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CREDIT OPINION
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Marin Clean Energy, CA

Update to key credit considerations

Summary

Marin Clean Energy's (MCE:Baa2 stable) credit profile reflects the economic strength of its underlying service territory spanning the counties of Marin, Napa, most of Contra Costa and the city of Benicia, California. We estimate these cities have a weighted average credit quality of A2. Moody's creditview for MCE considers the strength of the California Joint Powers Agency (JPA) statutes and MCE's JPA agreement which together underpin its business model and fortify its customer base. It also considers the state regulatory and legislative support for the Community Choice Aggregator (CCA) model to advance renewable energy penetration throughout the state.

Exhibit 1
Marin Clean Energy Service Area

Source: Marin Clean Energy

Our view of MCE's credit profile also considers key challenges facing MCE, particularly its ability to sustainably manage power procurement risk given resource production variability and uncertainties about future market structure in California. In addition to power procurement risk, additional challenges facing MCE are the newness of the CCA model within the California market, the continued evolution of the California electric market which continues to be on the cutting edge of change, the unresolved nature of the Power Cost Indifference Adjustment (PCIA) hearings with the investor-owned utilities, which could

impact the cost competitiveness of MCE relative to the local investor-owned utility, and the pressure for MCE to maintain its customer value proposition as a provider of affordable renewable energy, as the business model offers customers choice. MCE's strategy to continue growing and accepting more communities to join its CCA also pose challenges. While it has managed the strong customer growth seen over the last several years well, its ability to contract for resources in support of an expanding customer base also introduces related incremental procurement risk.

The credit profile further acknowledges the January 29th bankruptcy filing by Pacific Gas & Electric Company (PG&E), who acts as the billing and collection agent for MCE and other northern California CCAs. The bankruptcy court approved critical “first-day orders” maintaining preexisting contractual and cash management arrangements between the CCAs and PG&E. Our credit assessment further recognizes the potential long-term market implications that may follow the utility's bankruptcy filing, including possible impacts to the energy landscape and the current role of CCAs in the state. To that end, MCE's rating incorporates our understanding of the current framework for power procurement for CCAs operating in the state, particularly since we believe that the current framework is likely to remain unchanged until PG&E emerges from bankruptcy, which we believe is a several year process. That said, the manner in which PG&E emerges from bankruptcy may change the role of CCAs, which could prospectively affect the direction of their credit profiles.

Credit strengths

- Weighted average credit quality for MCE's JPA participants is estimated at A2
- Statutory strength of the underlying JPA agreement supports the CCA business model
- Track record of sound operational and financial performance, strengthening liquidity position and sound financial policies towards liquidity management
- Article 7 of the MCE-JPA agreement requires a departing municipality satisfy any pro-rata share of its power related obligations taken out on its behalf
- Customer and state policymakers support for CCAs as a vehicle for advancing the state of California's clean energy policies
- Low customer delinquency rates and above average household income for the customer base as a whole; low “opt out” rate that continues with new customer additions
- Full recovery of costs through independent local rate-setting and local control over Integrated Resource Plan
- Continued diversification of energy procurement contracts, including 60 contracts from 33 suppliers
- MCE retail rates are competitive with PG&E

Credit challenges

- MCE has signed large long-term energy purchase commitments relative to the size of its balance sheet and bears remarketing risk for surplus energy should customers depart
- Maintaining increasing liquidity levels in line with customer growth rates
- Evolving nature of the California’s electric industry could lead to regulatory changes and legislative actions that may negatively impact MCE's business model and prospective financial performance
- Ability to manage rate design including allocation of Power Charge Indifference Adjustment (PCIA) costs in a manner that is not detrimental to competitive position given that energy prices plus the PCIA adjustment are at times higher than PG&E's retail rate for generation services

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Rating outlook

The rating outlook is stable, incorporating a view that the CCA business model will remain intact including the statutory and municipal ordinances that permit full cost recovery; that CCAs will continue to enjoy independent local retail rate-setting authority; and that MCE will be able to manage power procurement risk and reach and maintain appropriate liquidity targets that support its growth.

Factors that could lead to an upgrade

In light of the uncertainty that PG&E's bankruptcy may pose on California's electric marketplace and the newness of the CCA model, we see limited near-term prospects for the rating to be upgraded. That said, the potential for a higher rating exists should the following occur:

» Continued trend of sound financial operations with increasing liquidity position, including days cash on hand above 150 days on a sustained basis

» Demonstrate resiliency in response to market changes or economic weakness

» Narrowing or de-risking of power related remarketing risk

» Broader statutory acceptance of the CCA business model

Factors that could lead to a downgrade

» Liquidity profile weakening or lagging the pace of customer growth

» Erosion of cost competitiveness over PG&E's generation rates

» Changes to state policies that weaken CCAs competitive position

» Inability to manage power procurement market risk such that cost volatility, financial losses or customer under-collections occur

» An acceleration of customer opt-out rates

Key indicators

Exhibit 2

Marin Clean Energy Key Financial Indicators

	2015	2016	2017	2018	2019e
Operating Revenue ($'000)	$100,655	$151,665	$181,166	$205,753	$362,289
Operating Expenses ($000)	$96,807	$135,181	$166,618	$199,853	$321,324
Available Cash and Investments ('000)	$10,721	$23,904	$39,416	$36,885	$63,287
Days Cash on Hand	40	65	86	67	72
Adjusted Days Cash on Hand (incl. bank lines)	40	105	131	113	100

*FY 2019 estimates provided by MCE
Source: Moody's Investors Service

Profile

Marin Clean Energy is a Community Choice Aggregator and a joint powers authority formed to reduce energy related greenhouse gas emissions and promote renewable energy penetration in California. It was formed in 2008 pursuant to the California Joint Exercise of Powers Act and provides electric service under the Community Choice Aggregation Program under California Public Utilities Code Section 366.2. The MCE-JPA agreement is the operative document establishing a program locally. MCE supplies clean energy to over 400,000 customers in 2018 in 33 communities spanning the counties of Marin, Napa, Solano (in 2020), and parts of Contra Costa counties. MCE procures energy and capacity for its customers, while PG&E continues to provide transmission and distribution services; its charges appear on the customer's PG&E bill. MCE operates with no local tax funds nor is it required to pay taxes.

Detailed credit considerations

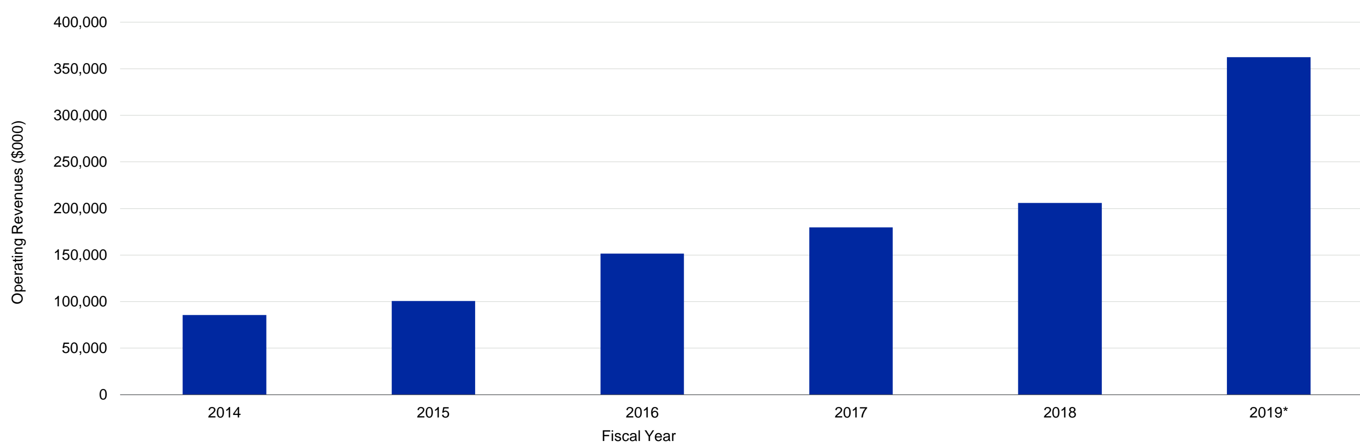
A large and growing customer base in northern California

Marin Clean Energy is among California's largest CCAs with a retail base of approximately 470,000 customers. Its service territory includes the counties of Marin, Napa, most of Contra Costa and the city of Benicia in Solano County, California. It will expand to include the rest of Solano County in 2020. Moody's estimates the weighed average credit quality of the current underlying participants at A2 and view the socioeconomic makeup of the underlying service territory as a key factor supporting MCE's credit rating. About 89% of customers have remained with MCE after the initial automatic enrollment, reflecting a higher opt-out rate than seen for other CCAs. MCE's customer base continues to expand and has more than offset customer opt-out rates.

As MCE starts service in a new community, it must file an Implementation Plan (IP) with the California Public Utilities Commission (CPUC). Pursuant to the IP filed with the CPUC, MCE can enact a "customer cost recovery charge" on individual customers who choose to "opt-out" of MCE after the initial 60 day period and go back to PG&E. The charge could prospectively be used to narrow any revenue shortfall from a departing customer, should it occur. To date, MCE has not assessed this charge on any departing customer's bill, given the very low "opt-out" rates as described above, and the fact that new customer additions have significantly exceeded "opt-out" customers. The basis for this charge is a part of the current state legislative and regulatory board review concerning the allocation of generation charges (PCIA).

Exhibit 3

Growth in Operating Revenues Reflective of MCE Customer Growth



Source: Marin Clean Energy

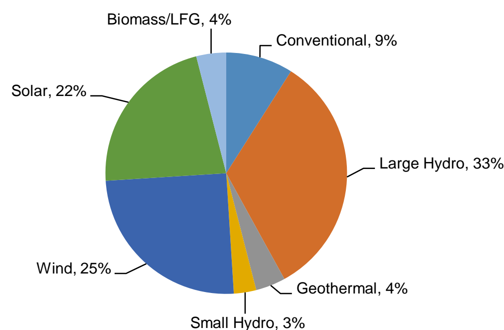
Long-term power procurement is a key risk factor

A particular challenge is the risk that MCE may procure more energy under long term contracts than is needed to serve customer load, forcing it to sell excess energy into wholesale power markets at a loss. MCE has entered into forward purchase commitments for delivery of renewable energy on an as-available basis that aggregates $2.27 billion as of fiscal year-end 2018. In an extreme scenario where there is a sudden decline in customer load, MCE could find itself in an under collected position should contracted power prices paid by MCE under these long-term arrangements exceed wholesale market prices for a sustained period. This scenario, for example, could emerge should a substantially higher than normal number of customers "opt-out" and return to PG&E for their generation product or through sustained technological advances which permanently limit customer load growth.

Importantly, if MCE's participant communities elect to exit the CCA, they are required to compensate MCE for forward power procurement costs under the terms of the JPA agreement. We see this as a key credit strength that reduces the risk of significant procurement exposure. MCE also mitigates procurement risk by layering in contractual arrangements with differing tenors from a diverse list of energy suppliers, by maintaining a net short supply position in the mid to long term, and, in stressed situations, by raising

retail rates on remaining customers if needed. To date, MCE has experienced a moderate level of customer opting-out of its services, with most of migration occurring during the initial 120 day enrollment period.

Exhibit 4
MCE 2019 Estimated Resource Mix



Source: Marin Clean Energy 2019 Integrated Resource Plan

MCE's power supply portfolio is composed of a diverse mix of 90 energy contracts sourcing energy including renewables from a geographically diverse area with more than 33 different suppliers. The contracts are short, medium and long term in duration. The Integrated Resource Plan (IRP) is locally decided by MCE's board which asserts local control on power supply decisions and includes several state mandates such as ensuring it meets a state required reserve capacity margin, energy storage targets, greenhouse gas standards and energy efficiency requirements.

The MCE 2019-2028 IRP includes a resource mix of at least 60% renewable energy for retail sales over the next ten years. The IRP plan is ambitious given the objective of reaching 70% renewable energy by 2030 and 100% carbon free energy by 2022, which is likely to test the depth of California's renewable energy market. The IRP objectives include a reduction in greenhouse gas emissions, an expansion of energy efficiency programs, and access to competitively priced renewable energy.

CCA framework supports MCE's business model

Under the California CCA structure, electricity is procured by MCE primarily from commercial suppliers and delivered through PG&E's existing infrastructure with the utility continuing to provide transmission, distribution, billing and related collection services to MCE customers. Once a city ordinance is adopted for a city to join a CCA such as MCE, all customers in the city automatically become CCA customers unless the customer elects to "opt-out" and return to PG&E in this case. A customer can "opt-out" without penalty in the first 60 days but may have to pay a cost recovery charge later. MCE has not implemented a charge given the very low "opt-out" rates and its continued customer growth. MCE is responsible for the full energy requirement to serve its customers with a major component required to be renewable energy.

The strength of MCE's key governing documents are a critical credit consideration, including the California JPA statute requirement (Title 1, Division 7, Chapter 5, Article 1 (or Section 6500-6539) as well as MCE's JPA agreement which has been executed by each of the 34 participating municipalities after each of the municipalities passed a municipal ordinance to join the JPA. Importantly, MCE JPA includes language in Article 7 stipulating that a municipality must pay its remaining cost obligations, including energy mark-to-market losses, attributed to its load should it choose to depart from MCE. The language outlined in Article 7 mitigates MCE's substantial exposure to future power commitments and is the mechanism by which there could be recourse to each of the participating municipalities should one elect to depart from MCE. While the ultimate legal underpinning of this municipal obligation to MCE has not been court tested as to its effectiveness, our credit assessment recognizes that all participating members acknowledged and accepted this risk prior to executing their respective MCE-JPA agreement. Any MCE municipal member that chooses to depart would have to give six-months' notice before MCE's fiscal year-end, fund its remaining obligations procured on their behalf; and receive a super majority (67%) vote of approval from the MCE board making such a decision a high hurdle to reach and one that if it occurred, would most likely conclude in a credit benign way.

Since each municipality is a party to its respective MCE-JPA, which collectively serves the basis for the issuer's existence and the communities have direct recourse to obligations owed by each of the municipalities per Article 7 as described above, we view the credit quality of the participants as a central driver of rating. Moody's assesses the weighted average credit quality of the MCE municipal pool as A2. We do acknowledge the distinction that the cash flows used to satisfy MCE's operating expenses and pay debt service are derived from revenues received by the individual customers that MCE serves and that there is no specific recourse to any of the municipalities for such payments other than those arising under Article 7 of the MCE-JPA.

CCAs Advance the State of California's Renewable Objectives

A key aspect of the value proposition offered by MCE and other California CCAs is that renewable and clean energy are a major component of the customers' power supply mix. In 2019, MCE projects that renewable energy will account for 61% of its retail sales. We believe that state and municipal policymakers remain supportive of the CCA model as a tool to advance the use of renewable resources throughout the state. MCE's electric rates continue to remain moderately lower than PG&E, and we view favorably PG&E's role as the billing servicer for MCE's customers which helps to support the strong performance of MCE's accounts receivable.

MCE's retail rates are competitive relative to PG&E. While MCE has a statutory and independent ability to change rates at any time, it typically resets rates annually in April. Moody's recognizes that the outcome of PCIA rulemaking will impact CCA competitiveness relative to PG&E's bundled rate. We also note the uncertainty that PG&E's bankruptcy poses on its future rate structure and are monitoring the situation for potential impacts to MCE.

Independent Rate Setting

MCE's Board of Directors independently sets its rates to recover its costs and build reserves. Rates are typically adjusted annually in April, though the board has the ability to change rates at any time. PG&E, the investor owned utility, bills and collects MCE's revenues from the end use customer and transfers it to MCE. The amounts collected by PG&E are remitted daily to MCE's account. Accounts receivable are of high quality and consistent with the collection experience at PG&E. Should customers opt out of the MCE program, they revert to default service from PG&E and are not able to return to MCE for an entire year.

LIQUIDITY

Maintaining a strong liquidity profile is a critical credit consideration when procuring power for customers. Liquidity provides time for MCE to react with its rate setting and other power procurement mitigation measures. Our credit assessment assumes that MCE maintains growing levels of internal liquidity on its balance sheet as its customer base expands and also has access to sufficient levels of supplemental external liquidity appropriate for an investment grade rated issuer. In that regard, we acknowledge MCE's new board reserve policy is centered around its continued ability to generate annual free cash flow.

Moody's forecasts that MCE had $63 million of cash and 100 days of adjusted liquidity on hand (including availability on its bank lines) as of its March 2019 fiscal year-end. This is a decline from 2018's 113 days of adjusted liquidity due primarily to the large increase in operating expenses incurred given the 2018 service territory expansion. Internal liquidity is supplemented by a $25 million committed line of credit that has no conditionality for advances.

MCE has a $25 million revolving credit agreement with River City Bank (RCB) which expires on August 31, 2019. RCB's line of credit is backed by a Letter of Credit issued by MUFG Union Bank, NA (A2 stable) strengthening the quality of MCE's external liquidity.

MCE's working capital needs are modest as it receives cash payments from PG&E each day for its portion of the PG&E bill while paying its suppliers for purchased power at regular intermittent times over the course of the month. As such, MCE is typically able to generate positive cash flow each month, including the shoulder months of the year.

DEBT STRUCTURE

MCE has no long-term debt. It may borrow longer term to construct local area generation but has no plans to do so before 2025. Long-term debt would require a bond indenture with security provisions and bonds or notes can be issued on a tax-exempt basis.

PENSIONS AND OPEB

Not a material credit risk for MCE.

LEGAL SECURITY

MCE has 34 communities to its Joint Powers Agreement representing municipalities in Marin, Napa, and most of Contra Costa Country as well as the city of Benicia in Solano County, California. The rest of Solano County is slated to join MCE in 2020. Importantly, when a member participant joins, all electric retail customers automatically become customers of the CCA unless they choose within 60 days to “opt out.” Opt-out customers go back to default service and receive generation services from the investor-owned utility. PG&E is required to bill charges on MCE’s behalf and remit revenues to MCE. It receives no financial support from the municipalities or counties it serves. The rate setting process for MCE is in full control of the MCE board of directors and MCE can pass through costs on a monthly basis.

Management and Governance

The 34 member MCE Board of Directors consists of representatives from its member communities. MCE has the authority to establish its integrated resource plan, budgets, and rates without state regulatory board review.

Exhibit 5

MCE Participant Share Allocation by Energy Consumption and Voting Share

MCE Member Community	kWh (2018)	Voting Share
County of Contra Costa**	12.95%	7.95%
City of Concord**	9.53%	6.23%
City of Pittsburg**	7.61%	5.28%
City of Richmond	7.13%	5.03%
City of Walnut Creek	6.48%	4.71%
City of Napa	5.73%	4.33%
City of San Ramon**	5.65%	4.30%
County of Napa	5.52%	4.23%
County of Marin	4.39%	3.67%
City of San Rafael	4.17%	3.56%
City of Novato	3.45%	3.19%
County of Solano*	3.23%	3.09%
Town of Danville**	3.04%	2.99%
City of Martinez**	2.79%	2.86%
City of Benicia	2.07%	2.51%
City of Oakley**	1.98%	2.46%
City of Lafayette	1.77%	2.36%
City of American Canyon	1.31%	2.12%
City of San Pablo	1.21%	2.07%
City of Pinole**	1.16%	2.05%
City of El Cerrito	1.09%	2.02%
City of Saint Helena	0.92%	1.93%
City of Mill Valley	0.84%	1.89%
Town of Corte Madera	0.83%	1.89%
Town of Moraga**	0.83%	1.88%
City of Larkspur	0.80%	1.87%
Town of San Anselmo	0.61%	1.78%
Town of Yountville	0.61%	1.77%
City of Sausalito	0.60%	1.77%
Town of Tiburon	0.55%	1.75%
City of Calistoga	0.49%	1.72%
Town of Fairfax	0.34%	1.64%
Town of Ross	0.18%	1.56%
City of Belvedere	0.14%	1.54%
MCE Total Energy Use	**100.00%**	**100.00%**

*Expected to receive MCE service in CY 2020.
**First received MCE service in CY 2018.
Source: Marin Clean Energy

Rating methodology and scorecard factors

The principal methodology used in this rating was US Municipal Joint Action Agencies All-Requirements published in October 2016.

The scorecard rating includes a negative notch to reflect the newness of the CCA business model under which MCE operates and an additional negative notch to reflect the uncertainties inherent in the evolving California power markets given MCE's wholesale power market exposure. The grid indicated outcome of Baa2 is in line with the Baa2 rating.

Exhibit 6

Marin Clean Energy Scorecard

Joint Action Agency All Requirements Methodology Grid

Factor	Subfactor/Description	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Weighted Average participant credit quality. Unregulated rate setting including participants. Cost recovery structure and governance.	A3	
2. Resource Risk Management	a) Resource Diversity. Asset quality and complexity. Resource supply contract terms and counterparty credit quality. Wholesale market purchase exposure	Baa	
3. Competitiveness	a) Cost competitiveness relative to regional peers	A	
4. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	A	116 days
	b) Debt ratio (3-year avg) (%)	Baa	100%
	c) Fixed obligation charge coverage ratio (3-year avg) (x)	Ba	1.0x
5. Willingness to Recover Costs with Sound Financial Metrics	a) Rate Setting Record. Timeliness of rate recovery. Stability and strength of financial metrics	A	
Notching Conventions		**Notch**	
	1 - Contractual Structure and Legal Environment	-1	
	2- Participant Diversity and Concentration	0	
	3 - Construction Risk	0	
	4 - Debt Service Reserve, Debt Structure and Financial Engineering	0	
	5 - Unmitigated Exposure to Wholesale Power Markets	-1	
Scorecard Indicated Rating:		**Baa2**	

Source: Moody's Investors Service

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