IV. ENVIRONMENTAL IMPACT ANALYSIS

N.1. UTILITIES: ENERGY

1. INTRODUCTION

This section discusses the physical setting and provides analysis of energy resource services in the area where the proposed Project would be developed. The information contained in this section is derived primarily from the Los Angeles Department of Water and Power, Southern California Gas Company, and South Coast Air Quality Management District (SCAQMD).

2. ENVIRONMENTAL CONDITIONS

a. Physical Setting

The Project Site is currently served by the City of Los Angeles Department of Water and Power (LADWP) for electrical services and the Southern California Gas Company (SoCalGas) for natural gas service. Energy service requirements are related to the size and type of projects, and the geographic area served. New projects (e.g., residential, commercial, industrial) may increase energy consumption and affect the energy distribution infrastructure.

(1) Electricity

The LADWP currently provides electrical services to the Project Site. Customers in the City of Los Angeles consume electricity at a rate of approximately 22,000 gigawatt hours (gWh) per year (gWh/yr). Residential uses represent the largest customer component of the LADWP's nearly 1.4 million customers; however, business and industry customers consume about 70 percent of the electricity provided. A portion of the electrical consumption is also dedicated to street lighting and water supply distribution.[1]

The LADWP published and implemented the 2012 Integrated Resource Plan (IRP), which is a long-term strategic energy plan designed to ensure that the City's future energy needs are met, regulatory requirements are satisfied, and environmental policy goals are achieved. The 2012 IRP lays out alternative strategies for increasing renewable energy, while maintaining power reliability and meeting State and federal regulations. As described in the Integrated Resource Plan, LADWP is aggressively pursuing a policy of achieving 33 percent renewable energy by year 2020.

According to the 2012 IRP, the LADWP delivered and sold a total of approximately 23,232 gWh (or 23,232 million kWh) of electricity in 2011 and had an estimated net energy load[2] of 26,458

[1] City of Los Angeles, L.A. CEQA Threshold Guidelines, 2006, pg. M.4-1.
[2] "Net energy load", otherwise known as "net energy for load" is the net generation of main power generating units that are owned or operated by LADWP, plus energy receipts from non-LADWP sources, minus energy deliveries to non-LADWP service areas and agencies.

gWh (or 26,458 million kWh) of electricity.[3] The consumption and sales of power in 2016, the Project's build-out year, is projected to be approximately 23,224 gWh (or 23,224 million kWh), while the annual net energy load is projected to be approximately 26,235 gWh (or 26,235 million kWh).[4] The overall slight decline in electricity consumption in future years results from increasingly better energy efficiency and distributed generation technologies. A slight decrease in consumption is anticipated in 2014, attributed to the full ramp up of the lighting efficiency requirements of AB 1109 (approved in 2007 and known as the "Huffman Bill"), which significantly raises the efficiency standard of light bulbs. A slight increase in consumption is anticipated in 2015 due to the projected completion of port electrification projects. The annual net energy load in 2020 is projected to be approximately 27,452 gWh with a projected consumption and sales of 24,330 gWh in the LADWP service area.

The Project Site is currently served by an existing 4.8 kilowatt (kW) electrical line to the north along Valley Spring Lane and an existing 4.8 kW electrical line to the east along Whitsett Avenue.[5] The Project Site is currently occupied by a 9-hole pitch-and-putt golf course, a clubhouse, a 24-stall driving range, and 16 tennis courts and related facilities. The driving range is lighted by eight stadium-style light standards for nighttime practice seven days of the week, closing at 11 P.M. The 16 tennis courts are also lighted by several floodlights for each court allowing for nighttime matches. Current uses at the Project Site are estimated to demand approximately 3,550,084 kilowatt hours of electricity per year (kWh/yr).[6]

(2) Natural Gas

SoCalGas serves about 19.5 million residential, commercial, and industrial customers in more than 530 communities and throughout 23,000 square miles in the southern half of California. SoCalGas owns and operates 95,000 miles of gas distribution mains and service lines, as well as nearly 3,000 miles of transmission and storage pipeline. The utility also owns gas transmission compressor stations and underground storage facilities.

The Gas Company has a total of 135.1 billion cubic feet (Bcf) of storage capacity, which is divided as follows: 82 Bcf is allocated for core residential, small industrial, and commercial customers, four Bcf is used for system balancing, and 49.1 Bcf is available to other customers.[7]

California's existing gas supply portfolio is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources (the Permian, Anadarko, and San Juan Basins), the Rocky Mountains, and Canada. In 2010, the Ruby pipeline came online bringing up to 1.5 Bcf per day of additional gas to California from the Rocky

[3] Los Angeles Department of Water and Power. 2012 Final Power Integrated Resources Plan. December 3, 2012. Table A-1.
[4] Los Angeles Department of Water and Power. 2012 Final Power Integrated Resources Plan. December 3, 2012. Table A-1.
[5] Per phone conversation with Richard Gibson, LADWP, on September 6, 2012.
[6] SCAQMD, CEQA Air Quality Handbook, Table A-9-11-A, 1993. Retail usage rate (13.55 KwH/sf/yr) was used to calculate the demand for the approximately 4,342 sf clubhouse, while the Miscellaneous usage rate (10.50 KwH/sf/yr) was used to calculate the demand for the approximately 136,500 sf driving range and approximately 196,000 sf area of the tennis courts. Assumes no electricity demand from the golf course.
[7] California Gas and Electric Utilities. 2012 California Gas Report. July 2012. Page 89.

Mountains. The Energia Costa Azul LNG (Liquefied Natural Gas) receiving terminal in Baja California provides yet another source of supply for California.

Under average temperature conditions and normal hydro year, it was estimated that statewide natural gas demand for California averaged 6,248 million cubic feet per day (cf/day) in 2012 and would decrease to 5,975 million cf/day by 2030.[8] Under the same conditions, it was estimated that statewide natural gas supply for California averaged 6,427 million cf/day in 2012 and would decrease to 6,129 million cf/day by 2030.[9] As such, in 2012, there was a statewide gas surplus of 179 million cf/day, which will decrease to a surplus of 154 million cf/day by 2030.

From 2012 to 2030, SoCalGas projects demand in the southern California service area to exhibit an annual decline of 0.13% from the level in 2012 due to modest economic growth, energy efficiency and renewable electricity goals, and a decline in commercial and industrial demand among other reasons.

The Project Site is currently served by an existing 4-inch gas main to the east, underground in Whitsett Avenue. The existing uses on the Project Site are estimated to currently demand approximately 434 cf/day or 13,026 cf of natural gas per month (cf/month) or 156,312 cf of natural gas per year (cf/year).[10]

b. Regulatory and Policy Setting

(1) Title 24 of the California Code of Regulations

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, in Title 24 of the California Code of Regulations (Title 24). The efficiency standards apply to new construction of both residential and non-residential buildings, and regulate energy for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings provided these standards meet or exceed those provided in Title 24 guidelines.

Additionally, the California Subdivision Map Act requires that new subdivision designs provide for future passive or natural heating and cooling opportunities, to the maximum extent feasible. The Los Angeles Municipal Code (LAMC) incorporates these State requirements.[11]

[8] California Gas and Electric Utilities. 2012 California Gas Report. July 2012. Page 17.
[9] California Gas and Electric Utilities. 2012 California Gas Report. July 2012. Page 17.
[10] SCAQMD, CEQA Air Quality Handbook, Table A9-12-A, 1993. Retail/Shopping Center usage factor was used to calculate natural gas usage for the existing approximately 4,342 sf clubhouse. Assumes no natural gas usage by the existing golf course, driving range, and tennis courts.
[11] City of Los Angeles, L.A. CEQA Threshold Guidelines, 2006, pg. M.4-2.

(2) City of Los Angeles General Plan

City of Los Angeles General Plan[12]

The LADWP provides electrical service to over 1.3 million customers in the City of Los Angeles. LADWP obtains 17 percent of the required power from four municipally-owned power plants within the Los Angeles basin. The remaining LADWP requirements come from sources outside of the Los Angeles Basin. The current emphasis on purchasing power from non-LADWP power systems is to improve fuel diversity, to take advantage of low-priced surplus electricity and to minimize the air emissions in the South Coast Air Basin. Electricity is distributed through an extensive network of receiving stations, distributing stations, overhead lines, and underground lines. The following goals, objectives and policies are provided in the Framework Element of the Los Angeles City General Plan to ensure energy efficiency is obtained.

Goal 9M A supply of electricity that is adequate to meet the needs of Los Angeles Department of Water and Power electric customers located within Los Angeles.

Objective 9.26 Monitor and forecast the electricity power needs of Los Angeles' residents, industries, and businesses.

Policy 9.26.1 The LADWP shall continue to monitor and forecast its customers' peak load on its system and identify which parts of the system should be upgraded to accommodate expected growth.

Objective 9.27 Continue to ensure that all electric power customers will receive a dependable supply of electricity at competitive rates.

Policy 9.27.1 The LADWP shall continue to generate or purchase electric power to serve its customers.

Objective 9.28 Provide adequate power supply transmission and distribution facilities to accommodate existing uses and projected growth.

Policy 9.28.1 The LADWP shall continue to plan its power supply capability far enough in advance to ensure that it has available capacity to meet customer demand before it is needed.

Policy 9.28.2 The LADWP shall continue to ensure that the City's transmission and distribution system is able to accommodate future peak electric demand for its customers.

[12] Department of City Planning Los Angeles, California, Safety Element of the Los Angeles City General Plan, adopted November 26, 1996.

Policy 9.28.3 The LADWP shall continue to advise the Planning and Building and Safety Departments of any construction project that would overload a part of the distribution system during a period of peak demand.

Objective 9.29 Provide electricity in a manner that demonstrates a commitment to environmental principals, ensures maximum customer value, and is consistent with industry standards.

Policy 9.29.1 Develop and deliver services to attract, assist, and retain industries and businesses in Los Angeles.

Policy 9.29.2 Promote the responsible use of natural resources, consistent with City environmental policies.

Policy 9.29.3 Promote conservation and energy efficiency to the maximum extent that is cost effective and practical, including potential retrofitting when considering significant expansion of existing structures.

Policy 9.29.4 Provide incentives for the development of cleaner and more energy-efficient industrial development.

Policy 9.29.5 Deliver to all sectors of the economy customer service programs, products and activities that promote satisfaction and value related to the provision of electric power.

Policy 9.29.6 Encourage additional markets for electrical energy, such as environmentally friendly alternative fuel for transportation in electric buses and light-duty vehicles.

Objective 9.30 Ensure continued electric service after an earthquake or other emergency.

Policy 9.30.1 The LADWP shall periodically examine its emergency response programs to ensure continued electrical service.

(3) Los Angeles Municipal Code

The Los Angeles Municipal Code Article 9 Green Building Code provides standards for energy conservation for new developments that are to be built in the City of Los Angeles. Section 99.04.204 Energy Reduction provides the following standards that shall be applied to new developments to ensure energy reduction:

- Installed gas-fired space heating equipment shall have an Annual Fuel Utilization Ratio (AFUE) of 0.90 or higher;

- Installed electric heat pumps shall have a Heating Seasonal Performance Factor (HSPF) of 8.0 or higher;

- Installed cooling equipment shall have a Seasonal Energy Efficiency Ratio (SEER) higher than 13.0 and an Energy Efficiency Ratio (EER) of at least 11.5;

- Installed tank type water heaters shall have an Energy Factor (EF) higher than 0.60;

- Installed tankless water heaters shall have an Energy Factor (EF) higher than 0.80;

- Contractors shall perform duct leakage testing to verify a total leakage rate of less than 6 percent of the total fan flow;

- Building lighting in the kitchen and bathrooms within the dwelling units shall consist of at least 90 percent ENERGY STAR qualified hard-wired fixtures (luminaries); and,

- Installed swimming pool circulation pump motors shall be multi-speed or variable-speed. The pump motor controls shall have the capability of operating the pump at a minimum of three speeds; low speed, medium speed, and high speed. The daily low speed shall not exceed 300 watts. The daily medium speed shall be adjustable.

(4) Western Electricity Coordinating Council

The Western Electricity Coordinating Council (WECC) is a voluntary consortium of electrical power providers that is responsible for coordinating and promoting electricity reliability from northern Baja California in the south of its jurisdiction to Alberta and British Colombia in the north of its jurisdiction and the 14 western states in between. The LADWP is a member of the WECC. The WECC has implemented a regional reliability standard known as Standard BAL-STD-002-0, which requires reliable operations of the interconnected power system while ensuring adequate generating capacity be available at all times to account for varying demands and avoid loss of firm load following transmission or generation contingencies. As a means of ensuring power system reliability, LADWP maintains an extra reserve margin of power generation resources in the event of a disturbance in the electrical system. In order to determine how much extra generation reserves are needed, LADWP adheres to the WECC Reliability Standard which requires its providers to:

- Supply requirements for load variations;

- Replace generating capacity and energy lost due to force outages of generation or transmission equipment;

- Meet on-demand obligations; and,

- Replace energy lost due to curtailment of interruptible imports.

3. ENVIRONMENTAL IMPACTS

a. Methodology

Energy demand factors were applied to determine the amount of electricity and natural gas the Project would demand during construction and operation.

b. Thresholds of Significance

In accordance with Appendix F to the State CEQA Guidelines, environmental impacts to energy resources with implementation of a Project may include[13]:

> a.) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
>
> b.) The effects of the project on local and regional energy supplies and on requirements for additional capacity.
>
> c.) The effects of the project on peak and base period demands for electricity and other forms of energy.
>
> d.) The degree to which the project complies with existing energy standards.
>
> e.) The effects of the project on energy resources
>
> f.) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Furthermore, as set forth in the City of Los Angeles L.A. CEQA Thresholds Guide, the determination of significance shall be made on a case-by-case basis, considering the following:

> a.) The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity enhancing alterations to existing facilities;
>
> b.) Whether and when the needed infrastructure was anticipated by adopted plans; and,
>
> c.) The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

[13] California Environmental Quality Act, Statue and Guidelines 2012, Appendix F Energy Conservation, pg. 254 and 255.

c. Project Impacts

Construction Impacts on Electrical and Natural Gas Resources

Proposed development of the Project would be limited to the Development Site. During construction of the proposed Project, primarily stationary equipment will require minor quantities of electricity, including temporary use for lighting and power tools. The tools and lighting would be powered with charging stations supplied by a temporary power connection to the electrical system. The electrical demand generated by power tools and lighting is minor and substantially less than the operational demand of the Project. Heavy construction vehicles and equipment run on oil. Electrical consumption of small power construction tools range from 300 to 6,000 watts during run time (0.3 kW to 6 kW).[14] If running for 8 hours per day/night, at worst case, the usage would be between 2.4 kilowatt hours (kWh) to 48 kWh. A typical temporary construction lighting tower would have 4 x 1,000 watt fixtures (4 kW).[15] If running for 8 hours per day/night, at worst case, the usage would be 32 kWh. The minimal amount of electricity used for construction equipment compares to the daily operational electrical demand of the Project of approximately 3,083 kWh per day (or 4,977,490 kWh per year). Additionally, the amount of energy to be consumed during construction will be limited to the temporary construction period on the Development Site. Existing electrical infrastructure of the LADWP currently has enough capacity to provide service during the construction phase of the Project. Furthermore, electrical infrastructure or facilities would not have to be expanded or newly developed to provide service to the Project Site during construction or demolition. Therefore electrical resource impacts would be less-than-significant during construction of the proposed Project.

Construction activities are not anticipated to consume natural gas. Therefore, impacts to natural gas resources or infrastructure during construction would be less-than-significant.

Operational Impacts on Electrical Resources

Existing development on the Project Site has an estimated demand of approximately 3,550,084 kilowatt hours (kWh) of electricity per year. Development of the proposed Project would include the removal of the 16 lighted tennis courts that currently occupy Lot 2 and development of a six building 200-unit senior condominium complex with associated underground parking (two levels). The proposed Project, minus the tennis courts, but including the driving range and clubhouse to be retained on the Project Site, is estimated to demand approximately 4,977,490 kWh of electricity per year[16], resulting in an approximately 40 percent increase above current use.

As discussed earlier, LADWP had an estimated net energy load of 26,458 million kWh in 2011. LADWP's projected annual net energy load for 2016, the Project's build-out year, is

[14] Source: http://www.uspowerco.com/articles/power_consumption_chart_for_tools
[15] Source: http://www.sunbeltrentals.com/equipment/category.aspx?id=19
[16] SCAQMD, CEQA Air Quality Handbook, Table A-9-11-A, 1993. Residential usage rate (5,626.50 KwH/unit/yr) was used to calculate the demand for the 200-unit SCSLC. Retail usage rate (13.55 KwH/sf/yr) was used to calculate the demand for the approximately 4,342 sf clubhouse to be retained. Miscellaneous usage rate (10.50 KwH/sf/yr) was used to calculate the demand for the approximately 136,500 sf driving range to be retained and approximately 224,772 sf two-level subterranean parking garage. Assumes no electricity demand from the golf course.

approximately 26,235 million kWh.[17] Although, the annual net energy load between 2011 and 2016 is forecasted to decrease by approximately 223 million kWh, the projected sales and consumption of power is also anticipated to decrease. Additionally, due to the incremental impacts of LADWP-sponsored energy efficiency programs, after year 2017, it is anticipated that the net energy load will steadily increase annually, averaging to a rise of 0.8% every year from 2011 to 2040. The proposed Project's net increase in electricity demand of almost 4.98 million kWh per year represents less than 0.02 percent of LADWP's forecast annual net energy load in 2016, and even less in subsequent years after 2017.

To forecast growth, LADWP uses the following sources: historical sales, historical weather data, historical employment data, historic population and forecasts data, economic forecast data, construction activity forecast data, plug-in vehicle forecast data, port electricity forecast data, and housing forecast data.[18] Therefore, LADWP's forecasted electricity demand assumes construction of new projects within its service area, such as the proposed Project. As such, the net increase in electricity demand associated with the Project is anticipated to be within the service capabilities of LADWP and would not result in the need for new power supplies or adversely impact the LADWP's renewable energy resource supplies.

Since the Project would be adequately served for its operational demand on electricity, and considering no new electrical infrastructure or facilities would need to be developed to accommodate the Project (other than service connections), it can be concluded that the Project would have a less-than-significant impact on electrical resources.

Although the SCAQMD electrical usage rates from the 1993 CEQA Handbook are the standard for determining future electrical consumption for development projects, they do not include numerical reductions for implementation of Title 24 Standards, which are continuously updated. The proposed Project would comply with Title 24 Standards as required by the California Building Code and enforced by the City of Los Angeles.

Operational Impacts on Natural Gas Resources

Existing development on the Project Site has an estimated natural gas demand of approximately 434 cf/day or 13,026 cf/month. Development of the proposed Project would include the removal of the 16 lighted tennis courts that currently occupy Lot 2 and development of a six building 200-unit senior condominium complex. The proposed Project, including the golf clubhouse to be retained on the Project Site, is estimated to demand approximately 27,178 cf/day or 815,326 cf per month.[19]

[17] Los Angeles Department of Water and Power. 2012 Final Power Integrated Resources Plan. December 3, 2012. Table A-1.
[18] Los Angeles Department of Water and Power. 2012 Final Power Integrated Resources Plan. December 3, 2012. Table 2-1.
[19] SCAQMD, CEQA Air Quality Handbook, Table A9-12-A, 1993. Multi-Family Units – Residential usage factor was used to calculate natural gas usage for the proposed 200-unit Project. Retail/Shopping Center usage factor was used to calculate natural gas usage for the existing approximately 4,342 sf clubhouse. Assumes no natural gas usage by the existing golf course and driving range.

Although the Project represents a large increase in natural gas demand on the Project Site, this is due to the recreational nature of the existing uses on the Project Site, which have a minimal usage of natural gas in comparison to residential uses in general. However, the Project's increase in natural gas demand at the Project Site is not out of line with the general demand for natural gas from similar-sized multi-family residential buildings, such as those along Whitsett Avenue.

It is estimated in 2015, that SoCalGas will be able to supply 2,615 million cf/day to the southern California region. The supply estimate for 2016, the year of Project build-out, will be substantially similar to that estimated for 2015. The approximately 27,178 cf/day natural gas demand of the Project represents a very minimal percentage of the supply to be provided by SoCalGas in 2016 and beyond. Furthermore, according to the *2012 California Gas Report*, due to the expected energy savings resulting from tightened building and appliance standards and energy efficiency programs, demand per residential customer will decline at an annual rate of minus 0.1% from 2012 to 2030. With increasing gas conservation and energy efficient technology available in the future, the residential gas demand from the Project will represent even less of a percentage of the supply provided by SoCalGas. Ultimately, the Southern California Gas Company does have capacity to adequately serve the proposed Project upon its completion and during its operation.

The Project would be responsible for paying connection costs to connect its onsite service meters to existing infrastructure. SoCalGas undertakes expansion and/or modification of the natural gas infrastructure to serve future growth within its service area as part of the normal process of providing service. There would be no disruption of service to other consumers during the installation of these improvements. The Project would not result in the construction of natural gas facilities (i.e., natural gas distribution lines) that would cause significant environmental impacts. As such, impacts on natural gas supply and infrastructure as a result of the Project would be less-than-significant.

d. Cumulative Impacts

Similar to the proposed Project, the ten Related Projects would require energy resources during construction and operation. The proposed Project would have a nominal cumulative demand on energy resources and therefore would not significantly cumulatively contribute to energy resource demand during its construction or operation.

Regarding electricity, based on information presented in the *2012 Integrated Resource Plan*, LADWP anticipates it can support future growth within the City, in accordance with growth rates projected. Regarding natural gas, according to the *2012 California Gas Report*, natural gas supplies from the southwestern United States (i.e., the San Juan Basin and the Permian Basin) are expected to meet southern California's gas demand. As such, it is anticipated that the proposed Project and Related Projects fall within the scope of the growth estimates for electrical and natural gas usage, and would result in less-than-significant impacts.

Similar to the proposed Project, each of the ten Related Projects would be required to contact LADWP and SoCalGas to ensure that existing infrastructure and facilities serving each Related Project site would be adequate. LADWP and SoCalGas may suggest new infrastructure

development or expansion of existing infrastructure for certain Related Projects as needed. Furthermore, Title 24 of the California Code of Regulations establishes energy conservation standards for new construction. These energy conservation standards would be incorporated into new buildings as part of the building permit process and thus reduce the amount of electricity and natural gas cumulatively consumed by the proposed Project in combination with the Related Projects by addressing insulation, glazing, lighting, shading, and water and space heating systems.

In consideration of the fact that the proposed Project would have a nominal increase in demand of energy resources compared to the Related Projects; the proposed Project would have a less-than-significant contribution to cumulative impacts of energy resources.

4. COMPLIANCE MEASURES, PDFS, AND MITIGATION PROGRAM

a. Compliance Measures

The following Compliance Measures are reasonable anticipated standard conditions that are based on local, State, and federal regulations or laws that serve to offset or prevent specific energy resource impacts. These Compliance Measures are applicable to the proposed Project and shall be incorporated to ensure that the Project has minimal impacts to surrounding uses.

- The Project shall comply with the applicable provisions of the City of Los Angeles Green Building Code, including, but not limited to:
    - Installed gas-fired space heating equipment shall have an Annual Fuel Utilization Ratio (AFUE) of 0.90 or higher;
    - Installed electric heat pumps shall have a Heating Seasonal Performance Factor (HSPF) of 8.0 or higher;
    - Installed cooling equipment shall have a Seasonal Energy Efficiency Ratio (SEER) higher than 13.0 and an Energy Efficiency Ratio (EER) of at least 11.5;
    - Installed tank type water heaters shall have an Energy Factor (EF) higher than 0.60;
    - Installed tankless water heaters shall have an Energy Factor (EF) higher than 0.80;
    - Contractors shall perform duct leakage testing to verify a total leakage rate of less than 6 percent of the total fan flow;
    - Building lighting in the kitchen and bathrooms within the dwelling units shall consist of at least 90 percent ENERGY STAR qualified hard-wired fixtures (luminaries); and,

- Installed swimming pool circulation pump motors shall be multi-speed or variable-speed. The pump motor controls shall have the capability of operating the pump at a minimum of three speeds; low speed, medium speed, and high speed. The daily low speed shall not exceed 300 watts. The daily medium speed shall be adjustable.

b. Project Design Features (PDFs)

The following PDFs are specific design and/or operational characteristics included to avoid or reduce potential energy resource impacts.

PDF UTE-1: The Project shall attempt to use as many regional construction materials as possible to reduce environmental impacts associated with the transportation of materials.

PDF UTE-2: The senior housing shall be located adjacent to the existing golf course to allow utilization of the existing greenery as a heat absorption source, thus creating a steady micro-climate, helping to increase occupant comfort, and lower air-conditioning and energy usage.

PDF UTE-3: The Project design shall incorporate roofing that serves to reduce unwanted heat absorption and minimize energy consumption.

PDF UTE-4: The Project shall use water efficient landscaping and native drought tolerant plants.

PDF UTE-5: The Project shall use stormwater infiltration and detention basins to manage stormwater runoff and limit disruption and pollution of natural water flows.

PDF UTE-6: The Project shall contain easily accessible recycling areas dedicated to the collection and storage of non-hazardous materials for recycling.

PDF UTE-7: The Project shall utilize natural light as the primary source of light in all dwelling units. Lighting systems shall be controllable to achieve maximum efficiency.

PDF UTE-8: The Project energy performance shall be 20% more effective than required by California Title 24 Energy Design Standards, 2010 Edition, thereby reducing energy use, air pollutant emissions and greenhouse gas emissions.

PDF UTE-9: The Project shall be designed to provide separate HVAC units for each dwelling unit and for common areas, thus providing a high level of thermal comfort controllability and satisfaction.

PDF UTE-10: The Project shall achieve the equivalent of LEED Platinum, Gold, or Silver status.

c. Mitigation Measures

The Project will result in less-than-significant construction and operational impacts related to energy resources. Therefore, Mitigation Measures are not required.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of all required Compliance Measures, the Project will result in less-than-significant construction and operational impacts related to energy resources. With implementation of the Project Design Features, any impacts will be further reduced and any potentially unforeseen impacts will be less-than-significant.