



Lodi Energy Center Project Participant Committee

LEC GHG Reports

AGENDA ITEM NO.: 9

Date: October 3, 2017

To: Lodi Energy Center Project Participant Committee

Subject: GHG Reports (excerpted from monthly ARB)

2013 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual												Compliance Year 2013	
	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	0	82,787	101,925	128,167	134,284	32,545	80,153	122,492	94,615	92,091	98,739	105,078	138,068	1,210,944
Gas Schedule (MMBtu)	0	593,484	723,038	894,657	952,529	229,724	579,650	870,331	673,965	650,250	692,396	738,008	965,292	8,563,324
Emissions Factor (MT/MMBtu)	0	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)													86,000	
Monthly MT Emissions (MT)	0	32,027	39,019	48,280	51,403	12,397	31,281	46,967	36,371	35,091	37,365	39,827	52,178	462,206
Cumulative MT Obligation (MT)	0	32,027	71,046	119,326	170,730	183,127	214,407	261,375	297,745	332,836	370,201	410,028	462,206	462,206
Compliance Instrument Participant Transfers (to LEC)														
Auction Allowances	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	37,500	0	46,290	498,133
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	37,500	0	46,290	498,133
NCPA Compliance Instrument Purchases (for LEC)														
Auction Purchases	47,000	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	47,000	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Monthly Activity (MT)	139,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	37,500	0	46,290	545,133
Cumulative MT Account Balance [MTA] (MT)	139,695	145,045	145,045	158,689	263,689	314,321	344,949	346,549	448,749	461,343	498,843	498,843	545,133	545,133
MTA Shortfall (MT)	(139,695)	(113,018)	(73,999)	(39,363)	(92,959)	(131,194)	(130,542)	(85,174)	(151,004)	(128,507)	(128,642)	(88,815)	(82,927)	(82,927)

2014 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual												Compliance Year 2014
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	136,604	156,089	120,489	55,378	71,210	51,037	118,473	69,006	178,831	197,715	51,636	106,338	1,312,806
Gas Schedule (MMBtu)	951,700	1,092,730	858,805	391,272	512,068	371,695	836,762	496,327	1,251,547	1,371,546	372,826	759,691	9,266,969
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)												173,000	
Monthly MT Emissions (MT)	51,358	58,969	46,345	21,115	27,634	20,059	45,156	26,784	67,540	74,015	20,120	41,170	500,265
Cumulative MT Obligation (MT)	513,564	572,533	618,879	639,994	667,628	687,686	732,842	759,626	827,166	901,181	782,385	823,555	823,555
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	102,347	40,000	48,066	25,000	1,290	163,248	0	0	13,586	50,520	80,350	350	524,757
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	102,347	40,000	48,066	25,000	1,290	163,248	0	0	13,586	50,520	80,350	350	524,757
NCPA Compliance Instrument Purchases (for LEC)													
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	138,916	0	138,916
Total Monthly Activity (MT)	102,347	40,000	48,066	25,000	1,290	163,248	0	0	13,586	50,520	80,350	350	524,757
Cumulative MT Account Balance [MTA] (MT)	647,480	687,480	735,546	760,546	761,836	925,084	925,084	925,084	938,670	989,190	930,624	930,974	930,974
MTA Shortfall (MT)	(133,916)	(114,947)	(116,667)	(120,552)	(94,208)	(237,398)	(192,242)	(165,458)	(111,504)	(88,009)	(148,239)	(107,419)	(107,419)

2015 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual												Compliance Year 2015
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	196,019	151,600	184,507	181,244	91,067	142,275	103,883	137,266	131,608	165,737	75,231	131,779	1,692,216
Gas Schedule (MMBtu)	1,368,474	1,073,330	1,299,294	1,269,481	646,027	1,009,450	740,553	971,283	927,730	1,171,129	541,136	940,340	11,958,227
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)													
Monthly MT Emissions (MT)	73,850	57,922	70,116	68,508	34,863	54,475	39,964	52,415	50,065	63,200	29,202	50,745	645,326
Cumulative MT Obligation (MT)	897,404	955,327	1,025,443	1,093,951	1,128,814	1,183,288	1,223,252	1,275,668	1,325,733	1,388,933	593,540	644,285	644,285
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	41,342	250	172,100	15,000	86,000	107,327	104,000	26,021	0	58,201	375	200	610,816
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	41,342	250	172,100	15,000	86,000	107,327	104,000	26,021	0	58,201	375	200	610,816
NCPA Compliance Instrument Purchases (for LEC)													
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	824,595	0	824,595
Total Monthly Activity (MT)	41,342	250	172,100	15,000	86,000	107,327	104,000	26,021	0	58,201	375	200	610,816
Cumulative MT Account Balance [MTA] (MT)	972,316	972,566	1,144,666	1,159,666	1,245,666	1,352,993	1,456,993	1,483,014	1,483,014	1,541,215	716,995	717,195	717,195
MTA Shortfall (MT)	(74,912)	(17,239)	(119,223)	(65,715)	(116,852)	(169,705)	(233,741)	(207,346)	(157,281)	(152,282)	(123,455)	(72,910)	(72,910)

2016 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual												Compliance Year 2016
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	97,230	27,160	91,578	45,437	3,423	66,596	76,008	31,653	25,597	20,636	17,488	28,418	531,223
Gas Schedule (MMBtu)	695,120	194,179	678,033	339,504	27,754	485,792	547,510	234,782	192,679	158,835	158,835	214,109	3,927,132
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)													
Monthly MT Emissions (MT)	37,512	10,479	36,590	18,321	1,498	26,216	29,546	12,670	10,398	8,572	8,572	11,554	211,928
Cumulative MT Obligation (MT)	681,798	692,276	728,867	747,188	748,686	774,901	804,448	817,118	827,516	836,087	650,684	662,238	662,238
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	211,481	0	2,500	31,000	0	55,000	0	56,600	0	0	0	0	356,581
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	211,481	0	2,500	31,000	0	55,000	0	56,600	0	0	0	0	356,581
NCPA Compliance Instrument Purchases (for LEC)													
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	193,975	0	193,975
Total Monthly Activity (MT)	211,481	0	2,500	31,000	0	55,000	0	56,600	0	0	0	0	356,581
Cumulative MT Account Balance [MTA] (MT)	928,676	928,676	926,176	895,176	895,176	840,176	840,176	896,776	896,776	896,776	1,090,751	1,090,751	1,090,751
MTA Shortfall (MT)	(246,878)	(236,400)	(197,309)	(147,988)	(146,490)	(65,275)	(35,728)	(79,658)	(69,260)	(60,689)	(440,067)	(428,513)	(428,513)

2017 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center													
IDENTIFIER	Actual								Estimated	Estimated	Estimated	Estimated	Compliance
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	38,917	15,337	7,086	0	3,436	35,997	54,015	66,209	36,500	43,741	38,642	53,765	393,644
Gas Schedule (MMBtu)	301,781	115,019	59,077	0	29,558	266,056	403,302	464,997	262,803	314,935	278,222	387,108	2,882,858
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)													
Monthly MT Emissions (MT)	16,286	6,207	3,188	0	1,595	14,358	21,764	25,094	14,182	16,995	15,014	20,890	155,573
Cumulative MT Obligation (MT)	678,524	684,731	687,919	687,919	689,514	703,872	725,636	750,729	764,912	781,907	796,921	817,812	817,812
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	0	0	5,000	0	0	0	0	0	0	0	0	0	5,000
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	0	0	5,000	0	0	0	0	0	0	0	0	0	5,000
NCPA Compliance Instrument Purchases (for LEC)													
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Monthly Activity (MT)	0	0	5,000	0	0	0	0	0	0	0	0	0	5,000
Cumulative MT Account Balance [MTA] (MT)	1,090,751	1,090,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751
MTA Shortfall (MT)	(412,227)	(406,020)	(407,832)	(407,832)	(406,237)	(391,879)	(370,115)	(345,022)	(330,839)	(313,844)	(298,830)	(277,939)	(277,939)

2018 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center										
IDENTIFIER	Estimated						Compliance Year 2018	Cumulative Totals	Charge Code	Source
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	Total	Total		
Energy (MWh)	54,871	35,904	23,139	21,004	34,796	27,696	197,410	5,338,244		Forecast/Meter
Gas Schedule (MMBtu)	395,071	258,509	166,601	151,229	250,531	199,411	1,421,352	38,019,863		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054		0		MARS
HVAC/Water Heater (MT)								0		
Monthly MT Emissions (MT)	21,320	13,950	8,991	8,161	13,520	10,761	76,703	2,052,001		derived
Cumulative MT Obligation (MT)	818,241	832,192	841,182	849,343	862,863	873,625	873,625	4,283,720		derived
Compliance Instrument Participant Transfers (to LEC)										
Auction Allowances	0	0	0	0	0	0	0	1,995,287		CITSS
Secondary Market Allowances	0	0	0	0	0	0	0	0		CITSS
Reserve Sale Allowances	0	0	0	0	0	0	0	0		CITSS
Offsets	0	0	0	0	0	0	0	0		CITSS
Total Compliance Instrument Participant Transfers (MT)	0	0	0	0	0	0	0	1,995,287		
NCPA Compliance Instrument Purchases (for LEC)										
Auction Purchases	0	0	0	0	0	0	0	47,000		CITSS
Secondary Market Purchases	0	0	0	0	0	0	0	0		CITSS
Reserve Sale Purchases	0	0	0	0	0	0	0	0		CITSS
Offset Purchases	0	0	0	0	0	0	0	0		CITSS
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	47,000		
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	1,157,486		CITSS
Total Monthly Activity (MT)	0	0	0	0	0	0	0	2,042,287		derived
Cumulative MT Account Balance [MTA] (MT)	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751	1,095,751		derived
MTA Shortfall (MT)	(277,510)	(263,559)	(254,569)	(246,408)	(232,888)	(222,126)	(222,126)		MTA SHORTFALL	derived

Forecast has been updated through June 2018

NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative)
October 2017

IDENTIFIER	AZUSA	BART	BIGGS	CDWR	GRI	HEA	LOD	LOM	MID	PLU	PWRPA	SNCL	UKI	TOTAL	Charge Code	Source
Allocation Percentages																
Generation Entitlement Share %	2.7857%	6.6000%	0.2679%	33.5000%	1.9643%	1.6428%	9.5000%	2.0357%	10.7143%	0.7857%	2.6679%	25.7500%	1.7857%	100%		MARS
Obligation Accounts																
Current MT Compliance Obligation (MTO) Balance (MT)	21,812	51,677	2,098	267,224	15,381	12,864	73,105	15,872	83,893	6,150	20,889	201,622	13,982	786,569		derived
Current MT Compliance Instrument Account (MTA) Balance (MT)	24,574	57,972	3,124	268,693	21,390	17,202	98,003	28,117	94,128	6,260	23,442	224,346	17,551	884,802		derived
MTA Shortfall (MT)	(2,763)	(6,294)	(1,026)	(1,469)	(6,010)	(4,338)	(24,898)	(12,245)	(10,235)	(109)	(2,553)	(22,724)	(3,569)	(98,233)	MTA SHORTFALL	Derived
Monthly GHG Price \$/MT	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	MTA SHORTFALL	ICE Index
GHG Minimum Cash Compliance Obligation (\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MTA SHORTFALL	Derived
Current Month CCA Balance (\$)*	60,991	0	143	0	1,103	4,780	755	0	0	0	0	0	2,652	70,424	CCA BALANCE	Accounting
Net GHG Obligation (\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NET GHG OBLIG	Derived

* The Current Month CCA Balance (\$) consists of the current cash balance plus any outstanding balance of Net GHG Obligation (\$) billed but not yet received.