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Town of Tiburon

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**Marin Clean Energy
Technical Committee Meeting
Monday, March 9, 2015
5:00 P.M.**

**San Rafael Corporate Center, Boro Room
750 Lindero Street, San Rafael, CA 94901**

Agenda Page 1 of 1

1. Board Announcements (Discussion)
2. Public Open Time (Discussion)
3. Report from Chief Executive Officer (Discussion)
4. Approval of 2.9.15 Meeting Minutes (Discussion/Action)
5. Feed-In-Tariff Program Review (Discussion/Action)
6. Generating Renewable Identification Numbers (RINs) through the Renewable Fuel Standard's New Biogas to Electric Vehicle Pathway (Discussion)
7. Members & Staff Matters (Discussion)
8. Adjourn



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**MARIN CLEAN ENERGY
TECHNICAL COMMITTEE MEETING
February 9, 2015
5:00 P.M.
SAN RAFAEL CORPORATE CENTER, BORO ROOM
750 LINDARO STREET, SAN RAFAEL, CA 94901**

Roll Call

Present:

Kate Sears, County of Marin, Chair
Kevin Haroff, Town of Larkspur
Carla Small, Town of Ross
Emmett O'Donnell, Town of Tiburon
Ford Greene, Town of San Anselmo
Ray Withy, City of Sausalito

Absent:

Staff:

Dawn Weisz, Executive Officer
Greg Brehm, Director of Power Resources
Emily Goodwin, Director of Internal Operations
Jeremy Waen, Regulatory Analyst
Kirby Dusel, Technical Consultant
Brian Goldstein, Technical Consultant

Action taken:

Agenda Item #4 – Approval of Minutes from 1.12.15 Meeting (Discussion/Action)

M/s Small/O'Donnell (passed 5-0) approval of minutes from 1.12.15 meeting. Director Withy abstained.

Kate Sears, Chair

ATTEST:

Dawn Weisz, Executive Officer



MCE Feed-In Tariff: Annual Program Review

Technical Committee – March 9, 2015



MCE Feed-In Tariff (“FIT”): Annual Review

- Purpose – determine whether or not any adjustments may be necessary to MCE’s FIT program in consideration of:
 - Actual and projected financial impacts to MCE
 - Current FIT subscribership (relative to existing participatory cap)
 - Actual and anticipated load/customer growth
 - Pricing trends within renewable energy markets
 - Competing programs (namely, PG&E’s FIT program: ReMAT)
 - Legislation and/or regulations
 - Other considerations affecting FIT interest/participation/development
- Process – in light of these considerations, key elements of MCE’s FIT program are reviewed to determine potential/proposed updates
 - Staff identify prospective changes
 - Technical Committee discussion occurs (w/recommendation to Board)
 - MCE Board discusses and approves certain changes to FIT



MCE FIT Program – Overview

- FIT purpose: promote development of locally-situated, smaller-scale renewable generating projects
 - FIT energy production offsets use of larger-scale, non-local energy sources
 - 1 MW size limit for individual generating projects
 - Projects must be located within MCE's service territory
 - Pricing incentives are reflected in tariff (local development costs and competitive differentiation)
- Current FIT status:
 - 972 kW in commercial operation – San Rafael Airport (solar; produces $\approx 1,800$ MWh/year or $\approx 0.1\%$ of MCE's total energy requirements following expansion)
 - Additional 990 kW under contract (will support MCE's Local Sol program)
 - Additional 4.7 MW in project development queue (multiple projects)
- Key FIT considerations as MCE moves forward
 - MCE service territory has expanded/will expand to new communities in 2015
 - Annual energy sales will grow by $\approx 50\%$ following expansion



MCE FIT Program – Key Areas Under Review

- Participatory cap: how many megawatts/projects can MCE's FIT support?
- Pricing: are adjustments needed to ensure the program will continue to promote local renewable project development without imposing undue financial burdens on MCE?
- Project buyout: should MCE consider including a contractual provision to allow for the buyout/purchase of FIT projects (option or requirement)?
- Other areas that may undergo further evaluation in the future:
 - Accommodation of energy storage projects
 - Incremental price incentives for desirable project attributes: previously developed/disturbed lands, labor, ease of interconnection, etc.



Adapting FIT to Accommodate MCE Growth

- Existing FIT participatory cap:
 - Currently set at 10 MW
 - 57% of current participatory cap is under contract or reserved in queue
 - New FIT opportunities are likely available within MCE's expanded service territory
 - MCE's retail electricity sales will increase by $\approx 50\%$ following expansion ($\approx 1,200$ MWh/year to $\approx 1,800$ MWh/year)
- Discussion topic: consider expanding participatory cap to 15 MW
- Key considerations:
 - Projected financial impact $\approx \$900,000$ /year (total); $\approx \$300,000$ /year (premium relative to other utility-scale renewable purchase options); development will likely occur over a multi-year period, so financial impacts will phase in over time
 - Promote FIT development opportunities on an ongoing basis
 - Administrative impact (development status monitoring, invoice processing, REC management, etc.)



MCE FIT: Existing Price Schedule

- Currently applicable price schedule was originally developed in consideration of renewable energy delivered under the MCE/SENA agreement.
- Regressive pricing “steps” were set in consideration of FIT subscribership, reflecting technological and supply-side improvements that were assumed to occur over time.

Rate Component	Peak (\$/MWh)	Base (\$/MWh)	Intermittent (\$/MWh)
Condition 1 (\approx 2MW)	\$137.66	\$116.49	\$100.57
Condition 2 (\approx 4MW)	\$120.00	\$105.00	\$95.00
Condition 3* (\approx 6MW)	\$115.00	\$100.00	\$90.00
Condition 4 (\approx 8MW)	\$110.00	\$95.00	\$85.00
Condition 5 (\approx 10 MW)	\$105.00	\$90.00	\$80.00

*Currently effective FIT price, based on existing contracts and completed applications.



MCE FIT: Amended Price Schedule

- MCE's peak FIT price is now substantially higher than PG&E's peak ReMAT price of \$57.23++/MWh
 - \$89.23/MWh for non-peak and baseload
 - All PG&E ReMAT prices subject to time of delivery adjustments
- In consideration of market pricing and to remain competitive with PG&E, MCE should consider price adjustments:

Price Condition (all MW)	Peak (\$/MWh)	Base (\$/MWh)	Intermittent (\$/MWh)
Condition 1 (\approx 2MW)	\$137.66	\$116.49	\$100.57
Condition 2 (\approx 4MW)	\$120.00	\$105.00	\$95.00
Condition 3* (\approx 6MW)	\$115.00	\$100.00	\$90.00
Condition 4 (\approx 8MW)	\$110.00	\$95.00	\$90.00
Condition 5 (\approx 10MW)	\$105.00	\$95.00	\$90.00
Condition 6 (\approx12MW)	\$95.00	\$95.00	\$90.00
Condition 7 (\approx12-15 MW)	\$90.00	\$90.00	\$90.00



MCE FIT: Impacts of Amended Prices

- Current long-term market pricing for utility-scale (larger) renewable projects ranges from \approx \$60-80/MWh, depending on location, term and generating technology
- Discussion topic: consider updating MCE FIT price schedule, as recommended
- Key considerations:
 - Financial impact \approx \$900,000/year (total); \approx \$300,000/year (premium relative to other utility-scale renewable purchase options)
 - Comparability to other wholesale renewable procurement alternatives
 - Relationship to PG&E's ReMAT price schedule
 - Sufficiency of price incentive to promote ongoing renewable project development



MCE FIT: Buyout Option

- MCE's form FIT Power Purchase Agreement does not currently include a buyout option
- Discussion topic: is it desirable to include a buyout option in MCE's FIT PPA
- Key considerations:
 - Interest in owning additional, small-scale, locally situated renewable energy project(s)
 - Financial impacts
 - Willingness to operate and maintain such projects (or contract for such services with third-party vendors)
 - Administrative impact
 - Should inclusion of buyout option be mandatory (seller's discretion)?



MCE FIT: Summary of Recommendations

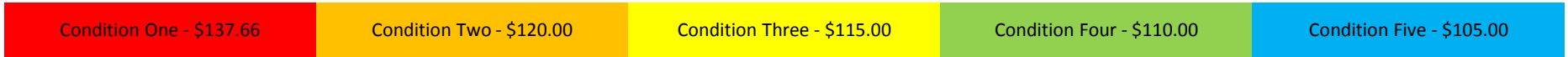
- Increase participatory cap from 10 MW to 15 MW
 - Reasonable in consideration of MCE's recent and anticipated growth
 - Will not impose undue financial burdens on MCE
 - Incremental renewable energy production can be easily integrated in MCE's supply portfolio
- Amend pricing schedule
 - Necessary to address expansion of the participatory cap
 - Contains overall cost impact to MCE through price regression
 - Competitively superior relative to PG&E's ReMAT program
 - Intended to maintain local development incentives while acknowledging ongoing price reductions within California's renewable energy market
- Include voluntary buyout option (seller's discretion)
 - Mandatory buyout option may not be favorably received by all sellers
 - Mandatory buyout option may not be compatible with all project installations (rooftop installations, for example)
 - Would provide MCE with additional opportunities to own renewable generating projects



Questions & Discussion



Agenda Item #5: Feed-in-Tariff Program Review



San Rafael Airport - 972 kW	Cooley Quarry Two - 450 kW	Cost Plus - 260 kW	NWC Goodrick - 998 kW	Richmond Parkway - 998 kW	Binford Rd Storage - 990 kW	Giant Rd - 999 kW
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