

**2030 Climate Action Plan Development Update & Financial Analysis Options**

Attachment C

Financial Strategy Memorandum

# County of Santa Barbara CAP

## Financial Strategy Memo

### Introduction

In 2018, the County of Santa Barbara set an aggressive goal of reducing greenhouse gas emissions 50 percent below 2018 levels by 2030. To address the growing threat of climate change, the County developed a Climate Action Plan (CAP) to serve as a roadmap in achieving GHG emissions reduction goals and to promote a higher quality of life for residents. This mission is in line with the standards set forth by the State of California to achieve carbon neutrality by 2045.

Achieving GHG emissions reduction goals requires strategic investments related to the measures and actions contemplated with the CAP, including policies, infrastructure, technology, and programs that support behavioral change. To provide transparency around the County's investment priorities, Hatch evaluated the **potential costs of implementing** four measures mandated by County of Santa Barbara. This memo also identifies **funding and financing mechanisms** that can support the implementation of these four measures.

### Cost Considerations

For each measure, the cost description focuses on both internal (County) costs and external (community) costs and provides insight into the variability of these costs including the primary variables that may affect cost effectiveness including several primary considerations including upfront costs, lifecycle costs, incremental or marginal costs, and the cost of doing nothing. This analysis is not intended to provide exact and precise cost estimates for each of the measures. The costs described for each measure are variable and provide a general range carried by differed parties associated with the measures.

The cost analysis serves as an early step in understanding the cost magnitude of a subset of the County's CAP. It does not represent, nor should it act as a substitute for a fiscal impact analysis of these four measures. The specific impacts will depend on the needs of the County and will need to be evaluated as each measure and action are refined. Findings may be utilized for prioritizing actions for implementation, for identifying more detailed scopes of work for an action, and as a discussion document when engaging with internal County departments and divisions for planning and implementation of measures and actions.

### Funding and Financing Strategies

Governing bodies already face challenges in meeting their constituents' needs for investment in many types of critical infrastructure and programs, this analysis examines approaches that go beyond the use of General Fund monies to pay for climate-related infrastructure; as funding and financing from beyond municipal sources is central to unlocking investments that generate benefits for a wide group of constituencies in Santa Barbara and beyond its borders.

Funding and financing strategies that go beyond publicly-led approaches may also reduce the burden on low-income residents to fund investments that broadly support all residents and businesses in

Santa Barbara and beyond. This analysis identifies a range of funding and financing approaches and relevant case studies in building electrification, transportation demand management, and zero-emissions vehicle adoption that result in emissions reductions.

## Key Measures

To hone the County’s CAP into implementation, this memo seeks to identify cost variables and to refine funding and financing approaches for four key measures in the County of Santa Barbara CAP. This memo conveys highly variable *community* and *County* cost considerations and to provide respective cost ranges related to the implementation of the four measures. Key stakeholders that could be willing to provide support for implementation are also identified. See Table 1 for information on the four key measures addressed in this memo.

Table 1: Four Measures for Cost Considerations and Funding and Financing Strategies

Measure	Description	Timeframe	Stakeholders
CE-1.3 Natural Gas Appliance Replacement	Develop an ordinance to require ‘replacement upon burnout’ for residential natural gas appliances.	2026-2028	<b>County:</b> Sustainability Division (within the Community Services Division), Sustainability Committee, Permitting & Enforcement Division (within the Planning and Development Department) <b>Partners:</b> Local Utilities (ex. Central Coast Community Energy), Tri-County Regional Energy Network (3C-REN), homeowners
CE-1.4 Building Performance Ordinance	By 2024, develop and adopt an ordinance that establishes a building performance standard for existing large buildings and facilities that requires the reduction of GHG emissions over time. Implement and promote programs, incentives, and technical support to facilitate and reduce the cost of retrofits.	2023-2025	<b>County:</b> Permitting & Enforcement Division (within the Planning and Development Department), Sustainability Division (within the Community Services Division), Auditor/Controller <b>Partners:</b> Local developers and builders, business owners
TR-2.10 Employer Trip Reduction Requirements & Programs	Develop an ordinance that requires large employers, including the County, to meet vehicle trip and emission reduction goals, or pay non-compliance fees to expand transit and commuter services and resources. Partner with SBCAG to work with large employers within the unincorporated County to achieve a 50-80 percent telework participation rate by eligible employees able to work remotely consistent with Connected 2050 RTP/SCS.	2023-2025	<b>County:</b> General Services Department (Fleet), Sustainability Division (within the Community Services Division), Sustainability Committee, Human Resources Auditor/Controller <b>Partners:</b> Santa Barbara County Association of Governments (SBCAG), Santa Barbara County Air Pollution Control District, Local business owners and employers

TR-3.2 Time of Replacement (Combined Generally with ZEV Adoption Costs)	Develop an ordinance to phase out light duty gasoline and diesel-powered off-road equipment, including the County's, at time of replacement where feasible.	2026-2028	County: General Services Department (oversees fleet), County Sustainability Committee General: Local business owners, Santa Barbara County Air Pollution Control District, Central Coast Community Energy
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## CE-1.3 Natural Gas Appliance Replacement

Develop an ordinance to require 'replacement upon burnout' requirement for residential natural gas appliances.

### Overview

This measure is part of the County of Santa Barbara's Resilient Clean Energy focus area as part of the 2030 CAP. The central aim of the County's Clean Energy initiative is to "increase clean energy use and energy resilience in new and existing buildings" and household appliances, such as stoves and water heaters, are major contributors to the overall energy efficiency of residential buildings. The 2030 CAP works in tandem with the County's 2019 Strategic Energy Plan, which outlines how the County is working towards the State's emissions goals.<sup>1</sup> In October of 2022, the County of Santa Barbara Board of Supervisors voted to prepare an ordinance that requires full electrification of appliances in new residential and commercial buildings. The Board also extended this requirement to major additions and remodels.<sup>2</sup>

The County's Natural Gas Appliance Replacement measure is set to go into effect in the coming months which is slated to be developed, adopted and implemented between 2026-28.<sup>3</sup> When it does, all residential and commercial buildings are required to convert to electric appliances when their existing gas-powered units expire. Because of this "replace as you go" timeline, most upfront costs of converting and upgrading buildings will fall on business and property owners in the unincorporated County area.

Many of these costs can be offset with rebates and grants from the State, non-profits, and other related organizations. For California cities and counties, the "replacement upon burnout" policies are intended to ease the burden of electrification by spreading it out over a longer period of time. The benefits of this "baby steps" approach to electrification allows local governments such as the County to test and spread out costs of enforcement to ensure sufficient progress is made towards electrification beyond the permitting process.

<sup>1</sup> [2019 Strategic Energy Plan](#)

<sup>2</sup> [Santa Barbara County moves to ban gas in new construction, additions, major remodels | Santa Ynez Valley News](#)

<sup>3</sup> [Board of Supervisors | County of Santa Barbara County, CA](#)

<sup>4</sup> [Calif. cities begin to require building electrification retrofits | S&P Global Market Intelligence](#)

This measure will yield additional energy savings down the road as all-electric buildings are typically 30 percent to 60 percent more energy efficient.<sup>5</sup> Additionally, fully electric new builds save a typical developer an average of \$3,400 on gas piping and infrastructure for all-electric multifamily units and an average of \$6,300 for single-family homes.<sup>6</sup> These savings from full electrification compound with the potential long-term energy savings which is estimated at over \$1,000 annually for the average single family home.<sup>7</sup>

## Cost Considerations

### *Community Cost Variables*

- Appliance costs
- Electric hookups and other renovation costs
- Cost of repairs and maintenance

The costs to the community come mainly in the form of tangible<sup>8</sup> renovation and replacement costs for the removal of gas hookups and appliances, which can be partially offset by grants and County-led funding opportunities.

### *County Cost Variables*

- Administrative costs
- Enforcement costs
- Permitting and staffing costs
- Costs of adapting County-owned buildings and real assets
- Capital costs of new equipment
- Cost of collateral materials for any related outreach

A significant portion of County-owned and -managed facilities are already being converted away from fossil-fuel powered appliances, with \$500,000 of the General Fund's Capital Maintenance program devoted to electrical upgrades for County buildings listed in the 2022 Capital Improvement Plan. This is part of a larger push to achieve net-zero energy for 50% of County- managed square footage by 2025 with the remaining 50% achieved by 2035.<sup>9</sup> There will likely be some staffing costs associated with the training of permit review staff to ensure staff understands how new regulations will be applied. Rebates and other financial incentives are already administered by other organizations like utility companies and non-profits so administrative costs will be limited to what is necessary to direct prospective homeowners and builders to the appropriate outside resources.

Cities and Counties have historically depended heavily on federal funding and financing to achieve their climate adaptation and resiliency goals, but it has become apparent in recent years that these resources are far from sufficient to complete all necessary work. There are also additional constraints

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<sup>5</sup> [Building Code Electrification Policies Taking Root with Local Governments - CivicWell](#)

<sup>6</sup> [Los Angeles proposes natural gas ban in most new construction | S&P Global Market Intelligence \(spglobal.com\)](#)

<sup>7</sup> [Fact Sheet: New Innovation Agenda Will Electrify Homes, Businesses, and Transportation to Lower Energy Bills and Achieve Climate Goals - OSTP - The WhiteHouse](#)

<sup>8</sup> Tangible includes costs that are easy to measure and quantify

<sup>9</sup> [Capital Improvement Program 2021 - 2026](#)

on federal funding, such as Congressional politics, that can reduce their predictability and long-term availability. On net, this means that local agencies should not depend entirely on federal agencies as a primary funding source for climate resiliency and adaptation projects in the next coming years.

### ***Case Study 1. Rebates for Electrifying Gas Appliances in the City of Berkeley, CA***

Many California cities and counties have already begun the process of mandating varying levels of building electrification.<sup>11</sup> This statewide trend is backed up by state-level policies as well as funding and financing programs. One early adopter is the City of Berkeley, which, in 2019, stipulated that new builds and major renovations must be equipped with fully electric home appliances. The Berkeley legislation allowed residents with existing gas-powered appliances to keep them and helped connect those who wanted to make the switch of their own accord with rebates and resources to ease the process.<sup>12</sup> To reach lower-income residents, the City Council approved \$600,000 out of the City's general fund's discretionary budget in 2022 to establish a *Climate Equity Fund Pilot Program*, which consists of several sustainability programs.<sup>13</sup> Within that fund \$100,000 is to cover necessary City staff hours. Additionally, \$250,000 is set aside for three contracts not to exceed \$83,334 each with the Association for Energy Affordability, BlocPower, and Northern California Land Trust to run programs that identify and support low-income Berkeley residents in electrifying their homes and businesses.<sup>14,15</sup>

### ***Case Study 2. Block-level Sustainability in Oakland's EcoDistrict***

Lowering GHG emissions at the community wide level is often left in the hands of individuals, which has been a major contributing factor to the relatively slow pace of the adoption of climate-friendly measures. EcoBlock aims to develop a framework under which the process of retrofitting residential blocks to be more sustainable and resilient is more cost effective, equitable, and efficient. In partnership with the City of Oakland, EcoBlock is developing a prototype of an energy efficient and resilient city block in lower-income neighborhoods in the city where residents are historically less empowered to make energy and water efficient upgrades to their homes. This pilot program combines sustainability actions like solar panels and energy efficient appliances with infrastructure like Electric Vehicle (EV) chargers, bike sharing systems, and street trees and aims to have 6 fully complete eco-districts by 2030.<sup>16</sup>

Projects like EcoBlock are a great example of what can be accomplished when sustainability measures are leveraged with economies of scale, which can be accomplished and funded through established mechanisms like assessment districts and neighborhood level trusts. Assessment Districts are funded by a charge paid by property owners within the district to fund projects or services that provide direct benefits to properties in that district. A neighborhood trust is a nonprofit community-based fund that manages capital, operations, and maintenance related to energy efficiency projects. Funds for the trust are raised by the same community

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<sup>11</sup> [California's Cities Lead the Way on Pollution-Free Homes and Buildings | Sierra Club](#)

<sup>12</sup> [Berkeley first city in California to ban natural gas in new buildings](#)

<sup>13</sup> [City of Berkeley Adopted Budget FY 2023 & 2024](#)

<sup>14</sup> [City Council Report April 26, 2022](#)

<sup>15</sup> [Berkeley Climate Equity Action Fund](#)

<sup>16</sup> [About – EcoBlock \(berkeley.edu\)](#)

members that receive the benefits. Both approaches function in a similar way and are an effective way to leverage unique community priorities, expand access to potential grants, and save on implementation costs that are spread across an entire neighborhood rather than individuals.

### Possible Funding and Financing Strategies

A community-wide approach will be needed to undertake this measure on a large scale. Historically, natural gas appliance replacement has been approached at the individual property owner level. The County will require a coordinated approach with other entities such as utility providers to scale up this measure's impact over time through rebate programs. The County can also consider natural gas appliance replacement pilot programs at a smaller scale as a test case before scaling the measure County-wide, such as the City of Berkeley's Climate Equity Fund Pilot Program referenced above. This approach can help to spread costs over a longer period before determining the best practice for implementation while also meeting equity goals.

The following are examples of possible funding and financing mechanisms for measure CE-1.3, more detail can be found in the Funding and Financing Matrix (Attachment D)

1. The Santa Barbara Clean Energy Utility offers a range of rebates including relevant electrification expenses like switching from gas to induction cooktops. Relevant rebates include their *Green Building Incentives*, *SimpliPhi Batter Discount*, and *Santa Barbara Clean Energy Resilient* programs. See more details in the [SB Clean Energy Incentives – Sustainability and Resilience – City of Santa Barbara](#)
2. The federal Inflation Reduction Act allocated \$4.5 billion to rebate programs for appliance electrification. See details on the [Clean Energy Tax Credits for Consumers with the Department of Energy](#).
3. The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) partners with California Public Utilities Commission (CPUC) and California Hub for Energy Efficiency Financing (CHEEF) to provide financing for eligible residential electrification and efficiency renovations. See the [GoGreen Financing program from the State of California](#).
4. Through its [Appliance Replacement Assistance Program](#), Southern California Edison also provides income-qualified customers with free or heavily subsidized energy efficient appliances and other home upgrades including air conditioners, dishwashers, and other appliances.
5. [Golden State Rebates](#) offer a range of incentives and rebates for measures that increase the energy efficiency of single-family homes like smart thermostats and efficient water heaters. Most of these are in the form of coupons that eligible buyers can use to apply to their purchases at independent participating retailers.
6. Electricity utility provider [Southern California Edison offers rebates](#) for more energy efficient upgrades like \$75 rebates for smart thermostats and \$25 for Home / Business Area Networks (HAN) to view their electricity consumption in real time.
7. The [Federal Home Energy Performance-Based Whole-House Rebates \(HOMES\) Program](#) provides eligible households with rebates of \$2,000 to \$8,000 to fund energy efficiency measures. Funding allocations by state are set as of November 2022.

## Key Constituencies and Opportunities

Key constituencies for the Natural Gas Appliance Replacement measure include residents, property owners, utility companies, energy developers, and related businesses depending on the approach taken to achieve County-wide building electrification. Regardless of scale or funding and financing approach, actors like residents, property owners, and other energy customers will likely remain involved in the process. Contrarily, energy developers and adjacent businesses will likely only be involved to the extent that they can participate in retrofits/renewable energy installation or a district-scale approach to electrification, respectively. The inclusion of local businesses and energy developers in the electrification measure raises the possibility of tapping into private financing. Depending on the specifics of the “burnout” ordinance of CE-1.3, utilities could be incentivized to offer rebates and financing for energy efficient appliances. This is an opportunity for both providers and customers to benefit from earlier adoption as customers can cut down on their energy use in exchange for paying for the modifications on their bills over time.

## CE-1.4 Building Performance Ordinance

By 2024, develop and adopt an ordinance that establishes a building performance standard for existing large buildings and facilities that requires the reduction of GHG emissions over time. Implement and promote programs, incentives, and technical support to facilitate and reduce the cost of retrofits.

### Overview

The County of Santa Barbara has taken a strong interest in increasing building efficiency in recent years. In the most recent edition of the County’s Capital Improvement Plan (CIP), measures related to recurring efforts to reduce energy use and increase efficiency are listed amongst other “high priority” projects.<sup>17</sup> This prioritization of energy efficiency began in 2013 with the County’s first Energy and Climate Action Plan (ECAP) in which the County established net-zero goals. These goals started first with its Zero Net Energy (ZNE) Facilities Resolution which mandates that the County work towards achieving net-zero emissions for 50 percent of the square footage of County-owned facilities by 2025 and the remaining 50 percent by 2035.<sup>18</sup> With the County leading by example, it can now extend those same high standards of energy efficiency to the entire community.

Typically, local governments develop Building Performance Standards (BPS) to require energy and water efficiency, electrification, and GHG emission reduction compliance amongst larger buildings like commercial spaces and multifamily developments within a given timeline. While BPS typically hold new builds up to high standards, not all of them enforce the same regulations on older buildings. The inclusion of existing buildings in the wording of CE-1.4 is much more comprehensive than policies in other localities. According to the EPA, the public disclosure of energy efficiency ratings has influence over people’s behavior in their energy consumption and a benchmarking tool like the free Portfolio Manager by Energy Star is a way to evaluate these efficiencies. Other factors that

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<sup>17</sup> [Capital Improvement Program 2021 - 2026](#)

<sup>18</sup> [Energy and Climate Action Plan 2015 Update](#)



governments ought to consider is the logistics of the reporting schedule and process, the quality of the existing data, and the level of transparency necessary to achieve the desired results.<sup>19</sup>

As BSPs are still a relatively new strategy, knowledge sharing is critical to achieve success. This is the motivation behind the White House's Building Performance Standards Coalition, a partnership of state and local governments with an interest in developing comprehensive nationwide energy efficient building standards alongside the Department of Energy. Together, the member organizations have nearly 20% of the nation's building square footage in their jurisdictions, so the group has the potential to have great influence in the pursuit of sustainable building codes.<sup>20</sup>

More than 27 percent of GHG emissions in the area come from buildings, so this measure has the potential for incredible impact.<sup>21</sup> This impact can be felt not only in the reduction of emissions, but also in energy savings for both the County and the community in the long term. The County of Santa Barbara lies at the boundary of the Southern California Edison (SCE) and Pacific Gas & Electric (PG&E) utility service areas, which can leave residents at a disproportionate risk of outages.<sup>22</sup> Resilient and efficient buildings are essential to grappling with inconsistent and increasingly expensive energy supplies in the region. These challenges are part of the County's motivation to partner with organizations like Central Coast Community Energy (3CE) and South County Energy Efficiency Partnership (SCEEP). These partnerships provide affordable renewable energy, technical support, financing, and rebates for renovations that increase building efficiency. These partnerships will allow the County to unload some of the administrative and materials costs of retrofitting local buildings for better energy efficiency.

Support for the County's mission of increasing energy efficiency is not limited to local resources. The State of California offers a broad range of grant and loan programs accessible to home and business owners to modify their properties to be more efficient. Additionally, federal funding was specifically allocated to the County through the state Department of Energy (DOE) in 2013. The *Elective Municipal Programs to Optimize Water, Energy and Renewables (emPower) program* was supported by \$2.4 million in federal seed money funded through the United States' DOE's *Better Buildings Neighborhood Program* which encouraged energy efficient home upgrades through a combination of financing, rebates, and technical advising and training.<sup>23,24</sup>

## Cost Considerations

### *Community Cost Variables*

- Building modifications

The costs to the community for this measure include a variety of energy efficiency measures including lower cost items like window stripping in the range of a few hundred dollars; water heaters ranging from \$800 to \$4,000; and HVAC system upgrades, which can cost up to tens of thousands. One study from San Francisco in 2021 estimated the total cost per multifamily unit for a full electrification

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<sup>19</sup> [Building Energy Benchmarking and Transparency: Overview for State and Local Decision Makers - EPA](#)

<sup>20</sup> [FACT SHEET: Biden-Harris Administration Launches Coalition of States and Local Governments to Strengthen Building Performance Standards - The White House](#)

<sup>21</sup> [Santa Barbara County to push electric vehicles, buildings, but nix natural gas in new homes | Santa Maria Times](#)

<sup>22</sup> [Energy | Santa Barbara County, CA - Official Website](#)

<sup>23</sup> [Empowering Santa Barbara to Invest in Upgrades | Department of Energy](#)

<sup>24</sup> [SB County emPower | Final Program Report](#)

retrofit to range from \$14,363 to \$19,574 before considering eligible rebates and long-term energy savings.<sup>25,26,27, 28</sup>

### **County Cost Variables**

- Outreach campaigns
- Administrative costs
- Enforcement costs
- Planning costs
- Permitting staff education costs
- Development of building information and energy performance metrics tracker

Costs for the County will likely be similar to that of measure CE-1.3. There will likely be staffing and education costs associated with getting permit review staff up to speed on the changes in building standards as the permit staff will be the major enforcement arm for the new ordinance.

### **Case Study 3. Zero Emission Building Code in the City of Santa Monica, CA**

In 2022, Santa Monica's City Council voted to adopt their Zero Emission Building Code, which requires all new buildings to be fully electric. The new building codes went into effect in January of 2023.<sup>29</sup> In order to kickstart the conversion to electrified buildings, the City's Office of Sustainability and the Environment began by offering rebates for eligible expenses to upgrade single family, multifamily, and small businesses facilities.<sup>30</sup>

### **Case Study 4. Los Angeles Commits to Full Electrification**

The City of Los Angeles has recently adopted an all-electric building code. In December 2022, the City Council approved a measure that would require all new construction to be fully electric starting April 2023. The City of Los Angeles also recently voted to fully electrify all municipal buildings in 2020.<sup>31</sup> This is an integral part to the City's mission to be fully carbon-free by 2035.<sup>32</sup> Just in the last two years the City of Los Angeles has made progress in electrifying its stock of more than 640 buildings, so much so that it was recognized by Energy Star as the most sustainable municipality in 2022.<sup>33,34</sup>

### **Case Study 5. Chula Vista's Benchmarking Map Tool**

In 2021, as part of its CAP, the City of Chula Vista adopted their Building Energy Saving Ordinance. It stipulates that multifamily, commercial, and industrial buildings must benchmark and report their energy use through a web platform managed by the Energy Star company through their Portfolio Manager tool.<sup>35</sup> That data is then visualized on a public-

<sup>25</sup> [Heat Pumps Costs 2022 - CarbonSwitch.com](#)

<sup>26</sup> [Cost of Weatherstripping 2023 - HomeAdvisor](#)

<sup>27</sup> [Water Heater Installation And Replacement Cost – Forbes Home](#)

<sup>28</sup> [Eliminating natural gas in housing could cost \\$5.9B | San Francisco Examiner](#)

<sup>29</sup> [Zero Emission Building Code | City of Santa Monica](#)

<sup>30</sup> [Electrify Santa Monica Rebate Program](#)

<sup>31</sup> [Los Angeles adopts all-electric, embodied carbon standards for municipal buildings | News | Archinect](#)

<sup>32</sup> ['First step' toward electrification: LA City Council bans gas in new buildings – Daily News](#)

<sup>33</sup> [2022 rankings: Top cities with the most ENERGY STAR certified buildings | ENERGY STAR](#)

<sup>34</sup> [LA's Green New Deal Annual Report 2021-2022 - Mayor's Office](#)

<sup>35</sup> [Benchmark Your Building Using ENERGY STAR® Portfolio Manager® | ENERGY STAR](#)

facing map platform where citizens can see the emissions and energy efficiency of large buildings. The data gathered by Energy Star is also used by the City to perform audits that ensure compliance.<sup>36</sup>

### Possible Funding and Financing Strategies

Establishing a building performance standard for existing large buildings and facilities will require the concentrated administrative effort by County staff including staff training to provide technical support and to develop programs for incentives and educational outreach with property owners. The timeframe by which buildings must meet this target may affect the level of effort required of the County. The County will need to dedicate staff and resources within its typical budget process to accommodate administrative costs incurred. Like CE-1.3, the County can pursue implementation of this measure at a smaller scale as a test case prior to county-wide implementation.

The following examples show possible funding tools for available for property owners at the time of this writing and financing mechanisms the County can apply that can help meet performance standards. More detail can be found in the Funding and Financing Matrix.

1. [California Energy Commission's Low-Interest Loans Program](#) is part of the State Energy Conservation Assistance Act and helps fund cities and counties for eligible energy or demand cost savings projects. The program provides one percent interest loans, at a maximum loan amount of \$3 million, for eligible energy projects by the County. Eligible projects include lighting system upgrades, building insulation, energy storage systems, electric vehicle charging infrastructure used to power public fleets among others.<sup>37</sup>
2. [Southern California Edison](#) offers commercial, multifamily, and public sector customers 0% interest financing on projects of up to \$250,000 that increase building energy efficiency. Loans are repaid through an on-bill financing system.
3. SoCalGas is another Santa Barbara area utility offering commercial builders [Rebates and Incentives](#) that encourage energy efficiency in both new construction and for the replacement of low-efficiency equipment upgrades like boilers and insulation.
4. [Golden State Rebates](#) offer a range of incentives and rebates for measures that increase the energy efficiency of buildings like smart thermostats and efficient water heaters. Most of these are in the form of coupons that eligible buyers can use to apply to their purchases at independent participating retailers.
5. PG&E boasts an extensive catalog of business-eligible rebates for a variety of industries in addition to 0% interest on-bill financing through its [Business Solutions and Rebates](#) initiative.

## TR-2.10 Employer Trip Reduction Requirements and Programs

Develop an ordinance that requires large employers, including the County, to meet vehicle trip and emission reduction goals, or pay non-compliance fees to expand transit and commuter services and resources. Partner with SBCAG to work with large employers

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<sup>36</sup> [Building Energy Saving Ordinance | City of Chula Vista](#)

<sup>37</sup> [Energy Conservation Assistance Act – Low-Interest Loans \(ca.gov\)](#) Loans must be repaid from energy cost savings or other legally available funds within a maximum of 20 years. Loans with a simple payback period greater than 20 years can be partially funded. The loan term cannot exceed the useful life of loan-funded equipment.

within the unincorporated County to achieve a 50-80 percent telework participation rate by eligible employees able to work remotely consistent with Connected 2050 Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS).

## Overview

Trip Reduction Management--also known as transportation demand management (TDM)--plans and ordinances are popular mechanisms for municipalities to require employers to offer additional benefits to their employees while also reducing single occupancy vehicle trips and GHG emissions. The County of Santa Barbara has invested in planning for the reduction of overall vehicle miles travelled (VMT) and proposed incentive-based programs in its 2020 Transportation Analysis Update.<sup>38</sup> With this measure, the County will collaborate with the Santa Barbara County Area Governments (SBCAG) partnership to achieve their shared objective of reducing vehicle trips in the region.

SBCAG has been working on Connect 2050, its Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) plan since 2017 and has used the plans to inform their work across a range of departments and initiatives.<sup>39</sup> Some local employers have independently begun TDM plans including Santa Barbara City College which launched the first iteration of its program in 1999, reducing single occupancy vehicle trips by 13 percent from 2014 to 2020 amongst its staff.<sup>40</sup>

Many other existing transit rewards programs exist which the County of Santa Barbara could emulate. One of these existing services is IncenTrip, which partners with employers to reward employees with incentives for sharing commutes and facilitates carpools amongst commuters with similar routes. IncenTrip integration would cost the County an upfront fee between \$25,000 and \$75,000 to start the program plus additional ongoing administrative fees including an annual service charge of up to \$10,000 and an additional \$110 - \$145 per participant per year. The County may use TDM apps like IncenTrip to support in the coordination and administrative expense of managing a TDM program for employers and employees in the County.

## Cost Considerations

### *Community Cost Variables*

- Cost of incentives to employers

The cost of the incentive programs to reduce trip demand will largely fall on local major employers, but both employers and employees can take advantage of transit tax deductions.

### *County Cost Variables*

- Administrative costs to ensure compliance and track progress
- Staff time devoted to the development of program standards
- Staff time devoted to procuring funding / grant management
- Cost of incentives for County employees

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<sup>38</sup>[Transportation Analysis Updates 2020 - Santa Barbara County](#)

<sup>39</sup>[2021 RTP - SBCAG](#)

<sup>40</sup>[SBCC Commute - Santa Barbara City College](#)

The County can expect similar costs of incentives as private employers and might have increased expenses from administrative hours needed to ensure compliance.

**Case Study 6. Club Rideshare Program and App-based Platform Orange County, CA**

Orange County utilizes multiple types of incentive mechanisms for its employees to earn rewards for carpooling, using transit, and cycling. Their app-based platform also coordinates car and van pools, reimburses transit passes, and offers incentives for EV use. Their Club Rideshare program offers additional monthly prize drawings and offers discounts at local businesses.<sup>41</sup>

**Case Study 7. Commute Trip Reduction Programs State-wide: Washington**

Since 1991, the State of Washington has mandated that cities and counties develop plans to reduce single-occupancy vehicle trips in counties with the greatest air pollution rates under the State's *Commute Trip Reduction Efficiency Act*.<sup>42</sup> The state policy stipulates that firms with 100 or more employees must provide commute trip reduction programs. King County Washington is the most urban county in the state and home to the cities of Seattle and Bellevue which have made significant strides in reducing single-occupancy vehicle use.

The City of Bellevue offers *Choose Your Way Bellevue* which offers route planning and rewards to commuters who choose sustainable transportation via its app-based platform.<sup>43</sup> The program has succeeded in removing vehicles from the streets of Bellevue, taking approximately 3,000 cars off the road.<sup>44</sup>

The City of Seattle has been working towards the reduction of single occupancy vehicles for years. The program's 2020 performance update shows a 23 percent reduction of VMT per capita amongst participants. The report also indicates that in 2020, local employers spent a total of \$90 million on transportation incentives or roughly \$540,776 per firm. The Seattle Department of Transportation (SDOT) receives around \$900,000 from the state each year to cover the administrative costs of enforcing the state-level standards.<sup>45</sup>

**Case Study 8. Mobility on Demand in Palo Alto, CA**

In 2021, The US Department of Transportation formed a partnership with the City of Palo Alto to research how public transportation agencies can utilize emerging technologies to support their existing business practices in their *Mobility on Demand (MOD) Sandbox*. The sandbox included sophisticated trip planning and road network modelling software to help predict public transportation demand throughout the Bay Area to adapt their offerings and in turn reduce single occupancy vehicle trips. The project's \$1.1 million price tag was covered by a Federal Transit Administration (FTA) grant.

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<sup>41</sup> [Club Rideshare | Orange County](#)

<sup>42</sup> [For Large Businesses: Commute Trip Reduction \(CTR\) - Commute Seattle](#)

<sup>43</sup> [For Commuters | Choose Your Way Bellevue](#)

<sup>44</sup> [Commute Trip Reduction | City of Bellevue](#)

<sup>45</sup> [Seattle Commute Trip Reduction Program 2019/2020 Performance Update](#)

### **Case Study 9. A Points-based TDM Platform in San Francisco, CA**

The local governments that make up the greater San Francisco Bay Area have made tremendous strides in the adoption of TDM strategies. The Bay Area Air Quality Management District has required employers with 50 or more full time employees within the district to provide commuter benefits that discourages single occupancy vehicle trips since 2012.<sup>46, 47</sup> The City of San Francisco goes further requiring multifamily developments with 10 or more units, new construction of 10,000 sq ft of occupied space and any change of use of a building of 25,000 sq ft or more to submit a TDM plan. As part of their mandated TDM plans, employers and property owners can select from a “menu” of options that encourage sustainable transportation to earn points including things like bike maintenance services, vanpooling, and providing a shower for employees who cycle to work. To determine how many points a project must earn, they can take advantage of the City’s GIS-based TDM tool which assigns points based on location, business type, and other factors.<sup>48</sup>

### **Possible Funding and Financing Strategies**

A Trip Reduction Management plan and ordinance require the coordination and administration by County staff including staff training to provide technical support for implementation and monitoring. The timeframe by which the County enacts the plan may affect the level of effort required of the County. The County will need to dedicate staff and resources within its typical budget process or solicit state support to accommodate administrative costs incurred.

The following examples show possible funding tools available for employers at the time of this writing and financing mechanisms the County can apply that can help meet performance standards. More detail can be found in the County of Santa Barbara Funding and Financing Matrix.

1. The State of California has a range funding available for specific projects. One example is [Caltrans’s](#) range of grants and incentives, which are regularly updating.
2. The Federal Transit Administration offers a range of grant and funding opportunities and one of the most prominent is their [Mobility on Demand \(MOD\) Sandbox Program](#), which is critical to the agency’s research efforts. The program awards for- and non-profits, transportation provider organizations, and state and local governments with funding for activities that drive MOD innovation and integration, which can include expenses like planning, equipment replacement, and software development.
3. The California Air Resources Board (CARB) offers a range of grant support through its different initiatives. Its [Community Air Grants](#) can be applied to many expenses related to the development of local programming including planning and technical assistance, community outreach campaigns, and data collection and analysis.
4. The County also has the opportunity to share cost burden of its programming through strategic partnerships with other local agencies like the County area [Air Pollution Control District \(APCD\)](#), which regularly gets funding from CARB through their [Carl Moyer Program](#).

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<sup>46</sup> [Bay Area Air Quality Management District 2013 Report](#)

<sup>47</sup> [Frequently Asked Questions - Commuter Benefits Program | San Francisco Environment Department](#)

<sup>48</sup> [TDM Measures Form \(sfplanninggis.org\)](#)

## TR-3.2 Time of Replacement, Combined Generally with ZEV Adoption Costs

Develop an ordinance to phase out light duty gasoline and diesel-powered off-road equipment, including the County's, at time of replacement where feasible.

### Overview

In partnership with local utilities like 3CE, who provides rebates and incentives to support the electrification of agricultural equipment, the County of Santa Barbara is working to identify areas of the local economy that use fossil fuel powered equipment in their daily operations to encourage them to transition over to electric. An ordinance enforcing the phase out of off-road equipment is an integral part of the 2030 CAP goals.<sup>49</sup>

The County can lead by example by holding itself to the same standards as business owners in the area in regard to electrifying off-road equipment. In September 2022, the County partnered with 3CE to install 22 new EV chargers and purchase light-duty electric vehicles with the help of a grant from 3CE. The grant included \$92,000 for Level-2 chargers and \$150,000 for new vehicles.<sup>50,51</sup>

The County's efforts with 3CE are complemented by another strategic partnership with the Santa Barbara County Air Pollution Control District (the District). Though not dedicated to off-road equipment, the District pledged an additional \$148,029 for the expansion of local charger infrastructure, which the County matched with an additional \$58,808 in funding for the goal.<sup>52</sup> The District also offers a broad range of grants for replacing vehicles for lower-emissions options including off-road vehicles and agriculture equipment ranging in amount from \$10,000 to \$250,000. While the 2022 application window has closed, the 2023 grant categories should be announced in the coming months and will likely include similar project eligibility requirements.<sup>53</sup>

### Cost Considerations

#### *Community Cost Variables*

- Off-road vehicle and equipment replacement costs
- Charging infrastructure

Those in the community who use off-road equipment can expect to bear most of the cost of replacing their equipment upon burnout, but there are existing rebates and incentives to offset these costs. They may also find it necessary to take on the installation of an EV charger, which also can be funded through rebates and incentive programs.

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<sup>49</sup> The Federal Department of Transportation defines off-road equipment as "equipment which, by its design and function is obviously not intended for use, nor is it used on a public road in furtherance of a transportation purpose"

<sup>50</sup> [Central Coast Community Energy and the County of Santa Barbara Partner on Transportation Electrification – CalCCA \(cal-cca.org\)](https://www.calcca.org/)

<sup>51</sup> [Central Coast Community Energy Launches Fleet Electrification Programs for Member Agencies - Central Coast Community Energy \(3cenergy.org\)](https://www.3cenergy.org/)

<sup>52</sup> [County launches move to electric vehicle fleet; first 56 EVs to hit road by summer | Government and Politics | svnnews.com](https://www.svnnews.com/)





### County Cost Variables

- Off-road vehicle and equipment replacement costs
- Administrative costs for planning and implementation of regulatory requirement
- Charging infrastructure

The County of Santa Barbara will be obligated to replace its own equipment with electric alternatives, which poses a cost burden. In addition to its off-road equipment, the County currently operates around 200 combustion-engine vehicles and 150 of those are set to meet the end of their lifespan in the next five years when they are to be replaced. The County also currently operates 133 individual chargers across 13 locations and has plans to install an additional 168 chargers by 2026 to support future demand increases.<sup>54</sup> They can take advantage of similar programs to offset the cost of increasing EV charger access throughout the community.

#### **Case Study 10. Valley Air and the electrification of off-road vehicles San Joaquin Valley, CA**

The San Joaquin Valley is one of the most productive agricultural regions in the country and therefore depends heavily on off-road equipment to support its local industries. In an effort to enhance the sustainability of the local economy, the San Joaquin Valley Air Pollution Control District (Valley Air) took advantage of a \$118.8 million grant from the California Air Resources Board to help farmers in the area replace their gas- and diesel-powered vehicles with more sustainable models in 2022. Valley Air is in the process of coordinating a grant and rebate program for individual farmers to replace tractors, forklifts, and balers.<sup>55,56</sup>

### Possible Funding and Financing Strategies

Increasing ZEV adoption for off-road equipment will require moderate coordination and outreach efforts on behalf of the County to connect the users of that machinery with applicable funding opportunities. Beyond these staff hours, the County itself may require additional funds to replace its existing fossil-fuel powered equipment alongside other local enterprises. Some of the costs of vehicle replacement and the infrastructure needed to charge it can be recouped through specifically earmarked grant programs from the State and Federal governments.

The following examples show possible funding tools for available for both the County and independent operators at the time of this writing. More detail can be found in the County of Santa Barbara Funding and Financing Matrix.

1. [3CE's Agriculture Electrification Program](#) helps small agricultural operations replace fossil fuel powered equipment. Eligible project requirements include up to \$15,000 for forklifts, up to \$75,000 for tractors, and up to \$100,000 for DCFC charging infrastructure and other relevant expenses.
2. [3CE's Light-Duty Vehicle Electrification Program](#) award eligible agencies up to \$150,000 in rebates for replacing fossil fuel vehicles and the installation of EV chargers or the replacement of vehicles with new and fully electric alternatives. Eligible projects must

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<sup>54</sup> [County Adopts Zero-Emission Vehicle Policy for Its Fleet | Noozhawk](#)

<sup>55</sup> [San Joaquin air control board gets nearly \\$120 million to help farmers replace high-emission agriculture equipment - capradio.org](#)

<sup>56</sup> [Tractor Replacement Program | Valley Air District](#)

- include either Level 2 or Level 3 DCFC chargers and can either be public facing or at a secure customer site.
3. The [Santa Barbara County Air Pollution Control District](#) offers grants from \$10,000 to \$250,000 to local businesses through its Clean Air Grants program. Applicants are limited to one grant project per company, existing equipment must be functional and have operated 100% of the last 24 months of use within the boundaries of the County of Santa Barbara. Preference is granted to zero or near-zero emission projects and projects located in low-income communities.
  4. The [California Air Resource Board \(CARB\) FARMER Program](#) funds the replacement of agricultural equipment with zero emissions replacements. Applications are evaluated on a case by case basis by CARB staff and grant funds are allocated to regional air districts before they are awarded to applicants. Eligible applicants must work entirely within the boundaries of the air district and project equipment can include off-road vehicles, tractors, irrigation pump engines, and other equipment used entirely for agricultural purposes.
  5. As mandated by California SB 372, CARB is working to establish a program that coordinates with local governments to facilitate and fund fleet replacements with zero emissions options through the [medium- and heavy-duty fleet zero-emission vehicle purchasing support](#). The program will include both financing and non-financial support tools like technical assistance and is set to begin in early 2023.
  6. In partnership with regional air districts, CARB runs the [Carl Moyer Program](#) through which it funds fleet upgrades and replacement incentives for eligible equipment like heavy-duty trucks, emergency vehicles, solid waste collection vehicles, and charging infrastructure. The program is administered through regional air districts and can be used for public or private fleets.
  7. [California Climate Investments CORE Program](#) provides funds for the replacement of heavy-duty and off-road equipment with zero emissions models for California businesses. Specific funds are set aside to support micro and small businesses and can be used to purchase equipment from lawnmowers to construction equipment.