CITY OF HAYWARD

Hayward City Hall
777 B Street
Hayward, CA 94541
www.Hayward-CA.gov

Agenda

Monday, November 13, 2017

4:30 PM

City Hall, Conference Room 2A

Council Sustainability Committee

CALL TO ORDER

ROLL CALL

PUBLIC COMMENTS:

(The Public Comment section provides an opportunity to address the City Council Committee on items not listed on the agenda as well as items on the agenda. The Committee welcomes your comments and requests that speakers present their remarks in a respectful manner, within established time limits, and focus on issues which directly affect the City or are within the jurisdiction of the City. As the Committee is prohibited by State law from discussing items not listed on the agenda, any comments on items not on the agenda will be taken under consideration without Committee discussion and may be referred to staff.)

APPROVAL OF MINUTES

1. MIN 17-145 Approval of Minutes of Council Sustainability Meeting on September 11, 2017

Attachments: Attachment I Minutes of Council Sustainability Meeting on September 11, 2017

REPORTS/ACTION ITEMS

2. RPT 17-162 Water Loss Audit - Senate Bill 555 Compliance

Attachments: Attachment I Staff Report

3. ACT 17-065 Recycled Water Supply Options

Attachments: Attachment I Staff Report

4. ACT 17-066 Construction, Repair, Reconstruction, Destruction or Abandonment of Wells: Introduction of Ordinance Updating Section 5-4.10 of the Hayward Municipal Code

Attachments: Attachment I Staff Report

Attachment II Draft Ordinance

5. ACT 17-068 East Bay Community Energy - Possible Purchase of Local Renewable Energy for City Facilities

Attachments: Attachment I Staff Report
Attachment II Options for Local Renewable Energy Projects

6. ACT 17-067 Proposed 2018 Agenda Planning Calendar

Attachments: Attachment I Staff Report

FUTURE AGENDA ITEMS

COMMITTEE MEMBER/STAFF ANNOUNCEMENTS AND REFERRALS

ADJOURNMENT

File #: MIN 17-145

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

Approval of Minutes of Council Sustainability Meeting on September 11, 2017

RECOMMENDATION

That the Committee reviews and approves the minutes of the Council Sustainability Committee meeting on September 11, 2017.

ATTACHMENTS

Attachment I Minutes of Council Sustainability Meeting on September 11, 2017

CITY COUNCIL SUSTAINABILITY COMMITTEE MEETING
Hayward City Hall – Conference Room 2A
777 B Street, Hayward, CA 94541-5007

September 11, 2017
4:30 p.m. – 6:30 p.m.

MEETING MINUTES

CALL TO ORDER: Meeting called to order at 4:30 p.m. by Chair Mendall.

ROLL CALL:

Members

- Al Mendall, City Council Member/CSC Chair
- Elisa Márquez, City Council Member
- Francisco Zermeño, City Council Member

Staff:

- Maria Hurtado, Assistant City Manager
- Alex Ameri, Director of Utilities & Environmental Services
- Jan Lee, Water Resources Manager
- Erik Pearson, Environmental Services Manager
- Jeff Krump, Solid Waste Program Manager
- Mary Thomas, Management Analyst
- Christopher Sturken, CivicSpark AmeriCorps Fellow
- Carol Lee, Administrative Secretary (Recorder)

Others:

- Jillian Buckholz, Director of Sustainability, California State University East Bay (CSUEB)
- Lonny Brooks, Assistant Professor of Communications, CSUEB
- Craig Derksen, Assistant Professor of Philosophy, CSUEB
- Kim Huggett, Hayward Chamber of Commerce
- Stephen Wolcott, DNV GL
- Steven Dunbar, Bike Walk Eden
- Amanda Groziak

PUBLIC COMMENTS

None.

1. Approval of Minutes of Council Sustainability Meeting on July 10, 2017.

It was moved by Council Member Zermeño, seconded by Council Member Márquez, and carried unanimously, to approve the minutes of the Council Sustainability Committee meeting of July 10, 2017.

Chair Mendall announced that staff would present Item 5, Design and Construction Approach for the Solar Photovoltaic System Project at the Water Pollution Control Facility – Phase II, before Item 2, Pioneers for Sustainable Communities.

2. Pioneers for Sustainable Communities -Final Reports on Littering & Composting

Environmental Services Manager Erik Pearson introduced the item and provided a synopsis of the Pioneers for Sustainable Communities program.

Assistant Professor Lonny Brooks and Assistant Professor Craig Derksen presented two videos and highlighted some achievements of the 2016/2017 academic school year littering and composting projects.

The Committee was pleased with the program, with positive comments regarding the value of the development of job readiness skills in the students.

3. East Bay Energy Watch Programs for Small and Medium-Sized Businesses

Environmental Services Manager Erik Pearson introduced Stephen Wolcott, Program Manager at DNV GL, who presented the item.

Discussion ensued regarding outreach to small and medium-sized businesses on Tennyson Road. The Committee asked that DNV GL staff be mindful not to interrupt businesses during prime business hours, or be flexible with scheduling visits if requested. Mr. Wolcott shared that business owners are generally open to the visit and are typically interested in the potential cost savings. He added that DNV GL staff is multi-lingual, and find that discussing the programs with business owners in their native language very successful.

Council Member Zermeño suggested adding Farsi to the list of languages used in program materials.

4. CY 2015 Greenhouse Gas Emissions Inventory

Management Analyst Mary Thomas outlined the City's greenhouse gas (GHG) emission reduction targets, and together with CivicSpark Fellow Chris Sturken, presented the report.

The Committee and staff discussed potential solutions to reducing GHG emissions within the City, including choosing cleaner energy as the default in Hayward, making changes to the flow of traffic within the City, changing new construction requirements to promote renewable energy, and proactively planning for changes in renewable energy technology.

Jillian Buckholz, Director of Sustainability at CSUEB, cautioned staff against performing an annual GHG inventory, which in the experience of CSUEB, has proved to be a lot of work without the benefit of noticing much change year-over-year. She also proposed that the City partner with CSUEB to work with AC Transit to provide free or discounted public transportation for students who take buses to and from school, to reduce transportation sector GHG emissions.

The Committee was in favor of adopting shorter-range GHG emission reduction goals, and expressed that it was appropriate to add goals for 2025 and 2030.

Council Member Márquez expressed her concerns that Assembly Bill 813 and Assembly Bill 726 could potentially have adverse impact on community choice aggregation. The Committee suggested that the Mayor send a letter to the State opposing AB 813 and AB 726.

5. Design and Construction Approach for the Solar Photovoltaic System Project at the Water Pollution Control Facility – Phase II

Director Ameri provided a brief overview of the report and sought the Committee's direction regarding the contacting approach for Phase II of the Solar Photovoltaic System Project.

The Committee and staff discussed the advantages and drawbacks of the design-build approach, including the potential for higher quality of design, more experienced builders, the flexibility in design compared to the design-bid-build process, cost implications, and public perception. Discussions continued concerning the current market rate for solar PV technology, potential partnerships with East Bay Community Energy (EBCE), and the appropriate size of the new solar PV facility.

It was moved by Council Member Zermeño, seconded by Council Member Márquez, and carried unanimously, for staff to pursue the Design-Build approach to solicit bids from multiple contractors for the design, procurement, and construction of Phase II of the Solar Photovoltaic System Project.

6. Proposed CSC 2017 Agenda Planning Calendar

Council Member Márquez excused herself at 6:00 p.m.

Chair Mendall reiterated his preference to see more policy items on future agendas.

The Committee suggested future items, including a potential ban on plastic straws, utensils, and packaging, expanding the City's ban of polystyrene, and EBCE's default option for Hayward.

COMMITTEE MEMBER/STAFF ANNOUNCEMENTS AND REFERRALS:

Director Ameri noted that there has been some good progress with Hayward Unified School District (HUSD) regarding lead testing in schools. Testing at Bowman Elementary has been conducted, and results are pending. Staff will continue to work with HUSD in this regard. Chair Mendall stressed the importance of making the results public, and requested that staff ensure that it is done in a timely and transparent manner.

Director Ameri stated that staff continues to consider bike share programs that could potentially work for the City, and noted that a new technology may make certain programs more appropriate for the needs of users in Hayward.

Staff and the Committee discussed a memo that the City received from EBCE that sought the City's interest in entering a ten to twenty-year contract to purchase locally produced renewable energy by Alameda County, and pay 5-11% more. Chair Mendall expressed his interest in further discussing the topic at the November Council Sustainability Committee Meeting.

Council Member Zermeño requested that staff consider ways to collaborate with students and clubs at Chabot College to further sustainability efforts on campus. He also announced that the Mariachi Festival will take place on Saturday, September 16, and will feature a taco eating contest. The event will take place at City Hall Plaza.

ADJOURNMENT: 6:12 p.m.

Attendance	Present 09/11/17 Meeting	MEETINGS Present to Date This Fiscal Year	Excused to Date This Fiscal Year	Absent to Date This Fiscal Year
Elisa Márquez	✓	2	0	0
Al Mendall*	✓	2	0	0
Francisco Zermeño	✓	2	0	0

✓ = Present O = absent X = excused
* Chair

File #: RPT 17-162

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

Water Loss Audit - Senate Bill 555 Compliance

RECOMMENDATION

That the Committee reviews and comments on this report.

ATTACHMENTS

Attachment I Staff Report

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Water Loss Audit – Senate Bill 555 Compliance

RECOMMENDATION

That the Committee reviews and comments on this report.

SUMMARY

Senate Bill 555 (SB 555) requires California water suppliers to audit their distribution system and report their annual water loss to the Department of Water Resources (DWR) by October 1, 2017. The City prepared and submitted its report, which showed 6.6% non-revenue water, as percent by cost of operating system, before the deadline. Details of the City's 2016 water loss audit are included in this report.

BACKGROUND

To improve water loss reporting in California, SB 1420 (2014) was passed requiring water suppliers to submit water loss audits as part of urban water management plans (UWMP) prepared once every five years. In October 2015, with California amid one of the worst droughts in state history, Governor Brown approved SB 555, which further built upon SB 1420, and requires California's water suppliers to audit their distribution systems and report their annual water loss to DWR by October 1, 2017. The intent of the bill is to ensure that California communities use existing water supplies as efficiently as possible.

SB 555 also requires DWR to post all validated water loss audit reports on its website, in a manner that allows for comparisons across water suppliers. It is anticipated that this information will be available in early 2018. Longer term, SB 555 also requires the State Water Resources Control Board (SWRCB or "State Board") to adopt rules requiring water suppliers to meet performance standards for water losses by July 1, 2020. These standards have yet to be defined.

In general, the amount of water lost due to leakage in the distribution system of the State's water suppliers is not well known. This is largely due to the fact that not all water suppliers perform regular water loss audits. If water audits are not conducted, it is difficult for a water agency to know the extent of its losses and unlikely that the agency will implement practices to reduce these losses.

Types of Water Losses

There are several types of water losses, and it is important to differentiate between them when reviewing the results of a water loss audit.

Total Water Losses: the difference between total water supplied and total water consumed. Total Water Losses include all water that is not identified as authorized metered water use or authorized unmetered use.

Non-Revenue Water: the sum of Total Water Losses and unbilled unmetered water, including water used for firefighting and flushing of the distribution system. "Unaccounted-for-water" is another common term used to describe this kind of water loss.

Apparent Losses: the volume of water that reaches consumers but is not properly accounted for due to inaccurate metering, systematic data handling errors, and unauthorized consumption (theft). Apparent Losses, also known as "paper" losses, reflect uncaptured revenue.

Real Losses: the volume of water that is physically lost from the system due to leakage and unintentional tank overflow. Leakage can occur on distribution and trunk mains, service connections, fire hydrants, valves, other appurtenances, and storage reservoirs.

DISCUSSION

The City of Hayward has a longstanding and active commitment to monitoring and addressing distribution system water losses. Historically, unaccounted for water has been a relatively small percentage in relation to total water deliveries, ranging typically from 6% to 9%. However, this percentage increased beyond an acceptable level in 2010, prompting the City to take aggressive actions.

To better understand the nature of the loss, the City completed a detailed water audit, utilizing AWWA methodology, which uses known factors, such as system input volume, authorized consumption, and revenue water, to determine real and apparent water losses.

Losses peaked at 14% in 2011. A comprehensive leak detection and repair effort was implemented to locate leaks throughout the distribution system, starting with water mains. When no significant leaks were located because of this first effort, the City decided to expand the leak detection project to include all service connections. Likewise, the expanded project did not find any significant leaks. Staff suggested that pressure management may be necessary to minimize water loss, since some of the loss may have potentially resulted from high system pressure in certain locations. Through these efforts and other measures, real losses have been significantly reduced. The water audit for 2015 indicates total losses, apparent and real, of 8%, with real losses of 4%.

2016 Water Loss Audit:

As per the State's requirement, the City recently completed a water audit using 2016 data. The audit was performed by entering water supply and water consumption data points into a standard model, and assigning a data validity grade to each. Details of the audit are summarized below.

		MG/year	Actual or Assumed
Water Supplied	SFPUC Purchased Water	4,558.1	Actual
Water Consumed	Billed Metered*	4,204.0	Actual
	Unbilled Unmetered**	11.4	Assumed (0.25%)***
Water Losses	Supplied less Consumed	342.7	

*Billed metered – all metered consumption billed to retail customers
**Unbilled unmetered - includes activities such as firefighting, water main flushing, etc.
***AWWA suggested default value for all California utilities

Water Losses

Water losses are further calculated into categories, including non-revenue water, apparent losses, and real losses. Each category is detailed below.

Non-Revenue Water: 354.1 MG/year (*7.8% of Water Supplied*)

To calculate non-revenue water, which is defined as water which does not provide revenue potential to the utility, the model sums total water losses (342.7 MG/year) and unbilled unmetered consumption (11.4 MG/year).

Apparent Losses: 170.3MG/year (*3.74% of Water Supplied*)

To calculate apparent losses, the model factors in three data points:

1. Unauthorized consumption. Accounts for any way to receive water that thwarts the water utility's ability to collect revenue for the water, including water illegally withdrawn from hydrants, illegal connections, bypasses to customer consumption meters, or tampering with meters or meter reading equipment.
    a. Calculation method: Assumed at 0.25% of total water supplied.
    b. 2016 Value: 11.4 MG/year

2. Customer metering inaccuracies. Accounts for collective under-registration of customer water meters in recognition of meter wear over time.
    a. Calculation method: Estimated percentage under-registration (3.4%) multiplied by consumption.
    b. 2016 Value: 148.4 MG/year

3. Systematic data handling errors. Accounts for any type of data lapse that results in understated customer water consumption in summary billing reports.
    a. Calculation method: Assumed at 0.25% of billed authorized consumption
    b. 2016 Value: 10.5 MG/year

Real Losses: 172.4 MG/year (*3.78% of Water Supplied*)

To calculate real losses, the model subtracts apparent losses (170.3MG/year) from total water losses (342.7 MG/year), to arrive at 172.4 MG/year.

Cost Data

The model also uses cost data to assign a cost to water losses. Data points include total annual operating cost, customer retail unit cost, and variable production cost.

Total Annual Operating Cost: $48,070,471/year

These costs include those for operations, maintenance and any annually incurred costs for long-term upkeep of the distribution system.

Customer Retail Unit Cost: $9.38/ccf

This cost represents the charge that customers pay for water service. Since most utilities have a rate structure that includes a variety of different costs based upon class of customer, a weighted average of individual costs and number of accounts in each class is used to determine this single composite cost. In the City's case, this also includes additional charges for sewer for commercial customers, since these charges are based upon the volume of water consumed. This cost is applied to the volume of apparent losses, since these losses represent water reaching customers but not paid for.

Variable Production Cost: $5,592.85/MG

This is the cost to produce and supply the next million gallons of water and is determined by calculating the summed unit costs for wholesale purchased water and power used for pumping from the source to the customer. This cost is applied to the volume of real losses.

Performance Indicators

There are several performance indicators calculated through the water loss audit process. As mentioned previously, DWR has yet to determine the rules requiring water suppliers to meet certain performance standards (required by July 1, 2020).

Annual Cost of Apparent Losses	$2.14M
Annual Cost of Real Losses	$964K
Non-revenue water as percent by volume of Water Supplied	7.8%
Non-revenue water as percent by cost of operating system	6.6%
Apparent Losses per service connection per day	13.14 gallons
Real Losses per service connection per day	13.29 gallons

STRATEGIC INITIATIVES

This agenda item is a routine operational item and does not relate to one of the Council's Strategic Initiatives.

ECONOMIC & FISCAL IMPACT

The results of the audit include information about the costs associated with water loss. These costs are factored into system operating expenses, and to the extent they can be reduced, the revenue requirement for the water system would also be reduced, and customers would benefit from potentially lower water rate increases. Industry standards generally suggest that having a non-revenue water as percent by cost of operating system less than 10%is acceptable. The City's audit resulted in 6.6%non-revenue water as percent by cost of operating system. Zeroing in on leaks in this percentage range can have a diminishing return effect, resulting in higher costs to locate and fix the leaks than taking no action and redirecting resources to other areas with greater impact, such as pressure reduction management.

SUSTAINABILITY FEATURES

While this year's water supply outlook is favorable, water is natural resource and must be managed as such. The water loss audit is a valuable tool that allows the City to monitor water loss and informs proactive and effective actions to minimize it. SB 555 now requires the submittal of a validated audit, but this practice is one that the City has been and will continue to be committed to.

PUBLIC CONTACT

All water loss audits, including the City's, will be posted to DWR's website in early 2018.

NEXT STEPS

The City will continue to monitor water loss and has budgeted approximately $400K in the Water Replacement Capital Fund for various projects to address distribution system leak detection and pressure reducing strategy development. The City is also currently replacing water meters as part of a comprehensive meter replacement and Advanced Metering Infrastructure (AMI) project. The project is approximately halfway complete. A new meter inventory will decrease customer metering inaccuracies, and thereby reduce apparent and real losses. The project will also provide more detailed consumption information, which increases the data validity of authorized consumption.

Prepared by: Corinne Ferreyra, Senior Management Analyst

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

Kelly McAdoo, City Manager

File #: ACT 17-065

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

Recycled Water Supply Options

RECOMMENDATION

That the Committee reviews this report and comments on the proposed approach for providing a recycled water supply source for the City's Recycled Water Project.

ATTACHMENTS

Attachment I Staff Report

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Recycled Water Supply Options

RECOMMENDATION

That the Committee reviews this report and comments on the proposed approach for providing a recycled water supply source for the City's Recycled Water Project.

SUMMARY

The City's current Capital Improvement Program includes the Recycled Water Storage and Distribution System Project (Recycled Water Project), which would provide a locally sustainable and drought-proof supply of recycled water to customers for irrigation and industrial uses. Since 2016, City and Russell City Energy Company, LLC (RCEC) staff have been in discussions on a recycled water supply agreement for the City to purchase surplus tertiary treated recycled water from RCEC as the source of supply for the City's project. The key terms of the proposed recycled water supply agreement with RCEC and a separate supply option for the City to construct a City-owned recycled water treatment facility were discussed with the Council Sustainability Committee on May 8, 2017, as part of an overall update on the City's Recycled Water Project. This report has been prepared to update the Committee on the status of the supply options for the City's Recycled Water Project and provide information on staff's proposed approach for moving forward with final design of a City-owned recycled water treatment facility, in parallel with continuing discussions with RCEC.

BACKROUND

The City's Recycled Water Project consists of constructing a one-million-gallon storage tank and pump station at the City's Water Pollution Control Facility (WPCF) and installing approximately ten miles of distribution pipelines and customer connections to deliver an estimated 290 acre-feet per year, or about 260,000 gallons per day, of recycled water. Customers would include parks, schools, businesses and industrial parks within a three-mile radius of the WPCF. Once the initial distribution and storage system is constructed, there may be opportunities to expand the system and include more customers in future phases.

During the planning phase, staff evaluated two recycled water supply options for the project:

(A) Purchase of recycled water from RCEC
(B) Construction of a new City-owned recycled water treatment facility

Both recycled water supply options were analyzed in the environmental documentation prepared for the project. The planning studies recommended that the City pursue obtaining a recycled water supply from RCEC for the initial phase of the Recycled Water Project. This arrangement had been contemplated in the 2012 Water Supply Agreement between the City and RCEC, under which the City provides RCEC with up to 4.1 million gallons per day (MGD) of secondary treated wastewater for RCEC's treatment and use at its Russell City Energy Center.

The Russell City Energy Center is a 620-megawatt electric power generating facility located adjacent to the City's WPCF. The Russell City Energy Center includes a Recycled Water Facility that takes secondary treated wastewater from the City and further treats it to produce disinfected tertiary recycled water that meets Title 22 of the California Code of Regulations (Title 22) requirements for unrestricted use for nonpotable purposes. Title 22 requirements are stringent water quality standards set by the State to ensure the safe production, distribution, and use of recycled water in California. Under the arrangement being discussed by City and RCEC staff, the City would purchase surplus recycled water produced at RCEC's Recycled Water Facility and distribute it for use by City customers.

On May 8, 2017, staff provided an update to the Committee on the status of the Recycled Water Project, including an overview of the key terms of the supply agreement being negotiated between City and RCEC staff. Staff discussed that in the event RCEC and the City are unable to reach agreement on the final terms and conditions of the recycled water supply agreement and/or the City determines it is more feasible to operate a separate recycled water treatment facility, staff would return to Council to request authorization to proceed with installing a City-owned recycled water treatment facility at the WPCF. To avoid potential delays in implementing the project, the Committee directed staff to initiate work on the City-owned recycled water treatment facility option in parallel with efforts to finalize the supply agreement with RCEC.

DISCUSSION

Implementation of the Recycled Water Project is approaching a critical milestone with final design of the recycled water storage and distribution system scheduled to be completed in December 2017. Over the past several months, progress on finalizing a supply agreement with RCEC has slowed considerably, raising uncertainty on whether an agreement can be reached with RCEC in a timely manner. The following sections describe the status of the two recycled water supply options and staff's proposed approach for ensuring a supply source for the project.

<u>Supply Option A: Recycled Water Supply Agreement with RCEC</u>

In April 2017, RCEC provided the City with a Letter of Intent to provide a recycled water supply for the City's project, provided that a mutually acceptable agreement could be reached between

the parties. In June 2017, the parties worked on a draft agreement that includes the following key terms:

- Supply: RCEC would provide up to 0.5 MGD of surplus disinfected tertiary treated recycled water that meets Title 22 requirements.
- Cost: The City's cost to purchase recycled water would be based on the incremental cost for RCEC to produce additional recycled water, which is expected to be below the current wholesale purchase cost of drinking water. The City would pay all costs for RCEC to modify piping and related facilities to deliver recycled water to the City
- Recirculated water: The City would allow RCEC to return water that does not meet Title 22 requirements to the WPCF to help expedite RCEC's efforts to get its Recycled Water Facility back online after process upsets. RCEC would pay the sewer service charge for any non-compliant recycled water discharged to the City's WPCF. Under the terms of the proposed agreement, the sewer connection fee would be waived so long as RCEC's discharge meets certain limits specified in the agreement.
- Term: The proposed term of the recycled water supply agreement would be for a two-year period that begins once the City's project is fully constructed and ready to receive recycled water. The parties could mutually agree to one-year extensions after the initial two-year term has ended.
- Approvals: Each party would be responsible for obtaining all necessary approvals required to fulfill their obligations under the agreement. The proposed agreement provides for the parties to meet and confer on appropriate remedies, including termination of the agreement, if permits cannot be obtained within eighteen months of execution of the supply agreement.
- Termination: The proposed agreement provides the City with the right to terminate the agreement in its sole discretion with 180 days prior notice. If the City elects to exercise its right to terminate, the City would need to reimburse RCEC for its out-of-pocket permit expenses up to a maximum agreed amount.

The proposed agreement with RCEC is envisioned to be a short-term agreement that would provide the supply for the City's initial phase of the Recycled Water Project, while the parties continue discussions and planning on longer term recycled water arrangements. However, efforts to finalize a near-term supply agreement with RCEC have taken longer than anticipated and it is uncertain whether a final agreement can be executed and implemented in a timely manner. Although some progress has been made recently, even if a supply agreement can be executed with RCEC in the next few months, implementation of the agreement is still conditioned upon RCEC's ability to obtain all necessary permit approvals, including approval from the California Energy Commission, which could be a lengthy process. Therefore, while a short-term supply agreement with RCEC is still staff's preferred supply option for the initial phase of the Recycled Water Project, staff is proposing to move forward with final design of a City-owned recycled water treatment facility in parallel with continuing discussions with RCEC.

Supply Option B: City-owned Recycled Water Treatment Facility

As directed by the Committee, staff has initiated work on a City-owned recycled water treatment facility option that could be implemented in the event a supply agreement with RCEC cannot be finalized or implemented. The City-owned recycled water treatment facility would be a package membrane system, capable of producing up to 0.5 MGD of tertiary treated recycled water meeting Title 22 requirements for the initial phase of the City's Recycled Water Project. The package membrane system would be sited at the WPCF, adjacent to the future recycled water storage tank and pump station, and consist of a feed pump station, a containerized microfiltration (MF) or ultrafiltration (UF) filtration system, and chlorine disinfection. Package membrane systems are highly reliable, require minimal engineering, and can be installed in a relatively short time-frame (nine months).

A typical approach for a package membrane system is to pre-select the membrane manufacturer so final design documents can be prepared for installing the selected membrane filtration system. This approach reduces time and the risk of change orders during construction. Staff has worked with a consultant to prepare procurement documents to pre-select the membrane manufacturer and is now proposing to move forward with final design of the package membrane system. The scope of work for final design includes finalizing and advertising the procurement documents to pre-select the membrane manufacturer and preparing final design documents to install the selected membrane filtration system, feed pump station, chlorine disinfection system, and other ancillary facilities. In parallel, staff would work with regulatory agencies to amend the City's permit application to allow the flexibility for the City to provide the supply for the City's Recycled Water Project, if the City opts to implement the City-owned recycled water treatment facility option.

If the Committee concurs with staff's proposed approach, staff anticipates selecting a consultant and asking Council to consider authorizing a professional services contract for design services of the package membrane system in December 2017. Final design is estimated to take nine months and construction of the package membrane system could be ready to be advertised by fall of 2018. This schedule matches the schedule for construction of the storage and distribution system and would avoid the potential for significant delays to the project schedule, which could potentially affect outside funding that has been secured for the project.

Proceeding with final design of a City-owned recycled water treatment facility provides the City with a supply option that is within the City's control and discretion to implement.
The package membrane system would provide the supply for the City's initial phase of the Recycled Water Project and could potentially be expanded during the interim, as the City continues to explore potential long-term recycled water supply options. Even if an agreement can be reached with RCEC, staff recommends proceeding with final design of the package membrane system to provide the City with a back-up option in the event RCEC cannot obtain permit approvals in a timely manner. Completing final design of a City-owned recycled water treatment facility also provides the City with flexibility to quickly implement a recycled water supply option if the parties elect not to continue the arrangement after the initial two-year supply agreement concludes.

ECONOMIC IMPACT

The economic impact of the Recycled Water Project on customers will, to a large measure, depend on the total costs to implement the City's Recycled Water Project, which includes the capital and operating costs for the storage and distribution system, and the cost to either purchase recycled water from RCEC or construct, operate, and maintain a City-owned recycled water treatment facility. Over a twenty-year period, the costs to purchase recycled water from RCEC and the City-owned recycled water treatment facility are estimated to be roughly the same. To the extent that the project is partially funded by grants, the overall cost impact to customers will be reduced. Once the costs are finalized and funding sources are in place, staff will recommend a rate structure that would provide a balance between recovering costs over the life the project and offering an incentive to customers who are able to receive recycled water. The community will benefit from this project through greater diversity and reliability of water supplies, especially during periods of drought.

STRATEGIC INITIATIVES

This agenda item supports the Tennyson Corridor Strategic Initiative. The purpose of the Tennyson Corridor Strategic Initiative is to develop an attractive, cohesive, thriving Tennyson Corridor through thoughtful engagement with residents, businesses and community partnerships. There are two sites located in the Tennyson Corridor that are proposed to be connected to the recycled water system, and would therefore support the following goal and objectives:

Goal 3: Improve Community Appearance

Objective 1: Enhance landscaping
Objective 3: Decrease blight

The use of recycled water will help create attractive outdoor spaces in the Tennyson Corridor. Since recycled water is a sustainable and drought-proof source of supply, customers will be able to maintain their landscaping during water supply shortages when drinking water supplies are limited.

FISCAL IMPACT

The current Ten-Year Capital Improvement Program (CIP) includes $19.3 million for the Recycled Water Project and an additional $1.3 million for the City to construct the City-owned recycled water treatment facility (Supply Option B). Design efforts to implement Supply Option B have just been initiated. Although it is difficult to estimate the cost to implement Supply Option B with certainty until the design is further developed, staff's best estimate at this time is that the cost will total approximately $2 million. Staff expects that the costs will be refined prior to adoption of the FY2019 CIP. If additional monies are needed, staff will ask the Council to consider the increased funding in the Sewer Improvement Fund when the FY2019 CIP is adopted. Implementation of both the Recycled Water Project and Supply Option B will not utilize any General Fund monies.

SUSTAINABILITY FEATURES

The use of recycled water will reduce the demand for drinking water and improve the reliability and availability of drinking water, while providing a sustainable and drought-proof water supply for some irrigation uses. It will also reduce the volume of wastewater and associated residual pollutants discharged to San Francisco Bay, which is required to meet increasingly stringent discharge regulations.

PUBLIC CONTACT

The City completed an environmental review of the Recycled Water Project in October 2014 and a draft Initial Study/Mitigated Negative Declaration (IS/MND) was circulated for a thirty-day public review from October 24, 2014 through November 24, 2014. The IS/MND included environmental review of both obtaining a recycled water supply from RCEC and construction of a City-owned recycled water treatment facility. The IS/MND was adopted on December 16, 2014, incorporating all the comments that were received.

The proposed recycled water supply agreement was discussed with the Committee on May 8, 2017. At this meeting, the Committee directed staff to begin work on the City-owned recycled water treatment facility option.

NEXT STEPS

If the Committee concurs with staff's proposed approach, staff will move forward with asking Council to consider authorizing a professional services contract for final design of a City-owned recycled water treatment facility in December 2017. At the same December meeting or shortly after, staff will also be asking Council to approve the plans and specifications and call for bids for the recycled water storage and distribution system.

In parallel, staff will continue efforts to finalize a supply agreement with RCEC and will update the Committee in early 2018 on the progress of discussions with RCEC and, if needed, ask Council to consider proceeding with construction of a City-owned recycled water treatment facility.

Prepared by: Jan Lee, Water Resources Manager

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

Kelly McAdoo, City Manager

File #: ACT 17-066

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

Construction, Repair, Reconstruction, Destruction or Abandonment of Wells: Introduction of Ordinance Updating Section 5-4.10 of the Hayward Municipal Code

RECOMMENDATION

That the Committee reviews and comments on this report.

ATTACHMENTS

Attachment I	Staff Report
Attachment II	Draft Ordinance

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Construction, Repair, Reconstruction, Destruction or Abandonment of Wells: Introduction of Ordinance Updating Section 5-4.10 of the Hayward Municipal Code

RECOMMENDATION

That the Committee reviews and comments on this report.

SUMMARY

The construction, maintenance and removal of water wells is regulated in Hayward by the Alameda County Public Work Agency through implementation of the Alameda County well standards ordinance, which has been adopted by reference in the Hayward Municipal Code (HMC). Recent updates to the HMC incorporated the revised County ordinance. The recommended action would further correct the HMC by replacing outdated references to State documents with current references and would add language to ensure that future changes to the County ordinance can be enforced in Hayward without specific City Council action.

BACKGROUND

Section 5-4.10 of the HMC adopts as the well standards for Hayward the Alameda County Ordinance 0-2015-20 titled "An Ordinance to Regulate the Construction, Repair, Reconstruction, Destruction or Abandonment of Wells Within the County of Alameda." The regulations are intended to protect groundwater from pollution and contamination and ensure that they do not jeopardize the health and safety of groundwater users. Except for a handful of jurisdictions that have assumed responsibility for well permitting and oversight, the Alameda County Public Works Agency is responsible for implementing the Well Standards Ordinance within the County, including Hayward. In April 2015, the Alameda County Board of Supervisors adopted an updated County ordinance to bring the well standards into compliance with current codes and to enhance enforcement provisions. It was the first such update since 1973.

In June 2017, the Hayward City Council adopted an ordinance to update various sections of the HMC based on a comprehensive legal review. The changes included a revision of Section 5-4.10 to adopt the 2015 County ordinance as the well standards for Hayward.

DISCUSSION

The June 2017 HMC update left in place references to outdated State documents. To ensure accuracy, staff recommends wording changes to update these references. It is further recommended that language be incorporated to ensure that future changes to the Alameda County well standards are enforceable in Hayward without specific City Council action. The proposed changes are minor in nature and do not substantively change the purpose or application of the well standards. The recommended ordinance is included as Attachment I.

This item has been scheduled for Council action at its meeting of November 14, 2017.

STRATEGIC INITIATIVES

This agenda item does not directly relate to one of Council's Strategic Initiatives.

FISCAL AND ECONOMIC IMPACTS

There are no fiscal or economic impacts associated with the recommended Ordinance revision.

SUSTAINABILITY FEATURES

Well standards are in place to protect groundwater from contamination and pollution. The recommended ordinance revision ensures that future changes to the well standards will be in effect in Hayward upon adoption by the County.

PUBLIC CONTACT

Public contact was not conducted regarding this minor revision. If recommended by the Committee and introduced by Council, the City Clerk will publish a legal notice of the introduction of the ordinance prior to its adoption.

NEXT STEPS

If the Committee concurs with staff's proposed changes, staff will move forward with asking the City Council to consider adoption of the revised ordinance at a subsequent meeting.

Prepared and Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

Kelly McAdoo, City Manager

ATTACHMENT II

ORDINANCE NO. 17-____

AN ORDINANCE AMENDING CHAPTER 5, ARTICLE 4, SECTION 5-4.10 OF THE HAYWARD MUNICIPAL CODE REGULATING THE CONSTRUCTION, REPAIR, RECONSTRUCTION, DESTRUCTION OR ABANDONMENT OF WELLS

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Chapter 5, Article 4, Section 5-4-10, of the Hayward Municipal Code is amended to read in full as follows:

SEC. 5-4-10 – COUNTY OF ALAMEDA ORDINANCE NO. ~~73-68~~0-2015-20 ENTITLED "AN ORDINANCE TO REGULATE THE CONSTRUCTION, REPAIR, RECONSTRUCTION, DESTRUCTION OR ABANDONMENT OF WELLS WITHIN THE BOUNDARIES OF THE COUNTY OF ALAMEDA", ADOPTION BY REFERENCE.

The well standards regulations of the County of Alameda adopted as Sec. 5-4.10, Alameda County Code of Ordinances, Title 6 - Health and Safety/Chapter 6.88, Water Wells (Ref.: https://library.municode.com/CA/Alameda_County/codes/code_of_ordinances?nodeId=TIT6HESA_CH6.88WAWE), as amended by Alameda County Ordinance No. 0-2015-20, Section 1, 4-21-15 (Ref.: Ord. No. 0-2015-20, §1, 4-21-15), or as may be amended by the Board of Supervisors of the County of Alameda, is hereby adopted as the well standards ordinance of the City of Hayward regulating the construction, repair, reconstruction, destruction or abandonment of wells within the City of Hayward.

~~Three~~ A printed ~~copies~~ copy of such Alameda County regulations (primary code) and ~~three~~ a printed ~~copies~~ copy of ~~Chapter II of~~ the Department of Water Resources Bulletin No. 74-81 and 74-90, which taken together comprise the "Water Well Standards: State of California" (secondary code)~~and Appendixes E, F, and G a part thereof, together with the supplemental standards of Department of Water Resources Bulletin No. 74-2, "Water Well Standards: Alameda County" and Department of Water Resources Bulletin No. 74-1, "Cathodic Protection Wells Standards: State of California" (secondary code)~~, (Ref.: http://www.water.ca.gov/groundwater/well_info_and_other/california_well_standards/well_standards_content.html) are on file in the office of the City Clerk, to which reference is hereby made for further particulars.

Section 2. Severance. Should any part of this ordinance be declared by a final decision of a court or tribunal of competent jurisdiction to be unconstitutional, invalid, or beyond the authority of the City, such decision shall not affect the validity of the remainder of this ordinance, which shall continue in full force and effect, provided that the remainder of

the ordinance, absent the unexcised portion, can be reasonably interpreted to give effect to the intentions of the City Council.

Section 3. Effective Date. In accordance with the provisions of Section 620 of the City Charter, this ordinance shall become effective 30 days from and after the date of its adoption.
Section 4. CEQA. This ordinance is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the CEQA Guidelines (Title 44 of the California Code of Regulations) because there is no possibility that the ordinance will have a significant effect on the environment. This ordinance would also qualify as exempt pursuant to Section 15378(b)(3) of the CEQA Guidelines as the term "project" does not include organizational or administrative activities of government that will not result in direct or indirect physical changes in the environment.

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the _____ day of _____, 2017, by Council Member _____.

ADOPTED at a regular meeting of the City Council of the City of Hayward, held the _____ day of _____, 2017, by the following votes of the said City Council.

AYES: COUNCIL MEMBERS:

MAYOR:

NOES: COUNCIL MEMBERS

ABSTAIN: COUNCIL MEMBERS

ABSENT: COUNCIL MEMBERS

APPROVED: _____
Mayor of the City of Hayward

DATE: _____

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____
City Attorney of the City of Hayward

File #: ACT 17-068

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

East Bay Community Energy - Possible Purchase of Local Renewable Energy for City Facilities

RECOMMENDATION

That the Committee reviews this report and makes a recommendation to Council.

ATTACHMENTS

Attachment I Staff Report
Attachment II Options for Local Renewable Energy Projects

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT East Bay Community Energy – Possible Purchase of Local Renewable Energy for City Facilities

RECOMMENDATION

That the Committee reviews this report and makes a recommendation to Council.

SUMMARY

East Bay Community Energy (EBCE) intends to develop new renewable energy facilities within Alameda County and offer default rates that are competitive with Pacific Gas & Electric (PG&E). To support initial energy contracts with new local energy sources, EBCE is asking cities to commit to purchasing electricity at rates higher than those currently paid to PG&E.

BACKGROUND

In December 2016, Hayward joined ten other cities in Alameda County and the County of Alameda to establish a joint powers authority to form East Bay Community Energy (EBCE). The cities of Newark and Pleasanton did not join and the City of Alameda is served by its own electric utility. The EBCE Board of Directors had its first meeting on January 30, 2017 and has since held regular meetings. EBCE Board meeting packets are available at http://ebce.org/archive/ . All previous Council and Committee reports regarding EBCE are available at http://www.hayward-ca.gov/cce . The last update to the Committee was presented at the meeting of May 8, 2017.

The joint powers agreement for EBCE includes several Recitals including guiding principles stating that EBCE seeks to

(a) Provide electricity rates that are lower or competitive with those offered by PG&E for similar products;

(b) Offer differentiated energy options (e.g. 33% or 50% qualified renewable) for default service, and a 100% renewable content option in which customers may "opt-up and voluntarily participate;
(c) Develop an electric supply portfolio with a lower greenhouse gas (GHG) intensity than PG&E, and one that supports the achievement of the parties greenhouse gas reduction goals and the comparable goals of all participating jurisdictions;
(d) Establish an energy portfolio that prioritizes the use and development of local renewable resources and minimizes the use of unbundled renewable energy credits;
(e) Promote an energy portfolio that incorporates energy efficiency and demand response programs and has aggressive reduced consumption goals;
(f) Demonstrate quantifiable economic benefits to the region (e.g. union and prevailing wage jobs, local workforce development, new energy programs, and increased local energy investments);
(g) Recognize the value of workers in existing jobs that support the energy infrastructure of Alameda County and Northern California. The Authority, as a leader in the shift to a clean energy, commits to ensuring it will take steps to minimize any adverse impacts to these workers to ensure a "just transition to the new clean energy economy;
(h) Deliver clean energy programs and projects using a stable, skilled workforce through such mechanisms as project labor agreements, or other workforce programs that are cost effective, designed to avoid work stoppages, and ensure quality;
(i) Promote personal and community ownership of renewable resources, spurring equitable economic development and increased resilience, especially in low income communities;
(j) Provide and manage lower cost energy supplies in a manner that provides cost savings to low-income households and promotes public health in areas impacted by energy production; and
(k) Create an administering agency that is financially sustainable, responsive to regional priorities, well managed, and a leader in fair and equitable treatment of employees through adopting appropriate best practices employment policies, including, but not limited to, promoting efficient consideration of petitions to unionize, and providing appropriate wages and benefits.

DISCUSSION

As noted in item 'b' above, EBCE will offer customers a standard or default product that will be sourced from more renewable energy than that provided by PG&E and another product that will be 100% renewable energy. EBCE's CEO, Nick Chaset, approached member jurisdictions, including the City of Hayward, to consider a third product for municipal use that would be 100% renewable and local at a higher price. EBCE's CEO is asking cities to consider purchasing a portion of their electricity for a premium price to support the development of new renewable energy facilities in Alameda County. As noted by Mr. Chaset in Attachment II,

"Developing local renewable energy is one of the most important priorities for East Bay Community Energy (EBCE), but doing so in a cost-effective manner, particularly during the initial years after launch will be a challenge. With this in mind, I have engaged our technical experts and renewable energy community to consider a set of novel rate options that would allow individual cities and the county to opt-up to a 100% local renewable rate that would carry some price premium but could deliver a near term proof point of how to quickly develop local, renewable energy while preserving maximum flexibility for a start-up CCA."

EBCE is seeking commitments from member jurisdictions because the cost of developing local renewable energy is significant. The table below, from Attachment II, shows that the cost of developing renewable energy in Alameda County is much more than the state average.

2016 Average Price for New Solar in CA	Cost of Utility Scale Solar in Alameda County (20 MW)	Cost of Utility Scale Wind in Alameda County (55 MW)	Cost of Distributed Solar in Alameda County (20 MW)
$38/MWh	$52/MWh	$70/MWh	$85/MWh

EBCE is currently evaluating two potential utility-scale projects in Alameda County by developers Salka Energy and Clenera. Salka is developing a 55-megawatt wind project in the Altamont Pass while Clenera is developing a 20-megawatt solar project in eastern Alameda County. Pricing provided by the developers of these projects would require rates that are higher than PG&E. As proposed by Mr. Chaset, EBCE would create a distinct '100% Local Renewables' rate category that cities would opt up into understanding that they would be making multi-year commitments and paying some premium and in return would be sourcing their energy from new renewables built in Alameda County. EBCE could sign a contract with one or both of the large solar and wind projects located in Alameda County and then allocate the costs and benefits of the electricity directly to these municipal accounts. To enable EBCE to contract with the local projects, the customers opting up would be required to stay on the rate for ten to twenty years.

EBCE consultants evaluated the total electricity member jurisdictions purchase from PG&E to determine what portion of the load would be needed to support these local projects. To make the Clenera solar project financially feasible, 20%-25% of EBCE's municipal load would need to opt up. To proceed with the Salka wind project, EBCE would need close to 100% of municipal load to opt up. Once EBCE knows the total load jurisdictions are willing to commit to this program, EBCE will determine which project(s) to pursue. As shown in the table below, also from Attachment II, the premium for these local projects would range from 5% to 11% in the first year, with the premium declining over time as PG&E rates increase. The rates associated with these projects would remain flat. Both projects have the potential to be built and start generating energy in 2018.

Total CCA Bill, % change	2018	2019	2020	2021
Solar+Wind (Clenera & Salka)	8.1%	5.2%	5.0%	4.8%
Wind Only (Salka)	11.1%	8.4%	8.4%	8.5%
Solar Only (Clenera)	5.1%	2.0%	1.6%	1.2%

What Would the Proposal Mean for Hayward?

- City facilities use approximately 21.8 million kWh/year.
- City facilities generate approximately 57% of the electricity used each year.
- Hayward currently purchases approximately 9.4 million kWh/year for City facilities for about $2.24 million.
- Purchased electricity will be further reduced with the completion of the Library in May and the improvement of several fire stations in the next year or so.
- Staff has also started developing a project to add between 1 to 2 mega-watts of additional solar photovoltaic generation at the City's Water Pollution Control Facility, which could generate an additional 2.3 to 4.6 million kWh of energy per year.

While the table on the previous page shows a premium of 5.1 to 8.1% in year one, Mr. Chaset subsequently indicated that he believed the premium would likely be 3 to 7% in the first year. He also indicated that EBCE may be able to proceed with the local projects if just 10% of municipal loads were committed to the projects. If Hayward committed to purchasing 10% of the electricity that Hayward currently purchases, then the City would purchase approximately 940,000 kWh per year at the special rate. The table below shows the additional annual cost for Hayward assuming a 7% premium in year one and decreasing to 4% by year four.

	2018	2019	2020	2021
Premium %	7%	6%	5%	4%
Premium $	$15,666	$13,428	$11,190	$8,952

On December 6, 2016, Council adopted a goal of producing 100% of the electricity used at City facilities by 2025. City staff is currently exploring the best tariff to use for new electricity generation at City facilities. Depending on tariffs set by EBCE, it may be more beneficial to sell electricity to EBCE rather than to use net metering or bill credit transfer. Over time, the City's relationship with EBCE could shift from a purchaser of electricity to a seller of electricity. Staff recommends that any commitment to purchase electricity should be limited in quantity to 10% of what the City would be purchasing from EBCE for municipal use and in duration to no more than ten years.

STRATEGIC INITIATIVES

This agenda item does not relate to one of Council's three Strategic Initiatives.

FISCAL IMPACT

As noted above, if the City commits to purchasing approximately 940,000 kWh of electricity annually with the premium rate, the impact to the City's General Fund may be approximately $16,000 in calendar year 2018. Because PG&E rates are expected to increase over the coming years, the relative impact to the General Fund is expected to decrease over time. If PG&E rates happen to remain less than the cost of local renewables, then the City would be locked into a relatively higher rate for the term of the agreement.

If the City does not elect to participate in the local 100% local renewable program, Hayward's electricity costs will still rise over the years, but depending on rates set by EBCE, could realize savings relative to PG&E.

SUSTAINABILITY FEATURES

Participation in the EBCE program is directly in line with General Plan policy NR 4.8, which states, "The City shall assess and, if appropriate, pursue participation in community choice aggregation, or other similar programs. The City shall seek partnerships with other jurisdictions to minimize start up and administration costs." In addition, the program is expected to provide electricity from clean and renewable sources that reduce our reliance on fossil fuels and minimize pollutants and has the potential to reduce GHG emissions, helping Hayward to meet its Climate Action goals.

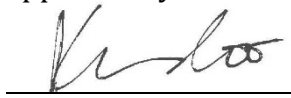
NEXT STEPS

In summary, the proposal at hand would further EBCE's goals of developing local renewable energy facilities and providing local jobs. However, participation in the proposal comes at a cost. The proposal will only move forward if all or most member jurisdictions participate and participation by other jurisdictions will have an impact on the final rates. Prior to presenting this item to Council, staff will refine the anticipated fiscal impact. Upon a recommendation from the Committee, staff will present EBCE's proposal to the full Council.

Prepared by: Erik Pearson, Environmental Services Manager

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:



Kelly McAdoo, City Manager

Options for Local Renewable Energy Projects: near term opportunities and challenges

Developing local renewable energy is one of the most important priorities for East Bay Community Energy (EBCE), but doing so in a cost-effective manner, particularly during the initial years after launch will be a challenge. With this in mind, I have engaged our technical experts and renewable energy community to consider a set of novel rate options that would allow individual cities and the county to opt-up to a 100% local renewable rate that would carry some price premium but could deliver a near term proof point of how the quickly develop local, renewable energy while preserving maximum flexibility for a start-up CCA.

Why Can't EBCE Just Contract with These Local Renewables Itself?

One of the primary issues facing EBCE as it considers local renewable energy options is the considerable price premium that comes along renewables located in Alameda County.

Figure 1

2016 Average Price for New Solar in CA[1]	Cost of Utility Scale Solar in Alameda County (20 MW)[2]	Cost of Utility Scale Wind in Alameda County (55 MW)[3]	Cost of Distributed Solar in Alameda County (20 MW)[4]
$38/MWh	$52/MWh	$70/MWh	$85/MWh

While any single local renewable energy project would likely represent a small portion of EBCEs overall energy supply mix, the inclusion even a relatively small amount of high cost energy could create challenges as EBCE gears up to launch with pricing that is lower than PG&E.

Figure 2[5]

Exp. Avg. Cost of Renewables (EBCE Implementation Plan)	Exp. Avg. Cost of Renewables (if large scale AC solar and wind procured)	Exp. Avg. Cost of Renewables (if large scale AC solar and wind procured and rooftop solar procured)
$43.60/MWh	$35.50/MWh	$34.4/MWh

Figure 2 above illustrates that even modest procurement of higher cost renewables would make it very challenging for EBCE to be able to meet the target price expected to be necessary to beat PG&E rates. This analysis also raises questions about whether EBCE would have any

[1] Reported PPA price for 155 MW solar project in Kern County with LA Dept of Water and Power
[2] Indicative pricing for Alameda County 20 MW solar project
[3] Indicative pricing for Alameda County 55 MW wind project
[4] Estimated pricing for 20 1 MW rooftop/ground mount solar projects
[5] Source: EES analyzed how the inclusion of local solar and wind would impact EBCEs overall energy pricing during the first year of operations.

residual capacity for other local energy procurement if it started out procuring higher cost, local renewables.

The risk to EBCE of signing high cost renewables contracts during the first few years of operation is further magnified by uncertainty surrounding the Power Charge Indifference Adjustment (PCIA) which is currently in the range of $0.025 – $0.022 per MRW's assessment[6]. This quantity could end up being higher if the California Public Utilities Commission or the California Legislature were to adopt a formula similar to the Utility proposed Portfolio Adjustment Mechanism (PAM). Given that MRW found that the expected differential between EBCEs energy costs and PGEs rates was 10% or less, a modest increase in the PCIA could create considerable risk for EBCE[7].

In light of these risk factors, it is my view that EBCE should avoid pursuing any one-off energy procurement until we have done a full assessment of energy market conditions and are unable to understand the way any given contract will impact our overall power costs. That being said, I do believe there are alternative options to pursue the procurement of local renewable energy in the very near term without triggering the above risk factors. The following is an overview of an opportunity for local governments in EBCE to take a step to enable the build out of local renewables while supporting EBCE's ability to deliver a mainstream energy product that is greener and cheaper than PG&E.

Local Renewables and Local Government Opportunity Overview

As a starting point, I asked our technical consultant, EES, to evaluate how pairing some quantity of municipal electricity usage (electricity used by our cities and the county) specifically with the output of a solar and/or wind project in Alameda County would impact their bill relative to their current PG&E costs. The idea being that EBCE could sign a contract with one or both of a large solar and wind project located in Alameda County and then allocate the costs and benefits of the electricity directly to these municipal accounts. Practically speaking, EBCE would create a distinct '100% Local Renewables' rate category that customers would opt up into understanding that they would be paying some premium and in return would be sourcing their energy from new renewables built in Alameda County. One of the requirements of this rate would be that the customers opting up would be required to stay on the rate for 10-20 years, much like building owners do when they install rooftop solar or when large customers like Kaiser sign power purchase agreements with large scale wind and solar.

The next step in evaluating this opportunity was to meet with two renewables developers with active, mature projects in Alameda County – Salka Energy and Clenera. Salka is developing 55 MWs of wind in the Altamont Pass while Clenera is developing 20 MWs of solar in the east Alameda County. Both developers provided me with project term sheets, including proposed pricing. With this pricing, I asked to EES to evaluate the range of expected rate impacts relative

[6] EBCE Technical Study
[7] EBCE Technical Study, p. 24

to current PG&E costs. EES' initial analysis found that the premium for these local projects ranged from 5% to 11% in the first year, with the premium declining over time as PG&E rate increases while these customers rates remain flat due to fact that they locked in renewables.

Figure 3

Total CCA Bill, % change	2018	2019	2020	2021
Solar+Wind	8.1%	5.2%	5.0%	4.8%
Wind Only	11.1%	8.4%	8.4%	8.5%
Solar Only	5.1%	2.0%	1.6%	1.2%

While all three scenarios suggest that the municipal accounts that opt-up would face increased costs initially, both the wind and solar projects carry with them external benefits to Alameda County that local government are uniquely positioned to realize.

Clenera Solar: for the Clenera solar project, one of the key technology vendors is NexTracker, the Fremont California based solar tracking company that has become the leading manufacturer of trackers in the world. Through NextTracker, the project will integrate energy storage from Avalon Battery, an Oakland based storage company that manufactures they batteries in San Leandro. In addition to participation of these two key Alameda County vendors, Clenera has committed to a project labor agreement with at least 75% of construction jobs going to Alameda County residents.

Salka Wind: Salka's Summit wind project has a committed project labor agreement with an Alameda County based construction firm. I am awaiting further details on other specific aspects of their plan to hire locally.

Both projects are in the late stages of project development and have the potential to be built and generating energy in 2018, but both projects require fairly quick commitments to be able to proceed.

Proposed Next Steps

As a starting point, I would like to determine if there are any cities that would be interested in more thorough review of this opportunity, including matching specific municipal loads to the output of either (or both) of these projects. To give a sense of scale, the Clenera solar project would require 20%-25% of identified municipal load to opt up (which is likely quite a bit less than total municipal as a result of challenges we are having working with PG&E to identify which accounts belong to cities and the county). For the Salka wind project, we would need close to 100% of identified municipal load (again this is likely much less than the actual total) to opt up to proceed with this project.

So here is my ask of you, EBCE Board Members:

1) Let me know if you think your city (or the county in the case of Supervisor Haggerty) would be willing to consider a 'premium' opt-up rate for new, local renewable energy.

2) If you think there is interest, please connect me with the right person in your city who can review the opportunity

I am happy to discussion this opportunity in more specificity with any of you individually.

File #: ACT 17-067

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

Proposed 2018 Agenda Planning Calendar

RECOMMENDATION

That the Committee reviews and comments on this report.

ATTACHMENTS

Attachment I Staff Report

DATE: November 13, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Proposed 2018 Agenda Planning Calendar

RECOMMENDATION

That the Committee reviews and comments on this report.

DISCUSSION

For the Committee's consideration, staff suggests the following tentative agenda topics.

January 2018
EBCE – Consideration of Renewable Content for Default Product (Action)
Addressing Litter from Disposable Food Packaging (Action)
EBEW Paper: "Navigating the Changing Landscape of Energy Efficiency Programs in the East Bay" (Action)
Lead Testing results and next steps (Informational)
Review of Last Winter's Mountain Tunnel Shutdown (Informational)
WMAC Franchise Agreement Semi-Annual Report (Informational)
March 2018
Establishing 2025 and 2030 GHG Reduction Goals (Action)
Plastic Straws and Utensils (Action)
Progress Toward 2025 ZNE Goal (Informational)
CYES Annual Report (Informational)
Car Sharing (Informational)

Unscheduled Items
Green Infrastructure
WMAC Franchise Agreement Annual Report (July)
Sustainable Groundwater Plan
Accelerating Multifamily Building Upgrades (California Energy Commission grant)
Stormwater Trash Reduction Requirements
Laundry to Landscape Ordinance
Tiny Homes
Bicycle Sharing
Electrify America's Investment Plan
Potential Assembly Bill to Ban Fossil Fuel Automobiles
Bulky Pickup Service & Illegal Dumping (What Works Cities)

NEXT STEPS

Upon direction from the Committee, staff will revise the above list and schedule items accordingly for 2018.

Prepared by: Erik Pearson, Environmental Services Manager

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

Kelly McAdoo, City Manager