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Title:	DISCUSSION OF NEXT STEPS TOWARDS ACHIEVING THE CITY'S GREENHOUSE GAS EMISSIONS GOALS AND CONSIDERATION OF COMMUNITY CHOICE AGGREGATION OPTIONS (Environmental Programs Manager Doug Krauss)		
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1/25/2022	1	City Council		

Honorable Mayor and Members of the Hermosa Beach City Council
Regular Meeting of January 25, 2022

DISCUSSION OF NEXT STEPS TOWARDS ACHIEVING THE CITY'S GREENHOUSE GAS EMISSIONS GOALS AND CONSIDERATION OF COMMUNITY CHOICE AGGREGATION OPTIONS

(Environmental Programs Manager Doug Krauss)

Recommended Action:

Staff recommends City Council:

1. Discuss Community Choice Aggregation options as a means of reducing emissions to meet the City's carbon neutrality goal;
2. Provide staff direction to return to Council with a fuller treatment of one or more Community Choice Aggregation options and/or authorize the City Manager to sign an authorization to proceed with Clean Power Alliance to conduct an applicant impact study for $10,000 **(Attachment 5);** and
3. Authorize a move to Southern California Edison's 100 percent Green Rates for municipal facilities at an estimated annual cost of $15,000.

Executive Summary:

The City has a long history of addressing greenhouse gas (GHG) emissions, both to achieve sustainability and to lower City operational costs. PLAN Hermosa identifies the goals of reducing emissions from both municipal and community-wide operations and prescribes regular progress evaluations for measuring progress towards those goals. With this report, staff presents the established goals and presents some of the options available to make advancements towards those goals.

Background:

In 2006, the City of Hermosa Beach endorsed the U.S. Mayors Climate Protection Agreement (the "Cool Cities Program"), committing itself to aligning with the greenhouse gas emissions reductions spelled out in the Kyoto Protocol. This heralded a series of actions by the City Council to address GHG emissions reduction. These actions included development of a Sustainability Plan in 2011, and both a Carbon Neutral Scoping Plan and a Municipal Carbon Neutral Plan **(Attachment 1)** in 2016. PLAN Hermosa, completed in 2017, serves as the City's General Plan, as well as its Climate Action Plan (CAP). This plan incorporates many of these strategies and details a course of action the City should take to achieve its emission-reduction goals.

The State has set goals for reducing GHG emissions through AB 32 and Executive Order (EO) S-3-05 for local governments to achieve a 15 percent reduction below 2005 levels by 2020. PLAN Hermosa outlined the following City goals:

1. A Community emissions reduction target of at least 66 percent reduction below 2005 levels by 2040; and
2. A Municipal emission reduction target that meets or exceeds 80 percent below 2005 levels by 2030.

Municipal emissions result from City-owned facilities and operations, while community emissions result from all the privately-owned facilities and activities in the City including residential and commercial. Understandably, the City has greater control over municipal emissions, while community emissions represent a much greater amount of emissions from a more complex mix of sources. PLAN Hermosa also requires the City evaluate its progress at five-year intervals and take corrective action as needed to stay on track to meet its municipal emissions reduction goals. Inventories of municipal and community emissions were performed in 2015 by the South Bay Cities Council of Governments (SBCCOG) comparing the years 2005 and 2012 **(Attachment 2)**. These inventories show the following progress towards the City's goals:

- The community of Hermosa Beach decreased emissions 7.7 percent from 2005 to 2012, from 137,160 metric tons of carbon dioxide equivalent (MTCO2e) to 126,611 MTCO2e;
- Under the Adjusted Business-as-Usual (BAU) forecast, community emissions will be 111,690 MTCO2e in 2020 and 94,162 MTCO2e in 2035. These emissions levels are 19 percent lower

in 2020 than 2005 and 31 percent lower than 2005 by 2035; and

- Municipal emissions have decreased 9 percent from 2005 to 2012, from 1,501 MTCO2e to 1,372 MTCO2e.

Since then, the City has implemented many additional emissions reductions measures. These measures include:

- Installation of additional electric vehicle chargers for both the public and for City fleet. The City now maintains 34 chargers citywide, 28 of which are for public use;
- Installation of a 99 kilowatt (kW) solar photovoltaic system on the Community Center. The installation cost the City approximately $200,000, but has saved the City almost $70,000 in electricity costs to date while reducing energy use by more than half;
- Retrofit of over 900 streetlights from low-pressure sodium vapor bulbs to LED technology, reducing energy consumption by approximately 360,000 kilowatt hours (kWh) over the last three years; and
- The City revised its Clean Fleet policy in 2017 to align with the City's municipal carbon neutral plan and commit to a progressive transition to zero and low-emissions vehicles and equipment.

Despite this progress, the City must do more to ensure achievement of the emissions reduction goals adopted in PLAN Hermosa. Due to the COVID-19 pandemic, City staff was unable to dedicate the resources necessary to perform the anticipated 2020 assessment of progress towards municipal emissions reductions. Auspiciously, the SBCCOG has begun work on new emissions inventories for its member agencies. Expected to be completed by Summer 2022, this inventory will address community emission sources. Additional municipal inventory analysis is under discussed. These inventories should capture the reductions resulting from the major energy efficiency projects mentioned above and help further illustrate both the City's progress and any need for further reductions.

Past Council Actions

Meeting Date	Description
November 18, 2014	Hosted Study Session and approved Feasibility Study to Explore formation of a CCA
February 24, 2015	Accepted Carbon Neutral Municipal Plan
August 22, 2017	Adopted Plan Hermosa
November 6, 2021	Hosted Council Retreat to discuss emissions reduction strategies and directed staff to return to Council with CCA options and recommendations

Discussion:

At its November 6, 2021 retreat, City Council focused on the topic of City emissions reductions goals and strategies. At that meeting, there was an extensive discussion of CCA including a presentation from the Clean Power Alliance. As described in the Municipal Carbon Neutral Plan and in PLAN Hermosa, CCA is potentially one of the most impactful options the City has in reducing greenhouse gas emissions. Below is a discussion of CCA, the options available to the City, and recommended next steps.

Community Choice Aggregation (CCA)

CCA was made possible in California in 2002 with the passing of AB117 (Migden). CCA provides public agencies, such as the City, the opportunity to procure their own energy for their customers-the residents and businesses in their jurisdiction. CCA can purchase power and sell it to its customers, utilizing the infrastructure (poles and wires) of the existing Investor-owned Utility (IOU). In Hermosa Beach, the IOU is Southern California Edison (SCE). This results in customer bills that include both the IOUs delivery costs and the CCA's energy ("generation") costs. The IOU would typically continue to provide customer billing with a description of the CCA's charges included.

One of the biggest benefits a CCA offers is the ability to control the energy portfolio. This has been used most commonly to increase the percentage of renewable energy in the portfolio compared to that currently offered by the IOUs. Another important feature of a CCA is that once a public agency chooses to form or join a CCA, every customer within the agency's jurisdiction is automatically enrolled into the program. The agency sets a default initial renewable energy level for both its municipal accounts and all other community accounts. Customers then have the option of opting out of the CCA entirely and going back to their original IOU for energy. Customers also have the option of changing their individual renewable energy level or remaining at the original default level set by the jurisdiction. The public agency also has the option of changing its citywide default renewable energy level if necessary.

Hermosa Beach was one of the first cities in the South Bay to seriously consider the CCA model. As early as 2014, with its work on a Municipal Carbon Neutral Plan, the City identified a CCA as a viable

strategy for reducing the City's overall carbon emissions. At the time, the only established CCA in Southern California was Lancaster Choice Energy which was also the first to be formed as a standalone CCA. Most CCAs in California are formed as Joint Power Authorities (JPA) between multiple public agencies. A number of CCAs have been operating successfully in Northern California since 2010 including California's first CCA, Marin Clean Energy.

Since these early considerations of a CCA, the City has hosted study sessions on the topic and staff has produced reports concerning the topic of CCA. At its November 10, 2015 meeting, City Council gave staff direction to pursue two avenues for implementing Community Choice Aggregation: 1) as part of the Los Angeles County JPA model (which evolved into Clean Power Alliance) and 2) as a standalone CCA in partnership with Lancaster Choice Energy **(Attachment 3)**. At that meeting, the Council authorized a consulting agreement between Hermosa Beach and the City of Lancaster for a feasibility study and preparation of an Implementation Plan.

In June 2016, a draft technical feasibility study was completed and presented to City Council at a special study session. Following a discussion of the results, City Council directed staff to continue pursuing establishment of a City of Hermosa Beach CCA-Hermosa Beach Choice Energy (HBCE). Council also requested information on the timing and costs associated with the Los Angeles County CCA Program.

Much of the discussion at the time centered on potential risk to the City of forming its own CCA and associated costs. Amidst this discussion, in September 2016, Council approved an Ordinance and associated Implementation Plan and Statement of Intent allowing for the formation of a Hermosa Beach CCA **(Attachment 4)**. Though it was made clear by Council that this was not a commitment to form a CCA, the implementation was filed with the California Public Utilities Commission to allow the City the option to proceed with the process.

Ultimately, the City decided against forming or joining a CCA at the time. In 2017, the County's CCA program became the Clean Power Alliance and now has 32 member agencies, including neighboring Manhattan Beach and Redondo Beach.

Current CCA Options

Currently, there are three feasible options for the Hermosa Beach to become part of a CCA:

1. Form its own standalone CCA;
2. Join CalChoice, a hybrid CCA model affiliated with Lancaster Choice Energy; or
3. Join Clean Power Alliance.

There would be significant administrative and financial burdens associated with formation of a new CCA. Though all the revenue of the CCA would go directly to the City of Hermosa Beach in this scenario, so would all potential risk. Though most likely operated by contractors and consultants, City staff would be required to oversee these operations and interface between Council and the CCA. This would require additional, specialized City staff to administer the program.

CalChoice provides a hybrid CCA option in which the City would technically have its own CCA, but would be overseen administratively by Lancaster Choice Energy. CalChoice has a team of consultants that handles administration and energy procurement for its members, and each member pays a fee for these services. The City would have total control over rate-setting, branding, billing and programs. CalChoice personnel have indicated over ongoing discussions that Hermosa Beach would likely not be a viable member for CalChoice due to the City's small size and would instead be encouraged to partner with another larger agency to join.

Clean Power Alliance is the largest CCA in California, covering 32 agencies in Los Angeles and Ventura counties. Clean Power Alliance is a JPA and each member agency has a representative on the Board of Directors. The JPA format relieves the member agencies from any liability to their general funds. The Board of Directors determines the programs, rates, and policies of the JPA with the guidance from Clean Power Alliance staff. Current Clean Power Alliance program offerings include: solar plus clean backup power for critical member agency facilities; rebates for publicly accessible electric vehicle chargers; demand response incentives for residential and commercial smart technologies; and community solar for customers in disadvantaged communities. Clean Power Alliance handles all customer billing and administration for its members though each member's governing board determines its agency's default renewable energy rates. Clean Power Alliance currently offers three energy options: Lean Power (40 percent clean energy, similar to SCE's base product), Clean Power (50 percent clean energy), and 100 percent Green Power (100 percent renewable energy).

Based on the City's 2016 feasibility study, as well as more current information, the table below illustrates some of the risks and benefits associated with these three CCA options:

CCA OPTION	RISK	AUTONOMY	COST
Standalone CCA	High - all cost and revenue tied to General Fund	High - run entirely by City.	High - significant initial costs but long-term revenue potential
Hybrid CCA CalChoice	High - all cost and revenue tied to General Fund	Moderate CalChoice consultants hand admin. and procurement	High - significant initial costs but long-term revenue potential. Ongoing fees to CalChoice
Clean Power Alliance	Low - no connection to General Fund. Customer pay direct.	Low - City has one vote on Board of Directors	Low - after feasibility study, no additional costs.

The most likely risk associated with CCA is based on the potential for errors made in forecasting energy needs and costs. If Hermosa Beach had its own CCA with its own unique energy needs, forecasting and purchasing supplies would be critically important. In the CCA model, there is no real threat of outages due to underestimating energy loads, but there could be exorbitant costs associated with procuring energy in real-time in the event of an unexpected shortfall. Because the CCA would be connected to the General Fund, any potential shortfalls experienced in the stand-alone CCA model could impact the City's overall budget.

Clean Power Alliance's combination of low-risk with cooperative local control has made it a popular option among local agencies, including the neighboring cities of Redondo Beach and Manhattan Beach. Clean Power Alliance is now the State's largest CCA and is currently accepting new members. This process includes a required feasibility study at a one-time cost of $10,000. Manhattan Beach recently changed its default energy level so that now all customers are at a default level of 100 percent renewable energy. Redondo Beach voted in December 2021 to change the default level for its customers to 100 percent renewable energy effective October 1, 2022. Individual customers have the option of choosing lower clean energy content or opting out of the program altogether and returning to paying SCE for both generation and delivery costs.

From 2018 through 2020, Clean Power Alliance's rates were 1-2 percent less expensive than SCE's for Lean Power, at parity with SCE for Clean Power, and 7-9 percent more expensive for 100 percent Green Power. In 2021, the Lean Power and Clean Power rates became more expensive than SCE due to an increase in the Power Charge Indifference Adjustment (PCIA) (commonly referred to as the "exit fee") and market conditions that forced CPA to purchase system power at historically high prices. The 100 percent Green Power rate remained around the nine percent premium as falling prices for renewable energy offset the rise in system power prices. Clean Power Alliance expects that in March 2022 all three Clean Power Alliance rate products will be less expensive than SCE if the PCIA goes down and SCE generation rates go up. The Clean Power Alliance Board conducts an

annual rate setting process in June, at which time the rate comparisons will likely return to levels similar to the 2018-2020 period for Lean and Clean, with a 3-4 percent premium for 100 percent Green.

In the short term, the City also has the option of subscribing to SCE's 100 percent renewable option for its municipal accounts. This would ensure the City eliminates virtually all GHG emissions associated with energy consumption at City facilities. An initial estimate from SCE shows that this option would increase the City's annual energy bill by approximately $11,000. The City's annual cost may decrease or increase slightly should it later join Clean Power Alliance's 100 percent Green Power rate for municipal facilities, depending on SCE and Clean Power Alliance 100 percent Green rates at that time.

Additional Strategies

Onsite generation of electricity is another means for the City to lower emissions and reduce its energy consumption. If the City were to procure 100 percent renewable energy, onsite generation would not contribute to GHG emissions reductions resulting from electricity use, but it could potentially offset emissions from other sources that cannot be easily made carbon neutral (e.g., natural gas use, emissions from employee commuting, etc.). This could also reduce energy costs and allow the possibility of contributing power back to the grid and offer some potential revenue when conditions allow.

Photovoltaic solar power systems are the most common type of onsite generation. The solar installation on the Community Center has cut offsite electricity consumption for the facility by over half. Additionally, battery storage of energy from such installations offers a way to further reduce consumption of offsite energy and develop resiliency among City facilities by providing a source of backup energy in the event of power outages, such as those expected to occur following a natural disaster-when municipal operations will be needed for emergency services. Onsite generation and energy efficiency improvements typically require an upfront financial commitment that is repaid over the life of the improvement. Grants are also sometimes available, particularly for multi-benefit projects, such as energy resiliency and emergency operations, that go beyond simply improving City facilities.

Energy efficiency improvements can also be made to existing facilities and equipment that reduce emissions. These include: more efficient HVAC systems, lighting retrofits, and more significant green construction practices during remodels and new builds of facilities. For instance, the City is currently working to incorporate solar panels and battery storage in the upcoming upgrades planned for the Clark Building. Another strategy to consider is revisions to building codes and policies to require more ambitious energy efficiency installations on public and private projects. For instance, Manhattan Beach recently began developing a plan to require solar panel installations on all new public and private commercial buildings. As a member agency, Hermosa Beach may be able to partner with Clean Power Alliance on these and other initiatives, leveraging Clean Power Alliance's technical expertise, industry relationships and collective purchasing power.

Next Steps

Staff recommends City Council determine whether to renew its pursuit of CCA. As mentioned above and discussed at the recent City Council retreat, Clean Power Alliance is now accepting new member agencies. The process of joining the Clean Power Alliance includes a $10,000 one-time cost for Clean Power Alliance to develop a feasibility study that would assess the City's current and projected power needs and help determine what additional resources Clean Power Alliance would need to secure to accommodate Hermosa Beach's customers **(Attachment 5)**.

Should this feasibility study support the City's inclusion in the Clean Power Alliance, Clean Power Alliance would then discuss with the City its next steps. These would include the City Council officially declaring its interest in joining Clean Power Alliance in late 2022, adopting an ordinance to join the JPA, and then developing an outreach plan. The majority of outreach to the community and customers would be done by Clean Power Alliance itself with a goal of opting in all customers citywide in 2024.

Joining Clean Power Alliance would be the most efficient and impactful strategy for further reducing the City's overall GHG emissions. Based on the City's most recent emissions inventories, community energy use (residential, commercial, and municipal usages) contributes approximately 40 percent of the City's overall GHG emissions. By switching to 100 percent renewable sources for energy (for comparison, currently SCE's default service uses approximately 36 percent renewable energy), the City could essentially reduce its GHG emissions instantly by roughly 40 percent. This would help the City move significantly towards meeting both its municipal and community emissions goals simultaneously.

In the meantime, staff recommends Council authorize the City to subscribe to SCE's 100 percent Green Rate to ensure its municipal electricity use is carbon-neutral in the short-term while the City weighs its other long-term options. The annual premium for this service is currently estimated at approximately $11,000, but estimating $15,000 annually would allow for any potential rate variations, which cannot be accurately projected at this time.

General Plan Consistency:

This report and associated recommendations have been evaluated for their consistency with the City's General Plan. Relevant Policies are listed below:

Sustainability and Conservation Element

Goal 1. Hermosa Beach is a low-carbon municipal organization, reducing greenhouse gases at a rate that meets or exceeds 80% below 2005 levels by 2030.

Policy:

> **1.1 Low-carbon municipality.** Demonstrate environmental leadership and reduce greenhouse gas emissions from municipal facilities and operations by at least 80% below 2005 levels by 2030.

Goal 2. Hermosa Beach is a low-carbon community meeting State greenhouse gas reduction goals by 2040

Policy:

> **2.1 State targets and goals**. Reduce greenhouse gas emissions at a rate that meets long-term State targets and goals to reduce emissions by at least 66% below 2005 levels by 2040.

Fiscal Impact:

The $10,000 cost for the Clean Power Alliance feasibility study was appropriated in the 2021-22 Budget (Account # 001-1201-4251). The additional $15,000 annual cost to fund the SCE 100 percent Green Rates would be allocated between all utility accounts during the annual budget process. If approved, the transition to SCE 100 percent Green Rates would be effective March 2022, at an increased cost of approximately $5,000 for the remainder of the fiscal year. The utility accounts would be reviewed as a part of the Midyear Budget Review and any increases to current appropriations would be requested at that time. The fiscal impact of other future emissions reductions programs is unknown at this time but will be analyzed by staff as needed.

Attachments:

1. Municipal Carbon Neutral Plan
2. Emissions Inventory
3. 2015 Staff Report
4. 2016 Ordinance and Feasibility Study
5. Letter from Clean Power Alliance regarding feasibility study
6. Link to November 18, 2014 Study Session
7. Link to February 24, 2015 City Council Report
8. Link to August 22, 2017 City Council Report
9. Link to November 6, 2021 Study Session

Respectfully Submitted by: Doug Krauss, Environmental Programs Manager
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