



MARIN COUNTY | NAPA COUNTY | UNINCORPORATED CONTRA COSTA COUNTY
BENICIA | CONCORD | DANVILLE | EL CERRITO | LAFAYETTE | MARTINEZ | MORAGA
OAKLEY | PINOLE | PITTSBURG | RICHMOND | SAN PABLO | SAN RAMON | WALNUT CREEK

Agenda Page 1 of 1

Technical Committee Meeting Thursday, April 4, 2019 8:30 A.M.

Charles F. McGlashan Board Room, 1125 Tamalpais Avenue, San Rafael, CA 94901
Mt. Diablo Room, 2300 Clayton Road, Suite 1150, Concord, CA 94520
City of El Cerrito, 10890 San Pablo Avenue, Hillside Conference Room, El Cerrito, CA 94530
City of San Ramon, 7000 Bollinger Canyon Road, Room 256, San Ramon, CA 94583

1. Roll Call/Quorum
2. Board Announcements (Discussion)
3. Public Open Time (Discussion)
4. Report from Chief Executive Officer (Discussion)
5. Consent Calendar (Discussion/Action)
 - C.1 Approval of 2.7.19 Meeting Minutes
6. MCE Power Supply Overview (Discussion)
7. Legislative Update (Discussion)
8. Committee Matters & Staff Matters (Discussion)
9. Adjourn



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DRAFT

MCE TECHNICAL COMMITTEE MEETING MINUTES
Thursday, February 7, 2019
8:30 A.M.

Mt. Diablo Room, 2300 Clayton Road, Suite 1150
Concord, CA 94520

Charles F. McGlashan Board Room, 1125 Tamalpais Avenue
San Rafael, CA 94901

City of El Cerrito, 10890 San Pablo Avenue
El Cerrito, CA 94530

City of San Ramon, 7000 Bollinger Canyon Road, Room 256
San Ramon, CA 94583

1. **Roll Call & Quorum**

Present: Kevin Haroff, City of Larkspur (**San Rafael**)
Greg Lyman, City of El Cerrito (**El Cerrito**)
Scott Perkins, City of San Ramon (**San Ramon**)
Kate Sears, County of Marin (**San Rafael**)
Ray Withy, City of Sausalito (**San Rafael**)

Absent: Rob Schroder, City of Martinez

Staff

& Others: Jessica Brooks, Board Assistant (**San Rafael**)
Sherry Clark, Internal Operations Assistant (**Concord**)
Darlene Jackson, Board Clerk (**Concord**)
Vicken Kasarjian, Chief Operating Officer (**San Rafael**)
Taylor Sherman, Internal Operations Assistant (**San Rafael**)
Shalini Swaroop, General Counsel (**San Rafael**)
Dawn Weisz, Chief Executive Officer (**San Rafael**)
Brett Wiley, Customer Programs Manager (**San Rafael**)

The regular Technical Committee meeting was called to order by Chair Kate Sears at 8:31 A.M. Quorum was established by roll call.

2. **Board Announcements (Discussion)**

There were none.

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3. Public Open Time (Discussion)

Committee Chair Sears asked for public comment and there were comments from member of the public, Dan Segedin.

4. Report from Chief Executive Officer (Discussion)

CEO, Dawn Weisz, reported on the following:

- Seven new Board members coming on board and scheduled for orientation on February 27.
- Risk Oversight Committee update.
- Delay in MCE ratesetting due to PG&E bankruptcy and their pending ratesetting.
- There will be no February Board meeting, but we will have a regular Board meeting in March.

5. Consent Calendar (Discussion/Action)

C.1 Approval of 11.1.18 Meeting Minutes

Chair Sears opened the public comment period and there were no speakers.

Action: It was M/S/C (Lyman/Withy) to **approve 11.1.18 meeting minutes**. Motion carried by unanimous roll call vote (Absent: Director Schroder).

6. Marin Reach Codes (Discussion)

Alice Zanmiller, Planner, County of Marin, introduced this item and addressed questions from Committee members.

Chair Sears opened the public comment period and there were comments from member of the public, Carleen Cullen.

Action: No action required.

7. EV Charging Update (Discussion)

Brett Wiley, Customer Programs Manager, introduced this item and addressed questions from Committee members.

DRAFT

Chair Sears opened the public comment period and there were comments from members of the public, Kurt Johnson, Carleen Cullen, Howdy Dowdy, and Doug Wilson.

Action: No action required.

8. CPUC PG&E Safety and Restructuring Proceeding (Discussion)

Shalini Swaroop, General Counsel, and CEO Dawn Weisz, introduced this item and addressed questions from Committee members.

Chair Sears opened the public comment period and there were comments from members of the public, Ken Strong, Kurt Johnson, and Howdy Dowdy.

Action: No action required.

9. Committee Matters & Staff Matters (Discussion)

Chair Sears opened the public comment period and there were no speakers.

Action: No action required.

10. Adjournment

Chair Sears adjourned the meeting at 10:14 A.M. to the next scheduled Technical Committee Meeting on March 7, 2019.

Kate Sears, Chair

Attest:

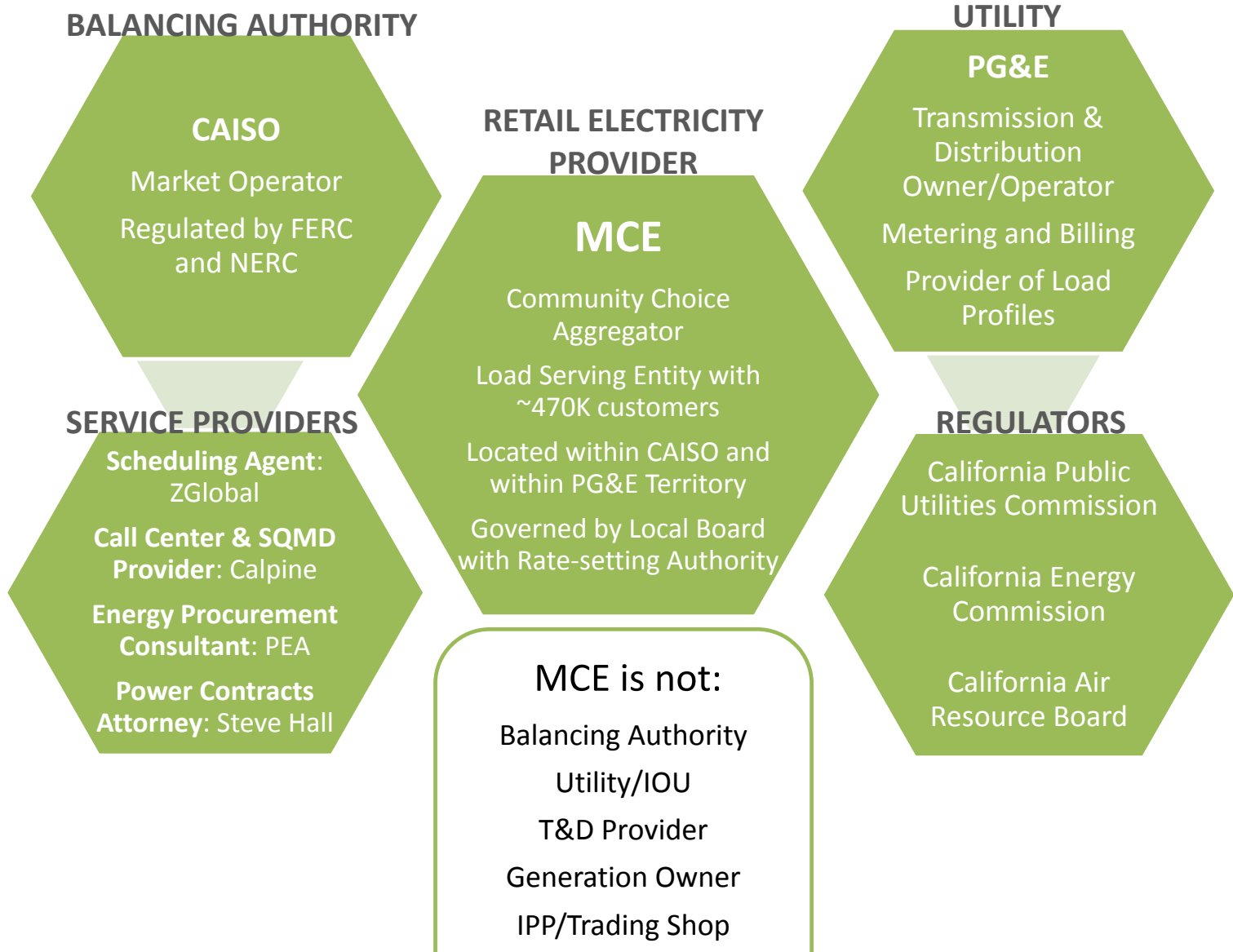
Dawn Weisz, Chief Executive Officer



MCE Power Supply Overview

April 4, 2019

MCE and its Stakeholders



MCE Power Supply: Presentation Overview

WORKFLOW



Load Forecasting	Multi-year forecast of MCE customer load based on customer counts and consumption patterns, weather and demand-side resources
Resource Planning	Multi-year resource plan to meet renewable, carbon-free, Resource Adequacy requirements and hedging needs
Procurement	Competitive solicitations, bilateral negotiations and standard offer contracts for energy, capacity, attributes and/or hedge value via power purchase agreements
Project Development	Administration of contracts to ensure that all milestones are met for new generating facilities (such as construction, interconnection, and testing for commercial operation)
Bidding & Scheduling	California Independent System Operator (“CAISO”) CAISO Load: week-ahead forecasting and Day-Ahead self-scheduling CAISO Supply: bidding and scheduling into the Day-Ahead and Real-Time markets
Contract Administration	Prudently administering contracts to mitigate risk and ensure the appropriate value of the contract on behalf of MCE’s customers.
Settlements	Validation and reconciliation of power deliveries, renewable energy credit transfers and invoice calculations in line with contract terms
Reporting	Compliance reporting: Renewable Portfolio Standard, Resource Adequacy, Integrated Resource Plan, Storage, California Energy Commission Wind, etc.
Process Improvement	Develop software to facilitate procurement based on a complete and accurate understanding of MCE’s projected load, supply and corresponding risks

MCE Power Supply: Primary Responsibilities

Current Responsibilities	MCE Staff	PEA	Z-Global
Long-Term Load Forecasting		✓	
Resource Planning: RPS, GHG-Free, RA, Hedging needs	✓	✓	
Market Intelligence: forward curves, quotes, valuations, etc.	✓	✓	
Market Development: new confirm structures, market outreach	✓		
Procurement & Sales: PPAs & FITs, CFDs, Index+ contracts	✓		
Procurement: Hedge Contracts and RA-Only contracts		✓	
Project Development	✓		
CAISO Scheduling: Load and Supply			✓
CAISO CRRs: Annual and monthly nominations			✓
CAISO Oversight: Market monitoring	✓	✓	✓
Contract Administration	✓		
Contract Settlements: PPAs & FITs, CFDs, Index+ contracts	✓		
Contract & CAISO Settlements: Hedge Contracts, RA-Only contracts, CAISO Market Invoices		✓	✓
Reporting: compliance reporting, MCE & CalCCA metrics	✓	✓	
MCE Support: Regulatory, Customer Programs, Public Affairs	✓	✓	
Process Improvement: including software development	✓		

MCE Power Supply: Load Forecasting

1	Load Forecasting
2	Resource Planning
3	Procurement
4	Project Development
5	CAISO Operations
6	Contract Administration
7	Settlements
8	Reporting
9	Process Improvement

Current Responsibilities	MCE Staff	PEA	Z-Global
Load Forecasting		✓	✓

What is Load Forecasting:

- Model for understanding MCE's anticipated load

Timeframe:

- 10 year outlook (Integrated Resource Plan)
- 1 year outlook (rate setting)
- Monthly outlook (credit risk policy)
- Day-ahead (scheduling)

How:

- ZGlobal and PEA models
- Using customer counts
- Consumption patterns
- Weather and demand-side resources

Challenges:

- Forecasting demand side resources and Net Energy Metering
- Multiple inclusion periods with differentiated geographical needs

MCE Power Supply: Load Forecasting

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Load Forecasting

Resource Planning

Procurement

Project Development

CAISO Operations

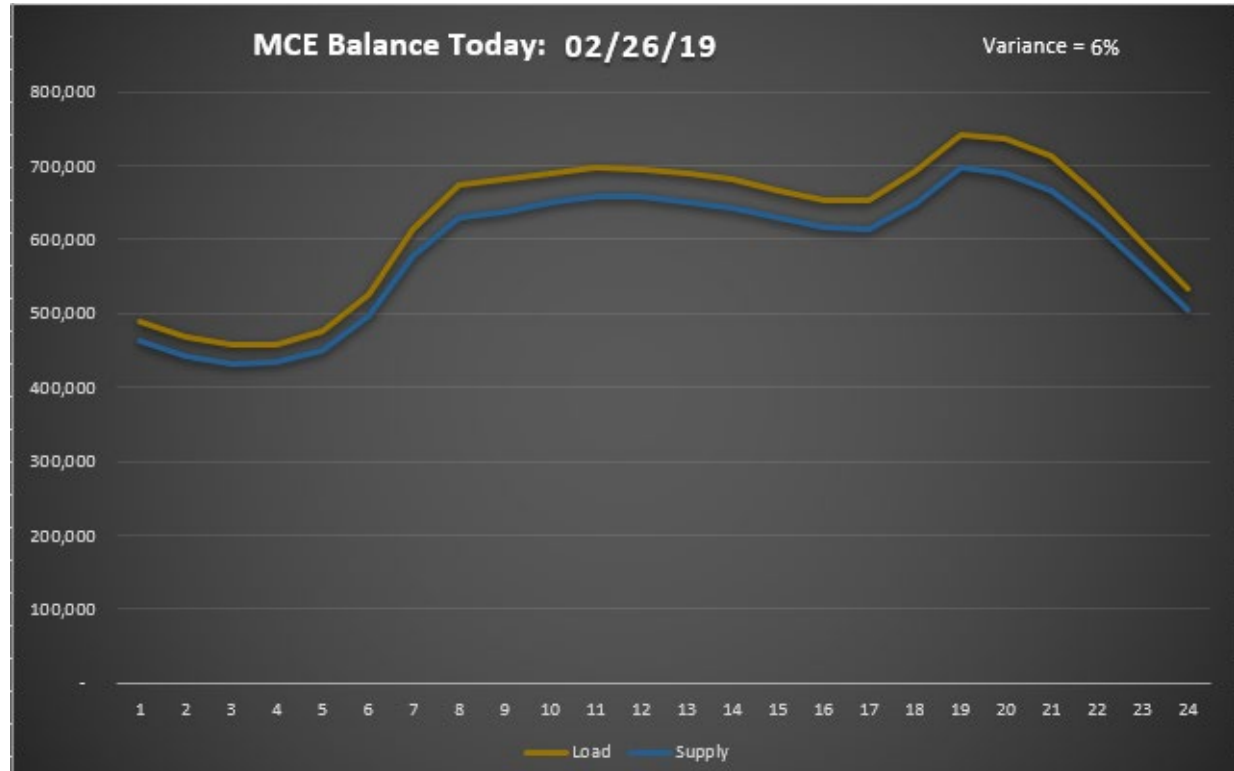
Contract Administration

Settlements

Reporting

Process Improvement

Current Responsibilities	MCE Staff	PEA	Z-Global
Load Forecasting		✓	✓



MCE Power Supply: Resource Planning

1	Load Forecasting	Current Responsibilities	MCE Staff	PEA	Z-Global
2	Resource Planning	Resource Planning	✓	✓	
3	Procurement	<p><u>What is Resource Planning:</u></p> <ul style="list-style-type: none"> • Mapping out MCE's power resource needs, down to the hour and as much as 10 years in advance • Ensuring that MCE will meet Board-approved targets and regulatory requirements, while minimizing expected costs, market and credit risk, and contract settlement complexity 			
4	Project Development	<p><u>What does MCE Procure?</u></p> <ol style="list-style-type: none"> 1. Clean Energy 2. Hedges 3. Resource Adequacy 			
5	CAISO Operations	<ol style="list-style-type: none"> 4. <i>CAISO System Power: (MCE's CAISO Load – MCE's Clean Energy)</i> 			
6	Contract Administration	<p><u>Challenges:</u></p> <ul style="list-style-type: none"> • Evolving power supply regulations • Supplier performance • Load uncertainty 			
7	Settlements				
8	Reporting				
9	Process Improvement				

MCE Power Supply: Procurement and Sales

1	Load Forecasting	Current Responsibilities	MCE	PEA
		Market Intelligence: forward curves, quotes, valuations, etc.	✓	✓
2	Resource Planning	Market Development: new confirm structures, market outreach	✓	
		Renewable and GHG-free Procurement and Sales	✓	
3	Procurement	RA and Fixed System Hedge Procurement and Sales		✓
		<u>What is Procurement:</u>		
4	Project Development	<ul style="list-style-type: none"> Meeting MCE's energy and RA targets through formal and informal solicitations 		
		<u>Timeline:</u>		
5	CAISO Operations	<ul style="list-style-type: none"> Long-term (10+ years), intermediate (2-10 years) and short-term (<1 year) Monthly contracting: RA and Hedging 		
		<u>How:</u>		
6	Contract Administration	<ul style="list-style-type: none"> Determining open positions from Load and Resource Balance model Engaging the market using formal and informal solicitations Using standard offer agreements (MCE uses 3 main form contracts) 		
7	Settlements	<ul style="list-style-type: none"> Negotiating commercial and credit terms Using legal review and internal approval processes 		
8	Reporting	<u>Challenges:</u>		
9	Process Improvement	<ul style="list-style-type: none"> Transparent market intelligence Finding new suppliers and educating them on CCAs and their product needs 		

MCE Power Supply: Project Development

1	Load Forecasting	Current Responsibilities	MCE Staff	PEA	Z-Global
2	Resource Planning	Project Development	✓		
3	Procurement	<p><u>What is Project Development:</u></p> <ul style="list-style-type: none"> Facilitating projects to achieve Commercial Operation under Power Purchase Agreements Managing Contract terms and conditions Milestone monitoring and permitted delay days 			
4	Project Development	<p><u>Timeline:</u></p> <ul style="list-style-type: none"> Related to new construction Based on guaranteed milestones set forth in PPA <p><u>How:</u></p> <ul style="list-style-type: none"> Ensuring that all appropriate milestones have been such as: <ul style="list-style-type: none"> Permitting Construction Start Interconnection Testing and clearance for Commercial Operation by transmission operator, CAISO, and MCE Once MCE accepts Commercial Operation, Delivery Term and payment triggered 			
5	CAISO Operations	<p><u>Challenges:</u></p> <ul style="list-style-type: none"> Lack of management tool, all work done through manual systems Legacy, above-market contracts 			
6	Contract Administration				
7	Settlements				
8	Reporting				
9	Process Improvement				

MCE Power Supply: CAISO Market Operations

		Current Responsibilities	MCE Staff	PEA	Z-Global
1	Load Forecasting	CAISO Scheduling: Load and Supply			✓
2	Resource Planning	CAISO CRRs: Annual and monthly nominations			✓
		CAISO Oversight: Market monitoring	✓	✓	✓
3	Procurement	<u>What are CAISO Market Operations:</u>			
4	Project Development	<ul style="list-style-type: none"> • CAISO Load: week-ahead forecasting and day-ahead self-scheduling • CAISO Supply: bidding and scheduling into the day-ahead and real-time markets • CAISO Congestion Hedging: annual basis 			
5	CAISO Operations	<u>Timeline:</u>			
		<ul style="list-style-type: none"> • Day-ahead for load and supply • Year-ahead for Congestion Revenue Rights (CRRs) • Month-ahead for CRRs 			
6	Contract Administration	<u>How:</u>			
7	Settlements	<ul style="list-style-type: none"> • ZGlobal as MCE's scheduling agent 			
8	Reporting	<u>Challenges:</u>			
9	Process Improvement	<ul style="list-style-type: none"> • Timeliness and completeness of input data and sophistication of forecasting processes • Alignment between long-term procurement forecasting and short term market operations 			

MCE Power Supply: Contract Administration

1	Load Forecasting	Current Responsibilities	Law	MCE Staff	PEA	Z-Global
2	Resource Planning	Contract Administration	✓	✓		
3	Procurement	<u>What is Contract Administration:</u>				
4	Project Development	Every contract is different!				
5	CAISO Operations	<ul style="list-style-type: none"> • Understanding complex contract structures, language and relationships • First point of contact with counterparty managing all notices, issues, questions, etc. • Facilitating developing projects through commercial operation • Managing disputes, delays and damages • Tracking operations of project, for example: <ul style="list-style-type: none"> ➤ Renewable Energy Credits (RECs) match energy deliveries ➤ Tracking invoiced amounts against guaranteed deliveries 				
6	Contract Administration	<ul style="list-style-type: none"> • Lead on contract amendments, letter agreements, estoppels, and related documents • Enforcing credit terms of agreement and working with MCE Finance to ensure collateral is maintained via letter of credit or guarantee. • Maintenance of contract information to support data requests, mitigate liability, and ensure prudent the most value of the contract to MCE's customers 				
7	Settlements					
8	Reporting					
9	Process Improvement					

MCE Power Supply: Settlements

1	Load Forecasting
2	Resource Planning
3	Procurement
4	Project Development
5	CAISO Operations
6	Contract Administration
7	Settlements
8	Reporting
8	Process Improvement

Current Responsibilities	MCE	PEA	Z-Global
Contract Settlements: PPAs & FITs, CFDs, Index+ contracts	✓		
Contract & CAISO Settlements: Hedge Contracts, RA-Only contracts, CAISO Market Invoices		✓	✓

What are Settlements:

- CAISO Settlements: payments for load and other market participation charges
- Contract Settlements: validation and reconciliation of power deliveries, Renewable Energy Credit (REC) transfers and invoice calculations in line with contract terms

How:

- CAISO Settlements: ZGlobal and PEA perform daily analysis and validation. Reviewed with MCE on a weekly basis.
- Contract Settlements: validation of energy invoices from contract suppliers is validated by MCE Contract Managers

Timeline:

- Weekly and monthly

Challenges:

- Complex legacy settlement structures
- Manual tracking of volumes, RECs and deliveries

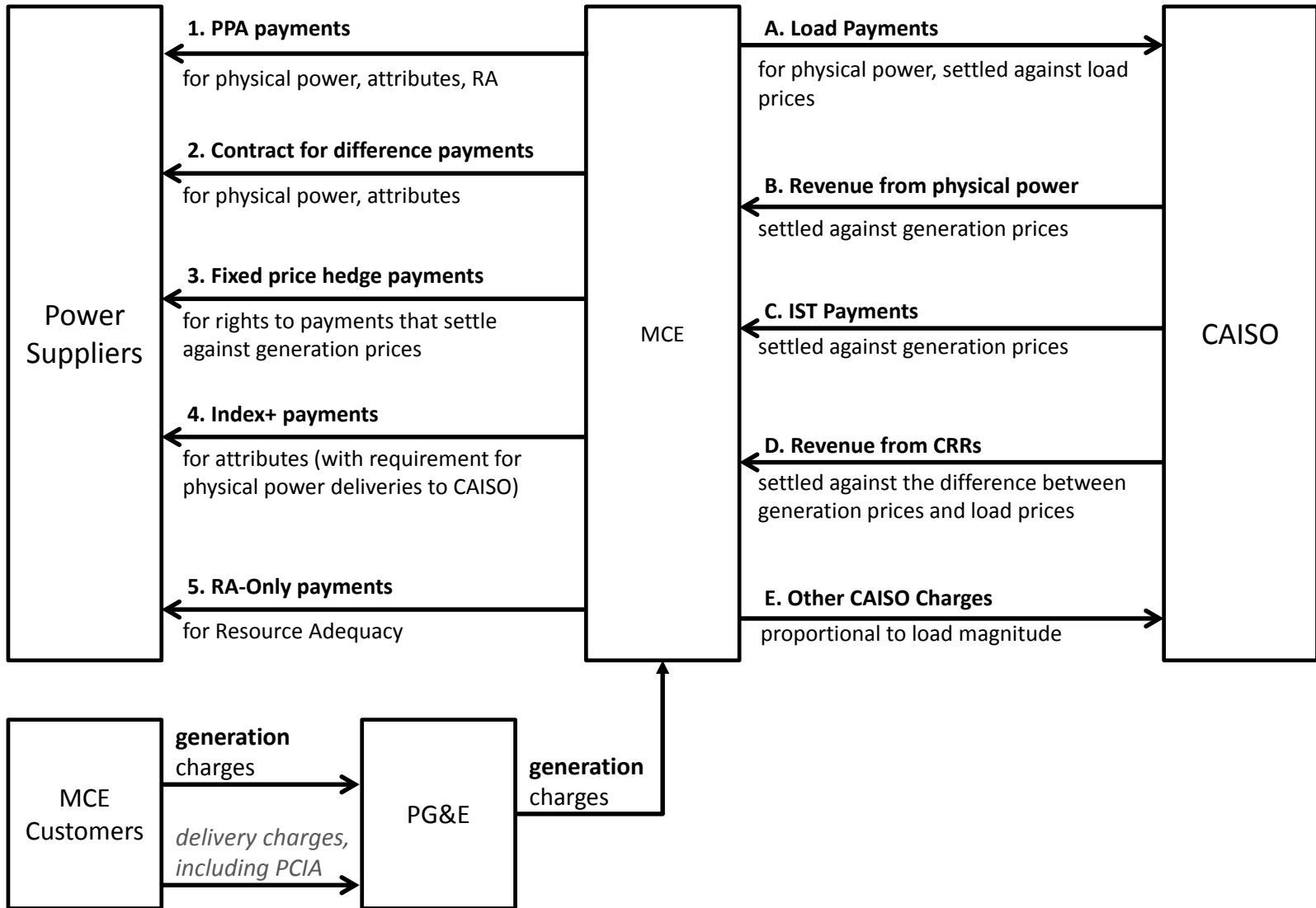
MCE Power Supply: Reporting

1	Load Forecasting	Current Responsibilities	MCE	PEA	ZGlobal
		Reporting: compliance reporting, MCE & CalCCA	✓	✓	
2	Resource Planning	MCE Support: Regulatory, Customer Programs, PA	✓	✓	
3	Procurement	<u>What are MCE's Reporting Obligations:</u> <ul style="list-style-type: none"> • Renewable Portfolio Standard (CPUC & CEC) • Resource Adequacy (CPUC, CEC & CAISO) • Integrated Resource Plans (MCE and CPUC) • PSD (Power Source Disclosure - CEC) • GHG Reporting (CARB) • IEPR (Integrated Energy Policy Report – CEC) • Retails Sales Reporting (Energy Information Administration - EIA) • Ad Hoc Data requests 			
4	Project Development				
5	CAISO Operations				
6	Contract Administration	<u>Timeline:</u> Monthly, annually			
7	Settlements	<u>How:</u> Using manually updated spreadsheets			
8	Reporting	<u>Challenges:</u> <ul style="list-style-type: none"> • Lack of database of information • Changing rules and regulations • Ability to backfill 			
8	Process Improvement				

MCE Power Supply: Process Improvements

1	Load Forecasting	Current Responsibilities	MCE Staff	PEA	Z-Global
2	Resource Planning	Process Improvement: including software development	✓		
3	Procurement	<p><u>What are Process Improvements:</u></p> <ul style="list-style-type: none"> Systems and software to support Power Resources in its contract management and portfolio management 			
4	Project Development	<p><u>Key opportunities identified:</u></p> <ul style="list-style-type: none"> Software that enables <ul style="list-style-type: none"> ➤ Swift development of compliance reports ➤ Oversight of contracts to mitigate risk and ensure all appropriate terms, conditions and milestones are met ➤ Analysis of existing energy portfolio, MCE load, open positions, and how to best fill positions from clean sources ➤ Load modification analysis and its effect on hourly energy gross margin ➤ Load Forecasting 			
5	Bidding & Scheduling				
6	Contract Administration				
7	Settlements				
8	Reporting	<p><u>How:</u></p> <ul style="list-style-type: none"> Request for Proposals from software vendors to meet contract management and portfolio management needs Continuous improvement mindset of team 			
9	Process Improvement				

MCE Power Supply: Financial Overview





Thank You

Lindsay Saxby
Manager of Power Resources



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March 21, 2019

The Honorable Senator Hueso
Chair, Senate Energy & Utilities Committee
State Capitol, Room 4035
Sacramento, CA 95814

Re: SB 255 (Bradford) — Support

Dear Chairman Hueso,

On behalf of Marin Clean Energy (MCE), I write in support of SB 255, which will encourage supplier diversity efforts from a number of energy market participants, including Community Choice Aggregators (CCAs). MCE is a local government agency that provides electricity generation services to over 470,000 customers in Marin, Napa, Contra Costa, and Solano counties. MCE supports both the top-down supplier diversity efforts envisioned by Assemblymember Gwen Moore in AB 3678 (1986) as well as additional bottom-up workforce development opportunities for disadvantaged communities.

MCE is a proud supporter of supplier diversity. MCE's Sustainable Workforce and Diversity Policy prioritizes sustainable workforce opportunities, local economic sustainability, and diversity inclusion through contracting and agency initiatives. MCE currently requests contractors voluntarily disclose their General Order (GO) 156 certification status and their efforts to work with DBEs for power purchase agreements, Feed-in-Tariffs, customer programs, and new contractors. From these requests, MCE found that 23% of its respondents self-identify as certified under GO 156 or use subcontractors that are certified. MCE also found that 100% of respondents with labor-related jobs pay prevailing wage. 77% of respondents have initiatives in place to promote diversity, and 45% of respondents support or use apprenticeship programs.

In January 2018, MCE, the Greenlining Institute, and the California Community Choice Association (CalCCA) jointly convened a CCA Supplier Diversity Symposium. The symposium hosted dignitaries such as Senator Nancy Skinner, former Senator Ricardo Lara, Commissioner Rechtschaffen, former Commissioner Peterman, program administrators, and participants who have benefited from these workforce development opportunities supported by MCE.

As recently as March 7, 2019, MCE held a "Certify & Amplify" workshop at its Concord office. MCE hosted 50 business owners and CPUC supplier diversity staff to explain the certification process for the clearinghouse and to provide more information about the GO 156 program.

In addition to top-down supplier diversity efforts, MCE also supports bottom-up workforce development efforts. MCE Solar One is a 10.5 MW solar project located at the Chevron refinery in Richmond. The project was built with a 50 percent local hire requirement in a diverse

CONCORD OFFICE: 2300 Clayton Road, Suite 1150, Concord, CA 94520

SAN RAFAEL OFFICE: 1125 Tamalpais Avenue, San Rafael, CA 94901

mceCleanEnergy.org

community with high unemployment rates and many underserved and marginalized communities. Local non-profit partner RichmondBUILD trained multiple cohorts of students to work on the project. MCE invested time and funds in training over a two year period before breaking ground on the project in order to ensure access to the jobs by a wide range of local residents. The project also hired union workers from the United Brotherhood of Carpenters and Joiners of America (UBC) and Laborers Union (Local 152); International Brotherhood of Electrical Workers (IBEW) (Local 302); IBEW (Local 1245); Laborers Union (Local 324); Operating Engineers (Local 3) and Steamfitters (Local 342).

In Contra Costa County, MCE has partnered with nonprofit partner, Rising Sun Energy Center, to train local youth to provide no-cost energy savings and water assessments in the Cities of Richmond, El Cerrito, and San Pablo. MCE has also worked with nonprofit partner RichmondBUILD to train students with construction, numeracy, and literacy skills, later connecting them with related jobs for large scale solar installation and an LED streetlight retrofit project in Richmond. In Pittsburg (ranking 85-95% percentile in CalEnviroScreen 3.0), MCE helped coordinate the presence of a new call center, then partnered with Future Build East County and Calpine to train students on call center basics, call handling, energy data and more. Graduates were offered positions at the new call center. Finally, MCE has recently been approved for an additional \$2.24 million for workforce development activities for 2019 through 2025.

In Marin County, MCE has partnered with the Marin City Community Development Corporation (MCCDC) since 2012 to train at least 62 disadvantaged community members and connect them to solar installation and energy efficiency jobs.

MCE is proud to demonstrate its robust support for diversity efforts through all aspects of the workforce and applauds Senator Bradford's leadership on this issue.

Sincerely,



Shalini Swaroop
General Counsel, MCE



March 21, 2019

The Honorable Senator Dodd
State Capitol, Room 4032
Sacramento, CA 95814

Re: SB 167 (Dodd)—Support

Dear Senator Dodd,

On behalf of MCE Clean Energy, I write in support of SB 167, which would require wildfire response protocols to include impacts on critical first responders, customers enrolled in the California Alternative Rates for Energy (CARE) program, and medical baseline customers.

The importance of including protocols for these vulnerable individuals cannot be understated because for many, it could be a matter of life or death. MCE serves customers who depend upon safe and reliable electricity to power their life-support equipment. By including protocols that account for the safety of these individuals during wildfire events, this bill shares our values of providing customers with safe and reliable electricity to those who need it, without jeopardizing the safety of other customers.

This bill also takes into account protocols for keeping first responders safe during potential wildfire events. These events can create numerous hazards to critical first responders, so it is imperative to establish protocols such as preemptively deenergizing powerlines in high-risk areas that could prove to be life-threatening during rescue and recovery operations.

MCE appreciates the opportunity to weigh in on this piece of legislation and urges your support. If you have any questions, feel free to contact me at (415) 464-6040.

Sincerely,

A handwritten signature in blue ink that reads "Shalini Swaroop".

Shalini Swaroop
General Counsel, MCE