BLYTHE ENERGY PROJECT PHASE II

AMENDMENT

(02-AFC-1C)

DATA RESPONSE SET SUPPLEMENT #2

Submitted to

California Energy Commission

Submitted by

Caithness Blythe II, LLC

October 2010

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California Energy Commission
Dockets Unit
1516 Ninth Street
Sacramento, CA 95814-5512

Subject**: CAITHNESS BLYTHE II, LLC'S DATA RESPONSE SET SUPPLEMENT #2**
BLYTHE ENERGY PROJECT PHASE II AMENDMENT
DOCKET NO. (02-AFC-1C)

Enclosed for filing with the California Energy Commission are 2 (two) hardcopies (one original and one copy), and 2 (two) compact discs of **CAITHNESS BLYTHE II, LLC'S DATA RESPONSE SET SUPPLEMENT #2**, for the Blythe Energy Project Phase II Amendment (02-AFC-1C). This Supplement includes;

- Attachment 1 – Data Response # 20 Cumulative Analysis
- Attachment 2 – Revised Dead End Structure
- Attachment 3 – Preliminary Transmission Line Approaches to Colorado River Substation
- Attachment 4 – Data Response # 15 Supplemental GHG Analysis
- Attachment 5 – Data Response # 15 Supplemental GHG Analysis Spreadsheet (included on enclosed compact disc)

Sincerely,

// Original Signed //

David Wiseman
Counsel to Caithness Blythe II, LLC

ATTACHMENT 1

DATA RESPONSE #20 CUMULATIVE ANALYSIS

Cumulative Modeling Impact Assessment

A cumulative air quality modeling assessment was made for the proposed Blythe Energy Project Phase II (BEP II or Project) Amendment. Localized impacts from Blythe II could result from emissions of carbon monoxide, oxides of nitrogen, sulfur oxides, and directly emitted PM10/2.5. In evaluating the potential cumulative localized impacts of amendment in conjunction with the impacts of existing facilities and facilities not yet in operation but that are reasonably foreseeable, a potential impact area in which cumulative localized impacts could occur was identified as an area with a radius of 8 miles around the plant site. Based on the results of the proposed air quality modeling analyses described above, "significant" air quality impacts, as that term is defined in federal air quality modeling guidelines, will be determined. If the Project's impacts do not exceed the significance levels, no cumulative impacts will be expected to occur, and no further analysis will be required. Otherwise, in order to ensure that other projects that might have significant cumulative impacts in conjunction with the amended project are identified, a search area with a radius of 8 miles beyond the project's impact area was used for the cumulative impacts analysis. Within this search area, three categories of projects with emissions sources will be used as criteria for identification:

- Projects that have been in operation for a sufficient time period, and whose emissions are included in the overall background air quality data.
- Projects which recently began operations whose emissions may not be reflected in the ambient monitoring background data.
- Projects for which air pollution permits to construct have not been issued, but that are reasonably foreseeable.

The Mojave Desert Air Quality Management District (MDAQMD) provided the initial list of cumulative sources for use in the analysis. The only source identified within an 8 mile radius is the Blythe Solar Power Project. This project had recently completed a cumulative air quality modeling assessment (April 19th, 2010) as required by the CEC. This cumulative analysis included the following sources in the cumulative modeling assessment:

- Blythe I
- Blythe II
- Southern California Gas Company Compressor Station
- Blythe Solar

The results of the cumulative modeling analysis prepared for the Blythe Solar Project are summarized in the table below.

Pollutant	Averaging Period	Concentrations ($\mu g/m^3$)				
		AERMOD Result	Ambient Background[2]	Total [3]	CAAQS	NAAQS
NO_2 [1]	1-hr CAAQS	168.5	174.9	343.4	339	--
	1-hr NAAQS	178.7	N/A	178.7	--	188
	Annual	0.896	22.6	23.5	57	100

Pollutant	Averaging Period	Concentrations (μg/m³)				
		AERMOD Result	Ambient Background[2]	Total [3]	CAAQS	NAAQS
CO	1-hr	267.6	2645	2912.6	23,000	40,000
	8-hr	86.5	1035	1121.5	10,000	10,000
PM10	24-hr	22.3	162.0	184.3	50	150
	Annual	2.7	30.0	32.7	20	--
PM2.5	24-hr	2.9	27.0	29.9	--	35
	Annual	0.8	10.6	11.4	12	15
SO_2	1-hr	7.4	503.0	510.4	665	--
	3-hr	3.1	434.9	438.0	--	1,300
	24-hr	0.8	99.6	100.3	105	365
	Annual	0.1	5.2	5.3	--	80

[1] Modeled NO_2 concentrations as determined with the OLM and concurrent NO2 background.

[2] From Table 5.2-33 of the BSPP AFC. These values correspond to the highest monitored values from 2005 – 2007, except for PM2.5, which is the 98th percentile value over three years for the Indio, CA monitoring site.

[3] Modeled concentration plus ambient background.

This modeling analysis indicates, with the exception of 24-hour and annual PM10 impacts that the proposed project would not create new exceedances or contribute to existing exceedances for any of the modeled air pollutants. The conditions that would create worst-case project modeled impacts (low wind speeds) are not the same conditions when worst-case background is expected for PM10/PM2.5. Additionally, the worst-case PM2.5 and PM10 impacts occur at the fence line of the Blythe Solar Project and drop off quickly with distance from the fence line. Therefore, CEC staff concluded that the operation impacts, when considering staff's mitigation measures, would not contribute substantially to exceedances of the PM10 CAAQS.

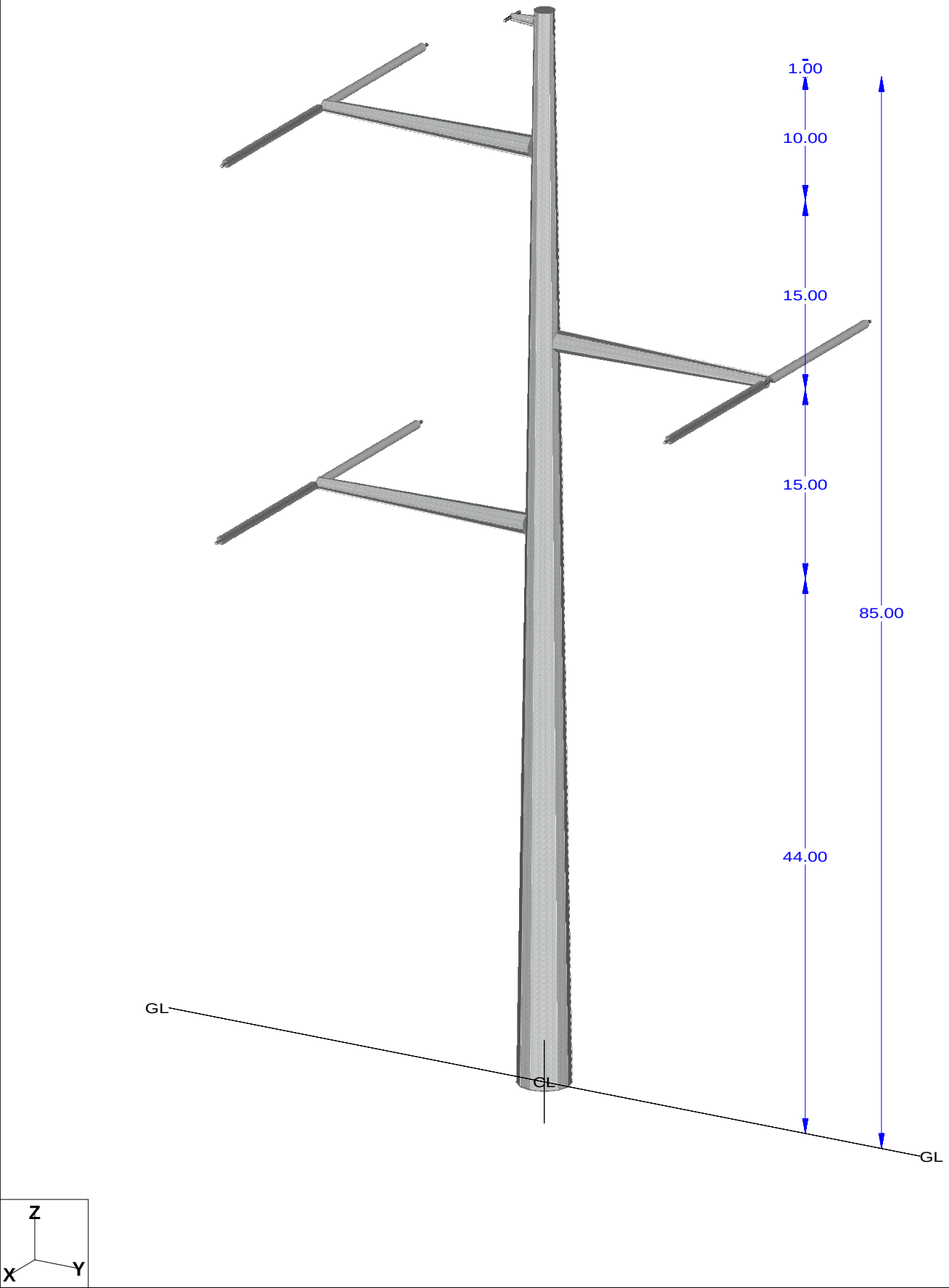
However, in light of the existing PM10 and ozone non-attainment status for the project site area, staff considers the operation NOx, VOC, and PM emissions to be potentially CEQA significant and recommends that the off-road equipment and fugitive dust emissions be mitigated pursuant to the California Environmental Quality Act (CEQA).

The modeling analysis shows that, after implementation of the recommended emission mitigation measures at the Blythe Solar Project, the cumulative effects of all modeled projects is not predicted to cause new exceedances of the NAAQS. Therefore, it has been determined that no adverse impacts would occur after implementation of the recommended mitigation measures.

ATTACHMENT 2

REVISED DEAD END STRUCTURE

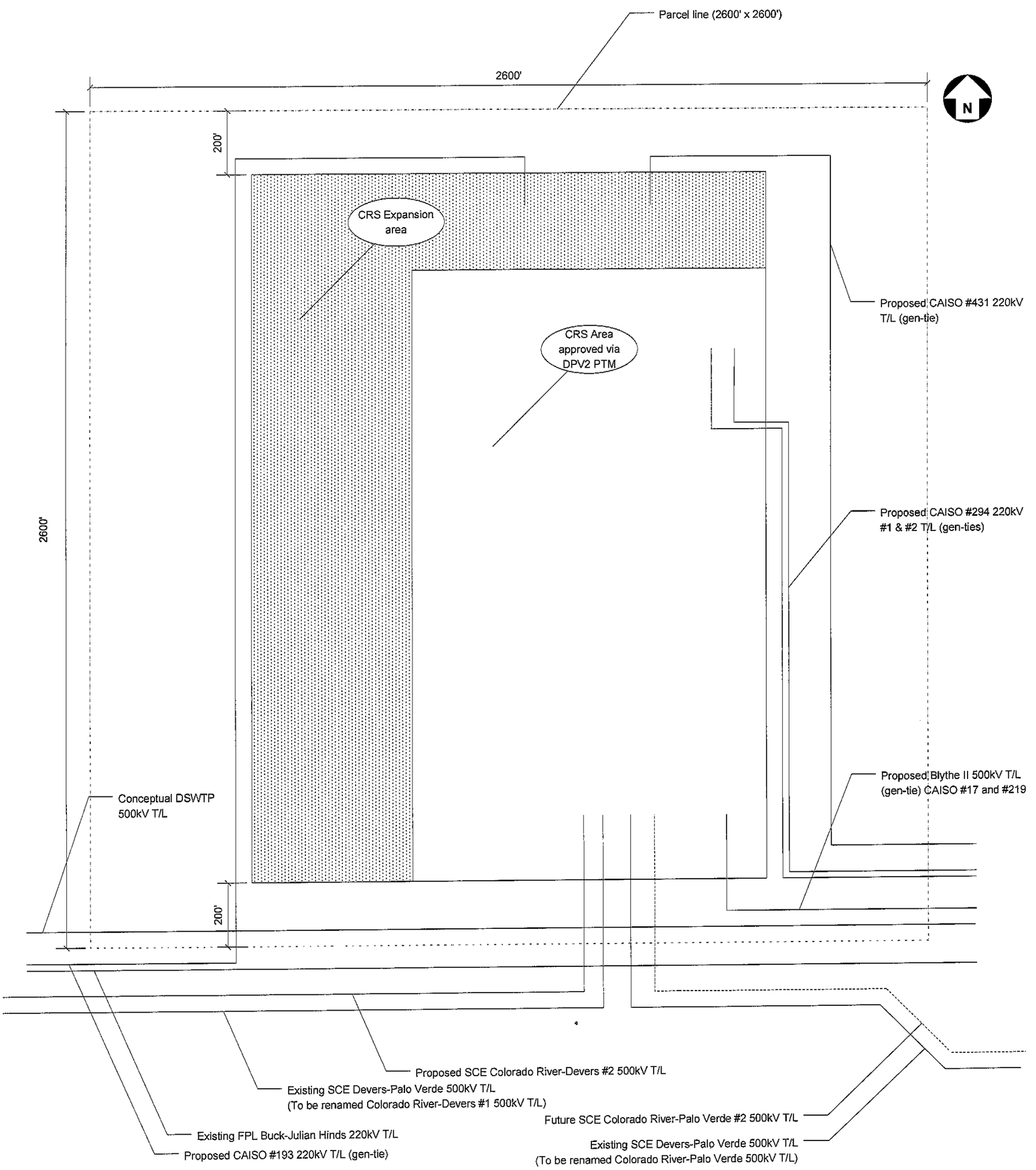
D Proctor Engineering Inc, Project: "500delta_de_85"
PLS-POLE Version 10.62, 9:00:07 PM Wednesday, October 06, 2010
Undeformed geometry displayed



ATTACHMENT 3

PRELIMINARY TRANSMISSION LINE APPROACHES TO COLORADO RIVER SUBSTATION

Preliminary
Transmission Line Approaches
To Colorado River Substation



ATTACHMENT 4

DATA RESPONSE # 15 SUPPLEMENTAL GHG ANALYSIS

DATA RESPONSE # 15 SUPPLEMENTAL GHG CONSTRUCTION EMISSION RESPONE

1. We calculated GHG emissions for construction equipment, materials deliveries, and worker travel. All of the data used to calculate these emissions is in the individual calculation sheets, and the data reflects the level of detail needed to perform the calculations. All of these sheets were supplied with the application.

2. GHG calculations are broken down on the sheets for two basic fuel types, i.e., diesel fuel and gasoline. For construction equipment, it was assumed that diesel fuel was the predominant fuel, while worker travel emissions assumed that gasoline was the predominant fuel. For materials delivery, the predominant fuel was assumed to be diesel.

3. The total CO_2 emissions from the construction worksheet must be added to the CO_2 emissions from the other categories to arrive at the total overall construction emissions, which are then input into the CO_2 page to convert them into equivalents or "CO_{2e}". You cannot compare the numbers in the construction equipment sheet to the final values in the CO_2 sheet without properly adding up the various construction activity values.

4. Adding up the diesel and gasoline CO_2 emissions results in the following totals, diesel CO_2 is 4891.9 tons/period, while gasoline CO_2 is 392.33 tons/period. (Note that the gasoline value was not totaled correctly in the previously submitted data sheet. The 392.33 value is the current estimated value).

5. Converting the CO_2 to CO_{2e} results in "estimated" CO_{2e} emissions of 5353 tons/period or 4818 metric tons/period. This is a slightly higher value than the previous estimate of 4768 metric tons/period.

The emissions spreadsheet is attached.

ATTACHMENT 5

DATA RESPONSE # 15 SUPPLEMENTAL GHG ANALYSIS SPREADSHEET

DUE TO ITS SIZE THIS FILE HAS BEEN SUBMITTED ON A COMPACT DISC