

AGENDA

**ENVIRONMENTAL COMMISSION
REGULAR MEETING**

**701 EAST CARSON STREET
EXECUTIVE CONFERENCE ROOM, 2ND FLOOR
CARSON, CALIFORNIA 90745**

Wednesday, October 7, 2015 – 6:30 PM

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. AGENDA POSTING CERTIFICATION

In accordance with the Brown Act as amended, a copy of the Agenda Face Sheet for this meeting was posted in five (5) public places throughout the city designated for the posting of such notices seventy-two (72) hours prior to this meeting. Via this posting, the requirement has been met to provide the public with adequate notice of all matters to be addressed by the Environmental Commission at this meeting.

5. AGENDA APPROVAL

6. MINUTES APPROVAL

a. None

7. NEW BUSINESS

a. Recommend Approval of the Energy Efficiency Chapter of the City's Climate Action Plan to the City Council

8. UNFINISHED BUSINESS

a. None

9. WRITTEN COMMUNICATIONS

- a. South Bay environmentalists praise new federal oil refinery mandates – Daily Breeze article dated September 29, 2015

10. ORAL COMMUNICATIONS

- a. Audience
- b. Commission
 - Updates
- c. Staff
 - Updates

11. ADJOURNMENT

Upcoming Meetings

November 4, 2015

December 2, 2015

January 6, 2015

CITY OF CARSON

**STAFF COMMUNICATION TO
THE ENVIRONMENTAL COMMISSION**

NEW BUSINESS

September 21, 2015

**SUBJECT: ENERGY EFFICIENCY CHAPTER OF THE CITY'S CLIMATE ACTION
PLAN**

**REQUEST: RECOMMEND APPROVAL OF THE ENERGY EFFICIENCY
CHAPTER OF THE CITY'S CLIMATE ACTION PLAN TO THE CITY
COUNCIL**

I. Introduction

The City of Carson is preparing a Climate Action Plan (CAP) to serve as the City's roadmap for reducing greenhouse gas (GHG) emissions in City operations and the community at large. The CAP will include a list of emission reducing actions organized by sector (energy, waste, greening, power generation/storage, land use, and transportation) and time frame for implementation (short-term, 1-3 years from CAP adoption; medium term, 3-5 years from adoption; and long term, 5-10 years from adoption). It will also include GHG emission inventories to assess potential reductions and chart progress.

Working with the South Bay Cities Council of Governments (SBCCOG), the development of the CAP is being completed in phases: Phase I - development of energy efficiency strategies and analysis of targets; Phase II - development of waste, greening, power generation/storage, land use and transportation. Currently, for your review and consideration is the energy efficiency GHG reduction strategies or measures that will later be incorporated into the CAP. These measures are listed on the attached memo along with their associated estimated GHG reductions.

II. Background

The CAP is being drafted in line with the goals in AB 32, California's Global Warming Solutions Act, for greenhouse gas reductions. On April 29, 2015, Governor Brown issued a new Executive Order (B-30-15) to establish a California greenhouse gas reduction target of 40% below 1990 levels by 2030. The State's California Climate Change Scoping Plan emission target for 2020 and 2050 are 15% and 80% respectively below the baseline. The executive order and scoping plan are not requirements for local governments, but may inform future legislation and be the criteria for grant eligibility.

Reducing GHG emissions also have associated co-benefits that can contribute to current and future prosperity and sustainability for the City by:

- Conserving resources such as energy and water
- Fostering the creation of green jobs

- Further clean technology industries

III. **ANALYSIS**

The energy efficiency measures were developed based on the City's current operations, goals, and plans for reducing energy use both at the municipal and community level. Staff worked with the SBCCOG, and their CAP consultant Atkins, to identify additional measures that will help the City achieve reductions in line with the state's goals and direction. The SBCCOG also provided potential gains that the City can capture through sub regional measures. The energy efficient chapter was funded by Southern California Edison and Southern California Gas Company.

Through the SBCCOG work, GHG inventories were completed for 2005, 2007, 2010, and 2012. The 2005 inventory year is the baseline and reductions for forecasts are based on 2012 to take into account all known reductions. GHG emissions in the City are primarily split between energy and transportation sources.

IV. **CONCLUSION**

Overall, it is estimated that the City will obtain significant reductions towards meeting state goals by 2020 and 2035. Staff is continuing to work closely with the SBCCOG and their consultant, Atkins to identify measures that would meet these goals but also are best aligned with City operations.

V. **RECOMMENDATION**

That the Environmental Commission:

- RECOMMEND APPROVAL to the City Council to include the Energy Efficiency Measures in the City's Climate Action Plan as outlined.

VI. **Exhibits**

1. Energy Reduction Measures – Municipal
2. Energy Reduction Measures – Community
3. Draft Resolution for Council Adoption

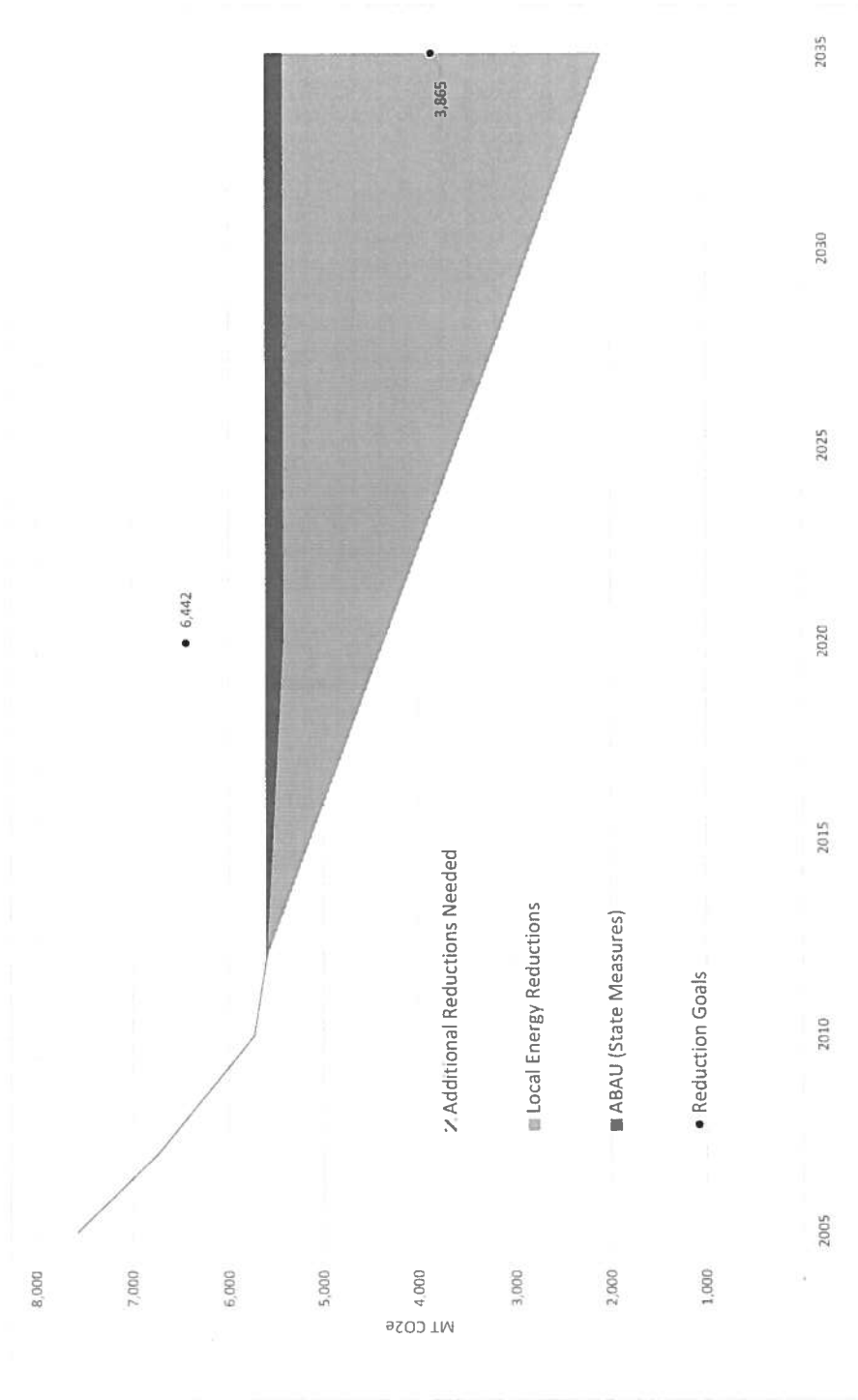
Prepared by: _____



Max Castillo, Assistant Planner

City of Carson Municipal Energy Reduction Measures						
Goal	Measure	Action	Notes/Assumptions	2015 GHG (MTCO2e)	2020 GHG (MTCO2e)	2035 GHG (MTCO2e)
Goal 1: Participate in Education, Outreach, and Planning for Energy Efficiency						
	Measure 1.1	Increase Energy Savings through the SCE Energy Leader Partnership	Gold Level	Supporting Measure		
Goal 2: Increase Energy Efficiency in Municipal Buildings						
	Measure 2.1	Conduct Municipal Building Energy Audit	Completed an Integrated Demand Side Management audit at all eligible facilities greater than 200kW in 2011.	62.73	287.66	904.06
	Measure 2.2	Implement Water Leak Detection Program	Interested in free audits from Cal Water (if available).			
	Measure 2.3	Participate in Demand Response Programs	Implemented/in progress			
	Measure 2.4	Participate in Direct Install Program	Five municipal buildings participated in 2014.	24.03	24.03	75.51
	Measure 2.5	Adopt a Procurement Policy for Energy Efficient Equipment	In planning stage/not adopted by council. Procurement policies can reduce government facility energy costs by about 5-10 percent (LBNL, 2002). Since the city has already significantly reduced its energy consumption through other measures, it is assumed that the reduction potential of the procurement policy would be closer to 5%.		121.41	381.57
	Measure 2.6	Install Cool Roofs	Interested/Need to assess feasibility. Replacing a 1,000 sq. ft. dark roof with a white roof can offset roughly 10 MT CO2e.			
	Measure 2.7	Increase Recycled Water Use	Reclaimed water already used in various locations. Approximately 1,873 kWh can be saved for every acre foot (AF) of water use replaced by recycled water.			
	Measure 2.8	Retrofit HVAC Equipment	Future projects		109.52	325.35
	Measure 2.9	Track Additional Energy Savings	2014 data provided by SBCCOG and excludes Direct Install.	38.70	38.70	121.63
	Measure 2.10	Utilize Energy Management System	Already in place. COG supported.			
Goal 3: Increase Energy Efficiency in City Infrastructure						
	Measure 3.1	Retrofit Traffic Signals and Outdoor Lighting	Future projects (excludes interior lighting in buildings)		772.70	2,428.48
	Measure 3.2	Upgrade or Incorporate Water-Conserving Landscape	Completed. City can save 2,282 kWh annually per acre of lawn converted to water conservation landscaping.			
	Measure 3.3	Plant Trees for Shade and Carbon Sequestration	Policy for new development. The average mature tree can save an average of 170 kWh and absorb as much as 48 lbs. of CO2 per year.			
Goal 4: Reduce Energy Consumption in the Long Term						
	Measure 4.1	Develop an Energy Reinvestment Fund	Interested/Unofficial fund already in place			
	TOTAL			62.73	1,060.35	3,332.54

**FIGURE 1: State and Local Reductions Comparison with Targets
City of Carson, 2005 - 2035**

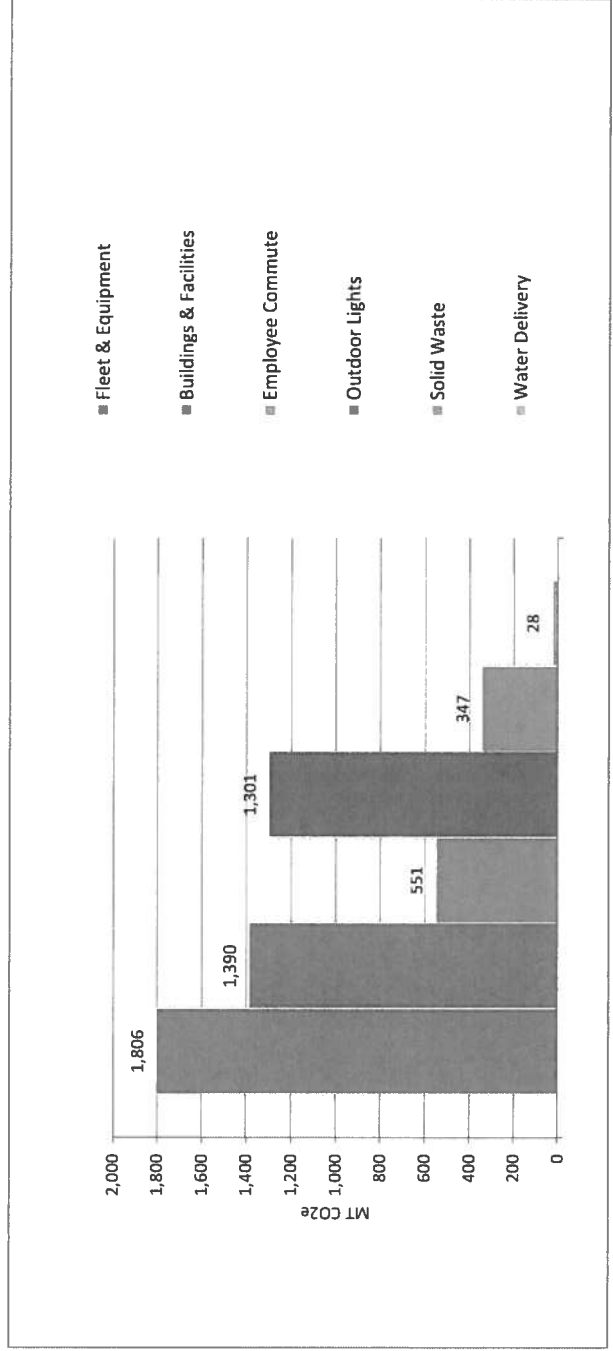
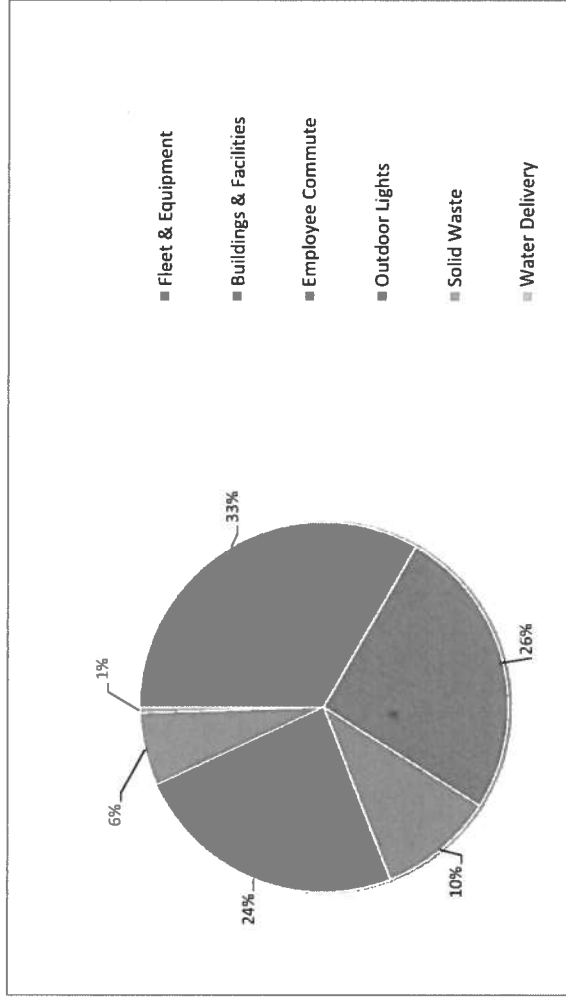


State measures and reduction goals are from the *City of Carson GHG Inventory, Forecasting and Target-Setting Report for an Energy Efficiency Climate Action Plan, 2015*.

Local energy reductions are based on City's feedback on measures selection.

City of Carson will meet their reduction goals in 2020 and 2035.

City of Carson Municipal 2020 ABAU Inventory

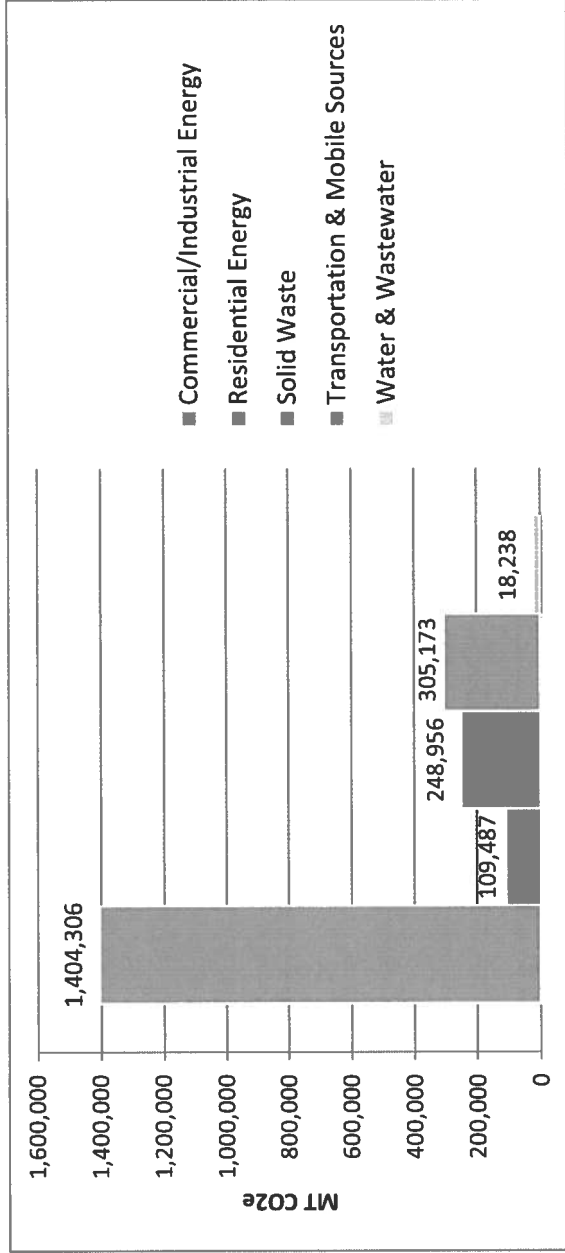
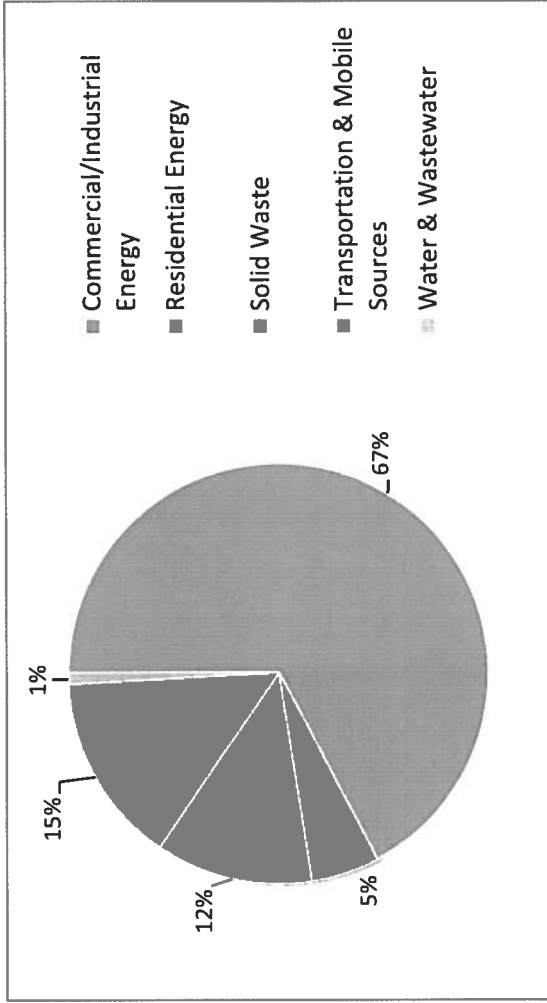


Goal	Measure	Action	Responsibility/ action needed for implementation	2020 GHG Reductions Achieved	2035 GHG Reductions Achieved	GHG Reduction Potential	Participation Rate	
Goal 1.	Measure 1.1	EE Training and Education	Post Links on Website/social media and provide materials at public events				high	
			Email list for e-mail blasts of new information or trainings				low	
			Establish an annual EE Fair				high	
			Create a resource center				low	
			Hire/Designate Energy Advocate				low	
			Ongoing: COG to provide updated links and pamphlets					
			The actions taken by the City and COG can increase participation levels of other programs within Goal 1 by 100%				Supporting Measure	
			Annual energy/env. Expo				high	
			COG as the resource center				low	
							low	
Goal 2.	Measure 1.2	Increase Participation in Existing EE Programs	Partner with COG and utilities in outreach programs	69	330		high	
			Direct staff outreach				medium	
			COG/Ongoing				Low	
	Measure 1.3	Establish, Promote, or Require Home Energy Evaluations						
			Third-party inspectors verify >Title 24 compliance 3rd party inspectors already required				high	
			Promote home energy audits				low	
			Thru the COG					
			Establish new "checkup" program				medium	
			COG to administer, City promotion					
	Goal 2.	Measure 1.4	Promote, Incentivize, or Require Residential Home Energy Renovations		10,827	51,428		
			Promote existing incentivized programs such as Energy Upgrade California				high	
			Develop/promote green building program				medium	
			Promote financing programs such as PACE programs				high	
			Permit processing facilitation: online				high	
			COG and City promotes HERO				low	
			In place					
			Develop a Point-of-Sale Energy Rating ordinance					
			Assess feasibility in the future					
Measure 2.1	Encourage or Require EE Standards Exceeding Title 24			665	3,160		low	
				Train staff on programs and measures that exceed current EE requirements				low
				Promote green building programs or Tier 1/Tier 2 at plan check				Low-Medium
		Permit processing facilitation: online				high		
		Create an Energy Award Program for near-net-zero energy homes				high		
		Will provide Council recognition						

Goal	Measure	Action	Responsibility/ action needed for implementation	2020 GHG Reductions Achieved	2035 GHG Reductions Achieved	GHG Reduction Potential	Participation Rate	
Goal 3.	Increase Energy Efficiency in Existing Commercial Units	Measure 3.1 EE Training and Education	Post Links on Website/social media and provide materials at public events Email list for e-mail blasts of new information or trainings Establish an annual EE Fair Create a resource center Hire/Designate Energy Advocate	Ongoing; COG to provide updated links and pamphlets Ongoing COG as the resource center Partial, informal designation				
		Actions	The actions taken by the City and COG can increase participation levels of other programs within Goal 3 by 65%				high high low low low	
		Measure 3.2 Increase Participation in Existing EE Programs	Partner with COG and utilities in outreach Direct staff outreach	COG/ongoing	784	3,723	Medium	high medium
		Actions						
		Measure 3.3 Promote or Require Non-Residential Energy Audits			12,659	60,130		high low
		Actions	Third-party inspectors verify > Title 24 compliance 3rd party inspectors already required Promote business energy audits Through the COG				Low-Medium	high low
		Measure 3.4 Promote or Require Commercial Energy Retrofits			176,340	837,615		
		Actions	Promote existing incentivized programs such as Energy Upgrade California Develop/promote green building program Promote financing programs such as PACE programs Permit processing facilitation: online	Ongoing at counter; will add info on website as COG sends resources City/potential in future COG and City promotes HERO In place			Medium-High	high high high high
		Measure 3.5 Promote or Require Commercial Energy Audits						
		Goal 4.	Increase Energy Efficiency in New Commercial Development	Policy 4.1 Encourage or Require EE Standards Exceeding Title 24	Train staff on programs and measures that exceed current EE requirements Promote green building programs or Tier 1/Tier 2 at plan check Permit processing facilitation: online Create an Energy Award Program for near net-zero energy businesses	Interested if COG provides resources/checklist in place Add component to existing business awards	7,000	33,249
Actions								

Goal	Measure	Action	2020 GHG Reductions Achieved	2035 GHG Reductions Achieved	GHG Reduction Potential	Participation Rate
Goal 5. Increase Energy Efficiency through Water Efficiency (WE)	Measure 5.1 Promote or Require WE through SBX7-7	Post Links on Website/social media and provide materials at public events	2,657	12,619	Medium	high
		Email list for e-mail blasts of new information or trainings				high
		Require low-irrigation landscaping				high
Measure 5.2 Promote WE Standards Exceeding SB X7-7	Actions	Staff conduct direct outreach to HOAs, businesses, community groups	27	128		high
		Promote use of greywater systems			Low-Medium	low
		Work with Water District to increase recycled water potential				high
Goal 6. Decrease Energy Demand through Reducing Urban Heat Island Effect	Measure 6.1 Promote Tree Planting for Shading and EE	Promote rain harvesting rebates				medium
		Develop a tree-planting program				
		Ongoing; City will promote rebates				
Measure 6.2 Incentivize or Require Light-Reflecting Surfaces	Actions	Promote tree planting at plan check	780	3,704		low
		Work with community to develop tree-planting groups			Low	low
		Develop a tree-planting program				low
Measure 6.2 Incentivize or Require Light-Reflecting Surfaces	Actions	Cool Roofs Ordinance	33	156	Medium	medium
		Cool Pavements Ordinance				low
		City to consider in future				

City of Carson Community 2020 ABAU Inventory



City of Carson Community Energy Reduction Measures

FIGURE 1: Local Energy Reduction Quantification by Goal (2020)

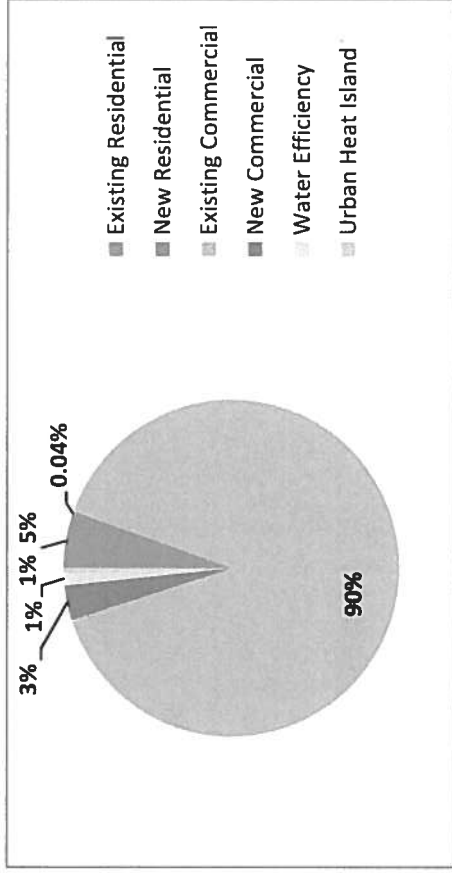
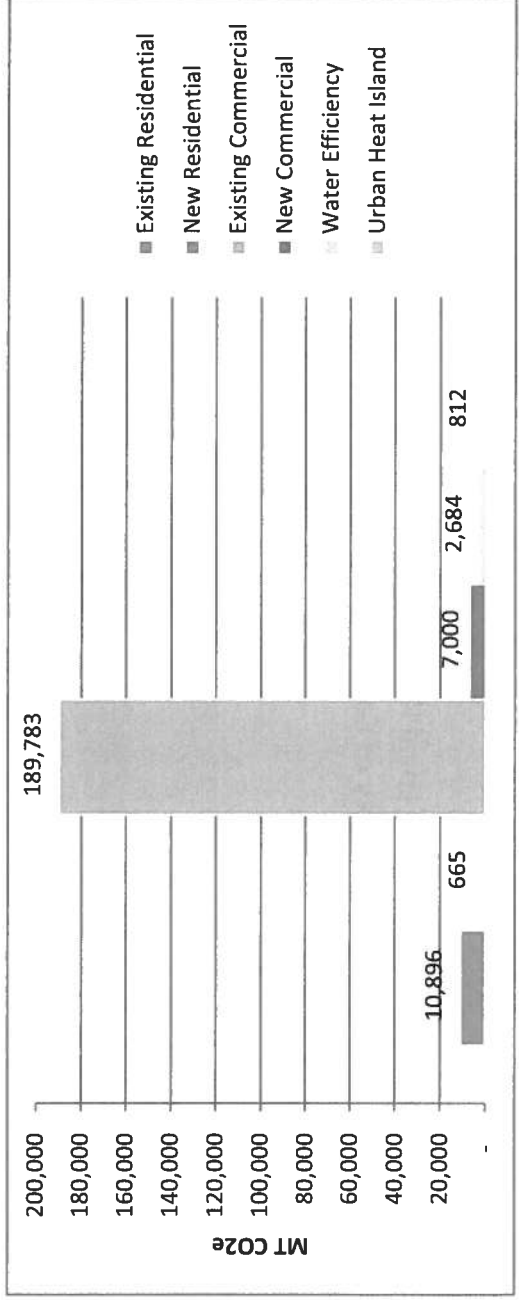
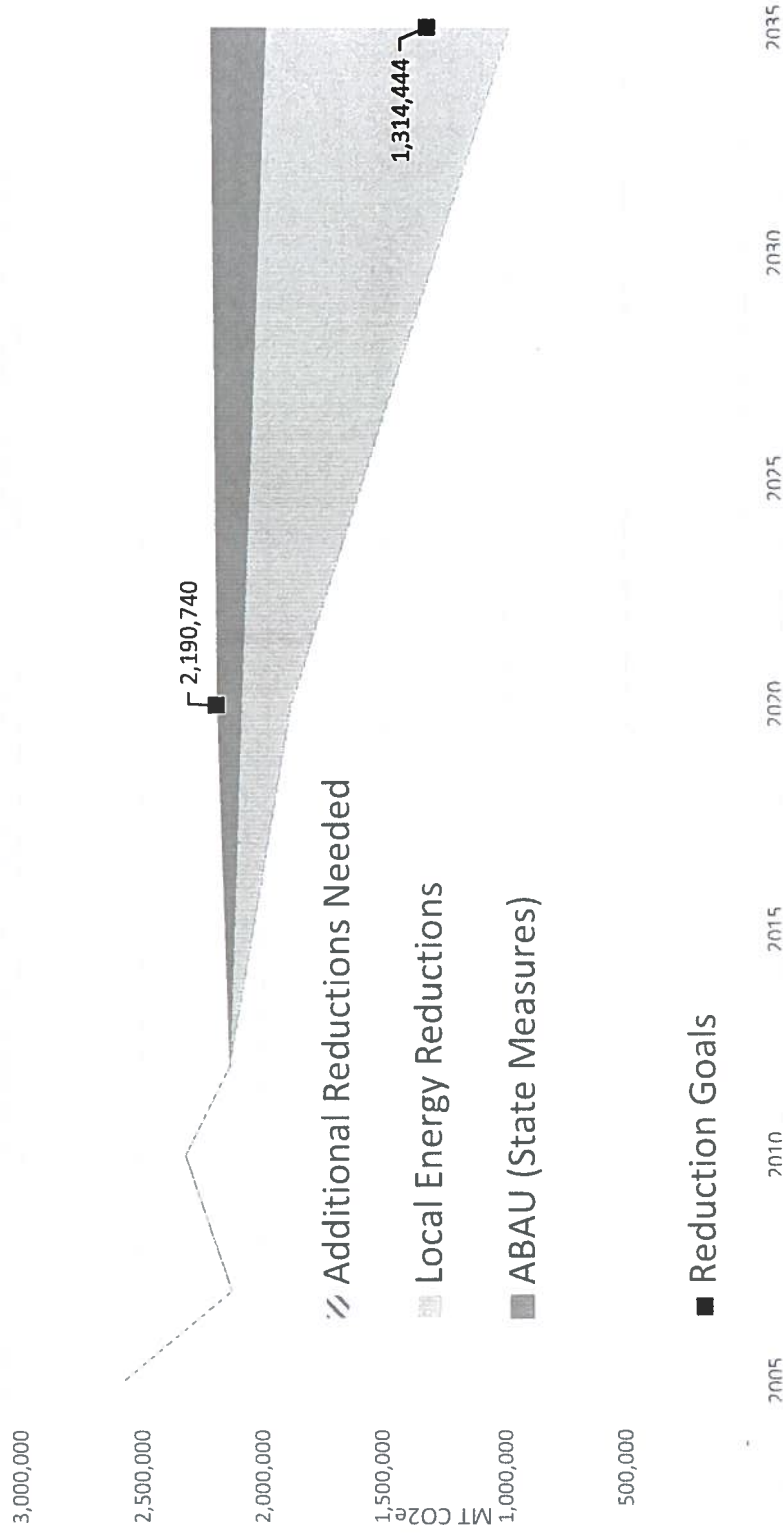


FIGURE 2: Local Energy Reduction Quantification by Goal (2020)



**FIGURE 3: State and Local Reductions Comparison with Targets
City of Carson, 2005 - 2035**



State measures and reduction goals are from the *City of Carson GHG Inventory, Forecasting and Target-Setting Report for an Energy Efficiency Climate Action Plan, 2015*.

Local energy reductions are based on City's feedback on measures selection.

City of Carson will meet their reduction goals in 2020 and 2035 with the help of both state and local reduction measures.

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL, OF CARSON, CALIFORNIA, APPROVING
THE ENERGY EFFICIENCY CHAPTER OF THE CITY'S
CLIMATE ACTION PLAN**

WHEREAS, the City of Carson is committed to excellence and leadership in the community; and

WHEREAS, the City of Carson is aware of the economic, environmental, and societal benefits of taking a lead role in the implementation of energy efficiency and reduction of greenhouse gas emissions; and

WHEREAS, the City of Carson has voluntarily agreed to reduce greenhouse gas (GHG) emissions to help the State of California meet its goal to reduce GHG emissions 15% below 2005 levels by 2020, as stated in Assembly Bill 32; and

WHEREAS, energy efficiency measures included in the Energy Efficiency Climate Action Plan (EECAP) will reduce the City of Carson's adjusted business as usual GHG emissions below 2005 levels by 2020 and by 2035; and

WHEREAS, funding from Southern California Edison and Southern California Gas Company has enabled the South Bay Cities Council of Governments to develop GHG inventories and an EECAP for the City of Carson; and

WHEREAS, City Council is aware that the EECAP is an early chapter of the master Climate Action Plan, which will be considered for adoption at a later time.

WHEREAS, the City of Carson decides to lead by example through the incorporation of measures that increase energy efficiency and reduce GHG emissions.

**THE CITY COUNCIL OF THE CITY OF CARSON HEREBY ORDAINS AS
FOLLOWS:**

1. The City Council commits to improving energy efficiency and reducing greenhouse gas emissions in municipal operations and the City of Carson community.
2. The City Council directs key staff to evaluate recommendations of the 2015 Energy Efficiency Climate Action Plan in order to increase participation in existing programs, develop new programs, and participate in sub regional programs that improve energy efficiency and reduce greenhouse gas emissions.

3. The City Council will consider measures that reduce energy consumption and greenhouse gas emissions in municipal facilities and operations, to include measures that:
 - a. Provide education, outreach, and planning efforts that increase energy efficiency,
 - b. Increase energy efficiency in municipal buildings,
 - c. Increase energy efficiency in community buildings and infrastructure, and
 - d. Reduce energy consumption in the long term.

4. The City Council continues to support efforts to promote energy efficiency in the City of Carson community, to include measures that increase energy efficiency in:
 - a. Existing residential buildings,
 - b. New residential development,
 - c. Existing commercial buildings,
 - d. New commercial development,
 - e. Water efficiency, and
 - f. Decrease energy use by reducing the urban island effect.

PASSED, APPROVED AND ADOPTED this ____ day of _____, 2015.

MAYOR ALBERT ROBLES

ATTEST:

JIM DEAR, CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

South Bay environmentalists praise new federal oil refinery mandates



Members of the Los Angeles Community Environmental Enforcement Network (LACEEN) install rooftop devices to monitor air quality in Wilmington near Conoco Phillips refinery. Flavio Mercado (lower) and Jesse Marquez install airbase unit to Dwight Peleti's home. March 2014 file photo. (Robert Casillas / Staff Photographer)

By [Sandy Mazza](#), Daily Breeze

Posted: 09/29/15, 7:21 PM PDT | Updated: 10 mins ago



Members of the Los Angeles Community Environmental Enforcement Network (LACEEN) have installed rooftop devices to monitor air quality in Wilmington near the Phillips 66 refinery. Airbase unit mounted to home in effort to collect air quality data. March 2014 file photo. (Robert Casillas / Staff Photographer)

South Bay environmentalists and public health advocates, who for years have fought for stronger government regulation of the hazardous air pollutants released by the region's six oil refineries into neighboring communities, praised new federal mandates signed into law Tuesday.

The laundry list of [new U.S. Environmental Protection Agency rules](#) for 142 refineries nationwide include, for the first time, fence-line monitoring of toxic air pollutants. Until now,

refineries only had to report annual summaries of their total hazardous air emissions, which often don't include flaring releases during operational malfunctions.

Refineries will have to place canisters along the perimeter of their facilities that continuously sample the air for benzene and other hazardous materials to ensure they're not exceeding 9 micrograms of pollution per cubic meter.

The new rule also requires reduced emissions from storage tanks, flares and coking units, which separate gas from crude oil.

"It's a good major step forward," said Jesse Marquez, executive director of Wilmington's Coalition for a Safe Environment, which spurred the ruling by joining other national environmental groups in a lawsuit against the EPA three years ago. That action, taken because the EPA improperly delayed required updates governing refinery air releases, was settled with the agreement that this final rule would be issued by the end of this month.

The Harbor Area of Los Angeles, which includes Wilmington and San Pedro, has been termed "cancer alley" because of its higher concentration of benzene, methane, particulate matter, nitrogen oxides, volatile organic compounds and other toxic chemicals. The new rule would reduce those chemicals in the air by roughly 5,200 pounds a year nationwide. Scientists expect a corresponding reduction in asthma, respiratory illness and cancer rates in impacted areas.

Marquez began last year setting up his own air quality monitoring devices near local refineries in hopes of learning how nearby neighborhoods are being affected by their close proximity to the toxic releases. He recorded accidental pollution releases from flaring events that, in some cases, exceeded the refinery's reports of released emissions.

"Benzene is one of the most deadly chemicals out there right now and causes lymphoma, leukemia and myeloma," Marquez said. "The public has a right to know" how much is released into their communities.

In July 2014, the EPA held a public review of a draft version of Tuesday's rule in Wilmington. At the hearing, environmentalists lauded toughened environmental rules while industry representatives complained that they have made major environmental advancements already and are being pushed too hard.

American Petroleum Institute spokesman Howard J. Feldman cited major pollution reductions since the EPA began monitoring them in 1995.

"Air quality has improved significantly, and it continues to improve," he said. "Mean benzene concentrations have dropped by 66 percent from 1994 to 2009 nationwide. And the U.S. oil and natural gas industry has been a key part of that improvement, investing over \$268 billion since 1990 toward improving the environmental performance of its products, facilities and operations."

But climate change and human health concerns took priority for the agency, and EPA Administrator Gina McCarthy said the new rules would protect the health of more than 6 million people who live within 3 miles of a refinery.

The rules will serve as a kind of “neighborhood watch for toxic pollutants” near the nation’s petroleum refineries, including dozens across the coasts of Texas, Louisiana, Mississippi and Alabama, McCarthy said. In addition to Los Angeles, refineries also are located near densely populated cities such as Philadelphia, New York and Chicago.

McCarthy called the rules a demonstration of the Obama administration’s commitment to “environmental justice,” noting that many people who live near refineries are poor, including a large percentage who are members of minority groups.

Facing a court-ordered deadline, the EPA is expected to act by Thursday to set a new ozone standard. Officials are expected to set a limit of 70 parts per billion or less in the atmosphere, down from the existing standard of 75.

A top EPA official said Tuesday the current ozone limit “is not adequate to protect the public health.”

Janet McCabe, the EPA’s top air regulator, told Congress that a new, stricter standard is needed to cut dangerous ozone pollution and prevent thousands of asthma attacks, emergency room visits and even premature deaths.

A new ozone standard, combined with greenhouse gas reductions mandated by a new rule limiting carbon pollution from coal-fired power plants, “will extend the trajectory of the last 40 years when we’ve cut air pollution 70 percent — all while our economy has tripled,” McCabe said Tuesday at a Senate hearing.

Industry leaders say the new rules will lead to major job losses and demand necessarily fast changes.

Sen. Roger Wicker, R-Miss., said the EPA’s plan could be disastrous for his state.

“We’ve got a regulation coming at states and consumers that is going to absolutely explode the price of power in our state,” Wicker said, calling the EPA plan “unworkable.”

— Matthew Daly of The Associated Press contributed to this report.