



CLIMATE PROTECTION MEASURES

Implementation Progress Report

February 2010

SUMMARY

On July 10, 2008 the City Council adopted implementation plans for seven additional climate protection measures to reduce Chula Vista's greenhouse gas or "carbon" emissions. The new measures, which were recommended by the City's Climate Change Working Group - comprised of residents, businesses, and community representatives - were designed to assist the City in meeting its 2012 emissions reduction commitment of 20% below 1990 levels by requiring "clean" vehicle replacements for City and contracted fleet services, linking energy evaluations to annual business licenses, mandating green building standards for all new construction, facilitating turf lawn conversions to water-saving landscapes, focusing mixed-use, transit-oriented development near trolley stations, and implementing a community energy efficiency and solar retrofit program.

As directed by City Council, staff has been implementing the approved measures over the last 18 months based on available funding. The following progress report outlines each measure's implementation status and upcoming milestones during this time period. Most measures are meeting the milestones outlined in their original implementation plans and the City has been very successful in securing additional financing to support the measures' short-term implementation. However, staff continues to try to secure funding sources for the measures' long-term, full implementation. The City has also initiated new climate action initiatives such as a climate adaptation planning process and California Climate Action Registry participation to complement the seven measures' implementation and broaden the effectiveness of Chula Vista's climate protection program.

OVERALL PROGRAM ADMINISTRATION

Stakeholder Outreach

Staff continues to educate residents, businesses, and community groups about the City's multi-department climate protection program. Program information has been distributed to the public through the municipal website, local newspaper advertisements, and community-wide events such as the weekly farmers markets (Third Avenue and Otay Ranch Town Center). The climate protection program's website was also redesigned to provide the community with up-to-date information and resources. At the national level, the City was recently featured in ICLEI-Local Governments for Sustainability's "Measuring Up" report highlighting Chula Vista's no-cost residential and business energy evaluation service as an effective tool for lowering energy use and related greenhouse gas emissions.

During the past 6 months, the City of Chula Vista has also reconvened and expanded its Climate Change Working Group comprised of diverse stakeholder and community

representatives. The group will work to assess the community's vulnerabilities to climate change impacts and develop strategies which "adapt" the community to the projected changes. By minimizing the risks associated with these climate impacts now, future costs can be avoided and/or minimized. The strategies will be formalized in a *Climate Change Adaptation Strategy* which will be developed over the next 8 months with technical guidance and support from the San Diego Foundation and ICLEI-Local Governments for Sustainability. The Climate Change Working Group will be presenting their recommended strategies to City Council for consideration in summer 2010. The City of Chula Vista is the first local government in the region to begin assessing its resiliency to projected climate change impacts.

Emissions Tracking & Reporting

The City completed its 2008 greenhouse gas (GHG) emissions inventory to identify current emission sources and to guide policy decisions. The *2008 GHG Emissions Inventory*, which utilized a new State-supported reporting protocol and newly-available emission coefficients, indicated that annual citywide GHG levels had increased by 29% compared to 1990. However, per capita and per housing unit levels in Chula Vista were approximately 25% and 17% below 1990 levels, respectively. GHG emissions from municipal sources (i.e. operations, facilities, and vehicle fleet) in 2008 were approximately 43% below 1990 levels. Although transportation levels and energy use in the community have generally increased in every inventory year since 1990, the stabilization of community-wide emissions and the decrease of municipal operation emissions (compared to results previously reported in the *2005 GHG Emissions Inventory*) are mainly due to new emission coefficients.

Chula Vista also recently joined the California Climate Action Registry, which is the State's premier voluntary greenhouse gas reporting system. Participation in the California Climate Action Registry complements the City's other climate protection efforts by documenting GHG emissions as it relates to Assembly Bill 32's (California Global Warming Solutions Act of 2006) statewide reduction targets and prepares the City for potential carbon trading opportunities in the future. The City of Chula Vista was the first local government in San Diego County to successfully report its GHG emissions through the California Climate Action Registry and receive their "Climate Action Leader" award.

MEASURE #1 – CLEAN VEHICLE REPLACEMENT POLICY FOR CITY FLEET

Overview

Measure #1 directs the City to require that 100% of the replacement vehicles purchased for the municipal fleet be high efficiency (hybrid) or alternative fuel vehicles (AFVs). However, factors such as the appropriateness for the vehicle task, fueling infrastructure, petroleum displacement, and the overall cost and environmental benefit must be considered prior to purchasing each replacement vehicle.

Status

The conversion of the City's 128 diesel-fueled vehicles (or 23% of the total fleet) to biodiesel is anticipated to be implemented by March 2010.

Next Steps

City Council approved a design/build agreement on February 23, 2010, with Western Pump Inc. for the design and construction of a 12,000 gallon biodiesel tank at the Public Works Corp Yard. This project is anticipated to be completed by March 2010. The new tank is fully funded through the City's federal Energy Efficiency & Conservation Block Grants (EECBG).

MEASURE #2 – CLEAN VEHICLE REPLACEMENT FOR CITY-CONTRACTED FLEETS

Overview

Measure #2 directs staff to work with fleets under City authority to influence their expanded use of alternative fuels and high efficiency/alternative fuel vehicles (AFV) including electric, biodiesel, ethanol, hybrid, hydrogen, and compressed natural gas (CNG) based on appropriateness for vehicle task, fueling infrastructure, petroleum displacement, overall cost, and environmental benefit.

Status

Chula Vista Transit

The final two CNG transit buses arrived in November 2009 replacing two 1995 diesel transit buses. As a result, the transit fleet is now comprised of 100% alternative fuel vehicles.

Street Sweeping

The current contract with Cannon-Pacific expires June 30, 2011. Language will be added to the Request for Proposals outlining the City's new policy for AFV/Hybrid vehicles.

Trash Hauler

Allied Waste Services (AWS) re-instituted the use of biodiesel for over 50 diesel-fueled vehicles in its Chula Vista fleet.

Tow Trucks

The contract with the tow companies to provide police-initiated tows expires June 30, 2011. Language will be added to the Request for Proposals outlining the City's new policy for AFV/Hybrid vehicles.

Next Steps

The City plans to work with utilities and regional agencies to further develop local infrastructure for alternative fuels helping to ensure that these fueling options are readily available for contractors and the public, whenever possible.

MEASURE #3 – BUSINESS ENERGY EVALUATIONS

Overview

The measure, as originally adopted by City Council, would encourage commercial and industrial businesses to participate in an energy and water evaluation of their premises

through a new municipal ordinance. The measure helps businesses identify energy efficiency and water conservation opportunities at their facilities and take advantage of rebate, incentive, and financing programs for improvements solely at the business's discretion. The evaluations, which are offered at no cost, apply to licensed businesses with a physical storefront and/or office location.

Status

In September 2009, City Council directed staff to create a new municipal ordinance that would require businesses to participate in the Free Resource & Energy Business Evaluation (FREBE) program. The ordinance, which was subsequently passed by City Council in November, states that businesses with store-fronts or offices need to participate in the program when a new business license is issued or once every 3-5 years for a renewed business license. These businesses are not required to implement any of the identified energy or water efficiency opportunities and are not required to complete evaluations for facility areas beyond their operational control (ex. whole-building systems operated and maintained by a Property Manager/Landlord).

To help ensure that the new requirement did not create an impediment to the participating business's normal operations, staff has worked to streamline program implementation. Businesses can easily schedule an evaluation by selecting a preferred date and time on their business license form, through an on-line appointment calendar, or by calling the City's bilingual staff in the Department of Conservation & Environmental Services. If businesses do not schedule an appointment within 60 days of receiving a license, staff will set a tentative appointment during the business's regular business hours which can be confirmed or rescheduled at the business's discretion.

In December 2009, 993 existing businesses received notices stating that they would be required to participate in the FREBE program during calendar year 2010. As of January 26th, over 140 businesses (or 14%) had already scheduled an on-site evaluation for the year. A recent survey of past participants highlighted that 78% of evaluated businesses implemented one of the City's recommendations and 45% of them realized savings on their monthly utility bills (13% reported that they had just recently implemented the recommendations, so it was too early to notice savings). Over 95% of respondents characterized the free evaluations as a positive experience and numerous businesses requested frequent consultation with City staff on energy and water management.

Next Steps

Staff will continue to monitor and report to City Council the program's participation levels over the next year. In addition, the FREBE program will be linking to SDG&E's new portfolio of rebate and incentive programs including direct install services which provide free energy-saving maintenance and efficiency improvements to help lower business's monthly utility costs.

MEASURE #4 – GREEN BUILDING STANDARD

Overview

Measure #4 would mandate new and renovated residential and non-residential projects to incorporate the requirements of the Housing and Community Development's (HCD) version of the California Green Building Standards Code (CGBSC) and to be more energy efficient than the 2008 Building Energy Efficiency Standards (08 Standards) by a specific percentage. In addition, staff is working on a community/site design carbon savings option by which builders can use carbon savings realized from implementing sustainable community or site design measures toward meeting a portion of the required increased building energy efficiency standards. The other two components of Measure #4 are (1) implementing a green building awareness program and (2) updating existing and establishing new design and regulatory provisions that incorporate sustainable practices.

Status

Green Building Standards

City Council adopted the Green Building Standards on October 6, 2009 and the Standards have been in effect since November 5, 2009. Permit applications submitted on or after November 5, 2009 are required to comply with the Standards. As of today, staff has not faced complications or received complaints with regards to compliance.

Increased Energy Efficiency Standards

On October 20, 2009, City Council placed an ordinance adopting increased building energy efficiency standards on first reading. Soon after, staff submitted an application to the California Energy Commission (CEC) requesting approval of the local amendments as required by State law. On December 16, 2009, the CEC approved and authorized enforcement of the standards (Appendix A). As a result, Council approved the second reading and adopted the ordinance on January 26, 2010. The ordinance will take effect on February 26, 2010 and permit applications submitted on or after the date will have to comply with the new energy efficiency ordinance.

Green Awareness Program

The successful launch and implementation of the Green Building Standards and the Solar Pre-Plumbing/Pre-Wiring ordinances (see Measure #5) is due to a comprehensive staff training program and an extensive public outreach campaign. Staff developed program guides and handouts for distribution through the City's "Sustainability Center" website and at the "Sustainability Desk." In addition, staff is now developing guides and handouts for the increased building energy efficiency ordinance, so that they are available to the public before the ordinance takes effect. Any future ordinances, policies, and guidelines resulting from the ongoing implementation of Measure #4 will be made easily available on the City's website. Furthermore, staff will continue to receive additional training on the City's Green Building Standards and the recently-adopted 2008 Building Energy Efficiency Standards.

Policy Guidelines and Regulatory Amendments

This component consists of the following three tasks related to updating existing and establishing new design and regulatory provisions to ensure incorporation of sustainable practices into new development projects: (1) Air Quality Improvement Plan (AQIP) Guidelines, (2) Zoning and Design Guidelines, and (3) current and proposed efforts of the

Chula Vista Research Project (CVRP) through the National Energy Center for Sustainable Communities (NECSC) and San Diego State University (SDSU) regarding a Community Site Design Program.

Air Quality Improvement Plan Guidelines-

Staff has completed its work on updating the City's Air Quality Improvement Program (AQIP) Guidelines which were adopted by the City Council on December 8, 2009. The updated AQIP Guidelines will be used in preparing the next series of SPA Plans in eastern Chula Vista as part of the South Otay Ranch/University Villages planning efforts. As part of the Guidelines effort, staff also completed its work with Criterion Planners/Engineers, Inc. in October 2009 to update the INDEX computer model used to evaluate the design of SPA Plans through the required AQIP. New modeling baseline scores were developed through analysis of smart growth oriented projects built in the last 10+ years including Otay Ranch Villages 1, 5, 6, and 11. The new baseline requirements were incorporated into the AQIP Guidelines, and new developments will now need to meet or exceed those scores.

In conjunction with the above-noted Increased Energy Efficiency Standards, a placeholder for a community/site design carbon savings option was included, under which builders can use carbon savings realized from implementing sustainable community or site design measures toward meeting a portion of the required increased building energy efficiency standards. These community/site design measures are to be considered as part of the SPA Plan and evaluated under the new AQIP Guidelines which also included placeholder provisions. Because the credit option approach is cutting edge and pioneering, staff has acknowledged that industry standards on calculating and quantifying specific credits were not yet defined, but would be developed pending the outcome of ongoing studies. Staff estimates that those efforts may take about one year depending upon the outcome of grants being sought by the NECSC which is discussed further in the applicable section below.

Zoning and Design Guidelines-

In addition to the AQIP Guidelines which target larger master planned projects, staff has been conducting research toward developing possible zoning standards and design guidelines that would promote sustainable practices and energy efficiency in smaller-scale site plans and projects. Staff has completed its initial research and has compiled a report on sustainable design concepts and potential updates to the City's Design Guidelines. The report is scheduled for presentation to the City Council in February 2010. Depending on City Council's direction, staff would prepare formal revisions to the City's Design Manual and return for Council action in summer 2010.

CVRP/NECSC Community Site Design Program-

As noted in prior reports, the Chula Vista Research Project conducted by the National Energy Center for Sustainable Communities centers around the evaluation of more energy efficient community design and building options using the Eastern Urban Center and Otay Ranch Village 9 as pilot models. The initiative modeled the energy efficiency and emissions performance of alternative building energy technologies and site design features for the two projects. Final reports on the research outcomes and related recommendations became available in January 2010, and will be presented at a forum

scheduled for February 9, 2010 in conjunction with the University of San Diego Burnham-Moores Center for Real Estate and CleanTECH San Diego. In addition to presenting the research findings, the forum will explore perspectives on green development from executives in local government, the real estate development industry, and energy technology manufacturers in San Diego County. A brief presentation to the City Council will also be given on February 9th.

Although the CVRP was not specifically designed to generate low-carbon site development standards and guidelines, the research results do provide a firm foundation upon which to frame follow-up research to produce them. As mentioned above, the “carbon credit” option approach included in the City’s new Increased Energy Efficiency Standards and updated AQIP Guidelines needs additional research information on measuring and quantifying low-carbon site design standards. In the last progress report, staff noted that the NECSC and SDSU submitted an application in April 2009 (entitled “Model Site Design Guidelines, Measures & Standards for Energy Efficient/Low Carbon Community Development”) under the CEC’s Technology Innovations for Buildings and Communities-II grant program. In addition to continuing research on building and infrastructure technology modeling and community design option evaluations using the pending South Otay Ranch/University Villages projects, the grant request also included formulation of low-carbon site development standards and guidelines envisioned by Measure #4. Despite earlier positive indications in July 2009, staff was informed by the NECSC on December 29, 2009 that they were not successful in securing the grant award. Staff will now need to identify other options for accomplishing the work which will extend the timeframe for devising carbon calculations and credits for site design options beyond September 2010, as previously estimated.

Next Steps

As per Resolution 2009-248 adopted by City Council on October 20, 2009, staff will prepare and present for City Council consideration proposed local amendments to future versions of the California Energy Code requiring increased local energy efficiency standards, and the necessary future cost-effectiveness studies.

With regard to the Policy and Regulatory Amendments component, staff will bring a report on sustainable design concepts and potential updates to standards and design guidelines to City Council in February 2010. Staff will also work to identify alternate funding and contracting options to evaluate and quantify low-carbon site development standards, in order to implement the energy efficiency credit option. Finally, more comprehensive community design program information, based on findings from the CVPR, is anticipated to be presented to City Council by summer 2010.

MEASURE #5 – SOLAR & ENERGY EFFICIENCY CONVERSION PROGRAM

Overview

In Chula Vista, there are an estimated 50,000 residential and commercial units that were built prior to statewide minimum energy efficiency standards. The “Solar & Energy Efficiency Conversion” program (now called the *Home Upgrade, Carbon Downgrade*

program) is intended to facilitate widespread installation of energy efficiency and renewable energy upgrades by helping the average resident and small business overcome common institutional barriers, upfront capital costs, complicated application processes, and time constraints. The program's primary components include (1) Identifying the energy and water upgrades that help reduce ratepayers monthly costs, (2) Executing a competitive bid process that identifies participating contractors and establishes maximum prices and minimum warranty and service standards, (3) Aggregating participants geographically to harness their collective purchasing authority and maximize the potential for installation efficiency and savings, (4) Securing the best available bonding mechanisms and establishing voluntary special assessment districts to provide participants with a financing option to fund their improvements, (5) Linking local vocational job training in energy and water conservation with focused business recruitment, and (6) Updating municipal codes to encourage renewable energy and conservation product installations and to remove institutional barriers.

Status

The Conservation and Environmental Services Department plans to launch an initial component of the *Home Upgrade, Carbon Downgrade* program in spring 2010. The City will be using \$900,000 of its federal Energy Efficiency & Conservation Block Grants (EECBG) to support initial home performance improvements. Specifically, the program will use EECBG funds to provide direct incentives and low-interest loans to lower the purchase price of identified energy efficiency, water conservation, and renewable energy retrofit opportunities. Finally, program funds will help establish a local green job education and training curriculum in association with community college and high school districts. This training program will also be linked to apprenticeship and career opportunities with support from the National Electrical Contractors Association and the International Brotherhood of Electrical Workers.

The EECBG funds for the *Home Upgrade, Carbon Downgrade* program will be supplemented and leveraged with private, property-secured financing which program participants can also access to fund building retrofit projects. In January, the City Council authorized Chula Vista to join the CaliforniaFIRST Program which allows property owners to voluntarily finance renewable energy, energy efficiency, and water efficiency improvements on their property and to repay the loan through the resulting utility cost savings. The statewide program will allow participating property owners to access more competitive borrowing rates for their loans which have 10-20 year terms (based on useful life of efficiency improvements) and transfer with property ownership changes. California FIRST, which is sponsored by the California Statewide Communities Development Authority, handles all bond administration, issuance, and repayment associated with the property owner financing. The CaliforniaFIRST program and EECBG funds provide critical funding to launch the *Home Upgrade, Carbon Downgrade* program and ultimately complement the City's Measure #5 program bond that City Council has previously targeted for June 2010.

In regards to municipal retrofits, staff has initiated an additional round of energy efficiency and renewable energy improvement projects at City-owned buildings and facilities. The City has selected a contractor to install over 400 kW of solar photovoltaic energy systems on 11 sites. Staff is now finalizing the project's financing and regulatory approvals before

proceeding with installation. The “Municipal Solar Installations” project will help the City reach its goal of generating at least 20% of municipal energy demand with on-site renewable energy systems. Recently, the City also received funding approval (1% CEC loan) for retrofitting 4,600 streetlights with energy-saving induction lighting technologies. The City’s 9,000 total streetlights account for approximately 36% of municipal electricity costs and represent one of the City’s best opportunities to increase municipal energy efficiency and generate over \$440,000 in potential annual savings based on current electricity rates. The “Induction Streetlight Retrofit” project is expected to begin in spring 2010. In all cases, the municipal energy efficiency and renewable energy retrofit projects’ financing costs will be repaid through the resulting energy cost savings and produce long-term General Fund savings once loans are repaid (less than 10 years).

Next Steps

City staff will finalize the launch of the *Home Upgrade, Carbon Downgrade* program. The goal is to phase into approximately 2,000 energy efficiency retrofits per year and provide the opportunity to update all 50,000 Chula Vista homes built prior to 1980 by 2020 per the California Public Utilities Commission policy. The project would also provide similar program benefits for newer homes to install solar and targeted energy efficiency upgrades. The suite of municipal retrofit projects will be implemented as financing becomes available over the next 6 months.

MEASURE #6 – SMART GROWTH AROUND TROLLEY STATIONS

Overview

The Measure #6’s implementation plan consists of four components whose status is presented in the following section. The combined intent of these efforts is to accomplish the remaining planning groundwork necessary to support realization of the “Smart Growth” development densities and intensities envisioned in both the General Plan and the Urban Core Specific Plan (UCSP) for the areas surrounding the E St., H St., and Palomar St. trolley stations.

Status

Urban Core Specific Plan Implementation

This component’s remaining work entails completion of a coordinated site development program for the area surrounding the E St. trolley station. In August 2009, City and Redevelopment Agency staff partnered with the local San Diego Chapter of the Urban Land Institute (ULI) to conduct a ULI Technical Advisory Panel (TAP) program for the site. The TAP’s focus is to assist the City/Agency in identifying a set of feasible site development parameters considering current market realities. The TAP was held over two working sessions on September 23 and October 8, 2009. The ULI submitted their draft TAP Report for City staff review at the end of December. Staff has completed their review and provided comments, and the final ULI report should be available in March 2010.

H Street Corridor Study

This implementation plan component consists of three initiatives: (1) the Urban Land Institute program, (2) potential General Plan and/or UCSP amendments, and (3) completion of a 3-D visual simulation model with SANDAG of a redeveloped corridor. Funding and

pursuit of an Urban Land Institute (ULI) Advisory Services Program for the corridor remains on hold per Council/CVRC direction in October 2008. Subsequent to completing work on the E St. Transit Focus Area, staff will return with a revised proposal for accomplishing the H Street Corridor Study subject to future funding availability. A 3-D visual simulation of the corridor was completed in June 2009 by SANDAG and is available for viewing on the SANDAG website.

Southwest Specific Plan(s)

Staff has completed the SANDAG grant contract and City Council approved acceptance of the \$400,000 grant on January 12, 2010. The grant will fund preparation of the Palomar Gateway Specific Plan and Environmental Impact Report. Staff held its first Specific Plan discussion with the Southwest Working Group on January 20th. Preparation of the Specific Plan and Environmental Impact Report will occur over the next 12-18 months, and should be completed by spring 2012.

Other Related Regional Efforts

This component consists of two initiatives: (1) the I-5 Corridor Study with SANDAG and CalTrans and (2) funding to accomplish grade separation of the trolley line at E and H Streets. SANDAG and their consultant initiated work on the I-5 Corridor Study in April 2009, and the study should be completed by December 2010. Design alternatives have been narrowed to three, and staff is currently reviewing the outcomes of related traffic models. Regarding trolley grade separation funding, staff will continue to work with SANDAG and others to identify and seek grant funding, including participation in ongoing regional grant programs.

Next Steps

Staff will work with the ULI to publish and present the TAP Study outcomes for the E St. TFA in March 2010. After completing work on the E St. Transit Focus Area Study, staff will develop a work program for commencing with the H St. Corridor Study. For the Palomar Street trolley station area, staff will prepare the Palomar Gateway Specific Plan and Environmental Impact Report over the next 12 – 18 months. Staff will also continue to participate with SANDAG to complete the I-5 Corridor Study and provide periodic briefings and public outreach meetings as various project milestones are reached. Finally, staff will continue to actively seek additional funding for the E and H Street trolley grade separation projects.

MEASURE #7 – TURF LAWN CONVERSION PROGRAM

Overview

Because water movement and treatment requires a large amount of energy and subsequently is a major contributor to greenhouse gas emissions, Measure #7 is intended to help residents and businesses replace turf lawn areas with “xeriscape” or “WaterSmart” landscaping. These landscape types are diverse, colorful, and attractive incorporating low maintenance and water-wise design features. Specifically, the program’s components include (1) continuation and expansion of the NatureScape program to promote water conserving and nature-friendly landscaping, (2) coupling of residential and business turf lawn replacement with the solar conversion aggregation block process (Measure #5), (3) converting select

municipal facilities to low water use plantings and irrigation, and (4) updating various municipal landscape regulations and guidelines to comply with new state requirements and further promote outdoor water use efficiency.

Status

The Conservation and Environmental Services Department continues to implement its community-based NatureScape program which promotes nature-friendly landscaping by educating residents and businesses through free on-site assessments of their properties to evaluate wildlife-friendly and water-conserving features. City staff also educates participants about possible water-saving improvements and available incentives and rebates, when applicable. Properties which successfully meet the program's requirements are certified through the National Wildlife Federation's "Backyard Wildlife Habitat" program and receive an aluminum yard sign and certificate. To date, staff has performed on-site assessments for property owners and established approximately 220 NatureScape yards through the program's current limited funding source.

On Dec 8 2009, the City Council approved a new Chula Vista Landscape Water Conservation ordinance, Chapter 20.12 of the Municipal Code. The ordinance, which was drafted by the Development Services Department in collaboration with Otay Water District and Sweetwater Authority, outlines new water-conserving landscape design criteria which will typically apply to new and renovated landscaped areas over 2,500 ft² throughout the City. Although the new ordinance sets a "Maximum Applied Water Allowance" for these landscaped areas, it also provides flexibility for how landscape designers and property-owners meet the new requirements. The ordinance also promotes the use of recycled and gray water for irrigation purposes and the reduction of excessive turf areas. The new ordinance went into effect on January 1, 2010. To further promote outdoor water use efficiency and turf conversions in the community, the City of Chula Vista joined the CaliforniaFIRST program which provides property-assessed financing for building performance improvements (see Measure #5 for more details). The program's eligible improvement list includes numerous measures focused on outdoor water efficiency.

Next Steps

City staff will continue, as funding permits, to enroll property owners in the Chula Vista NatureScape program and certify their yards and gardens through the National Wildlife Federation. Additionally, outdoor water use efficiency and turf conversions will be incorporated into the launch of the *Home Upgrade, Carbon Downgrade* program in spring 2010.

IMPLEMENTATION FINANCING

Because staff has already secured almost \$670,000 in one-time funds for initial implementation, the new measures' full implementation costs (revised amount) are now estimated at \$2,120,000 and \$1,990,000 in one-time and annual costs, respectively (Table 1). In the Council-approved implementation plans, staff outlined various financing options to support full implementation of the new climate protection measures. Over the past 12 months, staff has pursued these options as highlighted below:

Table 1: Revised implementation cost estimates for the Council-approved climate measures

CCWG MEASURE #	POLICY/PROGRAM	PROGRAM STRATEGY	ONE-TIME COSTS		ANNUAL COSTS
			Received [^]	Needed	
Admin.	Emissions Tracking & Reporting	Track progress in reducing carbon emissions through ICLEI and California Climate Action Registry program participation	-----	-----	\$95,000
1	100% Clean Vehicle Replacement Policy for City Fleet	Replace vehicles through the purchase or lease of alternative fuel and hybrid vehicles	\$200,000	\$0	\$160,000
2	100% Clean Vehicle Replacement Policy for City-Contracted Fleet Services	Work with current and future vendors to include a "Clean Vehicle" replacement policy into the bid and contracting process	-----	-----	-----
3	Business Energy Assessments	Through an ordinance addition, encourage businesses to participate in a no cost assessment as part of the business licensing process	-----	-----	\$325,000
4	Green Building Standard	Through a building code revision, require new and renovated buildings to increase their energy efficiency and meet statewide green building standards	\$235,000	\$0	\$650,000
5	Solar & Energy Efficiency Conversion*	Provide a cost-effective, streamlined mechanism for property owners to implement solar and energy efficiency upgrades and create a municipal code requiring pre-wiring for solar electric systems	\$75,000	\$0	\$350,000
6	Smart Growth Around Trolley Stations**	Implement the 'smart growth' design principles outlined in municipal planning documents	\$0	\$620,000	-----
7	Outdoor Water Conservation***	Provide a cost effective, streamlined mechanism for installing water saving plants at private/public sites and create new municipal landscape regulations	\$160,000	\$1,500,000	\$410,000
TOTAL			\$670,000	\$2,120,000	\$1,990,000

* In addition to annual costs presented, implementation of measure #5 would require issuance of a public bond, paid back by the property-owners receiving the services, to cover upfront capital costs for solar and energy efficiency upgrades

** The City has already secured approximately \$2 million for related regional smart growth efforts such as the I-5 Corridor Study

*** One-time costs for measure #7 include \$1,500,000 for Municipal Facilities Turf Conversion CIP

[^] The City has funded some one-time costs through grants/other external sources and by redirecting existing staff time to implement measures.

SDG&E Local Government Partnership

Since 2006 Chula Vista and San Diego Gas & Electric (SDG&E) have been jointly implementing programs to reduce energy consumption at municipal facilities and in the community through their Local Government Partnership. The funding is provided through a California Public Utilities Commission-sponsored "Public Goods Charge", which is a monthly utility bill surcharge on energy consumed by every customer in SDG&E's territory.

The City has received over \$4 million (3-year total) through San Diego Gas & Electric's Local Government Partnership program as part of their 2010-2012 Energy Efficiency Program Portfolio. Local Government Partnerships are designed to empower cities to develop energy efficiency programs and services at their facilities and within the community. The SDG&E Partnership will provide support for staff time (salaries and benefits for 6 full-time and 7 part-time staff members) and program costs for Measures #3 (Business Evaluations), #4 (Green Building Standard), and #5 through December 2012.

Energy Franchise Fees

Currently, the City collects a franchise fee of 1.25% and 2.00% on citywide electricity and natural gas sales, respectively, through San Diego Gas & Electric regardless of energy provider. Staff has been negotiating with San Diego Gas & Electric to increase the franchise fee to fund carbon-saving improvement projects in the community and at municipal facilities. For example, an increase of 1% in both electricity (adjusted rate = 2.25%) and natural gas (adjusted rate = 3.00%) fees would generate approximately \$2.2 million in additional revenue and meet 100% of the ongoing funding needs for all climate protection measures implementation. Any new rate would still be under or comparable to other local jurisdiction's energy franchise fees. At this point, SDG&E has been reluctant to support a franchise fee increase for climate protection purposes and continues to discuss alternate funding options with City staff.

Local Fee Authority

A local fee authority has been granted in the past by the State legislature to enable local governments to fund environmental programs and services. For example, Chula Vista received fee authority under Assembly Bill 939 (Integrated Waste Management Act of 1989) to fund the development and implementation of municipal solid waste, recycling and household hazardous waste programs to meet state-mandated landfill diversion goals and local reporting requirements. A new carbon-focused Local Fee Authority would enable jurisdictions to place a local surcharge on utility bills (such as energy, water, or sewer) to fund local carbon reduction programs and services. Since the last progress report, staff has helped to draft potential bill language for review and consideration by local and statewide elected officials. Staff has also shared the draft language with other California cities and counties to broaden support and to encourage legislative action. Similar to franchise fees, the Local Fee Authority would create a new, long-term revenue source for the implementation of all seven climate protection measures.

Building Permit Fees

Development fees could be increased to cover the additional costs associated with implementing a citywide, mandatory green building standard (Measure #4). The extra costs are attributed to the need for enhanced staff training on energy efficiency, renewable energy and sustainable building technologies, and for expanded permitting and inspection services. The Finance Department is currently finalizing a Master Fee Study assessing the revenue needed to fully fund the City's broader development-related services. As part of this study, the City will be able to specifically assess the additional costs from a mandatory green building program and revise the fee schedule as needed. Staff anticipates presenting the Master Fee Study's results to City Council in spring 2010 for review and consideration.

Bonds

The Council-approved financial strategy outlined the use of municipal bonds to support measures implementation. A municipal bond would be utilized to finance two carbon-saving project types - public purpose projects (such as municipal renewable energy installations) and community retrofit projects (such as energy and water efficiency upgrades in homes and businesses). Regardless of project type, the municipal bond's debt service would be offset by the resulting energy cost savings and repaid by beneficiaries of those savings. Over the last 6 months, staff has worked to secure allocations for two Internal Revenue Service tax credit bond programs, Certified Renewable Energy Bonds (CREBs) and Qualified Energy Conservation Bonds (QECBs), which offer low interest financing to

local governments for carbon-reducing projects. Staff plans to finalize a CREB/QECB bond package for final City Council consideration by June 2010.

To provide additional financial support for community retrofit projects, the City Council recently authorized Chula Vista to join the CaliforniaFIRST Program which allows property owners to voluntarily finance renewable energy, energy efficiency, and water efficiency improvements on their property. Because it is a statewide program, participating property owners may be able to access more competitive borrowing rates for their loans which have 10-20 year terms (based on useful life of efficiency improvements) and transfer with property ownership changes. The CaliforniaFIRST Program sponsor, California Statewide Communities Development Authority, handles all bond administration, issuance, and repayment associated with the property owner financing.

Grants

Through the federal Energy Efficiency & Conservation Block Grant (EECBG) program, the City has received \$1,974,300 to reduce energy consumption and stimulate the local economy. The funding will allow the City to move forward with a number of projects that advance the City's *Climate Action Plan* by installing a new biodiesel fuel tank at the Public Works Corp Yard and converting 128 diesel-fueled fleet vehicles to the alternative fuel source (Measure #1-City Fleet Clean Vehicle Replacements), expanding on-site municipal solar energy systems (Measure #5-Energy Efficiency & Renewable Energy Conversions), and by providing direct incentives and loans to homeowners interested in energy (Measure #5) and water efficiency (Measure #7-Turf Removal & Landscape Water Efficiency) retrofits. To further support community retrofits, the City of Chula Vista collaborated with regional and statewide public agencies to submit multiple State Energy Program grant applications which would provide additional property owner education and incentives for energy and water efficiency upgrades. The State Energy Program is expected to announce the successful grant recipients in March 2010.

The City of Chula Vista has been selected for funding by CalFIRE's "Innovative Urban Greening" program for a \$53,000 grant award. The grant funds will allow the City to distribute free sustainable landscaping kits throughout the community as part of its NatureScape outreach program to promote water-efficient, nature-friendly landscaping (Measure #7). CalFIRE hopes to release the funding, which is presently unavailable due to the State's budget difficulties, in spring 2010. Finally, the City has applied for a grant through Otay Water District's "Cash for WaterSmart Plants Program" to replace existing turf on the East H Street median (between Otay Lakes Road and Rutgers Avenue) with low water-use plants. If awarded, the new landscaping will be installed by Public Works Operations and help reduce municipal monthly utility costs.

The City has continued to access the low interest loan program from the California Energy Commission to facilitate the installation of energy efficient and renewable energy technologies at municipal facilities (Measure #5). The loan program provides the capital needed for the energy technology improvements and the resulting energy cost savings are used to repay the debt service. Recently, the CEC approved a 1% interest loan for the energy-efficient upgrade of the City's 4,600 residential streetlights. In February, the CEC also approved a 3% interest loan for installing solar photovoltaic systems at 11 municipal sites and improving the efficiency of lighting technologies at over 50 municipal sites.

City staff will continue to implement the Council-approved climate protection measures and to further the City's progress in creating tangible carbon reductions. One of the greatest challenges to facilitating further municipal and community-wide carbon reductions will be to establish a secure long-term funding source to ensure that the progress and momentum regained over the past two years continues until the City's environmental and economic sustainability goals are achieved.

APPENDIX A – California Energy Commission Resolution Accepting New Chula Vista Energy Efficiency Standards

RESOLUTION NO: 09-1216-1d

**STATE OF CALIFORNIA
STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION: California Energy Commission approval of the City of Chula Vista's locally adopted energy standards for residential and commercial newly constructed buildings and additions and alterations to existing buildings, requiring greater energy efficiency than the *2008 Building Energy Efficiency Standards*

WHEREAS, the City of Chula Vista has submitted an application to the Energy Commission for approval of a local ordinance with energy efficiency requirements meeting or exceeding those required by the *2008 Building Energy Efficiency Standards*; and

WHEREAS, Public Resources Code Section 25402.1(h)(2) and Title 24, Part 1, Section 10-106 establish a process for local governments to apply to the Energy Commission for approval to adopt new versions of Building Energy Efficiency Standards that require additional energy efficiency measures or set more stringent energy budgets; and

WHEREAS, the City of Chula Vista submitted an application to the Energy Commission that meets all of the documentation requirements pursuant to Public Resources Code Section 25402.1(h)(2) and Section 10-106; and

WHEREAS, the City of Chula Vista has made an express written commitment to actively enforce compliance with the updated locally adopted energy standards and the *2008 California Building Energy Efficiency Standards*; and

WHEREAS, the Energy Commission commends the City of Chula Vista for seeking to achieve additional demand reductions, energy savings and other benefits exceeding those of the *2008 California Building Energy Efficiency Standards*;

THEREFORE BE IT RESOLVED, that on December 16, 2009 the Energy Commission approves the City of Chula Vista's locally adopted energy standards, and that these local standards may be enforced by the City of Chula Vista.

Dated: December 16, 2009 STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION



Karen Douglas, Chairman