

## **IV. Environmental Impact Analysis**

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### **K.3 Utilities and Service Systems—Energy Infrastructure**

#### **1. Introduction**

This section of the Draft EIR analyzes the Project’s potential impacts on electricity and natural gas infrastructure. The information presented herein is based, in part, on the *Energy Calculations for Senior Residential Community at the Bellwood Project* prepared by Eyestone Environmental and the *Senior Residential Community at The Bellwood—Water, Sewer, and Energy Infrastructure Assessment Report* (Utility Report) prepared by Fuscoe Engineering Inc (February 2020), which are included as Appendix D and Appendix J of this Draft EIR, respectively.

#### **2. Environmental Setting**

##### **a. Regulatory Framework**

###### **(1) Federal**

The United States Department of Energy (DOE) is the federal agency responsible for establishing policies regarding energy conservation, domestic energy production and infrastructure. The Federal Energy Regulatory Commission (FERC) is an independent federal agency, officially organized as part of the DOE which is responsible for regulating interstate transmission of natural gas, oil and electricity, reliability of the electric grid and approving of construction of interstate natural gas pipelines and storage facilities. The Energy Policy Act of 2005 has also granted FERC with additional responsibilities of overseeing the reliability of the nation’s electricity transmission grid and supplementing state transmission siting efforts in national interest electric transmission corridors.

FERC has authority to oversee mandatory reliability standards governing the nation’s electricity grid. FERC has established rules on certification of an Electric Reliability Organization (ERO) which establishes, approves and enforces mandatory electricity reliability standards. The North American Electric Reliability Corporation (NERC) has been certified as the nation’s ERO by FERC to enforce reliability standards in all interconnected jurisdictions in North America.

Although FERC regulates the bulk energy transmission and reliability throughout the United States, the areas outside of FERC's jurisdictional responsibility include state level regulations and retail electricity and natural gas sales to consumers which falls under the jurisdiction of state regulatory agencies.

## (2) State

California energy infrastructure policy is governed by three institutions: the California Independent System Operator (California ISO), the California Public Utilities Commission (CPUC), and the California Energy Commission (CEC). These three agencies share similar goals but have different roles and responsibilities in managing the State's energy needs.

The majority of state regulations with respect to electricity and natural gas pertain to energy conservation. For a discussion of these regulations, refer to Section IV.C, Energy, of this Draft EIR. There are, however, regulations pertaining to infrastructure. These are discussed further below.

### *(a) California Independent System Operator*

The California ISO is an independent public benefit corporation responsible for operating California's long-distance electric transmission lines. The California ISO is led by a five-member board appointment by the Governor and is also regulated by FERC. While transmission owners and private electric utilities own their lines, the California ISO operates the transmission system independently to ensure that electricity flows comply with federal operational standards. The California ISO analyzes current and future electrical demand and plans for any needed expansion or upgrade of the electric transmission system.

### *(b) California Public Utilities Commission*

The CPUC establishes policies and rules for electricity and natural gas rates provided by private utilities in California such as Southern California Edison (SCE), Southern California Gas Company (SoCalGas), and San Diego Gas and Electric (SDG&E). Public owned utilities such as the Los Angeles Department of Water and Power (LADWP) do not fall under the CPUC's jurisdiction.

The CPUC is overseen by five commissioners appointed by the Governor and confirmed by the state Senate. The CPUC's responsibilities include regulating electric power procurement and generation, infrastructure oversight for electric transmission lines and natural gas pipelines and permitting of electrical transmission and substation facilities.

*(c) California Energy Commission*

The CEC is a planning agency which provides guidance on setting the state's energy policy. Responsibilities include forecasting electricity and natural gas demand, promoting and setting energy efficiency standards throughout the state, developing renewable energy resources and permitting thermal power plants 50 megawatts and larger. The CEC also has regulatory specific regulatory authority over publicly owned utilities to certify, monitor and verify eligible renewable energy resources procured.

*(d) Senate Bill 1389*

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323), adopted in 2002, requires the development of an integrated plan for electricity, natural gas, and transportation fuels. Under the bill, the CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. In 2018, the CEC decided to write the Integrated Energy Policy Report in two volumes. Volume I, which was published on August 1, 2018, highlights the implementation of California's innovative policies and the role they have played in moving toward a clean energy economy. Volume II, which was adopted in February 2019, identifies several key energy issues and actions to address these issues and ensure the reliability of energy resources.<sup>1</sup>

### (3) Regional

There are no regional regulations with respect to electricity and natural gas infrastructure. For a discussion of regional regulations pertaining to energy conservation, refer to Section IV.C, Energy, of this Draft EIR.

### (4) Local

There are no local regulations with respect to electricity and natural gas infrastructure. For a discussion of local regulations pertaining to energy conservation, refer to Section IV.C, Energy, of this Draft EIR.

## **b. Existing Conditions**

### (1) Electricity

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City of Los Angeles and many areas of the Owens Valley, serving

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<sup>1</sup> *California Energy Commission, 2018 Integrated Energy Policy Report Update, Volume II, February 2019.*

approximately four million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service provided by the LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resources Plan, the LADWP has a net dependable generation capacity greater than 7,531 MW.<sup>2</sup> In 2017, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.<sup>3</sup> Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable sources, which is similar to the 31 percent statewide percentage of electricity purchases from renewable sources.<sup>4</sup>

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. As described in the Utility Report, the Project Site receives electric power service from LADWP via an existing underground electrical line running along Olympic Boulevard.

Existing electricity usage was estimated based on the same methodology contained in the greenhouse gas (GHG) analysis included in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR (California Emissions Estimator Model [CalEEMod] Version 2016.3.2). It is estimated that existing uses on the Project Site currently consume approximately 683,895 kWh of electricity per year.<sup>5</sup>

## (2) Natural Gas

Natural gas is provided to the Project Site by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.8 million customers in more than 500 communities encompassing approximately

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<sup>2</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan.

<sup>3</sup> LADWP, 2017 Retail Electric Sales and Demand Forecast, p. 6.

<sup>4</sup> California Energy Commission, Utility Annual Power Content Labels for 2018.

<sup>5</sup> Eyestone Environmental, Energy Calculations for Senior Residential Community at the Bellwood Project. See Appendix D of this Draft EIR.

24,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.<sup>6</sup>

SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada, as well as local California supplies.<sup>7</sup> The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.<sup>8</sup> Gas supply available to SoCalGas from California sources averaged 323 million cf per day in 2017 (the most recent year for which data are available).<sup>9</sup>

SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the Project vicinity. As described in the Utility Report, the Project Site receives natural gas service via a 3-inch gas line fronting 16-feet west of the centerline of Bellwood Avenue.<sup>10</sup> It is estimated that existing uses on the Project Site currently consume approximately 1,947,257 cf of natural gas per year.<sup>11</sup>

### 3. Project Impacts

This analysis addresses the Project's potential impacts on electricity and natural gas infrastructure. The Project's estimated energy consumption was calculated using CalEEMod Version 2016.3.2.

#### a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to energy infrastructure if it would:

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<sup>6</sup> SoCalGas, *Company Profile*, [www.socalgas.com/about-us/company-info.shtml](http://www.socalgas.com/about-us/company-info.shtml), accessed January 15, 2021.

<sup>7</sup> *California Gas and Electric Utilities, 2020 California Gas Report*, pp. 144–145.

<sup>8</sup> *California Gas and Electric Utilities, 2020 California Gas Report*, pp. 144–145.

<sup>9</sup> *California Gas and Electric Utilities, 2020 California Gas Report*, pp. 144–145.

<sup>10</sup> *Fusco Engineering Inc., Senior Residential Community at The Bellwood Water, Sewer, and Energy Infrastructure Assessment Report, February 2020. Refer to Appendix J of this Draft EIR.*

<sup>11</sup> *Eyestone Environmental, Energy Calculations for the Senior Residential Community at the Bellwood Project. See Appendix D of this Draft EIR.*

***Threshold (a): Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

For this analysis, the Appendix G Thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. Refer to Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR for a discussion of water infrastructure; Section IV.K.2, Utilities and Service Systems—Wastewater, of this Draft EIR for a discussion of wastewater infrastructure; the Project's Initial Study included as Appendix A of this Draft EIR for a discussion of stormwater infrastructure; and Section VI, Other CEQA Considerations, for a discussion of telecommunications facility infrastructure.

The *L.A. CEQA Thresholds Guide* identifies the following criteria to evaluate impacts to energy infrastructure:

- The extent to which the project would require new (off-site) energy supply facilities<sup>12</sup> and distribution infrastructure; or capacity-enhancing alterations to existing facilities;

## **b. Methodology**

This analysis evaluates the potential impacts of the Project on existing energy infrastructure by comparing the estimated Project energy demand with the available capacity. Will-serve letters from LADWP and SoCalGas included in Appendix J of this Draft EIR demonstrate the availability of sufficient energy resources to supply the Project's demand.

Project energy usage, including electricity and natural gas, was calculated using CalEEMod Version 2016.3.2. During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control (including supply and conveyance) and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Construction activities typically do not involve the consumption of natural gas. During Project operation, energy consumption would include electricity and natural gas from uses such as heating/ventilation/air conditioning (HVAC); water heating, cooking, lighting, and use of

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<sup>12</sup> Refer to Section IV.C, Energy, of this Draft EIR for a discussion of energy supply.

electronics/appliances. Additional details regarding Project energy usage are provided in Section IV.C, Energy, and Appendix D of this Draft EIR.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2023 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands. Finally, the capacity of local infrastructure to accommodate the Project's estimated electricity and natural gas demand was assessed based on the Utility Report, included as Appendix J of this Draft EIR.

### c. Project Design Features

No specific project design features are proposed with regard to energy infrastructure. However, the Project would include project design features designed to improve energy efficiency as set forth in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR.

### d. Analysis of Project Impacts

***Threshold (a): Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*<sup>13</sup>**

#### (1) Impact Analysis

##### (a) Construction

##### (i) Electricity

Construction activities at the Project Site would require minor quantities of electricity for lighting, power tools and other support equipment. Heavy construction equipment would be powered with diesel fuel. As discussed on page IV.C-23 of Section IV.C, Energy, of this Draft EIR, during Project construction activities, electricity usage represents approximately two percent of the estimated net annual Project operational demand, which

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<sup>13</sup> Refer to Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR for a discussion of water infrastructure; Section IV.K.2, Utilities and Service Systems—Wastewater, of this Draft EIR for a discussion of wastewater infrastructure; the Project's Initial Study included as Appendix A of this Draft EIR for a discussion of stormwater infrastructure; and Section VI, Other CEQA Considerations, for a discussion of telecommunications facility impacts.

as described below, would be within LADWP's infrastructure service capabilities. LADWP's existing electrical infrastructure currently has enough capacity to provide service for construction activities. Moreover, electricity usage during construction would be offset by the elimination of the existing electricity usage at the Project Site, since the existing on-site uses which currently generate a demand for electricity would be removed. As existing power lines are located in the vicinity of the Project site, electricity during Project construction would be obtained from existing electrical lines pursuant to Project Design Feature AQ-PDF-1, which would require the use of electricity from power poles rather than temporary gasoline or diesel powered generators where available. Therefore, existing off-site infrastructure would not have to be expanded or newly developed to provide electricity to the Project Site during construction or demolition.

With regard to existing electrical distribution lines, the Applicant would be required to coordinate electrical infrastructure removals or relocations with LADWP and comply with site-specific requirements set forth by LADWP, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within LADWP easements are minimized. Project contractors would notify and coordinate with LADWP to identify the locations and depth of all existing electrical lines and avoid disruption of electrical service to other properties. As such, construction of the Project is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

**Therefore, based on the above, construction of the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

*(ii) Natural Gas*

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities, and there would be no demand generated by construction. However, the Project would involve installation of new natural gas connections to serve the Project Site. Since the Project Site is located in an area already served by existing natural gas infrastructure, it is anticipated that the Project would not require extensive off-site infrastructure improvements to serve the Project Site. Construction impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, Project contractors would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service to other properties. **Therefore, construction of the Project would not result in**

**an increase in demand for natural gas that exceeds available supply or distribution infrastructure capabilities and would not result in the relocation or construction of new or expanded energy facilities, the construction or relocation of which could cause significant environmental effects.**

*(b) Operation*

*(i) Electricity*

As shown in Table IV.C-2 in Section IV.C, Energy, of this Draft EIR, the Project's net operational electricity usage would be 899,296 kWh per year, which is less than 0.004 percent of LADWP's projected sales in 2023.<sup>14</sup> In addition, as discussed in Section IV.C, Energy, of this Draft EIR, during peak conditions, the Project would represent approximately 0.005 percent of the LADWP estimated peak load. LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area.<sup>15</sup> Therefore, during Project operations, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand. Furthermore, the Project would implement any necessary connections and upgrades required by LADWP to ensure that LADWP would be able to adequately serve the Project. **Therefore, operation of the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities and would not result in the relocation or construction of new or expanded energy facilities, the construction or relocation of which could cause significant environmental effects.**

*(ii) Natural Gas*

As shown in Table IV.C-2 in Section IV.C, Energy, of this Draft EIR, the Project would consume 539,350 cf of natural gas per year, which represents approximately 0.00006 percent of the 2023 forecasted consumption in the SoCalGas planning area. SoCalGas has confirmed that the Project's natural gas demand can be served by the facilities in the Project area.<sup>16</sup> Therefore, during Project operations, it is anticipated that SoCalGas' existing and planned natural gas capacity and electricity supplies would be sufficient to support the Project's natural gas demand. Furthermore, the Project would implement any necessary connections and upgrades required by SoCalGas to ensure that SoCalGas would be able to adequately serve the Project. **Thus, operation of the Project**

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<sup>14</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1.

<sup>15</sup> Fuscoe Engineering Inc., Senior Residential Community at The Bellwood Water, Sewer, and Energy Infrastructure Assessment Report, February 2020. Refer to Appendix J of this Draft EIR.

<sup>16</sup> Fuscoe Engineering Inc., Senior Residential Community at The Bellwood Water, Sewer, and Energy Infrastructure Assessment Report, February 2020. Refer to Appendix J of this Draft EIR.

would not result in an increase in demand for natural gas that exceeds available supply or distribution infrastructure capabilities and would not result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

*(c) Conclusion*

As demonstrated in the analysis above, construction and operation of the Project would not result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, Project impacts related to energy infrastructure would be less than significant during construction and operation.

(2) Mitigation Measures

Project-level impacts related to energy infrastructure would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to energy infrastructure were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

## **e. Cumulative Impacts**

(1) Impact Analysis

*(a) Electricity*

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. LADWP forecasts that its total energy sales in the 2023–2024 fiscal year (the Project's buildout year) will be 23,033 GWh of electricity.<sup>17,18</sup> As such, the Project's net operational electricity usage of 899,296 kWh per year would represent less than 0.004 percent of LADWP's projected sales in 2023 (the Project's full buildout year). In

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<sup>17</sup> LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.

<sup>18</sup> LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1.

addition, LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area.<sup>19</sup> Data used to develop the LADWP demand forecasts take into account population growth, energy efficiency improvements, and economic growth which includes construction projects.<sup>20</sup>

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk, consistent with LADWP's environmental priorities and reliability standards. The 2017 Power Strategic Long-Term Resources Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. Development projects within the LADWP service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. Although detailed information regarding electrical infrastructure for development projects in LADWP's service area is not known, it is expected that LADWP would provide for necessary improvements specific to each development project. Each of the development projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the service area. As discussed above, will-serve letters are provided for individual projects in which LADWP determines whether sufficient infrastructure is in place to provide electricity to a proposed project. As part of the will-serve letter process, LADWP takes into account all uses (including future development projects) in the service area to ensure that sufficient local and regional infrastructure is adequate. As the will-serve letter for the Project identified adequate infrastructure, construction and operation of the Project would not adversely affect the LADWP electrical grid. **Therefore, the Project and the related projects would not result in significant cumulative impacts related to electricity infrastructure. As such, the Project's contribution would not be cumulatively considerable, and impacts would be less than significant.**

*(b) Natural Gas*

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimated natural gas consumption within SoCalGas' planning

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<sup>19</sup> *Fusco Engineering, Inc., Senior Residential Community at The Bellwood—Water, Sewer, and Energy Infrastructure Assessment Report, February 2020. See Appendix J of this Draft EIR.*

<sup>20</sup> *LADWP, 2017 Retail Electric Sales and Demand Forecast, p. 6.*

area will be approximately 2.40 billion cf/day in 2023 (the Project's buildout year).<sup>21</sup> As such, the Project would account for approximately 0.00006 percent of the 2023 forecasted consumption in SoCalGas' planning area. SoCalGas has confirmed that the Project can be served by the facilities in the Project area,<sup>22</sup> and in general, each development project would be expected to comprise a similarly limited percentage of overall natural gas consumption. Moreover, SoCalGas identifies future planned infrastructure and forecasts demand through a variety of factors including the number of housing starts and gas meters installed, employment forecasts and increasing energy efficiency requirements.<sup>23</sup> Therefore, natural gas usage resulting from future development projects is likely accounted for in the SoCalGas projections.

Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCalGas would continue to expand delivery capacity if necessary to meet demand increases within its service area. Although detailed information regarding natural gas infrastructure for each of the development projects is not known, it is expected that SoCalGas would provide for necessary improvements specific to each development project. Development projects within its service area would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the natural gas infrastructure in the service area.

As discussed above, will-serve letters are provided for individual projects (see Attachment F of Appendix J of this Draft EIR), in which SoCalGas determines whether sufficient infrastructure is in place to provide natural gas service to a proposed project. As part of the will-serve letter process, SoCalGas identifies existing and future planned infrastructure in the service area to ensure that the Project would receive adequate natural gas service. As the will-serve letter for the Project identified adequate infrastructure, construction and operation of the Project would not significantly affect the SoCalGas regional infrastructure. **Therefore, the Project and related projects would not result in significant cumulative impacts related to natural gas infrastructure. As such, the Project's contribution would not be cumulatively considerable, and impacts would be less than significant.**

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<sup>21</sup> *California Gas and Electric Utilities, 2020 California Gas Report, pp. 144–145.*

<sup>22</sup> *Fusco Engineering, Inc., Senior Residential Community at The Bellwood—Water, Sewer, and Energy Infrastructure Assessment Report, February 2020. See Appendix J of this Draft EIR.*

<sup>23</sup> *California Gas and Electric Utilities, 2020 California Gas Report, pp. 94–100.*

## (2) Mitigation Measures

Cumulative impacts related to energy infrastructure would be less than significant. Therefore, no mitigation measures are required.

## (3) Level of Significance after Mitigation

Cumulative impacts related to energy infrastructure were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.