Avenal Power Center, LLC
500 Dallas Street, Level 31
Houston, TX 77002

DOCKET
08-AFC-1
DATE May 07 2009
RECD. May 14 2009

May 7, 2009

Mr. Joseph Douglas
Project Manager
c/o Dockets Unit, 4th Floor
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Change in Carbon Emissions with the Addition of Avenal Energy – (08-AFC-1)

Dear Mr. Douglas,

In an effort to substantiate the analysis provided in the Avenal Power Center, LLC ("Avenal") Application for Certification ("AFC") and confirm the California Energy Commission ("CEC") staff conclusions regarding the project impacts to greenhouse gases ("GHG"), Avenal requested that Black and Veatch ("B&V") conduct further analysis of the impact of the Avenal Energy project on total carbon dioxide emissions in California and the Western Electricity Coordinating Council ("WECC").

The analysis was performed by comparing a study of carbon emissions[1] in California and WECC when the Avenal Energy project is not assumed to be included as a source of generation to serve California energy demand to a study of carbon emissions in WECC when the Avenal Energy project is included. The analysis was performed for the years 2012-2017. Avenal Energy's tentative commercial operation date is June 2012 and Avenal believes that some form of legislation governing GHG emissions from this and other generation facilities will be in place by 2017. Avenal also requested B&V perform a "back test" of its model to show that the underlying assumptions of the model reasonably modeled conditions in California.

The results of the enclosed analysis suggests that the Avenal Energy project should result in a net improvement to GHG levels associated with providing electric energy to California. B&V concluded that the addition of Avenal Energy reduces carbon emissions in California by an average of 460,000 short tons per year or 1.44 short tons/GWh as compared to a case where Avenal Energy does not exist. These results provide additional basis for Avenal's stance that there will be no significant impact to GHG levels in California from the operation of Avenal Energy and are provided to give the Commission additional comfort that Avenal Energy would not impact GHG levels in California.

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[1] Carbon dioxide emissions were used as a proxy for all GHG emissions as carbon dioxide is the largest constituent of GHGs emitted by natural gas fueled power plants.

Should you have any additional questions about this report, you can reach Jim Rexroad at (713)275-6147 or jim.rexroad@macquarie.com or Tracey Gilliland at (713)275-6148 or tracey.gilliland@macquarie.com.

Sincerely,

J.P. Rexroad
Vice President
Avenal Power Center, LLC

BUILDING A WORLD OF DIFFERENCE®

Prepared for Avenal Power Center, LLC

Change in Carbon Emissions from the Base Case when the Avenal Energy power plant is added

Black & Veatch Project: 164901

May 7, 2009

BLACK & VEATCH
Building a world of difference.

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1.0 INTRODUCTION

Avenal Power Center, LLC ("The Applicant"), a subsidiary of Macquarie Group Limited ("Macquarie"), is developing the Avenal Energy project. The Applicant is seeking approval from the California Energy Commission ("Commission") for the construction and operation of the Avenal Energy project (the Project). The Project is located in the City of Avenal, in Kings County, California, approximately 55 miles from Fresno. The Project consists of a 600 megawatt (MW) combined-cycle electric power generating plant and ancillary facilities. Avenal Energy Power Plant Licensing Case Docket Number at the Commission is: 08-AFC-01

The Applicant has requested that Black & Veatch conduct an analysis of the impact of the Avenal Energy project on total carbon emissions in California and the Western Electricity Coordinating Council ("WECC"). This study is to be performed by comparing a study of carbon emissions in California and WECC when the Project is not included to a study of carbon emissions in WECC when the Project is included. The years to be studied are 2012-2017.

Black & Veatch has completed the requested study. This report describes details on how the analysis was performed and the findings of the analysis. The Applicant has also requested that Black & Veatch perform a rough "back testing" of its modeling to provide the explanatory value of the modeling. This report also describes how the back testing was done and provides results from that back testing analysis.

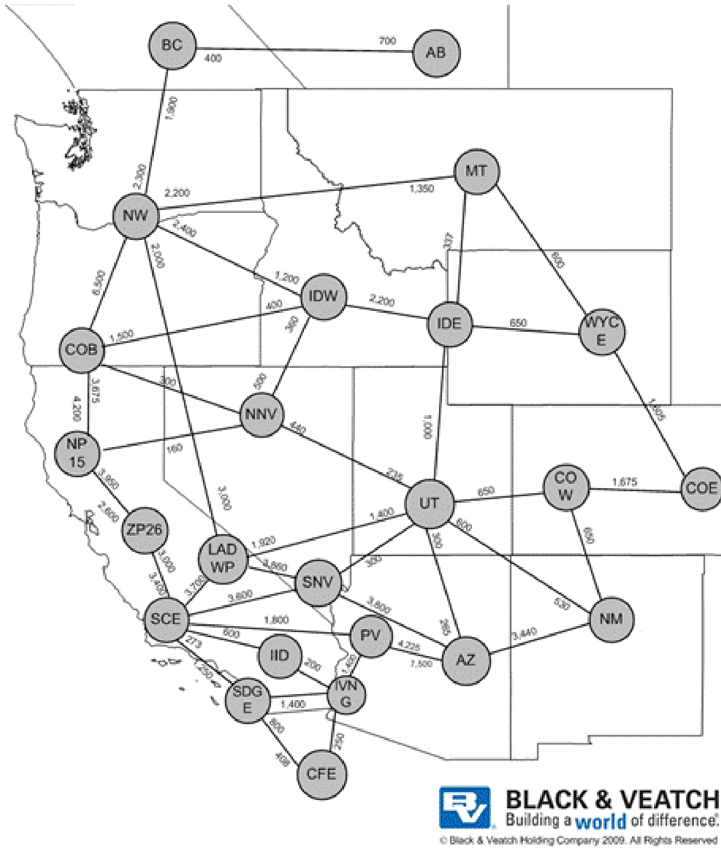
2.0 BASE CASE KEY MODELING ASSUMPTIONS

The carbon assessment is based on a fundamental structural model of the WECC power generation industry. The simulation of CO2 emission with and without Avenal Energy was performed using the proprietary PROMOD hourly chronological production cost model from Ventyx. For this study, Black & Veatch started with its Spring 2009 Energy Market Perspective – Western Region Power which reflects Black & Veatch "Base Line" assumptions on numerous key drivers of Western power markets. These key drivers include:

2.1 WECC Topology:

The Black & Veatch Western Energy Market Perspective separates the WECC into 24 interconnected market areas with loads and generating resources located in the market areas. Each of the 24 market areas are interconnected using transmission interface ratings derived from the WECC Path Rating Catalog. In this study California is defined by six market areas (CNP15, CSCE, CSDGE, CZP26, IID, LADWP) and the remaining market areas are grouped into "North" of California and "East" of California for counting purposes

Figure 1: WECC Topology and Import Classification



Market Area	Import Zone
CAISO - ZP26	California
CAISO CSDGE	California
CAISO -CSCE	California
CAISO CNP15	California
LADW&P	California
Imperial Irrigation District	California
ALBERTA	North
BC	North
Wyoming Central East	North
Northwest	North
Northern Nevada	North
COB	North
Montan	North
Idaho West	North
Idaho East SW Wyoming	North
ARIZONA	East
Utah	East
Southern Nevada	East
Palo Verdo	East
Imperial Valley - North Gila	East
New Mexico	East
Northern BAJA	East
Colorado West	East
Colorado East	East

This study reflects the key transmission constraints across WECC. It assumes that any material transmission constraints within zones are dealt with and fixed in the annual transmission planning process.[1]

2.2 Load Forecast:

Black & Veatch assumes that WECC load growth is zero for the years 2009 and the first half of 2010, and grows at rates reflected in individual utility forecast. This growth averages approximately 1.8 % per year from 2012-2017

2.3 Avenal Plant Characteristics:

Plant operating characteristics used to model Avenal Energy in the "With Avenal" cases were provided by the Applicant and Avenal Energy was placed in the CZP26 market area location in the WECC topology shown above in Figure 1

[1] Examination of the initial CAISO LMP market indicates that since MRTU went "live" in April 2009 there have not been material transmission constraints between load aggregation zones and trading hub zones in California.

Table 1: Avenal Energy Characteristics

Asset Type	Avenal Power CC
Model Designation	2 x1 GE 7FA
Generation Fuel	Natural Gas
Alternate Generation Fuel	None
Start Fuel	Natural Gas
Earliest In-Service Date	2012
Summer Ratings [Summer = June - August]	
Capacity (MW)	600
Heat Rate (HHV, Btu/kWh)	7,147
Winter Ratings [Winter = September - May]	
Capacity (MW)	600
Heat Rate (HHV, Btu/kWh)	6,632
Variable O&M ($/MWh)	4.00
Variable O&M ($/MWh) without MM	1.50
Fixed O&M ($/kW-year)	34.00
Maintenance Rate (hours per year)	436
Forced Outage Rate (hours per year)	219
Ramp Rate (MW/hour)	400
Start Costs	
Cash Start Costs ($/start)	1,000
Cash Start Costs ($/start) incl MM	28,000
Fuel Start Costs (MMBtu start fuel/start)	1,900
Emission Rates (lbs/MMBtu)	
CO2	116.6
SO2	0.00282
NOx	0.0074
Hg	0
Particulates	0.005

2.4 New Renewables in WECC:

Black & Veatch assumes that all renewables currently under construction in WECC will be completed as scheduled. It is further assumed that renewable construction will be no less than 1,700 MW/year for the years through 2017.[2] If renewables sufficient to accomplish this amount of new renewable supply are not currently under construction, then it was assumed that additional (unnamed) wind plants will be developed. It was assumed that the wind would have a capacity factor of 35% and would be distributed across WECC. It was further assumed that the wind nameplate would count 20% towards Resource Adequacy. Some of the generic wind resources added in the resource expansion plan will act as placeholders for other renewable resource types such as solar and biomass. Black & Veatch assumes that the majority of renewable resources built in the future will be wind, but recognizes that some renewable resources may be solar, biomass, small hydro or geothermal.

[2] In all of history, the maximum amount of renewable generation that has been added in WECC in any year prior to 2009 is 1700 MW.

2.5 New Non-renewables in WECC:

Black & Veatch assumes that the 15 major sub areas of WECC will each meet a Planning Reserve margin target. For peaking subareas, the Planning Reserve Margin target is assumed to be 15%. For energy constrained sub areas of the U.S. Northwest and British Columbia, the Planning Reserve target is assumed to be an ability to meet annual energy loads under severe drought conditions. Gas fired generation is assumed to be the resource of choice to meet non-renewable needs.

2.6 Natural Gas Prices:

Black & Veatch has performed fundamental based analysis of natural gas markets. As a result of that analysis, the Base line forecast assumes that natural gas prices rise to $6.7/mmBtu by 2012 and to $7.8/mmBtu by 2017. These are Henry Hub prices in constant 2009 dollars. Basis differentials to liquid gas trading points in western North America were also developed and used.

2.7 CO2 plant emissions assumptions

The CO2 plant emission rates were derived using the California Air Resources Board (CARB) document on the "Regulation of the Mandatory Reporting of Greenhouse Gas Emissions". CO2 emission rates for plants of different fuel types are a function of the heat content contained in the fuel. The heat content of natural gas can range from 975 Btu/cubic foot to more than 1,100 Btu/cubic foot. In this study the average heat content of 1,028 btu/cubic foot for natural gas used in electricity production as reported by EIA[3] for 2008. This constant value was used to calculate the CO2 emission rate for Avenal Energy and all other natural gas fired plants. A heat content of 1,028 Btu/cubic foot translates to a CO2 emission rate of 116.6 lbs/mmBtu according to the CARB guideline document. As CO2 emissions are a function of heat content of the fuel, the CO2 emission rate of 116.6 lbs/mmBtu[4] was applied to all simple cycle, combined cycle and steam turbine natural gas units as a simplifying assumption. This may result in potential variations in actual emissions from the various facilities serving California load based on variations in efficiency, heat content of the fuel[5] and potential secondary emissions control effects at the various projects included in the study. Additionally, only CO2 emissions were evaluated as CO2 as a proxy for greenhouse gas emissions for the project as a simplifying technique. These simplifying assumptions subject the absolute value of the calculated emissions to potential error, however, by holding them constant in both cases and performing a differential calculation the resulting reduction in CO2 by including Avenal Energy in the California supply mix should remain relatively constant on a per GWh of electricity produced from the project.

Table 2: CO2 Emission Rates by Generation Type

Generation Type	CO2 Emission Rate (lbs/mmBtu)
Natural Gas	116.6
Coal	205
Fuel Oil	161

[3] Energy Information Administration – March 2009 Monthly Energy Review
[4] CO2 emission rate was derived from CARB document titled "Regulation of the Mandatory Reporting of Greenhouse Gas Emissions"
[5] The heat content of natural gas to each plant in the WECC will vary and therefore the CO2 emission rates will also vary in reality. Not enough information is available to determine the exact CO2 emission rate for each individual plant. Generic CO2 emission rates, taken from the CARB document previously referenced, for each generation fuel type were used by generation fuel type as a simplifying assumption in this study.

2.8 CO2 Price assumption

Black & Veatch assumes that a CO2 emission charge will be imposed in the base line forecast. The assumption is that this charge will be $7/ton starting in 2012 and will grow to $35/ton by 2017, all in constant 2009 dollars. This charge was assumed to be in effect for all WECC power plants.

2.9 Weather related assumptions

In its forecasting process, Black & Veatch assumes that "normal" weather conditions will prevail. For example, it is assumed that weather is normal every day so that hourly loads reflect normal weather conditions. Similarly, average hydro conditions are expected to occur every year.

3.0 BASE CASE KEY RESULTS

Using these and other input parameters, Black & Veatch performed an hourly chronological unit commitment and dispatch analysis for WECC using the Ventyx PROMOD modeling tool. A significant amount of data is available after performing this analysis. For purposes of this report, certain data was extracted. Key output data selected was

- Annual Energy Load (GWh)for
  - California
  - The Balance of WECC
- Annual CO2 emissions (short tons) for plants located (or assigned to[6])
  - California
  - The Balance of WECC to the North of California
  - The Balance of WECC to the East of California
- Annual forecasted generation (GWh)for plants located (or assigned to)
  - California
  - The Balance of WECC to the North of California
  - The Balance of WECC to the East of California
- Annual Energy deliveries (GWh) into California
  - On Lines from North of California
  - On Lines from East of California

This data allows a calculation of imports needed to meet California loads (i.e. Total California load less California located (and assigned) resources. These imports come in part from areas North of California and in part from areas East of California as indicated by the line loading data. CO2 is assigned to California imports based on whether the imports are from the North or from the East. The per MWh assignment levels are based on the average CO2 emission from resources located in the North[7] and the East.

The Table 3 below shows the key output data from the Base Case analysis.

[6] Some generation plants located outside of California are owned or controlled by California utilities and used to serve California loads. For this report, these were assumed to be California resources.
[7] Refer to Figure 1 for the definition of North and East zones in relation to California

Table 3: Base Case - Carbon Emission Results

Basecase						
Energy Load (GWh)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
California	309,774	313,609	317,499	321,176	324,746	328,376
Rest of WECC	619,448	631,701	644,283	658,105	671,363	684,620
CO2 Emissions (short tons)						
California	80,788,287	82,877,659	84,800,653	85,608,263	89,024,495	89,885,669
East	184,071,307	187,196,835	188,144,253	189,218,277	187,771,380	183,671,877
North	152,020,843	152,675,410	152,811,412	154,254,213	154,717,470	153,254,160
WECC	416,880,436	422,749,904	425,756,318	429,080,753	431,513,345	426,811,706
Generation (GWh)						
California	266,233	271,799	278,916	286,005	292,708	304,603
East	264,339	270,820	275,379	280,466	284,338	285,149
North	406,904	410,951	415,628	420,799	427,006	430,670
WECC	937,476	953,570	969,922	987,271	1,004,052	1,020,422
California Imports (GWh)	43,541	41,810	38,583	35,171	32,038	23,773
CO2 Emission Rate (tons/GWh)						
California	303.4	304.9	304.0	299.3	304.1	295.1
East	696.3	691.2	683.2	674.7	660.4	644.1
North	373.6	371.5	367.7	366.6	362.3	355.9
WECC	444.7	443.3	439.0	434.6	429.8	418.3
Import %						
East	48.6%	48.4%	47.9%	47.6%	44.8%	40.3%
North	51.4%	51.6%	52.1%	52.4%	55.2%	59.7%
CO2 from Imports (short tons)						
East	14,736,338	13,990,684	12,633,645	11,295,157	9,473,534	6,177,106
North	8,360,718	8,013,384	7,387,048	6,755,557	6,410,498	5,047,038
California Imports	23,097,056	22,004,068	20,020,693	18,050,715	15,884,032	11,224,144
Total California CO2 (short tons)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
California In-State	80,788,287	82,877,659	84,800,653	85,608,263	89,024,495	89,885,669
Imports Out-of-State (North)	14,736,338	13,990,684	12,633,645	11,295,157	9,473,534	6,177,106
Imports Out-of-State (East)	8,360,718	8,013,384	7,387,048	6,755,557	6,410,498	5,047,038
Total California CO2 emissions (short tons)	**103,885,343**	**104,881,726**	**104,821,346**	**103,658,978**	**104,908,527**	**101,109,813**

4.0 WITH AVENAL CASE RESULTS

This analysis was performed in the same manner and with the same inputs as the Base Case, except that the 600 MW Avenal Energy combined cycle plant was added in the ZP26 zone in the year 2012.[8] Avenal Energy was modeled with its operating characteristics.

Table 4: Avenal Power Center Forecasted Generation[9]

Avenal Energy	2012	2013	2014	2015	2016	2017
Capacity (MW)	600	600	600	600	600	600
Generation (GWh)	3,678	3,716	3,725	3,754	3,891	4,022
Capacity Factor	70%	71%	71%	71%	74%	77%

The modeling showed considerable operation (70-77% CF) of Avenal Energy, which was used to displace other resources in WECC. Some of those reduced resources were located in California, while some of the reduced resources were located in other areas of WECC. As a result, the modeling showed a reduced need for imports into California. Because of this reduced amount of import, the modeling showed somewhat reduced losses in WECC, resulting in a somewhat lower need for generation in total. Table 5 below shows the key output from the Avenal Case analysis.

[8] We are assuming that renewables will continue to be aggressively pursued with or without Avenal. So no reduction in renewables was assumed if Avenal is built.
[9] The forecasted capacity factor of Avenal is consistent with forecasted capacity factors of similar combined cycles in Black & Veatch's Western Energy Market Perspective analysis

Table 5: With Avenal Case – Carbon Emission Results Summary

Avenal Case						
Energy Load (GWh)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
California	309,774	313,609	317,499	321,176	324,746	328,376
Rest of WECC	619,448	631,701	644,283	658,105	671,363	684,620
CO2 Emissions (short tons)						
California	81,270,320	83,466,223	85,155,729	85,959,095	89,476,171	90,217,982
East	183,484,151	186,468,809	187,412,221	188,759,005	187,202,434	183,215,277
North	151,811,934	152,521,426	152,783,459	154,039,835	154,526,835	152,814,070
WECC	416,566,406	422,456,458	425,351,410	428,757,936	431,205,440	426,247,328
	314,031	293,446	404,908	322,817	307,905	564,378
Generation (GWh)						
California	267,866	273,733	280,425	287,487	294,434	306,009
East	263,099	269,286	273,920	279,430	282,907	284,395
North	406,449	410,492	415,535	420,295	426,639	429,998
WECC	937,415	953,511	969,880	987,211	1,003,980	1,020,402
California Imports (GWh)	41,908	39,876	37,074	33,689	30,312	22,367
CO2 Emission Rate (tons/GWh)						
California	303.4	304.9	303.7	299.0	303.9	294.8
East	697.4	692.5	684.2	675.5	661.7	644.2
North	373.5	371.6	367.7	366.5	362.2	355.4
WECC	444.4	443.1	438.6	434.3	429.5	417.7
Import %						
East	48.0%	47.9%	46.8%	47.3%	43.9%	39.5%
North	52.0%	52.1%	53.2%	52.7%	56.1%	60.5%
CO2 from Imports (short tons)						
East	14,035,631	13,234,433	11,868,203	10,757,822	8,796,697	5,690,744
North	8,135,655	7,715,056	7,253,356	6,510,571	6,163,865	4,809,585
California Imports	22,171,286	20,949,489	19,121,560	17,268,393	14,960,561	10,500,329
tons)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
California In-State	81,270,320	83,466,223	85,155,729	85,959,095	89,476,171	90,217,982
Imports Out-of-State (North)	14,035,631	13,234,433	11,868,203	10,757,822	8,796,697	5,690,744
Imports Out-of-State (East)	8,135,655	7,715,056	7,253,356	6,510,571	6,163,865	4,809,585
Total CO2 emissions (short tons)	**103,441,606**	**104,415,712**	**104,277,289**	**103,227,488**	**104,436,733**	**100,718,310**

5.0 DIFFERENCE IN CASE RESULTS

There is a reduction of CO2 emissions in WECC in the Avenal case when Avenal Energy is added to the system. The WECC wide emission reduction averages about 370,000 short tons per year over the 5 years of analysis, and the largest reduction of 560,000 short tons occurs in 2017 when the GHG charge reaches $35/ton. The "counting" of CO2 emissions for California is not based on actual CO2 reductions but instead is based on a method for counting emissions on imports. Using the counting method described above, calculations show the California assigned CO2 emissions are reduced by an average of 460,000 short tons per year when Avenal Energy is added to the system. Table 6 below shows the difference between Base Case and Avenal Case results.

Table 6: Reduction in CO2 from Base Case to With Avenal Case

CO2 Reductions with Avenal Energy	2012	2013	2014	2015	2016	2017	Average
WECC CO2 Emission (short tons)	314,031	293,446	404,908	322,817	307,905	564,378	367,914
WECC CO2 Reduction Rate (tons/GWh)	0.51	0.46	0.63	0.49	0.46	0.82	0.56
California CO2 Emissions (short tons)	443,736	466,014	544,057	431,490	471,794	391,503	458,099
California CO2 Reduction Rate (tons/GWh)	1.43	1.49	1.71	1.34	1.45	1.19	1.44

6.0 SUMMARY OF FINDINGS OF AVENAL IMPACTS ON CARBON EMISSIONS

Avenal Energy reduces carbon emissions in WECC as compared to a case where Avenal Energy does not exist. WECC wide, the reduction averages 370,000 short tons per year. The amount of reduction allocated to California is driven by the counting methodology used to assign CO2 amounts to California imports. The methodology for dealing with CO2 emissions on imports used in this analysis indicates that California CO2 reductions average about 460,000 short tons per year or 1.44 short tons/GWh with the addition of Avenal Energy.[10]

7.0 BACKTEST RESULTS

The method used to back test the model is to compare model developed spot market prices with actual reported spot market prices. In order to perform a robust comparison, a large number of input items that are given to the model need to be consistent with actual conditions. For example, it would be desirable to input actual hourly loads in all zones into the model. It would be desirable to input actual hourly hydro generation into the model. It would be desirable to input actual unit forced outages into the model along with actual path operational limits between the zones. Actual daily gas prices should be input into the model.

For a number of reasons, it is not practical to develop and input all this actual information. In some cases, the actual data is simply not available. For example, actual hourly hydro conditions and information on actual unit forced outages is generally not available for all plants in WECC. In some cases, the actual data may be available, but the effort to get the data and input it into the model would require a level of effort that is not practical for this study. For example, it would be possible to get actual hourly loads for every control area in WECC and input that into the model. That effort was not done in this case.

For purposes of the back test performed for this study, we have done the following:

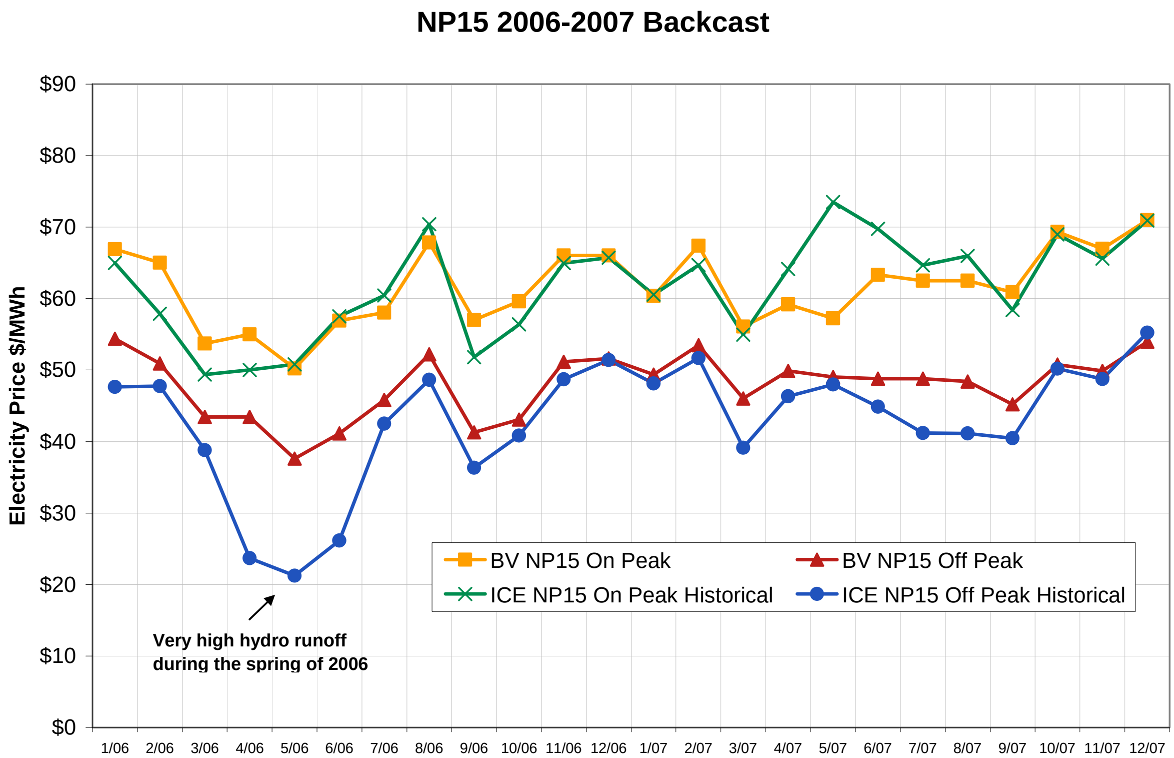
1) The years 2006 and 2007 were studied
2) Actual energy loads for the year were entered into the model. However, the peak load and hourly shaping factors were not updated. As a result, we are not getting the very large peak load days that occurred occasionally in WECC in 2006 and 2007. In order to avoid apparent "error" in the forecast, given the fact that we were not able to show those extremely high hourly loads, we have eliminated certain dates from the actual report prices. By doing this we are better able to compare model results with actual results for "normal" load days. In the 2012 – 2017 forecast, we are assuming all days are normal load days. The days we eliminated from the actual spot price data because of very high (temperature driven) loads were: 7/17/06-7/22/06, 7/24/06-7/29/06, 7/3/07, 7/5/07-7/7/07, 8/29/07-8/31/07.

[10] This calculation implicitly assumes that non-California emission counting goes up with the addition of Avenal because these areas do not get to credit their emissions as much for their exports when the exports are reduced.

3) Historical monthly actual hydro energy was estimated for each zone. For hydro storage plants, the model then shaped this hydro energy[11] based on an assumption on minimum hydro generation for every hour and a peak shaving algorithm that is designed to shape flexible hydro against area loads.
4) Natural gas prices were entered for each month based on the average of daily gas cash prices for that month[12]
5) Other items (e.g. path ratings, unit forced outages) were then left as originally set in the model.

After making these adjustments and re-running the model for 2006 and 2007, the results monthly spot prices were compared to actual reported prices for the month. The comparison is shown graphically below.

Figure 2 CAISO NP15 2006-2007 Backcast (Model vs. Historical)



These results should give confidence that the explanatory value of the modeling is reasonable. While the spot market prices from the model do not exactly match the actual reported prices, the modeled and reported prices are reasonably close. Clearly there will be differences caused by the fact that many input parameters to the model are not the same for every hour of every day that actually happened in 2006 and 2007. Without the effort and ability to get and use all those actual input parameters, we will necessarily have some differences in modeled results from actual results. In this case, with only a few major input parameters adjusted to actual, the comparison of prices looks quite good.

[11] The spring of 2006 produced a very high hydro runoff year that drove prices daily average prices down as low as \$10/MWh in NP15. Extreme hydro conditions are difficult to mimic, power prices sometimes go negative during very wet hydro years

[12] It is not easy to input daily gas prices into ProMod.

8.0 CONCLUSION

In summary, the results of Black & Veatch's analysis of the impact of the Avenal Energy project on total carbon emissions in California and the Western Electricity Coordinating Council ("WECC") show that the addition of Avenal Energy reduces carbon emissions in WECC by an average of 370,000 short tons per year as compared to a case where Avenal Energy does not exist. Analysis performed for years 2012-2017 with the addition of Avenal Energy showed California CO2 reductions average about 460,000 short tons per year or 1.44 short tons/GWh with the addition of Avenal Energy.[13]

[13] This calculation implicitly assumes that non-California emission counting goes up with the addition of Avenal because these areas do not get to credit their emissions as much for their exports when the exports are reduced.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION
OF THE STATE OF CALIFORNIA
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APPLICATION FOR CERTIFICATION *For the AVENAL ENERGY PROJECT*	Docket No. 08-AFC-1 PROOF OF SERVICE *(Revised 2/3/2009)*

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Declaration of Service

I, Joshua Taylor, Declare that on May 8, 2009, I served and filed copies of the attached *Change in Carbon Emissions from the Base Case when the Avenal Energy Power Plant is Added* for Avenal Energy (08-AFC-1) dated May 7, 2009. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

http://www.energy.ca.gov/sitingcases/avenal/index.html

The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

> Hard copies were sent via Federal Express located in Irvine, California, to those individuals listed on the Proof of Service list above.

AND

> Sending one original, 1 hard copy, and 2 electronic copies via Federal Express located in Irvine, California, to the address below:

Mr. Joseph Douglas
California Energy Commission
C/O Docket Unit (08-AFC-1)
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

I declare under penalty of perjury that the foregoing is true and correct.

Original Signed By:
Joshua D. Taylor