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 December 2017, 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.

- Air Quality
  - Construction-related regional emissions of nitrogen oxides (NO_X).
  - Construction-related localized emissions of respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$).
  - Cumulatively considerable contribution to significant cumulative construction-related air quality impacts, based on significant construction-related project impacts summarized above.
- Cultural Resources
  - Demolition of the two intact, surviving Intermediate Terminal Facility buildings at 6000–6016 and 6020–6024 Avion Drive (on the project site), which are two component parts of a single historical resource that is eligible for listing in the California Register of Historical Resources and for designation as a Los Angeles Historic-Cultural Monument.

Sections 4.1 identifies mitigation measures that would address impacts to air quality; these measures would not reduce air quality impacts to a level that is less than significant. No additional feasible mitigation measures are available that would avoid temporary construction-related impacts to air quality or reduce them to a level that is less than significant. As identified in Section 4.2, no feasible mitigation measures are available to reduce or avoid significant impacts to historical resources.

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:

- Consolidate/relocate UAL's existing aircraft and GSE maintenance facilities at LAX in a single location to provide for more efficient and effective maintenance of UAL aircraft and equipment at the airport that eliminates duplicate facilities;
- Locate UAL's aircraft and GSE maintenance facilities closer to UAL's gates to increase efficiency by reducing the distance between the gates and maintenance area, consistent with the mission of LAX Airfield Operations of providing a safe and efficient airport operating environment;
- Modernize UAL's maintenance facilities, which were constructed between the mid-1940s and early 1970s when aircraft and GSE equipment were much smaller than they are today, in a manner that is consistent with LAWA's Sustainable Design and Construction Policy and that fulfills LAWA's strategic goal of innovating to enhance efficiency and effectiveness;
- Provide sufficient enclosed aircraft maintenance space and remain over night/remain all day (RON/RAD) aircraft parking spaces on UAL's leasehold to support routine servicing and maintenance of aircraft and meet overnight parking requirements;
- Provide facilities to support the maintenance requirements of UAL's operations; and

- Fulfill LAWA's strategic goal of sustaining a strong business that recognizes the fiscal impact the airport makes on the regional economy.

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), petrochemical construction materials (e.g., plastics), and water. 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 of the proposed project would also result in the consumption of energy resources, including electricity, diesel, and various transportation-related fuels. This would represent the loss of non-renewable resources, which are generally not retrievable. Long-term project-related energy demand that would result from operation of the proposed project would be less than the operational energy demand under either existing conditions or future without project conditions; therefore, operation of the proposed project would not result in an increase in the consumption of nonrenewable resources. (See Section 6.5 below for a detailed discussion of energy impacts and conservation.)

As described in Chapter 2, *Project Description*, the proposed project would be designed and constructed in accordance with LAWA's Sustainable Design and Construction Policy, which requires that the proposed facility be designed to achieve the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) Silver certification. LEED® Silver certification requires a project to be designed in a manner to save energy, water, and other resources, and to generate less waste. In addition, the proposed project would 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 Los Angeles Green Building Code (LAGBC) that would reduce long-term energy demand. Compliance with these requirements would reduce wasteful, inefficient, and unnecessary consumption of energy. Therefore, the use of non-renewable resources from construction 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 "[d]iscuss the ways the proposed project could foster economic or population growth or the construction of additional housing, directly or indirectly, in the surrounding environment." The section further states that 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.

6.3.1 Project Characteristics

The proposed project would consolidate and modernize existing UAL aircraft maintenance and GSE facilities at LAX, which would allow for more efficient and effective maintenance of existing aircraft and GSE at the airport. Although the portion of UAL's current aircraft and GSE maintenance operations that occurs at the West Maintenance Facility would be consolidated with operations located on the east side of the airport, the volume and basic nature of UAL's existing maintenance operations at LAX would not change or increase. Implementation of the proposed project would simply combine/consolidate existing maintenance operations from two areas into one. The resulting reduction in the total building square footage and leasehold acreage associated with the proposed project would not alter the nature and type of aircraft maintenance, or the number of aircraft undergoing maintenance, at LAX. Rather, the consolidation would increase operational efficiency and would "right-size" the space to match the business operations. The proposed project would not increase flights and/or aircraft operations at LAX compared to existing airfield conditions and would not affect terminals, the number of gates at LAX, gate frontage, taxiways, or runways.

As described in Chapter 3, *Overview of Project Setting*, the proposed project is one of many past and present changes to aircraft and GSE maintenance facilities at LAX that have occurred since initiation of the LAX modernization program, which have resulted in a net decrease in square footage of facilities dedicated to aircraft and GSE maintenance at the airport. Following project implementation, it is reasonably foreseeable that UAL's West Maintenance Facility would continue to be used for aircraft and/or GSE maintenance by another airline currently conducting such activities at LAX in constrained or reduced facilities, and would not represent a new use or an increase in such activity.[301]

6.3.2 Economic Growth

Construction of the proposed project would not include any permanent or temporary residential structures that would induce population growth directly through the construction of housing. Although the proposed project does not include any residential development, there exists the potential for indirect population growth as a result of project-related construction and operational employment. This potential is discussed below.

Construction activity associated with the proposed project would directly and indirectly foster economic growth over the approximately 22-month (one year and ten months) construction period in terms of spending by workers and the provision of goods and services in support of construction. As stated in Chapter 2, *Project Description*, it is estimated that the proposed project would require a maximum of 278 construction employees during the peak month of construction. However, the construction employment would be temporary and transitory in nature, drawing 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). As such, construction workers would not relocate to the region as a consequence of the construction job opportunities generated by the proposed project.

The proposed project would not increase flights and/or aircraft operations at LAX compared to existing airfield conditions and would not affect terminals, the number of gates at LAX, gate frontage, taxiways, or runways. Operation of the proposed project would not increase the number of employees associated with UAL aircraft and GSE maintenance or the long-term employment opportunities at LAX associated with UAL's operations. As described above, vacation of the West Maintenance Facility by UAL would not represent an increase in the area at LAX available to another entity for aircraft and/or GSE maintenance over historical levels; rather, as discussed in Chapter 3, *Overview of Project Setting*, the overall square

[301] Any proposed reuse of the West Maintenance Facility may be subject to its own environmental review and documentation, as appropriate.

footage of facilities dedicated to aircraft and GSE maintenance at the airport has declined since initiation of the LAX modernization program.

For these reasons, 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 proposed project.

6.3.3 Removal of an Obstacle to Growth

As described in Chapter 2, *Project Description*, the proposed project would not increase flights and/or aircraft operations at LAX compared to existing airfield conditions and would not affect terminals, the number of gates at LAX, gate frontage, taxiways, or runways. In addition, the proposed project would not provide new access to an area that is undeveloped since the proposed project would be located on an on-airport site that is in active use. Existing adjacent uses include the LAWA Records Building and American Eagle commuter facility to the west; air cargo facilities and Delta Air Lines aircraft maintenance facility[302] to the northwest; a shared-ride vehicle holding lot used by Super Shuttle[303] and an employee parking structure (referred to as Parking Garage F) to the north; the UAL Cargo building to the northeast; American Airlines Cargo and GSE facility to the east; and the LAX south airfield to the south, specifically Taxiway C, followed by Taxiway B, Runway 7L-25R, Taxiway H (centerline taxiway), Runway 7R-25L, and Taxiway A. Moreover, as discussed above, vacation of the West Maintenance Facility by UAL would not represent an increase in the area at LAX available to another entity for aircraft and/or GSE maintenance over historical levels. As such, the proposed project would not remove an obstacle to growth in maintenance or other activities at LAX.

6.4 Less Than Significant Effects

Section 15128 of the State CEQA Guidelines requires than an EIR briefly indicate the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Table 1-1 in Chapter 1, *Introduction and Executive Summary*, identifies the effects of the proposed project that were determined to be less than significant, based on the analysis in this EIR. Specifically, this EIR concludes that impacts from implementation of the proposed project on operational air quality, human health risk, greenhouse gas emissions, and transportation/traffic would be less than significant.

In addition, the Initial Study included in the December 2017 Notice of Preparation, included as Appendix A of this EIR, determined, for the reasons explained therein and clarified in the introduction to Chapter 4, *Environmental Impact Analysis*, that additional effects, including effects on the following resource areas, would result in no impact, or in impacts that would be less than significant:

- Aesthetics;
- Agriculture and Forestry Resources;
- Biological Resources;
- Cultural Resources (Archaeological and Paleontological Resources)
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;

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302 The Delta Air Lines aircraft maintenance facility will be demolished as part of the LAX Landside Access Modernization Program. A new aircraft maintenance facility is currently under construction on the west side of the airport on the West Aircraft Maintenance Area site.

303 Super Shuttle plans to relocate its vehicles in the fourth quarter of 2018. This relocation is occurring independently of the proposed project.

- Land Use and Planning;
- Mineral Resources;
- Noise;
- Population and Housing;
- Public Services;
- Recreation;
- Tribal Cultural Resources; and
- Utilities and Service Systems.

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. The Appendix 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 "[e]nergy 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. As described in Section 4.1, *Air Quality and Human Health Risk*, during construction, some of the employees that currently work at the East Maintenance Facility would work at the West Maintenance Facility. These employees would park in existing UAL parking lots at the West Maintenance Facility during construction. Energy usage associated with the additional vehicle miles traveled (VMT) associated with these employee trips was included in the analysis. In addition, some of the aircraft parking positions at the East Maintenance Facility that currently have access to a source of electricity would be unavailable during construction. As a result, the use of diesel ground power units (GPUs)[304] to provide power to aircraft during maintenance activities would increase during construction.

Long-term project-related energy demand that would result from operation of the proposed project would be less than the operational energy demand under either (1) existing conditions or (2) future without project conditions. This is because (1) the proposed project structures would have a smaller total building size (square feet) than the existing UAL hangar buildings at LAX; (2) the proposed project structures would incorporate energy efficient features as required to achieve Leadership in Energy and Environmental Design (LEED®) Silver certification and to comply with the Los Angeles Green Building Code (LAGBC) (as described in Chapter 2, *Project Description*); (3) the average distance traveled by aircraft

[304] A ground power unit, or GPU, is a piece of equipment that provides electricity to an aircraft while it is on the ground and eliminates the need for the aircraft to rely on engine power. A ground power unit can be diesel-operated or can plug into an electricity source.

between the gates and the proposed maintenance facility would be less than under existing conditions and would involve a more energy-efficient form of travel; and (4) the consolidation of maintenance activities on the east side of the airport would reduce VMT by maintenance employees from their places of residence to the worksite. The reduction in operational energy demand would include energy demand from electricity, jet fuel, diesel fuel, and gasoline, as well as energy demand related to the consumption of water. The proposed project would include the installation of natural gas-fueled boilers, water heaters, and other similar equipment in the new maintenance facility, which would replace the existing natural gas-fueled equipment. The new equipment is expected to be at least as efficient as existing equipment and, therefore, it is expected that use of natural gas would stay the same or even be reduced as a result of the proposed project.

Energy demand associated with each of these components of the proposed project is discussed below.

6.5.2.1 Construction Activities

6.5.2.1.1 Worker, Vendor, and Haul Vehicle Trips

Construction worker, vendor, and haul trips were estimated based on the construction schedule assumptions used in the preparation of the proposed project air quality and greenhouse gas (GHG) impacts analyses. Demolition and construction of the proposed project is estimated to take approximately 22 months. Vendor and haul trip information was estimated based on the volume of demolition or construction as well as CalEEMod default values for trip lengths.[305]

Consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines used by the California Air Resources Board (CARB) for its own greenhouse gas and fuel inventories, fuel consumption from worker, haul, and vendor trips was estimated by converting the total carbon dioxide (CO_2) emissions from each phase of construction to gallons using established conversion factors for CO_2 to gallons of gasoline or diesel.[306] The conversion factor for gasoline is 8.89 kilograms (kg) CO_2 per gallon (kg CO_2/gal) and the conversion factor for diesel is 10.16 kg CO_2/gal.[307] Worker vehicles were assumed to be fueled by gasoline and vendor/hauling vehicles were assumed to be diesel. The emission calculations for these sources are provided in Appendix B.1 of this EIR.

Calculations for total construction worker, vendor, and haul trip fuel consumption are provided in **Table 6-1** and **Table 6-2**. Total gasoline consumption from construction worker trips is estimated to be 222,335 gallons and total diesel consumption from construction-related truck deliveries and hauling combined is estimated at 159,332 gallons.

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305 California Air Resources Board, *California Emissions Estimator Model*, *Version 2016.3.2*. Available: http://www.caleemod.com/.

306 Intergovernmental Panel on Climate Change, *2006 IPCC Guidelines for National Greenhouse Gas Inventories,* Volume 2 – Energy, Chapter 3 – Mobile Combustion, 2006. Available: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_3_Ch3_Mobile_Combustion.pdf.

307 U.S. Energy Information Administration, *Carbon Dioxide Emissions Coefficients,* release date February 2, 2016. Available: https://www.eia.gov/environment/emissions/co2_vol_mass.php.

Table 6-1
Construction Worker Gasoline Demand

Phase	Trips	Trip Length (miles)	CO_2 Worker Trips (MT)	kg CO_2/Gal	Gasoline Demand (Gal)
Parking Area & Apron Demolition	9,685	40	239.24	8.89	26,911
Hangar Demolition	2,312	40	57.66	8.89	6,486
Hangar Construction	16,449	40	401.18	8.89	45,127
Apron Construction	50,175	40	1,213.91	8.89	136,548
Road/Access & GSE Yard Construction	2,701	40	64.57	8.89	7,263
Total			**1,976.56**	**8.89**	**222,335**

Source: CDM Smith, June 2018.

Notes:
Trips are round trips.
Abbreviations:
kg – kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal – gallons

Table 6-2
Construction On-Road Vehicle Delivery and Hauling Diesel Demand

Phase	CO_2 On-Road Delivery & Hauling (MT)	kg CO_2/Gal	Diesel Demand (Gal)
Parking Area & Apron Demolition	495.05	10.16	48,725
Hangar Demolition	268.72	10.16	26,449
Hangar Construction	217.89	10.16	21,446
Apron Construction	603.97	10.16	59,446
Road/Access & GSE Yard Construction	33.18	10.16	3,266
Total	**1,618.81**	**10.16**	**159,332**

Source: CDM Smith, June 2018.

Abbreviations:
kg – kilogram
CO2 – carbon dioxide
MT – metric tons
Gal – gallons

6.5.2.1.2 Construction Equipment Usage

Diesel fuel consumption by construction equipment was estimated based on the construction schedule and equipment usage assumptions used in the preparation of the proposed project air quality and GHG analyses. Fuel usage was 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 10.16 kg/MT

CO_2/gal.[308] Construction equipment was assumed to be diesel. Calculations for energy consumption from construction equipment are provided in **Table 6-3**. The emission calculations for these sources are provided in Appendix B.1 of this EIR.

Table 6-3
Construction Equipment Diesel Demand

Phase	CO_2 Off-Road Equipment (MT)	kg CO_2/Gal	Diesel Demand (Gal)
Parking Area & Apron Demolition	507.33	10.16	49,934
Hangar Demolition	60.21	10.16	5,926
Hangar Construction	267.48	10.16	26,327
Apron Construction	1,140.65	10.16	112,269
Road/Access & GSE Yard Construction	38.88	10.16	3,827
Total	**2,014.56**	**10.16**	**198,283**

Source: CDM Smith, June 2018.

Abbreviations:
kg – kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal – gallons

6.5.2.1.3 Operational Fuel Demand During Construction

As noted in Section 6.5.2, during construction, some employees who currently work at the East Maintenance Facility would instead work at the West Maintenance Facility during construction. As discussed in Section 4.1, *Air Quality and Human Health Risk*, the majority of employees at LAX live in areas that are located east of the airport.[309] Therefore, the relocation of some maintenance activities to the west side of the airport would increase VMT by certain maintenance employees from their places of residence to the worksite during construction. In addition, aircraft diesel-fueled GPU usage would increase during construction. GPU fuel consumption was calculated based on daily equipment usage estimates. Fuel usage was estimated by converting the total CO_2 emissions from each operational equipment source using the conversion factor for CO_2 to gallons of diesel. The conversion factor for diesel is 10.16 kg/MT CO_2/gal.[310] Operational GPUs used during construction was assumed to be diesel. Calculations for energy consumption from operational equipment during construction are provided in **Table 6-4**. The emission calculations for these sources are provided in Appendix B.1 of this EIR.

Total diesel consumption from all sources during construction, including both on-road deliveries and hauling demand shown in Table 6-2, off-road equipment demand shown in Table 6-3, and operational fuel demand during construction shown in Table 6-4, is estimated to be 375,319 gallons across all construction phases. Total gasoline consumption from all sources during construction, including construction worker

308 U.S. Energy Information Administration, *Carbon Dioxide Emissions Coefficients,* release date February 2, 2016. Available: https://www.eia.gov/environment/emissions/co2_vol_mass.php.
309 Los Angeles World Airports Security Badge Office, 2015.
310 U.S. Energy Information Administration, *Carbon Dioxide Emissions Coefficients,* release date February 2, 2016. Available: https://www.eia.gov/environment/emissions/co2_vol_mass.php.

gasoline demand shown in Table 6-1 and operational worker gasoline demand during construction shown in Table 6-4, is estimated to be 234,472 gallons across all construction phases.

Table 6-4
Operational Fuel Demand During Construction

Source	CO_2 Operational Equipment (MT)	kg CO_2/Gal	Fuel Demand (Gal)
Aircraft GPU (Diesel)	179.87	10.16	17,704
Operational Worker Vehicles (Gasoline)	107.90	8.89	12,137

Source: CDM Smith, June 2018.

Note: Totals may not add due to rounding.

Abbreviations:
kg – kilogram
CO_2 – carbon dioxide
MT – metric tons
Gal – gallons

6.5.2.2 Operational Activities

As discussed in Chapter 2, *Project Description*, the proposed project would not increase existing passenger capacity, increase long-term employment opportunities at LAX, or increase aircraft operations. The proposed project would affect the location of UAL's maintenance activity at LAX but would not result in an increase in the level of maintenance activity, number of workers, or maintenance equipment. Changes in energy demand associated with aircraft movements and with operation of the proposed maintenance buildings are evaluated below. During project operations, all employees would be located at the East Maintenance Facility. This would involve relocation of employees who currently work at the West Maintenance Facility. As described above, the majority of employees at LAX live in areas that are located east of the airport. Therefore, the consolidation of maintenance activities on the east side of the airport would reduce VMT by maintenance employees from their places of residence to the worksite during operations, resulting in a corresponding decrease in vehicle-related fuel consumption. In addition, consolidation of UAL's maintenance activities into a single facility would eliminate vehicle trips between the two maintenance facilities that occur under baseline conditions. Because vehicle-related fuel consumption would be reduced as a result of the proposed project, the impacts of the proposed project associated with vehicle-related energy demand would be beneficial.[311]

As described in Section 4.1, *Air Quality and Human Health Risk,* the average daily travel distance for both taxiing and towing of aircraft would be reduced as a result of the proposed project due to the closer proximity of the East Maintenance Facility to UAL's gates (which are located in Terminals 7 and 8). In addition to the decreased travel distance, with implementation of the proposed project, more aircraft would be towed between the gates and the maintenance facility than under baseline conditions, although the total number of daily aircraft movements would be the same. Those aircraft not being towed would taxi using the main aircraft engines to move to and from the maintenance facility. Under baseline conditions, due to the relatively short distance between UAL's gates and the East Maintenance Facility, aircraft traveling to the East Maintenance Facility are typically towed whereas aircraft traveling to the West Maintenance Facility, which is located much farther from the gates, often travel under power

[311] The reduction in energy demand associated with the reduced VMT from worker trips and trips between the two existing maintenance facilities was not quantified in the analysis; no credit is taken for this reduction.

(i.e., taxi). With implementation of the proposed project, all UAL aircraft would travel to the East Maintenance Facility; the majority of these aircraft would be towed. Based on information from UAL regarding baseline operations and the proposed project location and design, it was estimated that the number of aircraft being towed under the proposed project would increase from 11 or 12 daily to 16 daily, with a corresponding decrease in taxiing aircraft.

Operational GHG emissions associated with aircraft movements between the gates and hangars would be reduced as a result of the proposed project by a total of 888.2 MT CO_2e per year (see Table 4.3-4 in Section 4.3, *Greenhouse Gas Emissions*). This includes a reduction of jet fuel GHG emissions of 893.6 MT CO_2 per year (due to decreased distance and taxiing percentage) and an increase of diesel GHG emissions of 5.4 MT CO_2 per year (due to an increase in towing percentage that would out-weigh the decrease in towing distance). Applying conversion factors of 9.57 kg CO_2 per gallon of jet fuel and 10.16 kg CO_2 per gallon of diesel[312] to these values results in the aircraft movement fuel consumption increments provided in **Table 6-5.**

Table 6-5
Annual Increased Energy Demand by Source for Construction and Operations

Source	Gasoline (gal/yr)	Diesel (gal/yr)	Jet Fuel (gal/yr)
Construction Energy Demand (Total / Amortized over 30 Years)			
Construction Worker Vehicles	222,335 / 7,411	–	–
On-Road Delivery and Hauling Vehicles	–	159,332 / 5,311	–
Off-Road Heavy-Duty Construction Equipment	–	198,283 / 6,609	–
Operational Fuel Use During Construction	12,137 / 405	17,704 / 590	–
Operational Energy Demand			
Aircraft Towing	–	532	–
Aircraft Taxiing	–	–	-93,375
Amortized Construction Plus Operational Energy Demand			
Total	**7,816**	**13,042**	**-93,375**

Source: CDM Smith, June 2018.

Note:
Fuel use associated with construction impacts of the proposed project was amortized over the lifetime of the proposed project, which is assumed to be 30 years. This results in an effective yearly energy demand from construction equal to the total construction energy demand divided by 30.

Abbreviations:
gal/yr– gallons per year

Operation of the proposed project would result in a negligible decrease in energy demand associated with the proposed project buildings. Electricity would be required for indoor and outdoor lighting, building

312 U.S. Energy Information Administration, *Carbon Dioxide Emissions Coefficients,* release date February 2, 2016. Available: https://www.eia.gov/environment/emissions/co2_vol_mass.php.

cooling and heating, building appliances, security-related equipment, and water heating. As described in Chapter 2, *Project Description*, compared with existing conditions, the consolidation of UAL's maintenance facilities would result in an overall reduction in project-related building square footage requiring heating, cooling, or lighting. Additionally, per LAWA's Sustainable Design and Construction Policy, the proposed facility would be required to achieve LEED® Silver certification, which would further improve building-related energy efficiency. Because overall building-related energy use would be reduced as a result of the proposed project, the impacts of the proposed project associated with building-related energy use would be beneficial.[313]

As mentioned previously, the proposed project would include the installation of natural gas-fueled boilers, water heaters, and other similar equipment in the new hangar facility, which would replace the existing natural gas-fueled equipment. The new equipment is expected to be at least as efficient as existing equipment and, therefore, it is expected that use of natural gas would stay the same or even be reduced as a result of the proposed project.[314]

Increases in short- and long-term energy demand under the proposed project are summarized in Table 6-5. In the same manner in which construction-related GHG emissions were amortized over the proposed project lifetime (i.e., 30 years) and then added to annual operational emissions (see Section 4.3, *Greenhouse Gas Emissions*), the energy demand associated with project construction was amortized over a 30-year period so as to integrate construction-related energy demand with the annual operational energy demand.

6.5.3 Energy Conservation

The proposed maintenance facility would 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. In addition, as noted previously, per LAWA's Sustainable Design and Construction Policy, the proposed facility would be required to achieve LEED® Silver certification. Compliance with 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 construction and 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.

6.5.3.1 General Regulations, Plans, and Policies

6.5.3.1.1 State Regulations, Plans, and Policies

California Green Buildings Standards Code

The 2016 CALGreen is found in Title 24, Part 11 of the California Code of Regulations (CCR).[315] The purpose of CALGreen is to "improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices."[316] CALGreen

313 The reduction in building-related energy demand was not quantified in the analysis; no credit is taken for this reduction.

314 The potential reduction in natural gas usage associated with operational stationary sources was not quantified in the analysis; no credit is taken for this reduction.

315 24 California Code of Regulations, Part 11, California Building Standards Commission, *2016 California Green Building Standards Code (CALGreen)*.

316 24 California Code of Regulations, Part 11, California Building Standards Commission, *2016 California Green Building Standards Code (CALGreen)*, Section 101.2.

identifies mandatory building measures and voluntary measures that may be incorporated into the design of buildings.

6.5.3.1.2 Local Regulations, Plans, and Policies

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).[317] Aimed at reducing 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 other initiatives. Green LA identifies objectives and actions in various focus areas, including airports. The goal for Los Angeles' airports is to "green the airports," and the following actions related to energy consumption are identified: (1) fully implement the Sustainability Performance Improvement Management System (discussed below); (2) develop and implement policies to meet U.S. Green Building Council's LEED® green building program rating standards in future construction; and (3) increase use of alternative fuel sources, increase water conservation, and reduce energy needs.[318]

ClimateLA

In 2008, the City of Los Angeles followed up Green LA with an implementation plan called *ClimateLA – Municipal Program Implementing the Green LA Climate Action Plan* (ClimateLA).[319] A Departmental Action Plan for LAWA is included in ClimateLA, which identifies goals to reduce CO_2 emissions 35 percent below 1990 levels by 2030 at LAX and Van Nuys Airport (also owned and operated by LAWA) and implement sustainability practices. Actions are specified in a number of areas, including buildings and facilities, and construction.

Executive Directive No. 10

In July 2007, Mayor Antonio Villaraigosa issued Executive Directive No. 10 regarding environmental stewardship practices.[320] 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." ClimateLA, which was adopted subsequent to Executive Directive No. 10, also includes goals supportive of green building and energy efficiency through building design and retrofits.

City of Los Angeles Green Building Code

In December 2013, the Los Angeles City Council approved Ordinance No. 182,849, which updated Chapter IX of the Los Angeles Municipal Code (LAMC) to incorporate portions of the 2013 CALGreen Code and add other conservation-related measures to the LAGBC for residential and non-residential development. The requirements of the adopted LAGBC, as updated (2017), apply to new building construction, building renovations, and building additions within the City of Los Angeles.[321] Key measures in the LAGBC related to energy use that apply to nonresidential buildings include a requirement that

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317 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.

318 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.

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

320 City of Los Angeles, Office of the Mayor, Mayor Antonio R. Villaraigosa, *Executive Directive No. 10, Subject: Sustainable* Practices *in the City of Los Angeles*, July 18, 2007. Available: https://www.lacity.org/sites/g/files/wph1101/f/villaraigosa_ed10.pdf.

321 City of Los Angeles, Los Angeles Municipal Code, Chapter IX, Article 9, *Green Building Code*, as amended.

energy conservation for new buildings must meet or exceed California Energy Commission (CEC) requirements set forth in the California Building Energy Efficiency Standards.

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.[322] Mayor Garcetti released the pLAn in April 2015, along with corresponding Executive Directive No. 7 that incorporates the pLAn into city-wide management.[323] Through the pLAn, Mayor Garcetti committed the City to becoming a national leader in carbon reduction and climate action by prioritizing energy efficiency, among other actions.

Resilient Los Angeles

In March 2018, Mayor Eric Garcetti released *Resilient Los Angeles*, a comprehensive, strategically coordinated approach to urban resilience.[324] This plan addresses a range of challenges facing Los Angeles, including preparing for climate adaptation. One of the actions in *Resilient Los Angeles* is to leverage the modernization at LAX to incorporate sustainability and resilience measures.

LAWA Sustainability Plans and Guidelines

LAWA adopted the Sustainability Performance Improvement Management System (SPIMS) in August 2007 as a tool for identifying sustainability objectives, implementing actions to achieve the objectives, establishing targets, and continually monitoring progress. This was followed by LAWA's Sustainability Plan, developed in April 2008, which described LAWA's sustainability practices and set goals and actions that LAWA would undertake to implement its long-term objectives and targets.[325]

In 2008, LAWA developed Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects, which were subsequently updated in 2009 and 2010.[326] These guidelines were developed to provide a comprehensive set of performance standards focusing on sustainability specifically for airport projects on a project-level basis. Based on these guidelines, LAWA implemented numerous steps to increase its sustainability practices related to daily airport operations. Subsequently, LAWA consolidated its design standards into the LAWA Design and Construction Handbook (DCH), which includes sustainable guidelines for all construction projects.

On September 7, 2017, LAWA adopted the Sustainable Design and Construction Policy.[327] Under this policy, new buildings and major building renovation projects are required to achieve a minimum of LEED® Silver certification, unless an exemption is provided. Projects that cannot meet USGBC's or LAWA's LEED® Eligibility Criteria or LAGBC Tier 1 requirements, or are exempted by LAWA's Sustainability Review Committee, must adhere to LAWA's Sustainable Design and Construction Requirements, which

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322 City of Los Angeles, Office of the Mayor, Mayor Eric Garcetti, *Sustainable City pLAn, Transforming Los Angeles, Environment - Economy - Equity*, April 2015. Available: http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.

323 City of Los Angeles, Office of the Mayor, Mayor Eric Garcetti, *Executive Directive No. 7, Subject: Sustainable City pLAn*, April 8, 2015. Available:https://www.lacity.org/sites/g/files/wph281/f/Executive_Directive_No._7_Sustainable_City_pLAn.pdf.

324 Mayor Eric Garcetti, *Resilient Los Angeles*, March 2018. Available: https://www.lamayor.org/sites/g/files/wph446/f/page/file/Resilient%20Los%20Angeles.pdf.

325 City of Los Angeles, Los Angeles World Airports, *Los Angeles World Airports Sustainability Plan*, April 2008. Available: https://www.lawa.org/-/media/sustainability/resources/final_sustainability_plan.ashx.

326 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: http://losangelesairport.net/uploadedFiles/LAWA/pdf/LSAG%20Version%205.0%20021510.pdf.

327 City of Los Angeles, Los Angeles World Airports, *LAWA Sustainability Design and Construction Policy*, adopted September 7, 2017.

incorporate sustainability concepts from the LEED® system as well as the LAGBC, Envision, and other airport sustainability guidelines.[328] The requirements will ensure that all projects at LAWA facilities are environmentally responsible and resource-efficient throughout the structure's life-cycle, from siting to design, construction, operation, maintenance, and renovation, reflecting LAWA's commitment to sustainability.

6.5.3.2 Electricity Efficiency

6.5.3.2.1 Electricity-Related Regulations, Plans, and Policies

State Regulations, Plans, and Policies

Title 24 Energy Standards

California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), often referred to as Title 24 energy standards, were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. The latest amendments were made in June 2015 and 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.

Local Regulations, Plans, and Policies

Los Angeles Department of Water and Power Plans

LADWP provides electricity to the City of Los Angeles. In 2016, LADWP adopted a new Power Integrated Resource Plan (Power IRP), a 20-year energy resource planning document.[329] 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. 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. In 2017, LADWP expanded the Power IRP into the Power Strategic Long-Term Resource Plan (SLTRP), which is a 20-year roadmap to guide implementation of the City's power system requirements. The current SLTRP provides updates that include a 65 percent Renewable Portfolio Standard. Future updates will identify a roadmap for achieving a 100 percent clean energy future.[330]

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328 City of Los Angeles, Los Angeles World Airports, *Los Angeles International Airport Sustainable Design & Construction Requirements*, August 4, 2017., Available: https://www.lawa.org/-/media/lawa-web/tenants411/file/sustainable-design-construction-requirements.ashx?la=en&hash=99061EBEF6E8ECD7D3D5961ABA5E062E2F8C4147.

329 City of Los Angeles, Department of Water and Power, *2016 Power Integrated Resource Plan*, December 2016. Available: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=a45al0fj4_17&_afrLoop=428720973103184.

330 City of Los Angeles, Department of Water and Power, *2017 Power Strategic Long-Term Resource Plan*, December 2017. Available: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=i1j5108k7_4&_afrLoop=648691316891822.

6.5.3.2.2 Electricity Supply and 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 7,880 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 2036.

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 at the airport and the treatment of wastewater. Total electricity consumption for LAX was approximately 167,222 MWh for 2016.[331] This represents a 12.2 percent decrease compared to 2015.

6.5.3.2.3 Applicability to the Proposed Project

As demonstrated in Section 6.5.3.1.2, 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 electricity. The proposed project would be required to implement the applicable measures set forth in the regulations, plans, and policies described in Sections 6.5.3.1 and 6.5.3.2.1 above to reduce electricity usage. Specifically, the proposed project would be required to achieve LEED® Silver certification through incorporation of environmentally-sensitive features. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of electricity, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

6.5.3.3 Water Efficiency

6.5.3.3.1 Water-Related Regulations, Plans, and Policies

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). LADWP adopted a new UWMP in June 2016, which serves as a master plan for water supply and resources management consistent with the City's goals and policy objectives.[332] The UWMP promotes investment in conservation, recycling, and local source development, and calls for a 25 percent reduction in per capita water use by 2035.[333] 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.

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331 City of Los Angeles, Los Angeles World Airports, *Los Angeles World Airports 2016 Sustainability Report*. Available: https://lawamediastorage.blob.core.windows.net/lawa-media-files/media-files/sustainability/resources/sustainability_report_2016.pdf.

332 City of Los Angeles, Department of Water and Power, *Urban Water Management Plan 2015*, adopted June 7, 2016.

333 City of Los Angeles, Department of Water and Power, *Urban Water Management Plan 2015*, adopted June 7, 2016.

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, requires all building owners to install low-flow water closets (with a maximum flow of 3.5 gpm) and urinals (with a maximum 1.5 gallons per flush) prior to obtaining building permits.[334] The City adopted the Water Efficiency Requirements Ordinance (Ordinance No. 180,822) in 2009 and the Green Building Ordinance (Ordinance No. 182,849) in 2013, which established more stringent requirements for water conservation including use of high efficiency fixtures whenever new fixtures are installed in new and existing buildings.[335,336] On June 6, 2016, the City adopted Ordinance No. 184,248, which establishes citywide water efficiency standards and requires implementation of water-saving systems and technologies in buildings and landscapes.[337]

6.5.3.3.2 Water Supply and Infrastructure in the Project Area

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 57 percent purchased from MWD, 29 percent from the LAA, 12 percent from local groundwater, and 2 percent from recycled water.[338] As described above, the latest LADWP UWMP concludes that LADWP has available water supplies to meet projected demands through a 25-year planning period.

6.5.3.3.3 Applicability to the Proposed Project

As discussed in *Section XVIII, Utilities and Service Systems*, of the Initial Study (included in Appendix A of this EIR), the proposed project would not result in an increase in water use. The proposed project would be required to comply with applicable measures set forth in the regulations and plans described in Sections 6.5.3.1 and 6.5.3.3.1 above to reduce water consumption. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary energy use associated with increases in water demand and wastewater generation, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

6.5.3.4 Transportation and Construction Equipment Fuel Efficiency

6.5.3.4.1 Fuel Efficiency-Related Regulations, Plans, and Policies

Federal Regulations, Plans, and Policies

Fuel Efficiency Standards for Passenger Cars and Light-Duty Trucks

In April 2010, USEPA and the National Highway Traffic Safety Administration (NHTSA) finalized standards for new (model year 2012 through 2016) passenger cars, light-duty trucks, and medium-duty passenger vehicles to reduce GHG emissions and improve fuel economy. Subsequently, the agencies issued a joint Final Rule for a coordinated National Program for model years 2017 to 2025 light-duty vehicles on

334 City of Los Angeles, Ordinance No. 172,075, Chapter XII, Article II, 1998.
335 City of Los Angeles, Ordinance No. 180,822, Chapter XII, Article V, *Water Efficiency Requirements*, 2009.
336 City of Los Angeles, Ordinance No. 182,849, Chapter IX, Article 9, *California Green Building Standards Code*, 2013.
337 City of Los Angeles, Ordinance No. 184,248, Chapter IX, Articles 4 and 9, *Water Efficiency Standards*, June 6, 2016.
338 City of Los Angeles, Department of Water and Power, *Urban Water Management Plan 2015*, adopted June 7, 2016.

August 28, 2012 that would correspond to a combined fuel economy of 36.6 mpg in 2017 and 54.5 mpg in 2025.[339,340]

Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles

In October 2010, the USEPA and NHTSA announced a program to reduce GHG emissions and to improve fuel efficiency for medium- and heavy-duty vehicles (model years 2014 through 2018). It was estimated that the standards would reduce oil consumption by 530 million barrels over the life of the affected vehicles.[341] In October 2016, USEPA and NHTSA finalized Phase 2 standards for medium- and heavy-duty vehicles through model year 2027, based on advanced cost-effective technologies. This program is expected to reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.[342]

Fuel Efficiency Standards for Construction Equipment

The federal government sets fuel efficiency standards for nonroad diesel engines that are used in construction equipment. The regulations, contained in 40 CFR Parts 1039, 1065, and 1068, include multiple tiers of emission standards. Most recently, USEPA adopted a comprehensive national program to reduce emissions from nonroad diesel engines by integrating engine and fuel controls as a system to gain the greatest emission reductions. To meet these Tier 4 emission standards, engine manufacturers will produce new engines with advanced emission control technologies.[343]

State Regulations, Plans, and Policies

California Assembly Bill 1493

Enacted on July 22, 2002, Assembly Bill 1493 required CARB to develop and adopt regulations that will lead to a reduction in GHGs emitted by passenger vehicles and light-duty trucks. Subsequent regulations adopted by CARB apply to 2009 through 2016 vehicles. In 2011, the U.S. Department of Transportation, USEPA, and California announced a single timeframe for proposing fuel and economy standards for model year 2017 through 2025, thereby aligning these standards with the federal standards for passenger cars and light-duty trucks.[344]

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339 U.S. Environmental Protection Agency, *Regulatory Announcement: EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Trucks*, August 2012. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF.

340 The 2012 standards are currently under review by USDOT and USEPA. See U.S. Environmental Protection Agency, *EPA to* Reexamine *Emission Standards for Cars and Light Duty Trucks – Model Years 2022-2025*, March 15, 2017. Available: https://www.epa.gov/newsreleases/epa-reexamine-emission-standards-cars-and-light-duty-trucks-model-years-2022-2025.

341 U.S. Environmental Protection Agency, *Regulatory Announcement: EPA and NHTSA Adopt First-Ever Program to Reduce* Greenhouse *Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles*, August 2011. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100BOT1.PDF?Dockey=P100BOT1.PDF.

342 U.S. Environmental Protection Agency, *Regulatory Announcement: EPA and NHTSA Adopt Standards to Reduce Greenhouse* Gas *Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond*, August 2016. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P7NL.PDF?Dockey=P100P7NL.PDF.

343 U.S. Environmental Protection Agency, *Regulations for Emissions from Vehicles and Engines-Regulations for* Emissions *from Heavy Equipment with Compression-Ignition (Diesel) Engines*. Available: https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-emissions-heavy-equipment-compression, accessed April 18, 2018.

344 U.S. Department of Transportation, *EPA, DOT and California Align Timeframe for Proposing Standards for Next Generation of Clean Cars*, January 21, 2011. Available: https://www.transportation.gov/briefing-room/epa-dot-and-california-align-timeframe-proposing-standards-next-generation-clean-cars.

California Advanced Clean Cars Program

In January 2012, CARB approved a new emissions-control program for vehicles of model years 2017 through 2025 called the Advanced Clean Cars Program (13 CCR Sections 1962.1 and 1962.2). The Advanced Clean Cars requirements include new GHG standards for model year 2017 to 2025 vehicles. These standards will decrease consumption of fossil fuels.

6.5.3.4.2 Applicability to the Proposed Project

Construction

Estimated construction-related fuel consumption is provided in Tables 6-1 through 6-4. Federal and state regulations and programs aimed at increasing vehicle fuel efficiency would apply to construction vehicles associated with the proposed project. Moreover, as discussed in Section 6.5.3.1.2, LAWA has an ongoing commitment to increase energy efficiency and implement 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 to comply with federal and state fuel efficiency standards. In addition, Mitigation Measure MM-AQ (UAL)-1 (Construction-Related Air Quality Mitigation Measures), which are intended to reduce construction-related air quality impacts, would also result in reduced fuel consumption. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary energy use associated with construction activities, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Operation

As discussed in Chapter 2, *Project Description*, the proposed project would not increase the number of passengers or aircraft operations at LAX, and would not increase long-term employment opportunities. Moreover, as described in Section 4.1, *Air Quality and Human Health Risk*, consolidation of maintenance activities on the east side of the airport would reduce operational VMT, which would reduce fuel consumption associated with operations. As a result, federal and state regulations and programs pertaining to increased vehicle fuel efficiency do not apply to the proposed project's operations (although they apply to project-related construction, as described above).

6.5.3.5 Summary

As described above, the proposed project would be located within an area that has existing energy and water infrastructure 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 proposed 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 conflict with or obstruct a state or local plan for renewable energy or energy efficiency; would not increase reliance on fossil fuels; and would incorporate energy efficiency measures. The proposed project would not result in any significant adverse impacts with respect to energy consumption or energy conservation, therefore, no mitigation measures (e.g., additional energy conservation measures) are required. It should be noted, however, that Mitigation Measure MM-AQ (UAL)-1 (Construction-Related Air Quality Mitigation Measures) would reduce energy consumption associated with the proposed project, and thereby would 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*, Table 3-1 identifies other past, present, and reasonably foreseeable probable future projects at and adjacent to LAX. As with the proposed project, these other development projects would 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 comply with LAWA's Sustainability Plan and Sustainable Design and Construction Policy. Moreover, as discussed in Chapter 3, *Overview of Project Setting*, although the proposed project would increase the building area of the East Maintenance Facility, the proposed project would not result in an overall net increase in cumulative maintenance facilities at LAX, or a resulting increase in cumulative energy usage attributable to maintenance activities at LAX. 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.[345] 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.

[345] City of Los Angeles, Department of Water and Power, *2015 Power Integrated Resource Plan*, December 2015. Available: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=a45al0fj4_17&_afrLoop=428720973103184.

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