

5.18 CUMULATIVE IMPACTS

5.18.1 Introduction

The cumulative impacts assessment for the Bullard Energy Center (BEC) is based on the California Environmental Quality Act of 1970 (CEQA) (California Public Resources Code [PRC] Section 21083) and the CEQA Guidelines (California Code of Regulations [CCR] Section 15130) which requires that the discussion of cumulative impacts be “guided by the standards of practicality and reasonableness” (PRC Section 21083 (b)); and, that “the discussion include a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts” (CCR Section 15130 (b)(1)(A)). The CEQA guidelines require that cumulative impacts are discussed when they are significant, and that the discussions of cumulative impacts reflect the severity of the impacts and their likelihood of occurrence. However, the CEQA Guidelines state that the discussion need not provide the impacts discussion in as great detail as is provided for the project’s impacts.

Therefore, the purpose of this section of the Application for Certification (AFC) is to identify past, present, and reasonably foreseeable actions in the project area that could affect the same resources as the BEC project:

- Determine if the impacts of the BEC and the other actions would overlap in time or geographic extent
- Determine if the impacts of the project would interact with, or intensify, the impacts of the other actions
- Identify any potentially significant cumulative impacts

The BEC plant site is located approximately 1.25 miles southeast of the intersection of Herndon Avenue and North Golden State Boulevard at 5829 North Golden State Boulevard in the City of Fresno. The proposed plant site is a 12.3-acre parcel further described as Assessors Parcel Number (APN) 505-080-22S. The parcel is zoned M-1 (light industrial use) and is located in an industrial area that is currently used as a truck depot, and construction equipment fabrication and storage yard

The BEC is a simple cycle electrical generating facility located at 5829 North Golden State Boulevard within the city limits of Fresno. The BEC will be a 200-megawatt (MW) peaking facility consisting of two General Electric (GE) LMS100 natural gas-fired combustion turbine generators (CTGs), each equipped with water injection to the combustors for reducing production of oxides of nitrogen (NO_x), a selective catalytic reduction (SCR) system with 19 percent aqueous ammonia (NH₄ [OH]) injection to further reduce NO_x emissions and an oxidation catalyst to reduce carbon monoxide (CO). Electricity generated by the BEC will be delivered to a new Pacific Gas and Electric (PG&E) electrical sub-station located on site. The sub-station will be a looping sub-station with the Herndon-Kearney 230 kilovolt (kV) transmission lines. Interconnection at this sub-station will minimize impacts to the PG&E transmission system while providing efficient peaking power for use during peak demand. Where potentially significant impacts have been identified, an assessment of cumulative impacts is provided in the respective resource section(s) of this AFC.

5.18.2 On-Site Construction

The nature of the site and its surroundings will allow the BEC to be constructed and operated with minimal environmental impacts. The BEC will be constructed on a site that is already paved and used for industrial purposes.

5.18.3 Off-Site Improvements

Off-site improvements associated with the project include: a 9,500-foot gas pipeline up to 12-inches in diameter; a 300 foot water supply line; and a 1,500-foot sewer line. Additionally, PG&E will need to re-conductor approximately 2 miles of the Herndon-Kearney 230 kV line.

Although off-site pipelines will be required, the surrounding areas through which these lines will be constructed consist of light industrial zoned M-1, single-family residential zoned R-1, agricultural uses zoned AE-5, and other undeveloped properties with uses planned for medium density residential and light industrial. The land uses within close proximity to the BEC site are generally industrial and manufacturing-related with an adjacent trucking facility and nearby warehousing uses.

5.18.3.1 Natural Gas

Natural gas will be delivered to the plant site from a PG&E trunk line located approximately 9,500 feet west of the site, near the intersection of North Garfield Avenue and West Bullard Avenue. The primary route will convey gas via a pipeline up to 12 inches in diameter along West Bullard Avenue to North Golden State Boulevard, and then south to the site. Two alternate routes include the same PG&E connection location, continuing north along North Garfield Avenue to Herndon Avenue, then south along North Golden State Boulevard and North Weber Street to the site. A new gas compressor, metering, and regulator station will be provided on the northwest corner of the site. The primary and secondary routes for the pipelines are indicated on Figure 3.2-1, Proposed Project Linear.

5.18.3.2 Sanitary Sewer

Wastewater from the site will be conveyed via an approximate 14-inch diameter, 1,500-foot sewer line proceeding northwest along North Golden State Boulevard, tying into the existing 54-inch City of Fresno trunk line, just north of the intersection of North Golden State Boulevard and West Bullard Avenue. The sanitary system connection will handle the sanitary flow from the administration and control building, and any other similar facilities located on the site. The sewer connection will be located directly north of the administration and control building.

5.18.3.3 Water Lines

The city water connection is currently located immediately north of the existing property gate at the available fire hydrant. The main line will be extended approximately 300 feet to the north end of the property along North Golden State Boulevard.

5.18.3.4 Transmission Lines

The BEC will construct a new 230 kV looping sub-station on-site, tying into the east side of the existing Herndon-Kearney 230 kV line, which runs from south to north across the southwest corner of the site. This new sub-station will be approximately 3.0 acres in size, will be located on the southwest portion of the 12.3-acre site, and lie between the Herndon sub-station to the north, and the Kearney sub-station to the south. Approximately two miles of the transmission line will require re-conductoring.

5.18.4 Cumulative Impacts

5.18.4.1 Methodology

Projects that will potentially contribute to cumulative impacts are those located in the same general geographic area of influence of the BEC. For this cumulative assessment, the area of influence is defined as the area within a 1-mile radius of the power plant. Projects or proposed projects of potential regional significance are also considered in the cumulative analysis. Information was gathered on projects that either (1) are greater than 30,000 square feet, (2) have submitted a defined project application for required approvals or permits, or (3) have been previously approved and may be implemented in the near future. The following assessment focuses on the potential overlap of construction and operation impacts among various projects meeting the various criteria described above.

The project list was compiled by comparing the City of Fresno (2005) aerial photographs and the Assessor’s Parcel Number (APN) books within a 1-mile radius of BEC. Only those projects listed as submitted in either 2005 or 2006 were researched. The completed list had permits dating back to 1993. It was determined that only projects that have occurred since 2005 would be considered. The reason for this is that the aerial photos were taken in 2005; therefore, the 2005 aerials could not account for any permits applied for since this point in time. Upon further review of these projects it was determined that none of these land use applications met the criteria listed above for projects of potential regional significance.

Existing development was omitted from consideration as they could not have an effect on future, cumulative impacts. The parcels that did not show development on the aerials but did have permit activity are shown in Table 5.18-1, Cumulative Project List.

**TABLE 5.18-1
CUMULATIVE PROJECT LIST**

Application	Status	Location	Project	Zone
R-06-14	Pending:			
Tract 5690	Map not yet accepted			
C-06-52				

**TABLE 5.18-1
CUMULATIVE PROJECT LIST**

Application	Status	Location	Project	Zone
A-05-24 R-05-122	At City Council on July 25, 2006	9.14 acres Southeast corner of North Polk and West Dante	118-unit condominium development	Plan Amendment From neighborhood commercial for 9.17 acres and medium- high density residential for 3.21 acres to the medium- high density residential for 9.17 acres and medium density residential for 3.21 acres Rezone from C-1/UGM to R-1 and R-2/UGM
C-06-117 Tract 5755/ UGM	In review and comment period of process			
C-05-48	At City Council on August 23, 2005; Approved	6.5 acres northeast corner of North Polk and West Palo Alto	80-unit multiple family residential development	R-2/UGM/cz
A-05-25 R-05-123	At City Council on July 25, 2006; Approved	9.51 acres north side of West Bullard between North Grantland and North Bryan	65-dwelling planned unit development	Plan Amendment from medium density residential to medium-high density residential Rezone from AE-20 to R-2/UGM
A-06-19 R-06-55	Filed 8-31-06	47.46 acres south side of West Barstow between North Grantland and Veterans Boulevard alignment	Remove North Bryan Avenue between Veterans Boulevard alignment and West Shaw Avenue	Plan Amendment from collector to local street Rezone from AE-5/UGM to R-2/UGM

For the few projects that did meet the criteria listed previously, potential cumulative impacts were identified if the BEC project impacts would contribute to the impacts of reasonably anticipated future projects under construction at the same time. The magnitude of such cumulative impacts depends, in part, on the extent of construction overlap in time and geographic area. For the purposes of this cumulative impact assessment, it is anticipated that the construction phase for the BEC project will begin in April of 2008. This assessment also considers potential cumulative impacts that could occur during the operational phase of the BEC project.

Three projects approved since 2005 were identified within the 1-mile site radius while two other applications are still in process. Approved projects include:

- Reclassifying a street from a collector to a local street
- 9.51 acres located on the north side of West Bullard between North Grantland and North Bryan for a 65-dwelling planned unit development
- 6.5 acres northeast corner of North Polk and West Palo Alto for an 80-unit multiple family residential development

In addition, 9.14 acres located at the southeast corner of North Polk and West Dante to allow for a 118-unit condominium development is currently in process for a plan amendment.

5.18.4.2 Construction

Construction activities will include all work on the site, installation and connection of off-site utilities, pipelines and transmission lines, improvements to the access road, and plant startup. Sequential activities for on-site and off-site work include: site preparation; foundation construction, erection of major equipment and structures; installation of piping, electrical systems, and control systems; and startup/testing.

Construction activities have the potential to create temporary impacts to local roadways along the access route. Construction activities may also create additional noise, dust, and emissions from grading equipment and other construction vehicles. Additional information on these issues is provided in Sections 5.2 and 5.12 (Air Quality and Noise).

Residences and businesses located near the project site may experience short-term impacts associated with facility construction and line extensions, including visual disruption, dust, increased traffic, traffic congestion and delays, and project equipment and vehicle emissions (see Sections 5.2, Air Quality; 5.11, Traffic and Transportation; 5.12, Noise; and 5.13, Visual Resources). However, the temporary construction impacts have been determined not to be significant.

Overall, construction activities will result in short-term land use impacts. However, due to the compatibility with existing land uses (energy generation, transmission lines, and a sub-station), the traffic increase during project construction of the study roadway segments are forecast to operate at acceptable level of service (LOS) C or better under Year 2008 Peak Project Construction conditions. The roadway segment LOS calculation worksheets are provided in Appendix S, Traffic Counts.

This site is located on the northwest side of the City of Fresno, and is immediately surrounded by roads, railroad, and other commercial/industrial uses. The 1-mile radius area is located predominantly within the City of Fresno. BEC's extension and upgrade of site utility lines may facilitate development within the 1-mile radius of the site, allowing for some additional growth and development.

5.18.4.3 Conclusion

The assessment of cumulative impacts for this project includes a review of other projects where an application has been filed with the City of Fresno. The immediate project area has not had

any major development projects in the past 18 months. The list of additional projects in the area of the BEC includes three approved projects. Concurrent construction of these projects and the BEC are not expected to result in significant cumulative impacts to air quality, cultural resources, land use, noise, water resources or traffic and transportation during the construction period or during the operation of the new facility. The proximity of these projects will provide a buffer of the temporary construction impacts from each other. Thus, as mentioned above, the BEC and other projects in the area are not expected to result in significant cumulative impacts to the environment.

5.18.5 Stipulated Conditions of Certification

No Stipulated Conditions of Certification apply to the issue area of Cumulative Impacts.

5.18.6 Mitigation Measures

No new mitigation measures are proposed for the issue area of Cumulative Impacts outside those recommended for the BEC project.

5.18.7 Applicable Laws, Ordinances, Regulations, and Standards

As shown in Table 5.18-2, LORS Applicable to Cumulative Impacts, no laws, ordinances, regulations, and standards (LORS) apply to the issue area of Cumulative Impacts.

**TABLE 5.18-2
LORS APPLICABLE TO CUMULATIVE IMPACTS**

LORS	Applicability	Conformance
Federal	No Federal LORS apply	N/A
State	No State LORS apply	N/A
Local	No Local LORS apply	N/A

Notes:
 LORS = laws, ordinances, regulations, and standards
 N/A = not applicable

5.18.8 Agency and Agency Contacts

Table 5.18-3, Agency Contacts, lists agencies and agency contacts applicable to the issue of Cumulative Impacts.

**TABLE 5.18-3
AGENCY CONTACTS**

Agency	Contact	Title	Telephone
City of Fresno	Arnoldo Rodriguez	Planner III	559-621-8633

5.18.9 Applicable Permits

No permits are required for the issue of Cumulative Impacts.

5.18.10 References

City of Fresno. 2005. Aerial photographs and the Assessor's Parcel Number (APN) books within a 1-mile radius of BEC, September 15, 2006.

Personal communications with Arnoldo Rodriguez, Planner III for the City of Fresno occurred on September 15, 2006.

