

DOCKETED

Docket Number:	08-AFC-09C
Project Title:	Palmdale Hybrid Power Project - Compliance
TN #:	205987
Document Title:	PTA Appendix 4.1.G Final
Description:	Revised Appendix 4.1.G, Offsets/Mitigation, of the RPTA Appendices, 277 pages docketed on 7/27/15.
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Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	9/2/2015 9:13:04 AM
Docketed Date:	9/2/2015

APPENDIX 4.1G
OFFSETS/MITIGATION

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Offsets/Mitigation

The project will require a AVAQMD Regulation XIII New Source Review (NSR) permit, as specified under Rules 1300-1320. Currently, the AVAQMD air basin is federal and State attainment/unclassified for NO₂, SO₂, PM2.5, and CO. The area is in attainment for the federal PM10 standards, but nonattainment for the 8-hour ozone (O₃) standard. It is also State non-attainment for PM10 and O₃ standards. Based on the values in Table 5.2-9, the new facility will be a major new stationary source per AVAQMD New Source Review (NSR) Regulation XIII.

AVAQMD Regulation XIII, NSR Rule 1302, provides the requirements at which emission levels the offset calculations must be done and thresholds over which emissions must be offset. It also defines which pollutants must be offset, what ratios must be used, and the criteria of what can be used as an emission reduction credit (ERC). If a project meets the requirements of these rules, then the mitigation (i.e., ERC) can be considered to be completely effective since the program has been developed to ensure eventual attainment of the AAQS.

Attachment 4.1G-1 Parts 1 and 2, presents the most recent listing of ERCs currently held in the AVAQMD (March 2015) and MDAQMD (November 2014) emissions banks, respectively.

Based on the projects potential to emit, Rule 1302 would require offsets for NO_x, VOCs, as ozone precursors and PM10. The projects potential to emit as well as the offset requirements and offset ratios are listed in Table 4.1G-1. Thus, the PEP, is required to generate or acquire sufficient emission reduction credits to offset the proposed project emissions due to its status as a major source.

TABLE 4.1G-1 OFFSETS/MITIGATION PROPOSED FOR PEP					
Emission Reduction Credits - TPY					
	PM ₁₀	VOC	NO _x	SO ₂	CO
AVAQMD Offset Trigger Thresholds	15	25	25	25	NA
Facility PTE ¹	81.01	51.64	139.99	11.39	351.09
AVAQMD Offset Ratio	1:1	1.3:1	1.3:1	1:1	1:1
Total Offsets Required	81.01	57.13	181.99	0	0
Total Mitigation Required at 1.5:1 Ratio from ERC Transfers > 15 Miles from AVAQMD Boundary	0	77.46	209.99	0	0
¹ Values derived from Section 4.1.					
² Although the proposed facility is being permitted for full operations, the facility will be operated such that the current level of mitigation credits are not exceeded. As additional mitigation credits are obtained the facility will increase operations to comply with the new level of credits (on an annual basis).					

The sources of emission offsets could be from any of the following strategies or combination of strategies. Any required offsets or additional mitigations pursuant to CEQA and/or the District NSR regulations, will be negotiated, acquired, and implemented per the AVAQMD regulations and CEC guidance. These mitigations may be one or a combination of the following strategies:

- Acquisition of existing ERCs from the AVAQMD bank.
- Acquisition of existing ERCs from other District banks within the air basin
- Acquisition of existing ERCs from other District banks outside the air basin
- Generation of PM10 ERCs from road paving
- Inter-pollutant offsets (i.e., NO_x for VOC and VOC for NO_x)

Ozone Precursors NO_x and VOC Offsets

Ozone precursor's offsets of NO_x and VOCs are generally of limited availability within the AVAQMD bank. While opportunities to obtain locally sourced ERCs, the project owner also proposes to secure additional inter-basin ozone precursor ERCs from either the Mojave Desert AQMD (located within the MDAB) or from the San Joaquin Valley AQMD. Both districts regulations allow such an approach. There are meteorological circumstances where ozone and ozone precursor (NO_x and VOC) emissions from the SJVAPCD result in significant contributions to ozone violations in the AVAQMD. Therefore, the use of ERCs from the SJVAPCD to mitigate the facility NO_x and VOC emissions contribution to existing violations of ozone air quality standards would comply with LORS.

On December 17th, 2013, the AVAQMD adopted a resolution to approve the transfer of certain offsets credited and registered within the Mojave Desert Air Quality Management District (MDAQMD) and the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) to the Antelope Valley Air Quality Management District for potential use as offsetting emissions reductions. The approved ERCs include:

- 150 tons of NO_x from the Mojave Desert AQMD
- 60 tons of VOCs from the San Joaquin Valley APCD

For any ERCs proposed for acquisition from the San Joaquin APCD, PEP will provide proof of a contractual arrangement covering sufficient emission reductions in good standing in the SJVAPCD emission reduction credit registry. The AVAQMD will independently verify that the issuance of emission reduction credits by SJVAPCD meets USEPA criteria of being real, quantifiable, permanent, surplus and enforceable. The above noted mitigation strategies were approved for implementation on the previously proposed project, and they are proposed for implementation on the current project. Background for these strategies is presented as follows:

- Health and Safety Code section 40709.6 allows increases in emissions of air pollutants at a stationary source located in one district to be offset by credits from another district in two situations. When both sources are within the same air basin but regulated by different districts, section 40709.6(a) allows for an inter-district credit transfer. When sources are in different air basins, a transfer is still allowed under section 40709.6(a), provided the stationary source to which the emission reductions are credited is located in an upwind district that is classified as being in worse nonattainment status than the downwind district where the credits will be used, and the downwind district is overwhelmingly impacted by emissions transported from the upwind district. The districts involved in the transfer may only consider and approve such offset transfers after considering the impact of the offset on air quality, public health, and the regional economy.

- The current proposed project, like the previous project is located in the AVAQMD which is part of the MDAB. The Air Resources Board (ARB) has found that the MDAB is significantly impacted by emissions from upwind areas such as the San Joaquin Valley APCD and the South Coast AQMD. Pursuant to these findings, ARB has designated AVAQMD as overwhelmingly impacted by transported air pollutants from the SJVAPCD. Therefore, the requirements of HSC 40709.6(a) are met, i.e., AVAQMD is downwind of the SJVAPCD, and AVAQMD is overwhelmingly impacted by emissions from the SJVAPCD.
- HSC section 40709.6(d) requires the transfer of credits to be evaluated for the impacts on air quality, public health, and the economy. The CEC considered each of these issues in the context of the previously proposed project prior to issuing its decision approving the project in 2011. Based on the CEC findings and decision for the previous project, the applicant believes the offset strategies proposed for the revised project meet all the required regulatory requirements.

The project owner will demonstrate to the satisfaction of the AVAQMD and the CEC and that adequate emission reduction credits have been purchased prior to start of construction of the project. The project emissions of 139.99 and 51.64 tons per year of NO_x and VOC, respectively, shall be offset at a ratio of 1.3 to one for ERC's within the MDAB or areas in the SJVAB that are within 15 miles of the AVAQMD western boundary. If ERCs are obtained from locations greater than 15 miles from the western portion of the AVAQMD, an offset ratio of 1.5 to one shall be utilized for those offsets. Table 4.1G-2 lists the amounts of ERCs, based on the appropriate offset ratio, for both NO_x and VOCs.

PM10 and PM10 Precursor (SO_x) Offsets

The District is attainment for the federal PM10 standard. Therefore, there is no regulatory requirement, that the applicant is aware of, that requires the adoption of a PM10 plan, road paving rule, or any other preparatory regulatory action prior to responding to an ERC application for emission reductions resulting from the paving of an existing unpaved road. For the same reason, USEPA approval is not required for any District action involving PM10 credits (1305(B)(3)(d)). Furthermore, the District is attainment for both the federal and state PM2.5 standards, and therefore the PEP is not required to offset its PM2.5 emissions pursuant to the District rules.

The AVAQMD PEP will propose to pave roads in the vicinity of the project in order to generate PM10 ERCs, which will mitigate emissions of PM10 and satisfy the state air quality requirements. Ten existing unpaved road segments have been identified, totaling approximately 22 miles. This includes:

Table 4.1G-2 Road Segments Considered for Paving (PM10 Reduction)

Street Segment	From	To	Jurisdiction	Street Type	Segment Length (Mi.)	ROW Req.	Segment Footprint (Acre)
Ave. B	90th Street W	30th Street W	L.A. County	County Road	Approx. 6.0	40 Ft.	29.1
Ave. S-2	96th Street E	106th Street E	L.A. County	County Road	Approx. 1.0	40 Ft.	4.85
110th Street E	Ave. L	Columbia Way /Avenue M	City of Palmdale	Secondary Arterial	Approx. 1.0	92 Ft.	11.15
40th Street W	Ave. N	Ave N-8	L.A. County	County Road	Approx. 0.5	40 Ft.	1.94
Ave. Q	90th Street E	110th Street E	City of Palmdale	Secondary Arterial	Approx. 2.0	92 Ft.	22.3
Ave. S-6	96th Street E	106th Street E	L.A. County	County Road	Approx. 1.0	40 Ft.	4.85
Ave. T-10	87th Street E	96th Street E	L.A. County	County Road	Approx. 1.0	40 Ft.	4.85
Ave. N-8	Bolz Ranch Road	30th Street W	City of Palmdale	Local Interior St.	Approx. 1.5	60 Ft.	10.91
Ave. G	90th Street E	120th Street E	L.A. County	County Road	Approx. 3.0	40 Ft.	9.70
Carson Mesa Road	El Sastre	Vincent View Road	L.A. County	County Road.	Approx. 1.85	40 Ft.	8.24

Four to five road segments will be paved in order to obtain the quantity of offsets needed for air quality purposes. The Applicant has not specified which of the existing unpaved road segments would be selected, but will do so one (1) year prior to the commencement of construction. Additionally, completion of the road paving will be at least 30 days prior to the commencement of start of construction to the project. Road paving activities will not coincide with facility construction.

Attachment 4.1G-1

Parts 1 and 2

ERC Bank Listings for AVAQMD and MDAQMD

Part 1 AVAQMD ERC Banking Registry as of March 2015

Counter	Emission Reduction	PM10 Proposed	NOx Proposed	VOC Proposed	CO Proposed	SOx Proposed	Proposed Units	Date of Emred	Eminv Year
18	Southern California Edison (transfer from SCAQMD Cert. 1245, 1248 & 1312)	0	0	0	22	0	pounds per day	6/16/1994	1997
21	Unocal Corporation (transfer from SCAQMD Cert. 1681)	0	0	3	0	0	pounds per day	4/27/1996	1997
22	Northrop Grumman (transfer from SCAQMD Cert. 3105 & 3106)	0	0	150	0	0	pounds per day		
23	Lockheed Martin (transfer from SCAQMD Cert. 658 & 916)	3	5	148	1	0	pounds per day	6/20/1990	1990
24	Northrop Grumman (conversion VOC to NOx)	0	94	0	0	0	pounds per day		
25	Northrop Grumman (balance)	0	33	0	0	0	pounds per day		
26	Lockheed Martin (transfer from SCAQMD Cert. AQ005779, AQ005780 and AQ005781)	0	5	124	0	0	pounds per day	4/8/1992	1990
27	Lockheed Martin Oil Heater Shutdown	34	1145	138	229	7	pounds per year	9/16/2007	2006
28	Lockheed Martin (transfer from SJVAPCD Cert. S-2990-2 and S-2991-2)		12000				pounds per year	9/30/2008	2008
29	Lockheed Martin (balance)		8306				pounds per year	9/30/2008	2008
30	Lockheed Martin (transfer from SJVAPCD Cert. S-3079-2)		6000				pounds per year	12/9/2008	2008
31	Northrop Grumman (balance)	0	9760	0	0	0	pounds per year		
32	Lockheed Martin (balance)	0	7539	0	0	0	pounds per year		0
33	Lockheed Martin (balance)	0	148	0	0	0	pounds per year		0
36	Northrop Grumman (transfer from SJVAPCD Cert. N-992-2)	0	8000	0	0	0	pounds per year		0
37	Lockheed Martin (balance)	0	7090	0	0	0	pounds per year		0
38	Northrop Grumman (balance)	0	8737	0	0	0	pounds per year		0
39	Lockheed Martin (balance)	84	307	53	962	7	pounds per year		0

Owner of Emred	Contact Person	Address of Owner	Telephone of Owner	Date of Application	Application Timely?	App Fee Payment Date	Incomplete Letter	Extension Request	Complete Letter	Initial Issuance Letter
Southern California Edison	Saeed Sadeghi	2244 Walnut Grove Avenue, Rosemead, CA 91770 MSG01-Quad1A	(626) 302-5345	6/16/1994	FALSE					
Unocal Corp.	Phil Stern	376 Valencia Avenue, Brea, CA 92823	(714) 571-1693	4/27/1996	FALSE					
Northrop Grumman	M. M. Yamada	3520 E. Avenue M, Palmdale CA 93550	(310) 331-7544	6/30/1999	FALSE					
Lockheed Martin	George Jung	1011 Lockheed Way, Palmdale CA 93599	(661) 572-4327	7/8/1999	FALSE					
Northrop Grumman	M. M. Yamada	3520 E. Avenue M, Palmdale CA 93550	(310) 331-7544	12/11/2000	FALSE					
Northrop Grumman	Vannessa Damron	3520 E. Avenue M, Palmdale CA 93550	(661) 272-6279	12/11/2000	FALSE					
Lockheed Martin Advanced Development Co.	George Jung	1011 Lockheed Way, Palmdale CA 93599	(661) 572-4327	9/15/2005	FALSE					
Lockheed Martin Aeronautics Company	George Jung	1011 Lockheed Way, Palmdale CA 93599	(661) 572-4327	9/17/2007	TRUE	9/17/2007			6/2/2008	6/2/2008
Lockheed Martin Aeronautics Company	George Jung	1011 Lockheed Way, Palmdale CA 93599	(661) 572-4327	9/30/2008	FALSE					
Lockheed Martin Aeronautics Company	George Jung	1011 Lockheed Way, Palmdale CA 93599	(661) 572-4327	11/3/2008	FALSE					1/29/2009
Lockheed Martin Aeronautics Company	George Jung	1011 Lockheed Way, Palmdale CA 93599	(661) 572-4327	3/24/2009	FALSE					
Northrop Grumman	Vannessa Damron	3520 E. Avenue M, Palmdale CA 93550	(661) 272-6279	12/11/2000	FALSE					
Lockheed Martin Aeronautics Company	Suzie Quist	1011 Lockheed Way, Palmdale CA 93599	(661) 572-2579	8/23/2010	FALSE					
Lockheed Martin Aeronautics Company	Suzie Quist	1011 Lockheed Way, Palmdale CA 93599	(661) 572-2579	3/21/2011	FALSE	3/17/2011				
Northrop Grumman	George Jung	3520 E. Avenue M, Palmdale CA 93550	(661) 272-6279	9/19/2011	FALSE					
Lockheed Martin Aeronautics	Suzie Quist	1011 Lockheed Way, Palmdale CA 93599	(661) 572-2579	10/18/2011	FALSE	10/18/2011				
Northrop Grumman	George Jung	3520 E. Avenue M, Palmdale CA 93550	(661) 272-6279	11/18/2011	FALSE					
Lockheed Martin Aeronautics	Antoinette Picatto	1011 Lockheed Way, Palmdale CA 93599	(661) 572-2579	5/31/2012	FALSE					

Notice Required to CARB/USEPA?

Initial Notice to CARB/USEPA

FALSE

TRUE

4/12/2011

FALSE

FALSE

FALSE

FALSE

Public Notice Info	Comments Due Date	Comments on Notice	Final Issuance Letter	Type of CEQA Doc	Date of CEQA Doc	PM10 Approved	NOx Approved	VOC Approved	CO Approved	SOx Approved	Approved Units	ERC Type	ERC Notes
						0	0	0	22		0 pounds per day	Inherited	Was AQ001245, AQ001248 and AQ001312
						0	0	3	0		0 pounds per day	Inherited	Was AQ001681
						0	0	150	0		0 pounds per day	Transferred	Was AQ003105 & AQ003106
						0	0	148	0		0 pounds per day	Transferred	Was AQ000658 & AQ000916
						0	94	0	0		0 pounds per day	Transferred	Was AV0003
						0	33	0	0		0 pounds per day	Transferred	
Posted June 6, 2008	7/2/2008	None received	9/9/2008 NOE		9/8/2008	87	5	366	124	0	0 pounds per day	Transferred	Was AQ005779, AQ005780 and AQ005781
											7 pounds per year	Shutdown	
Posted December 4, 2008	1/27/2009	None received	1/29/2009					12000			pounds per year	Transferred	Was S-2990-2 and S-2991-2
								8306			pounds per year	Transferred	
Posted April 19, 2009 as part of board action	5/19/2009	None received	9/25/2009					6000			pounds per year	Transferred	Was S-3079-2
						0	9760	0	0		0 pounds per year		
Posted April 14, 2011	5/16/2011	None received				0	7539	0	0		0 pounds per year	Transferred	Was AV0010
						0	7391	0	0		0 pounds per year	Transferred	Was AV0013
						0	8000	0	0		0 pounds per year	Transferred	Was N-992-2
						0	7090	0	0		0 pounds per year	Transferred	Was AV0014
						0	8737	0	0		0 pounds per year	Transferred	Was AV0012
						84	307	53	962		7 pounds per year		was AV0008

Date of Certificate	ERC Certificate Number	Date of Transfer Fee Payment	Date of ERC Transfer/Purchase	Date of ERC Use	Use Reference	Status of ERC	Date of Encumbrance Payment	Nature of Encumbrance
2/15/2001	AV0001					Available		
2/15/2001	AV0002					Available		
2/15/2001	AV0003			2/15/2001	Transformed into NOx, see AV0005	Used		
2/15/2001	AV0004					Available		
2/15/2001	AV0005	8/29/2001	12/8/2001	12/8/2001	Partially Consumed for new cogeneration systems, see AV0006	Used		This certificate is now void
12/8/2001	AV0006	6/15/2010	7/19/2010	7/19/2010	Partially consumed for combustion units (B010679, B010699 and B010972), see AV0012	Used		This certificate is now void
10/26/2005	AV0007					Available		
9/8/2008	AV0008	5/31/2012	9/5/2012	9/5/2012	Partially consumed for permitting action, see AV0018	Used		
9/30/2008	AV0009				Partially consumed for permitting action, see AV0010	Used		This certificate is now void
2/2/2009	AV0010				Partially consumed for permitting action, see AV0013	Used		This certificate is now void
5/19/2009	AV0011					Available		
7/19/2010	AV0012				Partially consumed for permitting action, this certificate is now void with balance transferred to AV0017	Used		This certificate is now void
7/23/2010	AV0013					Used		This certificate is now void
5/18/2001	AV0014	3/17/2011			Partially consumed for permitting action, see AV0013	Used		This certificate is now void
11/1/2011	AV0015					Available		
12/22/2011	AV0016	10/18/2011				Available		
1/17/2012	AV0017	1/10/2012						
9/18/2012	AV0018					Available		

Available MDAQMD ERCs Report

Cert #	Owner of Emred	Contact Person	Contact Tel	Issued ERCs in pounds per year					Certificate Date
				PM10	NOx	VOC	CO	SOx	
0002	TXI Riverside Cement	Eugene M. Kulesza	(909) 683-6458	25174	1484	12	5849	0	6/17/1998
0009	Southern California Gas Company	Noel P. Muyco	(213) 244-5514	0	86880	0	0	0	1/11/1999
0028	Pacific Gas and Electric Company	Carol Burke	(925) 974-4078	0	50511	0	0	0	5/7/2001
0038	Southern California Gas Company	Thomas Ishii	(213) 244-5440	7	3583	510	0	0	10/25/2001
0045	Blythe Energy, LLC	Larry Carpenter	(212) 921-9099	0	0	77380	0	0	10/29/2002
0049	HDPT c/o Tenaska, Inc.	Larry Carlson		0	0	2500	0	0	7/3/2003
0056	GM&S	Penny C. Gonzales	(602) 624-2348	0	0	0	0	53992	2/24/2004
0060	Northwest Pipe Company	Fritz Gobler	(760) 246-3191	8000	0	0	0	0	9/20/2004
0061	EXECU-CORP	Al Dalomi	(760) 458-9871	17545	0	0	76097	0	9/20/2004
0066	Southern California Logistics Airport Authority	Jon B. Roberts	(760) 246-6115	0	42737	6175	181590	5401	7/8/2005
0068	Pacific Gas & Electric Company	Carol Burke	(415) 973-7694	0	261212	0	442767	0	12/7/2005

Cert #	Owner of Emred	Contact Person	Contact Tel	Issued ERCs in pounds per year					Certificate Date
				PM10	NOx	VOC	CO	SOx	
0072	MCAGCC NREA	Phil Chambers	(760) 830-5674	149536	5210	69	1611	176	4/18/2006
0073	Southern California Logistics Airport Authority	Jon B. Roberts	(760) 955-5029	0	300930	0	0	0	7/10/2006
0076	CalNev Pipeline LLC	Yijin Wang	(714) 560-4886	0	546	0	0	0	9/19/2007
0077	HDPT c/o Tenaska, Inc.	Larry Carlson		83840	0	0	0	0	12/18/2002
0079	World of Leisure	Jon Patterson	(760) 246-3790	0	0	6492	0	0	2/4/2010
0080	The Nutro Company	Edward Skokan	(760) 261-7900	88179	0	0	0	0	2/12/2010
0081	Searles Valley Minerals Operations, Inc.	David J. Mason	(760) 372-2547	24114	33224	1743	20608	4287	4/9/2010
0082	Searles Valley Minerals Operations, Inc.	David J. Mason	(760) 372-2547	20782	177270	0	5152	86	9/10/2010
0083	Southern California Gas Company	Thomas T. Ishii	(213) 244-5440		1284361	13696	50596		12/14/2010
0087	MFG Companies	Perry Bennett	(440) 994-5207	0	0	35620	0	0	11/5/2012
0088	Value Environmental	Paul Zawila	(864) 980-0168	0	0	55307	0	0	4/24/2013
0090	USMCLB	Jim Bustamonte	(760) 577-6413	4898	0	0	0	0	1/21/2014
0093	USMCLB	Jim Bustamonte	(760) 577-6413	0	0	786	0	0	4/15/2014

Cert #	Owner of Emred	Contact Person	Contact Tel	Issued ERCs in pounds per year					Certificate Date
				PM10	NOx	VOC	CO	SOx	
0094	USMCLB	Jim Bustamonte	(760) 577-6413	0	0	4	0	0	4/15/2014
0095	USMCLB	Jim Bustamonte	(760) 577-6413	0	2880	0	0	0	4/15/2014
0096	All American Pipeline	Glen Mears	(661) 368-7919	0	0	0	2164	0	4/15/2014
0097	All American Pipeline	Glen Mears	(661) 368-7919	0	0	0	1304	0	4/15/2014
0098	TXI Riverside Cement	Kenneth Allen	(760) 245-5321	0	0	0	1707913	0	4/15/2014
0099	AltaGas Sonoran Energy Inc.	Christopher Doyle	(604) 623-4797	0	400000	0	0	0	5/27/2014
0100	USMCLB	Jim Bustamonte	(760) 577-6413	586	722	302	2456	0	7/15/2014