

Appendix K

Energy Demand

7.7 Energy – Media District Specific Plan

BWP Electrical System Overview

Burbank Water and Power (BWP) is a municipally owned utility that provides electrical service to approximately 53,000 residential and commercial customers in the City of Burbank. BWP’s electrical system includes high-voltage sub-transmission lines, electrical substations, distribution circuits, transformers, and revenue meters. BWP produces some of its energy within the City of Burbank through the Lake Generating Unit as well as its share of the Magnolia Power Plant. BWP also relies heavily on importing electricity through its system interconnection with the Los Angeles Department of Water and Power (LADWP). BWP continually plans for long term growth by addressing necessary infrastructure upgrades in its Capital Improvement Program (CIP) and by requiring developments to pay their share of on-site improvements, related off-site improvements, and substation capacity per applicable BWP rules, regulations, and the Burbank Municipal Code.

Electrical Demand Assumptions

BWP makes certain assumptions for calculating demand from future developments. For residential, BWP assumes about 3 MW for every 1,000 housing units. For commercial, BWP assumes about 6 MW for every 1,000,000 sf. These guidelines are based on past historical demand from existing developments throughout the city and are used as the basis for the demand calculations for the development potential across the Golden State, Downtown District and Media District Specific Plans. Factors such as the amount of electric vehicle chargers and building electrification allowed per development would add to the electrical capacity estimate.

Impacts to BWP System Interconnection Capacity

Based on data provided to BWP for the Golden State, Downtown District, and Media District specific plans, the development potential across all three specific plans for the preferred project, no growth alternative, and growth alternative is shown in the table below:

		Residential	Commercial	
Specific Plan		Net New Units	Net Comm. SF	Hotel Rooms
Preferred Project	Golden State	7,201	3,142,307	
	Downtown District	9,944	6,083,657	981
	Media District	9,702	3,986,207	400
	TOTAL	26,847	13,212,171	1,381
No Growth Alternative	Golden State	7,201	3,142,307	0
	Downtown District	3,415	3,025,079	981
	Media District	6,062	2,488,411	0
	TOTAL	16,678	8,655,797	981
Growth Alternative	Golden State	9,033	3,142,307	0
	Downtown District	16,977	6,501,905	981
	Media District	14,312	7,265,850	400
	TOTAL	40,322	16,910,062	1,381

BWP’s estimate for electrical demand from this development potential is shown below:

	Specific Plan	Residential Demand	Commercial Demand	Total Electrical Demand
Preferred Project	Golden State	22 MW	19 MW	40 MW
	Downtown District	30 MW	39 MW	69 MW
	Media District	29 MW	25 MW	54 MW
	TOTAL	81 MW	83 MW	164 MW
No Growth Alternative	Golden State	22 MW	19 MW	40 MW
	Downtown District	10 MW	21 MW	31 MW
	Media District	18 MW	15 MW	33 MW
	TOTAL	50 MW	55 MW	105 MW
Growth Alternative	Golden State	27 MW	19 MW	46 MW
	Downtown District	51 MW	42 MW	93 MW
	Media District	43 MW	45 MW	88 MW
	TOTAL	121 MW	106 MW	227 MW

BWP estimates that the existing system interconnection at LADWP will have about 30 MW of capacity to serve this development potential under normal operating conditions. BWP may also elect to operate the 40 MW Lake Generating Unit, which would bring the total available capacity to 70 MW. This generating unit is typically only relied upon in a backup scenario but could be called upon to serve additional load in the short term. Based on this available capacity, BWP estimates that the existing system interconnection at LADWP will be able to support the City Council’s goals to build 12,000 units by 2035 as noted in Section 4.7 as long as commercial development potential is managed accordingly.

To serve the full development potential of the Golden State, Downtown District, and Media District specific plans, the system interconnection capacity must be significantly increased. BWP is in the process of determining the most effective methods to increase its system interconnection capacity which include new interconnections with Southern California Edison (SCE) and LADWP to mitigate both short term (5-10 years) and long-term (10-15 years) needs, respectively.

Expansion of BWP’s system interconnection capacity with LADWP will allow BWP to serve 100% of the development potential across all three specific plans for the preferred project, no growth alternative, and growth alternative. This capacity expansion is estimated to have a time horizon of about 10-15 years for the construction of the new interconnecting station and associated sub-transmission lines.

Impacts to BWP Electrical Distribution Network in the Media District

BWP operates two 12kV distribution substations (Hollywood Way and Keystone Distributing Stations) and two customer substations (NBC and Warner) to serve the Media District area of Burbank. While BWP has sufficient distribution substation capacity to meet its current needs, BWP is in the process of building a new 12kV substation (Willow Substation) in the Media District Specific Plan to meet short-term electrical demand due to housing, transportation electrification, and other developments in the area. In addition, BWP must also consider another distribution

substation in the Media District to address its long-term growth to ensure sufficient reliability and resiliency in the area. Land acquisition will be necessary to build these new substations. Developers will be responsible for contributing towards new substation capacity based on the electrical demand for the project. A new substation typically takes between 4-5 years to complete.

In addition to distribution substations, sub-transmission and distribution facilities must be installed to and from the distribution substations including overhead infrastructure (i.e., poles, wires, etc.) and underground infrastructure (i.e., conduits, cables, manholes, pull boxes, padmount transformers, padmount switches, etc.). Construction of both sub-transmission and distribution infrastructure typically involves trench work in the public right-of-way and can take between 1-2 years to complete. Developments will be required to pay their share of on-site improvements, related off-site improvements, and substation capacity per applicable BWP rules, regulations, and the Burbank Municipal Code.

Downtown TOD Specific Plan

BWP Electrical System Overview

Burbank Water and Power (BWP) is a municipally owned utility that provides electrical service to approximately 53,000 residential and commercial customers in the City of Burbank. BWP’s electrical system includes high-voltage sub-transmission lines, electrical substations, distribution circuits, transformers, and revenue meters. BWP produces some of its energy within the City of Burbank through the Lake Generating Unit as well as its share of the Magnolia Power Plant. BWP also relies heavily on importing electricity through its system interconnection with the Los Angeles Department of Water and Power (LADWP). BWP continually plans for long term growth by addressing necessary infrastructure upgrades in its Capital Improvement Program (CIP) and by requiring developments to pay their share of on-site improvements, related off-site improvements, and substation capacity per applicable BWP rules, regulations, and the Burbank Municipal Code.

Electrical Demand Assumptions

BWP makes certain assumptions for calculating demand from future developments. For residential, BWP assumes about 3 MW for every 1,000 housing units. For commercial, BWP assumes about 6 MW for every 1,000,000 sf. These guidelines are based on past historical demand from existing developments throughout the city and are used as the basis for the demand calculations for the development potential across the Golden State, Downtown District and Media District Specific Plans. Factors such as the amount of electric vehicle chargers and building electrification allowed per development would add to the electrical capacity estimate.

Impacts to BWP System Interconnection Capacity

Based on data provided to BWP for the Golden State, Downtown District, and Media District specific plans, the development potential across all three specific plans for the preferred project, no growth alternative, and growth alternative is shown in the table below:

		Residential	Commercial	
Specific Plan		Net New Units	Net Comm. SF	Hotel Rooms
Preferred Project	Golden State	7,201	3,142,307	
	Downtown District	9,944	6,083,657	981
	Media District	9,702	3,986,207	400
	TOTAL	26,847	13,212,171	1,381
No Growth Alternative	Golden State	7,201	3,142,307	0
	Downtown District	3,415	3,025,079	981
	Media District	6,062	2,488,411	0
	TOTAL	16,678	8,655,797	981
Growth Alternative	Golden State	9,033	3,142,307	0
	Downtown District	16,977	6,501,905	981
	Media District	14,312	7,265,850	400
	TOTAL	40,322	16,910,062	1,381

BWP’s estimate for electrical demand from this development potential is shown below:

	Specific Plan	Residential Demand	Commercial Demand	Total Electrical Demand
Preferred Project	Golden State	22 MW	19 MW	40 MW
	Downtown District	30 MW	39 MW	69 MW
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	Media District	43 MW	45 MW	88 MW
	TOTAL	121 MW	106 MW	227 MW

BWP estimates that the existing system interconnection at LADWP will have about 30 MW of capacity to serve this development potential under normal operating conditions. BWP may also elect to operate the 40 MW Lake Generating Unit, which would bring the total available capacity to 70 MW. This generating unit is typically only relied upon in a backup scenario but could be called upon to serve additional load in the short term. Based on this available capacity, BWP estimates that the existing system interconnection at LADWP will be able to support the City Council’s goals to build 12,000 units by 2035 as noted in Section 4.7 as long as commercial development potential is managed accordingly.

To serve the full development potential of the Golden State, Downtown District, and Media District specific plans, the system interconnection capacity must be significantly increased. BWP is in the process of determining the most effective methods to increase its system interconnection capacity which include new interconnections with Southern California Edison (SCE) and LADWP to mitigate both short term (5-10 years) and long-term (10-15 years) needs, respectively.

Expansion of BWP’s system interconnection capacity with LADWP will allow BWP to serve 100% of the development potential across all three specific plans for the preferred project, no growth alternative, and growth alternative. This capacity expansion is estimated to have a time horizon of about 10-15 years for the construction of the new interconnecting station and associated sub-transmission lines.

Impacts to BWP Electrical Distribution Network in Downtown Burbank

BWP operates two 12kV distribution substations (Burbank and San Jose Distributing Stations) to serve Downtown Burbank. While BWP has sufficient distribution substation capacity to meet its current needs, BWP will need to construct a new 12kV substation in Downtown Burbank to meet short-term and long-term electrical demand due to housing, transportation electrification, and other developments in the area. Land acquisition on the east side of the I-5 freeway will be necessary to build the new substation. Developers will be responsible for contributing towards

new substation capacity based on the electrical demand for the project. A new substation typically takes between 4-5 years to complete.

In addition to distribution substations, sub-transmission and distribution facilities must be installed to and from the distribution substations including overhead infrastructure (i.e., poles, wires, etc.) and underground infrastructure (i.e., conduits, cables, manholes, pull boxes, padmount transformers, padmount switches, etc.). Construction of both sub-transmission and distribution infrastructure typically involves trench work in the public right-of-way. Additionally, new freeway crossings will need to be established for both sub-transmission and distribution lines to cross into the east side of the I-5 freeway. This construction effort can take between 3-4 years to complete. Developments will be required to pay their share of on-site improvements, related off-site improvements, and substation capacity per applicable BWP rules, regulations, and the Burbank Municipal Code.

Golden State Specific Plan

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	Media District	6,062	2,488,411	0
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Growth Alternative	Golden State	9,033	3,142,307	0
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	Media District	14,312	7,265,850	400
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Impacts to BWP Electrical Distribution Network in the Golden State District

BWP operates two 12kV distribution substations (Golden State and Ontario Distributing Stations) to serve the Golden State District area of Burbank. While BWP has sufficient distribution substation capacity to meet its current needs, BWP is in the process of building a new 12kV distribution substation (Airport Substation) in the Golden State District to meet short-term electrical demand due to the BUR Replacement Terminal project, new developments, and transportation electrification in the area. Developers will be responsible for contributing towards

new substation capacity based on the electrical demand for the project. A new substation typically takes between 4-5 years to complete.

In addition to distribution substations, sub-transmission and distribution facilities must be installed to and from the distribution substations including overhead infrastructure (i.e., poles, wires, etc.) and underground infrastructure (i.e., conduits, cables, manholes, pull boxes, padmount transformers, padmount switches, etc.). Construction of both sub-transmission and distribution infrastructure typically involves trench work in the public right-of-way and can take between 1-2 years to complete. Developments will be required to pay their share of on-site improvements, related off-site improvements, and substation capacity per applicable BWP rules, regulations, and the Burbank Municipal Code.
