## 2. BOARD RESOLUTION FOR POWER ADJUSTMENT FACTOR EXPENDITURES AND BOARD REPORT

This appendix provides the Resolution and Board Report for projected Power System expenditures for inclusion in various adjustment factors of the proposed Ordinance for the 12-month period commencing April 1, 2016.

**WHEREAS**, the City of Los Angeles Department of Water and Power (LADWP) finds it necessary to propose the adoption of a new electric rate ordinance (Proposed Ordinance), which would be effective April 1, 2016, or as soon thereafter as possible, and would replace existing Incremental Electric Rate Ordinance Nos. 182273 and 182288; and

**WHEREAS**, Electric Rate Ordinance No. 168436, as amended, provides for the recovery of qualifying expenditures for costs of fuel, purchased power, demand-side management (DSM), and the renewable portfolio standard (RPS) through the application of the Energy Cost Adjustment Factor (ECAF); and

**WHEREAS**, the Proposed Ordinance further provides for the recovery of qualifying expenditures through the application of the Variable Energy Adjustment Factor (VEAF), Capped Renewable Portfolio Standard Energy Adjustment Factor (CRPSEAF), and Variable Renewable Portfolio Standard Energy Adjustment Factor (VRPSEAF); and

WHEREAS, Electric Rate Ordinance No. 168436, as amended, and the Proposed Ordinance state that the ECAF, VEAF, CRPSEAF, and VRPSEAF shall typically be calculated four times each year, and each such calculated factor shall take effect on January 1, April 1, July 1, and October 1, respectively; and

**WHEREAS**, the ECAF formula in Electric Rate Ordinance No. 168436, as amended, calls for expenditures to be approved in advance by the Board of Water and Power Commissioners (Board) for inclusion in components of the Energy Cost Adjustment (ECA).

NOW, THEREFORE, BE IT RESOLVED that the Board approves Schedules B, C, and D, which are on file with the Secretary of the Board and which describe and identify estimated non-renewable fuel expense totaling \$221 million and non-renewable purchased power expense totaling \$750 million on Schedule B, estimated RPS expense totaling \$630 million on Schedule C, and estimated DSM expense totaling \$49 million on Schedule D for the 12-month period commencing April 1, 2016, through March 31, 2017, for inclusion in components of the ECA.

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held  $_{\rm JAN}$  1 9 2016

APPROVED AS TO FORM AND LEGALITY MICHAEL N. FEUER, CITY ATTORNEY

JAN 08 2016

BRIAN E. STEWART
DEPUTY CITY ATTORNEY

Balloun & Medles Secretary

## 2. POWER ADJUSTMENT FACTOR EXPENDITURES

## SUMMARY

The typical residential customer's electric bill for the quarter effective April 1, 2016, will DECREASE by an average of \$2.09 per month, or \$0.00418 per kilowatt-hour (kWh), from the current quarter. The decrease in the Energy Cost Adjustment Factor (ECAF) of 2008 Electric Rate Ordinance No. 168436, as amended (Existing Ordinance), is primarily due to the projected decline of natural gas prices by 6% for the upcoming period.

The Resolution contained in this Appendix approves expenditures for inclusion in the ECA for the 12-month period commencing April 1, 2016. The ECA is one of the rate components that recover costs of providing electric service to customers. These costs include fuel, non-renewable purchased power, energy efficiency, and the production and acquisition of power from renewable resources. The ECA is adjusted quarterly based on changes in these costs, and its related charges recover approximately 43 percent of the costs of providing electric service to customers.

#### **RECOMMENDATION**

It is recommended that the Board of Water and Power Commissioners (Board) adopt the attached Resolution approving fuel, purchased power, demand-side management (DSM), and renewable portfolio standard (RPS) expenditures for the 12-month period commencing April 1, 2016.

#### FINANCIAL INFORMATION

Electric rate ordinances, which would be the Existing Ordinance and the proposed Ordinance, state that the ECAF, Variable Energy Adjustment (VEA) Factor, Capped Renewable Portfolio Standard Energy Adjustment (CRPSEA) Factor, and Variable

Renewable Portfolio Standard Energy Adjustment (VRPSEA) Factor, shall be calculated four times a year, and each such calculated factor shall take effect on January 1, April 1, July 1, and October 1, respectively. The ECAF calculated with the expenditures approved in this Resolution and the associated incremental factors take effect on April 1, 2016. In accordance with the two ordinances, the next quarterly factors update would be effective July 1, 2016.

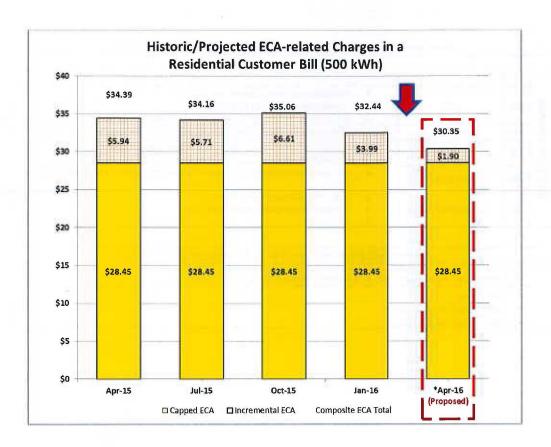
For the three-month period commencing April 1, 2016, the composite ECAF applied to actual billing of customers will be \$0.06070 per kWh, as shown in the table below. Calculations of the four factors that make up the composite factor and supporting detail are included in Schedules A, B, C, and D as Attachment B in this Appendix. This decrease of \$0.00418 per kWh will result in a decrease of \$2.09 per month for the typical residential customer (500 kWh per month).

The decrease in the ECAF is primarily due to the projected decline of natural gas prices by 6% for the upcoming period.

Schd.	Energy Cost Adjustment Factors	Apr - June 2015 (\$/kWh)	July - Sept 2015 (\$/kWh)	Oct - Dec 2015 (\$/kWh)	Jan - Mar 2016 (\$/kWh)	Proposed Apr - June 2016 (\$/kWh)	Change Increase/ (Decrease)
A1	Ordinance No. 168436, as amended						
	Capped Energy Cost Adjustment Factor	\$0.05690	\$0.05690	\$0.05690	\$0.05690	\$0.05690	,
	Incremental Ordinance No. 182273 *					10.1813-4-1-	
A2	Variable Energy Adjustment Factor	\$0.00733	\$0.00511	\$0.00328	(\$0.00312)	(\$0.00658)	(\$0.00346)
A3	Capped RPS Energy Adjustment Factor	\$0.00080	\$0.00069	\$0.00183	\$0.00253	\$0.00192	(\$0.00061)
A4	Variable RPS Energy Adjustment Factor	\$0.00375	\$0.00561	\$0.00811	\$0.00857	\$0.00846	(\$0.00011)
A4	Composite Energy Cost Adjustment Factor	\$0.06878	\$0.06831	\$0.07012	\$0.06488	\$0.06070	(\$0.00418)

<sup>\*</sup>The proposed Ordinance replaces Ordinance No. 182273.

The following chart shows the trend of the historic/projected ECA-related charges in a typical residential customer bill (500 kWh).



## **BACKGROUND**

## Overview of Electric Rates and ECAF Charges

The current electric rate structure (implemented in November 2012) includes a "capped" and incremental rate ordinance.

<b>Quarterly Pass-Through</b>	Factors Relevant to	this Board Package
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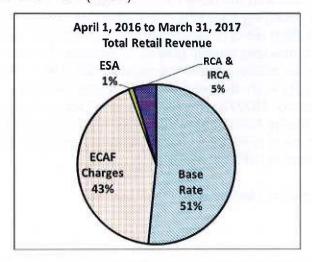
			Incremental Rate Ordinance
Collection	Yes	VEA	<ul> <li>Fuel costs (natural gas, coal, nuclear, hydro)</li> <li>Non-RPS purchase power agreements</li> <li>Funds related to "true-up" decoupling mechanisms</li> </ul>
Over/Under Colls	Yes	VRPSEA	Above minimum RPS purchases and market purchases for regulatory requirements
	Yes	CRPSEA	<ul> <li>RPS O&amp;M, RPS debt service, and energy efficiency annual revenue requirement (Regulatory Asset)</li> </ul>
	No	Incremental RCA	<ul> <li>Additional funds to support the replacement/upgrade of Power System infrastructure (PSRP)</li> </ul>
	No	Incremental Base	<ul> <li>Rebuilding of in-basin power plants</li> <li>Base level of distribution/transmission costs</li> <li>A&amp;G costs</li> </ul>

## "Capped" Rate Ordinance as of November 3, 2010

- Energy Cost Adjustment (Fuel, RPS, DSM/EE, Revenue Transfer) Base Rate
- Reliability Cost Adjustment
- Electric Subsidy Adjustment

Replacing Ordinance No. 182273 with the proposed Ordinance maintains a similar rate structure to that shown above; however, the Incremental RCA will now have a balancing account for over/under collection. The ECAF Charges are those shown in the dashed box of the figure above. Further description of the ECAF-related adjustment factors are provided in Attachment A in this Appendix.

The ECAF Charges will provide approximately 43 percent of the total retail revenue for the Power System, as shown in the lower box. The remaining revenue comes from base rates, the fixed Electric Subsidy Adjustment (ESA), the Reliability Cost Adjustment (RCA), and the Incremental RCA (IRCA).



The Existing Ordinance specifies that Board approval of the estimated fuel, purchased power, DSM, and RPS expenditures for the 12-month period commencing April 1, 2016, is required for inclusion of those expenditures in the calculation of the quarterly ECA to be effective April 1, 2016.

#### DESCRIPTION OF ECAF-RELATED RATE COMPONENTS

## Capped Energy Cost Adjustment Factor (CECAF)

The Electric Rate Ordinance No. 168436, as amended (Existing Ordinance), charges customers the Energy Cost Adjustment (ECA), using the ECA Factor (ECAF), to recover the costs of fuel, purchased power including renewable resources, and DSM costs, including revenue losses and other variable operational costs.

The proposed Ordinance designates this ECAF as the CECAF and caps it at \$0.05690 per kilowatt-hour (kWh) for billing purposes.

## **Incremental Energy Factors**

The CECAF, in conjunction with the base rate contribution of \$0.01236 per kWh, is not sufficient to recover all qualifying expenditures, particularly as expenditures for renewable portfolio standard (RPS) projects continue to increase to meet the State of California's mandated renewable energy goal of 33 percent and eventually 50 percent. To recover qualifying expenditures above the capped billing level of \$0.06926 (\$0.05690 + \$0.01236) per kWh, the proposed Ordinance, like the current Incremental Electric Rate Ordinance No. 182273, which went into effect on November 11, 2012, contains the Variable Energy Adjustment (VEA) Factor, Capped Renewable Portfolio Standard Energy Adjustment (CRPSEA) Factor, and Variable Renewable Portfolio Standard Energy Adjustment (VRPSEA) Factor.

These elements are described below:

#### (1) VEA Factor

This factor allows for recovery of expenditures for non-renewable fuel, non-renewable purchased power, and legal costs, judgments, and settlements, which are beyond the cost recovery ability of the CECAF and contribution from the base rates. Details of such amounts include:

- Non-renewable fuel-related expenses may include prepayment, fuel transportation, storage, emission credits and taxes, emission allowance costs, and any other non-renewable fuel-related expenses.
- Non-renewable purchased power expense includes charges associated with the purchase of non-renewable energy, including capacity, associated transmission service, prepayment expense, and parallel generators.
- This factor allows recovery of past expenditures that could not be previously billed due to ECAF increase limitation. These amounts are being recovered over a 10-year period.

- This factor also allows for the recovery of legal settlements. Board of Water and Power Commissioners (Board) Resolution No. 014-069 directs the Chief Financial Officer of LADWP to recover the sum of \$160 million for the settlement of San Bernardino County Case No. SCVSS100293 over a 10-year period commencing July 1, 2014.
- Through the VEA Factor, beginning January 1, 2017, the proposed Ordinance
  permits recovery or credit of the base rate revenue that is below or exceeds a
  preset target, as adjusted by the amount by which actual net wholesale
  revenue and contributions in aid of construction exceed their budgeted
  amounts. This factor facilitates aggressive Energy Efficiency programs by
  ensuring a set amount of revenue collection for the fiscal year irrespective of
  the sales volume.

## (2) CRPSEA Factor

This factor allows for recovery of expenditures for RPS projects directly owned by LADWP, recovery of debt service and operation and maintenance expenses for RPS projects indirectly owned by LADWP, and recovery of expenditures for DSM measures, which are beyond the cost recovery ability of the CECAF and contribution from the base rates. Details of such amounts include:

- Directly owned RPS projects include depreciation, interest, and operation and maintenance expenses.
- Indirectly owned RPS projects include principal payment, interest expense, and operation and maintenance expense. Other expenses of indirectly owned RPS projects are to be recovered through the VRPSEA Factor.
- DSM measures include both expensed and capitalized expenses of energy efficiency measures.

## (3) VRPSEA Factor

This factor allows for recovery of expenditures for RPS projects in which LADWP has no ownership interest and recovery of some expenditures for RPS projects in which LADWP has indirect ownership interest, which are beyond the cost recovery ability of the CECAF and contribution from the base rates. Details of such amounts include:

 RPS projects in which LADWP has no ownership interest include purchased generation and its associated transmission service expense.  RPS projects in which LADWP has indirect ownership interest include expenses other than principal payment, interest expense, and operation and maintenance expense.

#### Schedule A

#### Energy Cost Adjustment Factors (Capped and Incremental) Calculation Summary Sheet 4th Quarter of FY 2015-2016

ECAF Calculations for the Capped Energy Cost Adjustment Factor (CECAF)		Source
Estimated Expenses for the 12-Month Period Ending March 31, 2017: (a) Non-Renewable Fuel Expense	\$221,407,963	Schedule B, Page 1
(b) Non-Renewable Purchased Power Expense	\$749,740,000	Schedule B, Page 1
(c) Renewable Portfolio Standard Expense (Purchase & Ownership) (Includes Biomethane)	\$630,303,824	Schedule C, Page 2
(d) Demand Side Management (DSM) O&M Expense	\$0	Schedule D, Page 1
DSM Capitalized Debt Service (Includes PY Debt Service)	\$48,865,690	Schedule D, Page 1
(e) Energy Efficiency Savings (Through June 30, 2015)	\$64,281,222	Board Meeting 10-16-2015
(f) City Transfer (8%)	\$137,167,896	8% x Sum of (a through e)
Total Estimated Expenses, plus City Transfer	\$1,851,766,595	-
(g) Estimated Balance in the ECA Account on March 31, 2016	576,493,680	
Grand Total	\$2,428,260,275	Part of the second
(h) Estimated Retail Energy Sales (kWh) (Less: Sales to Other City Departments under Schedules LS-1 and TC)	23,606,890,460	
Energy Cost Adjustment Factor per kWh to be Sold	\$0.10286	
(i) Less: Energy Cost Adjustment Factor to be Billed as Base Rate (Ordinance No. 168436, as Amended, General Provisions G.2.(i))	(\$0.01250	
Calculated Net Energy Cost Adjustment Factor per kWh to be Sold (Per Ordinance No. 168436, as Amended)	\$0.09036	
Existing ECAF as of March 31, 2016 Quarterly Adjustment Limit Energy Cost Adjustment Factor per kWh (Per Ordinance No. 168436, as Amended)	\$0.06990 \$0.00100 \$0.07090	
Capped ECAF per kWh Billed to Customer (Per Proposed Incremental Electric Rate Ordinance )	\$0.05690	

#### Schedule A

#### Energy Cost Adjustment Factors (Capped and Incremental) Calculation Summary Sheet 4th Quarter of FY 2015-2016

Proposed Incremental Electric Rate Ordinance  1. Variable Energy Adjustment Factor (VEAF)	Source
Estimated Expenses for the 12-Month Period Ending March 31, 2017: (a) Non-Renewable Fuel Expense	\$221,407,963 Schedule B, Page 2
(b) Non-Renewable Purchased Power Expense	\$749,740,000 Schedule B, Page 2
(c) Legal Settlement (Case No. SCVSS100293)	\$16,000,000 Board Meeting 10-01-2013
(d) Energy Efficiency Savings (FY 2011-12 kWh Adjusted for Aging)	\$40,030,108 Board Meeting 10-16-2015
(e) City Transfer (8%)	\$82,174,246 8% x Sum of (a through d)
(f) Estimated VEA Balancing Account on March 31, 2016	(\$41,177,285)
(g) Legacy ECA Account Balance Expense Amortization	\$17,200,561
Grand Total	\$1,085,375,593
(h) Estimated Retail Energy Sales (kWh) (Less: Sales to Other City Departments under Schedules LS-1 and TC)	23,606,890,460
(i) Variable Energy Adjustment Factor per kWh	\$0.04598
Less: Funding by Capped ECAF and Base Rate Contribution Factor Variable Energy Cost Adjustment Factor	(\$0.05256) (\$0.00658)
(j) Base Rate Revenue Target Adjustment Factor	\$0.00000

(\$0,00658)

(k) Variable Energy Cost Adjustment Factor per kWh Billed to Customer

#### Energy Cost Adjustment Factors (Capped and Incremental) Calculation Summary Sheet 4th Quarter of FY 2015-2016

2. Capped Renewable Portfolio Standard Energy Adjustment Factor (CRPSEAF)	Source
Estimated Expenses for the 12-Month Period Ending March 31, 2017:  (a) Depreciation Expense (Directly-Owned RPS)	\$35,201,579 Schedule C, Page 2
Interest Expense (Directly-Owned RPS)	\$54,732,045 Schedule C, Page 2
Operating and Maintenance Expense (Directly-Owned RPS)	\$33,924,200 Schedule C, Page 2
(b) Renewable PPAs (Fixed Portion of Indirectly-Owned RPS)	\$94,618,484 Schedule B, Page 1
(c) Energy Efficiency Capitalized Debt Service	\$48,865,690 Schedule D, Page 1
(d) City Transfer (8%)	\$21,387,360 8% x Sum of (a through c)
(e) Estimated CRPSEA Balancing Account on March 31, 2016	(\$12,372,000)
Grand Total	\$276,357,358
(f) Estimated Retail Energy Sales (kWh) (Less: Sales to Other City Departments under Schedules LS-1 and TC)	23,606,890,460
RPS Energy Adjustment Factor per kWh	\$0.01171
(g) Less: Funding by Capped ECAF and Base Rate Contribution Factor  RPS Energy Adjustment Factor per kWh Billed to Customer	( <u>\$0.00979)</u> \$0.00192

#### Energy Cost Adjustment Factors (Capped and Incremental) Calculation Summary Sheet 4th Quarter of FY 2015-2016

3. Variable Renewable Portfolio Standard Energy Adjustment Factor (VRPSEAF) Estimated Expenses for the 12-Month Period Ending March 31, 2017:		Source
(a) Renewable PPAs (Variable Portion of Indirectly and Non-Owned RPS)	\$387,511,516	Schedule B, Page 2
(b) Renewable Fuel - Biomethane	24,316,000	Schedule B, Page 2
(c) City Transfer (8%)	32,946,201	8% x Sum of (a +b)
(d) Estimated VRPSEA Balancing Account on March 31, 2016	(81,841,201)	
Grand Total	\$362,932,516	
(e) Estimated Retail Energy Sales (kWh) (Less: Sales to Other City Departments under Schedules LS-1 and TC)	23,606,890,460	
Variable RPS Energy Adjustment Factor per kWh	\$0.01537	
(f) Less: Funding by Capped ECAF and Base Rate Contribution Factor  Variable RPS Energy Adjustment Factor per kWh Billed to Customer	\$0.00846	
Factors Summary		1
Capped Energy Cost Adjustment Factor (CECAF)	\$0.05690	
Variable Energy Adjustment Factor (VEAF)	(\$0.00658)	0 1
Capped RPS Energy Adjustment Factor (CRPSEAF)	\$0.00192	
Variable RPS Energy Adjustment Factor (VRPSEAF) Total	\$0.00846 \$0.06070	

# RETAIL CUSTOMER FUEL AND PURCHASED POWER EXPENSE BUDGET APRIL 2016 - MARCH 2017

		Total
Non-Renewable Fuel Expense		Expense
Natural Gas	\$128,317,000	
Gas MTM (09/11/15)	\$18,214,000	
Premium Paid	\$0	
Transportation	\$43,939,000	
Coal (Navajo)	\$18,591,000	
Nuclear (PV)	\$18,335,000	
Settlement Sales	\$0	
Emissions Expense	-\$5,988,037	
Total Non-Renewable Fuel Expense		\$221,407,963
Non-Renewable Purchased Power		
Palo Verde (SCPPA)	\$57,855,000	
Economy Purchases	\$30,513,000	
Powerex Purchase	\$0	
Intermountain	\$430,719,000	
Apex	\$103,616,000	
Hoover	\$15,358,000	
Cogeneration	\$12,408,000	
Non-RPS Transmission	\$96,984,000	
Hoover Project Prepayment	\$2,287,000	
Total Non-Renewables Purchased Power	ΨΣ,ΣΟ1,000	\$749,740,000
Biomethane	\$24,316,000	
Renewable Purchased Power	45.050.000	
Water System Hydros	\$5,859,000	
Water System Hydros RPS Short-Term	\$0	
Water System Hydros RPS Short-Term RPS Geothermal	\$0 \$73,988,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind	\$0 \$73,988,000 \$195,833,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop	\$0 \$73,988,000 \$195,833,000 \$30,418,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Purchased Power	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Purchased Power	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	\$506,446,000
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Purchased Power	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	THE RESERVE AND ADDRESS OF THE PARTY OF THE
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Purchased Power	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	THE RESERVE AND ADDRESS OF THE PARTY OF THE
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Expense TOTAL ENERGY EXPENSES FOR CECAF	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	THE RESERVE AND ADDRESS OF THE PARTY OF THE
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales  Total Renewable Purchased Power  Total Renewable Expense  TOTAL ENERGY EXPENSES FOR CECAF	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	\$1,477,593,963
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Purchased Power Total Renewable Expense TOTAL ENERGY EXPENSES FOR CECAF	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000	\$1,477,593,963 Total
Water System Hydros RPS Short-Term RPS Geothermal RPS Wind RPS Solar Rooftop RPS Hydro RPS Generic RPS Biogas RPS Solar Central RPS REC RPS Transmission RPS Procurement Sales Total Renewable Purchased Power Total Renewable Expense TOTAL ENERGY EXPENSES FOR CECAF  Possed Incremental Electric Rate Ordinance NERGY EXPENSES FOR CRPSEAF Fixed RPS Purchased Power	\$0 \$73,988,000 \$195,833,000 \$30,418,000 \$2,747,000 \$0 \$0 \$164,785,000 \$4,065,000 \$4,435,000 \$482,130,000	\$1,477,593,963 Total

# RETAIL CUSTOMER FUEL AND PURCHASED POWER EXPENSE BUDGET APRIL 2016 - MARCH 2017

Proposed Incremental Electric Rate Ordinance		
ENERGY EXPENSES FOR VRPSEAF		Total
Renewable Fuel Expense		Expense
Biomethane	\$24,316,000	maperise.
Total Renewable Fuel Expense	Ψ24,510,000	\$24,316,000
Total Nellewable Fuel Expense		Ψ <b>2</b> 4,510,000
Variable RPS Purchased Power		
Water System Hydros	\$5,859,000	
RPS Geothermal	\$73,988,000	
RPS Wind	\$105,649,516	
RPS Solar Rooftop	\$30,418,000	
RPS Hydro	\$2,747,000	
RPS Generic	\$0	
RPS Biogas	\$0	
RPS Solar Central	\$164,785,000	
RPS REC	\$4,065,000	
RPS Procurement Sales	\$0	
Total Renewable PPA		
(Variable Portion of Indirectly and Non-Owned RPS)		\$387,511,516
TOTAL ENERGY EXPENSES FOR VRPSEAF		\$411,827,516
oposed Incremental Electric Rate Ordinance		
NERGY EXPENSES FOR VEAF		Total
Non-Renewable Fuel Expense		Expense
Natural Gas	\$128,317,000	
Gas MTM (09/11/15)	18,214,000	
Premium Paid	0	
Transportation	43,939,000	
Coal (Navajo)	18,591,000	
Nuclear (PV)	18,335,000	
Settlement Sales	0.000,000	
Emissions Expense	-5,988,037	
	-0,900,037	\$221,407,963
Total Non-Renewable Fuel Expense		\$221,407,903
Non-Renewable Purchased Power		
Palo Verde (SCPPA)	\$57,855,000	
Economy Purchases	\$30,513,000	
Powerex Purchase	\$0	
Intermountain	\$430,719,000	
Apex	\$103,616,000	
Hoover	\$15,358,000	
Cogeneration	\$12,408,000	
Non-RPS Transmission	\$96,984,000	
Hoover Project Prepayment	2,287,000	
Total Non-Renewables Purchased Power	2,201,000	\$749,740,000
		-
TOTAL ENERGY EXPENSES FOR VEAF		\$971,147,963

Schedule C

## RENEWABLE PORTFOLIO STANDARD SCHEDULE APRIL 2016 - MARCH 2017

Estim	nated RPS MWh	The Section
Projects	Туре	MWh
Purchased Power Projects		
RPS Biomethane	Biomass	320,157
Digester Gas	Biomass	98,290
Toyon	Biomass	
LADWP Water System	Hydro	226,864
MWD_Sepulveda	Hydro	24,720
N_Hollywd	Hydro	5,304
Geo_Don_Campbell	Geothermal	114,108
Geo_DonCampbell2	Geothermal	143,664
Geo_Hudson_Ranch	Geothermal	438,350
Geo_Ormat_Herber	Geothermal	187,151
Solar_CNM	Solar	207,965
Solar_Feed_In	Solar	229,471
Solar_PPA_2016S1	Solar	179,379
Solar_PPA_2016S2	Solar	158,905
Solar_PPA_2016SA	Solar	207,135
Solar_PPA_Beacon	Solar	471,253
Solar_PPA_Moapa	Solar	590,390
Solar_PPA_ReCinco	Solar	141,192
Solar_PPA_2015CM	Solar	514,919
Solar_UBS	Solar	9,942
Pebble_Springs	Wind	161,555
PPM_Wyoming	Wind	190,682
Willow_Crk_Wind	Wind	176,038
Wind_Linden	Wind	142,375
Wind_Milford	Wind	392,444
Wind_Milford2	Wind	198,345
Wind_PPA_2014M / REC	Wind	104,197
Wind_WindyPt	Wind	686,140
Generic_RPS	Various	<del>=</del> -
RPS - Short Term (< 1 Yr)	Various	4
Purchased Power Total	-	6,320,935
Ownership		
Pinetree	Wind	241,450
Solar_Adelanto_1	Solar	19,593
Solar_PineTree	Solar	13,884
LADWP Power System	Hydro	212,100
Ownership Subtotal	_	487,027
Estimated RPS MWhs	_	6,807,962

## Schedule C

## RENEWABLE PORTFOLIO STANDARD SCHEDULE APRIL 2016 - MARCH 2017

	ed RPS Expense	
Projects	Type	Total
Purchased Power Projects		
RPS Biomethane	Biomass	\$24,316,000
Digester Gas	Biomass	\$0
Toyon	Biomass	\$0
LADWP Water System	Hydro	\$5,859,000
MWD_Sepulveda	Hydro	\$2,262,000
N_Hollywd	Hydro	\$485,000
Geo_Don_Campbell	Geothermal	\$11,297,000
Geo DonCampbell2	Geothermal	\$11,673,000
Geo_Hudson_Ranch	Geothermal	\$35,068,000
Geo_Ormat_Herber	Geothermal	\$15,950,000
Solar_CNM	Solar	\$0
Solar_Feed_In	Solar	\$30,418,000
Solar_PPA_2016S1	Solar	\$11,229,000
Solar_PPA_2016S2	Solar	\$9,320,000
Solar_PPA_2016SA	Solar	\$10,253,000
Solar_PPA_Beacon	Solar	\$25,759,000
Solar_PPA_Moapa	Solar	\$49,302,000
Solar_PPA_2015CM	Solar	
Solar_PPA_2015CW		\$49,303,000
	Solar	\$9,619,000
Solar_UBS	Solar	\$0
Pebble_Springs	Wind	\$16,603,000
PPM_Wyoming	Wind	\$12,013,000
Willow_Crk_Wind	Wind	\$20,496,000
Wind_Linden	Wind	\$16,852,000
Wind_Milford	Wind	\$30,624,000
Wind_Milford2	Wind	\$19,082,000
Wind_PPA_2014M / REC	Wind	\$4,065,000
Wind_WindyPt	Wind	\$80,163,000
Generic_RPS	Various	\$0
RPS - Short Term (< 1 Yr)	Various	\$0
RPS Transmission		\$4,435,000
Purchased Power Total		\$506,446,000
Ownership		
RPS Depreciation		\$35,201,579
RPS Interest		\$54,732,045
RPS O&M		\$33,924,200
RPS Procurement Sales		\$0
Solar_Adelanto_1	Solar	\$0
Solar_PineTree	Solar	\$0
LADWP Power System	Hydro	\$0
Ownership Subtotal	•	\$123,857,824
Total Estimated RPS Expens	se	\$630,303,824

## Schedule D

## DEMAND-SIDE MANAGEMENT PROGRAMS APRIL 2016 - MARCH 2017

Capital	<u>Total</u>
F.I. 28182 Energy Conservation-Power Funded	12
Y5003 - Lighting Upgrades and HVAC	\$9,380,275
Y5014 - Energy Conservation Incentives	83,435,925
Y7718 - Home Energy Improvement Program	16,938,100
Y7720 - Lighting Direct Install Program (LDIP)	46,656,425
Y7721 - LAUSD Energy Efficiency Measures	13,260,500
DSM Capital Total	\$169,671,225
Amortized Debt Service April 2016 - March 2017	\$16,291,315
Prior Years Amortized Debt Service	\$32,574,375
Amortized Debt Service	\$48,865,690

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