



**Marin Energy Authority
Technical Committee Meeting
Monday, October 14, 2013
9:00 A.M.**

Dawn Weisz
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City of Sausalito

Emmett O'Donnell
Town of Tiburon

**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 Executive Officer (Discussion)**
- 4. Integrated Resource Plan (Discussion/Action)**
- 5. Local Solar Group Purchasing Program (Discussion/Action)**
- 6. Supporting Local Feed-in Tariff (Discussion)**
- 7. Board Member & Staff Matters (Discussion)**
- 8. Adjourn**

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Agenda Item #4: Integrated Resource Plan

MCE 2013 Integrated Resource Plan Update

MEA Technical Committee

October 14, 2013



Purpose of Integrated Resource Plan (IRP)

- The IRP describes how MEA intends to supply its customers with electricity and related services to achieve the policy goals that have been established for the MCE Program.
- The IRP is updated annually and covers a forward looking ten-year period.
- Three primary purposes:
 1. Quantify resource needs over the planning period.
 2. Prioritize resource preferences and establish other relevant power procurement policies.
 3. Provide guidance to power procurement process undertaken by management.

Changes for 2013

- Updated customer and load forecast to account for currently enrolled customers.
- Updated projections for energy efficiency savings and growth in net energy metering.
- Updated existing contracts and resource needs:
 - Results of 2013 open season procurement
 - Termination of an existing contract
 - Changes to new renewable energy project planned commercial operation dates

Key MEA Resource Plan Policies

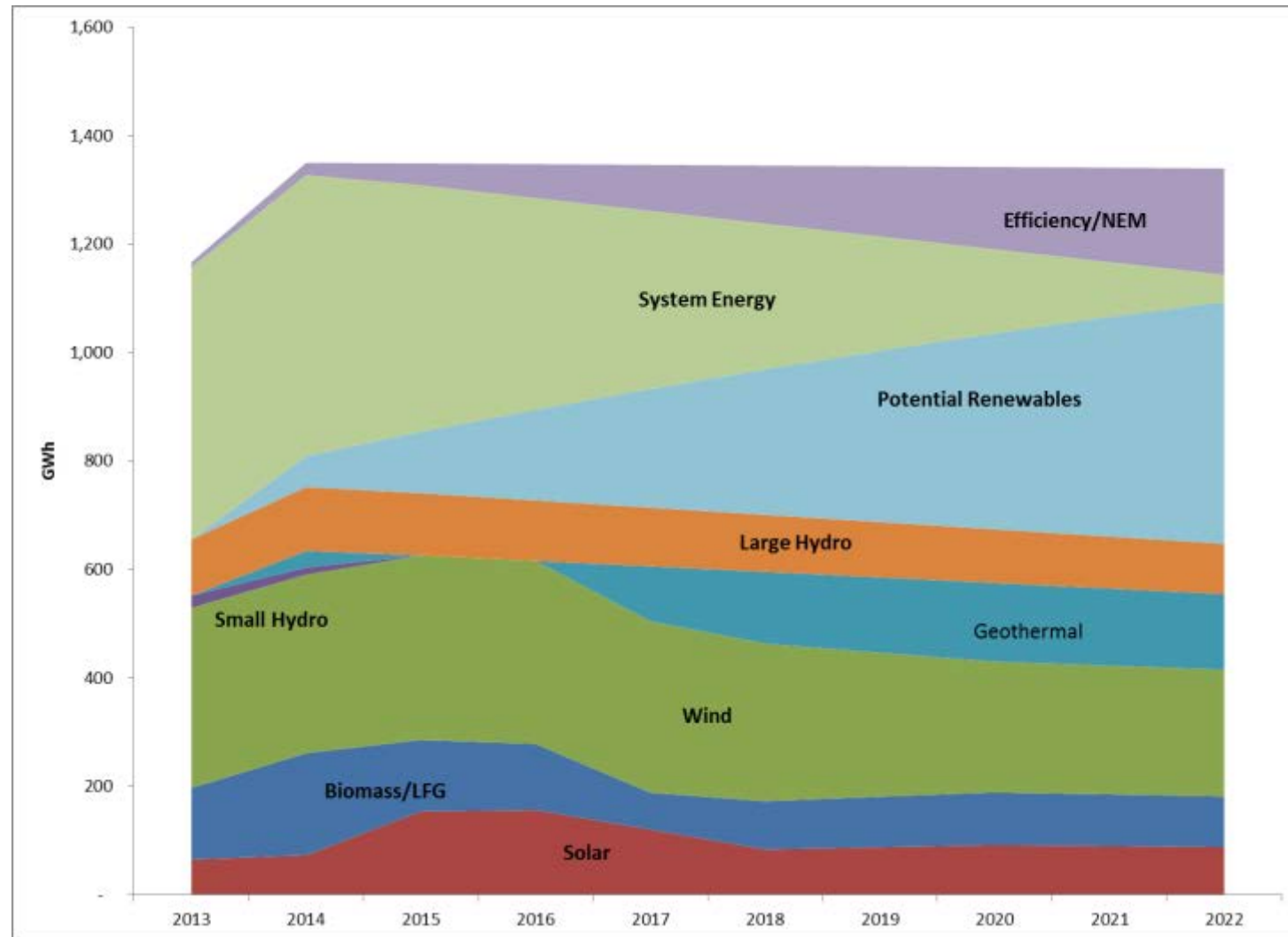
- Reduce emissions of greenhouse gasses and other pollutants through increased use of renewable energy resources and reduced reliance on fossil fueled resources.
- Maintain competitive electric rates and increase control over energy costs through management of diverse resource mix.
- Benefit area's economy through investments in local infrastructure and energy programs.
- Help customers reduce energy consumption and bills through energy efficiency, distributed generation, and other demand-side programs.
- Enhance system reliability through investment in supply and demand-side resources.

Highlights of Draft IRP – Resource Targets

- MCE will utilize a portfolio of resources to maintain a renewable energy content of more than 50% during the planning period and progress toward a long term goal of increasing the renewable resource content to 100%.
- Planning for 10X increase (to 10 MW) in local renewable generation developed through MEA feed-in tariff, power purchase agreement, or possibly direct investment.
- Planning for 2.5 X increase (to 47 MW) in customer-sited renewable generation under MEA's net energy metering program.
- New MEA energy efficiency programs expected to reduce energy sales by 1% to 2% annually.
- Demand response programs (PG&E and future MCE) expected to meet 5% of overall capacity needs.

Highlights of Draft IRP – Resource Mix

MCE Potential Resource Mix (GWh), 2013-2022



Highlights of Draft IRP – Resource Needs

- MEA currently manages 15 energy contracts with 10 energy suppliers.
- Conventional energy needs are covered through 2017.
- Additional energy products will be needed as follows:
 - Short term need for bundled renewable energy in 2014 (PCC1) and longer term need beginning in 2017 (PCC1 and PCC2).
 - Need for renewable energy certificates in 2014 and beyond to support RPS compliance (PCC3) and voluntary renewable energy targets (Green E).
 - Need for carbon neutral energy in 2014 and beyond to support voluntary GHG emissions targets.
 - Capacity purchases are needed to meet resource adequacy obligations beginning in 2015.

Highlights of Draft IRP – Procurement Methods

- Bilaterally negotiated/brokered agreements – used for short to medium term purchases of standardized products in markets with price transparency; also used for unique, fleeting opportunities.
- Open Season process – annual cycle generally used for longer term procurement needs.
- Requests for proposal process – may be used for mid or long term commitments when urgent or unique needs are identified, time permits to conduct process, and RFP deemed likely to produce most competitive outcome.
- Standard Offer/Feed-In-Tariff – for small, local projects, subject to programmatic limits (long term).

Questions? Comments?

Group Solar Purchasing Program



October 14, 2013

Summary

- MCE has already exceeded its 2020 distributed generation (DG) goal of 20 MW
- The installation rate in MCE's service territory over the last five years has been roughly 2.7 MW per year
- If there is continued interest in aggressively encouraging DG, MCE could consider administering a solar group purchasing program
- Next steps would include:
 - Finalizing a partnership model
 - Clarifying MCE's administrative role and associated budget
 - Further evaluating program costs and benefits
 - Finalizing a solicitation document

Potential Benefits & Costs of a Group Purchasing Program

Potential Benefits

- Could marginally reduce MCE's resource adequacy requirements
- Should reduce peak energy requirements/procurement costs
- Would reduce GHG emissions
- Should promote local job creation
- Could improve economics for solar customers
- Could ease solar purchasing process for customers
- Could promote transparent competition
- Potential use of RECS in MCE supply portfolio

Potential Costs/Concerns

- Would reduce revenue (from energy MCE energy sales)
- Would impose certain administrative costs
- Could result in third party costs (e.g., tech assistance providers)
- May impose additional liability
- Could frustrate non-selected solar vendors

For Reference: Existing Solar Purchasing Programs

Year	Name	Customer Sector	# of participants	KW Installed	Average base cost (\$/watt)	Price Reduction (%)
2007	GoSolarMarin	Residential	100	300		
2008	SV-REP (Santa Clara County)	Municipal	9 local govts.	14400		12
2009	Solarize Portland	Residential	130	350		36
2011	SunShares (San Jose)	Residential (city employees)	29	140	4.42	
2011, 2012	Solarize Washington	Residential, Small Commercial	244	1081		
2011	Solarize Mass	Residential, Small Commercial	162	829		
2012	Solarize Mass	Residential, Small Commercial	803	5100	3.91	14
2012	Milwaukee Power Pack	Residential	10	28		
2012	Solarize Connecticut	Residential	300	2300		
2012	Solar@Work (San Francisco)	Small Commercial	5	157	4.25	
2013	SEED (Marin, Napa, Sonoma)	Municipal	14	5072		

Spectrum of Potential Partnership Opportunities

One to One

One to Many

~~Co-branded one to one partnership~~

Multiple partners

Hosted marketplace

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**Go Solar with the Sierra Club.
Get a \$750 cash gift card!***

When you go solar with Sungevity and the Sierra Club, Sungevity gives you a \$750 cash gift card and gives another \$750 to support the Sierra Club.



“ I'm very happy with my solar panels. The panel installation went flawlessly, and Sungevity does a good job monitoring and servicing the system. In the future I will see a net savings because utility costs will rise faster than my lease amount. I was also happy that Sierra Club got money back from Sungevity. **”**

—David S, California

HOW MANY SIERRA CLUB HOMES HAVE GONE SOLAR?

836



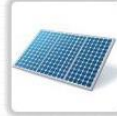
Make your home the next house on your block to go solar.

My Energy Tool - My Ener x

myenergytool.mcccleanenergy.com/audit/get-started/segment/0

Energy Usage For New unit

Solar

 Interested in solar power?

Yes

Enter information on surfaces for the area that could likely support solar panels; preferably roof or open ground areas. Use the picture of your home below to assist you.

Direction

Which direction does the roof surface generally face? South or West are the most useful directions.

Southeast

Roof Pitch

Select angle of the roof surface.

Moderate - 30 degrees

Roof Shading


Select how much shading covers the area at mid-day.

Little

Ownership Model

Select the ownership model that you are interested in pursuing in order to receive competitive bids from solar vendors.

Lease



Hosted Marketplace Model – Benefits & Concerns

Benefits

- Least liability for MCE
- Relatively simple to design and administer
- Could provide transparent apples to apples comparison of solar bids through a standard process
- Could potentially include neutral, third party solar assessments
- Might lead to price reductions for solar through more direct competition
- Would drive customers to MCE website

Concerns

- Group discount unlikely
- Lack of control over customer experience
- No source of funding (for marketing, technical assistance, etc) unless is charged
- No simple mechanism for REC transfer
- Too many choices for customers
- Little leverage to shape vendor requirements

Multiple Partner Model – Benefits & Concerns

Benefits

- Could provide transparent apples to apples comparison of solar bids through a standard process
- Could potentially include neutral third party solar assessments
- Might drive prices lower through more direct competition
- Would drive customers to MCE website
- Incentive for vendors to perform (e.g., Sierra Club “beauty contest”)
- Straightforward pricing discount
- More leverage with vendors = greater ability to set rules in the sandbox

Concerns

- May anger non-selected vendors
- More time intensive/costly to administer (e.g., would require an RFP process)
- Limited volume per vendor = smaller discount than direct partnership
- Actions of vendor/installer reflect on MCE
- May not offer selected vendors sufficient incentive to participate

Marketing & Outreach

Hosted Marketplace

- Customer learns about offering through MCE outreach

Multiple Partners

- Customer learns about solar program through MCE/vendor/community outreach
- Marketing effort/\$ is an element of solar program RFP
- Marketing language could include reference to a “limited time offer,” “tiered group discount” and/or “select vendors”

Solar Assessments & Technical Support

Hosted Marketplace

- Customer creates an account on MCE's MyEnergyTool and enters usage information and property specs
- MyEnergyTool provides estimates for system size and ROIs (across rate schedules)

Multiple Partners

- Support for more direct technical assistance is an element of solar program RFP
- At any point, customer can call MCE 3rd party technical adviser (eg, SolarSmart, Solar Richmond, MCCDC, Solar Action Alliance) to discuss MyEnergyTool assessment and ownership options
- Strong candidates for solar could receive a free 3rd party on-site solar assessment

Selecting a Vendor & Signing a Contract

Hosted Marketplace

- Customer solicits standardized bids for their project from select solar vendors by posting the results of their solar assessment
- Bids include qualitative information about vendors (e.g., the percentage of local labor used)
- Customer selects bid and signs contract (with stipulations for adders)

Multiple Partners

- Bids reflect tiered group purchasing discounts
- Customer receives 3rd party technical assistance to select bid
- Contract could include language addressing the disposition of surplus RECs (to be transferred to MCE)

Permitting & Installation

Hosted Marketplace

- Vendor applies for permit
- Vendor installs solar panels

Multiple Partners

- MCE improves permitting process by leveraging program (i.e. only communities that meet minimum permitting benchmarks/agree to a fast track process will be eligible to participate)
- Job training, local subcontractors are an element of solar program RFP

Monitoring

Hosted Marketplace

- Customer independently monitors system energy production/consumption through interface provided by selected vendor (if available)

Multiple Partners

- Monitoring is performed through MyEnergyTool or other required software offering (as specified in solicitation document)
- MCE displays aggregate system output and environmental benefits in real time

For future consideration

Additional services could be integrated in group solar purchasing program (at some point in the future):

- Battery storage
- Demand response capability
- Electric vehicle support

Questions?



MEA Feed-In Tariff: Potential Process Improvements

Current Procedural Overview

1. FIT Application submitted by project sponsor
 - a. Contact information
 - b. Project information (location, resource type, capacity, etc.)
 - c. Developer experience and financing plan
 - d. Interconnection Application
2. Seller provides executed Interconnection Agreement to MEA
3. Seller provides an executed FIT PPA to MEA
4. MEA countersigns FIT PPA (term and price are specified)
5. Project begins delivering renewable electricity to MEA

Improved FIT Procedure – More Information/Feedback/Guidance Provided to Project Sponsor

1. FIT Registration completed by project sponsor (similar to current application)
 - a. Registration form (online?) to be completed by project sponsor
 - b. “FIT Record #” provided to sponsor
 - i. FIT Record # will be used to create project file
 - ii. Requisite documents and project correspondence to be saved in project file
 - c. Pertinent contact information provided to project sponsor
 - i. PG&E interconnection
 - ii. Site-specific planning authority(ies)
 - iii. MEA FIT contact – MEA to contact FIT project sponsor to confirm receipt of Registration
 - d. Additional information related to FIT contracting process provided to project sponsor
 - i. Checklist – necessary documentation and procedural requirements
 - ii. MEA FIT & PPA
 - iii. Current installed capacity under MEA FIT; in-process checklists nearing completion
 - iv. Remaining capacity under current price “Condition”
 - e. Applicant advised that all checklist items must be completed before PPA execution can occur
2. Completion of “Development Checklist”
 - a. Evidence of site control
 - b. Evidence of permit receipt
 - c. Application for RPS certification (CEC)
 - d. WREGIS account holder registration (unless generator registration assigned to MEA)
 - e. WREGIS generator registration (or delegation to MEA)
 - f. Interconnection Agreement (executed by PG&E)
 - g. Execution of standby service agreement with PG&E, as necessary
 - h. Review/acceptance (as necessary) of MEA/QRE agreement
 - i. Signed FIT PPA (by Seller)
3. Successful completion of Development Checklist will create eligibility for FIT PPA execution by MEA
4. MEA countersigns FIT PPA (term and price are specified)
5. Project begins delivering renewable electricity to MEA