6. OTHER ENVIRONMENTAL CONSIDERATIONS

6.1 Significant Unavoidable Impacts

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe significant environmental impacts that cannot be avoided, including impacts that can be mitigated but not reduced to a level that is less than significant. Chapter 4 of this EIR provides detailed analyses of the environmental topics identified in the Initial Study, prepared in August 2016, as having the potential to result in significant impacts with the implementation of the proposed project. The following identifies the impacts that cannot be mitigated to a level that is less significant (although with implementation of mitigation measures the impacts would be reduced).

- **Air Quality**
  - Construction-related regional emissions of NOx
  - Cumulatively considerable significant construction-related air quality impacts, based on the proposed project's significant construction-related regional emissions of NOx
- **Construction Surface Transportation**
  - Cumulatively considerable significant construction-related surface transportation impacts at two intersections: Imperial Highway and I-105 Ramp (Intersection #14] and Century Boulevard and Sepulveda Boulevard (Intersection #5), assuming construction staging occurs at the proposed primary construction staging area

No additional feasible mitigation measures are available that would avoid these impacts or reduce them to less than significant levels.

In addition to identifying the significant unavoidable impacts of the proposed project, Section 15126.2(b) of the State CEQA Guidelines also recommends that an EIR describe the reasons why the project is being proposed, notwithstanding the significant unavoidable impacts associated with the project. As discussed in Chapter 2, *Project Description*, the specific objectives of the proposed project are to:

- Meet Transportation Security Administration (TSA) and U.S. Customs and Border Protection (CBP) requirements for security and customs screening and provide flexible space for next generation passenger and baggage security screening functions to improve safety and security;
- Modernize and revitalize existing T2 and T3 (including the apron area) in order to improve passenger level of service and amenities within the terminals and improve building systems, as has been previously done for other terminals within the CTA;
- Coordinate improvements to the aircraft apron areas (e.g., aircraft parking positions, passenger boarding bridge locations, aircraft fueling system hydrant locations, ground support equipment parking locations) at T2 and T3 to be compatible with proposed changes to the T2 and T3 buildings and anticipated airline fleets and uses;
- Enhance the interior and exterior of the terminals to benefit the overall appearance of the CTA;
- Provide a secure connector between T2 and T3 to allow passengers to connect from one terminal to the other without having to exit to the non-secure side of the terminal, and only go through security once; and
- Provide for improvements within each terminal (T2 and T3) that are common to the functions and operations of both terminals and therefore can be shared between terminals, which, in turn, would improve operational efficiency and flexibility, as well as enhance the quality of customer service by reducing redundancies in passenger and baggage processing by providing facilities that support multiple terminals, when feasible.

6.2 Significant Irreversible Environmental Changes

According to the State CEQA Guidelines, an EIR is required to evaluate significant irreversible environmental changes that would be caused by implementation of the proposed project. Specifically, as stated in Section 15126.2(c) of the State CEQA Guidelines:

"Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

The project site is already dedicated to airport uses. However, construction of the proposed project would involve the consumption of building materials during construction, such as aggregate (sand and gravel), metals (e.g., steel, copper, lead), and petrochemical construction materials (e.g., plastics). This would represent the loss of non-renewable resources, which are generally not retrievable. Aggregate resources are locally constrained, but regionally available. Their use would not have a project-specific adverse effect upon the availability of these resources.

Construction and operation of the proposed project would require energy resources such as electricity, natural gas, and various transportation-related fuels. This would represent the loss of non-renewable resources, which are generally not retrievable. See Section 6.5 below for a discussion of energy impacts and conservation.

As described in Chapter 2, *Project Description*, the proposed project would be designed and constructed to meet the City of Los Angeles Green Building Code (LAGBC) Tier 1 requirements. Certain measures of note that would reduce the use of non-renewable resources include: compliance with enhanced construction waste reduction goals; exceeding the California Energy Code requirements by 15 percent; use of plumbing fixtures and fixture fittings to reduce the overall use of potable water within the building by 20 percent; and providing readily accessible areas for the depositing, storage, and collection of non-hazardous materials for recycling. The proposed project would also comply with LAWA policies and programs related to sustainability, including LAWA's Sustainability Plan[273] discussed in Section 6.5.3.1 below, which would reduce the use of non-renewable resources and are implemented on a project-specific and on an airport-wide basis. Furthermore, energy and water conservation measures, recycling of non-hazardous materials, and other sustainable strategies would be implemented during operation of the proposed project, to the extent feasible. Therefore, the use of non-renewable resources from construction and operation of the proposed project would not result in significant irreversible changes to the environment.

6.3 Growth Inducing Impacts

Section 15126.2(d) of the State CEQA Guidelines requires an EIR to discuss the ways the proposed project could foster economic or population growth or the construction of additional housing, directly or indirectly, in the surrounding environment. Growth-inducing impacts include the removal of obstacles to population growth and the development and construction of new service facilities that could significantly affect the environment individually or cumulatively. In addition, growth must not be assumed as beneficial, detrimental, or of little significance to the environment.

6.3.1 Project Characteristics

The proposed project would enhance passenger level of service and amenities within T2 and T3; improve the efficiency of security screening, passenger and baggage processing and inspections; enhance operations; improve building systems; and modernize the interior and exterior of the terminals to benefit the

[273] City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Plan, April 2008. Available: http://www.laxsustainability.org/documents/Final_Sustainability_Plan.pdf, Accessed January 19, 2017.

overall appearance of the CTA. The proposed project would not directly or indirectly foster population growth or the construction of additional housing (see Initial Study pages 71-72). Also, as discussed in Chapter 2, *Project Description*, the proposed project would not alter the airspace traffic, runway operational characteristics, or the practical capacity of the airport; therefore, the proposed project would not increase the number of daily flights arriving and departing from LAX or the growth in aviation activity at LAX that is projected to occur in the future.

6.3.2 Economic Growth

Construction activity associated with the proposed project would directly and indirectly foster economic growth over the multi-year construction period in terms of spending by workers and the provision of goods and services in support of construction; however, the construction employment would be temporary and transitory in nature, drawing from primarily from an existing local labor pool (i.e., construction workers already living in the greater Los Angeles area transitioning from one construction project to another).

Operation of the proposed project would not induce economic growth beyond that projected to occur with natural growth in activity levels at LAX that will occur irrespective of the project. Additionally, increased employment within the Los Angeles area, inclusive of LAX, is accounted for in the employment projections of the Southern California Association of Governments, as is described in more detail in Chapter 4, *Environmental Impact Analysis*.

6.3.3 Removal of an Obstacle to Growth

As described in Chapter 2, *Project Description*, the proposed project would not alter the airspace traffic, runway operational characteristics, or the practical capacity of the airport; therefore, the proposed project would not increase the number of daily flights arriving and departing from LAX or the growth in aviation activity at LAX that is projected to occur in the future. Also, the proposed improvements to, and additional floor area proposed for, T2 and T3 would also not increase operations nor passenger volumes beyond what would occur without the project. In addition, the proposed project would not provide new access to an area that is undeveloped since the project site is located within an area of the airport, the CTA, that is in active use.

6.4 Less Than Significant Effects

This EIR concludes that construction-related air quality impacts associated with localized emissions and toxic air contaminants, climate change impacts associated with greenhouse gas emissions, and impacts on tribal cultural resources would be less than significant.

In addition, an Initial Study was prepared for the proposed project and is included as Appendix A.1 of this EIR. Based on the environmental analysis contained in the Initial Study, LAWA determined that the proposed project would result in "no impact" or a "less than significant impact" in the following subject areas:

- Aesthetics;
- Agricultural and Forestry Resources;
- Air Quality (odors);
- Biological Resources;
- Cultural Resources (historic resources);
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Mineral Resources;
- Noise;

- Population and Housing;
- Public Services;
- Recreation;
- Transportation/Traffic (operations, air traffic patterns, hazards, emergency access, alternative transportation plans and performance); and
- Utilities and Service Systems.

Since it was determined that the effects on these resource areas from the implementation of the proposed project would be "no impact" or "less than significant impact", these environmental topics were not evaluated further in this EIR. This methodology is consistent with Section 15063(c)(3) of the State CEQA Guidelines. Pursuant to Section 15128 of the State CEQA Guidelines, the various possible project effects found not to be significant are discussed in the Initial Study. No additional potentially significant impacts were identified during the circulation of the Notice of Preparation for public and agency comments.

6.5 Energy Impacts and Conservation

6.5.1 Introduction

CEQA Guidelines Appendix F requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing wasteful, inefficient, and unnecessary consumption of energy. It provides lists of energy impacts and conservation measures that may be applicable and relevant to particular projects.

In addition, Public Resources Code Section 21100(b)(3) states that an EIR shall include "mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." Similarly, CEQA Guidelines Section 15126.4(a)(1)(C) states that "Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant."

The following additional information is provided about the proposed project's energy consumption and energy efficiency measures.

6.5.2 Energy Demand

Short-term energy demand would result from construction of the proposed project. This would include energy demand from worker, vendor, and haul vehicle trips as well as construction equipment usage. Long-term energy demand would result from operation of the proposed project. This would include energy demand from electricity and natural gas usage as well as energy demand related to the consumption of water and the treatment of wastewater.

6.5.2.1 Construction Activities

Worker, Vendor, and Haul Vehicle Trips

Worker, vendor and haul trips have been estimated based on the construction schedule assumptions used in the preparation of the project air quality and greenhouse gas impacts analyses. Construction could commence as early as fourth quarter 2017 and is projected to end in late-2023. Vendor trips are based on construction vendor trip data provided by either CalEEMod[274] defaults or project specific information, or developed, based on the Midfield Satellite Concourse (MSC) project.[275] Fuel consumption from worker and vendor trips are estimated by converting the total carbon dioxide (CO_2) emissions from each phase of

[274] California Air Resources Board, California Emissions Estimator Model, Version 2013.2.2, Available: http://www.caleemod.com/, accessed November 12, 2015.

[275] City of Los Angeles, Los Angeles World Airports, Final Environmental Impact Report for Los Angeles International Airport (LAX) Midfield Satellite Concourse (MSC), (SCH 2013021020), June 2014. Available: http://www.lawa.org/MSCNorth/Index.aspx, Accessed January 19, 2017.

construction to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.91 kilograms (kg) CO_2 per gallon (kg CO_2/gal) and the conversion factor for diesel is 10.15 kg CO_2/gal.[276] Worker vehicles are assumed to be gasoline and vendor/hauling vehicles are assumed to be diesel.

Calculations for total worker, vendor, and hauler fuel consumption are provided in **Table 6-1**, **Table 6-2**, and **Table 6-3**. Total gasoline consumption from worker trips is estimated to be 589,225 gallons and total diesel consumption from construction-related truck deliveries and hauls combined is estimated at 202,169 gallons.

Table 6-1
Construction Worker Gasoline Demand

Phase	Trips	Trip Length (miles)	CO_2 Worker Trips (MT)	kg CO_2/Gal	Gallons of Gasoline
Airside Civil/Apron Work	5,186	40	147	8.91	16,498
Terminal 3 BHS Sprung Building	310	40	45	8.91	5,050
Terminal 3 Concourse	7,166	40	640	8.91	71,829
Terminal 2 & 3 Headhouse	5,267	40	2,196	8.91	246,465
Terminal 2 Concourse	5,785	40	834	8.91	93,603
Terminal 3 North (Satellite)	1,984	40	386	8.91	43,322
Terminal 3.5 Headhouse	3,705	40	1,002	8.91	112,458
Total			**5,250**	**8.91**	**589,225**

Source: CDM Smith, January 2017.
Notes:
Trips are round trips

Abbreviations:
kg.– kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal - gallons
BHS- Baggage Handling System

276 U.S. Energy Information Administration, Voluntary Reporting of Greenhouse Gases Program, Available: http://www.eia.gov/oiaf/1605/coefficients.html, Accessed January 19, 2017.

Table 6-2
Construction Off-Site Deliveries and Hauling Demand

Phase	Trips	Trip Length (miles)	CO_2 Off-Site Deliveries & Hauling (MT)	kg CO_2/Gal	Gallons of Diesel
Airside Civil/Apron Work	42,931	40	507	10.15	49,951
Terminal 3 BHS Sprung Building	50	40	3	10.15	296
Terminal 3 Concourse	1,665	40	49	10.15	4,828
Terminal 2 & 3 Headhouse	4,496	40	153	10.15	15,074
Terminal 2 Concourse	175	40	12	10.15	1,182
Terminal 3 North (Satellite)	340	40	21	10.15	2,069
Terminal 3.5 Headhouse	1,426	40	44	10.15	4,335
Total			**789**	**10.15**	**77,735**

Source: CDM Smi h, January 2017.
Notes:
Trips are round trips

Abbreviations:
kg.– kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal - gallons
BHS- Baggage Handling System

Table 6-3
Construction On-Site Deliveries and Hauling Demand

Phase	Trips	Trip Length (miles)	CO_2 On-Site Deliveries & Hauling (MT)	kg CO_2/Gal	Gallons of Diesel
Airside Civil/Apron Work	42,931	16.5*	1,086	10.15	106,995
Terminal 3 BHS Sprung Building	50	16.5*	1	10.15	99
Terminal 3 Concourse	1,665	16.5*	37	10.15	3,645
Terminal 2 & 3 Headhouse	4,496	16.5*	100	10.15	9,852
Terminal 2 Concourse	175	16.5*	3	10.15	296
Terminal 3 North (Satellite)	340	16.5*	7	10.15	690
Terminal 3.5 Headhouse	1,426	16.5*	29	10.15	2,857
Total			**1,263**	**10.15**	**124,434**

Source: CDM Smi h, January 2017.
Notes:
Trips are round trips
*Staging related hauling, included in these calculations, is a 11 mile round trip distance.

Abbreviations:
kg.– kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal - gallons
BHS- Baggage Handling System

Construction Equipment Usage

Diesel fuel consumption by construction equipment has been estimated based on the construction schedule and equipment usage assumptions used in the preparation of the project air quality and greenhouse gas analysis. Fuel usage is estimated by converting the total CO_2 emissions from each construction phase using the conversion factor for CO_2 to gallons of diesel. The conversion factor for diesel is 10.15 kg/MT CO_2/gal. Construction equipment is assumed to be diesel.

Calculations for total construction equipment diesel consumption are provided in **Table 6-4**. Total diesel consumption, including both deliveries and hauling demand shown above (**Tables 6-2 and 6-3**) and equipment demand shown below (**Table 6-4**), is estimated to be 1,685,223 gallons across all construction phases.

Table 6-4
Construction Equipment Diesel Demand

Phase	Pieces of Equipment per Phase	CO_2 Off-Road Equipment (MT)	kg CO_2/Gal	Gallons of Diesel
Airside Civil/Apron Work	59	4,266	10.15	420,296
Terminal 3 BHS Sprung Building	69	66	10.15	6,502
Terminal 3 Concourse	154	2,039	10.15	200,887
Terminal 2 & 3 Headhouse	110	3,927	10.15	386,897
Terminal 2 Concourse	42	469	10.15	46,207
Terminal 3 North (Satellite)	133	1,831	10.15	180,394
Terminal 3.5 Headhouse	127	2,455	10.15	241,872
Total		**15,053**	**10.15**	**1,483,054**

Source: CDM Smi h, January 2017.
Abbreviations:
kg.– kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal - gallons
BHS- Baggage Handling System

6.5.2.2 Operational Activities

As discussed in Chapter 2, *Project Description*, the proposed project would not increase the number of daily flights arriving and departing from LAX that are projected to occur in the future; therefore, operational fuel demands were not quantified for this analysis. However, with the additional square footage being added to the terminals as a result of the project in combination with projected ambient growth in aviation activity at LAX, long-term energy demand differences, primarily in electrical demand and natural gas use, and water and wastewater management, would result.

The energy use calculations for the proposed project are provided in Appendix E of this EIR. The calculations for future energy demand account for current regulatory requirements pertaining to energy efficiency and conservation and the energy reducing U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Silver level of sustainability measures which would be implemented under the proposed project.

Electricity and Natural Gas Use

Electricity and natural gas would be required to provide energy to the proposed project for indoor and outdoor lighting, building cooling and heating, building appliances, and water heating. Energy demand was estimated using CalEEMod default calculations (see Appendix E). The annual direct project electricity demand would be approximately 13,516,216 kilowatt hours per year (kWhr/yr), which is an increase of 5,668,947 kWhr per year over baseline electricity demand. As noted, this represents a conservative analysis because CalEEMod defaults do not take into account 2016 building code updates. The annual direct project natural gas demand would be approximately 46,119,222 thousand British Thermal Units per year (kBTU/yr), which is an increase of 19,343,241 kBtu over existing conditions. Increases in short- and long-term energy demand under the proposed project are summarized in **Table 6-5**. Similar to how construction-related GHG emissions can be added to annual operational emissions once project construction is completed, the energy demand associated with project construction has been amortized over a 30-year period so as to integrate that energy demand with the annual operational energy demand.[277]

Table 6-5
Annual Increased Energy Demand By Source

Activity	Gasoline (gal/yr)	Diesel (gal/yr)	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Construction (Amortized over 30 Years)				
Worker	19,641	–	–	–
Vendor	–	2,591	–	–
Hauler	–	4,148	–	–
Equipment	–	49,435	–	–
Operations				
Mobile	–	–	–	–
Natural Gas	–	–	46,119,222	–
Direct Electricity	–	–	–	13,516,216
Total	19,641	56,174	46,119,222	13,516,216

Source: CDM Smith, January 2017.
Abbreviations:
gal/yr– gallons per year
kBTU/yr – British Thermal Units per year
kWh/yr – kilowatts hours per year

6.5.3 Energy Conservation

Implementation of the proposed project would replace older, less water and energy efficient structures and facilities. The modernized terminals would be required to comply with current state water and energy efficiency standards and regulations pursuant to the California Building Code (CBC), California Green Building Standards Code (CALGreen), and LAGBC that would reduce long-term energy demand. These requirements would reduce wasteful, inefficient, and unnecessary consumption of energy over the long-term. The following presents various regulations and programs applicable to the proposed project that would reduce energy demand associated with project operation. The calculations for future energy demand with implementation of the proposed project, presented in Section 6.5.2.2 above, take into account many of the requirements listed below. Additional information regarding these and other regulations and

277 As described in Section 4.2.2.1 of Section 4.2, *Greenhouse Gas Emissions*, of this EIR, GHG emissions associated with construction of the proposed project were amortized over the lifetime of the proposed project, which is assumed to be 30 years.

programs that are supportive of energy conservation through the reduction of greenhouse gas emissions is provided in Section 4.2, *Greenhouse Gas Emissions*.

6.5.3.1 Applicable Building Standards and Policies

California Green Buildings Standards Code

Adopted in 2010, and updated annually, CALGreen is found in Part 11, Title 24 of the CCR. The purpose of CALGreen is to reduce GHG emissions; promote environmentally responsible, cost effective, healthier places to live and work; and reduce energy and water consumption. As with Energy Efficiency Standards discussed below, CALGreen identifies mandatory building measures and voluntary measures that may be incorporated into the design of buildings. Relative to energy usage, CalGreen contains requirements for exterior lighting, bicycle parking, and electric vehicle charging, as well as reference to the standards of the Building Energy Efficiency Standards. The 2013 California Green Building Standards Code (24 CCR Part 11, CalGREEN) took effect January 1, 2014. The Green Building Standards, as updated (2016), require that every new building constructed in California reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low-pollutant-emitting materials. They also require separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects and mandatory inspections of energy systems (e.g., heat furnace, air conditioner, and mechanical equipment) for nonresidential buildings larger than 10,000 square feet to ensure that all are working at their maximum capacity and according to their design efficiencies.

Green LA

In May 2007, the City of Los Angeles introduced Green LA – An Action Plan to Lead the Nation in Fighting Global Warming (Green LA).[278] Green LA presents a framework targeted to reduce the City's GHG emissions by 35 percent below 1990 levels by 2030. The plan calls for an increase in the City's use of renewable energy to 35 percent by 2020 in combination with promoting water conservation, improving the transportation system, reducing waste generation, greening the ports and airports, creating more parks and open space, and greening the economic sector. Green LA identifies objectives and actions in various focus areas, including airports. The goal for LA's airports is to "green the airports," and the following actions are identified: 1) fully implement the Sustainability Performance Improvement Management System (discussed below); 2) develop and implement policies to meet LEED® green building rating standards in future construction; 3) improve recycling, increase use of alternative fuel sources, increase use of recycled water, increase water conservation, reduce energy needs, and reduce GHG emissions; and 4) evaluate options to reduce aircraft-related GHG emissions.[279]

Executive Directive No. 10

In July 2007, Mayor Antonio Villaraigosa issued Executive Directive No. 10 regarding environmental stewardship practices. Consistent with the goal specified in Green LA to make the City of Los Angeles a worldwide leader in green buildings, Executive Directive No. 10 requires that City departments, including LAWA, create and adopt a "Statement of Sustainable Building Policies," which should encompass sustainable design, energy and atmosphere, materials, and resources, water efficiency, landscaping, and transportation resources. In addition, City departments and offices must create and adopt sustainability plans that include all the policies, procedures, programs, and policies that are designed to improve internal environmental efficiency. Finally, City departments are required to submit annual sustainability reports to the Mayor for review.[280] Climate LA, discussed below, which was adopted subsequent to Executive

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278 City of Los Angeles, Green LA - An Action Plan to Lead the Nation in Fighting Global Warming, May 2007, Available: http://environmentla.org/pdf/GreenLA_CAP_2007.pdf, Accessed January 19, 2017.

279 City of Los Angeles, Green LA - An Action Plan to Lead the Nation in Fighting Global Warming, May 2007, Available: http://environmentla.org/pdf/GreenLA_CAP_2007.pdf, Accessed January 19, 2017.

280 City of Los Angeles, Antonio R. Villaraigosa, Mayor, Executive Directive No. 10, Subject: Sustainable Practices in the City of Los Angeles, July 18, 2007.

Directive No. 10 also includes the goals supportive of green building and energy efficiency through building design and retrofits.

City of Los Angeles Green Building Code (LAGBC)

In December 2013, the Los Angeles City Council approved Ordinance No. 182,849, which updated Chapter IX of the Los Angeles Municipal Code (LAMC) by amending certain provisions of Article 9 to incorporate by reference portions of the 2013 CALGreen Code and also added other miscellaneous conservation-related measures to the LAGBC for residential and non-residential development. The requirements of the adopted LAGBC, as updated (2016), apply to new building construction, building renovations, and building additions within the City of Los Angeles. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. The Los Angeles Green Building Code Tier 1 standards, which are applicable to all projects with a LADBS permit-valuation over $200,000, require the proposed project to implement a number of measures that would reduce criteria pollutant and GHG emissions. These include measures similar to: reduce vehicle and equipment idling times; comply with Tier 4 emission standards for non-road diesel equipment; retrofit existing diesel equipment with particulate filters and oxidation catalysts; replace aging equipment with new low-emission models; and consider the use of alternative fuels for construction equipment.

Key measures in the LAGBC related to energy use and GHG emissions that apply to nonresidential buildings include, but are not limited to the following:

- Transportation Demand – Designated parking for any combination of low emitting, fuel-efficient, and carpool/vanpool vehicles shall be provided.
- Energy Conservation – Electric vehicle supply wiring for a minimum of 7 percent of the total number of parking spaces shall be provided.
- Energy Conservation – Energy conservation for new buildings must meet or exceed California Energy Commission (CEC) requirements set for in the California Building Energy Efficiency Standards.
- Renewable Energy – Future access, off-grid prewiring, and space for electrical solar systems shall be provided.

All building projects in the City of Los Angeles are subject to the LAGBC, which is based on CALGreen with some modifications unique to the City of Los Angeles. The LAGBC is a code-requirement that is part of Title 24, and is enforced by the Los Angeles Department of Building and Safety (LADBS). Given that the LAGBC has replaced LEED® in the LAMC, LAWA has based its new sustainable construction standards on the mandatory and voluntary tiers defined in the LAGBC. All building projects with an LADBS permit-valuation over $200,000 shall achieve LAGBC Tier-1 conformance, to be certified by LADBS inspector during final plan check (on the issued building permit) and validated by the LADBS inspector during final inspection (on the Certificate of Occupancy). Tier-1 refers to specific practices that are to be incorporated into projects to "achieving enhanced construction levels by incorporating additional green building measures." Should a project pose unique issues/circumstances based on the scope and/or location of work, LAWA may require more prescriptive approaches to resolving issues such as energy performance, site drainage, etc.

Sustainable City pLAn

In 2014, Mayor Eric Garcetti launched LA's first-ever Sustainable City Plan ("pLAn"). The pLAn is a comprehensive and actionable policy roadmap that prepares the City for an environmentally healthy, economically prosperous, and equitable future for all. Mayor Garcetti released the pLAn in April 2015 along with a corresponding Executive Directive (ED-#5) that incorporates the pLAn into city-wide management. The framework of pLAn includes 14 chapters, each of which sets forth a vision of things to be accomplished in the next 20 years and highlighted near- and long-term outcomes. Relative to Environment, the pLAn focuses on local water, local solar, energy-efficient buildings, carbon and climate leadership, and waste and landfills. Through the pLAn Mayor Garcetti committed the City to becoming a national leader in carbon

reduction and climate action by eliminating coal from the City's energy mix, prioritizing energy efficiency, and inspiring other cities to take similar action. The Plan sets targets of reducing GHG emissions below 1990 levels by at least 45 percent by 2025, 60 percent by 2035, and 80 percent by 2050.

LAWA Sustainability Plan and Sustainable Airport Planning, Design and Construction Guidelines

LAWA's Sustainability Plan,[281] developed in April 2008, describes LAWA's current sustainability practices and sets goals and actions that LAWA will undertake to implement the initiatives described above (Green LA, Climate LA, and LAGBC). The Sustainability Plan presents initiatives for the fiscal year 2008-2009 and long-term objectives and targets to meet the fundamental objectives identified above.

In 2008, LAWA developed Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects (LAWA Guidelines), which were subsequently updated in 2009 and 2010.[282] The LAWA Guidelines were developed to provide a comprehensive set of performance standards focusing on sustainability specifically for Airport projects on a project-level basis. A portion of the LAWA Guidelines is based on the LEED® rating systems for buildings. The LAWA Guidelines incorporate a "LAWA-Sustainable Rating System" based on the number of planning and design points and construction points a project achieves, based on the criteria and performance standards defined in the LAWA Guidelines.

Based on the above, LAWA has taken steps to increase its sustainability practices related to daily Airport operations, many of which directly or indirectly contribute to a reduction in GHG emissions. Actions that LAWA has been undertaking include promoting and expanding the Fly Away non-stop shuttle service to the Airport in an effort to reduce the number of vehicle trips to the Airport, establishment of an employee Rideshare Program, use of alternative fuel vehicles, purchasing renewably generated Green Power from LADWP, and reducing electricity consumption by installing energy-efficient lighting, variable demand motors on terminal escalators, and variable frequency drives on fan units at terminals and LAWA buildings.

LAWA also utilizes the LAGBC, described above, in integrating sustainability features into new development and redevelopment projects at LAX. All building projects in the City of Los Angeles are subject to the LAGBC, which is based on CALGreen with some modifications unique to the City of Los Angeles. The LAGBC is a code-requirement that is part of Title 24, and is enforced by the Los Angeles Department of Building & Safety (LADBS). Given that the LAGBC has replaced LEED® in the Los Angeles Municipal Code, LAWA has based its new sustainable construction standards on the mandatory and voluntary tiers defined in the LAGBC. All building projects with an LADBS permit-valuation over $200,000 shall achieve LAGBC Tier-1 conformance, to be certified by LADBS inspector during final plan check (on the issued building permit) and validated by the LADBS inspector during final inspection (on the Certificate of Occupancy). Tier-1 refers to specific practices that are to be incorporated into projects to "achieving enhanced construction levels by incorporating additional green building measures." Should a project pose unique issues/circumstances based on the scope and/or location of work, LAWA may require more prescriptive approaches to resolving issues such as energy performance, site drainage, etc.

Other Local Conservation Initiatives

LADWP and SoCal Gas provide several programs for energy customers in Los Angeles to conserve energy. Programs include Consumer Rebate Programs, a Refrigerator Turn-In and Recycling Program, Ultra-Low-Flush Toilet Programs, High-Efficiency Clothes Washer Rebate Program, Trees for a Green LA Program, Green Power Program, Project ANGEL, Outdoor Area Lighting Program, Solar Power Incentives, Power Quality Consulting Programs, and Electric Vehicle Programs. Programs include: Commercial Lighting Efficiency Offer (CLEO), Heating, Ventilation and Air Conditioning (HVAC) Rebate Program, Customer

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281 City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Plan, April 2008. Available: http://www.laxsustainability.org/documents/Final_Sustainability_Plan.pdf, Accessed January 19, 2017.

282 City of Los Angeles, Los Angeles World Airports, Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects, Version 5.0, February 2010, Available: https://www.lawa.org/uploadedFiles/LAXDev/News_for_LAXDev/Sustainable%20Airport%20PDC%20Guidelines%20Jan08.pdf , Accessed January 19, 2017.

Generation Rebate, Technical Assistance Program, Ultra-Low-Flush Toilet Rebate for Commercial Customers, Premium Efficiency Motors (PEM) Program, Chiller Efficiency Program, Non-Residential Trees for a Green LA Program, Energy Load Monitoring (ELM) Program, Financing Programs, Outdoor Area Lighting Programs, Power Quality Consulting Program, Green Power Program, Project ANGEL, and Solar Power Incentives. Programs for non-residential customers include rebates on energy efficient HVAC systems and refrigeration equipment, customer generation rebates, energy load monitoring, energy efficiency financing, and solar power incentives.

Applicability to the Proposed Project

The proposed project would be required to implement the applicable measures set forth in the regulations and plans described above to reduce energy usage. Specifically, the proposed project would be designed and constructed to meet LAGBC Tier-1 requirements as well as incorporating LEED® Silver level of sustainability measures, such as the incorporation of energy saving measures such as installation of high efficiency fixtures and lighting and incorporation of energy saving design elements such as natural daylighting and naturally ventilated and unconditioned spaces. As such, inefficient and unnecessary consumption of energy would be minimized.

6.5.3.2 Electricity & Natural Gas Efficiency

Federal Energy Policy and Conservation Acts

The Federal Energy Policy and Conservation Act of 1975, the Federal Energy Policy Act of 2005, and the Energy Independence and Security Act of 2007 require the U.S. Department of Energy (DOE) to set electrical efficiency standards of various appliances, fixtures, and equipment. This has included standards for general service lighting that will require lightbulbs to consume 60 percent less energy by 2020. This standard is leading to the phasing out of incandescent lightbulbs to be replaced by more efficient lighting.

Title 24 Energy Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated on an approximately three year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. The latest update, dated 2016, went into effect on January 1, 2017. The premise for the standards is that energy efficient buildings require less electricity, natural gas, and other fuels. The standards include provisions applicable to all buildings and include mandatory requirements for efficiency and design of systems, equipment, and appliances. The standards include requirements for space conditioning (cooling and heating), water heating, and indoor and outdoor lighting systems and equipment. In addition, the standards call for further energy efficiency measures that can be provided through a choice between performance and prescriptive compliance approaches.

Renewable Portfolio Standard

Senate Bill 1078 (SB 1078) (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, the Governor signed Executive Order S-14-08, which expands the State's Renewable (Energy) Portfolio Standard (RPS) to 33 percent renewable power by 2020. On September 15, 2009, the Governor issued Executive Order S-21-09 requiring CARB, under its AB 32 authority, to adopt regulations to meet a 33 percent RPS target by 2020. The CARB regulations would use a phased-in or tiered requirement to increase the amount of electricity from eligible renewable sources over an eight-year period beginning in 2012. CARB adopted the regulations in September 2010.

In March 2011, the Legislature passed SB X1-2, which was signed into law by the Governor the following Month. SB X1-2 requires utilities to procure renewable energy products equal to 33 percent of retail sales by December 31, 2020, and also established interim targets: 20 percent by December 31, 2013, and 25 percent by December 31, 2016. SB X1-2 also applies to publicly-owned utilities in California. SB 350 of

2015 (Chapter 547, Statutes of 2015) increased the renewable portfolio standard to 50 percent by the year 2030.

Los Angeles Department of Water and Power Plan

LADWP provides electricity to the City of Los Angeles. In 2015 LADWP adopted a new Power Integrated Resource Plan (Power IRP), a 20-year energy resource planning document. This plan provides a framework for LADWP to meet the future energy needs of the City in a cost-effective, reliable, and environmentally sensitive manner. The plan includes updated renewable energy requirements, electrical load forecasts, and revenue and rate impacts. Within the Power IRP, LADWP outlines adequate electricity supply and transmission capability to meet the needs of its customers within the Los Angeles area, including LAX, through 2035. The Power IRP includes updated renewable energy requirements, electrical load forecasts, revenue and rate impacts, and the integration of public input.[283] LADWP lays out a distinct strategy and framework for reducing reliance on coal-generated power through the selling off of its two largest coal-burning facilities in 2016 and 2025 respectively. These two facilities currently represent 40 percent of LADWP's total power generation. Additionally, LADWP will be increasing its renewable portfolio from 20 percent to 50 percent of its total provided power by 2030.

Climate LA

In 2008, the City of Los Angeles followed up Green LA with an implementation plan called Climate LA – Municipal Program Implementing the Green LA Climate Action Plan (Climate LA).[284] A Departmental Action Plan for LAWA is included in Climate LA, which identifies goals to reduce CO_2 emissions 35 percent below 1990 levels by 2030 at LAX and the other three LAWA airports, implement sustainability practices, and develop programs to reduce the generation of waste and pollutants. Actions are specified in the areas of aircraft operations, ground vehicles, electrical consumption, building, and other actions.

Electricity Supply and Existing Utility Infrastructure in the Project Area

Electrical power within the City of Los Angeles, including LAX, is supplied by LADWP, which serves approximately 3.8 million people. LADWP obtains electricity from various generating sources that utilize coal, nuclear, natural gas, hydroelectric, and renewable resources to generate power. Its current system capacity is 7,630 megawatts (MW). LADWP does not forecast that peak demand will reach capacity through 2040. LADWP has committed to increasing the share of renewable energy and promoting increased energy efficiency and conservation by its customers. Diversification of LADWP's energy portfolio, increasing electricity from renewable energy, and new customer energy efficiency measures will help meet all of the City's needs through LADWP's Power IRP planning horizon of 2035.

According to the most recent data available from the Los Angeles Department of Water and Power (LADWP), the utility provider for the City of Los Angeles, approximately 23 percent of its electricity purchases in 2013 were from eligible renewable sources.[285] LADWP has adopted a number of initiatives to increase its use of renewable energy resources to support the goal of reducing GHG emissions, reducing reliance on fossil fuels, and meeting state mandates requiring all utilities to provide 33 percent of their energy from renewable resources by 2020.[286]

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283 Los Angeles Department of Water and Power, 2015 Power Integrated Resource Plan, December 2015, Available: http://www.ladwp.com/powerIRP, Accessed January 19, 2017.

284 City of Los Angeles, Climate LA - Municipal Program Implementing the Green LA Climate Action Plan, 2008.

285 City of Los Angeles, Los Angeles Department of Water and Power, Power Content Label, Available: https://ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel;jsessionid=ZfB2XLXbyvcG28SPmnTRBgJnvNTdbqwQpy0jJF8F8yJyyrkp3TFv!194919507?_adf.ctrl-state=19x1t2m6hw_4&_afrLoop=455491631176092&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D455491631176092%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dcxq9wd2qh_4, Accessed November 30, 2015.

286 Los Angeles Department of Water and Power, 2015 Power Integrated Resource Plan, December 2015, Available: http://www.ladwp.com/powerIRP, Accessed January 19, 2017.

Electricity is primarily used at LAX for lighting, cooling, and equipment operation in buildings, and for airfield lighting and operations. Electricity is also used indirectly in the delivery, treatment, and distribution of water used by at the Airport and the treatment of wastewater. Total electricity consumption for LAX was approximately 184,400 MWh for 2015.[287] This represents a 13.5 percent decrease compared to 2014. In 2015 LAWA completed construction of a new highly energy-efficient Central Utility Plant (CUP) to replace LAX's 50-year old CUP. The new CUP became fully operational in September 2015. The new CUP utilizes co-generation technology to produce and deliver heating and cooling. Natural gas powers two combustion turbine generators to generate electricity, which is used to power multiple chillers. A pair of steam generators captures and reuses the heat exhaust from the combustion for heating. The new CUP is 25 percent more energy efficient and more environmentally-friendly than the former facility. LAWA and LADWP estimated that the plant saved approximately 4,548,729 kWh/year in 2015. The new CUP is considered the first sustainable utility plant at a U.S. airport.[288]

Natural Gas Supply and Existing Utility Infrastructure in the Project Area

Sempra Utilities now owns the Southern California Gas Company (SoCalGas). The utility supplies natural gas to nearly all of Southern and Central California, including the City of Los Angeles. SoCalGas projects total gas demand to decline at an annual rate of 0.6 percent from 2016 to 2035. The decline in demand is due to modest economic growth, mandated energy efficiency standards and programs such as the LAGBC, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure, which uses information technology and two-way communication to modulate price and demand activity.[289] Natural gas is primarily used at LAX for electricity generation, space heating, food preparation, and maintenance activities. Natural gas consumption at LAX in 2015 was approximately 3,067,196 therms (306.6 MMcf) per year.[290] The represents an increase over 2014 consumption; however, the trend over the past five years has been a decrease in natural gas consumption by LAX such that current consumption is less than half of 2011 consumption.[291]

Applicability to the Proposed Project

The proposed project would be required to implement the applicable measures set forth in the regulations and plans described above to reduce electricity and natural gas usage. Specifically, the proposed project would achieve, at a minimum, LAGBC Tier-1 conformance through environmentally-sensitive features including, but not limited to, the types described below, and incorporate LEED® Silver level of sustainability measures, which include the incorporation of energy saving measures such as installation of high efficiency fixtures and lighting and incorporation of energy saving design elements such as natural daylighting and naturally ventilated and unconditioned spaces. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of electricity and natural gas.

6.5.3.3 Water & Wastewater Efficiency

Water Supply Planning

The State of California's Urban Water Management Planning Act of 1984 requires all public water suppliers that provide municipal and industrial water to more than 3,000 customers, or supply more than 3,000 acre-feet per year (AF/Y) of water, to prepare and adopt an Urban Water Management Plan (UWMP). The UWMP must be prepared every five years and submitted to the Department of Water Resources (DWR) for

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287 City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Report 2015, Available: http://www.laxsustainability.org/documents/Sustainability_Report_2015.pdf, accessed August 25, 2016.

288 City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Report 2015, Available: http://www.laxsustainability.org/documents/Sustainability_Report_2015.pdf, accessed August 25, 2016.

289 The California Gas and Electric Utilities, 2016 California Gas Report, 2016, Available: https://www.socalgas.com/regulatory/cgr.shtml.

290 City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Report 2015, Available: http://www.laxsustainability.org/documents/Sustainability_Report_2015.pdf, accessed August 25, 2016.

291 City of Los Angeles, Los Angeles World Airports, Los Angeles World Airports Sustainability Report 2015, Available: http://www.laxsustainability.org/documents/Sustainability_Report_2015.pdf, accessed August 25, 2016.

review. An UWMP is intended to forecast future water demand and supply under normal and dry conditions. The Urban Water Management Planning Act has been modified several times in response to water shortages, droughts, and other factors. The Water Conservation Act of 2009 amended the Urban Water Management Planning Act to call for a statewide reduction of 20 percent in urban water use by the year 2020. An amendment in 2014 requires water suppliers to provide narrative descriptions of their water demand management measures and account for system water losses.

The LADWP adopted a new UWMP in June 2016[292] which serves as a master plan for water supply and resources management consistent with the City's goals and policy objectives. As indicated in the UWMP, LADWP develops long-term water projections based on growth in water use for the entire service area. The current UWMP evaluates a water system facing drought conditions and responds to policy actions, such as Mayor Eric Garcetti's Executive Directive No. 5 Emergency Drought Response,[293] and Sustainable City pLAn,[294] which promotes investment in conservation, recycling, and local source development, and calls for a 25 percent reduction in per capita water use by 2035.[295] The UWMP discusses conservation strategies to help achieve this goal. The UWMP concludes that LADWP has available supplies to meet all projected demands under three hydrologic scenarios analyzed in the UWMP.

Los Angeles Municipal Code

The LAMC includes several ordinances to reduce water consumption that are applicable to the proposed project. Ordinance No. 172,075 (Chapter XII, Article II, of the LAMC), adopted in 1998,[296] requires all building owners to install water closets (with a maximum flow of 3.5 gpm) and low-flow urinals (with a maximum 1.5 gallons per flush) prior to obtaining building permits.

The City adopted the Water Efficiency Requirements Ordinance (Ordinance No. 180,822) in 2009[297] and the Green Building Ordinance (Ordinance No. 182,849) in 2013,[298] which established more stringent requirements for water conservation including use of high efficiency fixtures whenever new fixtures are installed in new and existing buildings. On June 6, 2016, the City adopted Ordinance No. 184,248,[299] which establishes citywide water efficiency standards and requires implementation of water-saving systems and technologies in buildings and landscapes.

6.5.3.4 Water Supply and Existing Utility Infrastructure in the Project Area

The LADWP is responsible for supplying, treating, and distributing water for domestic, industrial, agricultural, and firefighting purposes within the City. The LADWP obtains its water supplies from three major sources: (1) the Owens Valley and Mono Basin via the Los Angeles Aqueduct (LAA); (2) northern California and Colorado River imports purchased from the Metropolitan Water District of Southern California (MWD); and (3) local groundwater basins. In addition, some wastewater within the LADWP service area is recycled for reuse as irrigation or industrial water, or for use in seawater intrusion barriers used to protect groundwater supplies. The average distribution of sources during 2010–2015 was 53 percent purchased from MWD; 34 percent from the LAA; 12 percent from groundwater, and one percent from recycled water.[300]

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292 Los Angeles Department of Water and Power, Urban Water Management Plan 2015, June 7, 2016.

293 City of Los Angeles, Office of the Mayor, Executive Directive No. 5, Emergency Drought Response – Creating a Water Wise City, October 14, 2014.

294 City of Los Angeles, Office of the Mayor, Sustainable City pLAn, Transforming Los Angeles, Environment - Economy - Equity, April 2015, Available: http://www.lamayor.org/sites/g/files/wph446/f/landing_pages/files/The%20pLAn.pdf. Accessed January 19, 2017.

295 Los Angeles Department of Water and Power, Urban Water Management Plan 2015, June 7, 2016.

296 City of Los Angeles, Ordinance No. 172,075, Chapter XII, Article II, 1998.

297 City of Los Angeles, Ordinance No. 180,822, Chapter XII, Article V, Water Efficiency Requirements, 2009.

298 City of Los Angeles, Ordinance No. 182,849, Chapter IX, Article 9, California Green Building Standards Code, 2013.

299 City of Los Angeles, Ordinance No. 184,248, Chapter IX, Articles 4 and 9, Water Efficiency Standards, June 6, 2016.

300 City of Los Angeles, Los Angeles Department of Water and Power, Facts and Figures, Available: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-factandfigures, Accessed March 29, 2016.

LADWP has set a goal of supplying 8 percent of water demand from recycled water by 2035. In fiscal year 2014/2015, LADWP provided 36,738 AF of recycled water for municipal and industrial purposes and environmental benefits.[301] Reclaimed water in the LAX area is provided by the West Basin Municipal Water District's (WBMWD) Edward C. Little Water Recycling Facility (ECLWRF). The ECLWRF is a tertiary treatment plant and has a capacity of over 72.2 million gallons per day (mgd), approximately 81,000 AF/Y. As described above, the latest UWMP concludes that LADWP has available supplies to meet projected demands through a 25-year planning period.

Applicability to the Proposed Project

During operation, the proposed project would marginally increase employment but would not result in a change in the number of passengers accommodated at LAX than what could otherwise occur in the absence of the project. Construction and operation of the proposed project would not require new or expanded water supply entitlements. Further, to conserve potable water, bathrooms in the new/modernized facilities would be designed with low- and ultra-low-flow systems. This would result in a concurrent reduction in energy demand to supply, treat, and convey water and wastewater. Additionally, recycled water would be used for construction-related dust control and construction equipment washing when feasible. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary energy use associated with increases in water demand and wastewater generation. [302]

6.5.3.5 Transportation Fuel Efficiency During Project Operations

GHG and Fuel Efficiency Standards for Passenger Cars and Light-Duty Trucks

In April 2010, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized GHG standards for new (model year 2012 through 2016) passenger cars, light-duty trucks, and medium-duty passenger vehicles. Under these situations, CO_2 emission limits would decrease from 295 grams per mile (g/mi) in 2012 to 250 g/mi in 2016 for a combined fleet of cars and light trucks. If all the necessary emission reductions were made from fuel economy improvements, then the standards would correspond to a combined fuel economy of 30.1 miles per gallon (mpg) in 2012 and 35.5 mg in 2016. The agencies issues a joint Final Rule for a coordinated National Program for model years 2017 to 2025 light-duty vehicles on August 28, 2012, that would correspond to a combined fuel economy of 36.6 mpg in 2017 and 54.5 mpg in 2025.

California Assembly Bill 1493 (AB 1493) – Pavley

Enacted on July 22, 2002, this bill required the California Air Resources Board (CARB) to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Regulations adopted by CARB apply to 2009 through 2016 vehicles. CARB estimated that the regulation would reduce GHG emissions from the light-duty and passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030, compared to recent years. In 2011, the U.S. Department of Transportation, USEPA, and California announced a single timeframe for proposing fuel and economy standards, thereby aligning the Pavley standards with the federal standards for passenger cars and light-duty trucks.[303]

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301 City of Los Angeles, Los Angeles Department of Water and Power, LADWP Recycled Water Annual Report Fiscal Year 2014-15, August 2015.

302 U.S. Environmental Protection Agency, Regulatory Announcement, EPA and NHTSA Finalize Historic National Program to Reduce Greenhouse Gases and Improve Fuel Economy for Cars and Trucks, April 2010, Available: http://www3.epa.gov/otaq/climate/regulations/420f10014.pdf, Accessed November 18, 2015.

303 California Environmental Protection Agency, Air Resource Board, EPA, DOT and California Align Timeframe for Proposing Standards for Next Generation of Clean Cars, Available: http://www.arb.ca.gov/newsrel/newsrelease.php?id=181, Accessed November 19, 2015.

California Advanced Clean Cars/Zero Emission Vehicle Program

In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combined the control of smog, soot, and global warming gasses and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars (13 CCR 1962.1 and 1962.2). The Advanced Clean Cars requirements include new GHG standards for model year 2017 to 2025 vehicles.

The Advanced Clean Cars Program also includes the LEV III amendments to the LEV regulations (13 CCR 1900 et seq.), Zero Emission Vehicle Program, and the Clean Fuels Outlet Regulation. The Zero Emission Vehicle Program is designed to achieve California's long-term emission reduction goals by requiring manufacturers to offer for sale specific number of the very cleanest cars available. These zero-emission vehicles, which include battery electric, fuel cell, and plug-in hybrid electric vehicles, are just beginning to enter the marketplace. They are expected to be fully commercial by 2020. The Clean Fuels Outlet regulation ensures that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to market.

Applicability to the Proposed Project

As discussed in Chapter 2, *Project Description*, the proposed project would not change passenger volumes beyond what would occur without the project, and therefore the proposed project would not change operational traffic at LAX. The proposed project has no features that would result in passengers changing their modes of transportation or their arrival and departure distribution patterns. As a result, although these plans and regulations would reduce fuel consumption of passenger vehicles visiting the airport, that energy demand is not a result of the project and therefore is not applicable to the EIR energy analysis. Transportation fuel efficiency measure are applicable to this analysis only for worker vehicles.

6.5.3.6 Construction Equipment Fuel Efficiency

The Federal Government sets fuel efficiency standards for construction equipment. Tier 4 efficiency requirements are contained in 40 CFR Parts 1039, 1065, and 1068 (originally adopted in 69 Fed. Reg. 38958 [June 29, 2004], and were most recently updated in 2014 [79 Fed. Reg. 46356]).

In October 2010, the U.S. Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) announced a program to reduce GHG emissions and to improve fuel efficiency for medium- and heavy-duty-vehicles (model years 2014 through 2018). These standards were signed into law on August 9, 2011. The two agencies' standards reduce GHG emissions by 270 metric tons and to reduce oil consumption by 530 million barrels over the life of the affected vehicles. Similarly, federal and state fuel efficiency standards and programs for light duty vehicles described in the section immediately above would apply to light-duty vehicles used for project construction.

Applicability to the Proposed Project

LAWA has an ongoing commitment to increasing energy efficiency and implementing energy conservation measures to reduce wasteful, inefficient, and unnecessary consumption of energy at its airports, including during construction. Construction equipment used for the proposed project would be required comply with federal and state fuel efficiency standards. In addition, Standard Control Measures LAX-AQ-1 (Construction-Related Air Quality Control Measures) and AQ (T2/T3)-1 (Preferential Use of Renewable Diesel Fuel), intended to reduce significant construction-related air quality impacts, are also applicable to fuel consumption of construction equipment and the reduction of reliance on fossil fuels. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary energy use associated construction activities.

6.5.3.7 Summary

As described above, the proposed project would be located within an area that has existing energy and water available to serve the proposed project. It would comply with federal, state, and local regulations and policies reducing energy demand associated with building energy use, water demand, wastewater

generation, vehicle fuels, and construction equipment. In addition, electricity supplied to the project would be required to comply with California's aggressive renewable portfolio standard. Therefore, the proposed project's construction and operation would not result in wasteful, inefficient, or unnecessary energy use; would not increase reliance on fossil fuels; and would incorporate renewable energy and energy efficiency measures. Since the proposed project's energy impacts would therefore be less than significant, no energy mitigation measures (e.g., additional energy conservation measures) are required. It should be noted, however, that the proposed project's vehicle fuel use would be further reduced by implementation of Mitigation Measure LAX-AQ-1 (Construction-Related Air Quality Control Measures), and implementation of Mitigation Measure AQ (T2/T3)-1 (Preferential Use of Renewable Diesel Fuel) would further reduce the proposed project's reliance on fossil fuels.

6.5.4 Cumulative Impacts

As discussed in Chapter 4, *Environmental Impact Analysis*, cumulative impacts can be analyzed using either a "list" or "plan" approach. Using a "list" approach, in Chapter 3, *Overview of Project Setting*, Tables 3-1 and 3-2 identify other ongoing and future projects within the project area. Like the proposed project, these projects would also be required to comply with the energy conservation and renewable energy programs described earlier in this section. For example, new buildings would be required to meet energy consumption standards prescribed for new structures in Title 24, and all LAX development projects would also comply with LAWA's Sustainability Plan. Therefore, there would be no significant cumulative impacts related to wasteful, inefficient, or unnecessary energy use, or increased reliance on fossil fuels.

Cumulative impacts on energy supply and distribution facilities caused by regional growth are best assessed using a "plan" approach. LADWP has forecasted future utility demand in the Power IRP and concluded that excess capacity exists over the planning horizon through 2040.[304] Based on the demand growth forecast, significant cumulative utility impacts on supply and distribution capabilities or on new supply facilities and distribution infrastructure are unlikely; thus, cumulative impacts on energy supply and distribution facilities caused by increased energy demand would be less than significant.

[304] Los Angeles Department of Water and Power, 2015 Power Integrated Resource Plan, December 2015, Available: http://www.ladwp.com/powerIRP, Accessed January 19, 2017.