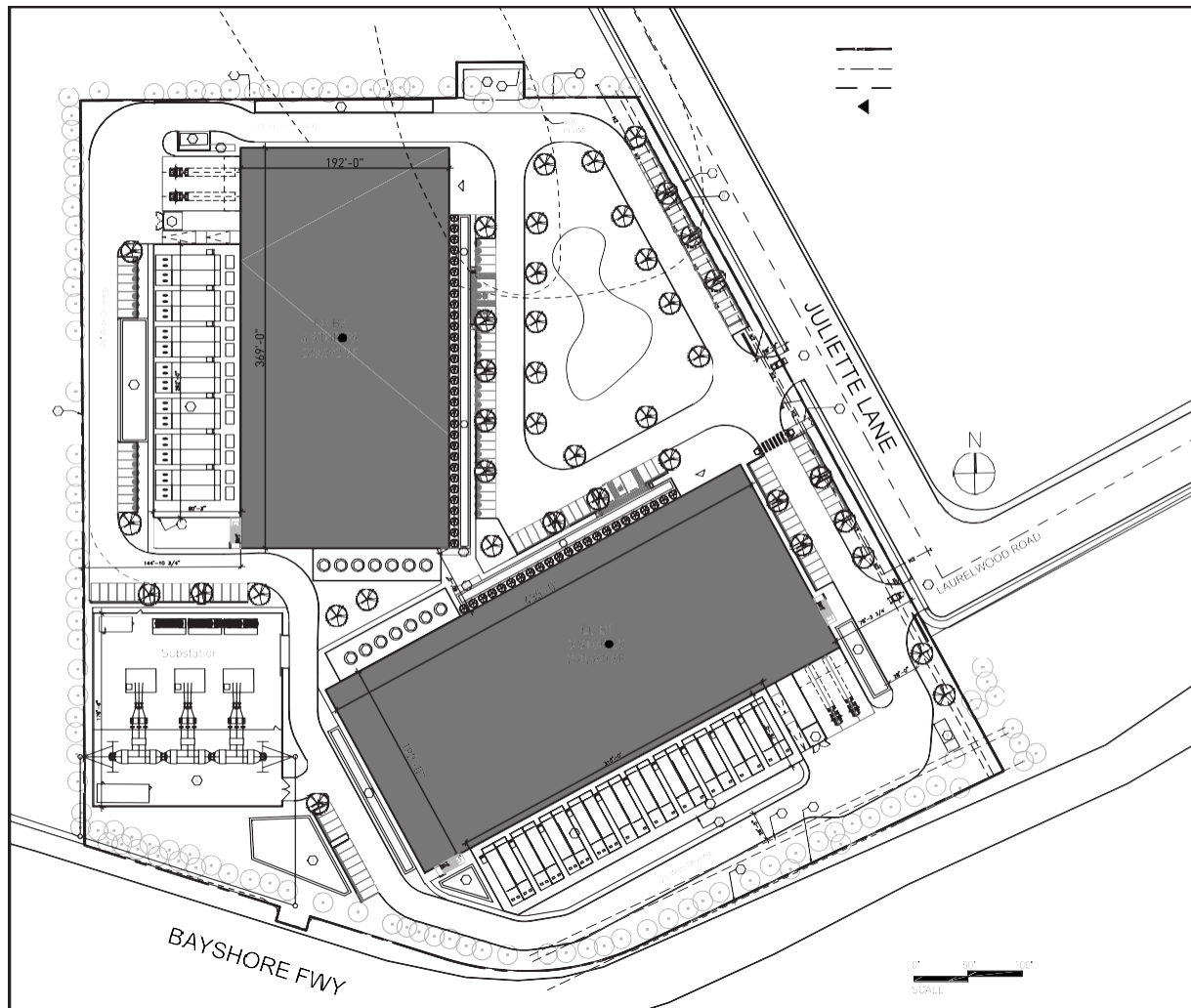


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# LAURELWOOD DATA CENTER SPPE

## Final Commission Decision



CALIFORNIA  
ENERGY COMMISSION  
Gavin Newsom, Governor

FEBRUARY 2020  
CEC-800-2020-001-CMF  
DOCKET NUMBER 19-SPPE-01

1. Are the Backup Generators thermal powerplants with a generating capacity of up to 100 MW?
2. Will a substantial adverse impact on the environment result from the construction or operation of the Backup Generators or the Project?
3. Will a substantial adverse impact on energy resources result from the construction or operation of the Backup Generators or the Project?

#### **A. The Backup Generators Have a Combined Generating Capacity of 99 MW**

The Warren-Alquist Act defines a thermal powerplant as “any stationary or floating electrical generating facility using any source of thermal energy, with a generating capacity of 50 megawatts or more, and any facilities appurtenant thereto.”<sup>58</sup>

#### Section 2003

In the Motion to Dismiss and in his Opening and Rebuttal Testimonies, Intervenor Sarvey argues that the exclusive method for calculating generating capacity is set forth in CEC regulation section 2003 and, under this method, the generating capacity of the Project is 168 MW when using the gross rating and 154 MW if the continuous rating of the generators is used.<sup>59</sup>

Staff and the Applicant disagreed. They respectively explained that the Backup Generators are diesel-fired with no turbines and that Section 2003 applies only to electric generating facilities with turbine generators.<sup>60</sup> Section 2003(a), expressly states: “The “generating” capacity of an electric generating facility means the maximum gross rating of the plant’s **turbine generator(s)**, in megawatts ..., minus the minimum auxiliary load.” (Emphasis added.)

The Committee took the motion and responses under submission to be ruled on after the evidentiary hearings.<sup>61</sup>

The uncontested evidence shows that the Backup Generators constitute a thermal power plant with a generating capacity in excess of 50 MW and none are or use turbine generators.<sup>62</sup> This makes Section 2003 inapplicable. However, in its response to the motion and in the IS/PMND, Staff provided an alternative method of determining the generating capacity of the Backup Generators. According to Staff, generating capacity for the Project should be determined by looking at critical IT load, ancillary load, and cooling. In support of this contention, Staff cites to the recent decision in the McLaren Backup

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<sup>58</sup> § 25120.

<sup>59</sup> TN 229476; Ex. 300, p. 18; Ex. 303, pp. 2-3.

<sup>60</sup> TN 229593.

<sup>61</sup> TN 229796.

<sup>62</sup> Ex. 200, App. A, pp. 4-6.

Generating Facility SPPE proceedings, in which the CEC concurred with Staff.<sup>63</sup> In McLaren, a similar argument about using section 2003 to calculate generating capacity was raised. The CEC there stated that the generating capacity of that project was equal to the maximum load of the servers, ancillary load, and cooling.<sup>64</sup>

Looking to Section 2003 as guidance in determining generating capacity,<sup>65</sup> Staff opined that SPPE analyses should be based on the net MWs that can be delivered for use, not the gross or nameplate rating of the generators providing the power. Thus, the maximum load being served is determinative—particularly where, as here, the Backup Generators “would be exclusively connected to the Data Center and would not be capable of delivering electricity to any other user or the electrical transmission grid.”<sup>66</sup>

In analyzing the Project’s maximum demand of 99 MW, Staff focused on the demands of actual cooling and server IT loads. This review considered 100 percent critical IT load and maximum cooling on the hottest day. These loads would be fixed by the specification and installation of electrical equipment, such as panels, buses, and breakers. Because the heat rejected by IT servers must be removed or else the server equipment and data would be damaged, any attempt to increase the number of servers or otherwise reconfigure the Data Center would require an expensive physical redesign of the Data Center and the Backup Generators.<sup>67</sup>

The Applicant concurred with Staff’s analysis.<sup>68</sup>

Intervenor Sarvey did not present any on-point statutory or regulatory authority in support of his position. We also did not find any such authority. In the absence of on-point statutory or regulatory authority, we may take any action supported by the record that we deem reasonable and necessary to carry out the provisions of the Warren-Alquist Act, including approving the IS/PMND’s methodology.<sup>69</sup> We find that the evidentiary record supports Staff’s position. Thus, we find that the Backup Generators will not generate more than 100 MW of electricity. In adopting the IS/PMND methodology, we also find that an additional condition is necessary to ensure that the 100MW limitation based on facility load will not be exceeded. We therefore adopt Condition of Exemption PD-1 to read as follows:

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<sup>63</sup> Final Commission Decision, McLaren Backup Generating Facility, 17-SPPE-01, TN 225970.

<sup>64</sup> *Id.* at pp. 7-9.

<sup>65</sup> Ex. 202, pp. 29-30.

<sup>66</sup> Ex. 200, App. A., pp. 4-7.

<sup>67</sup> *Id.*

<sup>68</sup> Ex. 133, p. 1.

<sup>69</sup> § 25218(e).

sufficient in itself to support a finding unless it would be admissible over objection in civil actions.<sup>122</sup> Because no other admissible evidence to support Intervenor Sarvey's position has been presented, the hearsay statements from Mr. Stone cannot be used to support a finding under the Warren-Alquist Act that the Project may have an adverse environmental impact.

In determining the number of hours to be used to analyze emergency operations, Staff reviewed the historical outages experienced by data centers in SVP's territory. The undisputed evidence indicates that between December 6, 2012, and August 2, 2019, there were a total of 31 outages to SVP's 60 kV lines that provide electrical power to the 12 kV distribution system that feeds power to data centers and other customers. Of those 31 outages, data centers were affected by only two of the events, with the longest interruption lasting for approximately 7.5 hours.<sup>123</sup>

As a challenge to the historical data of the reliability of SVP, Intervenor Sarvey contends that an outage on the SVP northwest loop could impact as many as 10 data centers and an unknown number of diesel generators.<sup>124</sup>

The evidence establishes that, to date, none of the interruptions to the electrical supply have affected all customers--or even all data centers--on a loop.<sup>125</sup> In the two incidents described above, only two data centers were affected in one outage; four data centers were affected in the second outage.<sup>126</sup> In addition, after every interruption of the electrical supply, SVP reviews the root causes of the interruption and designs subsequent facilities and/or procedures to prevent future similar events. For the northwest loop that would serve the Project, "SVP has designed the loops with breakers to limit a cascade event (e.g., an N-1-1 event)."<sup>127</sup> We thus find that an outage affecting all customers on a loop—sometimes referred to as a cascade event-- is unlikely.

As a further challenge to reliance on historic data on outages, Intervenor Sarvey argues that SVP would be subjected to power loss through Public Safety Power Shutoffs (PSPS) as a preventative measure by PG&E to reduce the potential for sparking and wildfire.<sup>128</sup>

We recognize that outages caused by PSPS may be foreseeable. However, CEQA provides that if a lead agency finds that a particular impact is too speculative for

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<sup>122</sup> Cal. Code Regs., tit. 20, §1212(c)(3).

<sup>123</sup> Ex. 200, p. 5.3-28, App. B, pp. 4-5; 11/1/19 RT 102:25 – 103:11.

<sup>124</sup> Ex. 300, p. 7; 11/1/19 RT 106:8 – 106:24.

<sup>125</sup> Ex. 203, p. 7-9.

<sup>126</sup> Ex. 200, App. B, p. 8.

<sup>127</sup> *Id.* at p. 8 [noting that Ex. 200, Appendix B shows 11 data centers on the NW Loop that would supply the Data Center].

<sup>128</sup> Ex. 300, pp. 7-8.

evaluation, “the agency should note its conclusion and terminate discussion of the impact.”<sup>129</sup>

Kevin Kolnowski, Electric Utility Chief Operating Officer at SVP, confirmed that SVP had not been affected to date by PSPS.<sup>130</sup> Mr. Kolnowski testified that SVP could potentially be impacted by PSPS in the future, as “dictated by the California Independent System Operator.”<sup>131</sup> However, as stated by Brewster Birdsall, Staff’s air quality expert in testimony related to emergency operations in general, “An emergency operation is unplanned and infrequent, and it’s not possible to predict exactly how much operations will occur or for what duration.”<sup>132</sup>

Here, SVP has, to date, not experienced any outages from PSPS. We have no evidence of the frequency, timing, and duration of PSPS outages and the impact that they may have on SVP. We therefore find that further analysis of PSPS outages is speculative and not required by CEQA.

#### Analysis of Other Data Centers

Intervenor Sarvey also argues that the analysis of emissions from emergency operations should have included an analysis of the impact from the emergency operations of backup generators at other data centers near the Project.<sup>133</sup>

The IS/PMND described interruptions to electrical service as infrequent and of short duration.<sup>134</sup> In addition, Staff had no evidence that adding the Project to the electrical system would increase the likelihood of outages at other nearby data centers. Staff thus concluded that “quantification of the emissions or air quality impacts caused by other data centers in emergency situations in conjunction with the [Project] would require speculation . . . .”<sup>135</sup>

We agree with Staff that attempting to quantify emissions or air quality impacts caused by other data centers is speculative because of the inability to determine how many data centers will actually be impacted, the number of generators that may be involved, and the emission profiles of these generators.<sup>136</sup> We therefore decline to perform this speculative analysis.

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<sup>129</sup> See § 21168; Guidelines, § 15145.

<sup>130</sup> 11/1/19 RT 131:9 – 132:10.

<sup>131</sup> 11/1/19 RT 132:5 – 132:7.

<sup>132</sup> 11/1/19 RT 47:19 – 47:21.

<sup>133</sup> Ex. 300, pp. 5-8.

<sup>134</sup> Ex. 200, p. 5.3-26.

<sup>135</sup> Ex. 203, p. 8 [citing Ex. 200, pp. 5.3-26 to 5.3-29].

<sup>136</sup> See § 21168; Guidelines, § 15145.