

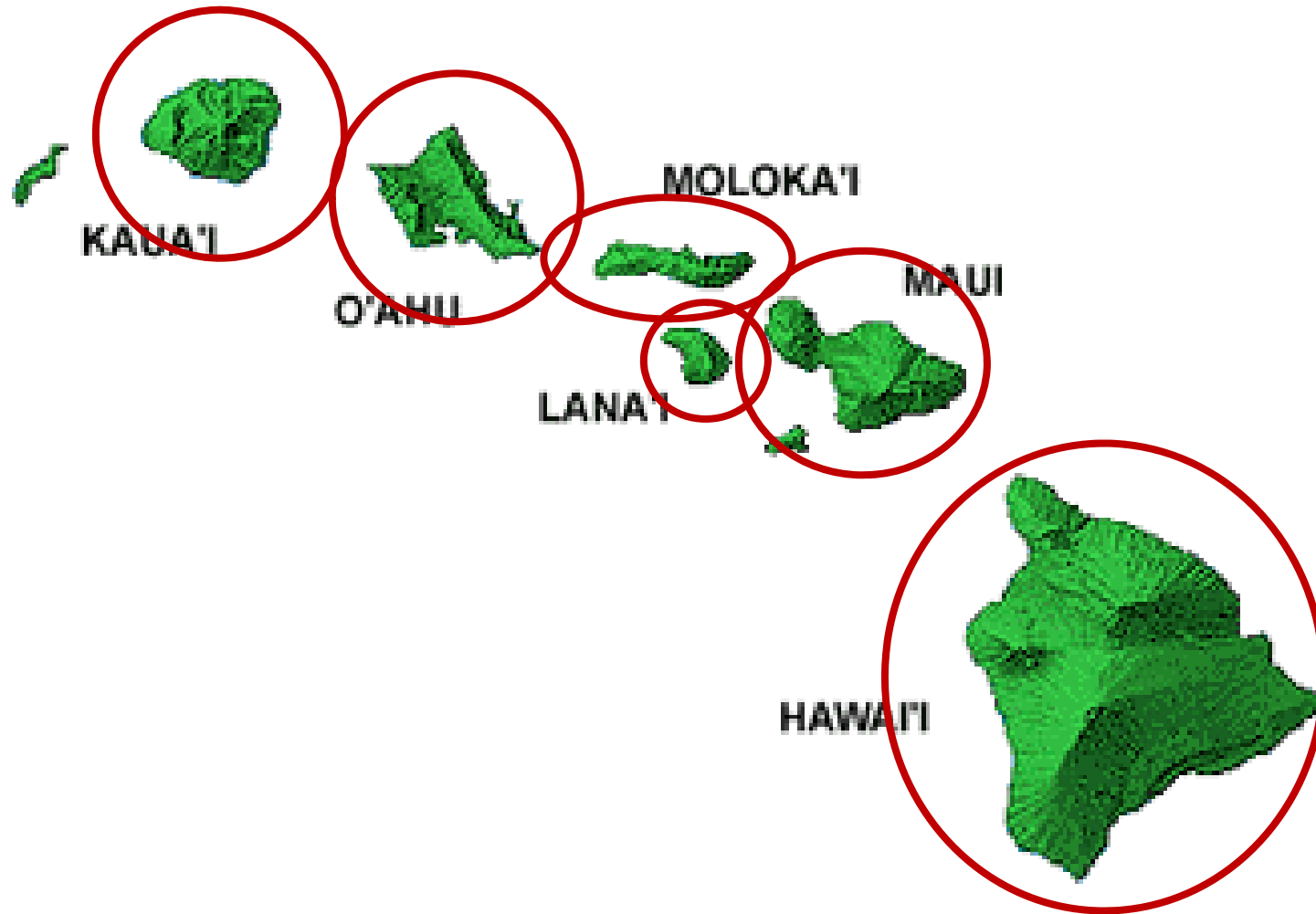
# Hawaii Electric Utility Regulatory Frameworks: Current Status and Some Legal Underpinnings

Governing Green Power II

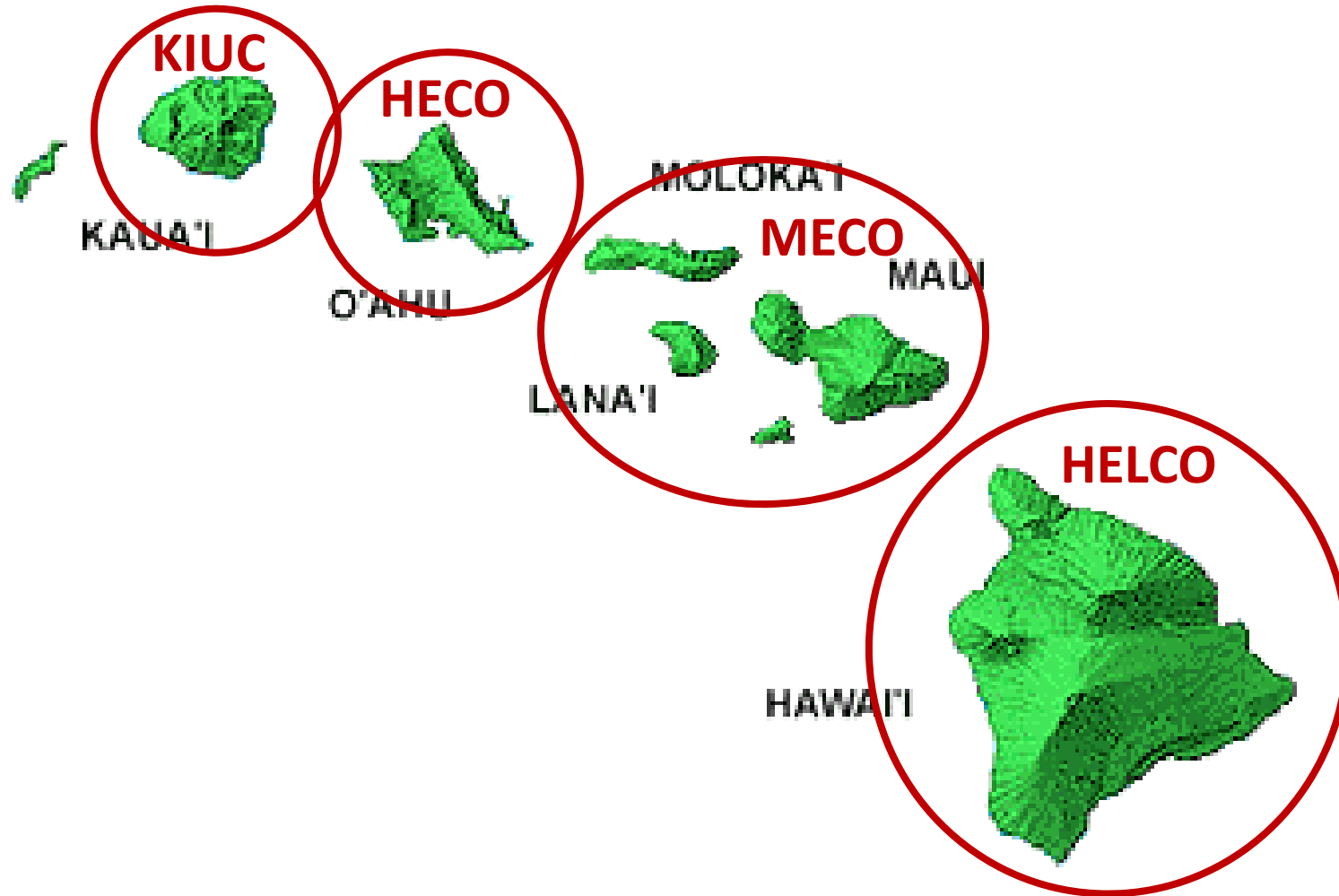
April 12-13, 2018

Carl Freedman, HDA

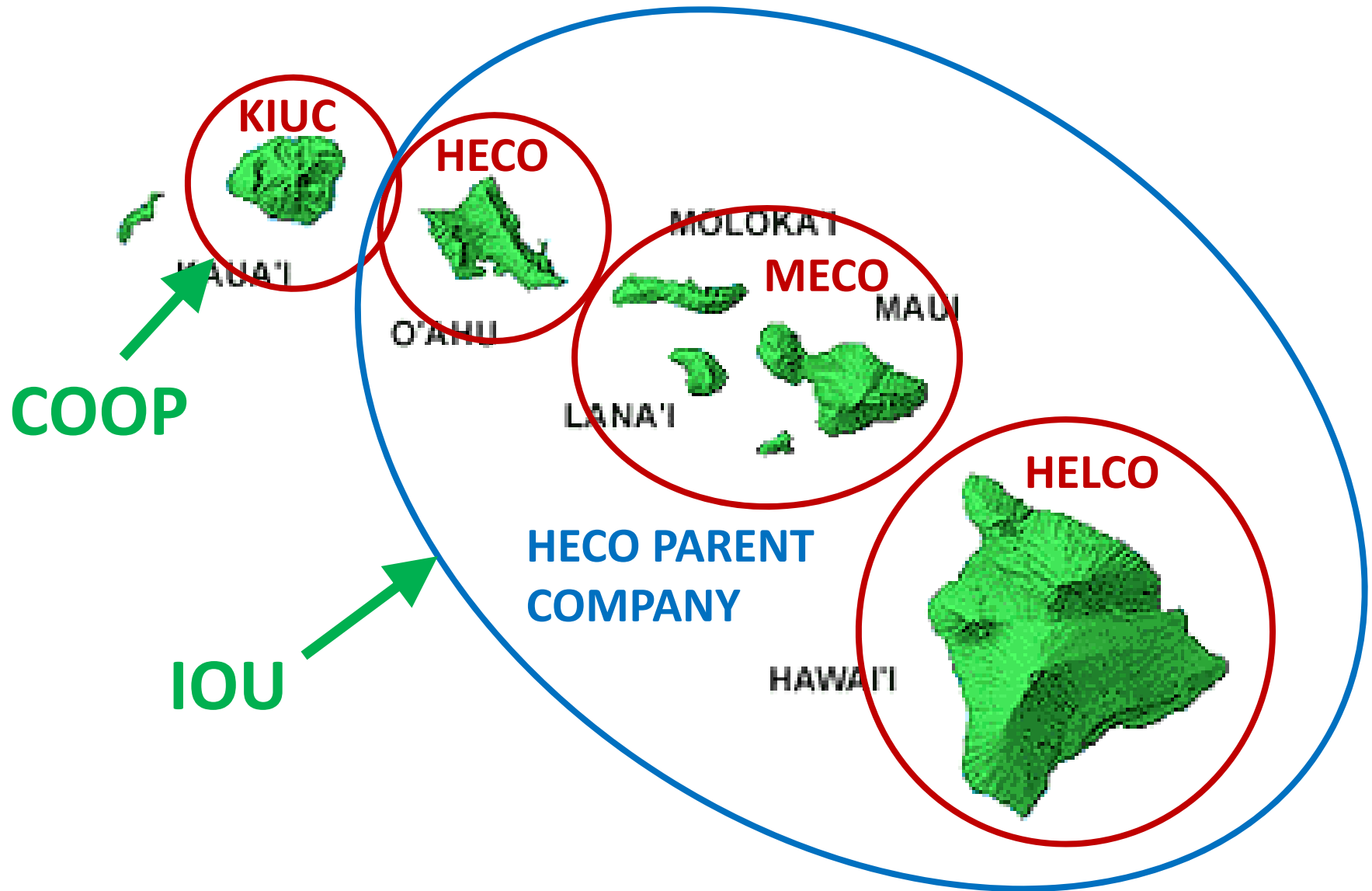
# Six Main Islands => Six Island Systems



# Four Main Counties => Four Utilities



# Two Ownership/Management Entities



# Ownership

- KIUC = Coop
  - Owned by Customers
  - Managed by Board Elected by Customers
- HECO = Investor Owned Utility
  - Owned by Shareholders
  - Managed by Board Elected by Shareholders
- Municipal Utility
  - Owned and Managed by Government Entity

# Public Utility Regulatory Program

- Public Utilities Commission
  - Very Broad Powers to Regulate Utilities
    - Rates: Subject to Review and Approval by PUC
    - All Aspects of Utility Finances and Operations
- Division of Consumer Advocacy
  - Represents Customer Interests In All Matters Before the PUC
  - Serves Primary Litigatory Function for PUC

# PUC Administrative Procedures

- PUC is Subject to Administrative Procedures Act
  - Separation of Powers => PUC Wears Two Hats
  - Due Process for Executive Adjudicatory Functions
  - Open Notice for Legislative Rulemaking Functions
- Powers Subject to Limitations of 5<sup>th</sup> and 14<sup>th</sup> Amendments “Takings” Clause
  - No Unjust Taking Without Compensation

# US Supreme Court Rulings

- **“Bluefield”** (Bluefield Water Works Co., **1923**)
  - Utility is entitled to a reasonable return on its investments equal to other businesses with corresponding risks
  - Rates must be sufficient to assure confidence in the soundness of the utility, under efficient sound management, and sufficient to maintain credit and raise capital to discharge public duties
- **“Hope”** (Hope Natural Gas Co., **1944**)
  - It is the result reached and not the method employed which controls what is “just and reasonable”



# Ratemaking and Regulatory Mechanisms

< ----- Rate Case Test Year ----- >

**Expenses + Return + Tax = Rev. Req => Rates**

<b>O&amp;M</b>				
<b>+</b>	<b>R.Base</b>			<b>\$ / kWh</b>
<b>Fuel</b>				
<b>P.Power</b>	<b>x</b>	<b>Rev.</b>	<b>Test Year</b>	<b>\$ / kW</b>
<b>+</b>		<b>Tax</b>	<b>Rev. Req.</b>	
<b>Depr.</b>	<b>R.O.R</b>			<b>\$ / Cust</b>
<b>Amort.</b>				

# HECO Capital Structure (Interim TY2017)

Description	AMOUNTS IN THOUSANDS	PERCENT OF TOTAL	COST RATE	POST TAX WEIGHTED EARNINGS REQMTS	INCOME TAX FACTOR (Note 1)	PRETAX WEIGHTED EARNINGS REQMTS
Short-Term Debt	\$ 27,770	1.18%	1.75%	0.02%	1.000000	0.02%
Long-Term Debt	928,748	39.59%	5.03%	1.99%	1.000000	1.99%
Hybrid Securities	28,651	1.22%	7.19%	0.09%	1.000000	0.09%
Preferred Stock	21,137	0.90%	5.37%	0.05%	1.346835	0.07%
Common Equity	1,339,335	57.10%	9.50%	5.42%	1.346835	7.31%
<b>Total Capitalization</b>	<b>\$ 2,345,641</b>	<b>100.00%</b>		<b>7.57%</b>		<b>9.47%</b>

## What Happens Between Rate Cases

<b>O&amp;M</b> + <b>Fuel</b> <b>P.Power</b> + <b>Depr.</b> <b>Amort.</b>	<b>R.Base</b>  <b>x</b>  <b>R.O.R</b>	<b>Rev.</b> <b>Tax</b>	<b>Test Year</b> <b>Rev. Req.</b>	<b>\$ / kWh</b>  <b>\$ / kW</b>  <b>\$ / Cust</b>
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**Period of  
Effective  
Rates**

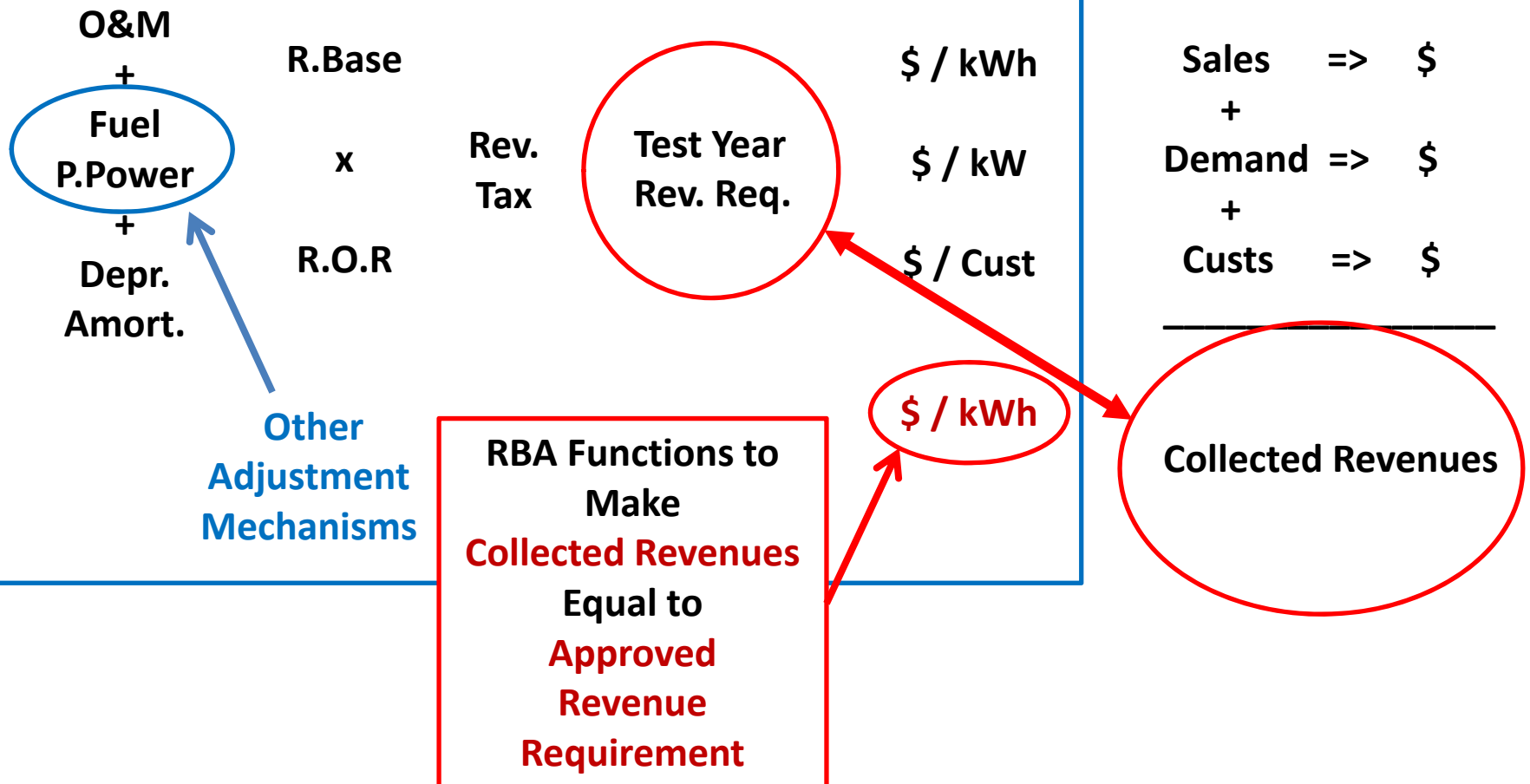
<b>Sales =&gt; \$</b> + <b>Demand =&gt; \$</b> + <b>Custs =&gt; \$</b>
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**Collected Revenues**

## What Happens Between Rate Cases

Period of  
Effective  
Rates

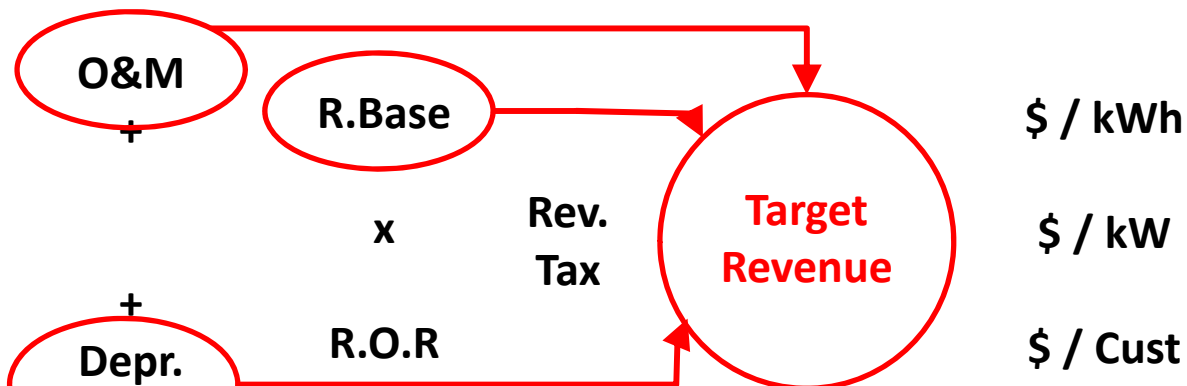
# RBA = REVENUE DECOUPLING



## What Happens Between Rate Cases

Period of  
Effective  
Rates

# RAM = INTERIM ATTRITION



\$ / kWh

\$ / kW

\$ / Cust

Sales => \$  
 +  
 Demand => \$  
 +  
 Custs => \$

RAM Makes Annual  
Adjustments to  
Target Revenues

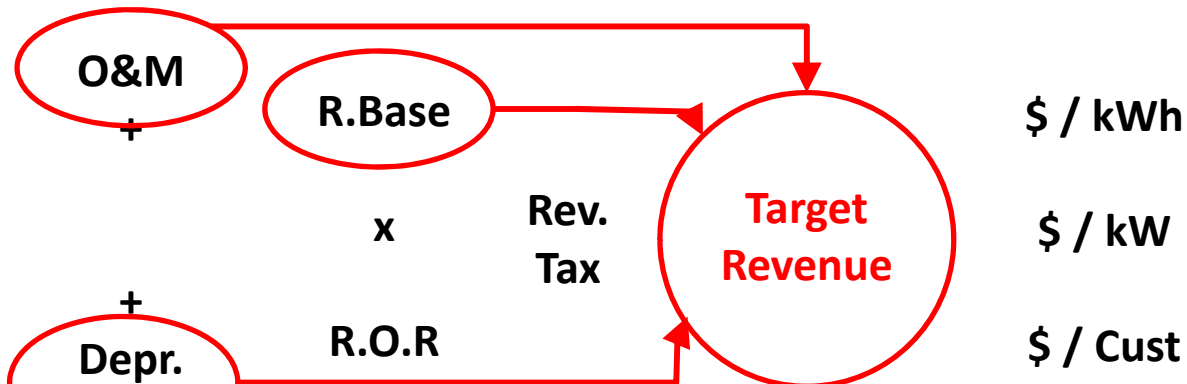
\$ / kWh  
RBA

Collected Revenues

## What Happens Between Rate Cases

Period of  
Effective  
Rates

# RAM = INTERIM ATTRITION



Sales => \$  
 +  
 Demand => \$  
 +  
 Custs => \$

RAM Adjustments  
 Are Capped  
 Based on Annual  
 Change in GDPPI

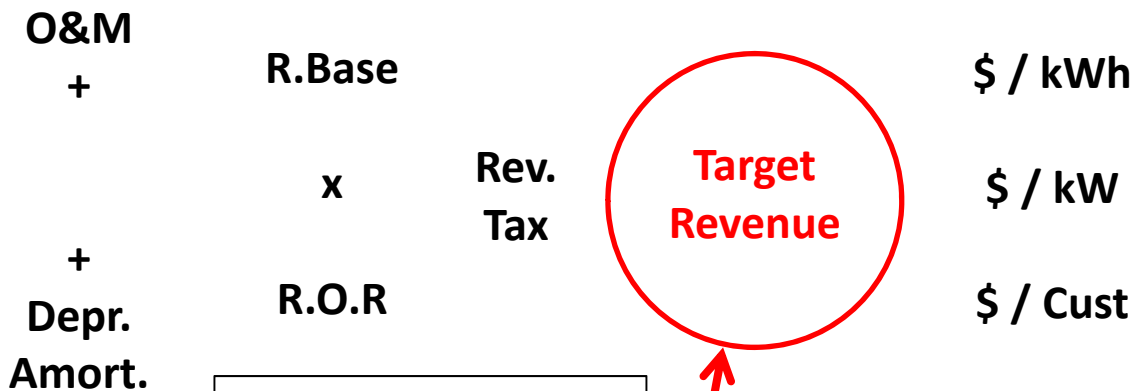
\$ / kWh  
 RBA

Collected Revenues

## What Happens Between Rate Cases

Period of  
Effective  
Rates

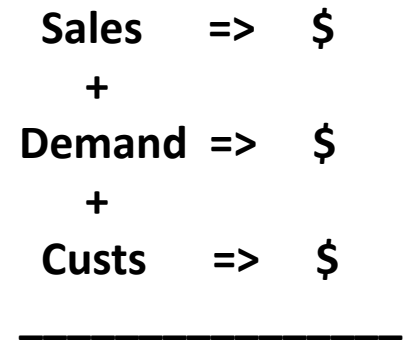
# PERFORMANCE INCENTIVE MECHANISMS



RAM / RAM Cap

\$ / kWh  
RBA

**Reliability PIMs**  
**Customer Service PIM**  
 Make Annual  
 Adjustments to Target  
 Revenues



Collected Revenues



# HECO Companies PIMs

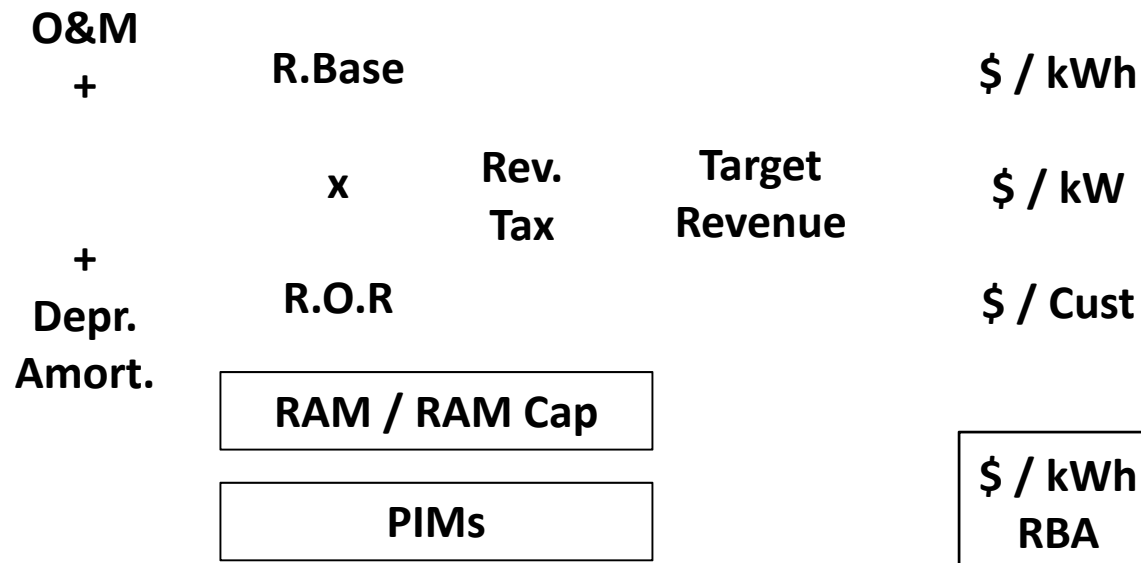
- Reliability => SAIFI and SAIDI
  - System Average Interruption Frequency Index
  - System Average Interruption Duration Index
  - 20 Basis Points on ROE (Penalty Only)
  - \$2 Million Maximum Penalty Each (HECO)
- Customer Service => Call Center Answer Time
  - 8 Basis Points on ROE (Reward or Penalty)
  - \$800 Thousand Maximum Incentive (HECO)

# How Does the Utility Make Money?

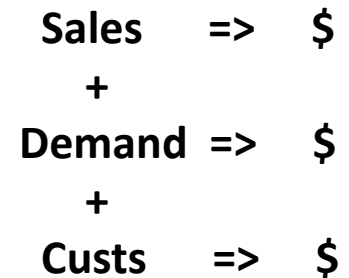
## In the Short Term?

## In the Long Term?

## On the Margin?



Period of  
Effective  
Rates



Collected Revenues

# Do We Now Have PBR?

- “Vintage” PBR:
  - Fixed Period Rate Case Cycle
  - Capped Revenues
  - “Backstop” Performance Incentive Mechanisms
- HECO Companies:
  - Three-Year Fixed Rate Case Cycle
  - Decoupled and Capped Revenues
  - “Backstop” Performance Incentive Mechanisms