



DATE: November 14, 2022

TO: Council Sustainability Committee

FROM: Director of Public Works

SUBJECT: Existing Building Electrification Efforts – Information and Discussion

RECOMMENDATION

That the Council Sustainability Committee (CSC) reviews and comments on this report.

SUMMARY

Natural gas use in existing buildings accounts for about 22% of the City's community-wide greenhouse gas (GHG) emissions. Common appliances in buildings that use natural gas include stoves, water heaters, and furnaces. The City is in the process of updating its Climate Action Plan (CAP) to establish policies and programs needed to meet the GHG reduction targets adopted by Council. Policies and programs that address the GHG emissions from natural gas in existing buildings will be included within the CAP. In support of the City's CAP update, from September 2021 to June 2022, staff participated in a workshop series hosted by RMI (formerly the Rocky Mountain Institute) and Emerald Cities Collaborative (ECC) for local governments and community-based organizations (CBOs) to partner in the co-creation of equitable electrification solutions for existing homes. The City partnered with the Local Clean Energy Alliance (LCEA) which helped identified key equity issues, such as language barriers and the need for tenant protections before any new policy is implemented. LCEA also helped identify keys to success, such as working closely with the Housing Division and focusing outreach on health and comfort benefits. At the end of the workshop series, LCEA was awarded a grant of \$10,000 to continue to work with the City to engage with community stakeholders to ensure that all policies in the updated CAP pertaining to existing building electrification are equitable and align with community needs.

BACKGROUND

In July 2009, Hayward adopted its first CAP, which included aggressive goals for reducing GHG emissions. The CAP was amended and incorporated into the General Plan¹ in 2014 and includes actions necessary to meet Hayward's 2020 GHG reduction target (20% below

¹https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf

2005 levels by 2020). This target was achieved two years early, with Hayward's 2018 emissions inventory showing that community-wide emissions were reduced by 21.6% from 2005 to 2018. In January 2021, staff presented to the CSC Hayward's 2019 GHG inventory² showing that emissions had been reduced by 25.7% since 2005. On June 23, 2020³, Council adopted an ordinance amending Hayward's CAP and General Plan to include the following goals:

- reduce emissions by 30% below 2005 levels by 2025
- reduce emissions by 55% below 2005 levels by 2030
- work with the community to develop a plan that may result in the reduction of community based GHG emissions to achieve carbon neutrality by 2045.

On July 20, 2021⁴, Council adopted a resolution authorizing the City Manager to execute an agreement with Rincon Consultants to prepare General Plan amendments related to the Housing Element, CAP, Environmental Justice Element, and the Safety Element.

In Fall 2021, staff applied and were accepted into RMI and ECC's California Equitable Home Electrification Program (CEHEP) for local governments and CBOs in California to partner in the creation of equitable existing home electrification solutions. Other jurisdictions who participated included Contra Costa County, Los Angeles County, and the Cities of Chula Vista, Oakland, Sacramento, San Luis Obispo, Santa Cruz, Santa Monica, and Watsonville. Observing cities included Berkeley⁵ and San Jose⁶, who have already adopted existing building electrification strategies. CEHEP included nine virtual convenings between September 2021 – June 2022, designed to help participants develop the knowledge, resources, and relationships needed to begin creating an equitable existing home electrification policy plan. As a part of the workshop, RMI and ECC provided the City an ecosystem map to identify priority equity-oriented community partners; a \$6,000 honorarium to the CBO to participate alongside Hayward (LCEA); an existing building inventory; and a cost analysis tool. In June 2022, LCEA was awarded another \$10,000 honorarium to continue partnering with the City, including reviewing all policies in the CAP pertaining to existing building electrification and providing recommendations and feedback to ensure they are equitable and aligned with community needs. Natural gas in existing buildings accounts for over 20% of the City's GHG emissions, as of 2019, and is the second largest source of emissions in Hayward (Chart 1).

² <https://hayward.legistar.com/LegislationDetail.aspx?ID=4747797&GUID=2B1F0C6F-B961-4AA3-9553-240ACE74B4B1&Options=&Search=>
³Second Reading of VMT Thresholds and GHG Emission Reduction Targets Ordinance. June 23, 2020 City Council Meeting.

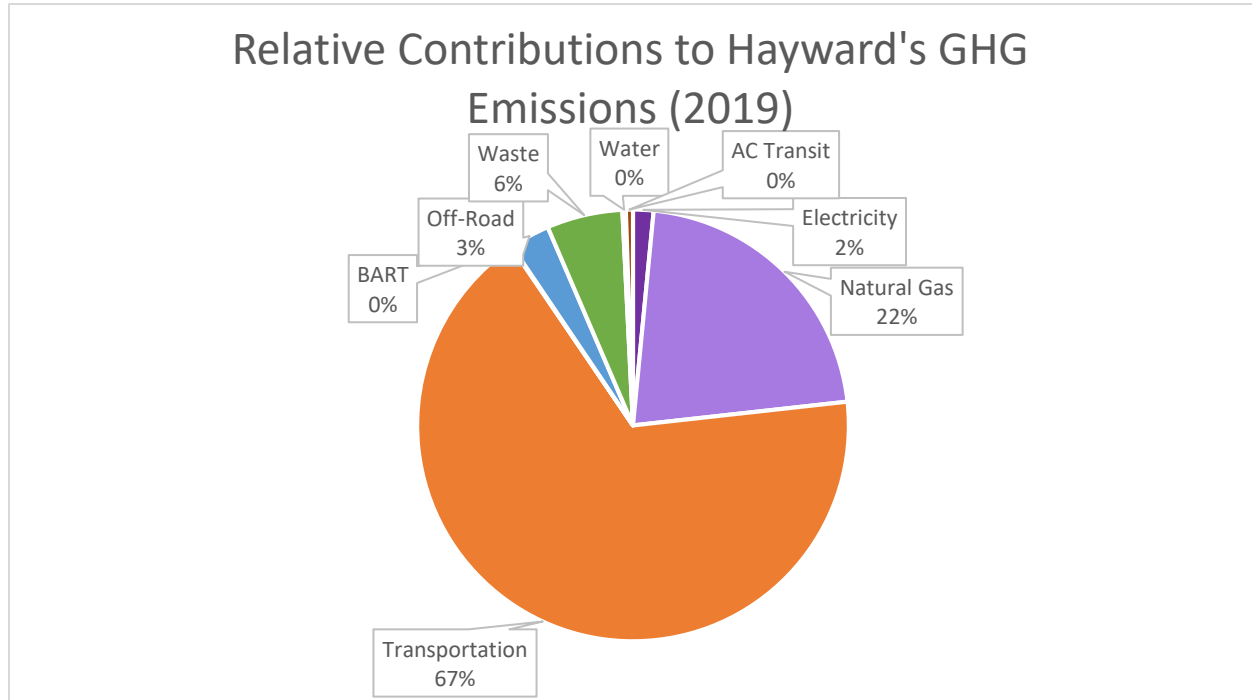
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⁴ <https://hayward.legistar.com/LegislationDetail.aspx?ID=5034289&GUID=A1DD2D35-7B4A-42C8-9284-7DEB78AAD470&Options=&Search=>

⁵ <https://berkeleyca.gov/sites/default/files/2022-01/Berkeley-Existing-Buildings-Electrification-Strategy.pdf>

⁶ <https://www.sanjoseca.gov/home/showpublisheddocument/86537/637896685225470000>

Chart 1: Relative contributions to Hayward's GHG Emissions (2019)



The building inventory (Table 1, Chart 2, Chart 3) provided by RMI, using data sources from 2018-2020, includes key information, such as number of buildings, percent of units that are renter occupied, and the heating fuel used for various appliances that can guide an equitable program and policy recommendations.

Table 1: Building Inventory, as of 2018

Key Statistics	Single-family ⁷	Multi-family ⁸	Total
Number of buildings	28,123 (97%)	943 (3%)	29,077
Number of households	31,997 (65%)	14,954 (30%)	49,335
% of units built before 1978	70%	86%	71%
% of renter occupied units	28%	93%	47%
% of households with A/C (including RAC ⁹)	26%	13%	22%
% of population in disadvantaged community	-	-	7%
% of total roofs viable for solar	-	-	97%

⁷ Includes single-family attached and single-family detached, excludes dwelling units less than 300 square feet

⁸ Includes multifamily 2-4 units and multifamily 5+ units

⁹ Room Air Conditioning

% of households in 0-100% AMI ¹⁰¹¹	54%	76%	61%
% of households in 0-30% AMI ¹²	11%	23%	15%
Area Median Household Income (AMI)			\$119,200
Avg. energy burden ¹³ of households in 0-30% AMI	8%	5%	7%

Chart 2: Heating fuel by building type

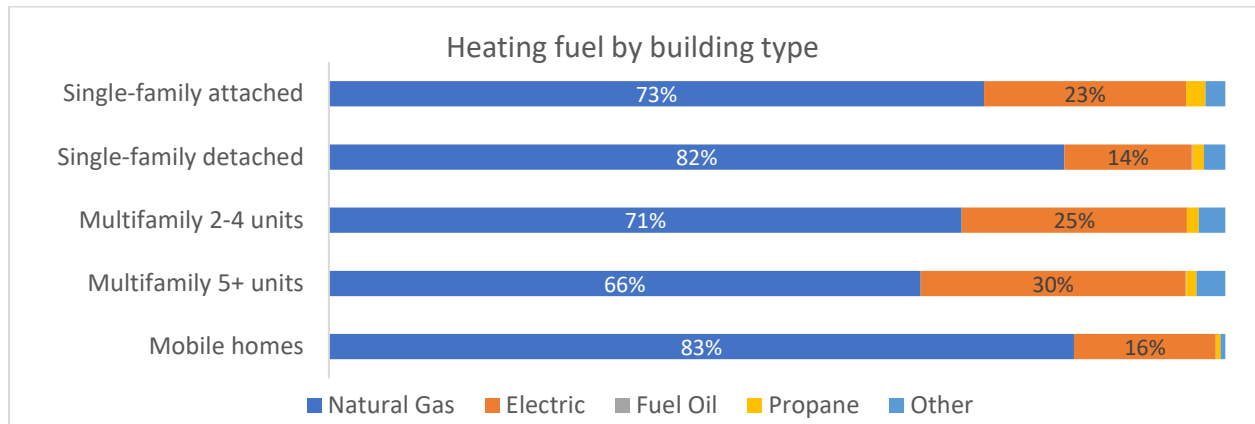
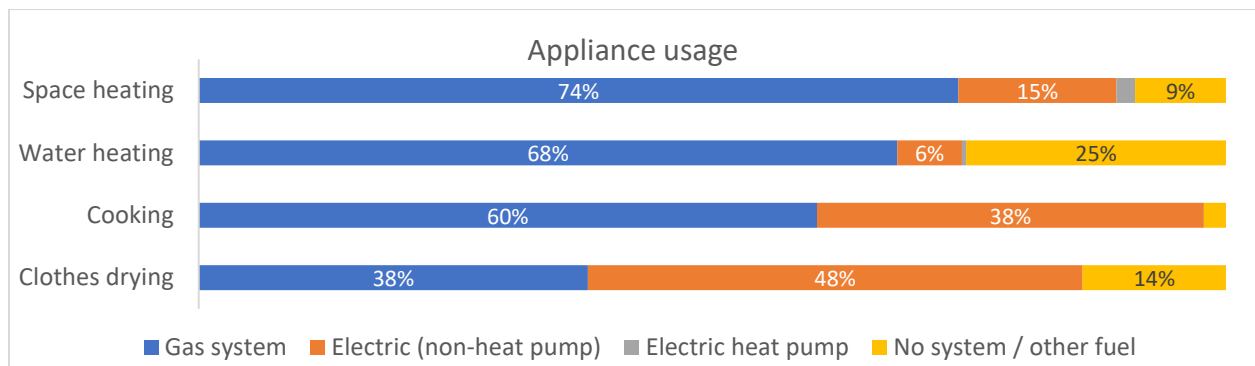


Chart 3: Appliance usage



DISCUSSION

LCEA was selected as the CBO partner for the CEHEP workshop series. While the partnership between the City and LCEA was new, LCEA was a key advocacy CBO in the formation of East Bay Community Energy (EBCE) and works at the local and state level to promote a clean energy future through the development and democratization of local renewable energy

¹⁰ <30% = Extremely Low Income; <50% = Very Low Income; <80% = Low Income; 100% = Average Median Income (\$142,800 in Alameda County in 2022)

¹¹ <30% = Extremely Low Income; <50% = Very Low Income; <80% = Low Income; 100% = Average Median Income (\$142,800 in Alameda County in 2022)

¹² 0-30% AMI = Extremely Low Income

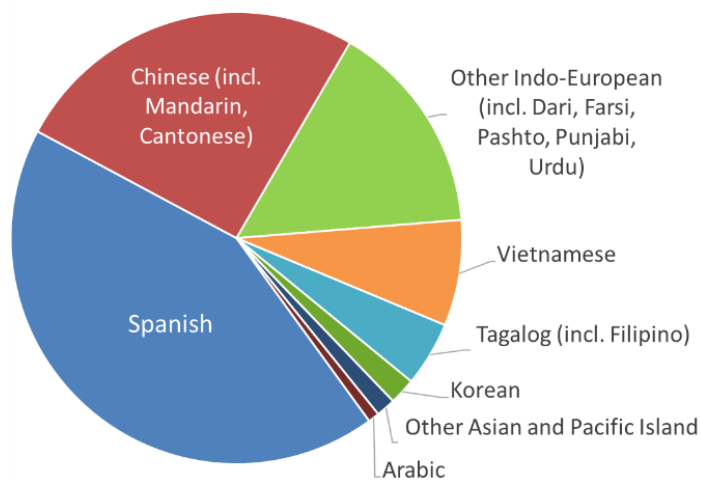
¹³ Percentage of household income spent on energy costs

resources. Over the course of the ten-month workshop, the City and LCEA worked together, building a partnership that has continued post-workshop.

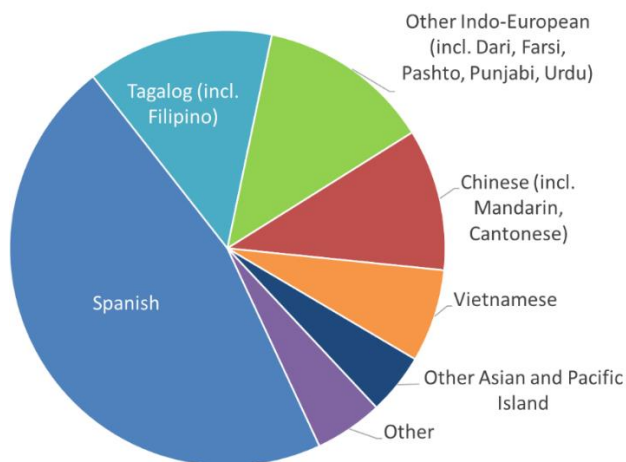
Throughout the workshop, LCEA voiced two equity concerns about any program and/or policy recommendations for existing building electrification: 1) barriers due to the diverse languages spoken by the Hayward community (Chart 4); and 2) the need for tenant protections given 47% of units are renter occupied in Hayward.

Chart 4: 2019 American Community Survey Data – Language

*60% of residents speak a language other than English at home.
Of those residents, their primary language used:*



*21% of residents speak English “less than well”.
Of those residents, their primary language used:*



Addressing the Language Barrier – To address the language barrier, the City and LCEA were awarded another honorarium for LCEA to continue working with the City after the end of the workshop. The outcomes and deliverables for this partnership include: create a process whereby low-income and BIPOC communities can co-create building electrification policy; provide recommendations on the draft measures in the City’s CAP; translate essential communications relating to building electrification into Spanish and assist with their distribution; and host a focus group with non-English speaking residents to collect input on existing building electrification draft measures in the CAP.

Addressing Displacement & Tenant Protections – Housing affordability has become a crisis in many parts of the United States, with unaffordability on the rise in nearly all cities and metro areas. In a typical building owner’s business model, any required capital or upgrade costs (like electrification measures) for the building are passed on to renters in the form of a rent increase. For those already struggling to pay rent, this increased cost can lead to displacement. To address tenant protections, Environmental Services staff worked with Housing staff to understand the existing tenant protections already in place and how they may come into play if new electrification policies are implemented. Additionally, staff has begun building a relationship with Habitat for Humanity, Rebuilding Together, GRID Alternatives, and California State University East Bay’s (CSU East Bay) Public Health Department to develop a program that could build upon existing low-income, homeowner occupied rehabilitation and no-cost solar installations by adding electrification measures while work is already underway through these existing City and State-funded programs. Staff and the consortium of partners are currently seeking funding opportunities to pilot this work.

ECONOMIC IMPACT

Climate change is expected to negatively impact national and local economies. The updated CAP, including the existing building electrification measures, will help make Hayward’s economy more resilient to climate change. Many existing electrification building programs and policies may create increased costs for Hayward community members and businesses, but also have the potential co-benefits such as better health outcomes and job creation. As the programs and policies are refined, staff will review each for potential economic impacts. Additionally, staff is actively seeking out funding to pilot programs at no-cost to residents.

FISCAL IMPACT

Participation in the CEHEP workshop was at no-cost to the City and RMI and ECC provided the honorariums to the CBO partners. Staff participation and work on program and policy recommendations is at no cost to the City beyond budgeted staff positions.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority to Confront Climate Crisis & Champion Environmental Justice. Specifically, this item is related to implementation of the following project:

Project C5: Adopt & Implement 2030 GHG Goal and Roadmap along with other General Plan Elements

SUSTAINABILITY FEATURES

Meeting GHG reduction goals is the primary objective of the City's CAP. Meeting the goals will require reducing emissions in every sector of Hayward's economy and will entail improving energy efficiency in buildings, decarbonizing existing buildings, and increasing the use of renewable energy. All these actions will result in cleaner air for Hayward residents and for the region.

PUBLIC CONTACT

The existing building electrification work has been completed in close partnership with the LCEA. Staff and LCEA plan to host a focus group with non-English speaking residents to collect input on Hayward's CAP before the CAP is adopted in summer 2023.

NEXT STEPS

Based on input from the CSC, Council, CBOs, and community input, staff will finalize the list of measures regarding existing building electrification for the CAP. Once the CAP is adopted, staff will work on drafting an existing building electrification roadmap, that outlines the programs and policies needed to achieve the City's adopted GHG emission reduction targets.

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