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CREDIT OPINION
8 August 2019

Update

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RATINGS

Ratch Group Public Company Limited

Domicile	Thailand
Long Term Rating	Baa1
Type	LT Issuer Rating - Fgn Curr
Outlook	Positive

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Ratch Group Public Company Limited

Update following affirmation of Baa1 rating, outlook changed to positive

Summary

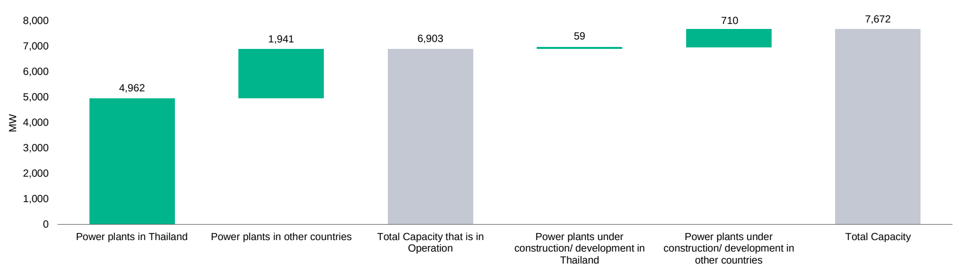
On 30 July, we affirmed Ratch Group Public Company Limited's (Ratch) Baa1 rating and changed the outlook to positive from stable, in line with the rating action on the Government of Thailand (Baa1 positive). Ratch's credit quality benefits from the strong relationship with its parent, the Electricity Generating Authority of Thailand (EGAT), which is 100% owned by the Government of Thailand. Ratch's credit profile factors in its strong and strategic position as Thailand's largest independent power producer (IPP). Ratch's credit quality is also supported by its sound business profile, which is underpinned by its power purchase agreements (PPAs).

On the other hand, the company's overseas expansion strategy and sizable capital spending plan could lead to increased execution and development risks, and could create pressure for its credit profile. Sizable debt exposures at its joint ventures (JVs) also strain Ratch's adjusted credit metrics, which incorporate its pro rata share in the JVs.

Exhibit 1

Ratch's capacity - current and under construction

Of Ratch's capacity, 28% consists of power plants located outside of Thailand, and 92% of its current power plant developments are focused on overseas markets



[1] As of March 2019.
Source: Ratch

Ratch's rating incorporates a one-notch uplift, reflecting our expectation that EGAT, which owns a 45% stake in Ratch, will provide support to Ratch in times of stress. EGAT's credit profile is stronger than that of Ratch.

Credit strengths

» Strategic importance to Thailand's power sector because of its position as the country's largest IPP

» Long-term PPAs and secure fuel supply, which support stable performance

» Close links with and expected support from its parent, EGAT, a state-owned power generation company

» Moderate credit metrics because of sizable capital spending and JV exposures

Credit challenges

» Uncertainties associated with expansion strategy outside Thailand and the non-power sectors

Rating outlook

The positive rating outlook is consistent with the rating of the sovereign, which is the 100% owner of Ratch's parent, EGAT, and also reflects our expectation that Ratch will maintain a prudent financial profile as it pursues growth.

Factors that could lead to an upgrade

An improvement in Ratch's standalone credit profile will not automatically result in an upgrade of the rating. However, the ratios that we would consider for an upgrade in Ratch's standalone profile include adjusted funds from operations (FFO)/debt increasing above 25% and FFO/interest staying above 4.5x (both based on pro rata consolidation of JVs) on a consistent basis.

A sovereign rating upgrade could trigger a review of Ratch's rating because its operations and credit profile are closely linked to those of EGAT and therefore to Thailand's sovereign rating.

Factors that could lead to a downgrade

The rating could be downgraded if Ratch's credit strength deteriorates substantially, which could be because of aggressive debt-funded investments or a material increase in its business risk profile, likely because of overseas expansions or a material increase in regulatory risk.

The key metrics that we would consider for a downgrade include adjusted FFO/interest coverage below 2.5x and adjusted FFO/debt below 10%, on a sustained basis. The ratios are based on figures that take into account Ratch's JV exposures.

A downgrade of Thailand's sovereign rating or a reduction in EGAT's stake in the company would also be negative for Ratch's rating.

Key indicators

Exhibit 2

Ratch Group Public Company Limited

	31/12/18	31/12/17	31/12/16	31/12/15	31/12/14
(CFO Pre-W/C + Interest) / Interest (3 year average)	8.1x	8.4x	8.4x	7.6x	6.3x
(CFO Pre-W/C) / Debt (3 year average)	35.4%	43.2%	43.8%	42.0%	34.4%
RCF / Debt (3 year average)	22.7%	27.7%	28.8%	26.9%	22.3%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. The ratios do not account for pro rata share in the JVs.
Source: Moody's Financial Metrics™

Profile

Founded in 2000, Ratch Group Public Company Limited (Ratch) was established to purchase power plants from its parent, EGAT, the state-owned power generation company.

As of March 2019, Ratch's key operations were in Thailand, Laos and Australia, with a total installed capacity of 6.9 gigawatts (GW), of which almost 5.0 GW was from power plants in Thailand.

The 5.0 GW accounted for almost 12% of Thailand's total power generating capacity as of June 2019, with EGAT as the major buyer. About 87% of the company's domestic capacity comes from its 99.99%-owned subsidiary Ratchaburi Electricity Generating Company Limited. The remainder is from its JV companies.

Ratch has about 0.8 GW under construction and development, which will increase its capacity to 7.7 GW by 2021.

Ratch was listed on the Stock Exchange of Thailand in 2000. EGAT, which owns a 45% stake, is Ratch's largest shareholder and the sole off-taker of its power generation capacity.

EGAT is fully owned by the Thai government and is mainly involved in the generation and transmission of energy throughout the country.

Detailed credit considerations

Strategic importance to Thailand's power sector

Ratch will continue to benefit from its strategic importance to the country's power sector, given its position as the largest IPP in Thailand by installed capacity and its established operations.

Thailand's growing energy needs have led to increased reliance on IPPs and energy imports from neighboring countries, and Ratch is likely to benefit from the projected steady growth in electricity demand over the next three to five years.

The growth in domestic generation capacity has slowed down in recent years as a result of increasing electricity import and steady growth in electricity demand. As of June 2019, around 9% of total capacity was imported from neighboring countries. This figure will rise as projects in neighboring countries commence commercial operations.

Thailand's Power Development Plan (PDP 2018-37) focuses on increased contribution from gas-fired power generation and reduced reliance on coal power generation. Ratch's operations are key to Thailand achieving the targets set under PDP 2018-37. The plan targets to increase the country's generating capacity to 77.2 GW by year-end 2037.

As of June 2019, Ratch's attributable generation capacity accounted for around 12% of Thailand's total capacity. Further, Ratch's expansion to the neighboring countries also supports the government's promotion of imported electricity.

Long-term PPAs and secure fuel supply support stable performance

Ratch's long-term PPAs and secure fuel supply will remain the key credit strengths of its rating. The PPAs are robustly structured to limit the impact of fluctuations in both fuel costs and foreign-exchange rates, as well as changes in demand and the company's debt-servicing ability.

The unique characteristics embedded in PPAs differentiate Ratch from other rated unregulated power companies, which usually exhibit high exposure to wholesale price volatilities.

As for its fuel supply, the company has secured stable gas supplies to meet its obligations under the PPAs, through gas sales agreements with PTT Public Company Limited (Baa1 positive).

Currently, over 87% of Ratch's capacity is secured by EGAT under long-term PPAs, ranging between five and 27 years. The renewable PPAs can be automatically renewed every five years. In addition, 93.6% and 6.4% of capacity from the Hongsa thermal power plant has been contracted to EGAT and the state-owned Electricite du Laos, respectively, under 25-year PPAs.

EGAT has a strong track record of meeting its PPA obligations. As a result, demand is assured and market competition is limited for Ratch's existing operations.

Moreover, under energy payment provisions, Ratch is insulated from fluctuations in fuel input prices, allowing the company to pass through any increases in fuel costs, as long as Ratch's plants meet the agreed heat rates.

Most of Ratch's EBITDA comes from availability payments, which cover the fixed operational and maintenance costs and debt services, plus an agreed return on equity. Availability payments are irrespective of the dispatch of electricity, as long as the power plants are available at the agreed capacity.

Ratch has a solid track record in maintaining high levels of availability, often exceeding plant-specific targets. It has also regularly met targeted heat rates, suggesting that the efficiency of its assets is in line with expectations.

Close links with EGAT result in expected parental support

We expect Ratch to maintain its close links with EGAT, given that the parent is Ratch's single-largest shareholder and the sole off-taker of its existing domestic capacity, as well as its capacity for plants under construction in Laos.

We also believe that EGAT will provide support to Ratch in times of need, given the latter's strategic importance to Thailand's power sector.

Importantly, EGAT also provides operating and maintenance services for most of Ratch's plants and supports the company in environmental management.

Ratch's power plants maintain high performance standards, with minimal forced outages, because of the strong operational support from EGAT.

Another indication of the close link between the two entities is the fact that six of Ratch's 12 board members, including its chairman and CEO, are EGAT representatives. A number of Ratch's key management officers have also previously worked for EGAT.

Our assessment of support from EGAT to Ratch in times of need results in a one-notch uplift to Ratch's rating. During the Asian financial crisis of 1997-98, for instance, EGAT and the Thai government ensured the performance stability and debt-servicing ability of IPPs by restructuring their PPAs to avoid huge foreign-exchange losses.

EGAT also has a strong ability to provide support, given its strong credit profile, which is supported by its role as a strategic state-owned enterprise. This results in a credit profile that is closely linked with that of the sovereign.

Moderate credit metrics because of JV exposures and overseas capital spending

We expect Ratch's financial metrics, including the pro rata share from its JVs, to remain moderate because of its sizable debt exposures at the JV level, as well as the company's plans to develop offshore projects.

Ratch's financial profile, excluding JV adjustments, is sound, given its stable cash flow from established operations and its deleveraging plan during 2012-13, after its acquisition of Transfield Services Infrastructure Fund in July 2011.

However, the consolidated financial profile does not fully reflect Ratch's debt exposure as a JV partner. Ratch's JV debt exposures totaled THB47.2 billion as of year-end 2018. Of this total, around 64% is attributable to the Hongsa project in Laos.

We have included Ratch's JV debt in our assessment of its rating, even though the debt is non-recourse, to reflect Ratch's potential exposure as a JV partner, particularly in instances where a project is of strategic importance to the company.

We expect the company's projected credit metrics to remain appropriate for its Baa1 rating over the next two to three years. Under our base-case scenario, projected FFO interest coverage will measure 3.5x-4.5x and projected FFO/debt will be in the range of 12%-20%, which are within the rating tolerance level.

Ratch's annual capital spending is estimated at THB10 billion-THB12 billion in 2019 and 2020, mainly for the committed projects.

The company is also undertaking separate feasibility studies for projects in Southeast Asia and Australia. These projects, if the company decides to go ahead, will result in additional capital spending, which is not factored in our estimates now.

Uncertainties associated with expansion strategy outside Thailand and non-power sectors

Ratch’s strategy to expand overseas capacity is mainly driven by lack of opportunities to expand in Thailand. Ratch's plan to grow its overseas portfolio will provide diversification benefits, but the increased exposure, especially to developing countries such as Laos and Myanmar, will introduce uncertainties to its credit profile, including execution risks, higher levels of regulatory risk and rising capital requirements.

Ratch recently announced that it intends to increase its generating capacity to 10 GW by 2023. This ambitious growth target will increase its current capacity by 2.3 GW after the inclusion of assets currently under construction and development. The capacity expansion to 10 GW will be via both organic and inorganic routes — mergers and acquisitions — mostly in overseas markets.

The funding structure of Ratch’s updated investment plan will be an influential factor in gauging its impact on the rating. Sizable debt exposures at Ratch’s JVs will strain the company’s adjusted credit metrics, which incorporate its pro rata share in the JVs. If this new investment plan requires aggressive debt funding or is such that it represents a material increase in Ratch’s business risk profile, this will challenge the company’s credit profile.

Ratch now has 769 megawatts (MW) generation capacity under construction and development, which will take its installed capacity base to 7.7 GW by 2021. Ratch’s future growth will be driven primarily by growth in its international business acquisitions and JV partners in countries where such partners have existing operations, such as Laos, Australia and Southeast Asia.

We expect Ratch's business portfolio to exhibit greater geographic diversification by 2021, with 70% of its total capacity coming from plants in Thailand and 30% from overseas markets versus the current 72% and 28%.

The company's Thai operations will remain the cornerstone of its business, providing stable cash flow to fund its growing overseas businesses. As of 2018, around 94% of its total revenue was generated through domestic electricity generation.

Ratch's expansion will entail execution risks, including potential cost overruns or construction delays. It will also require large amounts of funding. Such risks are partly mitigated by the stable recurring cash flow from its operating plants.

As of March 2019, Laos was Ratch’s second-largest market, accounting for 15% of its capacity. Australia is the next largest market at 13%. However, the new projects in Laos are exposed to higher regulatory risk than projects in Thailand and Australia, as the political, regulatory and economic environment in Laos is less developed.

The Hongsa project in Laos is a particularly large project, with a total cost of $3.7 billion, and in which Ratch holds a 40% ownership. This project includes the construction of three generation units, all of which came online between June 2015 and March 2016. The project is secured by EGAT's PPA of 25 years, under which, EGAT is the major off-taker.

The supply risk associated with the project is well managed, as its coal mine is likely to have adequate lignite reserves to meet the power plant's consumption needs. In addition, execution risks will be somewhat mitigated by the company's partnership with Banpu Power, a company with extensive experience in the coal industry.

While the Hongsa project is not covered by political risk insurance, the political risk of the project is partly alleviated by the terms and conditions of the concession agreement.

Any changes in the legal system in Laos that hurt the project company's operations and ability to service its liabilities will constitute a political force majeure event. In such a scenario, the project company can terminate its contract and is entitled to compensation by the Government of Laos PDR under the concession agreements and EGAT's PPA.

Ratch's exposure to Laos and its large capital spending obligations are further mitigated by the fact that Ratch has set up JVs with partners and local governments. In addition, the construction contracts for the Hongsa plants have fixed prices that partly mitigate the risk of cost overruns. In addition, most of the payments and financing for the project are in either US dollars or Thai baht, thereby minimizing foreign-exchange risk.

In July 2018, there was a collapse in the saddle dam of the Xe-Pian Xe-Namnoy (Xe-Pian) hydroelectric power project in Laos, in which Ratch has a 25% stake. The dam is under construction and remains on track to be completed by year-end 2019. An assessment of the damage is still underway; however, any additional costs because of this accident are likely to be borne by the engineering, procurement and construction company SK Engineering & Construction Company, as per the contract terms. The project company for Xe-Pian also has insurance, which will cover part of the costs related to the reconstruction of the project damaged by the saddle dam collapse. Ratch’s stake in Xe-Pian represents 1.5% of its current installed capacity.

Since 2017, Ratch has announced its participation in other projects such as its 49% stake in PT Medco Ratch Power Riau, a combined-cycle power plant project in Indonesia that will start operations in 2021; its successful development of Mount Emerald Wind Farm Pty Ltd, which started operations in 2018; and its investment in a non-power project — the MRT Pink Line Project and the MRT Yellow Line Project — through its 10% stake in the BSR JV. In 2018, Ratch signed a project development agreement for setting up an additional 340 MW hydroelectric power project and acquired a 40% stake in the Sandin Water Supply project, both located in Laos. In 2019, Ratch announced its participation, through a JV, in an underground fiber-optic network project in Thailand.

We will monitor Ratch’s investment strategy in the non-power sectors over time. We expect the company to participate with minority stakes in non-power projects, which should ensure that the relevant financial impact is manageable.

Other considerations

We do not notch down the senior unsecured ratings because of structural subordination, given:

(1) the highly diverse nature of Ratch's subsidiaries and JV investments, which have independent and non-recourse financing,

(2) Ratch's plans to raise more debt at the holding company, at the RH International (Singapore) Corp. Pte. Ltd. (Baa1 positive) level, or both, thereby decreasing the overall concentration of priority debt over time, and

(3) the fair recovery expectation for the creditors through Ratch's major operating subsidiary (namely Ratchaburi Electricity Generating Company Ltd, or RatchGen), which is conservatively leveraged.

ESG considerations

Thailand’s Nationally Determined Contribution under the Paris Agreement targets a reduction in its greenhouse gas emission intensity of GDP of 20% by 2030, relative to the emission intensity of GDP in 2005. In line with positive macroeconomic and sectoral trends toward clean energy, Ratch has set a target of increasing its renewable energy portfolio to more than 20% of the total from the current 13%. We expect carbon transition risk to be manageable, given that coal-fired capacity only forms around 11% of Ratch's current capacity.

Liquidity analysis

Ratch has a strong liquidity profile for the next 12-18 months. As of March 2019, its cash sources comprised sizable cash holdings and short-term investments totaling THB15.5 billion. We expect its operating cash flow to be around THB7 billion-THB8 billion over the next 12 months.

On the other hand, we expect the company's projected cash outlays for the next 12 months to include capital spending of THB10 billion-THB12 billion, as well as THB3.5 billion of dividend payments.

Rating methodology and scorecard factors

Mapping to our Unregulated Utilities and Power Companies rating methodology:

Ratch's business profile is more akin to that of an unregulated power company, given that its business is governed by PPAs, based on bilateral negotiations with off-takers.

Ratch maps to a scorecard-indicated outcome of Baa2 under the methodology, according to the three-year projected credit metrics (2019-21), which incorporate pro rata JV adjustments.

Exhibit 3

Rating factors

Unregulated Utilities and Unregulated Power Companies Industry Grid [1]	FY2018		Moody's 12-18 Month Forward View As of August 2019 [2]	
Factor 1 : Scale (10%)	**Measure**	**Score**	**Measure**	**Score**
a) Scale (USD Billion)	Ba	Ba	Ba	Ba
Factor 2 : Business Profile (35%)				
a) Market Diversification	Baa	Baa	Baa	Baa
b) Hedging and Integration Impact on Cash Flow Predictability	Aa	Aa	Aa	Aa
c) Market Framework & Positioning	Baa	Baa	Baa	Baa
d) Capital Requirements and Operational Performance	A	A	A	A
e) Business Mix Impact on Cash Flow Predictability				
Factor 3 : Financial Policy (15%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	4.2x-8x	Baa	4.2x-8x	Baa
b) (CFO Pre-W/C) / Debt (3 Year Avg)	20%-35%	Baa	20%-35%	Baa
c) RCF / Debt (3 Year Avg)	8%-15%	Ba	3%-8%	B
Rating:				
a) Scorecard-indicated Outcome		Baa2		Baa2
b) Actual Rating Assigned		Baa1		Baa1

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. The ratios also account for investments in JVs.
[2] This represents Moody's forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics™

Ratings

Exhibit 4

Category	Moody's Rating
RATCH GROUP PUBLIC COMPANY LIMITED	
Outlook	Positive
Issuer Rating	Baa1
Senior Unsecured MTN	(P)Baa1
RH INTERNATIONAL (SINGAPORE) CORP. PTE. LTD.	
Outlook	Positive
Bkd Senior Unsecured	Baa1

Source: Moody's Investors Service

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