lead the country market in demonstrating how the SME segment can be reached despite perceptions of high risk and high costs in serving them. Bank Rakyat Indonesia (BRI) is well known for its focus on providing finance to SMEs; about 80% of BRI's lending portfolio is dedicated to SMEs. This experience has fostered BRI's innovative approaches for client acquisition, assessment and servicing. To serve SME customers effectively, BRI has 'down-scaled' standard commercial bank practice and enhanced operations with processes from community bank practice. Credit analyses are simplified and weightings are adjusted for SMEs relative to larger borrowers. Collateral is generally considered less important for a successful loan application, and a stronger emphasis is placed on a general, qualitative assessment of the borrower's personal and business 'reputation' and 'character' during the credit approval process (Bank Indonesia, 2013).

Driven by long-running SME oriented programmes and credit-support policy responses by the Government of Thailand, commercial banks in Thailand have been the key channel for an increase in SME loans over the last few years, increasing SME loans' share of total loans from 28.1% in 2007 to 37.1% in 2012 (OECD, 2014). Since then, THB 5 trillion (USD 150 billion) in SME loans were outstanding in 2013/Q2, representing 32.8% of total loans. Commercial loans amounted to THB 3.946 trillion (USD 120 billion), of which 22.8% were disbursed to SMEs in the manufacturing sector (ADB, 2013). Working capital loans continue to dominate in SME finance, following a typical 3-year loan tenor structure with a premium to the retail rate of 3% to 5% (ADB, 2013).

In Malaysia, supported by the 2004 Comprehensive SME Development Framework comprised of enabling environment initiatives and public support schemes, commercial banks and SME Corporation Malaysia remain the primary source of funding. In 2012, 200 RM billion (USD 58 billion) or 15.5% of total bank loans outstanding were dedicated to SME finance, with a total of 177 RM billion (USD 52 billion) coming from banking institutions alone (ADB, 2013). According to local experts, the most common types of finance extended to SMEs are working capital or fixed assets based.

Private sector finance trends – Alternative Sources

Alternative financing techniques, notably factoring and lease financing, serve as complementary sources of working capital or investment finance, and are well suited to developing markets where the financial infrastructure presents gaps, or where the collateral regime or information infrastructure are weak. Factoring addresses the problem of SME opacity by focusing on the quality of the obligor, through the lender's purchase of a borrower's receivables and collection of invoices. Similarly, lease financing addresses the problem of weak collateral regimes or uncertain credit history, by focusing on the company's ability to generate cash flow and the quality of a sales agreement (IFC, 2010).

Factoring remains the most expensive and least popular of the two alternative sources of finance. In Indonesia, lease financing represents 34.8% of total nonbank financing whereas in contrast, factoring represents only 1.7% (ADB, 2013). In Thailand, dedicated non-bank financial institutions, like Bangkok Leasing, provide lease financing. Equipment and technology suppliers, for example, GE or Caterpillar, also offer lease financing on steam turbine generator sets for very small power plant (VSPPs) developers and other customers through group-branded finance partners. These alternative finance options are considered more expensive and are therefore less preferred, but experts agree that they serve a role in kick-starting market demand for new technologies.

Private sector finance trends – Sources of Equity

No dedicated platform for SME listing exists in Indonesia, and the country's capital markets remain small compared to the overall size of the financial sector, and also modest in terms of the country's GDP and status as a middle income country. Equity markets have grown strongly in recent years, with stock market capitalisation recently reaching 55% of GDP. However, much of this growth is driven by a handful of companies (the top 10 companies account for 41% of market capitalisation), and there is limited mobilisation of capital from the primary markets (Srinivas, 2013).

In Thailand, the Market for Alternative Investments provides a public listing alternative for SMEs with lower costs and less stringent requirements. Established by the Stock Exchange of Thailand, the platform allows SMEs to access long-term capital to fuel their growth and potentially prepare a move to the main stock exchange. In Q1 2014, 97 companies were listed, reporting total sales of THB 28.5 billion (USD 877 million) (SET, 2014). MAI provides an exit point for venture capital investors and facilitates capital raising by firms from institutional and sophisticated investors.

The venture capital and private equity industry is small in Thailand and has focused on mergers and acquisitions and restructurings, rather than start-up and mezzanine finance. In 2014, there were fewer than 20 members of the Thai Venture Capital Association, established in 1994. In addition, the weak Thai legal system and the underdeveloped capital market made exits difficult (Scheela and Jittrapanun, 2008). The government has established venture capital funds, including the SME Venture Capital Fund, capitalised with BHT 1 billion (USD 30 million), but the industry is still relatively small (ADB, 2013). In an attempt to promote a more conducive environment, the government has enacted the Third SME Promotion Master Plan (2012-2016) that focuses on promoting SME development within a global trading context. Strengthening SMEs' international competitiveness and improving access to finance are part of the Third SME Promotion Master Plan's objectives (OSMEP, 2011).

Malaysia's Comprehensive SME Development Framework of 2004 includes support for businesses in every development phase, from start-up to expansion, by directly providing venture capital and growth equity. The RM 100 million (USD 29 million) CRADLE Investment Programme is focused on supporting innovation and technology start-ups. Incubation and proof-of-concept phases are supported by the Malaysian Venture Capital Association. The government-funded association has a capitalisation of RM 500 million (USD 145 million), providing seed funding to showcase about 10 SMEs per year. Established in 2002, Malaysia Debt Ventures Berhad (MDV) bills itself as "the nation's leading technology financier", and aims to close the typical funding gap between proof-of-concept and commercial finance by promoting and providing alternative finance, including monetisation of intellectual property, factoring, and convertible debt instruments (MDV, 2013a). In 2011, the Ministry of Finance's subsidy mandate was extended specifically to support green technologies and promote sustainable and more efficient resource use (Yahaya, 2014).

Private equity and venture capital in Malaysia are complemented by the ACE Market, an alternative public equities market that does not impose any limitations in terms of size or market capitalisation on companies planning to list on the exchange. With adequate development prospects and a transparent governance structure, any small and medium business can be listed. Once a business has gained sufficient traction, ACE can be an entry point to the main market. The Securities Commission Malaysia has also created MyHijau, an online trading platform for unlisted securities. The platform aims to offer an alternative to commercial lending for SMEs and other ventures, to access finance more directly and at lower costs.

Green supplier finance is an innovative concept for SME access to finance. Large corporates, such as Unilever and Nestle, have committed to greening their supply chains. Sustainable palm oil is a notable example whereby major brands have agreed to buy only from RSPO-compliant suppliers in the near future. To maintain current contracts and win future contracts with these important anchor buyers, SME actors across the value chain will need to adapt their production processes accordingly. One option for SMEs to finance the 'greening' of operations is 'green supplier finance.' The scheme functions like a normal loan agreement between a bank and a SME borrower, with the exception that the bank will accept the Purchase Order as a form of guarantee. This allows for lower financing costs and a greener, i.e. more resilient and sustainable, supply chain reduces risks for large corporate buyers. (IFC, 2014; Unilever, n.d. GRI n.d.)

SME green finance trends

SME green finance trends in all three countries are driven by either (i) climate change related national initiatives, or (ii) longer running programmes geared towards energy conservation, alternative sources of energy and efficient resource utilisation, or a combination of both.

Public support schemes have played a leading role in stimulating demand for green finance, stimulating supply, and fostering enabling environments for each country's sustainable development pathway. Funded financing facilities, often complemented by technical capacity building activities, lead development of green finance markets, and are further supported by credit guarantee corporations, fiscal incentives, and other real economy regulation addressing environmental issues such as air and water pollution, or land-use issues such as conservation.

Public support in Indonesia

At a G8 conference in 2009, Indonesia committed to reducing its greenhouse gas emissions by 26% (BAU) by 2020. To meet this target, substantial investment in the order of USD 170-200 billion p.a. will be needed for critical infrastructure, as well as environmentally sensitive areas such as agriculture, forestry, energy, mining and waste. Financing for SMEs and industry is also critical for creating jobs and boosting productivity.

- One of the Government of Indonesia's immediate actions, following its greenhouse gas emissions reduction target announcement, was the creation of the Indonesia USD 1 billion Green Investment Fund (IGIF). With the objective of scaling both public and private investments into infrastructure, the IGIF acts as a shadow investor by providing funds for projects or banks without making direct loans or providing grants. Although the IGIF does not directly target SMEs, the fund is an important catalyst for further investment into new asset classes and potentially smaller enterprises. (DFID Indonesia, 2010; Brown and Peskett, 2011

Interviews with senior banking industry executives have shown that Indonesian commercial banks consider green finance to be an interesting business opportunity, yet dedicated finance mainly originates from state-owned banks or international development finance institutions that channel their funds through local commercial banks. A 2014 survey among 29 banks (commercial and Islamic) reported that green finance represents only 1.37% of the total lending portfolio (2013), up from 1.19% in 2011. Sector recipients for green funds were mini hydro (26.08%), geothermal (25.72%), and environmentally efficient machinery (19.64%). (OJK, 2013)

A major increase in direct investment is needed for Indonesia to make a substantial shift towards a sustainable development pathway, built on a less carbon-intensive and more inclusive economy. To date, finance flows from foreign development finance institutions have played a dominant role:

- **Public Bank Mandiri and L'Agence Française de Développement (AFD or French Development Agency) recently launched the second part of cooperation for financing renewable energy and energy efficiency projects.** AFD extended a line of credit to Mandiri of USD 100 million in 2010 during phase one, and an additional USD 100 million in 2013 during phase two of the initiative. Out of the total USD 200 million, about USD 97 million has been disbursed to finance energy efficiency, mini-hydro, biogas and biomass projects, among others. While the first tranche focused only on targeted project types, the second project phase builds on lending activities by providing funding for technical capacity building and transaction support for Mandiri to internally assess and underwrite green projects. (AFD, 2014; Bank Mandiri, 2014; PT Bank Mandiri and Subsidiaries, 2014).
- **Channelled through Bank BNI and Indonesia Eximbank, the Industrial Efficiency and Pollution Control (IEPC-1 and IEPC-2) facility is targeted at SMEs to support end-of-pipe solutions and integrated environmental investments, such as machinery upgrades and a more efficient resource use.** The credit line of EUR 11.25 million (USD 14 million) is largely funded by the German Federal Ministry for Economic Cooperation and Development through KfW, providing EUR 9 million (USD 11.2 million), and through BNI and Eximbank, providing EUR 2.5 million (USD 3.1 million). (KFW, 2011; BNI, 2013)

Public support in Thailand

The Government of Thailand has demonstrated that political will and leadership can create regional champions. Thailand's major public support schemes for green finance are linked to the Energy Conservation Promotion Fund, implemented in 1992 to support energy efficiency improvements and renewable energy development among others. Funding and fiscal incentives are provided through three funds, notably the ENCON Fund, the ESCO Fund and the Energy Efficiency Revolving Fund (EERF). From the outset, the funds aimed to (i) stimulate the investment appetite of commercial banks and private sector actors to engage in developing and financing renewable energy and energy efficiency projects, (ii) create networks of financiers, ESCOs and developers, and (iii) provide training to banks in technical and policy support analyses. Highlights of the ENCON Fund's child funds:

- Since the conclusion of the Energy Efficiency Revolving Fund (EERF) in 2012, the programme was broadly deemed to be highly successful. Several of the fund's participating commercial banks began investing their own capital in energy efficiency projects. It followed that since the private sector was beginning to take a direct, pro-active role in green lending, the Government of Thailand decided not to issue a new budget line to the EERF for on-lending, maintaining only technical assistance activities (Sinsukprasert, 2011a).
- A key feature of the THB 500 million (USD 15.2 million) ESCO Fund is the availability of equity finance and lease finance for machinery and equipment, targeting two critical gaps in realising renewable energy projects. In addition to equity investments and lease financing, funding was also provided for technical assistance and credit guarantee facilities to support SMEs. While the fund has been praised throughout the region, critics argue that many SME energy efficiency investments are too small and therefore not eligible for support (EPPO, 2014).
    - Under ESCO Fund Phase II, Boochareon Green Energy's 5MW rice husk cogeneration plant was a showcase project. The plant employs gasification technology to produce heat and electricity from rice husk. Heat is used for drying rice, and the electricity is sold to the grid. The project was initiated by the owner of Boonchareon Panich Rice Mill and Panich Ruam Chareon Rice Mill (EforE, 2012).
    - Asian Superior Foods was funded for a 2.76 MW gas turbine co-generation project. The THB 200 million (USD 6.1 million) investment, had savings of THB 49 million (USD 1.5 million) per year and a payback period of 4.08 years (APEC, 2005).

Public support in Malaysia

In 2009, Malaysia's Prime Minister, Datuk Seri Najib Tun Abd Razak, committed to reducing national carbon intensity by up to 40% by 2020 (Greentech Malaysia, 2010). As with Indonesia and Thailand, Malaysia's government has understood that a more holistic approach to sustainable production and consumption is needed, and that SMEs have an important role to play. In Malaysia's case, the country's climate change and green growth initiatives have a stronger foundation of SME finance to stand on and as a result, the Malaysian SME green finance market is more diverse and developed, with fewer barriers to access for SME actors.

- **The Government of Malaysia has had a comprehensive approach to supporting SME creation and growth for many years.** The Third Industrial Master Plan (2006-2015) and 10th Malaysia Plan (2011-2015) target SME development initiatives. The Economic Transformation Programme (2011-2020) identifies 12 National Key Economic Areas (NKEAs) to unleash the growth potential of SMEs, which the government hopes will trigger multiplier effects towards more inclusive growth. The SME Master plan (2012-2020) has been introduced to significantly boost the contribution of SMEs to the national GDP by 2020. The plan also includes the SME Investment Programme, which aims at growing the early stage venture financing industry, including angel investment and risk capital (SME Bank, 2013).
- **Interviews with senior executives of state-owned SME Bank reveal that they understand the importance and potential of the green economy.** While Malaysia's SME Bank faces similar challenges of developing technical expertise and confidence in underwriting green investments for SMEs, SME Bank addresses multiple barriers by differentiating green and non-green lending within its portfolio, giving rise to dedicated portfolio and risk management by a specialised teams that have relevant training and experience with green projects. To date, the bank approved loans of approximately RM 120 million (USD 35 million).
- **In 2010, Malaysia Debt Ventures (MDV) established the Green Technology Financing Program (GTFS); (MDV, 2013b), to support the development of green technology and ease access to finance to accelerate Malaysia's sustainable growth.** The fund allows for a maximum tenor of 180 months, covering the lower of RM 50 million (USD 15 million) or 80% of cost (CGC, 2010). As of June 2014, 21 projects were financed under the scheme totalling RM 346.3 million (USD 101.1 mil-

lion) (Shah, 2014; CGC, 2014a). It also extends guarantees for up to 60% of principal through the Credit Guarantee Corporation (Greentech Malaysia, 2012; National SME Development Council, 2012; Greentech Malaysia, 2013).

- **As with the Government of Thailand, the Government of Malaysia has long made use of credit guarantee schemes as effective policy responses to advance SME finance and green investments.** Malaysia's Credit Guarantee Corporation (Malaysia) has formed alliances with banking partners to offer innovative financing options and delivery channels that are cost-effective and efficient to enhance SME access to financing. To date, CGC has guaranteed close to RM 51.4 billion (USD 15 billion), making it instrumental in the establishment of more than 420 000 SMEs (CGC, 2014b).
- CGC is complemented by the People's Business Credit (KUR). KUR is a government-led guarantee scheme for SMEs that guarantees 70% to 80% of the loan amount. Started in 2007, the programme has been extended to 33 banks with an accumulative RM 129.1 trillion (USD 37.67 trillion) disbursed to about 9 million SMEs as of October 2013. KUR's goal is to lower risk for banks and encourage lending to SMEs, which often have limited collateral and inadequate lending histories. While not specifically targeted at green projects, credit guarantees are seen as one of the most effective tools to support SMEs to access finance for green investments.

Key challenges SMEs face in accessing finance

Promising initiatives, programmes and policies have been implemented to promote the SME sector and green investments in Indonesia, Thailand and Malaysia. Yet access for SMEs to finance is limited and often restricted – access to green finance for SMEs remains uneven or out of reach. Enterprise surveys conducted by the World Bank in over 120 countries show that SMEs face more severe financing constraints than large firms, especially in lower income countries (IFC, 2010).

Why does access to finance remain a challenge for SMEs? This report has focuses on three categories of barriers common to all three countries:

- **Structural barriers:** Deficiencies in a country's enabling environment, in terms of both (a) financial infrastructure and (b) the overall legal and regulatory framework for financial institutions and instruments, are potentially the most significant impediments to unlocking substantial green finance flows from private sector sources from domestic or international sources. Successful SME growth models are comprehensive and focused, and encourage tight coordination between private and public actors, as well as business transparency that is critical to granular risk management and cost-effective scalability.
- **Supply-side barriers:** The key challenges affecting financiers for green loans are higher transaction costs, long turnaround time due to additional (environmental) assessments, and longer tenor required (hence higher risk) to achieve environmental and financial savings. Financiers may also lack technical skills or the organisational processes necessary to evaluate green projects and smaller, newer and more opaque firms. Lack of differentiation in Indonesia and Thailand for green finance products typically means that green transactions must be directly compared with non-green deals, without the dedicated metrics needed to support internal and market momentum for new business lines.

Demand-side barriers: Short-term outlooks, lack of awareness of the business case for green investments, or simply inadequate business enabling capacity, are the principal reasons why demand for green finance from SMEs remains low or unfulfilled relative to market potential across the region.

Structural Barriers – Enabling Environments

Financial infrastructure is an essential foundation to foster an inclusive and resilient financial system. Accounting and legal standards, credit-reporting systems (credit registries and bureaux), and collateral and insolvency regimes, all support investor confidence and effective risk management, particularly in new markets such as green investments.

With SMEs and newly established firms intent on participating in green activities, Indonesia and Thailand lack SME-oriented centralised credit reference regulations and Credit Report Service Providers (CRSPs) products that blend personal credit data with corporate data that would provide financiers with a clearer picture of a borrower's ability and likeliness to service debt. Uneven or weak compliance with accounting standards and tax regimes compounds the problem of business opacity. In the absence of SME-oriented credit data from Credit Report Service Providers (CRSPs), financiers rely heavily on qualitative judgement and 'relationship-lending,' entailing direct experience with a client that is time consuming, costly and not easily scaled. The most recent global survey conducted in 2008 found that in developed countries, only 45% of banks use existing CRSPs as an input to their credit assessments for SMEs. In developing countries, only 16% of banks make use of CSRPs (Beck et al. 2008a).

Weak collateral and insolvency regimes impede cash-flow based, limited recourse project finance. In Indonesia, cash-flow based finance is not practised. In the absence of banking and securities laws that enable securitisation of cash flows, contract rights, as well as elaborated insolvency regimes to facilitate collection and prioritisation of multiple creditors, the Indonesian market's ability to promote diverse access to finance while preserving financial stability remains limited. Traditional balance-sheet finance is strongly preferred, and it follows that Indonesian banks will also prefer known borrowers with significant credit history and strong balance sheets.

SMEs in Thailand face a different challenge. Although a collateral regime has existed allowing for pledging and mortgaging of immovable assets, facilitating large-scale project finance, obligors must present moveable property to the creditor, thus utilisation of the property impossible. Other property types (raw materials, intellectual property) cannot be securitised at all. While similar regulations are already in place in Indonesia and Malaysia, as well as Singapore, Cambodia and Vietnam, as of July 2014, the Thai Government has yet to pass the draft law. Mr. Boontuck Wungcharoen, Chairman of the Thai Bankers' Association, agreed the law would result in more SMEs getting credit, which would help increase the country's competitiveness (Toomgum, 2014).

Inefficient coordination and unclear responsibilities of relevant government agencies complicate application processes, and slow implementation of policies. All three countries have multiple agencies that serve SMEs. Interviewees, including senior officials, have commented that responsibilities are not clear; departments may even compete against each other due to different performance indicators and objectives.

- The Board of Investment of Thailand maintains key performance indicators that track the number of SMEs that apply to the various schemes, and investment amounts eventually committed. This target is not set with SME sector growth in mind, but rather to encourage applications for specific programmes. In Thailand, for example, the government is seen as having an opportunistic approach without any clear and systematic plan towards its SME policies, making it even more difficult for the financial sector to develop targeted products. Currently, business and product development is driven by banks' internal policies, which are varied across the industry. In-country research has shown that there is a clear need for top-level leadership to create a stable framework and allow the private sector to step in and provide efficient solutions to channel funds to their most productive use.

Progress is slow despite initiation of several relevant programmes and projects in all three countries. For example, the "Enhancing Cooperation in Facilitating SMEs Access to Finance for Sustainable Consumption and Production (SCP)" in Malaysia showed promise but follow-on actions have not been impactful. Lack of enforcement of existing regulation is a major factor. Stakeholders interviewed for this report have suggested that one-off projects are most likely to be ineffective, particularly without leadership from a dedicated agency responsible for master planning to ensure that individual schemes effectively interlink towards high-level, common objectives.

Supply-Side Barriers

Financial infrastructure deficiencies, such as tax compliance, accounting or availability of credit data, lead to business opacity and as a result, makes it time consuming, costly and difficult for banks to evaluate SMEs. This is effect is seen in the SME sector at large, and magnified for SMEs seeking to access green finance.

Financial institutions rely on information provided by SMEs, which is deemed to be unreliable. In Thailand, bankers cite that fewer than 5% of SMEs operate in compliance with official tax schemes, and frequently do not comply with audit requirements under existing laws. As noted above, banks rely on 'relationship-lending,' citing personal integrity as one of the most important client characteristics that needs to be assessed as an indicator of a borrower's willingness to sustain repayments as well as capability to service debt.

Loan management, with effective early warning signals of default, is an ongoing challenge for every bank. Centralised data analysis is important, and portfolio managers seek to find the optimal method of data use to alert them of repayment delays and risk of default, without undue disruption to normal business and procedures, according to bank executives that were interviewed for this report. Developing internal standards specific to green projects has been recognised, but relationship management remains critical due to limited data and lack of systems dedicated to SMEs or green loans.

Perception of higher risk due to lack of in-country examples of technology application, as well as lack of technical and policy analytical evaluation constrain banks from lending to SMEs for green projects. In countries with an emerging green energy sector, such as Malaysia, one of the most important bottlenecks has occurred for technologies that are not proven in the Malaysian country context and which are more difficult to finance, according to stakeholders interviewed in Malaysia. Downstream biomass projects, for example, while common around the region, have not been established in Malaysia. Even if a technology has been proven in a country context, despite the existence of several technical and regulatory capacity building initiatives in all three countries, most financiers still have inadequate manpower or insufficiently broad expertise to assess a range of green projects and related risks.

Poor provision of government guarantees to de-risk green finance is also an often overlooked major barrier to more widespread availability of green finance. In many cases, guarantees are provided with onerous reporting requirements, or are not 'first-loss' which is not attractive to beneficiary banks either. A global commercial bank executive commented that while large guarantee facilities to sweeten green or SME finance may appear supportive, it is important to consider "...the types of loss covered: whether it is principal, interest, collection costs; level or percentage of loss guaranteed; order of loss payment: first loss, second loss, or pro rata; maximum guarantee amount – all of the above have an impact on how much risk banks are willing to take on."

Financial institutions and their management and loan teams lack economic incentives to expand green finance business lines aggressively, given limited financial upside combined with additional transaction cost and operational effort. Additional capacity building and administrative work can result in additional transaction costs, yet are rarely compensated by higher returns on investment. Returns on investment tend to be on a longer horizon, rather than short-term. In Thailand, banks target interest rate margins of about 5% to 6%. With term loans for renewable energy projects, it is challenging for commercial banks to price-in additional risk and transaction costs, without passing those costs onto borrowers -- potentially rendering projects unattractive to developers and equity investors.

Banks are also reluctant to pioneer green lending activities for fear of losing market share due to over-pricing their risk and transaction costs or onerous application requirements. If other banks offer the same loan at lower cost or fewer requirements, customers are likely to switch to more competitive offerings. As a result, despite their interest, banks are less inclined to act as 'first movers.'

Demand-Side Barriers

Limited awareness of the business case for sustainable production and consumption and resulting bottom-line benefits constrain a widespread and mainstream demand for green finance. Interviews in all three countries with stakeholders have shown that the majority of SMEs are not aware of the positive long-term impact that more energy efficient technology or efficient resource use can have on business operations, particularly financial returns. Most SMEs are focused on either commercial survival, gross revenue growth or market expansion. For both light and heavy industry manufacturers, given the choice to allocate limited resources towards longer-term green investments that yield only savings, versus investments that expand market share or revenue growth, many SMEs would choose the latter business strategy.

Some SMEs, such as agroindustry companies, may be more focused on managing raw input costs, sales strategies and other improvements for their business operations that yield shorter-term returns. Unfortunately, short-term perspectives are not conducive to the longer-term horizons that green investments require. Finally, the business case for green investment can be undermined by energy subsidies (Lontoh et al. 2014), which lower the potential benefit from saving electricity costs, and further discourage green initiatives by masking lifecycle costs and production inefficiencies.

Inadequate project readiness is one of the most common shortfalls SMEs face for accessing finance. Lack of management and business skills, generally and particularly in connection with green investments, can exacerbate financial barriers for SMEs. In all three countries' green energy programmes, the vast majority of SME project developers (non-utilities) that seek finance do not have track records in the industry. This is one of principal reasons why lenders are reluctant to risk long-term financing commitments needed to support project investments. Stakeholders generally agree that only a small number of project developers in the industry possess prerequisite expertise and successfully implemented project portfolios, typically utilities or dedicated firms with strong technical, financial and regulatory capabilities.

Complicated application and administration processes with long approval times constrain SMEs from applying for dedicated green financing. Banks' administrative and application requirements can be rigorous and onerous for SMEs with limited management capacity or technical expertise, especially for funding channelled via national banks from development finance institutions, such as the IFC or ADB. Most SMEs will need to develop or adapt their reporting and disclosure processes to comply with a given programme's requirements, which may be a costly process, yet overlooked as a barrier to accessing finance. Given that all three countries' commercial debt markets are competitive, SMEs are inclined to pursue loans with fewer or less onerous due diligence and administration requirements.

Gaps between SMEs and financiers on type of financial and technical information required in credit approval processes. Interviews with banks have indicated that many SME project developers overemphasise 'green characteristics' and the positive environmental impact their project would generate, instead of maintaining focus on investment fundamentals such as a sustainable cash flow, a clear and realistic return on investment, and an achievable exit strategy. According to a senior banker, sufficient collateral is considered secondary to the project's overall economic viability. Furthermore, banks compare green loans to conventional loans, emphasising viability and bankability over a positive environmental or social impact. For energy efficiency projects, financiers require a well-considered business plan that articulates feasible long-term benefits through improved business operations. In the absence of relevant business and technical skills, financial institutions lack trust and confidence in the borrower.

Review of successful cases of improve SME access to finance

Despite structural deficiencies, supply-side barriers and demand-side weaknesses in the three countries reviewed in this report, several cases of impactful policy interventions can provide insight into the effectiveness of models and policy responses that can improve SME access to finance and increase SME participation in green investment activities.

Enabling environments and public support

Malaysia's Comprehensive SME Development Framework, legislated in 2004, has (i) strengthened financial infrastructure, and through public support schemes, (ii) built capacity for both businesses and financiers and (iii) enhanced access to finance. The Framework's centralised and 'one-stop shop' approach enhances coordination, reduces administration requirements for all stakeholders, and reduces lead times for permit, license and funding approvals.

SME Corp Malaysia was established to ensure coordinated and effective implementation of SME development activities, in conjunction with the launch of the National SME Development Council (NSDC), which has provided direction for government policies that ensure sufficient effectiveness and support for programmes.

SME Corp's principal function is the implementation of the SME Master plan (2012-2020) across relevant Ministries and Agencies (SME Corp. 2013a). SME Corp has various active programmes, which offer financial incentives, such as tax incentives, interest rebate, stamp duty exemption, partial/matching grants, grant-loan hybrid financing, working capital and asset acquisition, to a number of different sectors (SME Corp. 2013b). It is seen as a central organisation that links SMEs with the relevant stakeholders and offers support for finance as well as marketing activities. Government support is also channelled to SMEs through agencies, including the Malaysian Industrial Development Finance Berhad (MIDF) , the Ministry of Science, Technology and Innovation (MOSTI) and the Malaysia Debt Ventures (MDV).

Targeting promotion of green technology and business in energy, transportation, water and land-use sectors, the Malaysian Green Tech Corporation was formed in 2009 to act as the coordinating agency for SME policies and programmes across relevant Ministries and agencies. It also serves as the focal point for information and advisory services for the green technology industry.

Credit guarantee schemes are more effective policy tools when combined with strengthening financial infrastructure through the creation of a central credit reference information system and an inclusive credit score programme. Building on the success of the Credit Guarantee Corporation Malaysia Bhd (CGC)'s loan guarantee activities, in mid-2014 the CGC announced that it was introducing a central credit reference system and licensing credit report service providers to provided blended reporting for SMEs. According to CGC president and CEO Datuk Wan Azhar Wan Ahmad, CGC is focused on improving the bankability of SMEs and business transparency, facilitating access to better terms for credible borrowers, and in future, every SME would be expected to have a rating. The credit rating, called "MyScore" (Malaysia Standard Credit Rating Evaluation), would encompass a credit score, credit grade and probability of default. The CGC aims to improve SME bankability by monitoring the credit standing of each SME through Credit Bureau Malaysia Sdn Bhd, with the expectation that the SME borrower's credit standing would improve through successful participation in a CGC loan guarantee.

Thailand's Board of Investment (BOI)'s investment promotion programmes and fiscal incentives regularly target SMEs and green sectors. The BOI currently offers a 'Productivity Enhancement Program', which encourages companies to use renewable energy, reduce energy consumption and replace machinery to improve production efficiency. Under the scheme, existing businesses can apply for fiscal incentives such as tax holidays (The Institute for Industrial Productivity, 2013). While the scheme is an interesting addition to SME support, critics argue that the incentives may not reach the intended beneficiaries, reasoning that if SMEs have difficulty in accessing finance to replace existing machinery in the first place, they cannot enjoy secondary benefits from such tax incentives. The Productivity Enhancement Scheme does not directly target SMEs per se, but lighter requirements are applicable to make the package more accessible to smaller firms. According to the BOI, setting requirements too high – such as information disclosure – would discourage transparent business practice and hinder a company's growth rather than advancing its development.

Political leadership is required as an overarching driver for commercial lending support for SME 'green finance'. Interviews with stakeholders in Indonesia have strongly indicated that banks' management are willing to increase activity in green finance, if the market is supported by top-down regulation – similar to the widespread compliance with the Government of Indonesia's requirement that requires banks to disburse a minimum of 20% of their lending portfolio to SMEs. In 2009, Bank of Indonesia (BI) announced that the transitional provision would be introduced in 2012, with full implementation targeted for 2018. Banks would be penalised for not complying with the regulations through various measures, ranging from basic administrative sanctions to credit downgrades (PWC, 2013; Jakarta Post, 2012). Since the original announcement by former President Susilo Bambang Yudhoyono, SME loans as a percentage of total loans outstanding skyrocketed from less than 10% to around 50% from 2007 to 2012, about 17% p.a., while total loans outstanding has more than doubled in the same timeframe (ADB, 2013).

- SME finance industry watchers will also note that while this case proves that blanket compliance rules can mobilise funding on an industry-wide scale, aggressive loan portfolio mandates can be harmful to a bank's health if it is not well adequately prepared to evaluate and monitor SMEs. SME specialist Bank Rakyat Indonesia (BRI) has continued to do well, commanding 30% market share and among the widest interest margins in the industry, but other Indonesian lenders are experiencing fragile overexposure to their SME clients. Since 2010, as global commodity prices have declined, weak fundamentals have been exposed as SME borrowers have struggled to achieve sales targets and service debt. In 2014, Indonesia's regional development banks have suffered the most, with NPLs nearing 8.65% compared with NPLs around 1.95% in the non-SME category (Binarso, 2014).
- **Public support schemes also focus on awareness and market capacity building. In 2012, the Green Entrepreneurship Program (IGEP) was established in Indonesia to increase awareness and understanding among young entrepreneurs of the importance of environmentally conscious entrepreneurship.** Funding was

provided by the Government of Korea for two years for six economic sectors, including renewable energy and waste management, principally in West Java, East Java, South Sulawesi and Central Kalimantan (ILO, 2013).

Thailand's Energy for Environment Foundation (E for E), which manages the ENCON Fund, continues to complement its funded financing facilities with capacity building and advisory services, through multiple "Service Cells", including:

- Technical Cell, providing technical advisory services such as technical feasibility studies of the renewable energy power plants and energy efficiency projects.
- Financing Cell, providing financial advisory services, matchmaking projects with investors, and preparing financial proposals of renewable energy and energy efficiency projects.
- Information & Outreach Cell, providing information on renewable energy, energy efficiency, and general energy issues to target audiences and the general public, as well as also organising community relations programmes for power plant project development.
- Policy Cell, providing advisory services about policies and regulations concerning the RE and EE projects and the revision of rules and policy framework to the policy makers.

Private sector finance and innovation

Public equity markets offer new vehicles for SME-investor matching with the potential to lower financing costs, providing a source of growth capital for scaling green technology companies as well as a point of exit for investors who have backed earlier stages of a company's lifecycle. Thailand's Securities and Exchange Commission (SEC) regularly introduces initiatives to facilitate SME access to capital markets. In addition to the MAI, and following the 'SME bond project' and the 'Pride of the Province' schemes targeted at educating and incentivising SMEs to issue bonds and launch IPOs respectively, the SEC launched a trading platform for SMEs in late 2014 (Shinozaki, 2014). The platform will initially host 10 to 20 SMEs that have at least BHT 10 million (USD 0.3 million) capital and a two-year operating record. Investors are likely to benefit from the structured framework and high transparency that these SMEs convey, while SMEs can access investment fast and at lower-cost (Au, 2014).

Alternative financing sources allow for instruments that are more tailored to an SME's lifecycle and catered to investor appetite. They also address enabling environment deficiencies, and support the development for new markets and technologies. In 2010, Malaysia's MDV established the Green Technology Financing Scheme (GTFS), adding to its offerings, which include working capital, asset acquisition, project financing, trade financing, guarantees and venture capital financing schemes across both conventional and Islamic banking systems (MDV, 2013b). The GTFS was introduced to support the development of green technology, and encourage access to finance towards Malaysia's sustainable growth objectives. The fund allows for a maximum tenor of 180 months, covering the lower of RM 50 million (USD 15 million) or 80% of cost (CGC, 2010). As of June 2014, 21 projects were financed under the scheme totalling RM 346.3 million (USD 101.1 million). (Shah, 2014; CGC, 2014a). It also extends guarantees for up to 60% of principal through the Credit Guarantee Corporation (Greentech Malaysia, 2012; National SME Development Council, 2012; Greentech Malaysia, 2013).

Innovative financing vehicles can create demand in country markets. Bank Negara Malaysia (BNM) regards its introduction of green Sukuks (Sharia-compliant financial instruments) as a well-suited tool to finance green projects. A minimum issue of RM 200 million (USD 58.4 million) is being targeted (Archibald, 2014) for the security that not only transfers debt ownership, like a traditional bond, but also asset ownership including inherent cashflow payments and risks (Islamic Development Bank, 2010). It is reported that Malaysia's Ministry of Energy, Green Technology and Water also plans to set-up an Islamic Green Bank. Funded through international investments, initial proposals indicate that the bank may act as a venture capital fund (New Straits Times, 2014), supporting investor-project matchmaking and financial advisory services for SMEs. Supporters also intend for the institution to provide low cost capital for low-carbon projects (Archibald, 2014).

Conclusion

Barriers for SMEs to access finance – particularly green finance – are recognised by all key stakeholders, and solutions are emerging in Indonesia, Thailand and Malaysia. Progress has taken time, involving years of learning through new policy interventions and experimentation with different models to respond to specific needs. The variety of barriers demonstrates that one-off programmes cannot yield meaningful and impactful results. While specific and targeted approaches can generate results, a holistic top-down approach that addresses enabling environment gaps and demand-supply issues in a coordinated fashion is needed to achieve a major shift towards long-term, sustainable development pathways. The ASrIA-SWITCH-Asia project is a contributing step towards mapping the current status of SME access to green finance in Indonesia, Thailand and Malaysia - but deeper dialogue among stakeholders is needed to deliver a clear roadmap for the region's transition to a more sustainable and resilient future.

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Annex

Source of finance	Bank BPD Bali
Name	KKP-E (machinery retrofitting)
Type of finance	Bank Loan/ Working Capital
Amount of finance	Credit limit of Rp 100,000,000 per farmer and Rp. 500,000,000 for cooperatives, farmer groups and / or a combination of farmer groups. No administration fees and provision; Maximum 36 months or according to business cycle; Repayment of principal according to the business cycle; Credit cover collateral required of at least 100% of the value of loan, such as: - SHM / SHGB - Collateral Cash / Deposits.
Target	Agriculture
Eligibility criteria	Individual or group of farmers/ ranchers / planters at least 21 years of age or married. For loans of more than Rp 50,000,000, the Applicant must have a Taxpayer Identification Number (TIN). The Applicant must be willing to comply with the provisions determined by the scheme.
Objective	Credit facilities granted to farmer / rancher, farmer groups / Groups and Livestock Cooperative in the form of loans and working capital / investment to retrofit machinery and develop alternative energy sourcing processes/facilities.
Qualifying projects	Farmer groups, in the context of procurement / rejuvenation equipment and machinery to support the efforts of food crops, horticulture, sugar cane and livestock include tractors, power thresher, tracer (cutting tool), corn seller, water pumps, dryers, vacuum fryer, chopper, hatching machine, milk coolers, bio digester, seeding machine (seedler), planting tools grains (seeder), harvesters (paddy mower, Reaper, combine harvester), rice milling machinery (rice with units), parer peanuts (peanut shell), cassava penyawut machine, juicer, seed processing machinery, food processing machines (mixers, penepung, pellets) and or kepras cane.
Expenses covered	Projects cost
Application procedure	Application via Bank BDP Bali
Contact	Bank BDP Bali T: +62 361 223301 – 5. F: +62 361 237691 E: info@bpdbali.co.id
Office address	Bank BDP Bali Jalan Raya Puputan Niti Mandala Denpasar 80235 Bali Indonesia
Country	Indonesia
Source of information / data	*www.bpdbali.co.id/bpdbali/home.php?lang=en&act=menu&idm=171*

Source of finance	Bank Pembangunan Malaysia Berhad (BPMB)
Name	High Technology Fund
Type of finance	Development Financial Institution Loan
Amount of finance	Up to 85% of total project cost are funded.
Target	Clean energy end-users
Eligibility criteria	Companies categorized as SME that are registered in Malaysia and Malaysian-owned (at least 51%).
Objective	Provide financing to existing and new enterprises in support of the development of a high technology industry.
Qualifying projects	Projects must be located in Malaysia. Target industries include: Biodiesel, Biofuel, Renewable energy and Energy Efficiency.
Expenses covered	Expansion of productive capacity and Working capital.
Application procedure	Application to be submitted to Bank Pembangunan Malaysia Berhad
Contact	Bank Pembangunan Malaysia Berhad T: 03 - 2611 3888 F: 03 - 2692 8250 W: www.bpmb.com.my
Office address	Bank Pembangunan Malaysia Berhad Menara Bank Pembangunan Bandar Wawasan No.1016, Jalan Sultan Ismail 50240 Kuala Lumpur
Country	Malaysia
Source of information / data	*www.smeinfo.com.my/index.php?option=com_content&view=article&id=589&Itemid=501*

Source of finance	CIMB Thai Bank
Name	Clean Energy Loan
Type of finance	Long Term Loan
Amount of finance	Maximum loan amount: THB 50 million
Target	Manufacturing
Eligibility criteria	Companies categorised as SMEs.
Objective	The purpose of financing is to promote energy efficiency measures for machinery and equipment and Renewable Energy projects.
Qualifying projects	Clean energy projects, which qualify for CIMB Thai Clean Energy Loan must comply with one of the following: Manufacturing: Efficiency improvements in fuel combustion systems; Waste energy recovery; Renewable energy; Efficiency improvements of machinery and equipment; Other energy efficiency measures, which are subject to the Bank's consideration. Building: Solar heat reduction; Ventilation and temperature control; Energy efficiency materials; Lighting efficiency improvements; Installation of machinery, equipment or material for energy reduction purposes; Control systems for energy efficiency; Other energy efficiency measures which are subject to the Bank's consideration
Expenses covered	Machine, Equipment and installation expenses; Project Consulting fee or Energy Service Company (ESCO) fee; Expenses which are necessary for the installation of machinery and equipment such as machinery foundation, natural gas piping; Transportation, removal and demonstration expense, Import tax, and Value added tax.
Application procedure	Application via CIMB Thai
Contact	CIMB Thai T: 0 2638 8000, 0 2626 7000
Office address	CIMB Thai 44 Langsuan Road, Lumpini, Pathum Wan, Bangkok 10330
Country	Thailand
Source of information / data	*www.cimbthai.com/CIMB/en/sme/product/loan/clean_energy_loan/*

Source of finance	CIMB Thai Bank
Name	Great Innovation Zero Interest Rate
Type of finance	Term Loan
Amount of finance	No maximum credit limit; Maximum repayment period of 5 years; Maximum interest rate is THB 5 million (instalments for first 3 years).
Target	All sectors
Eligibility criteria	Business entities registered and operating in Thailand with Thai ownership of no less than 51% and a track record of at least three years of business operation. Annual Sales Turnover cannot exceeding THB 400 million.
Objective	New Business initiative or business improvement project to develop a product or service, a production method or new management technique, that is highly efficient and benefits both economy and society.
Qualifying projects	New Business initiatives or business improvement projects, derived from research and development or a patented idea.
Expenses covered	Project costs. Note: - Collateral evaluation fee and other fees are subjected to the Bank's regulation - Credit approval criteria of this program are subject to the discretion of National Innovation Agency (NIA) and CIMB Thai Bank Public Company Limited
Application procedure	Application via CIMB Thai
Contact	CIMB Thai T: 0 2638 8000, 0 2626 7000
Office address	CIMB Thai 44 Langsuan Road, Lumpini, Pathum Wan, Bangkok 10330
Country	Thailand
Source of information / data	*www.cimbthai.com/CIMB/en/sme/product/loan/great_innovation_loan*

Source of finance	**ESCO Revolving Fund**
Name	Equipment Leasing
Type of finance	Lease
Amount of finance	Up to BHT 10 million with a 4% interest rate p.a. over a maximum repayment period 7 years.
Target	ESCOs
Eligibility criteria	Finacing is offered to Energy Service Companies (ESCO) for the purchase of more energy efficient equippment.
Objective	The Equipment Leasing facility finances the purchase of energy conservation or renewable energy equipment, which will be utilised for long-term leasing contracts.
Qualifying projects	Energy efficiency or renewable energy projects resulting in reducing energy consumption or increasing energy efficiency.
Expenses covered	N/A
Application procedure	Application via Energy for the Environment Foundation - Interested parties can obtain an Investment Promotion and submitted it.
Contact	Energy for Environment Foundation T: 0-2953-9881-4 F: 0-2953-9885 E: efe@efe.or.th.
Office address	Energy for Environment Foundation (Energy for Environment Foundation). 99/305 Relief Road, Chatuchak, Bangkok 10900, Thailand
Country	Thailand
Source of information / data	*http://thaiesco.org/thai/fund_detail01.aspx*

Source of finance	Thai ESCO
Name	ESCO Equity Investment
Type of finance	Equity investment
Amount of finance	The fund invests 10% - 50% of the cosst, up to BHT 50 million per project for a period of about 5-7 years.
Target	ESCOs and Manufacturing
Eligibility criteria	Finacing is offered to Energy Service Companies (ESCO) and to entrepreneurs with energy efficiency or renewable energy projects targeted at reducing energy consumption; increasing energy efficiency or fuel switching.
Objective	ESCO Equity Investment encourages investment in energy conservation and renewable energy, contributes to energy savings, promotes and encourages the use of energy management services, supports the reduction of energy costs and acts as a source of capital for entrepreneurs.
Qualifying projects	Energy efficiency or renewable energy projects resulting in reducing energy consumption, increasing energy efficiency or fuel switching.
Expenses covered	Project costs
Application procedure	Application via Energy for the Environment Foundation - Interested parties can obtain an Investment Promotion and submitted it.
Contact	Energy for Environment Foundation T: 0-2953-9881-4 F: 0-2953-9885 E: efe@efe.or.th.
Office address	Energy for Environment Foundation (Energy for Environment Foundation). 99/305 Relief Road, Chatuchak, Bangkok 10900, Thailand
Country	Thailand
Source of information / data	*http://thaiesco.org/thai/fund_detail01.aspx*

Source of finance	ESCO Revolving Fund
Name	Venture Capital
Type of finance	Venture Capital
Amount of finance	Co-financing of up to BHT 30% of the total project costs, or up to BHT 50 million. A interest rate of 4% p.a. is offered for about 5-7 years.
Target	ESCOs and Manufacturing
Eligibility criteria	Financing is offered to Energy Service Companies (ESCO) and to entrepreneurs with energy efficiency or renewable energy projects targeted at reducing energy consumption; increasing energy efficiency or fuel switching.
Objective	The Venture Capital facility invests in energy management companies, in return for share capital of the company. The objective is to encourage the implementation of energy saving measures.
Qualifying projects	Energy efficiency or renewable energy projects resulting in reducing energy consumption, increasing energy efficiency or fuel switching.
Expenses covered	Project costs
Application procedure	Application via Energy for the Environment Foundation - Interested parties can obtain an Investment Promotion and submitted it.
Contact	Energy for Environment Foundation T: 0-2953-9881-4 F: 0-2953-9885 E: efe@efe.or.th.
Office address	Energy for Environment Foundation (Energy for Environment Foundation). 99/305 Relief Road, Chatuchak, Bangkok 10900, Thailand
Country	Thailand
Source of information / data	*http://thaiesco.org/thai/fund_detail01.aspx*

Source of finance	ESCO Revolving Fund
Name	Credit Guarantee Facility
Type of finance	Credit Guarantee
Amount of finance	Up to BHT 10 million worth of credit guarantees.
Target	Manufacturing
Eligibility criteria	Guarantees are offered to entrepreneurs with energy efficiency or renewable energy projects targeted at reducing energy consumption.
Objective	The ESCO Revolving Fund offers guarantees to financial institutions or organizations to enable entrepreneurs to access loans.
Qualifying projects	Energy efficiency or renewable energy projects resulting in reducing energy consumption or increasing energy efficiency.
Expenses covered	N/A
Application procedure	Application via local financial institutions.
Contact	Energy for Environment Foundation T: 0-2953-9881-4 F: 0-2953-9885 E: efe@efe.or.th.
Office address	Energy for Environment Foundation (Energy for Environment Foundation). 99/305 Relief Road, Chatuchak, Bangkok 10900, Thailand
Country	Thailand
Source of information / data	*http://thaiesco.org/thai/fund_detail01.aspx*

Source of finance	**Ministry of Science, Technology and Innovations (MOSTI)**
Name	Flagship Program
Type of finance	Grant
Amount of finance	Total maximum allocation of RM 4 million
Target	All sectors
Eligibility criteria	Projects must be multi-disciplinary, covering the fields of science & technology and social science. Projects must involve a minimum of three institutions, including academic, research and industry. A Memorandum of Agreement between collaborating Institutions must accompany the application, clearly stating the respective scope of work, IP agreement and ownership and ownership of all equipment purchased during the tenure of the project.Only Malaysian citizens can apply and lead a project under the Flagship Programme grant scheme but can have international organizations or expatriates working in any of the organizations as part of their project team. Applicants are allowed to lead only one Flagship Programme project at any one time. Research projects under the Flagship Programme grants must be conducted in Malaysia and the Flagship Programme will not fund research already funded from other sources. MOSTI reserves the right to determine if a proposed research project duplicates research already being funded.
Objective	The Flagship Programme is a special grant scheme for the development and generation of new technologies, processes, innovative products or value add to existing technologies/products that have the potential to accelerate the identified research priority areas, can be commercialised or enhance societal well-being.
Qualifying projects	Funding provided may be used for: pilot plant/ prototype – equipment and supporting infrastructure which is directly related to the pilot plant; acquisition of technology (foreign or local), pre-clinical testing/clinical testing/field trials/stress test/user acceptance test; preparation for compliance with regulations or standards; accessories needed include items that are necessary to upgrade the capability of existing equipment directly related to the project; the costs, minor modifications and repairs of existing equipment used during the duration of project period; raw materials/consumables directly related to the project can be included; and market testing/evaluation.
Expenses covered	N/A
Application procedure	Application via the Ministry of Science, Technology and Innovations
Contact	Fund Section, Planning Division T: 03 - 8885 8163 / 8820 / 8753 / 8896 / 8754
Office address	Ministry of Science, Technology and Innovation (MOSTI) Level 3, Block C5, Complex C, Federal Government Administrative Centre, 62662 Putrajaya
Country	Malaysia
Source of information / data	*www.mosti.gov.my/index.php?option=com_content&view=article&id=3039&catid=273&Itemid=580&lang=en*

Source of finance	Global Environment Facility (GEF) Trust Fund
Name	Credit facility for promoting Energy Efficiency in the Industries through System Optimization and Energy Management Standards
Type of finance	Low Interest Loan/Loan Guarantee
Amount of finance	Loan limit to be considered and approved as deemed appropriate on a case-by-case basis.
Target	Manufacturing
Eligibility criteria	Establishments recognised as small or medium enterprises, operating in the manufactoring sector.
Objective	The facility offers financial and institutional support for industrial energy efficiency initiatives. The expected project outputs include: - Capacity building of government institutions, local banks and financial institutions to promote and invest in industrial energy efficiency projects; - Training for businesses in preparation of bankable energy efficiency project proposals; - Tailored incentives such as low interest loans and/or loan guarantees for investments in energy efficient technologies and optimization projects.
Qualifying projects	Investments in energy efficient technologies and systems.
Expenses covered	Project costs.
Application procedure	Application via local banks and financial institutions
Contact	Gordon Johnson Regional Environmental Practice Leader E: gordon.johnson@undp.org
Office address	Ministry of Science, Technology and Innovation (MOSTI) Level 3, Block C5, Complex C, Federal Government Administrative Centre, 62662 Putrajaya
Country	Indonesia
Source of information / data	*www.thegef.org/gef/project_detail?projID=3595*

Source of finance	Credit Guarantee Corporation
Name	Green Technology Financing Scheme (GTFS) & Green Technology Financing Scheme – Islamic (GTFS – i) for Producer
Type of finance	Term Loan
Amount of finance	Maximum loan amount: RM 50 million (per company)
Target	All sectors
Eligibility criteria	Legally registered Malaysian-owned companies in all economic sectors.
Objective	The Green Technology Financing Scheme (GTFS) was established by the Government to promote investments in green technology, a sector that is envisaged to be one of the emerging drivers of economic growth for our Malaysia. This is a national initiative aimed at achieving a sustainable environment. The Participating Financial Institutions' (PFIs) role is critical in ensuring the success of the GTFS, which entails the financing of companies that supply and utilise green technology.
Qualifying projects	Investment in Green Technology. This refers to products, equipment, or systems which satisfy the following criteria: Minimises the degradation of the environment; Has zero or low green house gas (GHG) emission; Safe for use and promotes healthy and improved environment for all forms of life; Conserves the use of energy and natural resources; or Promotes the use of renewable resources.
Expenses covered	Project costs.
Application procedure	Companies can submit a request for a technical audit to the Malaysian Green Technology Corporation. Upon passing the technical audit, companies may proceed with a request for financing to any Participating Financial Institution.
Contact	GreenTech Malaysia T: 1 800 88 4837 F: 03-8921 0801/0802 E: feedback@gtfs.my
Office address	Malaysian Green Technology Corporation (GreenTech Malaysia) No. 2, Jalan 9/10, Persiaran Usahawan, Seksyen 9 43650 Bandar Baru Bangi Selangor Darul Ehsan
Country	Malaysia
Source of information / data	*www.cgc.com.my/government-funded-schemes/*

Source of finance	**Maybank Berhad** **SME Bank** **OCBC** **MDV** **Bank Pembangunan** **All commercial and Islamic banks.** **Bank Pembangunan** **Agrobank** **Bank Rakyat** **EXIM bank** **Bank Simpanan Nasional** **UOB Bank** **RHB**
Name	Green Technology Financing Scheme (GTFS)
Type of finance	Project Financing
Amount of finance	Producer of Green Technology - Maximum: RM50 million per company User of Green Technology - Maximum: RM10 million per company
Target	All sectors
Eligibility criteria	Establishments recognised as small or medium enterprises.
Objective	To accelerate the expansion of green investments by providing easier access to financing from private and commercial financial institutions. The Scheme, which is available until 31 December 2015 or upon reaching a total financing approval amount of RM 3.5 billion, facilitates the growth of local green businesses.
Qualifying projects	All products, equipment and systems which satisfy the following criteria: minimize degradation of environment; zero or low green house gas emission; conserve the use of energy and natural resources; promote the use of renewable energy resources.
Expenses covered	Funding will be provided for any project that qualifies for the PFI requirements and meets the green technology project criteria as desribed by the Green Technology Financing Scheme. Evidences of a proven business model and technology may be required to ensure that only viable projects will be funded.
Application procedure	Online application via *https://www.gtfs.my/page/register-applicant*
Contact	GTFS Secretariat T: 1-800-88-4837 (hotline) E: feedback@gtfs.my
Office address	Malaysian Green Technology Corporation No. 2, Jalan 9/10, Persiaran Usahawan, Seksyen 9, 43650 Bandar Baru Bangi, Selangor Darul Ehsan
Country	Malaysia
Source of information / data	*http://www.gtfs.my/* *http://biomass-sp.net/wp-content/uploads/2013/05/PCS-Maybank.pdf*

Source of finance	Krung Thai Bank (KTB)
Name	KTB - Green Loan
Type of finance	Term Loan (T/L) and Working Capital (W/L)
Amount of finance	Credit limit/line is considered and approved as deemed necessary and appropriate. Interest rate: Minimum Loan Rate-1.0% during the first two years and Minimum Loan Rate from third year onward. Fee/commission: according to Bank procedures
Target	All sectors
Eligibility criteria	SMEs with planned investments for energy-saving projects or the production of environmentally friendly products
Objective	This financing scheme provides investment and/or working capital for projects that generate energy savings or enable the consumption and/or sale of clean energy.
Qualifying projects	Qualifiying projects include: pollution elimination/reduction; environment conservation (including expenses on improvement or renovation of factory/building site); improvements in building construction and related machinery and equipment.
Expenses covered	Project costs.
Application procedure	Application via Krungthai Bank
Contact	KTB Contact Center Call 1551 (www.contactcenter.ktb.co.th) Krungthai Bank branches nationwide or business center for the nearest branch.
Office address	For branches address visit: *http://www.ktb.co.th/ktb/en/ktb-locator.aspx*
Country	Thailand
Source of information / data	*www.ktb.co.th/ktb/en/product-detail-sme.aspx?cid=UAoL2GrbmzMiMBHugr9I8Q%3d%3d&sub=6q17dcsynlwA7VZo7YzZpg%3d%3d&product=oDYsr%2foFU%2f2eeyNXLnUIDg%3d%3d*

Source of finance	**Krung Thai Bank (KTB)**
Name	KTB - Energy Saving
Type of finance	Term Loan (T/L)
Amount of finance	T/L limit to be considered and approved as deemed appropriate. Interest rate: Minimum Loan Rate. Fee/commission: according to Bank procedures/regulations
Target	All sectors
Eligibility criteria	Small, medium or corporate/large manufacturing enterprise without a negative financial record.
Objective	Projects that involve the construction/renovation of a factory or installation/upgrading of machinery and equipment including materials used in energy saving or renewable energy as well as new or alternative energy projects such as power/ electricity generating to be used in business establishments and/or for sale to the Electricity Generating Authority of Thailand (EGAT).
Qualifying projects	Qualifying projects must involve energy savings, the use of renewable energy or the implementation of alternative energy projects.
Expenses covered	Project costs.
Application procedure	Application via Krungthai Bank
Contact	KTB Contact Center Call 1551 (*www.contactcenter.ktb.co.th*) Krungthai Bank branches nationwide or business center for the nearest branch.
Office address	For branches address visit: http://www.ktb.co.th/ktb/en/ktb-locator.aspx
Country	Thailand
Source of information / data	*www.ktb.co.th/ktb/en/product-detail-sme.aspx?cid=UAoL2GrbmzMiMBHugr9I8Q%3d%3d&sub=6q17dcsynlwA7VZo7YzZpg%3d%3d&product=1oXVRvwIwtoPhhoQ3GYGog%3d%3d*

Source of finance	Krung Thai Bank (KTB)
Name	Environment Loans for Private Sector
Type of finance	Term Loan (T/L)
Amount of finance	Loan amount determined on a case-by-case basis. Interest rate of 2% with bank guarantee and deposit claim transfer as collateral; 3% with other securities/properties as collateral.
Target	Manufacturing
Eligibility criteria	Small manufacturing businesses that may cause pollution in their own right or through the contractor hired for waste treatment/disposal.
Objective	Promote more environmentally friendly production patterns.
Qualifying projects	Qualifying projects must involve energy savings, the use of renewable energy or the implementation of alternative energy projects.
Expenses covered	Project costs.
Application procedure	Application via Krungthai Bank
Contact	KTB Contact Center Call 1551 (*www.contactcenter.ktb.co.th*) Krungthai Bank branches nationwide or business center for the nearest branch.
Office address	For branches address visit: http://www.ktb.co.th/ktb/en/ktb-locator.aspx
Country	Thailand
Source of information / data	*www.ktb.co.th/ktb/en/product-detail-sme.aspx?cid=UAoL2GrbmzMiMBHugr9I8Q%3d%3d&sub=6q17dcsynlwA7VZo7YzZpg%3d%3d&product=10XVRvwIwtoPhhoQ3GYGog%3d%3d*

Source of finance	Krung Thai Bank (KTB)
Name	SME - Productivity
Type of finance	Term Loan (T/L)
Amount of finance	Term loan (T/L) limit to be considered and approved as deemed appropriate. In case of equipment purchase up to 100% of the purchase prise can be borrowed. Interest rate: Minimal Loan Rate-1% p.a plus fee/commission as per Bank's procedures.
Target	Manufacturing
Eligibility criteria	SME registered in Thailand and operating in the manufacturing sector.
Objective	Improvement of manufacturing efficiency and technology, development of production/manufacturing process of goods or services, and upgrade of equipment.
Qualifying projects	Improvement of manufacturing efficiency and technology upgrades.
Expenses covered	Equipment purchase, upgrade or repair.
Application procedure	Application via Krungthai Bank
Contact	KTB Contact Center Call 1551 (*www.contactcenter.ktb.co.th*) Krungthai Bank branches nationwide or business center for the nearest branch.
Office address	For branches address visit: *http://www.ktb.co.th/ktb/en/ktb-locator.aspx*
Country	Thailand
Source of information / data	*www.ktb.co.th/ktb/en/product-detail-sme.aspx?cid=UAoL2GrbmzMiMBHugr9I8Q%3d%3d&sub=6q17dcsynlwA7VZo7YzZpg%3d%3d&product=10XVRvwIwtoPhhoQ3GYGo9%3d%3d*

Source of finance	Krung Thai Bank (KTB)
Name	SME - Innovation
Type of finance	Bank Loan
Amount of finance	Maximum of BHT 5 million per project with interest subsidies provided by the National Innovation Agency.
Target	Manufacturing
Eligibility criteria	Small or medium manufacturing enterprise are eligible with a project that will advance innovation and technology for the country as a whole and has never received financial support from another institution.
Objective	Promoting business opportunities for Thai SMEs by accessing technologies and research work and supporting SMEs in the manufacturing sector to create business innovations beneficial to Thailand's economy and society.
Qualifying projects	Business process improvement projects and research into business opportunities related to technological innovation.
Expenses covered	Project costs.
Application procedure	Application via Krungthai Bank
Contact	KTB Contact Center Call 1551 (*www.contactcenter.ktb.co.th*) Krungthai Bank branches nationwide or business center for the nearest branch.
Office address	For branches address visit: *http://www.ktb.co.th/ktb/en/ktb-locator.aspx*
Country	Thailand
Source of information / data	*www.ktb.co.th/ktb/en/product-detail-sme.aspx?cid=UAoL2GrbmzMiMBHugr9I8Q%3d%3d&sub=6q17dcsynlwA7VZo7YzZpg%3d%3d&product=1oXVRvwIwtoPhhoQ3GYGo9%3d%3d*

Source of finance	Malaysia Debt Venture Bhd (MDV)
Name	Commercialisation Financing Programme
Type of finance	Term Loan; Revolving Loan; Convertible Financing
Amount of finance	Up to 85% of the contract or asset cost (Venture Project Line will be dependent upon the level of projected cash flow of applicant).
Target	Clean / Green Technology
Eligibility criteria	Malaysia incorporated company (at least 50% Malaysian) with a minimum paid-up share capital of RM 100,000. Priority is given to applicants who received seed and R&D grants from Malaysian government ministries and/or agencies.
Objective	The objective of this financing program is to offer an innovative form of financing to match the funding requirements of SMEs that have good and viable businesses, in particular for SMEs at the early and pre-commercialization stages.
Qualifying projects	Early and growth stage (pre-commercialization) projects in emerging/green technology with a focus on Sharia complaint projects.
Expenses covered	Initial funding for corporate infrastructure, pre-production costs and expenses such as equipment & facilities; complimentary technology acquisition; working capital and other relevant costs & expenses.
Application procedure	Application via MDV
Contact	Malaysia Debt Ventures Berhad T: +60 3 2617 2888 E: info@mdv.com.my
Office address	Malaysia Debt Ventures Berhad (578113-A) Level 5, Menara Bank Pembangunan, 1016, Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia
Country	Malaysia
Source of information / data	*www.mdv.com.my/en/product-services/programmes/commercialisation-financing-programme/*

Source of finance	Malaysian Investment Development Authority (MIDA)
Name	Incentives for energy conservation
Type of finance	Tax Exemption/ Relief
Amount of finance	The following support schemes are available: (i) Pioneer Status (PS) with income tax exemption of 100% of statutory income for a period of 10 years. Unabsorbed capital allowances and accumulated losses incurred during the pioneer period can be carried forward and deducted from the post pioneer income of the company; or (ii) Investment Tax allowance (ITA) of 100% of qualifying capital expenditure incurred within a period of 5 years. The allowance can be used to offset against 100% of statutory income in each year of assessment. Unutilised allowances can be carried forward until fully absorbed.
Target	All sectors
Eligibility criteria	Companies providing energy conservation services that are locally incorporated under the Companies Act.
Objective	Promote the conservation and efficient use of energy.
Qualifying projects	Companies that provide consultancy and advisory services as well as project management relating to the conservation or efficient use of energy are eligible to be considered for incentives under the Promotion of Investments Act, 1986; or companies which incur capital expenditure for conserving energy for own consumption
Expenses covered	N/A
Application procedure	Application via MIDA: Form EE/JA for incentive and/or expatriate posts by Energy Conservation/Energy Efficiency Services. Form can be downloaded from www.mida.gov.my
Contact	MIDA Sentral T: 603 2267 3633 E: investmalaysia@mida.gov.my
Office address	MIDA Sentral No.5, Jalan Stesen Sentral 5 Kuala Lumpur Sentral 50470 Kuala Lumpur Malaysia
Country	Malaysia
Source of information / data	*www.mida.gov.my/env3/uploads/IncentivesCompilation/MIDA/2013/AppIDSelected.pdf*

Source of finance	**UNEP**
Name	End-user finance for access to clean energy technologies in South and South-East Asia
Type of finance	Co-financing, End-user payment, Interest rate subsidy, Loan, Loan guarantee
Amount of finance	Total funding: EUR 30-69 million. Individual financing amounts are allocated for on a case by case basis.
Target	Clean energy end-users
Eligibility criteria	Project with targeted low-carbon technology.
Objective	FACET's main goal is to initiate and increase domestic bank lending to end-users of small-scale clean energy technologies in South and South-East Asia. FACET combines technical assistance with a temporary financial support mechanism. Only a small percentage of South and South-east Asian end-users can afford to purchase clean energy technologies on a cash basis and pay up front for the long-term, low-carbon, and low-maintenance energy supply these systems can provide.
Qualifying projects	Mitigation, energy efficiency, low-carbon, and renewable energy projects.
Expenses covered	Project costs
Application procedure	Via local financial institutions.
Contact	N/A
Office address	N/A
Country	Indonesia
Source of information / data	*http://climatefinanceoptions.org/cfo/node/284*

Source of finance	KfW & Partners
Name	Emission Reduction Investment Program (ERI)
Type of finance	Loan/Grant
Amount of finance	Loan limit to be considered and approved as deemed appropriate on a case-by-case basis.
Target	All sectors
Eligibility criteria	SMEs with planned investments in emission reduction projects.
Objective	The objecitve is to promote emission reduction projects.
Qualifying projects	Projects that lead to emission reductions, with a particular focus on decreasing greenhouse gas emissions.
Expenses covered	Project costs
Application procedure	Applications via Bank BNI
Contact	Ester Hutabarat T: +62 21 2358 7431 F: +62 21 2358 7440 E: ester.hutabarat@kfw.de
Office address	Menara BCA, 46th Floor Senior Project Officer Jl. MH Thamrin 1 KfW Development Bank 10310 Jakarta
Country	Indonesia
Source of information / data	*www.iesr.or.id/wp-content/uploads/6-KfW.pdf*

Source of finance	KfW & Partners
Name	Industrial Efficiency and Pollution Control Loan (IEPC II)
Type of finance	Loan/Grant
Amount of finance	Loan limit to be considered and approved as deemed appropriate on a case-by-case basis.
Target	Manufacturing
Eligibility criteria	SMEs that invest in environmentally friendly technologies.
Objective	Objective of the programme is the reduction of industrial pollution through provision of loans to SMEs for investments in environmentally friendly technologies. The funds amounting to 10.0 million EUR (Grant and IDA-Loan) are channelled through Bank Negara Indonesia and Bank Ekspor Indonesia (both managing the revolving funds), and commercial banks and regional banks selected by these two apex institutions. The Indonesian Ministry of Environment is in charge of formulating the environmental guidelines and monitoring.
Qualifying projects	Supported are „End of Pipe"-solutions like filters or sewerage plants and measures to reduce resource consumption and emissions.
Expenses covered	Project costs
Application procedure	Application via Bank Negara Indonesia, Bank Ekspor or any other partner banks.
Contact	Ester Hutabarat T: +62 21 2358 7431 F: +62 21 2358 7440 E: ester.hutabarat@kfw.de
Office address	KfW Development Bank 10310 BCA, 46th Floor Thamrin 1 Jakarta
Country	Indonesia
Source of information / data	*www.iesr.or.id/wp-content/uploads/6-KfW.pdf*

Source of finance	Global Environment Facility (GEF) Trust Fund
Name	Chiller Energy Efficiency
Type of finance	Concessional Loans, Bank Guarantees
Amount of finance	Concessional Loan for Energy Efficiency Grant Funds for Loan Guarantees: USD 1,661,575 Concessional loans at a rate of 10-11% per annum
Target	All sectors
Eligibility criteria	Establishments recognised as small or medium enterprises that plan to install energy efficiency chillers.
Objective	The project assists Indonesia to remove market and techno-economic barriers of early adoption of energy efficiency chillers through provision of financial incentives for chiller owners in the form of concessional loans to lower opportunity costs and up-front capital costs; improve access to capital for chiller replacement through grant funds to cover the cost of loan guarantees; and remove perceived technology risks by demonstrating significant rate-of-return on investment of chiller replacement.
Qualifying projects	Replacement of existing chillers with new more energy efficient versions.
Expenses covered	Costs of new energy efficiency chillers; costs of bank guarantees.
Application procedure	Application via the Ministry of Energy or associated institutions
Contact	Tuti Hendrawati Mintarsih Operational Focal Point since 2014-07-25 Senior Advisor to the Minister on Law and Insitutional Relations T: + 62 21 858 0109 E: THM126@yahoo.com, gefsecindonesia@gmail.com
Office address	Ministry of Environment Jalan D.I. Panjaitan, Kav. 24 Jakarta, DKI Jakarta 13410 Indonesia
Country	Indonesia
Source of information / data	*www.thegef.org/gef/project_detail?projID=4217*

Source of finance	Ministry of Foreign Affairs of Finland
Name	Energy and Environment Partnership (EEP)
Type of finance	Grant
Amount of finance	Maximum grant size: EUR 200,000
Target	All sectors
Eligibility criteria	NGOs, public and private companies as well as research and education institutions are eligible to apply for EEP funds.
Objective	EEP is a program developed by the Ministry of Foreign Affairs of Finland to support the wider access to modern energy services and promote renewable energy and energy efficiency.
Qualifying projects	Projects that cover, but are not limited to: Energy Efficiency, Fuel Switching, Material efficiency , Natural Resource Management, Renewable Energy or Waste Management.
Expenses covered	EEP funds are meant to supplement the applicant's own funding and/or any other complementary funding for the proposed project.
Application procedure	Applicants for EEP funds should answer Calls for Proposals posted on the EEP regional websites. The first stage of the application process is the submission of a Project Profile. If the project is eligible it is then sent to the Regional Coordination Office for approval. Finally, the EEP Steering Committee will consider the project profile, make recommendations and a preliminary money allocation. The second stage of the application, based on the opinion and recommendations on the Project Profile, is the elaboration of a Project Proposal. The Project Proposal should be sent to the Steering Committee for evaluation and project approval. The two stages of the application procedure are similar throughout EEP regional programs.
Contact	EEP Indonesia Nasrullah (Eriell) Salim E: admin@eepindonesia.org Munlika Sompranon Chief of Energy Cooperation Section T : +662 223 0021 F : +662 223 8705 E : munlika_s@dede.go.th
Office address	Ministry of Energy Department of Alternative Energy Development and Efficiency 17 Rama I Rd., Pathumwan, Bangkok 10330 Thailand
Country	Thailand, Indonesia
Source of information / data	*http://climatefinanceoptions.org/cfo/node/3471*

Source of finance	**Bank Mandiri**
Name	Partnership and Environment Development Program (PKBL)
Type of finance	Bank Loan Grant
Amount of finance	Maximum loan limit is Rp 20 million for individuals and maximum Rp 40 million for cooperatives
Target	All sectors
Eligibility criteria	SMEs that have never receive any loan facilities from Bank Mandiri, other banks or State-Owned Companies. The company must exist for at least 1 year and have promising growth prospects. Priority given to micro business and cooperatives that do not have bank access (are not yet bankable), with annual assets/turnover below Rp 50 million or insufficient collateral.
Objective	The program is designed to support micro businesses in their development.
Qualifying projects	Projects with a focus on environmental improvements.
Expenses covered	Projects cost
Application procedure	Application via Bank Mandiri
Contact	PT Bank Mandiri (Persero) Tbk. T: +62-21-52997777 F: +62-21-52997735
Office address	PT Bank Mandiri (Persero) Tbk. Jl, Jenderal Gatot Subroto Kav. 36-38 Jakarta 121900 Indonesia
Country	Indonesia
Source of information / data	*www.bankmandiri.co.id/english/article/265805761519.asp*

Source of finance	Global Environment Facility (GEF) Trust Fund
Name	Credit Facility (CF): Industrial Energy Efficiency
Type of finance	Low Interest Loan/Loan Guarantee
Amount of finance	Loan limit to be considered and approved as deemed appropriate on a case-by-case basis.
Target	Manufacturing
Eligibility criteria	Establishments recognised as small or medium enterprises, operating in the manufactoring sector.
Objective	The facility offers financial and institutional support for industrial energy efficiency initiatives. The expected project outputs include: - Capacity building of government institutions, local banks and financial institutions to promote and invest in industrial energy efficiency projects; - Training for businesses in preparation of bankable energy efficiency project proposals; - Tailored incentives such as low interest loans and/or loan guarantees for investments in energy efficient technologies and optimization projects.
Qualifying projects	Investments in energy efficient technologies and optimization projects.
Expenses covered	Project cost
Application procedure	Application via local banks and financial institutions
Contact	Sanjaya Shrestha T: 43 1 26026 3730 E: S.Shrestha@unido.org
Office address	PT Bank Mandiri (Persero) Tbk. Jl, Jenderal Gatot Subroto Kav. 36-38 Jakarta 121900 Indonesia
Country	Thailand
Source of information / data	*www.thegef.org/gef/project_detail?projID=3786*

Source of finance	SME Bank
Name	Working Process Improvement Loan
Type of finance	Term Loan
Amount of finance	Investment limit of BHT 5 million. Interest rate during the 1st and 2nd year are 3% p.a., from year 3 the interest rate is equal to the Minimum Loan Rate. The loan tenure cannot exceed 7 years.
Target	All sectors
Eligibility criteria	1.Thai Ordinary persons. at least 20 years of age. The applicant's age plus the loan tenure cannot exceed 65 years. 2.Thai Juristic Persons holding a share of no less than 50% in the business.
Objective	Assist SMEs of all business sectors to invest, expand or improve business operations.
Qualifying projects	Expansion, investment or business improvements projects.
Expenses covered	Personnel/labour, Logistic, Layout, finance, etc.
Application procedure	Application via SME Bank
Contact	SME Bank T: 0-2265-3000
Office address	Phaholyothin Office SME BANK Tower 310 Phaholyothin Road, Samsen-Nai, Phayathai, Bangkok 10400
Country	Thailand
Source of information / data	*www.smebank.co.th/en/credit_detail.php?nid=98&cid=7&year=*

Source of finance	SME Bank
Name	Machine and Automation Loan
Type of finance	Term Loan
Amount of finance	Investment limit of BHT 5 million. Interest rate during the 1st and 2nd year are 3% p.a., from year 3 the interest rate is equal to the Minimum Loan Rate. The loan tenure cannot exceed 7 years.
Target	Manufacturing
Eligibility criteria	1.Thai Ordinary persons. at least 20 years of age. The applicant's age plus the loan tenure cannot exceed 65 years. 2.Thai Juristic Persons holding a share of no less than 50% in the business.
Objective	Assist SMEs to purchase, upgrade and change their equipment.
Qualifying projects	Improvement of productivity and efficiency via the improvement/ replacement/ upgrading of equipment.
Expenses covered	Project costs
Application procedure	Application via SME Bank
Contact	SME Bank T: 0-2265-3000
Office address	Phaholyothin Office SME BANK Tower 310 Phaholyothin Road, Samsen-Nai, Phayathai, Bangkok 10400
Country	Thailand
Source of information / data	*www.smebank.co.th/en/credit_detail.php?nid=98&cid=7&year=*

Source of finance	SME Bank
Name	SME Development Scheme
Type of finance	Fixed / Rotating Credit / Kafalah
Amount of finance	Minimum funding of RM 50,000 with a profit rate capped at Base Financing Rate (BFR) + 1.5%.
Target	All sectors
Eligibility criteria	Malaysian-owned companies (>51% Malay ownership): Private Limited, partnerships and sole proprietorships
Objective	SME Development Scheme (SDS) is meant to facilitate access to financing for local SMEs to further devlop the business and accelerate its growth. SDS assists SME's in their growth stage, focusing on sectors Green Technology, engineering services, shipbuilding and other National Key Economic Areas (NKEA). Based on Syariah principles.
Qualifying projects	Qualifying projects must focus on a sustainable business growth.
Expenses covered	N/A
Application procedure	Application via SME Bank
Contact	SME Bank T: 03-26152020
Office address	Menara SME Bank, Jalan Sultan Ismail Peti Surat 12352, 50774 Kuala Lumpur
Country	Malaysia
Source of information / data	*www.smebank.com.my/sme-financing/programmes/skim-pembangunan-pks-sds/*

Source of finance	SME Corp Malaysia
Name	Sharia-compliant SME Financing Scheme (SSFS)
Type of finance	Term Loan
Amount of finance	Up to RM 5 million are funded and eligible for a 2% profit rebate. SMEs may obtain financing above RM 5 million, which is approved as deemed appropriate on a case-by-case basis.
Target	Sharia-compliant business activities in all sectors excluding financial products and services.
Eligibility criteria	SME must be at least 60% Malaysia-owned and certified under at least one national scheme, such as the Green Tech Cert under Malaysian Green Technology Corporation, under 1-InnoCERT, or under National Mark of Malaysian Brand. Eligibility is also subject to the credit assessment criteria of participating Financial Institutions.
Objective	To provide financing assistance to eligible Malaysian SMEs.
Qualifying projects	All ringgit-denominated Sharia-compliant financing for all purposes including but not limited to: working capital, asset acquisition and businesses upgrades.
Expenses covered	N/A
Application procedure	Application via any of the following financial institutions: Affin Islamic Bank Berhad Alliance Islamic Bank Bhd AmIslamic Bank Berhad Bank Islam Malaysia Berhad Bank Kerjasama Rakyat Malaysia Berhad Bank Muamalat Malaysia Berhad CIMB Islamic Bank Berhad Hong Leong Islamic Bank Berhad Kuwait Finance House (Malaysia) Berhad Maybank Islamic Berhad Public Islamic Bank Berhad RHB Islamic Bank Berhad HSBC Amanah Malaysia Berhad
Contact	SME Corporation Malaysia T: 03 2775 6000 T: 1-300-30-6000 E: info@smecorp.gov.my
Office address	SME Corporation Malaysia Level 6, SME 1, Block B, Lot E, Jalan Stesen Sentral 2, Kuala Lumpur Sentral 50470 Kuala Lumpur
Country	Malaysia
Source of information / data	*www.smecorp.gov.my/vn2/node/41*

Source of finance	KfW & Partners
Name	Fund Solutions for Climate Finance
Type of finance	Loan
Amount of finance	Green for growth Fund: EUR 400 million Global Climate Partnership Fund: up to USD 500 million
Target	All sectors
Eligibility criteria	Household, SME, industrial or municipal applicants with projects related to energy efficiency, renewable energy or low carbon are eligible.
Objective	The mission of the fund is to contribute to enhancing energy efficiency and fostering renewable energies. Dedicated financing is provided to businesses and households via partnering financial institutions and direct financing. The fund seek to increase awareness of the importance and impact of energy efficiency and renewable energy in its target countries and to develop the capacity of its investees in this area.
Qualifying projects	Mitigation, Energy, Energy Efficiency, Low-Carbon, Renewable Energy projects.
Expenses covered	N/A
Application procedure	Application procedures depend on the particular configuration and programme of the partner financial institutions.
Contact	
Office address	KfW Development Bank 10310 BCA, 46th Floor Thamrin 1 Jakarta
Country	Indonesia
Source of information / data	*http://climatefinanceoptions.org/cfo/node/199*

Source of finance	Bangkok Bank
Name	Research and Technology Development Loan
Type of finance	Bank Loan
Amount of finance	Funding for up to BHT 20 million.
Target	All sectors
Eligibility criteria	SME with limited collateral and high growth prospects.
Objective	Businesses that have high potential but an insufficient asset value to meet the requirements of financial services for a conventional loan.
Qualifying projects	Trade, services, agriculture, industry, business sectors other productive
Expenses covered	N/A
Application procedure	Application via Bangkok Bank
Contact	
Office address	Bangkok Bank PCL 333 Silom Road, Bangrak, Bangkok 10500
Country	Thailand
Source of information / data	*www.bangkokbank.com/BangkokBank/BusinessBanking/SMEs/LoansForSMEs/Government-SupportedLoans/Pages/Default.aspx*

Source of finance	Bangkok Bank
Name	SME Machine Fund
Type of finance	Bank Loan
Amount of finance	The Office of Small and Medium Enterprise Promotion (OSMEP) will absorb 300 basis points of the interest rate on the loans each year for a period of five years to a maximum amount of BHT 5 million. After the five-year period ends the market interest rate has to be paid in full. Fees includ project appraisal fee, the asset appraisal fee, loan administration fee and other fees as applicable.
Target	All sectors
Eligibility criteria	An existing Bangkok Bank SME customers.
Objective	Bangkok Bank, in cooperation with OSMEP, is offering low interest loans for machinery upgrades.
Qualifying projects	Projects to improve the efficiency of existing machinery or to install new machines; to improve, maintain, install, or replace parts or some mechanical systems of existing machines; to install new machines or new control systems in the production process.
Expenses covered	Machinery repairs, replacements and improvements.
Application procedure	Application via Bangkok bank or online at *http://www.bangkokbank.com/BangkokBank/BusinessBanking/SMEs/LoansForSMEs/Pages/LendingOnlineRegister.aspx*
Contact	
Office address	Bangkok Bank PCL 333 Silom Road, Bangrak, Bangkok 10500
Country	Thailand
Source of information / data	*www.bangkokbank.com/BangkokBank/BusinessBanking/SMEs/LoansForSMEs/GovernmentSupportedLoans/Pages/MachineFund.aspx*

Source of finance	The Ministry of Energy, Green Technology and Water (METGW)
Name	Tax Incentives for energy generation from renewable sources
Type of finance	Tax Exemption
Amount of finance	Pioneer status companies receive tax exemption of 100% statutory income for ten years; or Investment Tax Allowance (ITA) of 100% of the qualifying capital expenditure incurred within a period of 5 years.
Target	All sectors
Eligibility criteria	Companies generating energy from renewable sources for sale or own consumption.
Objective	To address the pressing issue of climate change, the Malaysian Government has given greater focus to green developments in recent years and is making concerted efforts to encourage Malaysians to embrace green technology. Introduction of this tax incentive is to encourage the generation and use of renewable energy.
Qualifying projects	Projects related to renewable energy generation or consumption.
Expenses covered	Tax exemption of 100% statutory income for ten years; or Investment Tax Allowance (ITA) of 100% of the qualifying capital expenditure incurred within a period of 5 years.
Application procedure	Application via MIDA. Applications received by 31 December 2015 are eligible for this incentive
Contact	
Office address	Malaysian Industrial Development Authority (MIDA) Block 4, Plaza Sentral Jalan Stesen Sentral 5 Kuala Lumpur Sentral 50470 Kuala Lumpur Malaysia.
Country	Indonesia
Source of information / data	*www.greentechmalaysia.my/file/download/GREEN%20TECH%20INCENTIVES%20PwC_Alert_Issue_86_Green_Tech.pdf*

Source of finance	The Ministry of Energy, Green Technology and Water (METGW)
Name	Tax Incentives for energy conservation
Type of finance	Tax Exemption
Amount of finance	Pioneer status companies receive tax exemption of 100% statutory income for ten years; or Investment Tax Allowance (ITA) of 100% of the qualifying capital expenditure incurred within a period of 5 years.
Target	All sectors
Eligibility criteria	Companies that will incur capital expenditurse for conserving energy for own consumption are eligible.
Objective	Promote energy conservation measures.
Qualifying projects	Qualifying projects include: Companies provinding energy conservation services and companies which incur capital expenditure for energy conservation for own consumption.
Expenses covered	ITA of 100% of the qualifying capital expenditure incurred within a period of 5 years.
Application procedure	Application via MIDA. Applications received by 31 December 2015 are eligible for this incentive.
Contact	
Office address	Malaysian Industrial Development Authority (MIDA) Block 4, Plaza Sentral Jalan Stesen Sentral 5 Kuala Lumpur Sentral 50470 Kuala Lumpur Malaysia.
Country	Indonesia
Source of information / data	*www.greentechmalaysia.my/file/download/GREEN%20TECH%20INCENTIVES%20PwC_Alert_Issue_86_Green_Tech.pdf*

Source of finance	The Ministry of Energy, Green Technology and Water (METGW)
Name	Tax Incentives for obtaining Green Building Index Certificate
Type of finance	Tax Exemption
Amount of finance	1. Tax exemption equivalent to 100% of the additional capital expenditure incurred to obtain the Green Building Index (GBI) certificate. The exemption is allowed to set-off against 100% of the statutory income for each year of the assessment. 2. Stamp duty exemption on instruments of transfer of ownership of GBI certified buildings. The amount of stamp duty exemption is on the additional cost incurred to obtain the GBI certificate.
Target	Construction / Real Estate
Eligibility criteria	Owners and buyers of buildings awarded the GBI certificate. The incentive is applicable for new buildings and upgrading of existing buildings, but only for the first GBI certificate issued in respect of the building. This incentive is effective for buildings awarded with GBI certificates from 24 October 2009 until 31 December 2014. Buyers of buildings and residential properties awarded with the GBI certificate bought from real property developers are eligible for stamp duty exemption on instruments of transfer of ownership of such buildings. The incentive is given only once to the first owner of the building.
Objective	The government has launched the Green Building index (GBI) on 21 May 2009 in order to expand the usage of green technology.
Qualifying projects	Owners and buyers of buildings awarded with the Green Building Index certificate.
Expenses covered	N/A
Application procedure	Application via MIDA. Applications received by 31 December 2015 are eligible for this incentive.
Contact	
Office address	Malaysian Industrial Development Authority (MIDA) Block 4, Plaza Sentral Jalan Stesen Sentral 5 Kuala Lumpur Sentral 50470 Kuala Lumpur Malaysia.
Country	Indonesia
Source of information / data	*www.greentechmalaysia.my/file/download/GREEN%20TECH%20INCENTIVES%20PwC_Alert_Issue_86_Green_Tech.pdf*

Source of finance	SME Bank
Name	Bumiputera Halal Development Fund
Type of finance	Sharia-compliant finance.
Amount of finance	Factory Buildings or Business Premises related projects are finance with up to RM 10 million per customer. Working Capital, Plant/Machinery, and Vehicle & Renovation are financed with up to RM 3 million per customer.
Target	Halal-related sectors.
Eligibility criteria	Applicable for SMEs that are not a subsidiary of a GLC/MNC and have a minimum 2 star SCORE rating by the SME Corp. The CEO/MD and the majority of the management team must be Bumiputera. The SME must have a minimum of 60% Bumiputera equity and operate in Halal-related sectors.
Objective	The Bumiputera Halal Development Fund is a special fund allocated by SME Bank based on its collaboration with TERAJU and Halal Development Corporation (HDC) with the objective to support Bumiputera entrepreneurs involved in Halal-related sectors.
Qualifying projects	Purchase of Assets for business expansion, Working Capital, Plant/Machinery renovation.
Expenses covered	Purchase of Assets for business expansion, Working Capital, Plant/Machinery renovation.
Application procedure	Application via SME Bank
Contact	
Office address	Menara SME Bank, Jalan Sultan Ismail Peti Surat 12352, 50774 Kuala Lumpur Tel: 03-26152020
Country	Malaysia
Source of information / data	*www.smebank.com.my/sme-financing/programmes/bumiputera-halal-development-fund/*

Source of finance	**Bangkok Bank**
Name	Bualuang Green Loan
Type of finance	Trade Credit
Amount of finance	Credit Line of BHT 1 million or more. Fee are determined by the financial institution, but include 0.25% of the approved credit line.
Target	Manufacturing
Eligibility criteria	Companies categorised as SME with planned investments in energy-saving projects or production of environmentally friendly products
Objective	A Bualuang Green Loan can be used for investments in energy-saving projects, to improve the efficiency of energy consumption, or produce environmentally friendly products.
Qualifying projects	Projects and activities related to energy-saving, alternative/renewable energy, waste management, waste-to-energy, and bio-products (replacing chemical products) are eligible.
Expenses covered	Project costs
Application procedure	Application via Bangkok bank or online at *http://www.bangkokbank.com/BangkokBank/BusinessBanking/SMEs/LoansForSMEs/Pages/LendingOnlineRegister.aspx*
Contact	
Office address	Bangkok Bank PCL 333 Silom Road, Bangrak, Bangkok 10501
Country	Thailand
Source of information / data	*www.bangkokbank.com/BangkokBank/BusinessBanking/SMEs/LoansForSMEs/BualuangSMELoans/Pages/BualuangGreenLoan1.aspx*