



CITY OF BURBANK COMMUNITY DEVELOPMENT DEPARTMENT STAFF REPORT

DATE: November 19, 2019

TO: Justin Hess, City Manager

FROM: Patrick Prescott, Community Development Director
Via: Fred Ramirez, Asst. Community Development Director-Planning
By: Karen Pan, Administrative Officer

SUBJECT: Update on the 2013 Greenhouse Gas Reduction Plan (GGRP)

RECOMMENDATION

- 1) Receive and file report; and
- 2) Provide staff with input regarding the City's Greenhouse Gas Reduction Plan (GGRP) and the proposed 2020 update.

BACKGROUND

On February 19, 2013, the City Council adopted the GGRP, which is a standalone planning document that accompanies Chapter 2 Air Quality and Climate Change Element of the Burbank2035 General Plan. The GGRP is a tool that the City of Burbank (City) uses to quantify their share of the statewide Greenhouse Gas (GHG) emissions and establishes action steps toward achieving a local emissions reduction target. The City's GGRP examines communitywide activities that result in GHG emissions and establishes strategies that help reduce those emissions in the future, which includes emissions from existing development through both voluntary and mandatory actions. Many of the strategies included in this planning document focuses on building and protecting neighborhoods in Burbank through responsible development, bike and pedestrian facility improvements, energy-efficient construction and retrofits, better air quality, lower energy and water bills through education and conservation, and reduced waste to extend the lifetime of Burbank's landfill. In short, the success of these strategies relies on the shared effort by the City and community to work together toward a safe, beautiful and thriving community.

Based on the 2010 jurisdictional emissions inventory and projections presented in the GGRP, the target is to have a 15% reduction in the City's GHG emissions from current levels by 2020, and 30% reduction by 2035. This staff report is an update of what has

happened and changed since the adoption of the GGRP, and how the City has incorporated environmental initiatives through various efforts.

This information was previously presented to the Planning Board on October 28, 2019 as a receive and file.

DISCUSSION

Highlighted in Chapter 4 of the GGRP, there are five (5) strategy areas that represent primary ways to reduce communitywide GHG emissions in Burbank. The 5 strategy areas are as follows:

1. **Buildings and Energy** recommends ways to increase energy efficiency in existing buildings, enhance energy performance in new construction, and increase renewable energy use.
2. **Transportation** encourages public transit, carpooling, walking, and bicycling as viable transportation modes to decrease the need to drive.
3. **Water Conservation** promotes the efficient use and conservation of water in buildings and landscapes.
4. **Waste Reduction** increases solid waste diversion and recycling, reducing consumption of materials that otherwise end up in landfills.
5. **Municipal** measures identify additional supporting steps the City can take to implement the GGRP and promote communitywide sustainability concepts.

Each strategy area includes action steps, performance metrics, and quantified reductions. Quantified reductions are the estimated GHG emissions attributed to the specific actions identified in a measure. Reductions are based on participation rates, efficiencies of technologies to be implemented, the extent of new infrastructure to be constructed, and other factors. Methodology and assumptions used to calculate measure reductions are included in the GGRP.

This update is provided by the following responsible departments: Burbank Water and Power (BWP), City Manager's Office, Community Development Department, Parks and Recreation, and the Public Works Department. All responses are listed in Attachment 2 for all action steps and performance metrics. An overall assessment of the City's GHG emission reductions are based solely on the current performance metrics listed in the GGRP and has been assessed by Rincon Consultants, Inc. (Attachment 1).

Evaluation of the 2013 GGRP

Progress towards each quantifiable measure was based on available data that generally spanned from the start of the 2013 to present. It should be noted that many of the measures implemented are voluntary; therefore, the tracking of data is inherently limited to participation in the City's permit process and rebate programs. Therefore, the actual GHG reductions associated with the measures is likely greater than the quantities calculated in this report. Supporting measures, where GHG reductions were not quantified, have been evaluated qualitatively related to the implementation of defined actions.

A summary of the progress towards each measure is presented in Table 1. Overall, the City has several successful measures including successful energy conservation programs that are helping to reduce the City’s GHG emissions. Key findings in the report are:

- The City has achieved 95% of its 2020 GHG reduction goal falling only 2,375 MT CO₂e¹ short.
- The City has been successful at implementing measures and actions and in the overall tracking of the measure implementation.
- The City has exceeded the 2020 GHG reduction targets for numerous measures making substantial progress towards the 2035 goal.
- Quantified GHG reductions are likely an underestimation of actual GHG reductions associated with the GGRP measures due to limitations in data collection. There is an opportunity for increased reductions through improved data collection and measure revisions.
- The City should consider completing an updated GHG inventory to better quantify actual GHG reductions in the City and consider completing an updated GGRP to incorporate current best practices and any necessary changes to existing measures.

Table 1 GGRP 2020 Measures: Target Reductions and Target Progress

Measures	2020 Target Reduction (MT CO₂e)	2020 Measure Implementation Progress (MT CO₂e)
Building and Energy ¹	14,358	20,673
Transportation	17,233	9,714
Water Conservation	198	146
Waste Reduction	13,888	12,769
Municipal Measures	Supporting Measure – Not Quantified	
Subtotal GGRP Measures	45,677	43,302³
Emissions Gap (MT CO ₂ e)	2,375	
Shortage of Goal ⁴ (%)	5%	

¹Measure E-1.6 is quantified for informational purposes but is not included in the overall progress towards the 2020 GGRP goal as several to all of the conservation programs within this measure have already been included in other energy measures. See below discussion for how BWP energy conservation programs were incorporated into the energy measures.

¹ MT CO₂e = Metric tons of carbon dioxide equivalent. The unit "CO₂e" represents an amount of a GHG whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO₂).

Measures	2020 Target Reduction (MT CO2e)	2020 Measure Implementation Progress (MT CO2e)
----------	---------------------------------	--

²The performance metrics ultimately used to track progress of measure E-2.1 and E-2.2 were the same therefore, were quantified together.

³The quantified GHG emission reductions presented here may be an underestimation due to data collection limitations. Completing an updated GHG inventory allows for a better estimation of actual reductions achieved and progress towards the 2020 target.

⁴Measures were quantified based on data provided from 2013 to 2019, when available.

Since the last six (6) years of the GGRP adoption, much has changed with State regulations, and the City has also been addressing GHG emissions and other environmental initiatives through alternative methods not highlighted in the current GGRP. Additionally, some action steps and performance metrics are no longer applicable to current operations, and it is best to find new indicators to increase the City's role and responsibility in addressing GHG emissions. Examples are noted as follows:

1. California State Regulations

One of the most important reasons why the City should update the GGRP is to ensure the City's goals align with State mandates now and in the future. The City's current GGRP aligns with Assembly Bill (AB) 32 (2020 emission target), but it does not specifically address the Senate Bill (SB) 32 2030 emission target. As such, projects that become operational post-2020 would not be able to tier off the Burbank 2035 GGRP.

Updating the GGRP to specifically address SB 32 2030 goals based off an updated emissions inventory in a manner that is consistent with California Environmental Quality Act (CEQA) Guidelines Section 15183.5 would provide a qualified GGRP and allow for CEQA streamlining for projects operational post-2020. Additionally, developing an updated GGRP would allow the City to incorporate best practices in GHG reduction measures that have been developed since the adoption of the 2013 GGRP as well as improve the established data tracking for future quantification.

There are also three (3) important State mandates for organic waste that are applicable to the City and should be incorporated into the GGRP: AB 1826; AB 876; and SB 1383.

AB 1826 requires businesses that generate a specified amount of organic waste per week to arrange for organic recycling services. Organic waste includes food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper mixed with food waste. Public Works staff are currently working with private haulers and require them to report this information on a quarterly basis.

AB 876 addresses long-term planning for organics infrastructure by requiring counties and regional agencies to report generation and processing capacity information in the Electronic Annual Report (EAR), which commenced on August 1, 2017.

Long term planning includes assessing organics processing options at the City's landfill, including various technologies for covered aerated static composting (CASP) and commercial food waste processing by anaerobic digestion and/or wastewater treatment plants. CASP options will require Water Board and Southern California Air Quality Management District (SCAQMD) permitting strategies and funding, and also collaborating with consultants for civil engineering work based upon the selected technology and equipment.

SB 1383 was adopted by the State in 2016 and builds upon California's leading commitments to reduce GHG emissions and air pollution. SB 1383, establishes methane reduction targets in a statewide effort to reduce short-lived climate pollutants (SLCP) in various sectors of California's economy. While methane emissions resulting from the decomposition of organic waste in landfills are a significant source of GHG emissions, SB 1383 will help regulate and reduce the negative impacts.

The Public Works Department is currently developing an Organic Waste Recycling Plan to meet the State's 2022 requirements listed above. City staff is developing an outreach and education program, and a reporting structure for GHG reduction. The Organic Waste Recycling Plan will change the action steps and performance metrics of the Waste Reduction section in the GGRP and to merit a GGRP update scheduled for 2020.

2. 2019 Integrated Resource Plan

The City Council adopted the 2019 Integrated Resource Plan (IRP) on December 11, 2018, in accordance with the requirements of Senate Bill 350. SB 350 would increase utilities' renewable portfolio standard (RPS) requirement to 50% by 2030. By the end of the planning period in 2038, BWP would have renewables equivalent to a 67% RPS. The current RPS requirement is 33% by 2020, a goal already achieved by BWP. This information is currently not mentioned in the current GGRP.

The 2019 IRP is a long-term planning document designed to provide policy guidance for BWP's electric supply to its customers over the next twenty years, and this policy guidance focuses on reliable, affordable, and sustainable electric service to Burbank. The utility industry is undergoing dramatic change and the IRP reflects it. Concerns for climate change, the growth of cost-effective renewable energy and energy storage, and the pending retirement of one of BWP's primary legacy energy sources, a coal-fired power plant called Intermountain Power Project (IPP), are all elements in the mix.

In conjunction with its adoption of the 2019 IRP, Council also established an aspirational goal to achieve a 100% GHG-free power supply for Burbank by 2040 or sooner. BWP continues to pursue cost-effective energy efficiency and demand response programs to fulfill California Energy Efficiency requirements and place

additional emphasis on peak demand reduction. It would be essential to include action steps and performance metrics about the City's power utility supply and its impact on the environment in the proposed 2020 GGRP update.

3. New and Old Technology Related to Energy Efficiency

At the October 1, 2019, City Council meeting, BWP presented an action item from the IRP about designing time-varying energy rates that encourages residents to shift consumption away from higher cost periods to lower cost periods. Smart pricing for 'Time-Of-Day' (TOD) rates helps the City achieve its reliability, affordability, and sustainability goals by informing customers through pricing about when costs are low to deliver electricity, which then helps lower GHG emissions. Smart pricing also helps better match the City's electricity use to its future power supply portfolio with lower energy bills and lower GHG emissions, and help reduce future rates.

The discussion focused on how BWP is proposing to use TOD rates to help advance its reliability, affordability, and sustainability goals at a time when the electric utility industry is undergoing major transformation. Two main objectives that staff would like to achieve with TOD rates is to maximize utilization of renewable resources and minimize investment in generation and storage to service peak periods. Staff also presented a discussion on the public outreach, education, and program development efforts currently underway to improve customer understanding and acceptance of TOD rates in the upcoming years.

The benefits of having TOD rates will empower customers to make informed decisions about their electricity use, make smart investments in efficient, cost-savings technologies, and reduce costs for their homes or businesses. Old technology, like solar water heater systems, would be replaced, and it would be beneficial to update the GGRP with this information.

4. Transportation Electrification Activities

Within the City's IRP are transportation electrification activities to help meet the goals of GHG emissions reductions related to AB 32. AB 32 is former Governor Brown's Zero Emission Vehicle Action Plan that calls for a goal of 1.5 million electric vehicles (EV) on the road by 2025.

Transportation electrification activities is an essential strategy for BWP and other utilities across the State to fill in the growing glut of excess daytime electricity and provide much needed grid balancing, or matching of supply and demand. Over the past eight (8) years, BWP has accomplished the following transportation electrification milestones such as: 1) obtaining multiple Federal grants, including a \$165,000 grant from California Energy Commission; 2) installing 42 EV charging stations at 14 sites, including a Level 3 DC Fast Charger at the Lakeside Shopping Center on Pass Avenue, and 16 new chargers at Burbank Town Center in Downtown; 3) creating a rebate program that incentivizes customers to use EV's and install EV chargers at a Level 2 (240V), which offers customers rebates of up to \$500 for homes and up to \$2,000 for businesses; and 4) implementing the City's Workplace Smart Electric

Vehicle Charging pilot program in 2017 for BWP's large commercial customers, which allows BWP to understand how to best manage loads to integrate renewable energy. Selected participants receive average incentives of \$2,750 per new charging connector with control capability.

As a whole, BWP's transportation electrification initiative promotes the adoption of EVs through public charging infrastructure, customer rebates, and optimized electric rate design, where customers' rates are commensurate with the utility's supply costs. The program is consistent with the Burbank2035 General Plan, which supports EVs and the required infrastructure. Build out of EV infrastructure has also been included as a condition of approval on large developments such as the Talaria and First Street Village mixed-use projects and the Avion Burbank Project. BWP's primary opportunity to increase electric demand during heavy over-supply hours and better match load to electric supply is to promote more charging infrastructure in Burbank workplaces. The demand for EV's has been increasing, and information about EV's would be important to include for the calculation of GHG emission reduction.

Staff will continue to review the existing action steps and performance metrics to meet 2020 goals. However, to ensure the City aligns and meets new State regulations and to calculate an accurate GHG emission reduction of the City's efforts, City staff recommends an update to the GGRP during 2020 to address the changes. As part of the proposed update, there will also be community outreach to understand what the community believes are the most important environmental initiatives to reduce GHG emissions. The community will participate in the City's efforts to find new performance indicators to increase the City's role and responsibility in addressing climate change. Proposed action steps and performance indicators that staff and the community create together would be provided to the Planning Board for review and recommendation and subsequent review and consideration for approval by the City Council.

Staff will also be looking into how best to monitor the GHG emissions overtime while considering the fiscal and staffing impacts to ensure ongoing monitoring and reporting. In line with this effort, the City could use technology to facilitate the required monitoring and reporting by developing a user-friendly cloud-based Monitoring and Reporting Tool that would track how overall emissions levels have changed over time by looking at aggregate activity data (e.g., electricity usage, number of trees planted, etc.) that result in GHG emissions. The Monitoring and Reporting Tool could also provide a place to track individual measure progress as well as the estimated GHG reduction associated with each measure. Additionally, the tool would feature graphs and other visualization tools that would be readily available for the public to view on the City's website.

FISCAL IMPACT

There is no fiscal impact to the General Fund to receive and file this report. However, staff anticipates associated costs for the proposed 2020 update to the GGRP. The new GGRP and Climate Action Plan update that includes the Monitoring and Reporting Tool is estimated to cost between \$100,000 to \$130,000 to complete. In addition, in lieu of hiring a sustainability coordinator to oversee this planning process, which is estimated to cost

\$110,000, the City will provide an opportunity for an administrative analyst to undertake project management duties as a considerable overall savings to the City. This work assignment and learning opportunity would be undertaken as part of the City's ongoing cross training efforts. The selected City staff person would manage the project and coordinate with the various departments responsible for the tracking and implementation of various action items and metrics noted in the GGRP/Climate Action Plan.

CONCLUSION

While climate change is global, the effects and responses occur substantially at the local level, and impacts and policies will affect the ways city and county functions in almost every aspect. Cities, like Burbank, are making an effort to reduce GHG emissions to achieve a safe, beautiful and thriving community, particularly those associated with land use and development, and to incorporate resilience and adaptation strategies into planning for smart growth. Staff recommends to receive and file this report, and provide staff with input regarding the City's GGRP and the proposed 2020 update.

ATTACHMENTS

1. GGRP Mitigation Measure Quantification Analysis by Rincon Consultants, Inc.
2. Status Updates to the Actions and Performance Metrics Listed in the Burbank's 2013 Greenhouse Gas Reduction Plan
3. Draft Minutes from October 28, 2019 Planning Board Meeting