



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	
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	0	0	46,290	460,633
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	0	0	46,290	460,633
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	0	0	46,290	507,633
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	461,343	461,343	507,633	507,633
MTA Shortfall (MT)	(139,695)	(113,018)	(73,999)	(39,363)	(92,959)	(131,194)	(130,542)	(85,174)	(151,004)	(128,507)	(91,142)	(51,315)	(45,427)	(45,427)

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	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	
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	50,000	48,066	25,000	1,290	138,448	0	0	13,586	50,520	100,350	350	529,957
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	50,000	48,066	25,000	1,290	138,448	0	0	13,586	50,520	100,350	350	529,957
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	50,000	48,066	25,000	1,290	138,448	0	0	13,586	50,520	100,350	350	529,957
Cumulative MT Account Balance [MTA] (MT)	609,980	659,980	708,046	733,046	734,336	872,784	872,784	872,784	886,370	936,890	898,324	898,674	898,674
MTA Shortfall (MT)	(96,416)	(87,447)	(89,167)	(93,052)	(66,708)	(185,098)	(139,942)	(113,158)	(59,204)	(35,709)	(115,939)	(75,119)	(75,119)

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	
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	646,426	697,171	697,171
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	41,342	250	250,100	15,000	86,000	107,327	104,000	0	0	58,201	375	200	662,795
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	250,100	15,000	86,000	107,327	104,000	0	0	58,201	375	200	662,795
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	771,709	0	771,709
Total Monthly Activity (MT)	41,342	250	250,100	15,000	86,000	107,327	104,000	0	0	58,201	375	200	662,795
Cumulative MT Account Balance [MTA] (MT)	940,016	940,266	1,190,366	1,205,366	1,291,366	1,398,693	1,502,693	1,502,693	1,502,693	1,560,894	789,560	789,760	789,760
MTA Shortfall (MT)	(42,612)	15,061	(164,923)	(111,415)	(162,552)	(215,405)	(279,441)	(227,025)	(176,960)	(171,961)	(143,134)	(92,589)	(92,589)

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	
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)	734,684	745,162	781,753	800,074	801,572	827,787	857,334	870,004	880,402	888,973	897,545	909,099	909,099
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	211,481	0	2,500	31,000	0	41,000	0	56,600	0	0	0	0	342,581
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	41,000	0	56,600	0	0	0	0	342,581
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	0	0	0
Total Monthly Activity (MT)	211,481	0	2,500	31,000	0	41,000	0	56,600	0	0	0	0	342,581
Cumulative MT Account Balance [MTA] (MT)	1,001,241	1,001,241	998,741	967,741	967,741	926,741	926,741	983,341	983,341	983,341	983,341	983,341	983,341
MTA Shortfall (MT)	(266,557)	(256,079)	(216,988)	(167,667)	(166,169)	(98,954)	(69,407)	(113,337)	(102,939)	(94,368)	(85,796)	(74,242)	(74,242)

2017 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual							Estimated	Estimated	Estimated	Estimated	Estimated	Compliance Year 2017	Cumulative Totals	Source
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Total	
Energy (MWh)	38,917	15,337	7,086	0	3,436	35,997	54,015	57,141	36,500	32,430	29,306	40,992	351,156	713,212	Forecast/Meter
Gas Schedule (MMBtu)	301,781	115,019	59,077	0	29,558	266,056	403,302	411,415	262,803	233,494	211,002	295,145	2,588,651	5,170,162	Forecast/Meter
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			MARS
HVAC/Water Heater (MT)															
Monthly MT Emissions (MT)	16,286	6,207	3,188	0	1,595	14,358	21,764	22,202	14,182	12,600	11,387	15,927	139,697	1,959,421	derived
Cumulative MT Obligation (MT)	925,385	931,592	934,780	934,780	936,375	950,733	972,497	994,699	1,008,881	1,021,482	1,032,868	1,048,796	1,048,796	3,940,827	derived
Compliance Instrument Participant Transfers (to LEC)															
Auction Allowances	0	0	5,000	0	0	0	0	0	0	0	0	0	5,000	2,000,966	CITSS
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Total Compliance Instrument Participant Transfers (MT)	0	0	5,000	0	0	0	0	0	0	0	0	0	5,000	2,000,966	
NCPA Compliance Instrument Purchases (for LEC)															
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	47,000	CITSS
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Total NCPA Compliance Instrument Purchases (MT)	0	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	910,625	CITSS
Total Monthly Activity (MT)	0	0	5,000	0	0	0	0	0	0	0	0	0	5,000	76,787	derived
Cumulative MT Account Balance [MTA] (MT)	983,341	983,341	978,341	978,341	978,341	978,341	978,341	978,341	978,341	978,341	978,341	978,341	978,341	978,341	derived
MTA Shortfall (MT)	(57,956)	(51,749)	(43,561)	(43,561)	(41,966)	(27,608)	(5,844)	16,358	30,540	43,141	54,527	70,455	70,455		derived

Forecast has been updated through December 2017

NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative)
September 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)	26,653	117,502	2,564	325,441	18,794	15,718	89,903	19,428	102,512	7,516	25,525	246,370	19,566	1,017,493		derived
Current MT Compliance Instrument Account (MTA) Balance (MT)	29,969	125,109	3,643	333,572	25,194	20,383	116,691	32,078	114,878	7,782	28,609	274,215	23,490	1,135,613		derived
MTA Shortfall (MT)	(3,317)	(7,607)	(1,079)	(8,131)	(6,400)	(4,665)	(26,788)	(12,650)	(12,366)	(265)	(3,083)	(27,845)	(3,924)	(118,120)	MTA SHORTFALL	Derived
Monthly GHG Price \$/MT	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	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.