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# LEC GHG Reports

AGENDA ITEM NO.: 9

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**Date:** February 13, 2017

**Subject:** GHG Reports (excerpted from monthly ARB)

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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	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	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	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	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	592,071	642,816	642,816
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	826,064	0	826,064
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	735,205	735,405	735,405
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													Compliance Year 2016
IDENTIFIER	Actual												Total
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	
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)	680,329	690,807	727,398	745,719	747,217	773,432	802,979	815,649	826,047	834,618	843,190	854,744	854,744
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)	946,886	946,886	944,386	913,386	913,386	872,386	872,386	928,986	928,986	928,986	928,986	928,986	928,986
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	Estimated						Compliance Year 2017	Cumulative Totals	Source
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	Total	Total	
Energy (MWh)	48,948	17,165	1,067	0	0	7,590	74,770	436,826	Forecast/Meter
Gas Schedule (MMBtu)	352,428	123,587	7,685	0	0	54,646	538,345	3,119,856	Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054			MARS
HVAC/Water Heater (MT)									
Monthly MT Emissions (MT)	19,019	6,669	415	0	0	2,949	29,052	1,848,776	derived
Cumulative MT Obligation (MT)	873,763	880,432	880,847	880,847	880,847	883,796	883,796	3,667,117	derived
Compliance Instrument Participant Transfers (to LEC)									
Auction Allowances	0	0	0	0	0	0	0	1,995,966	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	1,995,966	
								0	
NCPA Compliance Instrument Purchases (for LEC)								0	
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	964,980	CITSS
Total Monthly Activity (MT)	0	0	0	0	0	0	2,385,547	2,457,334	derived
Cumulative MT Account Balance [MTA] (MT)	928,986	928,986	928,986	928,986	928,986	928,986	928,986	928,986	derived
MTA Shortfall (MT)	(55,223)	(48,554)	(48,139)	(48,139)	(48,139)	(45,190)	(45,190)		derived

Forecast has been updated through June 2016

NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative)  
February 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)	24,589	58,257	2,365	299,836	17,339	14,501	82,865	17,920	94,573	6,934	23,549	227,291	18,243	888,260		derived
Current MT Compliance Instrument Account (MTA) Balance (MT)	29,969	70,754	3,643	333,572	24,694	20,383	112,691	32,078	114,878	7,782	28,609	274,215	22,990	1,076,258		derived
MTA Shortfall (MT)	(5,381)	(12,497)	(1,278)	(33,737)	(7,356)	(5,882)	(29,826)	(14,159)	(20,305)	(848)	(5,060)	(46,924)	(4,747)	(187,998)	MTA SHORTFALL	Derived
Monthly GHG Price \$/MT	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	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.