

# 2016-2017 Biennial Conservation Report

Washington

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#### Introduction

Pacific Power & Light Company (Pacific Power), a division of PacifiCorp, submits this 2016-2017 Biennial Conservation Report to the Washington Utilities and Transportation Commission (Commission) and the Energy Independence Act (I-937) Commerce Conversation Report to the Washington Department of Commerce (Commerce) in response to reporting requirements established as part of the Energy Independence Act. The report is consistent with chapter 19.285 Revised Code of Washington, section 70 which states:

(1) On or before June 1, 2012, and annually thereafter, each qualifying utility shall report to the department on its progress in the preceding year in meeting the targets established in RCS 19.285.40, including expected electricity savings from the biennial conservation target, expenditures on conservation, actual electricity savings results, the utility's annual load for the prior two years, the amount of megawatt-hours needed to meet the annual renewable energy target, the amount of megawatt-hours of each type of eligible renewable resource acquired, the type and amount of renewable energy credits acquired, and the percent of its total annual retail revenue requirement invested in the incremental cost of eligible renewable resources and the cost of renewable energy credits."

This report is also consistent with the guidelines set forth in the revised WAC 480-109-100 (3) and Condition (8)(e) in Order 01 of Docket UE-152072, addressing reporting requirements.

As directed in Docket UE-100523 memorandum dated May 4, 2012, two separate filings will be submitted for "Conservation" and "Renewables". This report is addressing the Conservation target and savings.

Consistent with the requirement to pursue all cost-effective, reliable, and feasible conservation, Pacific Power completed a comprehensive conservation potential assessment followed by economic resource screening and selection through the company's Integrated Resource Planning process. The resulting ten-year conservation forecast, with adjustments as appropriate to account for new information, and biennial target was filed with and approved by the Commission in Docket UE-152072.

#### **Executive Summary**

The company has achieved its 2016-2017 Biennial Conservation Target as set forth in Docket UE-152072, PacifiCorp's Ten-Year Conservation Potential and 2016-2017 Biennial Conservation Target.

A summary of 2016-2017 electric conservation targets and savings results at generation, and expenditures are provided below.

	Savings (MWH)
Target	90,009
Company Achieved Conservation	93,145
Total Achieved Conservation	99,109
Percent of Target	103%
Surplus MWH Savings	3,136

Consistent with the conditions established by the Commission in Docket UE-152072 Order 01, Attachment A, the cost-effectiveness has been determined based on the Total Resource Cost (TRC) test incorporating the 10 percent conservation benefit and risk adder consistent with the Northwest Power and Conservation Council's approach. Using this test, the benefit to cost ratio for the company's 2016-2017 Biennial Conservation savings was 1.92. 12

Working in partnership with its customers, Commission staff, and demand side management advisory group members, Pacific Power achieved these results while adhering to the conditions established by the Commission in Docket UE-152072. Appendix 1 of this report summarizes the company's compliance.

Consistent with Order 03 in Docket UE-132047, Pacific Power has 22,178 MWh of excess 2014-2015 electric savings available to apply to a potential 2018-2019 shortfall. Upon calculating the reported and verified electric savings totals and savings adjustments, the company's 2016-2017 excess savings will be 3,136 MWh (calculated on consistent basis with Commission approved target). These excess savings can be added to the 2014-2015 excess of 22,178 MWh, and can use up to 20 percent of potential shortfall for 2018-2019. The 2014-2015 excess will no longer be available for application to a 2020-2021 potential shortfall.

<sup>&</sup>lt;sup>1</sup>The cost effectiveness result includes non-energy benefits for the Company Achieved Conservation savings. The Total Achieved Conservation savings, including NEEA, is 1.87 which takes the sum of 2016 and 2017 performance to calculate the benefits and costs for cost effectiveness.

<sup>&</sup>lt;sup>2</sup> Low Income Weatherization program is not included in the portfolio cost effectiveness analysis per WAC 480-109-100(10)(b).

## **Energy Independence Act (I-937) Commerce Conservation Report**

Utility	Pacific	Power & Light Cor	Summary	of Achievement a	nd Targets (MWh)		
Report Date	June 1, 2018				2018-20		
ontact Name/Dept	Cory Scott / Custor	ner Solutions			Biennial		
	503) 813-6011			Target	93,059	Target 79,	
Email	cory.scott@pacificorp.co	o <u>m</u>		Achievement	99,109		
				Excess from 2012-13	-		
				Excess from 2014-15	22,178		
	Plan			(Deductions)	-		
2016 - 2017	Planning	2018 - 2019	Planning	Excess (Deficit)	28,228		
2016-2025 Ten	0040 004-	2018-2027 Ten	0040 0045				
Year Potential (MWh)	2016 - 2017	Year Potential	2018 - 2019				
(MVVn) 457.530	Target (MWh) 93,059	(MWh) 394,473	Target (MWh) 79,509				
457,550	33,033	334,413	13,303				
		2016 Achi		ZUIT ACI	ievement		
			Utility		Utility		
Cons	ervation by Sector	MWh	Utility Expenditures (\$)	MWh	Utility Expenditures (\$)		
Conse	ervation by Sector Residential	MWh 18,558	,			Note:	
Conse	······		Expenditures (\$)	12,769	Expenditures (\$)	Expenditure	
Cons	Residential	18,558	Expenditures (\$) \$3,574,750	12,769	Expenditures (\$) \$4,088,518	Expenditure amounts do not	
	Residential Commercial Industrial Agriculture	18,558 18,229	Expenditures (\$) \$3,574,750 \$4,046,759	12,769 15,472	Expenditures (\$) \$4,088,518 \$3,382,070	Expenditure amounts do not include any	
	Residential Commercial Industrial	18,558 18,229 14,288	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171	12,769 15,472 12,310	\$4,088,518 \$3,382,070 \$1,873,533	Expenditure amounts do not include any customer or	
Dį	Residential Commercial Industrial Agriculture	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171	12,769 15,472 12,310 763	\$4,088,518 \$3,382,070 \$1,873,533	Expenditure amounts do not include any	
Dį	Residential Commercial Industrial Agriculture stribution Efficiency	18,558 18,229 14,288	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171	12,769 15,472 12,310	\$4,088,518 \$3,382,070 \$1,873,533	Expenditure amounts do not include any customeror other non-utility	
Dį	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246	12,769 15,472 12,310 763	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104	Expenditure amounts do not include any customeror other non-utility	
Di P Conservation	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246	12,769 15,472 12,310 763	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104	Expenditure amounts do not include any customeror other non-utility	
Di P Conservatior included in	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246	12,769 15,472 12,310 763	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104	Expenditure amounts do not include any customeror other non-utility	
Di P Conservation included in	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA n expenditures NOT sector expenditures School Educ & Outreach	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246	12,769 15,472 12,310 763 2,835	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104	Expenditure amounts do not include any customeror other non-utility	
Di P Conservation included in	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA n expenditures NOT sector expenditures School Educ & Outreach Evals, Potential	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246 \$869,953	12,769 15,472 12,310 763 2,835	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104  \$843,255	Expenditure amounts do not include any customeror other non-utility	
Di P Conservation included in	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA n expenditures NOT sector expenditures School Educ & Outreach Evals, Potential Study,	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246 \$869,953	12,769 15,472 12,310 763 2,835	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104  \$843,255	Expenditure amounts do not include any customeror other non-utility	
Di P Conservation included in	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA n expenditures NOT sector expenditures School Educ & Outreach Evals, Potential Study, System/Measure	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246 \$869,953	12,769 15,472 12,310 763 2,835	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104  \$843,255	Expenditure amounts do not include any customeror other non-utility	
Di P Conservation included in	Residential Commercial Industrial Agriculture stribution Efficiency roduction Efficiency NEEA n expenditures NOT sector expenditures School Educ & Outreach Evals, Potential Study,	18,558 18,229 14,288 757	Expenditures (\$) \$3,574,750 \$4,046,759 \$2,563,171 \$164,246 \$869,953	12,769 15,472 12,310 763 2,835	Expenditures (\$) \$4,088,518 \$3,382,070 \$1,873,533 \$173,104  \$843,255	Expenditure amounts do not include any customeror other non-utility	

Utility Pacific Power & Light Company
Compliance Year 2017

Notes, including a brief description of the methodology used to establish the utility's ten-year potential and biennial target to capture cost-effective conservation:

The quantities submitted above include all areas of conservation effort and achievement, because the Commerce Conservation Report includes areas of conservation which are not included for target setting at the Washington Utilities and Transportation Commission (WUTC). The target listed in this report, 93,059 MWh aligns with biennial conservation target prior to the deduction of Northwest Energy Efficiency Alliance (NEEA) forecast; the process utilized by the WUTC to establish the biennial conservation target subject to penalty. On December 17, 2015, the Commission approved a target of 87,814 MWh for the 2016-2017 biennium in Order 01 in Docket UE-152072 in accordance with WAC 480-109-120. The target does not include savings reported by NEEA.

On September 1, 2016, the Commission issued Order 12 in Docket UE-152253. Section (7)(4) of the Order specifies, "Pacific Power must increase its annual conservation targets by 2.5 percent for the current 2016-2017 biennium, and by 5 percent per biennium thereafter through the period when decoupling is in effect" The 2017 Annual Conservation Plan, filing on November 15, 2016 was the first after the order was issued and the target subject to penalty was revised upward by 2.5 percent to 90,009 MWh. The revised target did not include NEEA savings. On January 26, 2017, at an open meeting the Commission took no action, thereby acknowledging the 2017 Annual Conservation Plan and revised target of 90,009 MWh.

Company achieved conservation (excludes NEEA) of 93,145 MWh exceeds 90,009 MWh revised biennial target approved by WUTC and subject to penalty.

Total achieved conservation (includes NEEA) of 99,109 MWh exceeds 93,059 MWh target tracked by the Washington Department of Commerce.

Brief description of the methodology used to establish the utility's ten-year potential and biennial target to capture cost effective conservation:

PacifiCorp relied on 1) its 2015 "Demand-Side Resource Potential Assessment for the 2015-2034" (January 2015), 2) economic screening of the conservation potential identified through the 2015 Integrated Resource Plan (IRP) development, and 3) other post IRP adjustments (all documented in Appendix 4 of the PacifiCorp's ten-year conservation potential and 2016-2017 biennial conservation target report) to establish its ten-year conservation forecast and biennial conservation target.

The manner by which the Company arrived at its 2016-2017 biennial conservation target is explained on pages 12-26 of "PacifiCorp's Ten-Year Conservation Potential and 2016-2017 Biennial Conservation Target for its Washington Service Area" filed in Docket UE-152072. The Company's engagement with the Washington DSM Advisory Group during the development of the 2016-2017 target is outlined in the on pages 28-30 of "PacifiCorp's Ten-Year Conservation Potential and 2016-2017 Biennial Conservation Target for its Washington Service Area" filed in Docket UE-153072.

The commission accepted the company's forecast and target as meeting the requirements to consider all conservation resources that are cost-effective, reliable and feasible by approval of the Company's forecast and targets in Docket UE-152072 on December 17, 2015. The Commission took no action at the January 26, 2017 open meeting thereby acknowledging the Company's 2017 Annual Conservation Plan and revised target of 90,009 MWh which accounts for the decoupling commitment in Docket UE-152253.

### **Biennial Target Compared to Actual**

Table 1
2016 Biennial Forecast Compared to Actual

	Forecast 2016		Actua	al 20	016
Energy Efficiency Program (Tariff Schedule #)	Estimated kWh/Yr Savings (at generator)	Estimated Systems Benefit Expenditures	kWh/Yr Savings (at generator)		stem Benefit xpenditures
Low Income Weatherization (114)	267,090	\$ 780,000	322,936	\$	778,519
Refrigerator Recycling (107)	-	\$ -	7,286	\$	(1,150)
Home Energy Savings (118)	8,378,717	\$ 2,568,201	7,710,687	\$	2,458,678
Home Energy Reports	8,157,109	\$ 364,526	10,050,342	\$	338,703
Home Energy Reports - Savings Reporting Adjustment (Table 4)			-		
Total Residential	16,802,916	\$ 3,712,727	18,091,253	\$	3,574,750
wattsmart Business (140) - Agricultural	1,334,031	\$ 296,226	757,286	\$	164,246
wattsmart Business (140) - Commercial	17,664,754	\$ 3,554,464	18,229,052	\$	4,046,759
wattsmart Business (140) - Industrial	16,781,078	\$ 2,971,240	14,288,308	\$	2,563,171
Total Business	35,779,863	6,821,929	33,274,646	\$	6,774,176
Total - current Company programs	52,582,779	\$ 10,534,656	51,365,899	\$	10,348,926
Northwest Energy Efficiency Alliance (NEEA)	2,176,130	\$ 909,968	3,903,756	\$	869,953
NEEA - Savings Reporting Adjustment Table 6			(775,935)		
Total Company kWh Savings including NEEA and company initiative	54,758,909	\$ 11,444,625	54,493,720	\$	11,218,879
Total Company kWh Savings including company initiative, excluding NEEA	52,582,779		51,365,899		
Be wattsmart, Begin at Home		\$ 60,947		\$	62,794
Customer Outreach/Communication		\$ 250,000		\$	184,227
Program Evaluations		\$ 613,077		\$	421,389
Potential Study Update/Analysis		\$ 100,102		\$	77,368
System/Measure Data Support		\$ 44,916		\$	39,741
		\$ -			
Total System Benefits Charge Expenditures		\$ 12,513,666		\$	12,004,398
Total Expenditures including Company Initiative		\$ 12,513,666		\$	12,004,398
Total Target Expenditures including Company Initiative, excluding NEEA		\$ 11,603,698		\$	11,134,445

#### Notes:

<sup>1)</sup> Conservation Biennial Target established as of December 17, 2015 Docket No. UE-152072  $\,$ 

<sup>2)</sup> Forecast from 2016-2017 Business Plan update filed November 15, 2016; UE-152072

<sup>3)</sup> Actual energy savings includes line losses between the customer site and the generation source using the most current study as noted in the 2016 and 2017 Annual Report on Conservation Acquisition.

Table 2
2017 Biennial Forecast Compared to Actual

	Forecast 2017		Actua	ıl 20	17
Energy Efficiency Program (Tariff Schedule #)	Estimated kWh/Yr Savings (at generator)	Estimated Systems Benefit Expenditures	kWh/Yr Savings (at generator)		stem Benefit openditures
Low Income Weatherization (114)	267,090	\$ 1,000,000	303,512	\$	1,098,065
Home Energy Savings (118)	11,882,833	\$ 3,397,403	9,090,831	\$	2,490,647
Home Energy Reports	-	\$ 376,907	13,407,808	\$	499,806
Home Energy Reports - Adjustment decrease of 2016 reported savings to reflect 2017 incremental savings (Table 1)			(10,050,342)		
Home Energy Reports - Savings Reporting Adjustment (Table 5)			-		
Total Residential	12,149,924	\$ 4,774,310	12,751,808	\$	4,088,518
wattsmart Business (140) - Agricultural	14,160,977	\$ 3,188,791	762,534	\$	173,104
wattsmart Business (140) - Commercial	13,899,527	\$ 2,993,858	15,472,394	\$	3,382,070
wattsmart Business (140) - Industrial	1,332,491	\$ 349,076	12,309,574	\$	1,873,533
Total Business	29,392,995	6,531,725	28,544,503	\$	5,428,708
Total - current Company programs	41,542,918	\$ 11,306,035	41,296,311	\$	9,517,226
Northwest Energy Efficiency Alliance (NEEA)	3,069,263	\$ 911,483	2,835,368	\$	843,255
Total Company kWh Savings including NEEA and company initiative	44,612,181	\$ 12,217,518	44,131,679	\$	10,360,481
Total Company kWh Savings including company initiative, excluding NEEA	41,542,918		41,296,311		
Be wattsmart, Begin at Home		\$ 60,947		\$	61,509
Customer Outreach/Communication		\$ 250,000		\$	229,735
Program Evaluations		\$ 333,667		\$	572,538
Potential Study Update/Analysis		\$ 25,000		\$	9,488
System/Measure Data Support		\$ 44,536		\$	33,421
		\$ -		\$	-
Total System Benefits Charge Expenditures		\$ 12,931,668		\$	11,267,172
Total Expenditures including Company Initiative		\$ 12,931,668		\$	11,267,172
Total Target Expenditures including Company Initiative, excluding NEEA		\$ 12,020,185		\$	10,423,917

#### Notes:

- 1) Conservation Biennial Target established as of December 17, 2015 Docket No. UE-152072
- 2) Forecast from 2016-2017 Business Plan update filed November 15, 2016; UE-152072
- 3) Actual energy savings includes line losses between the customer site and the generation source using the most current study as noted in the 2016 and 2017 Annual Report on Conservation Acquisition.

2016 - 2017 Biennial Forecast Compared to Actual

Table 3

		Forecast 2016 & 2017			Actual 2016 & 2017		
		kWh/Yr Savings	Sy	stems Benefit	kWh/Yr Savings	Sy	stem Benefit
Energy Efficiency Program (Tariff Scheo	lule #)	(at generator)	E	xpenditures	(at generator)	É	xpenditures
Low Income Weatherization (114)		534,181	\$	1,780,000	626,448	\$	1,876,584
Refrigerator Recycling (107)		-	\$	-	7,286	\$	(1,150)
Home Energy Savings (118)		20,261,550	\$	5,965,604	16,801,518	\$	4,949,325
Home Energy Reports		8,157,109	\$	741,433	23,458,150	\$	838,509
Home Energy Reports - Savings Reporting Adjustm	ent				(9,567,071)	\$	-
Total Residential		28,952,839	\$	8,487,037	31,326,332	\$	7,663,268
wattsmart Business (140) - Agricultural		15,495,008	\$	3,485,017	1,519,820	\$	337,350
wattsmart Business (140) - Commercial		31,564,281	\$	6,548,322	33,701,446	\$	7,428,829
wattsmart Business (140) - Industrial		18,113,569	\$	3,320,316	26,597,882	\$	4,436,704
Total Business		65,172,858		13,353,654	61,819,149	\$	12,202,884
Total - current Company programs		94,125,697	\$	21,840,691	93,145,481	\$	19,866,152
Northwest Energy Efficiency Alliance (NEEA)		5,245,393	\$	1,821,452	6,739,124	\$	1,713,208
NEEA - Savings Reporting Adjustment					(775,935)		
		-	\$	-	-	\$	-
Total Company kWh Savings including NEEA and comp	any initiative	99,371,091	\$	23,662,143	99,108,671	\$	21,579,360
Total Company kWh Savings including company initiat	ive, excluding NEEA	94,125,697			93,145,481		
Be wattsmart, Begin at Home			\$	121,894		\$	124,303
Customer Outreach/Communication			\$	500,000		\$	413,961
Program Evaluations			\$	946,743		\$	993,927
Potential Study Update/Analysis			\$	125,102		\$	86,857
System/Measure Data Support			\$	89,452		\$	73,162
			\$	-		\$	-
Total System Benefits Charge Expenditures			\$	25,445,334		\$	23,271,570
Total Expenditures including Company Initiative			\$	25,445,334		\$	23,271,570
Total Target Expenditures including Company Initiative	, excluding NEEA		\$	23,623,883		\$	21,558,362
	Target 2016 & 2017				Actual 2016 & 2017	Pe	rcentage of Target
Achievement for 2016-2017 MWh including decoupling and excluding NEEA	90,009				93,145		103%

#### Notes:

- 1) Conservation Biennial Target established as of December 17, 2015 Docket No. UE-152072
- 2) Forecast from 2016-2017 Business Plan update filed November 15, 2016; UE-152072
- 3) Actual energy savings includes line losses between the customer site and the generation source using the most current study as noted in the 2016 and 2017 Annual Report on Conservation Acquisition.

#### **Savings Reporting Adjustments**

In the Washington Conservation Working Group, parties agreed "to the extent practicable, there should be consistency between the use of prescriptive unit energy savings estimates in the establishment of the biennial target and the reliance on those same savings estimates in the utility's demonstration that it met the biennial target." Consistent with this approach, the results provided in Pacific Power's 2016 and 2017 Annual Reports on Conservation Acquisition have been adjusted, incorporating the key planning assumptions used in establishing the 2016-2017 target. The adjustments are discussed in detail in the following sections.

#### **Home Energy Reports**

A third party impact evaluation has recently been completed on Washington's Home Energy Reports program for program years 2016-2017. Results from the evaluation provided verifiable energy savings that were achieved by customers who were participants in Home Energy Reports program for the Legacy, Expansion, and Refill waves.

As a result, Pacific Power is adjusting the reported savings from this program to reflect the verified net savings from the evaluation. The company is increasing savings reported in 2016 and 2017 due to realization rates of 104.6% and 100.5%, respectively.

Beginning in 2016, Pacific Power claimed a two year measure life for this program. Therefore, the savings reported in the Biennial for 2017 includes the incremental savings. Savings in 2017 were calculated by subtracting 2016 reported savings. In addition, 2017 received an increase of 16,787 kWh to account for savings resulting from the verified net realization rate of 100.5%. The impact on 2016 and 2017 savings adjustments is provided in Table 4 and Table 5.

Table 4<sup>4</sup>
2016 Home Energy Reports Adjustment Calculations

Home Energy Reports	2016 kWh	Source/Notes
	10,050,342	Gross kWh at Gen - Table 1
	9,578,970	Evaluated net savings at site before double counting - WA Home Energy Report Evaluation
	10,550	Adjusted savings from other energy efficiency programs as identified in 2016-2017 Home Energy Reports program evaluation
	9,589,520	Verified net savings at site
	10,516,827	Verified net savings at generation
	466,484	Savings adjustment for Home Energy Reports 2016

<sup>&</sup>lt;sup>3</sup> Washington Conservation Working Group Consensus Document as of June 30, 2011.

<sup>&</sup>lt;sup>4</sup> See Table 2 and Section 3.3 from Home Energy Reports 2016-2017 Evaluation.

Table 5
2017 Home Energy Reports Adjustment Calculations

Home Energy Reports	2017 kWh	Source/Notes
	13,407,808	Gross kWh at Gen - Table 2
	12,184,130	Evaluated net savings at site before double counting - WA Home Energy Report Evaluation
	100,250	Adjusted savings from other energy efficiency programs as identified in 2016-2017 Home Energy Reports program evaluation
	12,284,380	Verified net savings at site
	13,472,280	Verified net savings at generation
	100.5%	Evaluated net realization rate
Incremental 2017 Savir	ngs Adjustmei	nt
	16,787	Savings adjustment for incremental Home Energy Reports 2017

#### **Northwest Energy Efficiency Alliance (NEEA)**

NEEA estimated savings in the company's Washington service territory resulting from its initiatives based on the same baseline assumptions used in the development of Pacific Power's 2016-2017 biennial conservation target<sup>5</sup>. NEEA's savings are relative to the Northwest Power and Conservation Council's 7<sup>th</sup> Plan baselines.

Savings reported from NEEA initiatives in the company's 2016 annual report were based on preliminary estimates provided by NEEA at the time the annual report was created. The savings calculation adjustment is provided in Table 6.

Table 6
Revised NEEA 2016 and 2017 Savings

NEEA Savings Pacific Power Washington							
	Annual saving reported kWh (at Site)	Revised savings kWh (at Site)	Annual saving reported kWh (at Gen)	Revised savings kWh (at Gen)	Net Adjustment kWh (atGen)		
2016	3,561,468	2,853,838	3,903,756	3,127,821	(775,935)		
2017	2,586,952	2,586,952	2,835,368	2,835,368	-		
Total Adj					(775,935)		

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<sup>&</sup>lt;sup>5</sup> See memo from NEEA, Appendix 3 of this report.

#### **Adjustment Summary**

The net effect of all adjustments applied to the 2016-2017 biennial savings is a decrease of 10,343 MWh. These adjustments include the effects of line losses

Table 7 provides detail by adjustment type in kWh and reporting year.

Table 7
Adjustments by Type and Year (MWh at generation)

Adjustment (MWh)	2016	2017	Total
Home Energy Reports	466	(10,034)	(9,567)
NEEA	(776)		(776)
Total	(309)	(10,034)	(10,343)

#### **Staff Area of Interest – Distribution Efficiency**

During the stakeholder comment period, Commission staff requested the company provide information on distribution efficiency; specifically addressing current and historical accomplishments, any remaining potential, and how the potential may change in the future. This section has been added to the final version of this report in response to this request.

During the 2012-2013 biennial period, Pacific Power completed a conservation voltage reduction (CVR) pilot on four of its most promising circuits. The circuits were identified by a third party, Commonwealth Associates, in a research effort commissioned by the company specifically for the purpose of identifying CVR opportunities in Pacific Power's territory. The pilot utilized the Regional Technical Forum's simplified protocol for measuring savings. All four circuits failed to meet the protocol's specified efficiency thresholds before and after the voltage reduction and savings could not be verified with statistical certainty. Pilot effort results were provided in the Biennial Conservation Report filed in Docket UE-111880.

As part of the 2014-2015 and 2016-2017 biennial target setting process, Pacific Power reviewed current measurement protocols and technologies and didn't find material changes from the 2012 period and did not include any distribution efficiency opportunities in either period's forecast or target. This information was provided in the respective biennial conservation forecast/target filings.

During the 2018-2019 biennial target setting process the company again reviewed the prior analysis, current operating conditions on the Washington distribution system, and technology advances that could potentially impact opportunities. The review indicated that for the 2018-2019 biennial period, there were no distribution efficiency opportunities that could be included in the conservation forecast and target. As described in the 2018-2019 Biennial Conservation Plan filed in Docket UE-171092, the company's transition to the

CYME distribution analysis software will enable powerful analyses as tool familiarity increases and engineering details and appropriate load assumptions are assembled. Some load assumptions may be derived from future Oregon AMI data. Together, these factors may inform the assessment of cost-effective, reliable, and feasible distribution efficiency opportunities for future biennia.

#### **Supporting Documents for Conservation**

Provided below are links to supporting documents relied upon in support of Pacific Power's planning assumptions and associated reporting of actual savings results for the Biennial Conservation Target for 2016 and 2017.

 Assessment of Long-Term, System-Wide Potential for Demand-Side and Other Supplemental Resources, Volume 1 through Volume 5 – Conservation Potential Assessment

http://www.pacificorp.com/es/dsm.html

2. 2016 and 2017 Annual Report(s) on Conservation Acquisition, filed in Docket UE-152072.

http://www.pacificorp.com/es/dsm/washington.html

3. Report on its Ten-year Achievable Conservation Potential and its Biennial Conservation Target for 2016 and 2017, filed in Docket UE-152072 on October 30, 2015.

https://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=152072

4. Demand-side Management Business Plan(s) including November 2016 Update filed in Docket UE-152072.

https://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=152072

5. Independent third-party process and impact evaluations completed during the 2016-2017 biennium, validating program results, assessing ex-post program savings and providing information used to inform future conservation potential assessments, conservation forecasts and the establishment of targets.

http://www.pacificorp.com/es/dsm/washington.html

## **Appendices**

Appendix 1 – 2016-2017 Plan Condition Requirements and Compliance

Appendix 2 – Washington Verification of Savings Review

Appendix 3 – NEEA Memorandum of 2016-2017 Final Savings