

# Examples of Earning Sharing Mechanisms in State Utility Commissions

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

CENTER FOR PARTNERSHIPS AND INNOVATION

PERFORMANCE-BASED REGULATION STATE WORKING GROUP

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# Earnings Sharing Mechanisms



**Overview of Earning Sharing Mechanism**

**Hawaii Public Utilities Commission**  
**Daniel Park**

**Public Utilities Commission of Nevada**  
**Kim Lighthart**

**Vermont Public Utility Commission**  
**Joan White**

# Earning Sharing Mechanism

“Earnings sharing is a popular form of hybrid regulation. With earnings sharing, the regulator allows the operator to keep some portion of the earnings it receives from the market and requires the operator to give the rest to customers, perhaps through price reductions, refunds, or increased investment.”

From the University of Florida's Public Utilities Research Center (PURC)  
Regulation Body of Knowledge section Price Level Regulation ->  
Earnings Sharing

# Regulatory Considerations: Common Variations & Decision Points

- ▶ If it is tied with another tool, such as multi-year rate plans (MYRPs), decoupling, and price caps
- ▶ To what degree it impacts the utility's incentive to control costs
- ▶ Authorized earning and dead band level (earnings that are not shared with customers)
- ▶ Symmetry/asymmetry in sharing for surplus and deficits
- ▶ How savings are shared (immediate rate adjustments, program funding, etc.)
- ▶ What earnings are eligible for sharing

This list is adapted from a consultant report provided by Pacific Economics Group Research LLC to the British Columbia Utility Commission – [Review of British Columbia Hydro and Power Authority's Performance Based Regulation Report – Project No. 1599045 – BCUC Staff Consultant Report](#) (February 2020)

# Example: PSC of Wisconsin

The PSC of Wisconsin has approved revenue sharing mechanisms that authorize:

Utility ROE	Sharing
First 25 basis points of earning above their return on equity (ROE)	No sharing
25 – 75 basis points of earning above their ROE	50% to customers
75+ basis points of earning above their ROE	100% to customers

For a recent example, see December 2019 order in We Energies rate case:  
[http://apps.psc.wi.gov/vs2015/ERF\\_view/viewdoc.aspx?docid=381305](http://apps.psc.wi.gov/vs2015/ERF_view/viewdoc.aspx?docid=381305), p. 90

# Other Resources & References

- ▶ David Littell, Performance-Based Regulation for Utility Efficiency: Multi-Year Rate Plans for the NARUC PBRSWG, Regulatory Assistance Project, June 2020, ESM discussion begins at 20:45 minutes/slide 38.
- ▶ Laurence Kirsch and Mathew Morey, Alternative Electricity Ratemaking Mechanisms Adopted by Other States – prepared for Public Utility Commission of Texas, Christensen Associates Energy Consulting, LLC, May 25, 2016, see p. 40 for Earning Sharing Mechanism
- ▶ Ken Costello, Alternative Rate Mechanisms and Their Compatibility with State Utility Commission Objectives, National Regulatory Research Institute (NRRI), Report No. 14-03, April 2014
- ▶ Performance-Based Regulation for Distribution Utilities, Regulatory Assistance Project, November 2020, see p. 17 for The Effects of Sharing Mechanisms

# Daniel Park

## Hawaii Public Utilities Commission



# Outline

- **Existing ESM**
  - Background
  - Historical Data
  - Illustrative Example
- **Proposed Changes to the ESM**



# Background

- ESM established in 2010 as part of a comprehensive package implementing decoupling for electric IOUs in Hawaii.
  - Revenue Balancing Account (RBA)
  - Rate Adjustment Mechanism (RAM)
  - Customer Protections
    - ESM
    - RAM Major Project Cost Overrun Disallowance
    - Triennial Rate Case Cycle
- Various parties and participants raised concerns about the RAM potentially producing excess earnings.



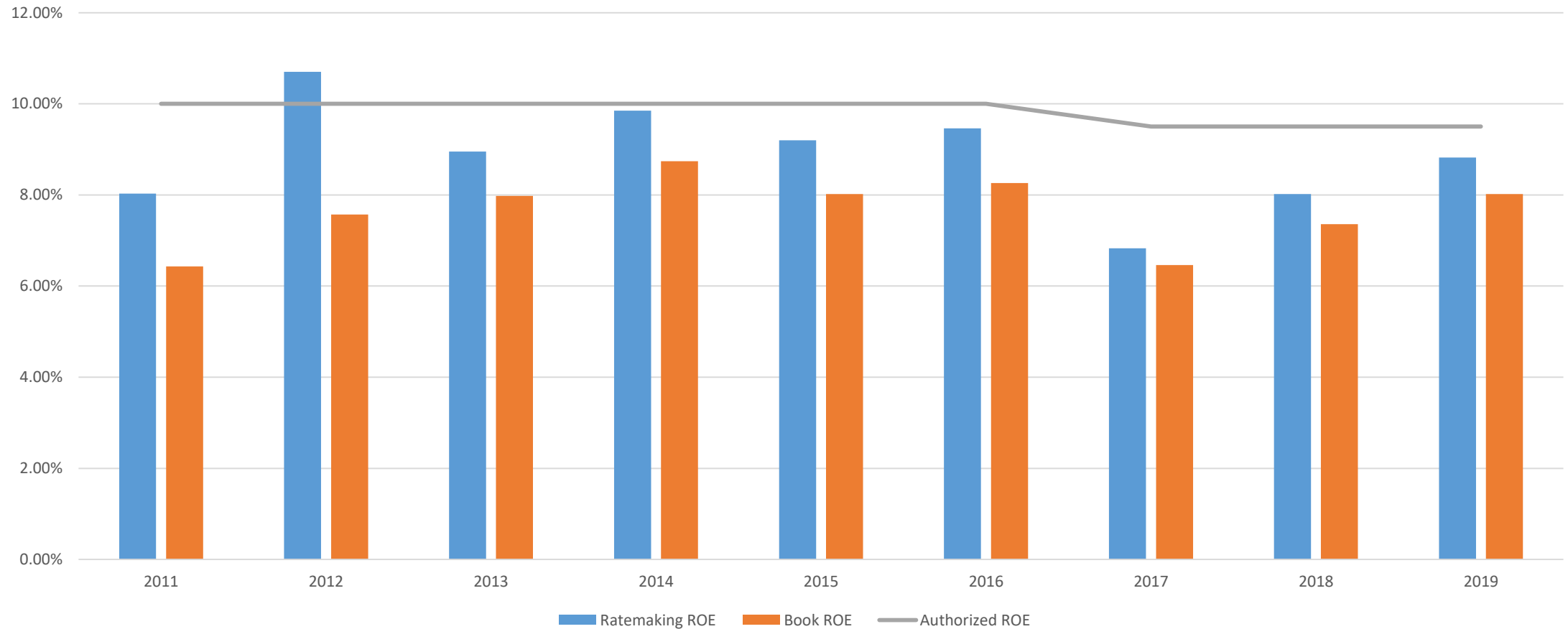
# Earnings Sharing Mechanism

Utility ROE	Sharing
At or below the Authorized ROE	No sharing
First 100 basis points above the Authorized ROE	25% to customers
Next 200 basis points above the Authorized ROE	50% to customers
Anything above 300 basis points above the Authorized ROE	90% to customers

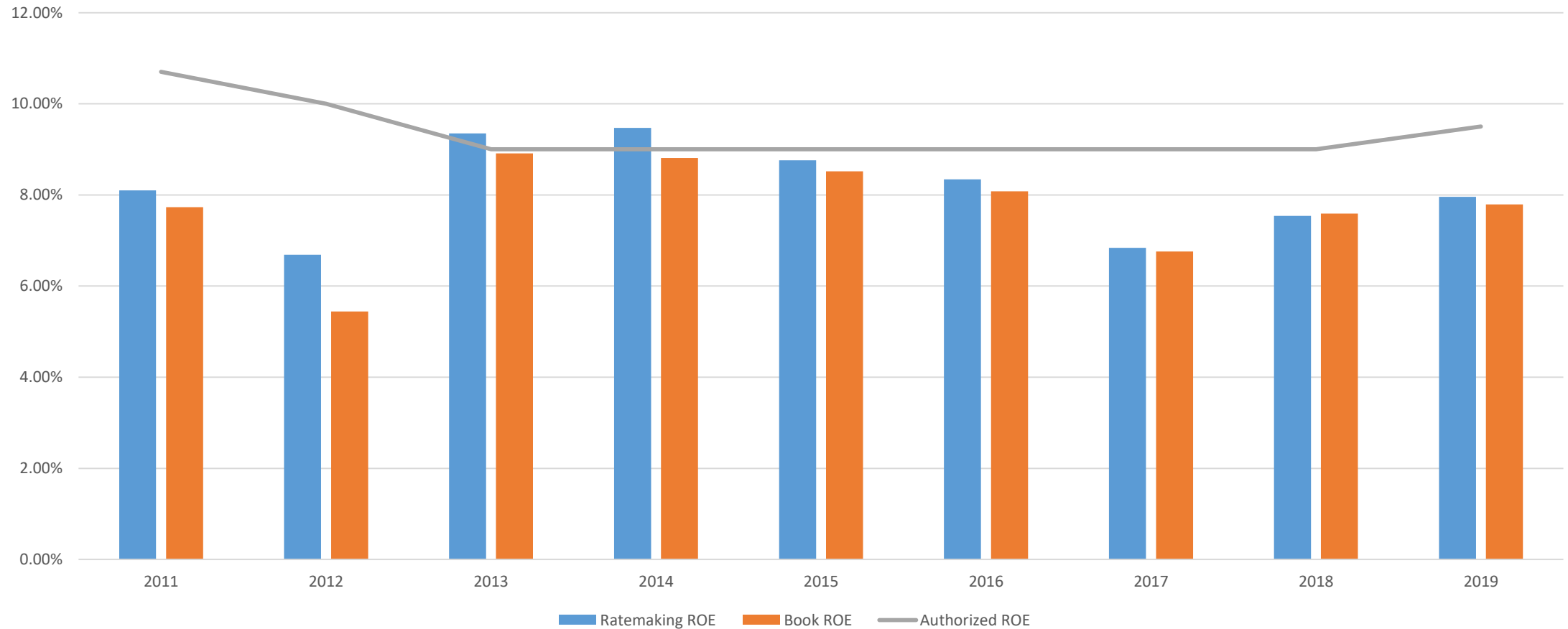
- The amount of any sharing is determined during the annual decoupling review.
- Any sharing is subsumed into the larger RBA adjustment.
- RBA adjustment goes into effect in June of the following calendar year.



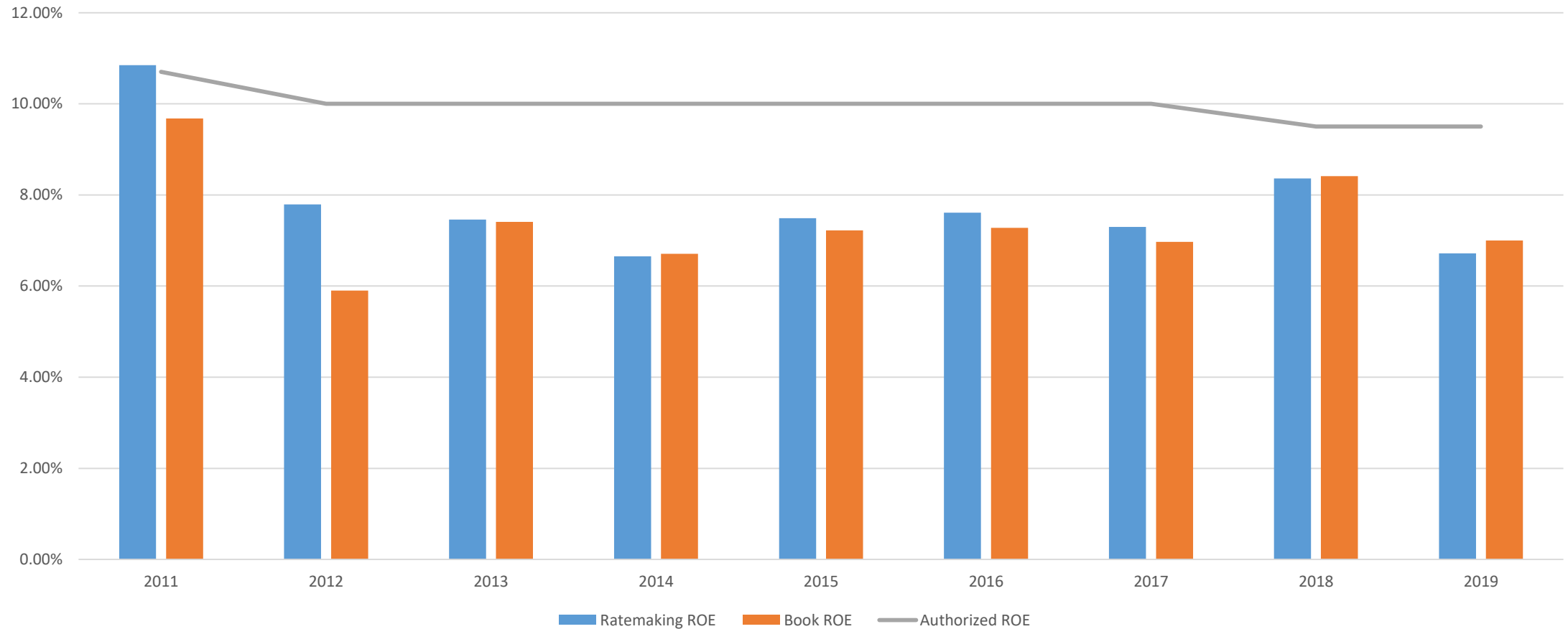
# Hawaiian Electric Company (HECO)



# Maui Electric Company (MECO)



# Hawaii Electric Light Company (HELCO)



21	<u>Earnings Sharing Revenue Credits:</u>	Basis Points			
22	Achieved ROE (basis points)	1,056			
23	Authorized Return (basis points)	<u>1,000</u>			
24	ROE for sharing (basis points)	56			
25	Sharing Grid per RAM Provision	First 100 bp	Next 200 bp	All over 300 bp	Ratepayer Total
26	Distribution of Excess ROE (basis points)	56	0	0	
27	Ratepayer Share of Excess Earnings	<u>25%</u>	<u>50%</u>	<u>90%</u>	
28	Ratepayer Earnings Share - Basis Points	14	-	-	14
29	Revenue Credit per Basis Point (Note 2)				<u>\$ 148</u>
30	Earnings Sharing Revenue Credits (thousands)				<u><u>\$ 2,066.82</u></u>

Footnotes:

1	Composite Federal & State Income Tax Rate	38.91%
	Income Tax Factor ( 1 / 1-tax rate)	1.636929121
2	Ratemaking Equity Investment (line 19)	\$ 824,247
	Basis Point = 1/100 of a percent	0.01%
	Earnings Required per Basis Point (thousands)	<u>\$ 82.42</u>
	Times: Income Tax Conversion Factor	1.636929121
	Pretax Income Required per Basis Point (thousands)	<u>\$ 135</u>
	Times: Revenue Tax Conversion Factor	1.0975
	Revenue Requirement per Basis Point (thousands)	<u>\$ 148</u>



RECONCILIATION OF RBA BALANCE:

1	RBA Prior calendar year-end balance	Schedule B	\$ 50,488,050	
2	Revenue Tax Factor	Schedule C	1.0975	<hr/>
3	Revenue for RBA Balance			\$ 55,410,635

RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:

4	O&M RAM	Schedule C	\$ 7,615,328	
5	Rate Base RAM - Return on Investment	Schedule D	\$ 19,446,563	
6	Depreciation & Amortization RAM Expense	Schedule E	\$ 11,535,836	<hr/>
7	Total RAM Revenue Adjustment			\$ 38,597,727

8	<u>EARNINGS SHARING REVENUE CREDITS - 2012 ROE:</u>	Schedule H		\$ (2,066,820)
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9	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS:</u>	Schedule I		<hr/>
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10	TOTAL RBA REVENUE ADJUSTMENT	Sum Col. (d)		\$ 91,941,542
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11	GWH SALES VOLUME ESTIMATE JUNE 2013 - MAY 2014 (see HECO-WP-A-001)			<hr/> 6,953.300
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12	RBA RATE ADJUSTMENT - cents per kWh	Note (1)		<hr/> <hr/> 1.3223
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13	MONTHLY BILL IMPACT @ 600 KWH			<hr/> <hr/> \$7.93
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Superseding REVISED SHEET NO. 92B  
Effective ~~June 1, 2012~~ ~~March 28, 2012~~  
~~2013~~ June 1, 2012

REVISED SHEET NO. 92B  
Effective June 1,

#### REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be 6 percent.

#### D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

At the Annual Evaluation Date provided in the Rate Adjustment Mechanism Provision, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits or Baseline Capital Projects Credits, and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, coincident with the Annual Evaluation Date filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

#### E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA rate adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes. The RBA rate adjustment is calculated based on the Company's forecast of mWh sales over the RBA rate adjustment recovery period.

| Effective June 1, 2012-2013 to May 31, 20132014  
RBA Rate Adjustment  
| All Rate Schedules ..... 0.38941.3223 ¢/kWh

HAWAIIAN ELECTRIC COMPANY, INC.

| Transmittal Letter dated ~~March 30~~ ~~May 23, 2012~~ March 28, 2013.



# ESM: PBR Investigation

- In 2018, the Hawaii Legislature passed Act 5
  - “the public utilities commission shall establish performance incentives and penalty mechanisms that directly tie an electric utility revenues to that utility's achievement on performance metrics and break the direct link between allowed revenues and investment levels”
- In 2018, the PUC opened Docket No. 2018-0088, through which it intends to investigate various elements of performance-based regulation.
- The primary proposed change to the ESM is to make it apply to both upside and downside earnings.
  - Intended to serve as “guardrails” for the new regulatory framework.



# ESM: PBR Investigation

- Most parties, including the HECO Companies and the Consumer Advocate, support the idea of making the ESM apply to both upside and downside earnings, differing only with respect to:
  - Dead band size
  - Sharing percentages
- Only one party, Blue Planet Foundation, opposes an ESM.
  - Dilutes cost control incentives
  - Does not break the direct link between rates and investment levels
  - Proposed Alternative: ESM centered around EBITDA rather than ROE



# Kim Lighthart

## Public Utilities Commission of Nevada

# Utility Earning Sharing Mechanism in Nevada

Presentation to the NARUC PBRSWG 8/13/2020

By Kim Lighthart, CPA, Policy Advisor



**PUBLIC UTILITIES COMMISSION OF NEVADA**

# What Earnings Sharing Mechanisms Are in Place

- First Applied to Nevada Power Company d/b/a NV Energy (Southern Nevada electric IOU)
- Effective January 1, 2018, asymmetrical ESM
  - Authorized ROE is 9.4%
  - Up to 9.7% earned ROE all earnings retained by NPC
  - In excess of 9.7% earnings split 50/50 with ratepayers
  - No cap
- Effective January 1, 2020 for Sierra Pacific Power Company d/b/a NV Energy (Northern Nevada electric IOU), same as NPC except authorized ROE is 9.5%

## How Did We Find Ourselves Here?

- NPC 2017 GRC, statutorily required to be filed
  - Historical Test Year – 2016
  - Certification through May 31, 2017
  - Expected Change in Circumstance Period ended December 31, 2017
  - 210-day clock – Order to be issued no later than January 1, 2018
  - Rate effective Period January 1, 2018-December 31, 2020



## How Did We Find Ourselves Here?

- NPC earned in excess of its authorized ROE for all three years prior, 2014, 2015 and 2016
  - Or did they... ?
- NPC had in excess of \$1.3 billion in debt maturing in May 2018, August 2018 and September 2019
- Interest rates ranged 6.50% - 7.13%
- Comprised more than half of the utility outstanding debt in cost of capital



## But Wait, There's More...

- Hearings for the NPC GRC began October 4, 2017 and went over 12 days, ending December 8, 2017
- Closing Briefs filed December 15, 2017
- Order scheduled for December 29, 2017 Agenda Order must issue by January 1, 2018
- Federal Tax Cuts & Jobs Act was introduced November 2, 2017. The final Act was passed by Congress on December 20, 2017 and signed into law on December 22, 2017
- TCJA reduced the maximum corporate income tax rate from 35% to 21%

## What to Do, What to Do

- Adjust the ROE?
- Adjust the Cost of Debt?
- Regulatory Liability?
- Require the Utility to File an Out-of-Cycle GRC?
- Establish an Automatic Mechanism to Automatically Reduce Rates?
- Establish an Earnings Sharing Mechanism?

# Why an Earnings Sharing Mechanism?

- Provided Balance
- Provided Certainty
- Less Regulatory Administrative Overhead

## Where Are We Now?

- Parties Stipulated in 2019 Annual Filing
  - Agreed on “Overearning” Calculation
  - Agreed on Earnings Sharing Mechanism Calculation Methodology
  - Agreed to Record Shared Earnings in a Regulatory Liability until the utility’s next GRC
- NPC 2018 shared earnings approx. \$43 million
- NPC 2019 shared earnings approx. \$16 million
- Recorded as regulatory liability in current NPC rate case
  - Proposal to provide a one-time bill credit in September or October

## Where Do We Go From Here?

- In 2019, Governor Sisolak signed Senate Bill 300, which requires that the PUCN adopt regulations governing the filing of an application for the establishment of an alternative rate-making plan by an electric utility
- Earnings Sharing Mechanism is Specifically Called Out in Senate Bill 300
- PUCN Opened Docket No. 19-06008 and is currently in the investigation and rulemaking process

## Example Dockets

Docket 19-03001

Vol. 2 Exhibit M, pp 140-141

Vol. 5 Testimony (Hausman) p. 361

Docket 20-02026

Vol. 2 Exhibit M, pp 158-159

Vol. 7 Testimony (Groen) p. 27

Questions?

Thank you!

**PUBLIC UTILITIES COMMISSION OF NEVADA**

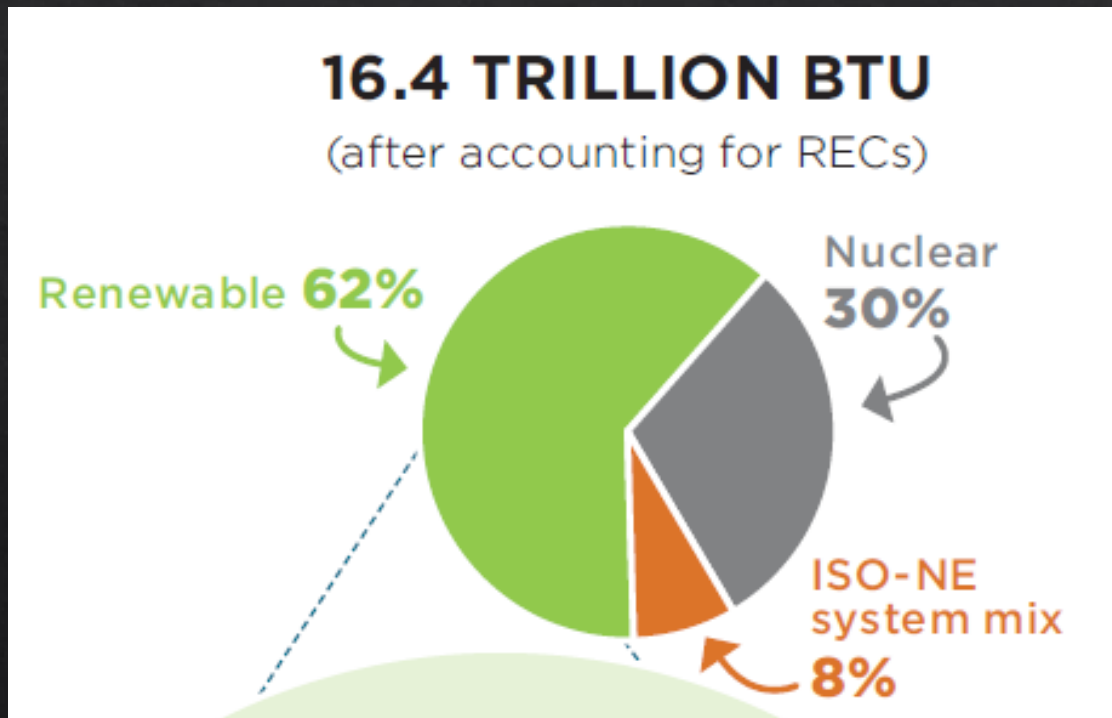
# Joan White

## Vermont Public Utility Commission



# Vermont: leading in obscurity

- ◆ Low-carbon electric mix



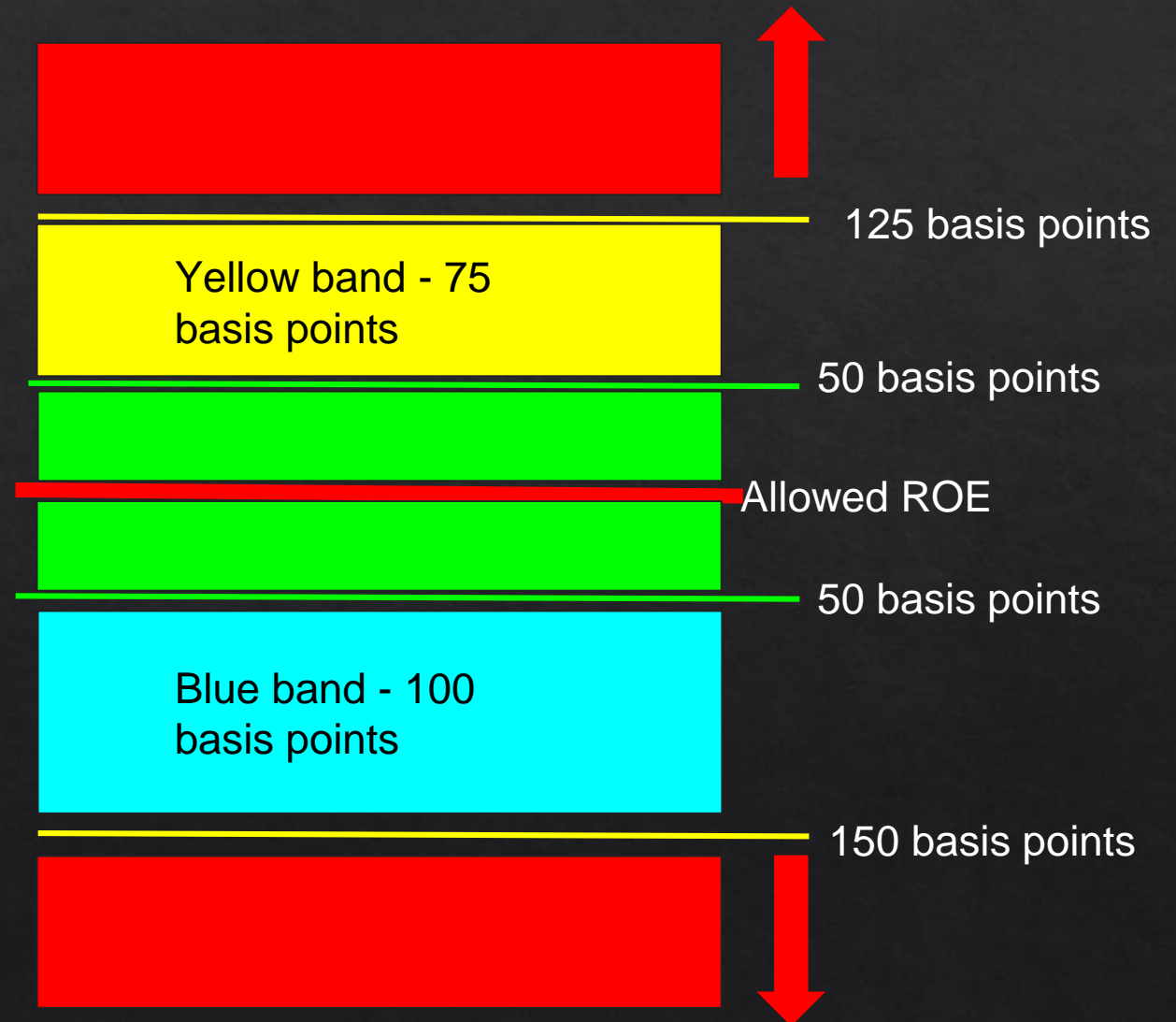
- ◆ 94% saturation rate for AMI.
- ◆ Performance-based regulation since 2000 for our energy efficiency utility.
- ◆ Earnings sharing in place for our largest utilities since 2006 (on and off).
- ◆ Earnings sharing has returned money to ratepayers in most years.

# Earnings Sharing: Nuts and Bolts

- ◆ Overall governor on Company earnings.
- ◆ Reduces risk of under-earnings for company.
- ◆ Reduces risk of over-earnings for ratepayers.
- ◆ Reduces incentive for “bad behaviors” such as underinvestment, gaming the revenue forecast etc.
- ◆ Negotiated during renewal of multi-year rate plans.
- ◆ Company calculates after close of fiscal year, records an asset or liability (no cost of capital earned), and rolls into rates two years forward.
- ◆ Evaluated by consumer advocate/state energy office, approved annually by the Commission.

# Innovations: Asymmetry

- ◆ Asymmetrical in favor of ratepayers in two ways 1) the size of the band and 2) the amount that is returned or collected
- ◆ In the green area, no adjustment is made, Company absorbs profits or losses
- ◆ In the yellow area, **75%** returned to customers.
- ◆ In the blue area, **50%** is collected from customers.
- ◆ In red area, all excess is returned or collected from customer.



# Innovations: Category Cap on Performance Earnings

- ◆ Energy efficiency utility under PBR since 2000.
- ◆ Range of metrics on which they earn “profit” e.g. winter peak shaving.
- ◆ They tend to focus all resources on easy to achieve metrics, earning the lion’s share of profit there while ignoring others.
- ◆ Commission imposed “fading” earnings and caps on each metric.



# Q&A Discussion