



ASEAN financial institutions leading the clean energy transition

Introduction

This study, co-written by CEFIM and WWF Singapore, highlights good practices among leading banks headquartered across ASEAN on financing clean energy projects to illustrate the role of government as well as internal bank decision-making systems in supporting clean energy investments. By sharing different country and bank experiences, this report aims to increase visibility and awareness of clean energy finance opportunities as well as improve understanding of the growing exposure to transition risks related to future stranded assets and the need to shift portfolios towards clean energy technologies.

The annual average clean energy market in ASEAN over the next two decades could be worth an estimated USD 80 billion, assuming countries implement policies and clean energy targets in line with the Paris Agreement.¹ This would represent a scale-up of 4-5 times 2020 investment levels. Much of the clean energy market can and will be financed by the private sector, especially commercial banks, and will require both domestic, regional and international sources of capital.

Expectations that the clean energy market will significantly increase are well founded. This stems from the consensus of the world's most prominent scientific and political institutions that a climate crisis is occurring with significant economic ramifications and that the current energy system is the major driver. An energy transformation comparable to the industrial revolution must occur to limit the increase in global average temperature to internationally agreed targets.

Investments in renewable energy and energy efficiency are paramount to existing and future regional efforts to meet decarbonisation commitments. Currently, five ASEAN countries have either proposed or declared a commitment to reach net-zero emissions by 2050.² Increasingly, municipal governments are also making climate commitments.³ This is significant as activities in and around cities are responsible for approximately 75% of global primary energy consumption and 60% of total greenhouse gases emissions.⁴

Decarbonisation efforts will inevitably create stranded assets and rapidly shift capital to low carbon technologies. Banks are exposed to this transition as significant proportions of their portfolios and clients are either directly linked to the energy sector or sectors where decarbonisation efforts are being implemented.

¹ Based on estimates from the IEA's sustainable develop scenario in the Southeast Asia Energy Outlook 2019.

² Net-zero by 2050 declarations have been made by Malaysia, Thailand, Viet Nam, Cambodia, Laos. A proposed commitment to reach net-zero by 2060 has been made by Indonesia

³ 14 cities across ASEAN have committed to reach net-zero emissions by 2050: Bangkok (Thailand); Ho Chi Minh City, Hanoi (Viet Nam); Baguio, Quezon City, Vigan, Dipolog (Philippines); Jakarta, Palembang, Musi Banyuasin, Jambi (Indonesia); Kuala Lumpur, Hang Tuah Jaya, Melaka (Malaysia).






⁴ <https://unhabitat.org/topic/energy>

Regulators across the ASEAN region are increasingly addressing climate-related financial risks, including via micro-prudential measures and by supporting the creation of green/sustainable finance taxonomies. Regulators across the world are also increasingly affecting the ASEAN region, most notably the "EU taxonomy"⁵ which governs financial flows within and those originating within but flowing outside of the European Union. These measures will require banks to make internal adjustments accordingly, ultimately culminating in enhanced negative environment social and governance (ESG) screening processes, strategies to facilitate clients to decarbonise, business lines for ESG opportunities and enhanced portfolio management.

Clean energy finance indicators

While the analysis tries to develop some common indicators across the banks interviewed, different reporting protocols at the country level as well as public disclosure at the bank level make this challenging and highlights major data gaps. A common sustainable or green finance reporting framework for ASEAN financial institutions with granular detail on key sectors would help to identify financing gaps, track progress and support policy analysis. While sustainable finance regulation or strategies in different ASEAN countries have reporting requirements, these tend to note be prescriptive and banks and other non-bank financial institutions can determine what information to report. Further collaboration among financial regulators and relevant government policy makers in ASEAN could help to address this data gap and develop common clean energy finance indicators. This would help to identify effective policies and frameworks at the country and firm level and facilitate progress reporting.

Table 1. Clean energy finance indicators

	Mandiri <i>Indonesia</i>	CIMB <i>Malaysia</i>	RCBC <i>Philippines</i>	UOB <i>Singapore</i>	BIDV <i>Viet Nam</i>
 Total assets (USD billion)	89.7	144	16.1	327	70
Number of renewable energy projects financed 	18	Data unavailable or not reported	10	100+	1 000+
 Credit provided to renewables (USD billion)	0.37	0.15	0.42	0.4	2
Share of clean energy in lending portfolio 	0.66%	0.18%	4.9%	1.42%	6%
 Share of energy sector in lending portfolio	5.24%	1.4%	12%	Data unavailable or not reported	Data unavailable or not reported

The clean energy finance indicators for the banks interviewed highlighted a growing clean energy lending market, although annual growth data reported was inconsistent across banks and hence a comparison is not possible. The share of clean energy within lending portfolios ranged from under


⁵ The full name of the EU Taxonomy is the European Union Non-Financial Reporting Directive.

0.4% to a high of 6%. The energy sector represented between 5.7% and 12% among banks, although often this information was unavailable. However, it highlights a substantive exposure to the energy sector across banks with significant potential to shift from traditional energy to clean energy projects. While some data on renewable energy financing is available, data on energy efficiency lending proved particularly difficult and for the most part the data provided represents financing for renewable energy projects. In general, with the exception of BIDV that has been very active in the solar roof top market, the banks interviewed and provided data have focused on utility scale renewable energy projects where average transaction sizes are larger. For most banks, the number of projects financed and the total lending provided indicates that this is still an early lending market with substantial growth potential.

Drivers for mobilising clean energy finance

A comparison of the different drivers for clean energy finance development of the banks interviewed within ASEAN highlights a number of similarities including the importance of training and capacity building and the favourable outlook for clean energy, and in particular the renewable energy market.


Outlook for clean energy: Strong direction and commitment by governments to the energy transition and/or climate change were generally seen as critical drivers for the market.

<p>Outlook for clean energy</p> 	<p>Bank Mandiri</p> <p>Positive but additional policy reforms and support still needed to address perceived risks</p>
<p>Green recovery initiatives will boost demand for renewable energy and energy efficiency investments</p> <p>CIMB</p>	<p>Coal moratorium declaration of Department of Energy will drive market increasingly to renewables</p> <p>RCBC</p>
<p>Strong outlook with renewable energy expected to account for 60-65% of total generation in ASEAN by 2050</p> <p>UOB</p>	<p>Very positive with new net-zero by 2050 commitment</p> <p>BIDV</p>


Exclusion policy: Three of the five banks have adopted coal exclusion policies, while a fourth has been reducing its exposure to coal through a board decision on an annual basis not to extend credit to coal projects.

Exclusion policy		None	Bank Mandiri
No new coal financing. Exit coal completely by 2040.	CIMB	No new coal financing. Expect to exit coal in 10 years when loans mature.	RCBC
No new coal financing.	UOB	None	BIDV


Project evaluation and bankability criteria: Risk evaluation of projected cash flow was common as the main evaluation measure for project viability. Only one bank considered traditional fossil energy projects riskier than renewables, while two others considered renewables riskier, due to variable generation. One bank cited need for strong long-term cash flow stability, given longer payback periods for renewables.

Project evaluation & bankability criteria		Risk evaluation of projected cash flows similar to traditional energy projects. Renewable energy considered riskier than fossil fuels given lack of performance data and familiarity with operations.	Bank Mandiri
Robust long-term cash flow to cover longer payback period of renewable projects.	CIMB	Risk evaluation of projected cash flows similar to traditional energy projects. Traditional energy projects considered riskier and require additional environmental risk assessment than renewables.	RCBC
Clear objectives and awareness of investment implications of renewables by client. Project impact must be clearly measurable.	UOB	Risk evaluation of projected cash flows and preferred suppliers list. Renewables project performance considered riskier due to lack of operating history .	BIDV


Targets: Renewables lack adequate performance history in the region to undertake cash flow risk evaluations. Perceived risks can thus be significant. On elements of a good renewable energy project, one bank noted the importance of clear objectives and awareness of investment impact for approving projects. None of the banks had a clean energy finance target, but two did have publicly announced sustainable finance targets.

Targets		None	Bank Mandiri
Sustainable finance target of RM 30 billion (USD 7.2 billion) in 2024.	CIMB	None	RCBC
Sustainable finance target of SGD 30 billion (USD 22.3 billion) in 2025.	UOB	None	BIDV

Training and capacity building: No bank had a dedicated clean energy unit. A couple noted lack of adequate demand to justify the creation of a dedicated team. Others indicated there was no need to develop deep technical expertise as sustainable finance criteria are already integrated within operations. For most, training and capacity building focuses on sustainable finance issues, with one bank providing specialised clean energy training and guidelines.

Training & capacity building		Training for all employees, especially for business units, risk units, strategy units and others related to sustainability practices and green finance in priority sectors	Bank Mandiri
Group Sustainability engages with other teams to raise awareness and build technical capacity on sustainability and sustainable finance, and adopts a strategy of raising capacity through domestic and global initiatives.	CIMB	Staff trained on environmental and social standards. Minimum of four trainings each year on sustainability.	RCBC
Staff trained on Responsible Financing Policy and Processes.	UOB	Specialised clean energy training for project evaluation staff. Guidelines for wind and solar project.	BIDV

Sustainable finance products: At the product level, green, social and sustainable bonds are a common source for raising capital to finance clean energy projects. Of the five banks interviewed, four had already issued green, social and/or sustainability bonds in domestic or international markets, with issuances attracting very high demand.

Sustainable finance products 			
		Sustainability bond, sustainability loans, consumer credits for solar panels and electric vehicles	Bank Mandiri
Green loans/financing; sustainable bond/Sukuk for social and/or green activities; sustainability-linked loans with interest rebates tied to pre-determined targets; sustainability-linked bond/Sukuk to improve ESG performance; transition financing/bond/Sukuk for specific transition projects; SME renewable energy financing; green mortgages with preferential rate.	CIMB	Green/sustainability bonds and green/sustainability loans.	RCBC
U-Solar programme for solar financing; U-Energy programme for energy efficiency financing.	UOB	Looking to develop green bond market.	BIDV

Study framework: Policies, Processes, People, Products and Portfolio

A short survey was administered through interviews to five banks in different ASEAN economies to assess the key drivers and factors for increasing lending to clean energy projects. The questions and each of the following bank case studies are structured around the following areas: policies, processes, people, products and portfolio.

Table 2. Summary of study framework

Framework areas	Rationale
Policies	Ensure intentions are embedded into daily business operations
Processes	Integration of criteria into client and transaction approval decision-making systems provide enforcement with consequences for non-compliance
People	Effective implementation of policies and processes requires sufficient staff capacity and clear allocation of responsibilities that are linked to enumeration systems
Products	Enable banks to move beyond negative ESG screening and evolve towards tapping into business opportunities
Portfolio	Assessment of risks at client and transaction level only provides a micro-level snapshot of issues that ultimately accumulate and must be managed at the portfolio level

Lessons from case studies

The study revealed several interesting findings in terms of important drivers, trends and success factors across the five banks interviewed. For each of the case studies, one feature or lesson learned was selected to be highlighted that other banks in the region could benefit from as they look towards developing their clean energy finance activities. These lessons include potential solutions to unlock international capital, build project pipelines and support the development of capital markets and the role of international collaboration in developing sustainable finance capacity.

Green, Social and Sustainability Bond Framework: Bank Mandiri published its Green, Social and Sustainability (GSS) Bond Framework to outline the conditions to which the Bank will issue green, social and sustainability bonds to fund future financing of green and social projects. The Framework aligns with international standards and follows those of both the International Capital Market Association (ICMA) Green, Social and Sustainability bond principles, as well as the ASEAN Green, Social and Sustainability Bond Standards developed by the ASEAN Capital Market Forum (ACMF). Other banks covered in this report also have such frameworks that facilitate issuances and provide potential investors with confidence and help to address concerns of green washing and other banks in the region may want to consider the development of frameworks that align with international standards.

Role of international initiatives: CIMB has utilised multiple international banking initiatives such as UNEP FI Principles for Responsible Banking, Collective Commitment to Climate Action, and more recently its Net-Zero Banking Alliance to fast-track internal efforts to integrate sustainability as a core business strategy. The various international commitments and groups which CIMB has joined have provided CIMB access to capacity building opportunities as it became part of a wider group of banks attempting to resolving problems as a community-of-practice, opening up space for CIMB to learn first-hand from leading banks around the world. Participation in international initiatives can be a good way for banks and other financial institutions to quickly develop and adopt internationally recognised good practices.

Innovations in sustainable finance can also come from smaller banks: RCBC has demonstrated that advancing ahead with sustainable finance initiatives is not only achievable by the largest banks. The total assets of RCBC are approximately one quarter of BDO Unibank, the largest bank in the Philippines. However, in many respects RCBC outperforms this and other larger banks, regarding internally adopted sustainable finance measures. This has facilitated RCBC to innovate, such as changing business models and tapping into new investor demand for sustainable investments. RCBC explicitly aims to increase the positive investment ratio of its sustainable portfolio relative to coal, align business strategy with national priorities, and manage its portfolio to create more value and benefits to its stakeholders.

Partnerships to build clean energy project pipelines: UOB U-Solar and U-Energy programmes are Asia's first fully integrated solar energy and energy efficiency financing platforms. Through these platforms, UOB maximises the benefits of adopting a value-chain approach, promoting awareness and co-ordination across developers, contractors, operators and end-users. The programmes proactively target local champions or partners to drive growth of the bank's solar and energy efficiency business. The U-Solar and U-Energy programmes provide potential customers with specific information on the economic benefits of integrating solar into their business and cost effective energy efficiency investments. Establishing partnerships with clean energy developers can help to reduce origination and project due diligence costs, facilitate standardisation of evaluation processes and scale up clean energy finance portfolios.

Shifting to guarantees for offshore lenders to lower financing costs and access additional capital: As BIDV starts to face liquidity constraints, it is shifting from direct lending for renewables to a focus on the provision of guarantees to offshore lenders. As a guarantor, BIDV can continue supporting the finance of renewable energy projects by helping projects reach international bankability criteria and providing developers with access to lower cost international capital. Partnering with international banks also helps BIDV to benefit from the experience and knowledge of international partners in financing larger renewable energy projects. A shift from direct lending to provision of guarantees can be an effective way for banks with limited long-term capital to continue growing its clean energy financing activities and gain experience and knowledge from international lenders.

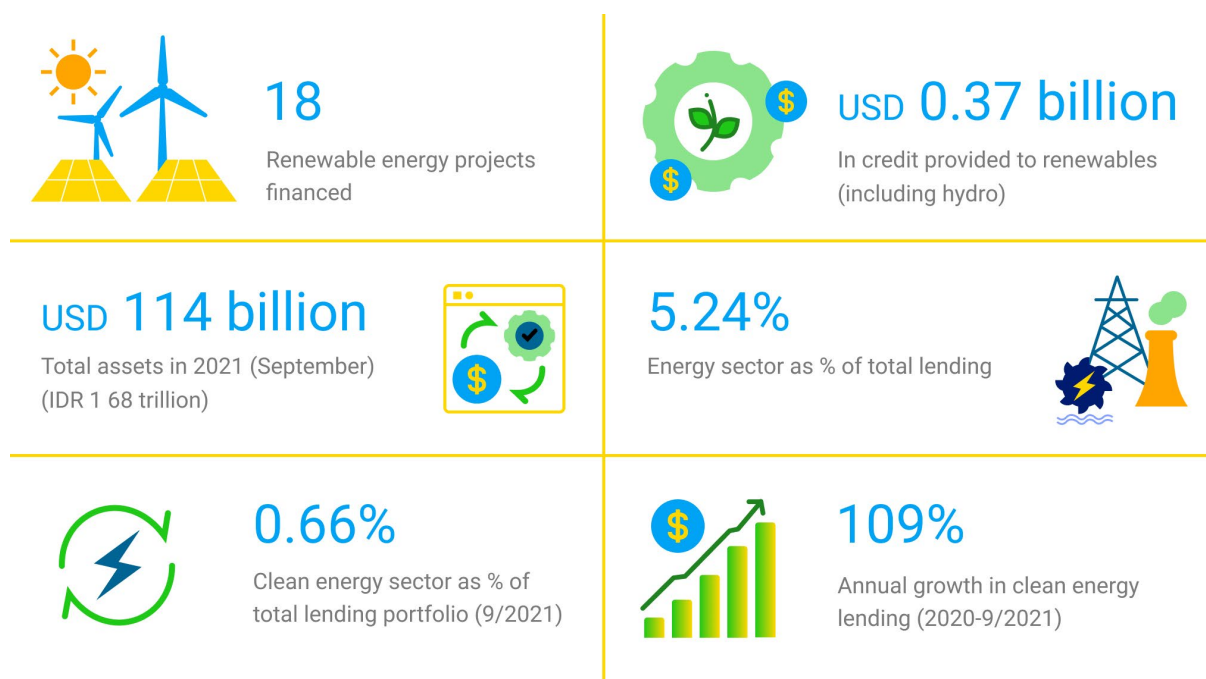
Country case studies

Indonesia - Bank Mandiri

Bank Mandiri is Indonesia's largest commercial and state-owned bank, with IDR 1 638 trillion (USD 114 billion) in total consolidated assets and IDR 1 022 trillion in outstanding loans (USD 71 billion) in September 2021. The bank is the fourth largest publicly listed company on the Indonesia stock exchange with a market capitalisation in September 2021 of IDR 284 trillion (USD 20 billion). The government of Indonesia is the bank's largest shareholder owning 60% of its capital, foreign investors hold 29.9% (mainly large institutional investors from the US, Europe and Singapore) while the remaining 10.1% is held by local investors.

Clean energy makes up a very small part of Bank Mandiri's current lending portfolio. Bank Mandiri is keen to expand its lending to renewable energy and energy efficiency projects, but demand from this sector is currently very limited. While the bank's clean energy lending is still at a very early stage, ESG lending has been growing rapidly and accounted for 23.2% of its lending portfolio as of September 2021, with the majority supporting social investments such as micro small and medium enterprises including women entrepreneurs.

Figure 1. Bank Mandiri: Clean energy finance statistics



Policies

Bank Mandiri aspires to becoming a sustainable bank and is currently evaluating the development of an internal sustainable finance framework. The board of directors and the bank's largest shareholder, as well as its foreign institutional shareholders have placed growing importance on the integration of ESG considerations, including focus on clean energy lending within the bank's operations. Prioritisation by shareholders and government regulation, including OJK Regulation No. 51 that requires banks to develop a Sustainable Finance Action Plan, is driving Bank Mandiri to implement policies and measures that can support an expansion of the sustainable financing portfolio.

The bank follows OJK Regulation No. 51 for classification of qualifying green sectors, including for renewable energy and energy efficiency, and will apply the definitions and technical threshold as outlined in the green finance taxonomy released in January 2022. No targets have yet been set for clean energy lending. No exclusion policy has yet been adopted in the energy sector and Bank Mandiri continues to finance both renewable and non-renewable energy projects while paying attention to environmental, social and governance aspects in accordance with credit and sectoral policies such as Industry Acceptance Criteria. These policies included project compliance on local environmental regulations, AMDAL (environmental impact assessment) certification from the Ministry of Environment and Forestry, as well as alignment with PLN's (the national power utility) Electricity Business Plan (RUPTL).

The new RUPTL 2021-2030 released by PLN in October 2021, marks an important turning point in Indonesia's clean energy transition. For the first time, renewable energy capacity additions (21 GW) out-weigh fossil fuel additions accounting for 52% of total new capacity to be added in this decade. Independent power producers plan to develop 11.8 GW of the renewable energy additions, with PLN accounting for the remaining 9.1 GW. This sharp increase is expected to create significant demand for green financing and represents an opportunity for Bank Mandiri to grow its renewable energy portfolio among private investors and finance PLN's renewable energy development.

Processes

Project evaluation processes follow traditional cash flow evaluation and offtaker credit analysis. For renewable energy projects, the power purchase agreement (PPA) terms are the most important aspect of determining project cash flows and hence project bankability. In Indonesia, the current PPA conditions are not considered favourable for renewable energy financing. The lack of a take-or-pay clause creates additional risks for ensuring adequate cash flow will be available to repay loans. Long tenures are usually required for financing and banks are concerned with the reliability of feasibility studies and cash flow projections. As a relatively new sector with limited performance history, renewables are seen as riskier than fossil fuel projects which have a long history of operating performance facilitating cash flow evaluation by the bank. The current tariff structure for renewables is also seen as not very attractive in many regions, leading to relatively low IRR for projects and the intermittent nature of solar and wind adds additional concerns around curtailment risks.

Bank Mandiri's limited experience in financing renewable energy projects creates additional uncertainty on the internal capacity to adequately appraise project risks. The small universe of projects in Indonesia also results in insufficient data to which performance of new projects could be benchmarked against. The bank is evaluating options to co-finance projects with offshore lenders to gain experience and know-how in renewable energy project evaluation and transaction structuring. Many of these international lenders have well established relationships with developers that have an established track record in developing and operating renewable energy projects. Renewable energy projects to date that have requested financing from Bank Mandiri, have typically come from small local developers with little track record or from PLN. As with renewable energy, demand for financing energy efficiency projects is also limited by very small developers with little capital and asset owners reluctant to invest limited investment capital on energy efficiency.

People

A number of focus group discussions with PLN and project developers have been held to increase internal knowledge on renewables. These sessions have involved staff from the compliance and risk team as well as those from the wholesale banking team. Information sessions have been held for a

variety of renewable technologies including geothermal and solar energy, to gain a better understanding of the critical issues within project development.

Bank Mandiri sees enhancing internal capacity as a priority to be able to build the bank's clean energy business. Limited experience and demand for renewable energy financing so far within Indonesia remains a major barrier for developing internal expertise. To overcome this, Bank Mandiri is seeking opportunities to co-finance renewable energy projects with international banks to build experience and internal capacity across a variety of clean energy technologies. A dedicated energy team covers both renewable and traditional fossil fuel lending. There is insufficient demand today to consider setting up a dedicated clean energy team.

Products

Integration of ESG issues within the bank's business operations remains a priority and Bank Mandiri has a number of credit programmes focused on financial inclusion with social investments representing the bulk of its ESG business. In April 2021, Bank Mandiri raised USD 300 million from a sustainability bond to support lending for sustainable projects including for renewable energy projects. The issuance was more than eight times oversubscribed and priced with a coupon of 2% for a 5-year tenor. High demand for this issuance signals the availability of capital for financing sustainable investments in Indonesia, however, credit demand from profitable renewable energy projects remains the main barrier to expanding its clean energy business.

Portfolios

The energy sector accounts for about 5.24% of Bank Mandiri's lending portfolio as of September 2021. Bank Mandiri conducts periodic reviews of its portfolio to evaluate future risks, including ESG risks. These reviews are done to evaluate compliance with Indonesia's sustainable banking regulation as well as to ensure the bank's performance on ESG meet the tougher criteria required by the bank's shareholders. The transition to a net zero economy and meets the Paris Agreement will require a better understanding of the transition risks of its lending portfolio and Bank Mandiri is currently assessing various transition risk evaluation tools.

Bank Mandiri Green, Social and Sustainability Bond Framework

In April 2021, Bank Mandiri published its Green, Social and Sustainability (GSS) Bond Framework to outline the conditions under which the bank will issue green, social and sustainability bonds to fund future financing of green and social projects. The framework was developed to align with international standards and follows those of both the International Capital Market Association (ICMA) Green, Social and Sustainability bond principles, as well as the ASEAN Green, Social and Sustainability Bond Standards developed by the ASEAN Capital Market Forum (ACMF). Alignment of Bank Mandiri's GSS Bond framework with the ICMA Principles and ASEAN Standards was confirmed through a [second party assessment](#).

This framework follows the ICMA principles and covers: the use of proceeds, project evaluation and selection; and management of proceeds and reporting. Proceeds from sustainability bonds can finance lending to either eligible green (including renewable energy and energy efficiency projects) or social projects, while green and social bond issuances can only fund eligible green or social projects. More details on eligible investments can be found in the [framework](#). As established in the ASEAN Suitability, Green and Social Bond Standards, a number of activities, including any activities involving fossil fuels directly or indirectly, hydro power greater than 25 MW, palm-oil operations and other activities negatively impacting the environment or with social concerns, are excluded from the use of proceeds.

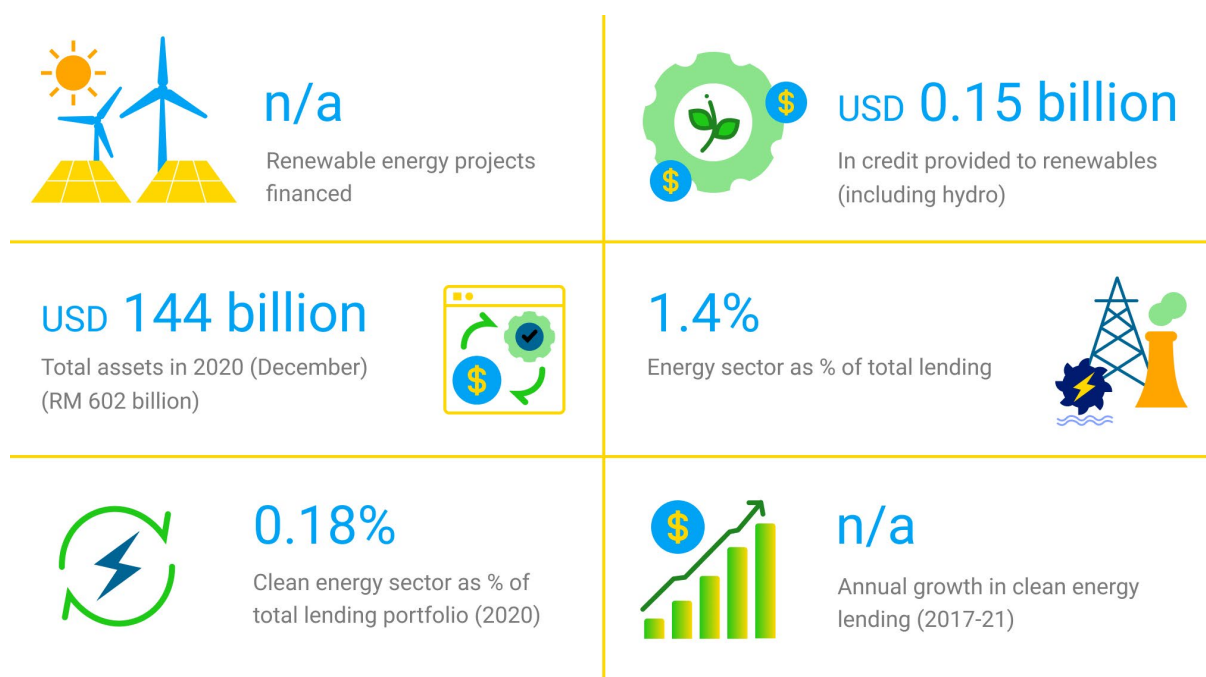
Business units nominate eligible green or social projects and are responsible for screening projects based on the eligibility and exclusionary criteria set out in the framework. The Sustainable Finance Working Group made up of representatives from Treasury, Credit Portfolio Risk and Strategic and Performance Management then review project eligibility against the framework. Final approval is then provided by the Risk Management and Credit Policy Committee which sits under the Board of Directors. A dedicated registry has been created to establish a record to track and monitor use of proceeds and performance of GSS bond issuances. The bank will publish a Sustainability Bond Report annually and will include information on the allocation of proceeds and an impact assessment.

Malaysia – CIMB

CIMB is one of ASEAN’s largest retail and investment banks and is considered a world leader in Islamic finance. Total assets as of 31 December 2020 was RM 602.4 billion (USD 144 billion⁶) and CIMB is the sixth largest publicly listed company on the Malaysian stock exchange with a market capitalisation of RM 43.5 billion (USD 10.4 billion). CIMB is a government-linked company with Khazanah Nasional Berhad (Malaysia’s Sovereign Wealth Fund) as the bank’s largest shareholder owning 25.6% of its capital as of September 2021. The capital is split between foreign (23.6% made up mainly of large institutional investors from Singapore, Hong Kong, and the United Kingdom) and local investors (76.4%).

CIMB is one of Asia’s most pioneering banks regarding efforts to tackle climate change. It was a founding member of and the first ASEAN signatory to the UNEP-FI Principles for Responsible Banking as well as its Collective Commitment to Climate Action, which committed the bank to aligning their portfolios with the goals of the Paris Agreement. Furthermore, CIMB is a signatory to the Net-Zero Banking Alliance. Finally, it is an official supporter of the Task Force on Climate-Related Disclosure (TCFD) recommendations and a member of PCAF (Partnership for Carbon Accounting Financials).

Figure 2. CIMB: Clean energy finance statistics



Policies

CIMB uses an internal taxonomy to classify renewable energy and energy efficiency projects that it recognises as sustainable, under its Green, Social and Sustainable Impact Products and Services (GSSIPS) Framework. This framework helps account for environmental, social and governance factors when designing financial solutions. CIMB has recently committed to mobilise at least RM 30 billion (USD 7.2 billion) of sustainable finance under this framework between 2021 and 2024.

CIMB also has its external sustainable development goal (SDG) bond framework/sukuk framework. One reason for two standards is to accommodate developing country/emerging market context that can be missing from international standards. For energy emissions intensity, green projects are those

⁶ Based on exchange rate of USD 1 to MYR 4.183.

for which direct emissions are less than 100g of CO₂ per kWh. For energy efficiency, green projects are those for which a threshold of 15% energy savings is used. The framework supported the launch of a USD 680 million SDG bond in 2019, with proceeds fully allocated to financing positive impact opportunities such as renewable energy and energy efficiency. CIMB has also recently priced its USD 500 million RegS/144A SDG Bond in January 2022, marking the first ever RegS/144A Bond to be issued by a Malaysian bank in the international capital markets.

Lending and capital raising via debt and equity capital are also governed from a risk policy and exclusion list basis that identifies what will not be financed. CIMB has one of Asia's most progressive coal policies, which prohibits asset-level or general corporate financing for new thermal coal mines and coal-fired power plants, as well as expansions, except where there is an existing commitment. CIMB has set a target to exit coal completely by 2040.

Clean energy is important to CIMB from a commitment, risk management and business strategy point of view. To support this CIMB has sponsored the developed of relevant research which is publicly available.

Processes

Characteristics of a good renewable energy project for CIMB remain much the same as a traditional energy project. Evaluation is focused on robust cash flow analysis and projects must yield sufficient cash flow to cover the longer payback period associated with renewable energy projects. Some emerging technologies are seen as difficult to assess because of the extent they are either improving or emerging, particularly over the short term, as well as the shorter track record of many renewable energy companies.

This creates difficulties when attaching value to risk. One solution to this is government guidance on the technologies as well as incentives (financing schemes for green technology) for their adoption. Additionally, assessment of the "greenness" of a project can benefit from a second party opinion which ensures an independent, objective and expert view. These can be prohibitively expensive for local issuers, especially those with lower amounts of debt financing. However, the negative impact of these can be offset by schemes that subsidise the cost of utilising second party opinions.

People

Group Sustainability exists as a separate division with a Group Chief Sustainability Officer reporting to the group CEO. The Group Sustainability Division has a regional operating model with teams in Indonesia, Singapore, Thailand, Cambodia and country representatives in Viet Nam and the Philippines. These teams report to a Group Head of Sustainability.

As part of CIMB's Forward23+ Strategic Plan (2019-2024), sustainability key performance indicators have been embedded across business units and key enablers across operations and the organisation. This ensures that everyone across the organisation is invested and committed to sustainability outcomes. The key performance indicators (KPIs) of selected senior management, including the Group CEO, have been linked to sustainability performance since 2019.

The Group Sustainability Division has an important role engaging with other teams to raise awareness and build technical capacity on sustainability and sustainable finance. CIMB also adopts a strategy of raising external capacity and awareness which it implements through active participation in domestic initiatives such as the regulator-driven Joint Committee on Climate Change and the private sector CEO Action Network, as well as through global and regional initiatives such as UNEP FI Net Zero Banking Alliance, and CIMB's own annual sustainability conference, The Cooler Earth. Demand for training and

engagement has increased in line with linking performance and reward mechanisms to sustainability KPIs.

Products

CIMB has witnessed reduced demand for carbon intensive projects within the bond market with investors increasingly looking for SDG related opportunities. Although no price-differential currently can be observed, this is expected to change in line with the development of ESG related funds and as awareness among local investors improves.

A number of green financial products are offered to corporate clients including: 1) green financing for initiatives providing environmental benefits such as reducing greenhouse gas emissions; 2) sustainability linked loans with interest rebates tied to achievement of ambitious, predetermined sustainability performance targets (currently more than RM 1 billion accepted by clients, out of the RM 3 billion committed by CIMB in 2020); 3) sustainable bond/sukuk where bond proceeds can be used for social and/or green activities, such as renewable energy; 4) sustainability linked bond/sukuk where bond issuers pledge to improve performance against agreed ESG targets, success of which is reflected in the coupon paid to investors; and 5) transition financing/bond/sukuk which support clients in “brown” or carbon intensive sectors to implement specific transition projects required to transition towards cleaner options e.g. natural gas-powered cogeneration plants with a clear transition plan to renewable sources.

CIMB also has products for renewable energy financing for SMEs because it saw this as a gap in the market into which it could expand and gain new business. This includes SME renewable energy financing which enables SMEs to finance purchases of solar PV systems with an Industrial Hire Purchase facility. This product is backed up by a commitment of RM 100 million (USD 24 million), with a maximum loan amount of RM 500,000 (USD 120 831) over a 10-year tenure period. CIMB is also working in partnership with the Private Financing Advisory Network (PFAN), a global network of climate and clean energy financing experts offering coaching to renewable energy, clean technology and energy efficiency project developers in emerging markets.

For retail clients, CIMB offers financing for green homes under which clients benefit from preferential rates when they purchase homes that have been certified by Green Building Index (GBI), GreenRe, Leadership in Energy and Environmental Design (LEED) or BCA Green Mark.

Beyond financial products, CIMB also has tools that help potential clients understand the benefits that energy efficiency and renewable energy investments can have. CIMB’s GreenBizReady programme was developed as a comprehensive solution to help SMEs transition towards sustainability, such as reducing their carbon footprint, in line with global standards and best practices. The programme has been allocated RM 250 million (up to 2024) and includes the support of CIMB’s strategic associates that will enable SMEs to participate in programmes, activities and mentorship.

Portfolios

CIMB has committed to achieve net-zero scope 3 greenhouse gas emissions by 2050, and net-zero scope 1 and 2 emissions by 2030. It is currently undertaking transition risk analysis for a number of carbon-intensive sectors using the Paris Agreement Capital Transition Assessment tool developed by the 2° Investing Initiative (2DII). One of the scenarios considered most during assessment is the IEA’s World Energy Outlook Sustainable Development Scenario which is seen as reflecting the regional context. Other tools being piloted include the Oliver Wyman Transition Check tool and PCAF (Partnership for Carbon Accounting Financials) for financed emissions measures.

Sustainability risk, including climate-related physical and transition risks, has been classified as a key risk for CIMB, and is integrated into the Enterprise Wide Risk Management Framework, Group Risk Library, Group Sustainable Financing Policy, and the Non-Retail Group Credit Risk Policy. This ensures future climate-related risks are considered during risk assessments in business planning, policy formulation, risk appetite setting, product development and credit approval processes from the very outset.

CIMB has set aside a RM 30 billion (USD 7.2 billion) target for 2024, though this is for overall green social and sustainability products and services. Sub-targets for renewable energy and energy efficiency have not yet been set but are expected to be set soon when transition risk analysis is completed and RM 100 million has been allocated for solar PV installations by SMEs (see Products section above).

[CIMB and commitments to international banking initiatives](#)

CIMB has utilised multiple international banking initiatives such as UNEP FI Principles for Responsible Banking, Collective Commitment to Climate Action, and more recently its Net-Zero Banking Alliance to fast-track internal efforts to integrate sustainability as a core business strategy. The various international commitments and groups which CIMB has joined have provided CIMB access to capacity building opportunities as it became part of a wider group of banks attempting to resolve problems as a community-of-practice, opening up space for CIMB to learn first-hand from leading banks around the world.

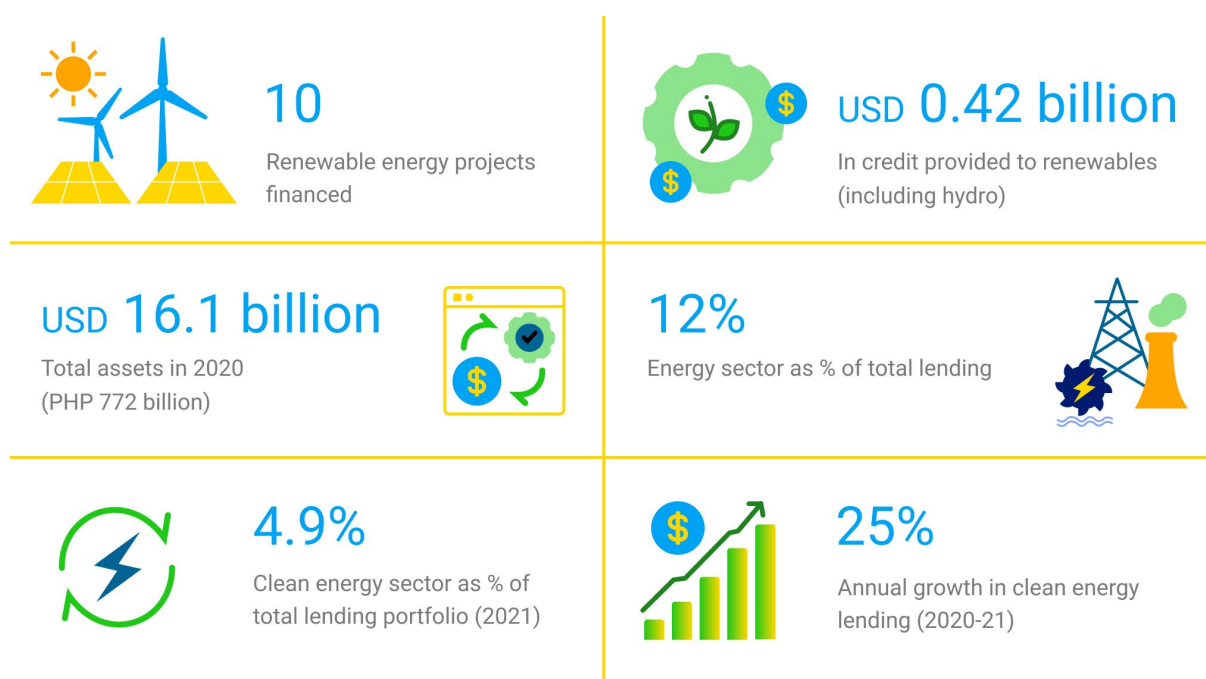
It has helped to ensure sustainability receives the recognition it deserves internally and keeps sustainability issues on the agenda. It also helps with target setting, ensuring local and global context is considered, and that target setting is in line with external stakeholder expectations.

Philippines - RCBC

RCBC is a mid-sized bank in the Philippines. RCBC has PHP 772.1 billion (USD 16.1 billion⁷) in total assets and PHP 491.3 billion in outstanding loans (USD 10.2 billion) in 2020. It is the eighth largest Filipino bank in terms of total assets and has a market capitalisation of PHP 41 billion (USD 0.85 billion). RCBC's largest shareholders are the Yuchengco Group, owning 41.72% of its common shares and the Cathay Pacific Life Insurance Corporation with 23.35%. The International Finance Corporation, part of the World Bank Group, owns 5.57% of RCBC's common shares.

RCBC expects market conditions to move increasingly in favour of renewable energy following the National Government's Department of Energy coal moratorium declaration. It has taken a leading role in financing some of the country's biggest renewable energy projects and is defunding new coal-fired power plants in the country. RCBC notes that the costs of renewable energy have decreased and in some instances are already cheaper than coal, with some investors associated with coal-fired power plants already moving towards renewable energy. RCBC has moved ahead of regulations from their national government and regulator, instead learning from leading regional peers in anticipation that additional government and regulator policy measures will be forthcoming, and in direct response to investor requests.

Figure 3. RCBC: Clean energy finance statistics



Policies

RCBC has made public the headline detail of their coal policy which is to stop financing for new coal-fired power plants. Existing deals are being left to end naturally and RCBC expect to have exited coal after 10 years has passed. In the future RCBC expect that updates to its coal policy will occur, though not in the short term.

RCBC have their own sustainable finance framework and apply a number of international standards. Firstly, there are the International Capital Market Association's Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines. Secondly, there are the ASEAN Green Bond Standards,

⁷ Exchange rate of USD 1 to PHP 48 at end 2020.

ASEAN Social Bond Standards, and ASEAN Sustainability Bond Standards developed by ASEAN Capital Markets Forum in collaboration with the International Capital Market Association. Finally, there is the Green Loan Principles of the Loan Market Association, the Asia Pacific Loan Market Association and the Loan Syndications and Trading Association. RCBC also uses when necessary the second party opinion from Sustainalytics.

Processes

The fundamentals of assessing renewable energy projects do not differ much from assessing traditional energy projects. However, traditional energy projects come with a need to assess environmental risks in much more detail. External advisors are also appointed as necessary.

RCBC was an early adopter of sustainable and inclusive banking practices in the Philippines having started implementing an environmental and social management system in 2011. Its Sustainable Finance Framework was finalised in 2019. A Sustainable Finance Unit has been created to ensure compliance and oversee implementation. Within the environmental and social management system, environmental risk categories are assigned and credit approvals obtained in accordance with risk category related requirements. Validation is provided by the Environmental and Social Risk Officer who can override recommended assessments of environmental and social risk. Lastly, an internal audit process serves as the third line of defence, conducting reviews on environmental risk classifications.

People

RCBC have hired subject matter experts and train frontline staff on their environmental and social standards. A minimum of four trainings are given per year, though these extend to issues beyond clean energy. Directors through the Corporate Governance Committee undergo RCBC's Annual Continuing Training Program which covers sustainability and are required to complete at least four hours of training. A dedicated clean energy unit does not exist, but the bank fields that sufficient information is seen to exist within specific staff in corporate banking.

Products

The Sustainable Finance Framework utilised by RCBC articulates the strategy to prioritise fund raising and lending to priority sectors and projects that have clear environmental and/or social benefits. Sustainable Financing Instruments include green bonds, social bonds, sustainability bonds, green loans and other debt financing instruments which fund eligible green and social assets. Current demand for these types of instruments remains with large clients/corporates. SMEs need more support to realise the potential of the instruments. RCBC is looking at the potential of the household solar photovoltaic market as a possibility for market diversification, acknowledging that such possibilities are not offered by the traditional energy sector.

In 2019, RCBC successfully raised three domestic green/sustainability related bonds. Firstly, it raised PHP 15 billion (USD 290 million) via the issuance of a green bond which was the first from the Philippines under the ASEAN Green Bond Standards. Secondly, it raised PHP 8 billion (USD 160 million) via the issuance of a sustainability bond which was the first peso-denominated bond under the ASEAN Sustainability Bond Standards. Finally, it raised an additional USD 300 million under its Sustainable Finance Framework to fund eligible green and social assets. Investor response to these landmark transactions was considered as extraordinary with excess demand still untapped.

Portfolios

As reported in its 2020 Sustainability Report, renewable energy and energy efficiency comprises 38% and 11% of RCBC's total sustainable portfolio respectively. The renewable energy sector is one which RCBC is placing emphasis on capturing and as of the end of 2020, RCBC has extended financing to 10

renewable energy projects (with a combined capacity of about 2 023 MW). At the time the 2020 Sustainability Report was released, twelve prospective renewable energy projects with a combined capacity of 400 MW are being considered for funding.

RCBC is currently immersing itself in the tools which it will require later to comprehensively assess and manage climate risk. For instance, it is working with 2DII and IFC to understand transition risk across its portfolio. Additionally, it has recently signed up as a participant to the Partnership for Carbon Accounting Financials (PCAF) so that it can learn how to calculate portfolio greenhouse gas emissions levels.

In 2019, coal equalled approximately 8% of total loan portfolio, relative to its sustainability portfolio equalling 10% of total loan portfolio. This is monitored monthly and is expected to shift towards clean energy as this component of RCBC's portfolio grows and coal decreases.

[RCBC demonstrates that size is not a barrier to sustainable finance innovations](#)

The economic transition that is central to national decarbonisation efforts will force all banks to adapt. This can benefit smaller banks where their relative size can help them be more innovative and compete with larger competitors.

RCBC has demonstrated that advancing forward with sustainable finance initiatives is achievable by not only the largest banks. The total assets of RCBC are approximately one quarter of BDO Unibank, the largest bank in the Philippines. However, in many respects RCBC outperforms this and other larger banks on internally adopted sustainable finance measures.

This has facilitated RCBC to innovate, such as changing business models and tapping into new investor demand for sustainable investments. RCBC explicitly aims to increase the positive investment ratio of its sustainable portfolio relative to coal, align business strategy with national priorities, and manage its portfolio to create more value and benefits to its stakeholders. RCBC has already issued one green and three sustainability bonds to date (inclusive of the Php17.87 billion Sustainability Bond issuance in March 2021). This has quickly enabled its sustainable portfolio to outgrow coal investments and other fossil fuel energy assets.

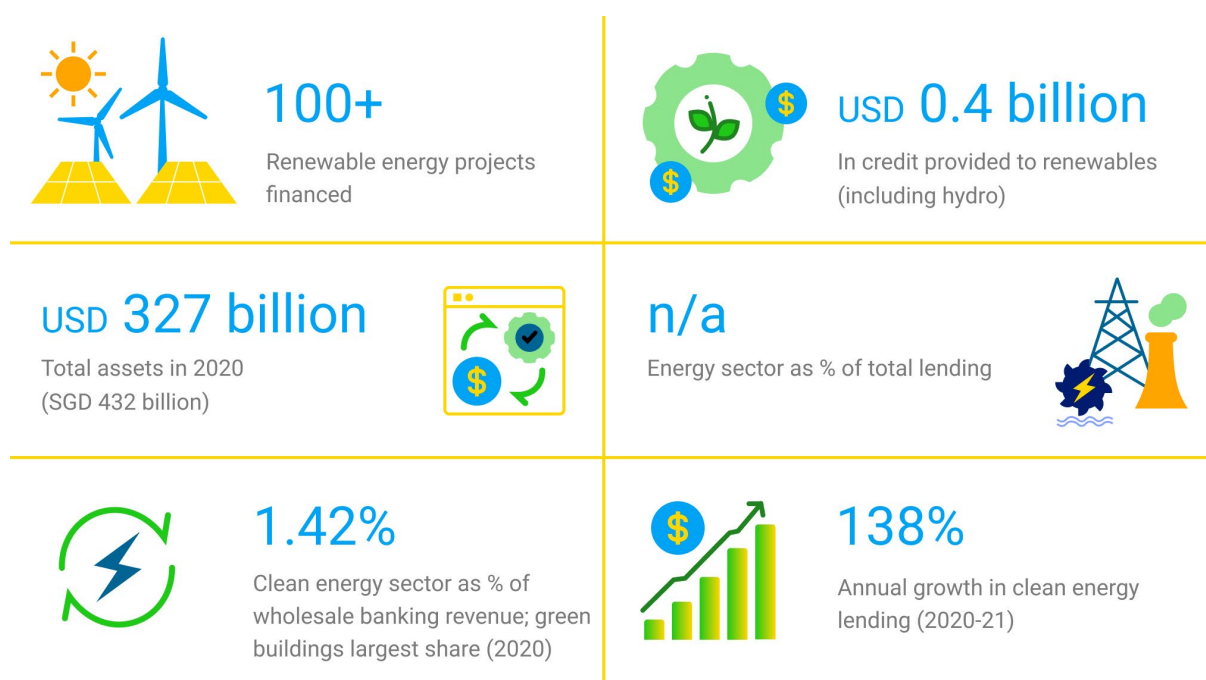
Singapore - UOB

UOB is one of ASEAN’s largest banks and one of Asia’s leading SME banks. UOB operates across eight ASEAN countries and is headquartered in Singapore. UOB has SGD 432 billion (USD 327 billion) in total assets and SGD 281 billion in outstanding loans (USD 213 billion) in 2020. The bank is the fifth largest publicly listed company on the Singapore stock exchange with a market capitalisation in 2020 of SGD 38 billion (USD 29 billion). Its shareholder base is well-diversified, spanning institutions, strategic shareholders, retail investors and corporates. Institutional investors form the largest shareholder group at 46% of its shareholdings, followed by strategic shareholders at 28%, among whom are members of the Wee family who originally founded the bank.

Clean energy is a significant and growing component of UOB’s current lending portfolio, with energy efficiency being a leading component. UOB is keen to expand its lending to renewable energy and energy efficiency projects.

UOB has officially supported TCFD recommendations since 2019. Responses to recommendations are led by a multifunctional working group comprising senior leaders across the bank who actively implement its sustainability strategy. It is also an adopter of the Equator Principles, which serve as a common risk management framework for financial institutions to identify, assess and manage environmental and social risks regarding project finance and project-related corporate finance.

Figure 4. UOB: Clean energy finance statistics



Policies

In view of the elevated climate risk, UOB discontinued financing of new coal fired power plant projects and prohibited the project financing of greenfield thermal coal mines in 2019. In the absence of a globally, regionally and nationally agreed taxonomy, UOB is working with partners to align the bank’s definitions with market standards. UOB is engaging in the definition of the ASEAN and Singapore sustainable finance taxonomy and using the EU taxonomy as a basis with adjustments for regional specificities.

The application of non-recourse finance for renewable energy differs across the various markets which UOB operates. Diverse market conditions and differing national characteristics influence its application, examples of which include: 1) renewable energy policies within the country context; 2) clear regulatory structure and recognition of the sanctity of private sector investments, 3) market maturity in terms of project bankability, 4) robustness of physical infrastructure (for example grid stability and reliability) and 5) depth, breadth and accessibility of various capital markets for investors and developers alike.

Processes

UOB considers the characteristics of a good renewable energy project to be one where the client has clear objectives and is aware of investment implications, as well as processes. Simply wanting to install solar or energy efficiency improvements because of growing trends can potentially indicate that clients are not positioned to capture the full economic benefits of their investment. Through UOB's programmatic approach these issues are addressed, and bankability is made more likely. The impact must also be clearly measurable. This can be demonstrated through assessing the cash flow to be generated by the renewable energy or energy efficiency project is more than sufficient to cover operating costs and debt service obligations under the renewable energy financing. The borrower will also be required to provide an annual reporting on the renewable energy produced or energy savings achieved.

People

Sustainability is headed by a Chief Sustainability Officer. UOB has a dedicated ESG team with clear roles and responsibilities to ensure effective implementation of its ESG policies and strategy. UOB does not have a dedicated clean energy unit as it drives efforts through its specialised internal "sector solutions groups". Relationship managers work with the relevant internal expertise and investment banking product teams to structure and document financial terms.

UOB maintains a strong focus on capacity building across the region. All UOB staff in relevant roles are trained in its Responsible Financing Policy and processes, including board members and staff in various boards across its subsidiaries and its ESG Committee. Senior bank management stay abreast of key developments and sustainability indicators are also integrated into the staff performance appraisal process. Specific additional training for staff is provided as and when required. This programmatic approach enables specific expertise across the bank to be utilised when required reducing the need for widespread training on specific topics.

Products

UOB adopts a central umbrella approach applied across all of UOB subsidiaries instead of a product-by-product approach. Four umbrella frameworks have been set-up: 1) real-estate; 2) smart-city;⁸ 3) green circular economy; and 4) green and sustainable trade finance framework. UOB is currently setting up a fifth framework dealing with carbon intensive and hard to decarbonise sectors. Corporate reporting is standardised under the frameworks to avoid greenwashing and commonalities. Relevant second party opinions are sought for frameworks.

The framework approach utilised standardises and simplifies the focus on sustainability across the bank. The system was setup to scale up existing programmes so clients can get more green loans without requiring them to set-up their own framework. UOB does not charge for the framework. The

⁸ The smart-city framework is built-upon seven pillars: 1) renewable energy (solar, wind, mini-wind, and geothermal); 2) green building construction; 3) energy efficiency; 4) green transport (covering both private and public transport); 5) water; 6) waste; and 7) climate change adaptation (CCS, hydrogen).

framework saves clients time and money and supports their sustainability journey. The UOB framework is one of the first frameworks approved under Monetary Authority of Singapore green and sustainability linked grant. The cost of financial services under the four green umbrella frameworks is approximately 5-10% less than traditional services and UOB is already starting to witness a trend towards more appetite and desire for green projects.

Renewable energy as a proportion of total energy portfolio is approximately 17% (2020). The bank aims to have a sustainable finance portfolio of SGD 20 billion by 2025. Currently the bank is at SGD 17 billion. The largest share is in green buildings.⁹

Portfolios

UOB conducts forward-looking scenario transition risk assessment. It started with qualitative assessments utilising the Sustainability Accounting Standards Board's (SASB) Materiality Map and Moody's Environmental Risks Global Heatmap. However, it is building upon this by piloting a sample of its clients and three carbon price scenarios as part of a bottom-up analysis to assess impacts on client financials. UOB will further build its experiences with ever more complex assessments as capacity, data, and requirements increase. The insights from the analysis enables UOB to understand and manage the risks and opportunities associated with climate change over short-, medium- and long-term horizons.

UOB acknowledges that a significant shift is taking place in the ASEAN region with renewable related new energy capacity surpassing traditional energy in 2017. The bank is being presented with more renewable energy projects as time progresses. UOB expects that renewable energy will comprise 60-65% of total generation in the ASEAN region by 2050, with wind and solar comprising 75% of the energy mix, in line with IRENA/IEA estimates.

UOB U-Solar and U-Energy Programme

The U-Solar and U-Energy programmes offered by UOB are Asia's first fully integrated solar energy financing platform and integrated platform for the adoption of energy efficiency projects for building owners. Through the platform, UOB maximises the benefits of adopting a value-chain approach, promoting awareness and co-ordination across developers, contractors, operators, and end-users.

The U-Solar programme addresses the lack of awareness of potential customers of the benefits of solar energy, especially if energy generation is not their business. Importantly, this includes providing potential customers specific information of the economic benefits of integrating solar into their business. The result is that customers can integrate high quality solar systems faster and cheaper which drives adoption. The programme proactively targets local champions or partners to drive its growth. UOB provides working capital and financing to cover the associated costs. Clients benefit from reduced energy costs which often provides them an additional source of income as excess produced energy can be sold back to the grid. The programme was started in October 2019 and has generated over 210 GWh of solar electricity across 137 clients and avoided 113,000 tons of CO₂e emissions.

The U-Energy programme simplifies the adoption of energy efficiency technologies for building owners by connecting them to energy service companies and financing options. The supported building types are data centres, hotels, industrial buildings, mixed developments, office buildings, public buildings and retail buildings. The types of technologies supported by the programme and its partners are space cooling systems, chillers, elevators, energy and power management systems, façades and lighting control systems. Two contracting models are offered: direct purchase whereby

⁹ Green mark gold+ or better

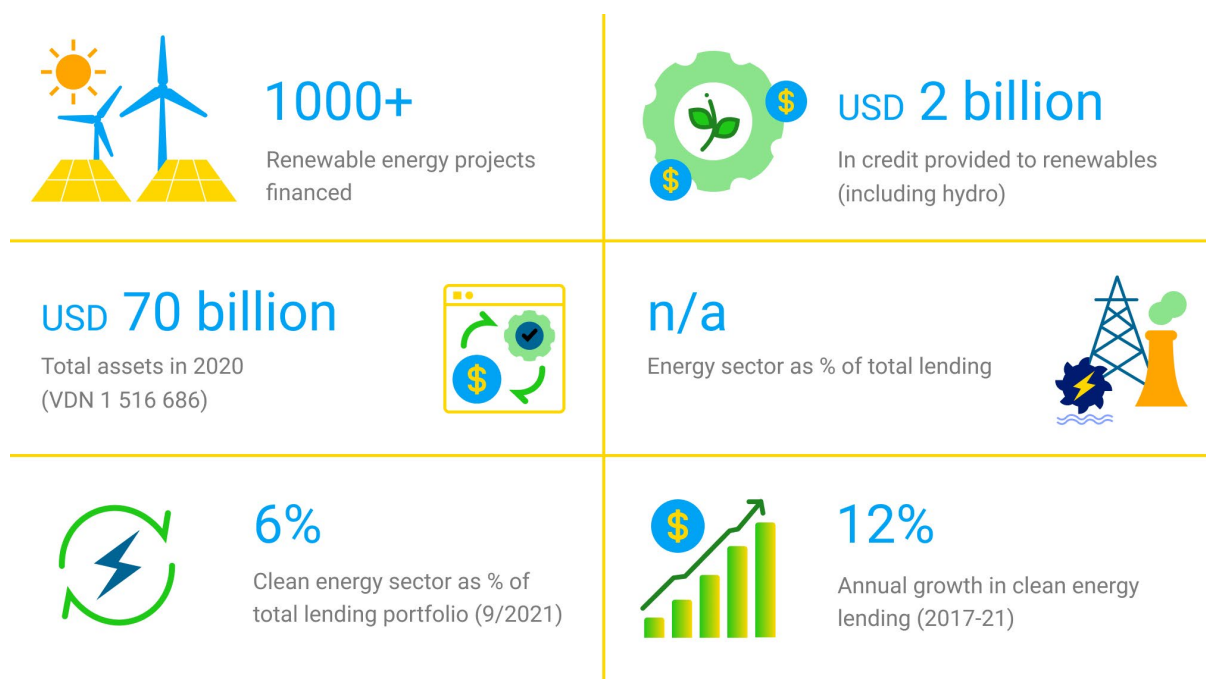
technologies purchased are directly owned and financed via green loans; and an energy-as-a-service option whereby no upfront financing is required and instead clients have the option to buy-out equipment or systems during or after the contractual period. The U-Energy programme was officially launched in Singapore (October 2021) and in Malaysia (December 2021) and will be progressively roll out to Thailand and Indonesia. U-Energy has resulted in estimated energy savings of 22.5GWh.

BIDV - Viet Nam

BIDV is Viet Nam's largest state owned bank and one of the leading commercial banks in the country, with VND 1 516 trillion (USD 70 billion) in total assets and VND 1 230 trillion in outstanding loans (USD 54 billion) in 2020. The bank is the fifth largest publicly listed company on the Viet Nam stock exchange with a market capitalisation in 2020 of VND 193 trillion (USD 8.5 billion). The State Bank of Viet Nam is the bank's largest shareholder owning 81% of its capital, followed by KEB Hank Bank from Korea with a 15% share and the remaining 4% held by domestic (1.6%) and international shareholders (2.4%).

As one of the country's leading banks for green finance, BIDV is one of the largest domestic lenders to renewable energy and energy efficiency projects. BIDV's clean energy portfolio has benefited from close collaboration with a number of multilateral and bilateral development finance institutions including ADB, WB, EIB and AFD. This collaboration has included the provision of funding for clean energy projects, as well as capacity building and training support to develop internal capacity for clean energy project evaluation within the bank.

Figure 5. BIDV: Clean energy finance statistics



Policies

BIDV strongly advocates and adheres to government policy and national targets and strategies, including the country's sustainable development strategy. The recent announcement by the Prime Minister of Viet Nam at COP 26 of a net zero target by 2050, and a commitment to phase out coal-fired generation will require accelerating the transition of the energy mix towards more renewables as well as implementation of energy efficiency and conservation measures. Continued growth of BIDV's clean energy portfolio will be key to meeting the bank's sustainable development strategy.

BIDV follows SBV regulation on sustainable finance definitions and submits an annual report on its sustainable finance lending as outlined under SBV document 9050/TT-NHNN. The bank's clean energy finance lending strategy supports the country's renewable energy strategy and over the last six years, BIDV has been rapidly building up its clean energy portfolio, reaching 4% of BIDV's total lending in September 2021.

While no official exclusion policy is currently in place on coal financing, BIDV has not approved any new long-term coal-fired power plant projects since 2015. Since 2015, at the beginning of each year the Board of Directors has not increased credit limits for coal and other polluting projects with similar effects as exclusion policies adopted by other banks in the region. This has effectively reduced BIDV's credit exposure to coal each year, which has fallen from 0.7% in 2015 to 0.3% in Sept 2021.

In addition to increasing the share of renewables and energy efficiency in its lending portfolio, BIDV is also interested in financing LNG and gas fired generation projects. The bank is exploring opportunities to co-finance with larger offshore lenders a gas project to gain project appraisal experience. With significantly lower emissions intensity than coal, BIDV sees gas as an important transition fuel that is needed to maintain stability of the power market and help integrate higher shares of variable renewables.

According to the country's latest draft of the Power Development Plan 8, the outlook for electricity demand growth will continue to rise sharply with total installed capacity anticipated to reach 93 GW by 2030, 130 GW by 2035 and 160 GW by 2040, from 69.3 GW in 2020. The estimated electricity demand growth in the plan is an average of 8% per year. With hydro power development reaching its limits, the recent cap on new coal development and continued concerns around the suitability of nuclear power for Viet Nam, BIDV expects new power demand to be met with renewables and imported LNG in the future. Recent solar projects financed by BIDV have seen price reductions of about 25-30% and the shift to competitive auctions is expected to lead to further cost reductions.

Processes

The evaluation process for energy projects covers: 1) compliance with all regulatory requirements from technology specifications to meeting environmental conditions; 2) reliability of the equipment supplier including strict conditions for required operating and maintenance; 3) for FDI projects an environmental and social report preferably from an established independent advisor; 4) cash flow evaluation from a financial advisor to confirm the economic viability of the project; and 5) adequate insurance coverage to mitigate project risks.

Compared to traditional fossil fuel projects, additional attention will be paid to financial evaluations and potential risks such as curtailment that could impact project assumptions and future cash flows. The variable nature of solar and wind projects, in particular, and insufficient performance data as a relatively new generation source, increases its perceived risk given the potential of larger potential fluctuations in annual generation over the lifetime of a project. In contrast, the dispatchable nature of fossil fuel plants and longer operating history are seen as offering more predictable cash flows and are viewed as being less risky from an operational perspective. BIDV considers that the potential for large fluctuations in annual generation over the lifetime of a project, could lead to longer payback periods.

As a relatively new technology in Viet Nam with limited performance history, solar and wind technologies are considered riskier than traditional power plants. Lack of familiarity with wind technologies and the rapid changes seen in turbine sizes over the last few years create additional barriers to financing renewables, as the bank's confidence in the technology is lower than with more established technologies. The relatively larger size of wind farms and higher financing requirements may limit BIDV's capacity to directly finance such projects, unless they are structures in club deals to reduce the bank's overall exposure to a single project and shortage of long-term capital. Other risks highlighted for variable renewables include the impact on the natural environment, noise pollution and the recycling of solar modules at the end of their useful life.

People

BIDV's clean energy financing activities originate from domestic corporate clients and the foreign direct investment (FDI) department with dedicated project finance teams. Within these departments, the bank has staff working exclusively on project financing, many of the projects are renewables energy. In October 2021, as BIDV recognized the importance of a dedicated project financing unit, the Project Financing Department is established with a dedicated unit for energy project financing, which includes renewable energy. On the other hand, demand for energy efficiency financing is virtually absent and hence the bank's focus has been on renewable energy financing and building staff expertise in that sector. While BIDV recognizes the importance and potential for energy efficiency investments, client demand for financing is lacking and developing expertise for energy efficiency project appraisal will first require a focus on demand creation.

Developing staff capacity for clean energy project evaluation has been a priority for the bank and BIDV staff have participated in numerous internal and external training programmes provided by a variety of domestic and international organisations. In August 2020, BIDV published an internal handbook and guidelines for solar and wind project evaluation to support capacity development and to facilitate project evaluation and due diligence by bank managers. These guidelines include a list of approved solar and wind equipment suppliers with preference given to well established suppliers with strong track records for installation, operation and maintenance.

Products

BIDV's clean energy financing covers both direct lending for renewable energy and energy efficiency projects and the provision of guarantees for offshore lending (see next section). The bank is also working with ADB on the potential to bundle its large clean energy portfolio for a green bond issuance and recycle the capital raised to new projects. However, the lack of a green bond structured framework (in particular, there is a need for the existence of independent certifying agencies/entities on green bond criteria) requires the implementation of new regulation by SBV to support the development of this market. In addition to issuing its own green bond for capital raising, BIDV could also support domestic issuances in the local market for corporates.

Portfolios

The development of BIDV's clean energy portfolio has benefited from the provision of foreign capital in a variety of on-lending programmes sponsored by the European Investment Bank (EIB), French Development Agency (AFD) and the World Bank (WB) that has helped to build the banks experience in financing clean energy projects. This includes a USD 100 million on-lending scheme for climate mitigation projects by the EIB, a USD 100 million SUNREF green credit line from AFD, a USD 202 million WB Fund for Renewable Energy Development Project (REDP) to provide preferential loan programme for small and medium sized (up to 30 MW) renewable energy projects as well as a USD 50 million WB Fund for Vietnam Energy Efficiency for Industrial Enterprises Project (VEEIE) de-risking support for energy efficiency from the WB.

While internal research by BIDV's research institute have developed internal studies for management on climate risks of the bank's portfolio, a dynamic assessment of the bank's exposure to climate change risks has not yet been undertaken, although BIDV's management is evaluating options to undertake such an evaluation in the future. BIDV has recognized that the bank's exposure to carbon intensive fossil fuel assets poses a future risk and as a result has not approved any coal fired power plant project in the last six years. The bank is prioritising the financing of zero and low emissions energy supply technologies such as renewable energy and gas fired projects over traditional coal fired plants.

BIDV's credit allocation table has restricted financing for coal investments while increased its allocation towards clean energy projects.

BIDV's guarantee scheme for offshore lenders

In Viet Nam, domestic financing costs remain high with lending costs typically in the range of 8-11%. This has led to comparatively higher renewable energy costs than in other markets where financing costs are substantially lower. As BIDV's direct lending portfolio has grown rapidly over the last five years, the banks capacity to continue growing its renewable portfolio will face liquidity limits. This is particularly the case for large renewable projects of 50 MW or larger, where today BIDV has already directly financed about 40 larger projects. Renewable project sizes will continue to grow as the country expands its on and offshore wind potential with financing needs for offshore wind beyond the capacity of domestic banks.

To take advantage of lower financing costs from international lenders and to access larger pools of capital needed to finance the country's growing renewables market, BIDV has also been expanding its role as a guarantor to offshore lenders. By providing guarantees to improve the international bankability of power purchase agreements, the bank will be able to continue expanding its renewable energy finance activities and at the same time benefit from the technical knowledge and experience of these offshore lenders. BIDV's strong track record in financing solar projects and as the largest state-owned commercial bank it is well placed to manage risks that international lenders are not able to manage such as off-taker, curtailment and policy risks.