

IV. Environmental Impact Analysis

F.2 Air Quality—Climate Change

1. Introduction

This section provides a discussion of the issues relating to the subject of global climate change, which starts with a discussion of existing regulations, an inventory of the approximate greenhouse gas (GHG) emissions that would result from the Proposed Project, and an analysis of the significance of these GHGs. Calculation worksheets, assumptions, and model outputs used in the analysis are presented in Appendix M of this Draft EIR.

2. Environmental Setting

The earth's natural warming process is described in terms of a "greenhouse effect." This reference compares the Earth and its surrounding atmosphere to a greenhouse with glass panes. The gases (= "glass") allows solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs keep the average surface temperature of the Earth close to a hospitable 60 degrees Fahrenheit. However, excessive concentrations of GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences.

Scientists studying this issue have determined that human activity has resulted in increased emissions of GHGs, primarily from the burning of fossil fuels (from motor vehicle travel, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste. Per the United Nations Intergovernmental Panel on Climate Change (IPCC, 2007), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (90 percent or greater chance) that the global average net effect of human activities since 1750 has been one of warming. The prevailing scientific opinion on climate change is that most of the observed increase in global average temperatures, since the mid-20th century, is likely due to the observed increase in anthropogenic GHG concentrations (IPCC, 2007).

Scientists refer to the global warming context of the past century as the “enhanced greenhouse effect” to distinguish it from the natural greenhouse effect.¹ While the increase in temperature is known as “global warming,” the resulting change in weather patterns is known as “global climate change.” Global climate change is evidenced in changes to wind patterns, storms, precipitation, and air temperature.

a. GHG Components

GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride.² Carbon dioxide is the most abundant GHG. Other GHGs are less abundant, but have higher global warming potential than CO₂. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, motor vehicle travel, heating, and cooking are the primary sources of GHG emissions. A general description of the GHGs discussed is provided in Table IV.F.2-1 on page IV.F.2-3.

b. Global Warming Potential

Global Warming Potentials (GWPs) are one type of simplified index based upon radiative properties that can be used to estimate the potential future impacts of emissions of different gases upon the climate system in a relative sense. GWP is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of carbon dioxide, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of carbon dioxide. GWPs were developed by the Intergovernmental Panel on Climate Change (IPCC). The most recent changes to GWPs are presented in IPCC’s Fourth Assessment Report (FAR), 2007. A summary of the atmospheric lifetime and GWP of selected gases is presented in Table IV.F.2-2 on page IV.F.2-4. As indicated, the IPCC FAR GWP index ratings range from 1 to 22,800.³

¹ *Climate Change 101: Understanding and Responding to Global Climate Change*, published by the Pew Center on Global Climate Change and the Pew Center on the States.

² As defined by California AB32 and SB104.

³ Various GWP values have been developed and are in use. Although they differ slightly, they result in similar CO₂e values. SCAQMD’s California Emissions Estimator Model (CalEEMod) uses GWPs from the IPCC Second Assessment Report (SAR), www.ipcc.ch/ipccreports/sar/wg_1/ipcc_sar_wg_1_full_report.pdf. The GWP values between the two assessment reports result in only slight differences in overall CO₂e values.

**Table IV.F.2-1
Description of Identified Greenhouse Gases**

Greenhouse Gas	General Description
Carbon Dioxide (CO₂)	An odorless, colorless GHG, which has both natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of carbon dioxide are burning coal, oil, natural gas, and wood.
Methane	A flammable gas and the main component of natural gas. When one molecule of methane is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. Methane is not toxic. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N₂O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (CFCs) for automobile air conditioners and refrigerants. CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above the earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
Sulfur Hexafluoride (SF₆)	An inorganic, odorless, colorless, non-toxic, and nonflammable gas. SF ₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
<i>Source: Association of Environment Professionals, Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007.</i>	

**Table IV.F.2-2
Atmospheric Lifetimes and Global Warming Potentials**

Gas	Atmospheric Lifetime (years)	IPCC-Fourth Assessment Report Global Warming Potential (100-year time horizon)
Carbon Dioxide	50–200	1
Methane	12 (+/-3)	25
Nitrous Oxide	120	298
HFC-23	264	14,800
HFC-134a	14.6	1,430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390
PFC: Hexafluoroethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Source: IPCC, 2007, www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html.

c. Projected Impacts of Global Warming in California

According to the 2006 California Climate Action Team (CAT) Report, temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. If emissions from GHGs are not reduced substantially, the warming increase could have the following consequences in California:⁴

- The Sierra snowpack would decline between 70 and 90 percent, threatening California's water supply;
- Attainment of air quality standards would be impeded;
- Erosion of California's coastlines would increase as well as sea water intrusion;

⁴ California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006, p. 11.

- Pest infestation and vulnerability to fires of the state's forests would increase; and
- Rising temperatures would increase power demand, especially in the summer season.

d. Existing Statewide Greenhouse Gas Emissions

GHGs are the result of both natural and human-influenced activities. Motor vehicle travel, consumption of fossil fuels for power generation, industrial processes, heating and cooling, landfills, and forest fires are the primary sources of GHG emissions. Without human intervention, an approximate balance is maintained between the emission of GHGs into the atmosphere and the storage of GHGs in oceans and terrestrial ecosystems. Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have contributed to the rapid increase in atmospheric levels of GHGs over the last 150 years. As reported by the California Energy Commission (CEC), California contributes 1.4 percent of global and 6.2 percent of national GHG emissions.⁵ It should be noted that California represents approximately 12 percent of the national population. Approximately 80 percent of GHGs in California are carbon dioxide produced from fossil fuel combustion. The current California GHG inventory compiles statewide anthropogenic GHG emissions and sinks (carbon storage) from years 2000 to 2006. It includes estimates for CO₂, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons. The GHG inventory for California is presented in Table IV.F.2-3 on page IV.F.2-6.

e. Existing Project Site Emissions

The Project Site is currently comprised of the Convention Center, STAPLES Center, and parking facilities. As such, existing on-site operations generate GHG emissions from a variety of sources. Mobile source emissions are generated by motor vehicle trips to and from the Project Site. The consumption of fossil fuels to generate electricity and to provide heating and hot water for the Project Site also creates GHG emissions. Other sources at the Project Site that would be associated with embodied energy and subsequent generation of GHG emissions include water usage, wastewater generation, and solid waste generation and disposal.⁶

⁵ *California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, CEC-600-2006-013, October 2006.*

⁶ *Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.*

**Table IV.F.2-3
California GHG Inventory
(Million Metric Tons CO₂e)**

	2002	2003	2004	2005	2006	2007	2008
Transportation	180.35	178.02	181.71	184.31	184.11	183.84	175.00
On Road	168.40	166.17	169.22	170.82	170.48	170.79	163.30
Passenger Vehicles	135.43	132.83	134.24	134.51	133.80	133.34	128.51
Heavy Duty Trucks	32.97	33.34	34.98	36.31	36.68	37.45	34.79
Ships & Commercial Boats	3.87	4.04	4.06	4.36	4.45	4.38	4.32
Aviation (Intrastate)	2.66	2.59	2.64	2.70	2.68	2.96	2.42
Rail	2.48	2.41	2.89	3.32	3.50	3.15	2.52
Unspecified	2.94	2.81	2.90	3.11	3.00	2.56	2.44
Percent of Total Emissions	38%	38%	38%	39%	38%	38%	37%
Electric Power	106.49	109.89	119.96	110.97	107.67	111.10	116.36
In-State Generation	50.87	49.08	57.40	51.75	56.29	55.16	55.12
Natural Gas	42.42	41.01	48.66	43.21	47.62	47.20	48.07
Other Fuels	8.45	8.07	8.74	8.54	8.67	7.96	7.05
Imported Electricity	55.62	60.81	62.56	59.22	51.38	55.94	61.24
Unspecified Imports	25.42	30.21	31.32	28.44	26.40	30.57	35.19
Specified Imports	30.19	30.60	31.24	30.78	24.98	25.37	26.05
Percent of Total Emissions	22%	23%	25%	23%	23%	23%	24%
Commercial and Residential	43.79	41.37	42.55	40.79	41.46	41.83	43.13
Residential Fuel Use	29.35	28.31	29.34	28.08	28.45	28.61	28.45
Natural Gas	28.03	26.59	27.30	25.89	26.52	26.65	26.10
Other Fuels	1.32	1.72	2.04	2.19	1.93	1.96	2.35
Commercial Fuel Use	13.37	12.80	12.72	12.56	12.84	12.73	14.31
Natural Gas	12.11	11.34	11.13	10.90	11.58	11.35	12.51
Other Fuels	1.26	1.46	1.59	1.66	1.26	1.38	1.80
Commercial Cogeneration Heat Output	1.07	0.26	0.49	0.15	0.17	0.49	0.37
Percent of Total Emissions	9%	9%	9%	9%	9%	9%	9%
Industrial	96.72	96.15	90.89	90.72	90.48	93.83	92.67
Refineries	33.87	34.80	34.06	35.31	36.09	36.07	35.65
General Fuel Use	19.53	16.39	16.29	14.79	15.17	14.78	14.83
Natural Gas	12.80	10.26	10.53	9.86	9.90	9.76	9.14
Other Fuels	6.73	6.13	5.76	4.93	5.27	5.02	5.69
Oil & Gas Extraction ^a	17.37	19.52	19.31	18.01	16.49	16.52	17.05
Fuel Use	16.64	18.78	18.94	17.66	15.72	15.75	16.27
Fugitive Emissions	0.73	0.74	0.37	0.35	0.77	0.77	0.78
Cement Plants	9.61	9.71	9.82	9.92	9.75	9.17	8.61
Clinker Production	5.60	5.68	5.77	5.85	5.80	5.55	5.31
Fuel Use	4.01	4.03	4.05	4.07	3.95	3.62	3.30
Cogeneration Heat Output	10.84	10.79	6.19	6.91	6.90	11.22	10.47

Table IV.F.2-3 (Continued)
California GHG Inventory
Million Metric Tons CO₂e

	2002	2003	2004	2005	2006	2007	2008
<i>Other Process Emissions</i>	5.50	4.94	5.22	5.78	6.08	6.07	6.06
<i>Percent of Total Emissions</i>	20%	20%	19%	19%	19%	20%	19%
Recycling and Waste	6.21	6.29	6.23	6.52	6.59	6.53	6.71
<i>Landfills^b</i>	6.21	6.29	6.23	6.52	6.59	6.53	6.71
<i>Percent of Total Emissions</i>	1%	1%	1%	1%	1%	1%	1%
High Global Warming Potential	11.97	12.75	13.57	14.23	14.92	15.28	15.65
<i>Ozone Depleting Substance Substitutes</i>	10.12	10.92	11.74	12.41	13.05	13.47	13.89
<i>Electricity Grid SF6 Losses^c</i>	1.07	1.05	1.05	1.04	1.00	0.97	0.96
<i>Semiconductor Manufacturing^b</i>	0.78	0.78	0.78	0.78	0.87	0.84	0.80
<i>Percent of Total Emissions</i>	3%	3%	3%	3%	3%	3%	3%
Agriculture^d	28.40	28.49	28.81	28.98	29.91	28.26	28.06
<i>Livestock</i>	14.56	14.88	14.81	15.36	15.63	15.96	16.28
Enteric Fermentation (Digestive Process)	7.86	7.97	7.97	8.26	8.33	8.52	8.70
Manure Management	6.70	6.91	6.84	7.10	7.30	7.44	7.58
<i>Crop Growing & Harvesting</i>	9.47	9.41	9.51	9.03	9.08	8.53	7.96
Fertilizers	8.06	8.02	8.03	7.58	7.44	7.08	6.72
Soil Preparation and Disturbances	1.34	1.31	1.41	1.37	1.56	1.36	1.15
Crop Residue Burning	0.07	0.08	0.07	0.08	0.08	0.09	0.09
<i>General Fuel Use</i>	4.37	4.20	4.49	4.59	5.20	3.77	3.82
Diesel	3.02	2.94	3.15	3.38	3.85	2.66	2.93
Natural Gas	0.95	0.85	0.82	0.69	0.77	0.79	0.72
Gasoline	0.40	0.41	0.52	0.52	0.57	0.32	0.17
Other Fuels	0.00	0.00	0.00	0.00	0.01	0.00	0.00
<i>Percent of Total Emissions</i>	6%	6%	6%	6%	6%	6%	6%
Forestry	0.19	0.19	0.19	0.19	0.19	0.19	0.19
<i>Wildfire (methane & nitrous oxide)</i>	0.19	0.19	0.19	0.19	0.19	0.19	0.19
<i>Percent of Total Emissions</i>	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Total Gross Emissions	474.12	473.15	483.91	476.71	475.33	480.86	477.77
<i>Forestry Net Emissions</i>	-4.40	-4.33	-4.32	-4.17	-4.04	-4.07	-3.98
Total Net Emissions	469.72	468.82	479.59	472.54	471.29	476.79	473.79

^a Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions.

^b These categories are listed in the Industrial sector of ARB's GHG Emission Inventory sectors.

^c This category is listed in the Electric Power sector of ARB's GHG Emission Inventory sectors.

^d Reflects use of updated USEPA models for determining emissions from livestock and fertilizers.

Source: California GHG Inventory for 2000–2008—by Category as Defined in the Climate Change Scoping Plan million tonnes of CO₂e—(based upon IPCC Second Assessment Report's Global Warming Potentials), www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-08_2010-05-12.pdf.

Table IV.F.2-4 on page IV.F.2-9 presents the GHG emissions associated with the existing land uses.

3. Regulatory Framework

In response to growing scientific and political concern with global climate change, federal and state entities have adopted a series of laws, regulations, plans and policies to reduce emissions of GHGs to the atmosphere. These laws, regulations, plans and policies, which include the Federal Clean Air Act, Federal Corporate Average Fuel Economy Standards, State Assembly Bill 1493, California Executive Order S-1-07 (California Low Carbon Fuel Standard), California Executive Order S-3-05, California Global Warming Solutions Act of 2006 (AB 32), CARB's *Climate Change Scoping Plan*, California Renewables Portfolio Standard (RPS) program (2002, Senate Bill [SB] 1078), California Senate Bill 1368, California Senate Bill 97, California Senate Bill 375, California Title 24 Energy Efficiency Standards, California Green Building Standards Senate Bill 292, City of Los Angeles Green LA Action Plan, City of Los Angeles Green Building Code, City of Los Angeles General Plan, and City of Los Angeles Department of Transportation (LADOT) Traffic Study Policies and Procedures (TSPP) are described in Appendix G of this Draft EIR.

4. Environmental Impacts

a. Significance Thresholds

Until the passage of AB 32, CEQA documents generally did not evaluate GHG emissions or impacts on global climate change. Rather, the primary focus of air pollutant analysis in CEQA documents was the emission of criteria pollutants, or those identified in the California and Federal Clean Air Acts as being of most concern to the public and government agencies (e.g., toxic air contaminants). With the passage of AB 32 and SB 97, CEQA documents now contain a more detailed analysis of GHG emissions. However, the analysis of GHGs is different from the analysis of criteria pollutants. Since the half-life of CO₂ is approximately 100 years, GHGs affect the global climate over a relatively long timeframe. Conversely, for criteria pollutants, significance thresholds/impacts are based on daily emissions; and the determination of attainment or non-attainment are based on the daily exceedance of applicable ambient air quality standards (e.g., 1-hour and 8-hour exposures).

In its January 2008 CEQA and Climate Change white paper, the California Air Pollution Control Officers Association (CAPCOA) identified a number of potential approaches for determining the significance of GHG emissions in CEQA documents. In its white paper, the CAPCOA suggests making significance determinations on a case-by-case basis when no

**Table IV.F.2-4
Existing Project Site Annual GHG Emissions Summary**

Scope	Metric Tons of Carbon Dioxide Equivalent
Transportation	12,551
Electricity	7,049
Natural Gas	595
Water Usage/Wastewater Generation	101
Solid Waste	377
Total Emissions	20,673
<i>Source: Matrix Environmental, 2012.</i>	

significance thresholds have been formally adopted by a lead agency. One of the potential approaches identified in the CAPCOA White Paper, Threshold 1.1, would require a project to meet a percent reduction target. This target would be based on the average reduction from “BAU” emissions identified by CARB as necessary to satisfy AB 32’s mandate of returning to 1990 levels of GHG emissions by 2020. CARB has calculated the necessary reduction to be approximately 16 percent from “BAU.”⁷

OPR’s recommended amendments to the CEQA Guidelines for GHGs were adopted by the Resources Agency on December 30, 2009. Analysis of GHG emissions in a CEQA document presents unique challenges to lead agencies. However, such analysis must be consistent with existing CEQA principles and, therefore, the amendments comprise relatively modest changes to various portions of the existing CEQA Guidelines. The amendments add no additional substantive requirements; rather, the Guidelines merely assist lead agencies in complying with CEQA’s existing requirements. Modifications address those issues where analysis of GHG emissions may differ in some respects from more traditional CEQA analysis. Other modifications clarify existing law that may apply both to an analysis of GHG emissions as well as more traditional CEQA analyses.

The following two questions relating to the effects of GHGs were added to the CEQA Guidelines, Appendix G (Environmental Checklist):

Would the project:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

⁷ CARB, *Supplement to the AB 32 Scoping Plan FED, Table 1.2-2, Updated 2020 Business-as-Usual Emissions Forecast*, www.arb.ca.gov/cc/scopingplan/document/final_supplement_to_sp_fed.pdf.

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Section 15064.4 of the CEQA Guidelines was adopted to assist lead agencies in determining the significance of the impacts of GHGs. Consistent with developing practice, this section urges lead agencies to quantify GHG emissions of projects where possible and includes language necessary to avoid an implication that a “life-cycle” analysis is required. In addition to quantification, this section recommends consideration of several other qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs). The amendments do not establish a threshold of significance; instead lead agencies are called on to establish significance thresholds for their respective jurisdictions in which a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see Section 15064.7(c)). The CEQA Guidelines amendments also clarify that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA’s requirements for cumulative impact analysis (see Section 15130(f)).

Although GHG emissions can be calculated, CARB, SCAQMD and the City of Los Angeles, have yet to adopt project-level significance thresholds for GHG emissions that would be applicable to the Proposed Project.⁸ Assessing the significance of a project’s contribution to cumulative global climate change involves: (1) developing an inventory of project GHG emissions; and (2) considering project consistency with applicable emission reduction strategies and goals, such as those set forth by AB 32. Based on the foregoing, a project that generates GHG emissions, either directly or indirectly, would have a significant impact if:

- The Project’s emissions reduction does not constitute an equivalent or larger reduction from “BAU” than has been determined by CARB to be necessary to meet the state AB 32 goals (approximately 16 percent); or

⁸ *The South Coast Air Quality Management District has formed a GHG Significance Threshold Working Group. More information on this Working Group is available at www.aqmd.gov/ceqa/handbook/GHG/GHG.html. Although not applicable to the Proposed Project, in 2008 SCAQMD approved an interim GHG significance threshold of 10,000 metric tons of CO₂e for stationary source/industrial projects where the SCAQMD is the lead agency.*

- The Project conflicts with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs; e.g., GHG reduction strategies set forth by the 2006 CAT Report, OPR's CEQA and Climate Change GHG Reduction Measures, and the Attorney General's Global Warming Measures.

b. Methodology

The Climate Registry's General Reporting Protocol (GRP) provides basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.⁹ The Climate Registry's GRP is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development and the World Resources Institute through "a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions."¹⁰ Although no numerical thresholds of significance have been developed, and no specific protocols are available for land use projects, the Climate Registry's GRP provides a basic framework for calculating and reporting GHG emissions from the Proposed Project. The information provided in this section is consistent with the CCAR Protocol's reporting requirements.

The Climate Registry's GRP recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include the following:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.

The Climate Registry's GRP provides a range of basic calculation methods. However, Climate Registry's GRP calculations are typically designed for existing buildings or facilities. These retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

⁹ *Ibid.*

¹⁰ *Ibid.*

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility. Reporting on indirect energy usage annually aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.¹¹ CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research has noted that lead agencies “should make a good-faith effort, based on available information, to calculate, model, or estimate... GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.”¹² Therefore, direct and indirect emissions have been calculated for the project using the Climate Registry’s GRP.

A fundamental difficulty in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of existing GHG emissions, rather than causing “new” GHG emissions. As a result there is a lack of clarity as to whether a project’s GHG emissions represent a net global increase, reduction, or no change in GHGs that would exist if the project were not implemented. The analysis of the Project’s GHG emissions is particularly conservative in that it assumes all of the GHG emissions are new additions to the atmosphere.

(1) Construction

The complexity of the Proposed Project (e.g., schedule, development areas, overlapping activities, etc.) and the availability of Proposed Project specific information (i.e., specific list of equipment by construction phase, number of haul truck trips, vendor trips, and worker trips) warranted the development of a modeling protocol that integrated Proposed Project specific information with components of standard models where applicable and appropriate. Specifically, calculation procedures provided in SCAQMD’s California Emissions Estimator Model (CalEEMod) formed the basis for the protocol and was supplemented where appropriate. As an example, the most recent version of CalEEMod Version 2011.1 uses EMFAC 2007 emission factors for calculating on-road vehicular emissions. EMFAC 2011 was subsequently released and, therefore, the protocol included updated emission factors for on-road vehicular activity using EMFAC 2011.

¹¹ CARB, *Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007.*

¹² OPR Technical Advisory, p. 5.

Details of the modeling assumptions and emission factors are provided in Appendix M of this Draft EIR.

The CO₂ emissions were converted into metric tons of CO₂e by applying the proper global warming potential (GWP) value provided in CalEEMod. In accordance with the SCAQMD's guidance, GHG emissions from construction were amortized over the lifetime of the Proposed Project. The SCAQMD defines the lifetime of a project as 30 years. Therefore, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

(2) Operation

Similar to construction, the complexity of the Project (i.e., types of sources, operating schedule, trip generation rates, and trip distances) warranted the development of a modeling protocol that integrated Project specific information and components of standard models where applicable and appropriate. Calculation procedures provided in SCAQMD's California Emissions Estimator Model (CalEEMod) formed the basis for the protocol and was supplemented where appropriate (e.g., EMFAC 2011 for on-road emission factors). In addition, sources such as transit are not included in CalEEMod and, therefore, were calculated using other applicable calculation procedures (SCAQMD's CEQA Handbook and USEPA's Compilation of Air Pollutant Emission Factors (AP-42)).¹³ Details of the modeling assumptions and emission factors are provided in Appendix M of this Draft EIR.

Quantitative emission factors were used to calculate the energy use and potential emissions generated by existing and future land uses on the Project Site. These factors include mobile sources, electricity, natural gas, water usage/wastewater generation, and solid waste generation and disposal.

Mobile source emission calculations associated with operation of the Proposed Project use a projection of annual vehicle trips and vehicle miles traveled (VMT), which is derived from the traffic study prepared for the Proposed Project. These values account for the unique trip characteristics of the Project Site such as the number of annual events, size of events, travel mode, and trip length associated with employees and visitors traveling to and from the Project Site.

¹³ Refer to page 9 of Appendix M.1.

The number of daily trips at the Event Center would vary with the level of activity at the facility. Daily use at the facility falls within one of three categories: event days (e.g., the day of a football game, concert, exhibition, etc.); days that the Event Center is used to get ready or break down following an event; and days when no activities occur. Separate forecasts were developed for each of these three activity levels.

The consumption of fossil fuels to generate electricity and to provide heating and hot water creates GHG emissions. Future fuel consumption rates were estimated based on specific square footages of the proposed land uses, as well as predicted water supply needs of the Proposed Project. Natural gas usage rates were taken from Section IV.L.5, Utilities—Natural Gas, of this Draft EIR. Electricity usage rates were taken from Section IV.L.4, Utilities—Electricity of this Draft EIR.¹⁴ Embodied energy rates associated with the Project's future water supply needs (e.g., water supply and conveyance, water treatment, water distribution, and wastewater treatment) were calculated using factors provided in CalEEMod along with water and wastewater usage rates taken from Sections IV.L.1, Utilities—Water, and IV.L.2, Utilities—Wastewater, of this Draft EIR, respectively. GHG emission factors from SCAQMD's CalEEMod were then applied to the respective usage rates, to calculate annual GHG emissions in metric tons.

Solid waste generation and disposal is associated with embodied energy. The annual operational solid generation rates are provided in Section IV.L.3, Utilities—Solid Waste, of this Draft EIR, and were converted to GHG emissions based on the emissions factors provided in the SCAQMD's CalEEMod.

(3) Consistency with Assembly Bill 32

Although the SCAQMD has formally adopted an interim significance threshold for industrial facility projects for which they are the lead agency, CARB, SCAQMD, and the City of Los Angeles currently have not adopted significance thresholds for GHG emissions that would apply to the Proposed Project. Based on the currently available guidance, this section assesses whether the Project's GHG impacts are significant based on the Project's consistency with California's goals to reduce GHG emissions under AB 32. A particularly illustrative method to determine consistency with AB 32, and one that has the co-benefit of

¹⁴ Sulfur Hexafluoride is used throughout the electrical industry as a gaseous dielectric medium for high-voltage circuit breakers, switchgear, and other electrical equipment. While it is specifically regulated by the CARB and the Proposed Project would use the latest technology that limits leakage, it should be noted that some leakage would be expected over time as the electrical equipment ages, or is accidentally broken. The Proposed Project would comply with applicable regulations regarding this issue and thus GHG emissions from this particular source would be limited, and as such no further quantification or discussion is warranted in this Draft EIR.

being based on a quantification of emissions, is to compare a project's emissions as proposed to that project's emissions if it were to be built using "BAU" design, methodology, and technology. If a project constitutes an equivalent or larger reduction from "BAU" than has been determined by CARB to be necessary to meet AB 32's goals for 2020 (approximately 16 percent), then that project can be considered consistent with AB 32 and, therefore, will not have a significant impact on the environment due to its GHG emissions. This is the average level of emissions reduction performance that would need to be achieved across all sectors of the economy to meet AB 32 goals (i.e., applied to both new and existing GHG emissions sources), and CARB and other state agencies have indicated that specific sectors of the economy may be required to contribute greater levels of reduction. This section uses this "reduction from 'BAU'" method to determine consistency with AB 32. This approach also mirrors the concepts used in the CARB's *Climate Change Scoping Plan* for the implementation of AB 32.

CARB's *Climate Change Scoping Plan* and guidance from a wide-variety of state agencies has emphasized that achieving the state's GHG emissions reduction goals requires a substantial change from "BAU."¹⁵ Comparing a project's emissions to "BAU" emissions is fundamental to the CARB's calculation that achieving AB 32 mandates requires a 16 percent reduction in emissions from "BAU." However, the notion of statewide "BAU" used in CARB's *Climate Change Scoping Plan* is not directly applicable at local or regional scales. Nevertheless, the SCAQMD recommends use of this definition of "BAU" until such time as a statewide or SCAQMD definition of "BAU" is developed.¹⁶ The statewide "BAU" is based on historic trends across entire economic sectors—not the activity of local governments or individual projects (i.e., it is a top-down estimate of anticipated future emissions). Consequently, evaluating the proposition that a project constitutes a reduction from "BAU" requires providing a quantitative estimate of "BAU" based on the specific circumstances of the Project in the context of relevant state activities and mandates. This essentially requires two GHG emissions inventories (as follows):

- "BAU" project GHG emissions; and
- "As proposed" project GHG emissions with project design features.

¹⁵ The *Scoping Plan* defines "business-as-usual" as emissions in the absence of greenhouse gas reduction measures (i.e., the 2020 "business-as-usual" emissions inventory is forecasted based on the 2002 to 2004 statewide average annual emissions and does not take credit for, *inter alia*, reduction from 2005 Title 24, Assembly Bill 1493 greenhouse gas emissions reduction standards for vehicles, the California Low Carbon Fuel Standard, or full implementation of the Renewables Portfolio Standard, discussed below).

¹⁶ SCAQMD, *Draft Guidance Document-Interim CEQA GHG Significance Threshold, Attachment E*, October 2008.

The analysis in this section includes potential emissions under “BAU” scenarios and from the Project at build-out based on actions and mandates expected to be in force in 2020. Early-action measures provided in the *Climate Change Scoping Plan* that have not been regulatorily approved were not considered in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project’s GHG emissions at build out.

Local governments as well as others use 2020 as a target date for GHG reductions. It is also an important target date for supporting legislation and regulation, including mandates for implementation of the Low Carbon Fuel Standard and the Federal Corporate Average Fuel Economy standards. This 2020 target date also reflects California’s AB 32 mandate for GHG emissions reductions based on the following CARB timeline:¹⁷

- January 1, 2009: CARB adopts a “scoping plan” indicating how emissions reductions will be achieved.
- January 1, 2010: Early-action measures take effect.
- January 1, 2012: GHG rules and market mechanisms adopted by CARB are legally enforceable.
- December 31, 2020: Deadline for achieving the 2020 GHG emission cap.

A “BAU” scenario is used to establish a comparison with project-generated GHG emissions. Similar to the unmitigated GHG scenario provided in the Bay Area Air Quality Management District’s (BAAQMD) CEQA Guidelines, discussed below, the “BAU” scenario does not consider site-specific conditions, project design features, or prescribed mitigation measures. As an example, a “BAU” scenario would apply a base ITE trip generation rate for the project and would not consider site-specific benefits resulting from the proposed mix of uses or close proximity to public transportation. The analysis below establishes “BAU” as complying with the minimum performance level required under Title 24. Consistent with the *Supplemental FED to the Climate Change Scoping Plan*, this scenario would also not consider state mandates that are already in place (e.g., Pavley I Standards, full implementation of California’s Statewide Renewables Portfolio Standard beyond current levels of renewable energy, and the California Low Carbon Fuel Standard.

Emissions calculations for the Proposed Project include credits or reductions for the project design features set forth in this Draft EIR, such as reductions in energy or water

¹⁷ California Air Resources Board, www.arb.ca.gov/cc/cc.htm.

demand. In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips, a decrease in the number of generated trips as a result of project design features would provide a proportional reduction in mobile source GHG emissions. This scenario would also include actions and mandates that are not already in place but are expected to be in force in 2020 (e.g., Pavley II).

c. Project Design Features

The GHG analysis includes the following project design features that factor into the estimates of construction and operational emissions levels presented in the following sections. The sustainability project design features would be implemented via the Sustainability Plan included as Appendix E to this Draft EIR. As set forth therein, the Proposed Project would incorporate sustainability as one of its key design and operational criteria. In so doing the Proposed Project would meet all aspects of the City of Los Angeles Green Building Code with the exception of the Light Pollution Reduction measure (99.05.106.8). The Event Center would be designed to achieve LEED certification. The New Hall would be designed with the intent of achieving a LEED Gold certification. Further detail on the sustainability measures for the three primary components of the Proposed Project is provided below:

(1) New Hall

LEED rating system is broken down into five (5) main categories of environmental sustainability. These categories are: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources and Indoor Environmental Quality. Summary descriptions of how these sustainability measures would be incorporated into the New Hall are described below.

(a) Sustainable Sites

The Project Site is located on a previously developed urban site in Downtown Los Angeles with substantial existing infrastructure in place. This site location provides convenient pedestrian access to the Metro Rail Blue Line Pico Station and the Metro Rail Red Line 7th/Metro Center Station. The Project Site is also well served by bus service as described in Section IV.B.1, Transportation, of this Draft EIR. The Urban Heat Island, on both roof and non-roof surfaces, would be reduced by the use of compliant materials with a high solar reflectance index (SRI).

(b) Water Efficiency

- Water Use Reduction by 33 percent in comparison to estimated baseline.¹⁸

Low flow toilets and waterless or low flow urinal fixtures would be used throughout the New Hall. Drought tolerant plants and efficient irrigation systems would be used throughout the development.

(c) Energy and Atmosphere

The New Hall would also comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve greater than a 20 percent reduction in energy consumption relative to the estimated baseline.¹⁹ Demand control ventilation would be utilized in HVAC systems, refrigerants with low GHG emission rates would be used in heating, ventilation and air conditioning equipment.

(d) Materials and Resources

- A minimum of 20 percent of all building materials and products for development will consist of recycled content or would be manufactured regionally while a minimum of 5 percent of all building materials and products for development will be rapidly renewable; and
- A combined minimum of 75 percent of construction waste and/or debris will be diverted from landfill storage for both the demolition and new construction phases.

The design materials and resource selection for the New Hall would be made to minimize environmental impacts. The construction of the New Hall would include a Construction Waste Management (CWM) plan to achieve the waste diversion percentages noted above. The New Hall construction would also require a minimum of 20 percent recycled content thereby reducing impacts from the extraction and processing of virgin materials. To support local industry and reduce environmental impacts associated with the

¹⁸ *Water Baseline calculated according to the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code as cited in 2010 Los Angeles Green Building Code.*

¹⁹ *The Event Center and New Hall have both registered for LEED v.3 (LEED NC 2009) and will calculate energy baselines with ASHRAE 2007.*

transport of materials, a minimum of 20 percent of the overall construction materials would be extracted, processed or manufactured within a 500-mile radius of the Project Site.

(e) Indoor Environmental Quality

The New Hall would be designed, constructed and operated to optimize indoor air quality and minimize indoor air contaminants. An indoor air quality management plan would be prepared prior to construction. The design for the New Hall would specify interior finish materials such as adhesives, sealants, paints, flooring and composite wood products with low emission rates of volatile organic compounds (VOCs) and to reduce the generation of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well being of the construction work force and building occupants. The HVAC system would be designed to optimize exterior and interior air flow to ensure healthy indoor air quality. Prior to occupancy, the ventilation system shall be operated to reduce VOCs from the interior of the buildings generated during construction and installation of building materials. Potential adverse effects from this operation would be addressed by the indoor air quality management plan. Such measures may include, but not be limited to, conducting this process during favorable meteorological conditions for pollutant dispersion and would be discontinued during second-stage smog alerts.

(2) Event Center

As part of an effort to pursue LEED certification, the Event Center would incorporate the AEG 1EARTH environmental program already implemented at STAPLES Center and across L.A. LIVE to work toward the following goals:

(a) Energy and Atmosphere

- Energy performance improved by greater than 14 percent of the estimated baseline.²⁰

The Event Center would optimize energy performance through the installation of best available technology for HVAC, lighting, and all major electrical appliances and control systems; and through educating employees on energy efficiency through an Environmental Management system.

²⁰ The Event Center and New Hall have both registered for LEED v.3 (LEED NC 2009) and will calculate energy baselines with ASHRAE 2007.

(b) Recycling and Waste Diversion

- 50 percent solid waste diverted during construction; and
- 50 percent solid waste diverted during operation.

The Event Center would divert waste from landfill disposal through robust recycling, the donation of durable goods, and implementing a front of house composting program that includes sourcing biodegradable concessions packaging.

(c) Water Efficiency

- 35 percent reduction in water use in comparison to estimated baseline.²¹

Water conservation measures at the Event Center include the use of artificial turf for the field surface. The Event Center would also conserve water by installing the best available technology for water fixtures and equipment and educating employees on water efficiency through an Environmental Management System.

(d) Materials and Resources

- 10 percent of all building materials and products for development would be rapidly renewable, recycled content or manufactured regionally; and
- 90 percent of on-going consumable paper and janitorial and lighting products would be purchased in conformance with AEGs Environmentally Preferable Procurement Policy, which established priorities for products based on health and environmental considerations.

The Event Center would implement AEG's Environmentally Preferable Procurement Policy to ensure that the health and environmental impacts of products are taken into consideration and weighed appropriately against cost. Emphasis would be placed on HVAC, lighting, janitorial, and paper products, as well as sourcing local and recycled content materials.

²¹ *Water Baseline calculated according to the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code as cited in 2010 Los Angeles Green Building Code.*

(e) Education

- Environmental messaging to fans during events and to employees; and
- Host to environmental outreach events.

The Event Center would host environmental outreach events that promote dialogue and collaboration on innovative environmental solutions. In addition, the Event Center would feature educational environmental signage and messaging throughout venues and event scoreboards.

(3) Parking Garages

The two proposed parking garages, the Bond Street Garage, L.A. Live Way Garage, and the parking that is currently located beneath the existing South Hall would feature energy efficient lighting. The Event Center Applicant shall provide up to 12 electric vehicle charging stations in addition to Code requirements (i.e., provide electric vehicle supply wiring equal to five percent of the total number of parking spaces) and 250 bicycle spaces in one or more of the on-site parking garages to facilitate and encourage the use of electric vehicles and provide priority parking locations for hybrid and electric vehicles, and to facilitate and encourage the use of these vehicles.

(4) SB 292

As part of SB 292, the Event Center must achieve and maintain carbon neutrality by reducing to zero the net emissions of greenhouse gases from private automobile trips to and from Spectator Events at the Event Center. This objective would be realized via the following program:

1. Implementation of the Event Center's Transportation Management Plan, described in detail in Section IV.B.1, Transportation;
2. Investment in local community projects that reduce greenhouse gas emissions; and
3. Purchase of carbon offsets. When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the South Coast Air Quality Management District, then California, and then finally nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and IntercontinentalExchange (ICE) carbon exchange platforms) and exists at levels that greatly exceed the potential needs of the Proposed Project.

In addition, the Proposed Project must achieve and maintain a vehicle trip ratio (defined as the total annual number of private automobiles arriving at the Event Center for Spectator Events divided by the total number of spectators at the events) that is no more than 90 percent of the trip ratio at any other stadium serving a team in the National Football League. This would reduce traffic congestion, further improve air quality, and reduce greenhouse gas emissions.

d. Project Impacts

The Project would generate both direct and indirect GHG emissions via the following emissions sources, including:

- Construction: Emissions associated with dust control (water), construction debris disposal, and construction-related equipment and vehicular activity;
- Transportation: Emissions associated with Project-generated vehicular operations;
- Building Operations: Emissions associated with space heating and cooling, water heating, and lighting;
- Water: Emissions associated with energy used to pump, convey, treat, deliver, and re-treat water; and
- Solid Waste: Emissions associated with waste streams (embodied energy of materials).

The Proposed Project would generate an incremental contribution to and cumulative increase in sources of GHGs. However, it should be noted that even a very large individual project would not generate enough GHG emissions to influence global climate change. Specific discussion regarding potential GHG emissions associated with the construction and operational phases of the Proposed Project is provided below.

(1) Construction Impacts

As discussed above, three basic types of activities are expected to occur and generate construction-related GHG emissions at the Project Site as a result of implementation of the Proposed Project. Project construction would involve the removal of portions of the existing development on-site. Construction materials would be recycled/reused per the stated project design feature and would include the on-site recycling and additional off-site sorting of construction materials by the waste hauler. Project construction would also result in the excavation of approximately 867,000 cubic yards of soil to be exported off-site.

Construction emissions represent an episodic, Scope 3 source of GHG emissions. Emissions are associated with the operation of construction equipment, water usage for fugitive dust control, and the disposal of construction waste.

To be consistent with guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from on-site demolition and construction activities, off-site hauling (construction-related solid waste), water usage for control of fugitive dust, and construction worker commuting are considered as Project-generated. The information needed to characterize GHG emissions from the manufacture, transport, and the end-of-life of construction materials would be speculative at the CEQA analysis level. Therefore, the construction analysis does not assess such GHG emissions. Furthermore, it is reasonable and consistent with criteria pollutant calculations to consider only the GHG emissions resulting from the incremental increase in usage of on-road mobile vehicles, electricity, and natural gas upon implementation of the Project as project-related.

As presented in Table IV.F.2-5 on page IV.F.2-24, construction of the Proposed Project is estimated to generate a total of 54,985 metric tons of CO₂e. As recommended by the SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Proposed Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG construction emissions inventory. With amortization, the Proposed Project would generate 1,833 metric tons of CO₂e annually. A complete listing of the construction equipment by on-site and off-site activities, duration, and emissions estimation model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in Appendix M of this Draft EIR.

(2) Operational Impacts

As discussed above, Project-related operational sources of GHG emissions include transportation, building operations, water, and solid waste. Each of these sources is discussed below.

(a) Transportation Emissions

Project-related transportation sources of GHG emissions include spectator and employee trips, delivery truck trips, and transit (i.e., additional bus and rail service to service the Project). The predominant source of transportation emissions is from spectator and employee trips. These emissions were calculated based on the Project trip-generation

**Table IV.F.2-5
Construction Related Emissions
(Metric Tons of CO₂e)**

Phase	Total	Amortized^a
Bond Street Garage	1,043	35
New Hall	7,636	255
L.A. Live Way Garage	3,213	107
Event Center	33,039	1,101
Construction Debris Disposal ^b	10,055	335
Total	54,985	1,833
^a As recommended by the SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the project's operational emissions) in order to determine the project's annual GHG emissions inventory. ^b During new construction, a minimum of 50 percent from the Event Center and 75 percent from the New Hall of the non-hazardous demolition and construction debris by weight from construction of new Project buildings would be recycled and/or salvaged for reuse (see Table IV.K.3-5, Proposed Project Demolition and Construction Waste Generation, of Section IV.K.3, Utilities—Solid Waste, of the Draft EIR) . In comparison to BAU, which would only require 50 percent recycled, overall construction emissions may be reduced by as much as 14 percent. Source: Matrix Environmental, 2012.		

and vehicle miles traveled (VMT) estimates provided for the Project by The Mobility Group.²² The BAU scenario assumes the same number of trips and VMT for the Convention Center and level of activity for the Event Center. However, the trip-generation rate and VMT for the Event Center under the BAU scenario was considered to be similar to the proposed City of Industry Stadium Project (e.g., less available transit, higher vehicle occupancy rate, and longer trip distances).²³ As shown in Table IV.F.2-6 on page IV.F.2-25, the Proposed Project in comparison to BAU would result in approximately 0.6 percent fewer patron trips and 17 percent less VMT. As shown in Table IV.F.2-7 on page IV.F.2-28, the Project in comparison to BAU would result in a slight reduction in employee trips and VMT. Annual delivery trips were assumed to be the same under both the Project and BAU scenarios. The Event Center would result in 5,586 truck trips or 83,790 VMT and the Convention Center would result in 43,800 truck trips or 657,000 VMT. Transit

²² Mobility Group, *Convention Center Modernization and Event Center Project, EIR Transportation Study* ("Transportation Study"), dated March 6, 2012.

²³ <http://www.losangelesfootballstadium.com>

Table IV.F.2-6
Project-Related Patron Annual Trip Generation and Vehicle Miles Traveled^a

Event Type	Event Parameters				Annual Person Trips					Annual Trips & VMT		
	Event Attendance per Day	Person Trips/ Day	Days per Event	Events per Year	Person Trips per Year	% Transit/ Walk/ Auto	Person Trips by Auto	Persons per Auto	Auto Trips/ Day	Annual Auto Trips	Trip Length (miles)	Annual VMT
Convention Center (Existing/No Project)												
Conventions	10,643	21,286	4.08	24	2,084,325	60/20/20	416,865	1.2	3,548	347,388	8	2,779,100
Trade Shows	2,992	5,984	2.60	27	420,077	40/20/40	168,031	1.5	1,596	112,020	12	1,344,246
Consumer Shows	5,653	11,306	2.62	48	1,421,843	0/0/100	1,421,843	2.0	5,653	710,921	15	10,663,819
Meeting Rooms	224	448	1.77	189	149,869	0/0/100	149,869	1.25	358	119,896	10	1,198,956
Banquets	943	1,886	1.52	9	25,800	0/0/100	25,800	2.5	754	10,320	12	123,842
Assemblies	4,575	9,150	1.30	66	785,070	0/0/100	785,070	3.0		261,690	15	3,925,350
Total				363	4,886,984		2,967,478			1,562,235		20,035,313
Future with Project												
Event Center												
Spectator Events												
Level 1	72,230	144,460	1.00	37	5,345,020	16/4.2/79.8	4,265,326	2.94	39,211	1,450,791	26	37,720,570
Level 2	55,000	110,000	2.00	10	2,200,000	12/3.1/84.9	1,867,800	2.94	31,765	635,306	20	12,706,122
Level 3	35,000	70,000	2.00	5	700,000	8/2.1/89.9	629,300	2.94	21,405	214,048	15	3,210,714
Exhibition Events												
Level 1	0	0	0	0	0		0		0	0		0
Level 2	50,000	100,000	3.00	2	600,000	60/20/20	120,000	1.2	16,667	100,000	12	1,200,000
Level 3	40,000	80,000	3.00	12	2,880,000	40/20/40	576,000	1.2	13,333	480,000	12	5,760,000
Meeting Rooms												
Level 1	6,946	13,892	1.00	15	208,380	0/0/100	208,380	1.25	11,114	166,704	15	2,500,560
Level 2	2,720	5,440	1.00	30	163,200	0/0/100	163,200	1.25	4,352	130,560	10	1,305,600
Level 3	1,530	3,060	1.00	30	91,800	0/0/100	91,800	1.25	2,448	73,440	10	734,400
Total-Event Center				141	12,188,400		7,921,806		140,294	3,250,849		65,137,966

Table IV.F.2-6 (Continued)
Project-Related Patron Annual Trip Generation and Vehicle Miles Traveled ^a

Event Type	Event Parameters				Annual Person Trips					Annual Trips & VMT		
	Event Attendance per Day	Person Trips/ Day	Days per Event	Events per Year	Person Trips per Year	% Transit/ Walk/ Auto	Person Trips by Auto	Persons per Auto	Auto Trips/ Day	Annual Auto Trips	Trip Length (miles)	Annual VMT
Convention Center												
Conventions	10,643	21,286	4.08	38	3,300,181	60/20/20	660,036	1.2	3,548	550,030	8	4,400,242
Trade Shows	2,992	5,984	2.60	47	731,245	40/20/40	292,498	1.5	1,596	194,999	12	2,339,983
Consumer Shows	5,653	11,306	2.62	53	1,569,951	0/0/100	1,569,951	2.0	5,653	784,976	15	11,774,634
Meeting Rooms	224	448	1.77	207	164,143	0/0/100	164,143	1.25	358	131,314	10	1,313,142
Banquets	943	1,886	1.52	27	77,401	0/0/100	77,401	2.5	754	30,961	12	371,527
Assemblies	4,575	9,150	1.30	84	999,180	0/0/100	999,180	3.0		330,060	15	4,995,900
Total Convention Center				456	6,842,102		3,763,210			2,025,339		25,195,428
Total-Project					19,030,502		11,685,015			5,576,188		90,333,394
Business as Usual												
Event Center												
Spectator Events												
Level 1	72,230	144,460	1.00	37	5,345,020	5/10/85	4,543,267	3.1	39,610	1,465,570	30	43,967,100
Level 2	55,000	110,000	2.00	10	2,200,000	5/10/85	1,870,000	3.1	30,161	603,226	30	18,096,774
Level 3	35,000	70,000	2.00	5	700,000	5/10/85	595,000	3.1	19,194	191,935	30	5,758,065
Exhibition Events												
Level 1	0	0	0	0	0		0		0	0		0
Level 2	50,000	100,000	3.00	2	600,000	5/10/85	510,000	3.1	27,419	164,516	12	1,974,194
Level 3	40,000	80,000	3.00	12	2,880,000	5/10/85	2,448,000	3.1	21,935	789,677	12	9,476,129
Meeting Rooms												
Level 1	6,946	13,892	1.00	15	208,380	0/0/100	208,380	1.25	11,114	166,704	15	2,500,560
Level 2	2,720	5,440	1.00	30	163,200	0/0/100	163,200	1.25	4,352	130,560	10	1,305,600
Level 3	1,530	3,060	1.00	30	91,800	0/0/100	91,800	1.25	2,448	73,440	10	734,400

Table IV.F.2-6 (Continued)
Project-Related Patron Annual Trip Generation and Vehicle Miles Traveled ^a

Event Type	Event Parameters				Annual Person Trips					Annual Trips & VMT		
	Event Attendance per Day	Person Trips/ Day	Days per Event	Events per Year	Person Trips per Year	% Transit/ Walk/ Auto	Person Trips by Auto	Persons per Auto	Auto Trips/ Day	Annual Auto Trips	Trip Length (miles)	Annual VMT
Total-Event Center				141	12,188,400		10,429,647		156,223	3,585,629		83,812,821
Convention Center												
Conventions	10,643	21,286	4.08	38	3,300,181	60/20/20	660,036	1.2	3,548	550,030	8	4,400,242
Trade Shows	2,992	5,984	2.60	47	731,245	40/20/40	292,498	1.5	1,596	194,999	12	2,339,983
Consumer Shows	5,653	11,306	2.62	53	1,569,951	0/0/100	1,569,951	2.0	5,653	784,976	15	11,774,634
Meeting Rooms	224	448	1.77	207	164,143	0/0/100	164,143	1.25	358	131,314	10	1,313,142
Banquets	943	1,886	1.52	27	77,401	0/0/100	77,401	2.5	754	30,961	12	371,527
Assemblies	4,575	9,150	1.30	84	999,180	0/0/100	999,180	3.0		330,060	15	4,995,900
Total Convention Center				456	6,842,102		3,763,210			2,025,339		25,195,428
Total-Project					19,030,502		14,192,857			5,610,968		109,008,249

ppm = parts per million

^a Mobility Group, Convention Center Modernization and Event Center Project, EIR Transportation Study (Transportation Study), dated March 6, 2012.

^b BAU scenario for the Event Center is considered to be similar to the Proposed City of Industry Stadium Project (e.g., less transit available, higher passenger vehicle occupancy, and longer trip distance)

Source: Matrix Environmental, 2012.

Table IV.F.2-7
Project-Related Employee Annual Trip Generation and Vehicle Miles Traveled^a

Event Type	Event Parameters				Annual Person Trips					Annual Trips & VMT		
	Event Employees per Day	Person Trips/ Day	Days per Event	Events per Year	Person Trips per Year	% Transit/ Walk/ Auto	Person Trips by Auto	Persons per Auto	Auto Trips/ Day	Annual Auto Trips	Trip Length (miles)	Annual VMT
Convention Center (Existing/No Project)												
Conventions	1,368	2,736	4.08	24	267,909	25/5/70	187,536	1.5	1,277	125,024	13.3	1,662,823
Trade Shows	456	912	2.60	27	64,022	25/5/70	44,816	1.5	426	29,877	13.3	397,366
Consumer Shows	494	988	2.62	48	124,251	25/5/70	86,976	1.5	461	57,984	13.3	771,184
Meeting Rooms	8	16	1.77	189	5,352	25/5/70	3,747	1.5	7	2,498	13.3	33,221
Banquets	49	98	1.52	9	1,341	25/5/70	938	1.5	46	626	13.3	8,321
Assemblies	220	440	1.30	66	37,752	25/5/70	26,426	1.5	205	17,618	13.3	234,314
Total				363	500,628		350,439		2,422	233,626		3,107,228
Future with Project												
Event Center												
Spectator Events												
Level 1	3,612	7,224	1.00	37		25/5/70	187,102	1.5	3,371	124,734	13.3	1,658,968
Level 2	2,750	5,500	2.00	10		25/5/70	77,000	1.5	2,567	51,333	13.3	682,733
Level 3	1,750	3,500	2.00	5		25/5/70	24,500	1.5	1,633	16,333	13.3	217,233
Exhibition Events												
Level 1	0	0	0	0	0		0		0	0		0
Level 2	1,650	3,300	3.00	2	600,000	25/5/70	13,860	1.5	1,540	9,240	13.3	122,892
Level 3	1,320	2,640	3.00	12	2,880,000	25/5/70	66,528	1.5	1,232	44,352	13.3	589,882
Meeting Rooms												
Level 1	144	288	1.00	15	208,380	25/5/70	3,024	1.5	134	2,016	13.3	26,813
Level 2	90	180	1.00	30	163,200	25/5/70	3,780	1.5	84	2,520	13.3	33,516
Level 3	50	100	1.00	30	91,800	25/5/70	2,100	1.5	47	1,400	13.3	18,620
Total-Event Center				141	539,848		377,894		10,608	251,929		3,350,657

Table IV.F.2-7 (Continued)
Project-Related Employee Annual Trip Generation and Vehicle Miles Traveled^a

Event Type	Event Parameters				Annual Person Trips					Annual Trips & VMT		
	Event Employees per Day	Person Trips/ Day	Days per Event	Events per Year	Person Trips per Year	% Transit/ Walk/ Auto	Person Trips by Auto	Persons per Auto	Auto Trips/ Day	Annual Auto Trips	Trip Length (miles)	Annual VMT
Convention Center												
Conventions	1,368	2,736	4.08	38	424,189	25/5/70	296,933	1.5	1,277	197,955	13.3	2,632,802
Trade Shows	456	912	2.60	47	111,446	25/5/70	78,012	1.5	426	52,008	13.3	691,711
Consumer Shows	494	988	2.62	53	137,194	25/5/70	96,036	1.5	461	64,024	13.3	851,515
Meeting Rooms	8	16	1.77	207	5,862	25/5/70	4,104	1.5	7	2,736	13.3	36,685
Banquets	49	98	1.52	27	4,022	25/5/70	2,815	1.5	46	1,877	13.3	24,963
Assemblies	220	440	1.30	84	48,048	25/5/70	33,634	1.5	205	22,422	13.3	298,218
Total Convention Center				456	730,762		511,533		2,422	341,022		4,535,294
Total-Project					1,270,610		889,427		13,030	592,951		7,886,251
Business as Usual												
Event Center												
Spectator Events												
Level 1	3,612	7,224	1.0	37	267,288	5/0/95	253,924	2.0	3,431	126,962	13.3	1,688,592
Level 2	2,750	5,500	2.0	10	110,000	5/0/95	104,500	2.0	2,613	52,250	13.3	694,925
Level 3	1,750	3,500	2.0	5	35,000	5/0/95	33,250	2.0	1,663	16,625	13.3	221,113
Exhibition Events												
Level 1	0	0	0	0	0		0		0	0		0
Level 2	1,650	3,300	3.0	2	19,800	5/0/95	18,810	2.0	1,568	9,405	13.3	125,087
Level 3	1,320	2,640	3.0	12	95,040	5/0/95	90,288	2.0	1,254	45,144	13.3	600,415
Meeting Rooms												
Level 1	144	288	1.0	15	4,320	5/0/95	4,104	2.0	137	2,052	13.3	27,292
Level 2	90	180	1.0	30	5,400	5/0/95	5,130	2.0	86	2,565	13.3	34,115
Level 3	50	100	1.0	30	3,000	5/0/95	2,850	2.0	48	1,425	13.3	18,953

Table IV.F.2-7 (Continued)
Project-Related Employee Annual Trip Generation and Vehicle Miles Traveled^a

Event Type	Event Parameters				Annual Person Trips					Annual Trips & VMT		
	Event Employees per Day	Person Trips/ Day	Days per Event	Events per Year	Person Trips per Year	% Transit/ Walk/ Auto	Person Trips by Auto	Persons per Auto	Auto Trips/ Day	Annual Auto Trips	Trip Length (miles)	Annual VMT
Total-Event Center							512,856		10,798	256,428		3,410,490
Convention Center												
Conventions	1,368	2,736	4.08	38	424,189	25/5/70	296,933	1.5	1,277	197,955	13.3	2,632,802
Trade Shows	456	912	2.60	47	111,446	25/5/70	78,012	1.5	426	52,008	13.3	691,711
Consumer Shows	494	988	2.62	53	137,19+4	25/5/70	96,036	1.5	461	64,024	13.3	851,515
Meeting Rooms	8	16	1.77	207	5,862	25/5/70	4,104	1.5	7	2,736	13.3	36,685
Banquets	49	98	1.52	27	4,022	25/5/70	2,815	1.5	46	1,877	13.3	24,963
Assemblies	220	440	1.30	84	48,048	25/5/70	33,634	1.5	205	22,422	13.3	298,218
Total Convention Center				456	730,762		511,533		2,422	341,022		4,535,594
Total-Project					1,270,610		1,024,389		13,220	597,450		7,946,084

ppm = parts per million

^a Mobility Group, Convention Center Modernization and Event Center Project, EIR Transportation Study (Transportation Study), dated March 6, 2012.

^b BAU scenario for the Event Center is considered to be similar to the Proposed City of Industry Stadium Project (e.g., less transit available, higher passenger vehicle occupancy, and longer trip distance).

Source: Matrix Environmental, 2012.

**Table IV.F.2-8
Annual GHG Emissions Summary
(Metric Tons of Carbon Dioxide Equivalent)^a**

Scope	Existing	No Project^b	“Business-as-Usual” Project	Project	Project’s Break from “Business-as-Usual”
Transportation—Not Subject to SB 292	12,551	10,963	21,534	19,285	-10%
Transportation—Subject to SB 292	N/A	N/A	27,813	21,907	-21%
Offset Required by SB 292	N/A	N/A	0	-21,907	-100%
Electricity	7,049	7,049	10,445	8,925	-15%
Natural Gas	595	595	2,719	2,719	0%
Water Usage/Wastewater	101	101	355	323	-9%
Solid Waste ^c	377	377	1,780	1,780	0%
Construction			2,143	1,833	-14%
Total Emission	20,673	19,085	66,788	34,864	-48%

N/A = Not Applicable

^a Emission quantities are rounded to “whole number” values. As such, the “total” values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the calculation worksheets that are presented in Appendix M.

^b For comparison purposes to the Proposed Project, future no Project conditions were assumed to include State mandates.

^c During new construction, a minimum of 50 percent from the Event Center and 75 percent from the New Hall of the non-hazardous demolition and construction debris by weight from construction of new Project buildings would be recycled and/or salvaged for reuse. Source: Matrix Environmental, 2012.

emissions were calculated based on the increase in transit usage as forecasted in the Traffic Study. It was assumed that the BAU scenario would not result in an increase in (CalEEMod Version 2011.1 User’s Guide, Appendix D). To calculate the difference between the Project and BAU scenarios, the following project features were applied to the Project scenario: (1) the Convention Center would implement additional efficiency measures to achieve a 20 percent reduction in energy consumption relative to the California Energy Efficiency Standards and would also comply with the required measures of the 2010 Los Angeles Green Building Code; (2) the Event Center would also implement electrical efficiency measures to achieve a 14 percent reduction against the estimated installation of best available technology for HVAC, lighting, and all major electrical appliances and control systems; and through educating employees on energy efficiency through an Energy Management System (EMS). Although the Parking Garages would incorporate project features that would serve to reduce energy use, the reduction measures

are difficult to quantify and the analysis conservatively assumes no reduction in GHG emissions from this source in comparison to BAU.

Although the Proposed Project would include the use of equipment and appliances that would reduce GHG emissions associated with natural gas, this analysis conservatively did not take credit for these reductions.

As shown in Table IV.F.2-8, the Project is expected to result in a total of 8,925 metric tons of CO₂e per year from electricity or an overall 15 percent reduction in comparison to BAU. The Project is expected to result in a total of 2,719 metric tons of CO₂e per year from natural gas.

(b) Water

GHG emissions are related to the energy used to convey, treat and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, the wastewater is treated and reused as reclaimed water.

Embodied energy rates associated with the Project's future water supply needs were calculated using factors provided in CalEEMod along with water and wastewater usage rates taken from Sections IV.K.1, Utilities—Water, and IV.K.2, Utilities—Wastewater, of this Draft EIR, respectively. Reductions in GHG emissions as a result of project features were also provided in these sections. GHG emission factors from SCAQMD's CalEEMod were then applied to the respective usage rates, to calculate annual GHG emissions in metric tons.

As shown in Table IV.F.2-8, the Proposed Project is expected to result in a total of 323 metric tons of CO₂e per year from water usage and wastewater generation or an overall nine percent reduction in comparison to BAU.

(c) Solid Waste

Solid waste generation and disposal is associated with embodied energy. The Proposed Project's annual operational solid generation rates are provided in Section IV.K.3, Utilities—Solid Waste, of this Draft EIR, and were converted to GHG emissions

based on the emissions factors provided in the SCAQMD's CalEEMod. The Proposed Project would achieve a diversion rate of 50 percent, which is consistent with Assembly Bill 939's requirements and, therefore, no additional reduction beyond BAU was considered.²⁴

As shown in Table IV.F.2-8, the Project is expected to result in a total of 1,780 metric tons of CO₂e per year from solid waste generation.

(d) Combined Emissions

Table IV.F.2-8 on page IV.F.2-31, presents the GHG emissions for the Proposed Project taking into consideration implementation of all project design features and the full implementation of current state mandates. As stated in Table IV.F.2-8, the Proposed Project with incorporation of project design features and state mandates would result in a total of 34,864 MTCO₂e. This represents an increase of 14,191 MTCO₂e over existing conditions, and an increase of 15,799 MTCO₂e over the No Project condition. As stated in Table IV.F.2-8, the Project with incorporation of project design features and state mandates would achieve a 48 percent reduction from "BAU." With the achievement of a 48 percent total reduction from "BAU," the Project's climate change impacts with regard to GHG emissions would be less than significant. It should also be noted that, as shown in Table IV.F.2-8, SB 292 would require the offset of 21,907 MTCO₂e attributable to private automobile traffic to Spectator Events at the Event Center.

Furthermore, the Proposed Project is designed with a number of features that are consistent with the following City of Los Angeles goals provided in the Air Quality Element of the City of Los Angeles General Plan:

- Improving energy and water efficiency in buildings;
- Water efficient landscaping;
- Reducing per capita water use; and
- Increasing recycling rates.

The following planned City actions, as presented in the LA Green Plan, when implemented, may further decrease emissions of GHGs from the Proposed Project:

²⁴ *Assembly Bill 939's requirement of the City of Los Angeles to divert from landfill disposal 50 percent of the waste generated within the City of Los Angeles in 2000.*

- Decreasing emissions from Department of Water and Power electrical generation and import activities;
- Creating walkable neighborhoods; and
- Expanding the regional rail network to reduce VMT.

As described above, the Proposed Project contains numerous project design features that would reduce the Project's emissions profile and would represent GHG emissions below what can be considered "BAU." The Proposed Project would be consistent with the goals set forth in AB 32, as well as in CARB's *Climate Change Scoping Plan*. The Project's GHG emissions reduction of 51 percent compared to the "BAU" scenarios constitutes an equivalent or larger break from "BAU" than has been determined by CARB to be necessary to meet AB 32's goals (approximately 16 percent for 2025). Therefore, the Project would have a less than significant impact on the environment due to its GHG emissions.

5. Cumulative Impacts

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. The state has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce is predicted to continue to expand. In order to achieve this goal, the CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. However, currently there are no applicable significance thresholds, specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative level.²⁵ Therefore, consistent with OPR's recommended significance threshold, an evaluation of whether the Proposed Project conflicts with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs; e.g.,

²⁵ Although the SCAQMD has formally adopted an interim significance threshold for industrial facility projects for which the SCAQMD is the lead agency, CARB, SCAQMD, and the City of Los Angeles currently have not adopted significance thresholds for GHG emissions which would apply to the Proposed Project.

the Attorney General's Global Warming Measures, OPR's CEQA and Climate Change GHG Reduction Measures, and GHG reduction strategies set forth by the 2006 CAT Report was conducted.

a. California Attorney General's Office

California Attorney General's Office provides guidance on example GHG reduction measures in *Addressing Climate Change at the Project Level*, 2010.²⁶ The measures set forth in the guidance document are examples; the list is not intended to be exhaustive. Moreover, the measures cited may not be appropriate for every project. A discussion of the Proposed Project's consistency with these measures is provided below.

(1) Energy Efficiency

- Incorporate green building practices and design elements.
- Meet recognized green building and energy efficiency benchmarks.
- Install energy efficient lighting (e.g., light emitting diodes (LEDs)), heating and cooling systems, appliances, equipment, and control systems.
- Use passive solar design; e.g., orient buildings and incorporate landscaping to maximize passive solar heating during cool seasons, minimize solar heat gain during hot seasons, and enhance natural ventilation. Design buildings to take advantage of sunlight.
- Install light colored "cool" roofs and cool pavements.
- Install efficient lighting, (including LEDs) for traffic, street and other outdoor lighting.
- Reduce unnecessary outdoor lighting.

The Proposed Project would incorporate project design features that would substantially reduce energy usage on the Project Site. The Proposed Project would incorporate sustainability as one of its key design and operational criteria. In so doing the Proposed Project would meet all aspects of the City of Los Angeles Green Building Code. The proposed New Hall would be designed to achieve LEED® Gold Certification, while the Event Center would be designed to achieve a minimum of LEED Certification. As part of

²⁶ Website http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf.

an effort to pursue LEED certification, the Event Center would incorporate the AEG 1EARTH environmental program already implemented at STAPLES Center and across L.A. LIVE to work toward reducing GHG emissions.

The New Hall would reduce the urban heat island effect on both roof and non-roof surfaces with the use of compliant materials with a high solar reflectance index (SRI). The New Hall would also comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve greater than a 20 percent reduction in energy consumption relative to the estimated baseline. The Event Center would also comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve greater than a 14 percent reduction in energy consumption relative to the estimated baseline. The Event Center would optimize energy performance through the installation of best available technology for HVAC, lighting, and all major electrical appliances and control systems; and through educating employees on energy efficiency through an Environmental Management system. The two proposed parking garages, the Bond Street Garage and the L.A. Live Way Garage would feature energy efficient lighting. In addition, the L.A. Live Way Garage would include a solar array system with a peak capacity of approximately between 375 kW and 475 kW output to the electrical system. Therefore, for the reasons cited above, the Proposed Project would effectively implement the energy efficiency measures provided by the California Attorney General's Office.

(2) Renewable Energy and Storage

- Meet “reach” goals for building energy efficiency and renewable energy use.
- Install solar, wind, and geothermal power systems and solar hot water heaters.
- Install solar panels on unused roof and ground space and over carports and parking areas.
- Where solar systems cannot feasibly be incorporated into the project at the outset, build “solar ready” structures.
- Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.
- Use on-site generated biogas, including methane, in appropriate applications.
- Use combined heat and power (CHP) in appropriate applications.

As discussed above under Energy Efficiency measures, the Proposed Project would meet the goals for building energy efficiency. In meeting these goals, Renewable Energy

and Storage measures provided above would be considered (e.g., solar panels), and implemented where commercially feasible.

(3) Water Conservation and Efficiency

- Incorporate water-reducing features into building and landscape design.
- Create water-efficient landscapes.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods.
- Make effective use of graywater. (Graywater is untreated household waste water from bathtubs, showers, bathroom wash basins, and water from clothes washing machines. Graywater to be used for landscape irrigation.)
- Implement low-impact development practices that maintain the existing hydrology of the site to manage storm water and protect the environment.
- Devise a comprehensive water conservation strategy appropriate for the project and location.
- Design buildings to be water-efficient. Install water-efficient fixtures and appliances.
- Offset water demand from new projects so that there is no net increase in water use.
- Provide education about water conservation and available programs and incentives.

The Proposed Project would incorporate project design features that would substantially reduce water use on the Project Site. Water use at the New Hall would be reduced through the use of low flow toilets and waterless or low flow urinal fixtures. In addition, efficient irrigation systems would be used throughout the development. Water use at the Event Center would be reduced by 35 percent, and water use at the New Hall would be reduced by 33 percent, in comparison to the estimated baseline. Water conservation measures at the Event Center include the use of artificial turf for the field surface. The Event Center would also conserve water by installing the best available technology for water fixtures and equipment and educating employees on water efficiency through an Environmental Management System. These project design features would effectively implement the Water Conservation and Efficiency measures provided by the California Attorney General's Office.

(4) Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Integrate reuse and recycling into residential, industrial, institutional and commercial projects.
- Provide easy and convenient recycling opportunities for residents, the public, and tenant businesses.
- Provide education and publicity about reducing waste and available recycling services.

The Proposed Project would incorporate project design features that would increase the diversion rate of solid waste from landfills. In addition, the Proposed Project would comply with all City requirements with regard to reducing solid waste disposal. Specifically, a combined minimum of 75 percent of construction waste and/or debris would be diverted from landfill disposal for both the demolition and new construction phases of the New Hall and 50 percent solid waste diversion during operation. For the Event Center, a combined minimum of 50 percent of construction waste and/or debris and solid waste during operation would be diverted from landfill disposal. The Event Center would divert waste from landfill disposal through recycling, the donation of durable goods, and implementing a front of house composting program that includes sourcing biodegradable concessions packaging. These project design features would effectively implement the Solid Waste measures provided by the California Attorney General's Office.

(5) Land Use Measures

- Ensure consistency with “smart growth” principles—mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the efficient delivery of services and goods.
- Meet recognized “smart growth” benchmarks.
- Educate the public about the many benefits of well-designed, higher density development.
- Incorporate public transit into the project's design.
- Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.
- Develop “brownfields” and other underused or defunct properties near existing public transportation and jobs.

- Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.

The Project Site is located on a previously developed urban site in Downtown Los Angeles with substantial existing infrastructure in place. The proposed Event Center is intended to host a variety of event types including major sporting events, entertainment, exhibitions and meetings, while the New Hall and proposed improvements to the Convention Center would provide new and reconfigured convention center, exhibition and meeting space, with ancillary restaurant uses. This mutually supportive mix of land uses would complement existing sports, entertainment, and convention uses at the Convention Center, STAPLES Center, and L.A. LIVE.

This Project Site's location provides convenient pedestrian access to mass transit. Located in downtown Los Angeles, the Project Site is located at the hub of the rail and bus transit system for the metropolitan Los Angeles area. As such, the Proposed Project would support strategic investments in the public transportation system. There are two rail transit stations within a short walking distance (the Pico Station and Metro Center Station) and approximately 35 bus lines, including five Metro Rapid bus lines, within 0.75 mile of the Project Site. Designed as a transit-oriented development, the Proposed Project would include a network of walkable and safe pathways and streetscapes throughout the Project Site that would facilitate connections with nearby transit, with limited on-site parking to encourage the use of alternative modes of transportation. The proposed streetscape improvements would serve to promote attractive, functional, and safe streets and bike paths as well as pedestrian-friendly sidewalks. The streetscape improvements would build on the existing streetscape improvements and associated standards in place for the adjacent LASED area and ensure a visually cohesive streetscape throughout the Project Site. Further, the nature of events at the Proposed Project, including exhibitions, trade shows, sporting events and entertainment activities, would attract visitors from across the region as well as from the immediate Downtown area, making transit use a viable option. In addition, the Proposed Project would include parking and roadway improvements, as both project design features and mitigation measures, as well as a Transportation Management Plan (TMP) that would help to improve traffic flows throughout the immediate vicinity. Therefore, the Proposed Project would effectively implement the Land Use measures provided by the California Attorney General's Office consistent with this strategy. Please refer to Section IV.B, Transportation, of this Draft EIR for further discussion.

(6) Transportation and Motor Vehicles

- Meet an identified transportation-related benchmark.
- Adopt a comprehensive parking policy that discourages private vehicle use and encourages the use of alternative transportation.

- Build or fund a major transit stop within or near the development.
- Provide public transit incentives such as free or low-cost monthly transit passes to employees, or free ride areas to residents and customers.
- Promote “least polluting” ways to connect people and goods to their destinations.
- Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments.
- Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.
- Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.
- Connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling.
- Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.
- Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.
- Institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation.
- Provide information on alternative transportation options for consumers, residents, tenants and employees to reduce transportation-related emissions.
- Educate consumers, residents, tenants and the public about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; vehicle performance and efficiency (e.g., keeping tires inflated); and low or zero-emission vehicles.
- Purchase, or create incentives for purchasing, low or zero-emission vehicles.
- Create a ride sharing program. Promote existing ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.
- Create or accommodate car sharing programs, e.g., provide parking spaces for car share vehicles at convenient locations accessible by public transportation.
- Provide a vanpool for employees.

- Create local “light vehicle” networks, such as neighborhood electric vehicle systems.
- Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.
- Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.

As discussed above, the Project is located in downtown Los Angeles, which is the hub of the regional transportation system, and the Proposed Project has been designed as a transit-oriented development intended to support and encourage the use of alternative modes of transportation. Given the importance of pedestrian access and circulation, a series of public plazas would be created, networked by walkable and safe pathways and streetscapes designed to serve the varied users of the Project Site and the associated uses, resulting in an integrated urban environment. As previously described, the proposed public plazas, streetscape improvements, and pedestrian-scaled entrances would also serve to enhance connectivity with existing uses within the Project Site and L.A. LIVE and create an inviting, accessible public realm. Location of a major regional attraction such as the Convention and Event Center and its many jobs, entertainment and commerce opportunities adjacent to rail and bus lines would assist in increasing patronage of the transit system. Further, the nature of events at the Proposed Project, including exhibitions, trade shows, sporting events and entertainment activities, would attract visitors from across the region as well as from the immediate Downtown area, making transit use a viable option. The Event Center Applicant would also promote transit usage in order to meet the “Best in the NFL” requirements of SB 292. These measures are discussed in Section IV.B.1.7(a), Transportation, of this Draft EIR.

The Event Center Applicant shall also provide up to 12 electric vehicle charging stations in addition to Code requirements (i.e., provide electric vehicle supply wiring equal to five percent of the total number of parking spaces) and 250 bicycle spaces in one or more of the on-site parking garages to facilitate and encourage the use of electric vehicles and provide priority parking locations for hybrid and electric vehicles, and to facilitate and encourage the use of these vehicles. In addition, the Event Center would provide environmental messaging to fans during events and to employees and host environmental outreach events.

Based on the above information, the Proposed Project would effectively implement the Transportation and Motor Vehicle measures provided by the California Attorney General’s Office consistent with this strategy.

b. OPR Technical Advisory

In June of 1998, The Governor's Office of Planning and Research (OPR) released a Technical Advisory, *CEQA and Climate Change: Addressing Climate Change through CEQA Review*. Attachment 3 of the Technical Advisory provides a list of example measures that have been employed by some public agencies to reduce GHG emissions, either as general development policies or on a project-by-project basis. A discussion of the consistency of the Project with these measures is provided below.

(1) Land Use and Transportation

- Implement land use strategies to encourage jobs/housing proximity, promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems.
- Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings.
- Encourage new developments to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips.
- Apply advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services.
- Incorporate features into project design that would accommodate the supply of frequent, reliable and convenient public transit.
- Implement street improvements that are designed to relieve pressure on a region's most congested roadways and intersections.
- Limit idling time for commercial vehicles, including delivery and construction vehicles.

The Project Site and the immediately surrounding area exhibit these characteristics given the variety of sports, entertainment, convention, restaurant, hotel, and urban residential uses that co-exist and the proximity of numerous major roadways, freeways, and transit stops that serve the Project area.

As discussed above, the Project Site is located on a previously developed urban site in Downtown Los Angeles with substantial existing infrastructure in place. The Proposed

Project has been designed as an infill transit-oriented development intended to support and encourage the use of alternative modes of transportation. Location of a major regional attraction such as the Convention and Event Center and its many jobs, entertainment and commerce opportunities adjacent to rail and bus lines would assist in increasing patronage of the transit system. Further, the nature of events at the Proposed Project, including exhibitions, trade shows, sporting events and entertainment activities, would attract visitors from across the region as well as from the immediate Downtown area, making transit use a viable option. The Applicants would also promote transit usage in order to meet the “Best in the NFL” requirements of SB 292. These measures are discussed in Section IV.B.1.7(a), Transportation, of this Draft EIR.

The Project will comply with CARB's Airborne Toxic Control Measures (ATCM) and limit idling of diesel powered vehicles from on-road construction and operation commercial vehicles to five (5) minutes.²⁷

The Event Center Applicant shall also provide up to 12 electric vehicle charging stations in addition to Code requirements (i.e., provide electric vehicle supply wiring equal to five percent of the total number of parking spaces) and 250 bicycle spaces in one or more of the on-site parking garages to facilitate and encourage the use of electric vehicles and provide priority parking locations for hybrid and electric vehicles, and to facilitate and encourage the use of these vehicles.

Based on the above information, the Proposed Project would effectively implement the Land Use and Transportation measures provided in the OPR's Technical Advisory.

(2) Urban Forestry

- Plant trees and vegetation near structures to shade buildings and reduce energy requirements for heating/cooling.
- Preserve or replace on-site trees (that are removed due to development) as a means of providing carbon storage.

The Project Site is occupied by the Convention Center, STAPLES Center, and parking uses with limited ornamental landscaping consisting mainly of planted street trees and shrubs. The Proposed Project would preserve or replace on-site trees that are

²⁷ *California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485.*

removed due to development and plant trees and vegetation near structures to shade buildings and reduce energy requirements for heating/cooling, where feasible.

Based on the above information, the Proposed Project would effectively implement the Urban Forestry measures provided in the OPR's Technical Advisory.

(3) Green Buildings

- Encourage public and private construction of LEED (Leadership in Energy and Environmental Design) certified (or equivalent) buildings.

As discussed above, the Proposed Project would incorporate sustainability as one of its key design and operational criteria. In so doing the Proposed Project would meet all aspects of the City of Los Angeles Green Building Code. The proposed New Hall would be designed to achieve LEED® Gold Certification, while the Event Center would be designed to achieve a minimum of LEED Certification. As part of an effort to pursue LEED certification, the Event Center would incorporate the AEG 1EARTH environmental program already implemented at STAPLES Center and across L.A. LIVE to work toward reducing GHG emissions.

Based on the above information, the Proposed Project would effectively implement the Green Buildings measures provided in the OPR's Technical Advisory.

(4) Energy Conservation Policies and Actions

- Recognize and promote energy saving measures beyond Title 24 requirements for residential and commercial projects.
- Where feasible, include in new buildings facilities to support the use of low/zero carbon fueled vehicles, such as the charging of electric vehicles from green electricity sources.
- Educate the public, schools, other jurisdictions, professional associations, business and industry about reducing GHG emissions.
- Replace traffic lights, street lights, and other electrical uses to energy efficient bulbs and appliances.
- Purchase ENERGY STAR equipment and appliances for public agency use.
- Incorporate on-site renewable energy production, including installation of photovoltaic cells or other solar options.

- Execute an Energy Savings Performance Contract with a private entity to retrofit public buildings. This type of contract allows the private entity to fund all energy improvements in exchange for a share of the energy savings over a period of time.
- Design, build, and operate schools that meet the Collaborative for High Performance Schools (CHPS) best practices.
- Retrofit municipal water and wastewater systems with energy efficient motors, pumps and other equipment, and recover wastewater treatment methane for energy production.
- Convert landfill gas into energy sources for use in fueling vehicles, operating equipment, and heating buildings.
- Purchase government vehicles and buses that use alternatives fuels or technology, such as electric hybrids, biodiesel, and ethanol. Where feasible, require fleet vehicles to be low emission vehicles. Promote the use of these vehicles in the general community.
- Offer government incentives to private businesses for developing buildings with energy and water efficient features and recycled materials. The incentives can include expedited plan checks and reduced permit fees.
- Offer rebates and low-interest loans to residents that make energy-saving improvements on their homes.
- Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.

The New Hall would comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve greater than a 20 percent reduction in energy consumption relative to the estimated baseline. The Event Center would also comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve greater than a 14 percent reduction in energy consumption relative to the estimated baseline. The Event Center would optimize energy performance through the installation of best available technology for HVAC, lighting, and all major electrical appliances and control systems; and through educating employees on energy efficiency through an Environmental Management system. The two proposed parking garages, the Bond Street Garage, L.A. Live Way Garage, and the parking that is currently located beneath the existing South Hall would feature energy efficient lighting. In addition, the L.A. Live Way Garage would include a solar array system with a peak capacity of approximately between 375 kW and 475 kW output to the electrical system. Therefore, for the reasons cited above, the Proposed

Project would effectively implement the Energy Efficiency measures provided by the California Attorney General's Office.

The Event Center Applicant shall also provide up to 12 electric vehicle charging stations in addition to Code requirements (i.e., provide electric vehicle supply wiring equal to five percent of the total number of parking spaces) and 250 bicycle spaces in one or more of the on-site parking garages to facilitate and encourage the use of electric vehicles and provide priority parking locations for hybrid and electric vehicles, and to facilitate and encourage the use of these vehicles.

Based on the above information, the Proposed Project would effectively implement the Energy Conservation measures provided in the OPR's Technical Advisory.

(5) Programs to Reduce Vehicle Miles Traveled

- Offer government employees financial incentives to carpool, use public transportation, or use other modes of travel for daily commutes.
- Encourage large businesses to develop commute trip reduction plans that encourage employees who commute alone to consider alternative transportation modes.
- Develop shuttle systems around business district parking garages to reduce congestion and create shorter commutes.
- Create an online ridesharing program that matches potential carpoolers immediately through email.
- Develop a Safe Routes to School program that allows and promotes bicycling and walking to school.

As part of SB 292, the Event Center must achieve and maintain carbon neutrality by reducing to zero the net emissions of greenhouse gases from private automobile trips to and from Spectator Events at the Event Center. This objective would be realized via the following program: (1) Implementation of the Event Center's Transportation Management Plan; (2) Investment in local community projects that reduce greenhouse gas emissions; and (3) Purchase of carbon offsets. OPR's measures would also be considered to achieve compliance with SB 292.

In addition, the Proposed Project must achieve and maintain a vehicle trip ratio (defined as the total annual number of private automobiles arriving at the Event Center for Spectator Events divided by the total number of spectators at the events) that is no more than 90 percent of the trip ratio at any other stadium serving a team in the National Football

League. This would reduce traffic congestion, further improve air quality, and reduce greenhouse gas emissions.

Based on the above information, the Proposed Project would effectively implement the measures provided in the OPR's Technical Advisory.

(6) Programs to Reduce Solid Waste

- Create incentives to increase recycling and reduce generation of solid waste by residential users.
- Implement a Construction and Demolition Waste Recycling Ordinance to reduce the solid waste created by new development.
- Add residential/commercial food waste collection to existing greenwaste collection programs.

The Project would incorporate project design features that would increase the diversion rate of solid waste from landfills. In addition, the Proposed Project would comply with all City requirements with regard to reducing solid waste disposal. Specifically, a combined minimum of 75 percent of construction waste and/or debris would be diverted from landfill disposal for both the demolition and new construction phases of the New Hall and 50 percent solid waste diverted during operation. For the Event Center, a combined minimum of 50 percent of construction waste and/or debris and solid waste during operation would be diverted from landfill disposal. The Event Center would divert waste from landfill disposal through robust recycling, the donation of durable goods, and implementing a front of house composting program that includes sourcing biodegradable concessions packaging. These project design features would effectively implement the Solid Waste measures provided by OPR's Technical Advisory.

Based on the above information, the Proposed Project would effectively implement the Solid Waste measures provided in the OPR's Technical Advisory.

c. CAT Report

Executive Order S-3-05, issued in June 2005, established GHG emissions targets for the state, as well as a process to ensure the targets are met. The order directed the Secretary for California EPA to report every two years on the state's progress toward meeting the Governor's GHG emission reduction targets. As a result of this executive order, the California Climate Action Team (CAT), led by the Secretary of the California EPA, was formed. The California Climate Action Team reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the

Executive Order.²⁸ Many of the recommended measures would be implemented at the state level through regulations that would also serve to reduce Project-related emissions, but these measures would not be directly implemented by the Project. As an example, the Public Utilities Commissions will implement the Accelerated Renewable Portfolio Standard which will reduce GHG emissions from power plants by 33 percent. This would serve to reduce the GHG emissions associated with electricity required for the Project, but the measure would not be directly applicable to the Project. Therefore, the consistency discussion below is limited to those recommendations and strategies presented in the California CAT Report that are applicable to the Proposed Project.

- **Diesel Anti-Idling**—Reduce diesel-fueled commercial vehicle idling: The Project would comply with CARB's Airborne Toxic Control Measures (ATCM) and limit idling of diesel powered vehicles from on-road commercial vehicles to five (5) minutes.²⁹
- **Alternative Fuels (Biodiesel Blends and Ethanol)**—Increase the use of alternative fuels that are less GHG-intensive: Although not directly applicable, the Project would provide preferred parking to alternative-fuel vehicles.
- **Achieve 50 percent Statewide Recycling Goal**—Achieve California's 50 percent waste diversion mandate (Integrated Waste Management Act of 1989) to reduce GHG emissions associated with virgin material extraction: The Project would achieve a 50 to 75 percent reduction in construction debris and would be consistent with the 50 percent waste diversion mandate during operation.
- **Water Use Efficiency**—Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions: The New Hall would result in a water use reduction. Low flow toilets and waterless or low flow urinal fixtures would be used throughout the New Hall. In addition, efficient irrigation systems would be used throughout the development. The Event Center and New Hall would each achieve a reduction in water use in comparison to the estimated baseline. Water conservation measures at the Event Center would include the use of waterless urinals and artificial turf for the field surface. The Event Center would also conserve water by installing the best available technology for water fixtures and equipment and educating employees on water efficiency through an Environmental Management System.
- **Building Energy Efficiency Standards in Place and in Progress**—The California Energy Commission updates building energy efficiency standards that

²⁸ California Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006.

²⁹ California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485.

apply to newly constructed buildings and additions to and alterations to existing buildings. Both the Energy Action Plan and the Integrated Energy Policy Report call for ongoing updating of the standards: The New Hall would implement additional efficiency measures to achieve a 20 percent reduction in energy consumption relative to the California Energy Efficiency Standards and would also comply with the required measures of the 2010 Los Angeles Green Building Code. The Event Center would also implement electrical efficiency measures to achieve a 14 percent reduction against the estimated baseline. This would be achieved, in part, by optimizing energy performance through the installation of best available technology for HVAC, lighting, and all major electrical appliances and control systems; and through educating employees on energy efficiency through an Energy Management System (EMS).

- **Appliance Energy Efficiency Standards in Place and in Progress**—The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have established specific goals for updating the standards; new standards are currently in development: Appliances purchased for the Project would be subject to state law and thus comply with the energy efficiency standards that are in effect at the time of manufacture.
- **Measures to Improve Transportation Energy Efficiency**—Advance cleaner transportation and reduce GHG emissions by providing incentives, tools and information: The Proposed Project would provide preferred parking to alternative-fuel vehicles and ride-sharing vehicles. In addition, the Event Center would offset GHG emissions from private automobiles traveling to Spectator Events at the Event Center.
- **Smart Land Use and Intelligent Transportation**—Apply strategies that integrate transportation and land-use decisions, including but not limited to promoting jobs/housing proximity, high-density residential/commercial development along transit corridors, and implementing intelligent transportation systems: As discussed above, the Project Site is located on a previously developed urban site in Downtown Los Angeles with substantial existing infrastructure in place. The Proposed Project has been designed as a transit-oriented development intended to support and encourage the use of alternative modes of transportation. Location of a major regional attraction such as the Convention and Event Center and its many jobs, entertainment and commerce opportunities adjacent to rail and bus lines would assist in increasing patronage of the transit system. Further, the nature of events at the Proposed Project, including exhibitions, trade shows, sporting events and entertainment activities, would attract visitors from across the region as well as from the immediate Downtown area, making transit use a viable option. The Event Center Applicant would also promote transit usage in order to meet the “Best in the NFL” requirements of SB 292. These measures are discussed in Section IV.B.1.7(a), Transportation, of this Draft EIR

- **Green Buildings Initiative**—Reduce energy use in public and private buildings: As discussed above, the Proposed Project would incorporate sustainability as one of its key design and operational criteria. In so doing the Proposed Project would meet all aspects of the City of Los Angeles Green Building Code. The proposed New Hall would be designed to achieve LEED® Gold Certification, while the Event Center would be designed to achieve a minimum of LEED Certification. As part of an effort to pursue LEED certification, the Event Center would incorporate the AEG 1EARTH environmental program already implemented at STAPLES Center and across L.A. LIVE to work toward reducing GHG emissions.
- **California Solar Initiative**—Install one million solar roofs on homes and businesses throughout the state: As discussed above, the L.A. Live Way Garage would contribute towards this goal by including a solar array system with a peak capacity of approximately between 375 kW and 475 kW output to the electrical system.

As shown above, the Project is consistent with applicable recommendations and strategies presented in the CAT Report.

d. Climate Change Scoping Plan

Table IV.F.2-8 on page IV.F.2-31, illustrates that the Project's project design features and state mandates would contribute to GHG reductions. These reductions represent a break from "BAU" and support state goals for emissions reduction. The methods used to establish this relative reduction are consistent with the approach used in the CARB's *Climate Change Scoping Plan* for the implementation of AB 32 through 2020.

The Proposed Project is consistent with the approach outlined in the CARB's *Climate Change Scoping Plan*, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. The location and design of the Project reflect and support these core objectives. In addition, as recommended by CARB's *Climate Change Scoping Plan*, the Project would use "green building" features as a framework for achieving cross-cutting emissions reductions.

The City's Green Building Code emphasizes improving energy conservation, energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project's design features would advance these objectives. Further, the related projects would also be anticipated to comply with many of these same emissions reduction goals and objectives (e.g., City of Los Angeles Green Building Code).

Additionally, as described above, the Project has incorporated sustainability design features and mitigation measures to reduce VMT and to reduce the Project's potential impact with respect to GHG emissions. The Project, by implementing the project design features and GHG reducing measures results in a decrease in GHG emissions that represents a substantial break from "BAU." The Project's features and GHG reduction measures make the Project consistent with the goals of AB 32.

Given the Project's consistency with State of California and City of Los Angeles GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The Project's impacts would be less than significant and not cumulatively considerable.

6. Project Design Features and Mitigation Measures

a. Project Design Features

Project Design Feature F.2-1: The Applicants shall implement a Sustainability Program as set forth in Appendix E of this Draft EIR.

Key components of the Sustainability Program are summarized below.

The Proposed Project would incorporate sustainability as one of its key design and operational criteria. In so doing the Proposed Project would meet all aspects of the City of Los Angeles Green Building Code. The Event Center would be designed to achieve LEED certification. The New Hall would be designed with the intent of achieving a LEED Gold certification. Additional information on the sustainability measures for the three primary components of the Proposed Project is provided below:

(1) New Hall

The Project Site is located on a previously developed urban site in Downtown Los Angeles with substantial existing infrastructure in place. This Project Site's location provides convenient pedestrian access to mass transit. The Urban Heat Island, on both roof and non-roof surfaces, would be reduced by the use of compliant materials with a high solar reflectance index (SRI). Water use would be reduced through use of low flow toilets and waterless or low flow urinal fixtures. Drought tolerant plants and efficient irrigation systems would be used throughout the development. The New Hall would also comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve a greater than 20 percent reduction in energy consumption relative to the estimated baseline. Also, a combined minimum of 75 percent

of construction waste and/or debris would be diverted from landfill disposal for both the demolition and new construction phases of the New Hall and 50 percent solid waste diverted during operation.

(2) Event Center

As part of an effort to pursue LEED certification, the Event Center would incorporate the AEG 1EARTH environmental program already implemented at STAPLES Center and across L.A. LIVE to work toward reducing GHG emissions. Water use would be reduced through the use of waterless urinals and the use of artificial turf for the field surface. The Event Center would also conserve water by installing the best available technology for water fixtures and equipment and educating employees on water efficiency through an Environmental Management System. The Event Center would also comply with the required measures of the 2010 Los Angeles Green Building Code and implement additional efficiency measures to achieve greater than a 14 percent reduction in energy consumption relative to the estimated baseline. The Event Center would optimize energy performance through the installation of best available technology for HVAC, lighting, and all major electrical appliances and control systems. Also, a combined minimum of 50 percent of construction waste and/or debris and solid waste during operation would be diverted from landfill disposal. The Event Center would divert waste from landfill disposal through robust recycling, the donation of durable goods, and implementing a front of house composting program that includes sourcing biodegradable concessions packaging.

(3) Parking Garages

The two proposed parking garages, the Bond Street Garage and the L.A. Live Way Garage would feature energy efficient lighting. The Event Center Applicant shall provide up to 12 electric vehicle charging stations in addition to Code requirements (i.e., provide electric vehicle supply wiring equal to five percent of the total number of parking spaces) and 250 bicycle spaces in one or more of the on-site parking garages to facilitate and encourage the use of electric vehicles and provide priority parking locations for hybrid and electric vehicles, and to facilitate and encourage the use of these vehicles.

(4) SB 292

As part of SB 292, the Event Center must achieve and maintain carbon neutrality by reducing to zero the net emissions of greenhouse gases from private automobile trips to and from Spectator Events at the Event Center. This objective would be realized via the following programs: (1) Implementation of the Event Center's Transportation Management Plan; (2) Investment in local community projects that reduce greenhouse gas emissions; and (3) Purchase of carbon offsets.

In addition, the Proposed Project must achieve and maintain a vehicle trip ratio (defined as the total annual number of private automobiles arriving at the Event Center for Spectator Events divided by the total number of spectators at the events) that is no more than 90 percent of the trip ratio at any other stadium serving a team in the National Football League. This would reduce traffic congestion, further improve air quality, and reduce greenhouse gas emissions.

b. Mitigation Measures

As noted previously, with implementation of the project design features described above, impacts related to climate change would be less than significant, and no mitigation measures are recommended or required.

7. Level of Significance After Mitigation

With implementation of the Project's design features and state mandates, impacts with regards to climate change would be less than significant.