Staff's Proposed Stress Test Methodology for Disallowed 2017 Catastrophic Wildfire Costs

Stress Test Workshop

April 10, 2019

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Agenda

Time (1:00-3:00PM)	Agenda Item
1:00-1:15PM	Introduction & Opening Remarks • CPUC – President Michael Picker • CPUC – Administrative Law Judge Robert Haga
1:15-2:00PM	Presentation of Staff Proposal
2:00-2:45PM	Q&A
2:45-3:00PM	Public Comment

Pub. Util. Code Sec. 451.2(b)

"Notwithstanding Section 451, when allocating costs, the commission shall consider the electrical corporation's financial status and **determine the maximum amount the corporation can pay without harming ratepayers or materially impacting its ability to provide adequate and safe service**. The commission shall ensure that the costs or expenses described in subdivision (a) that are disallowed for recovery in rates assessed for the wildfires, in the aggregate, do not exceed that amount."

Staff Proposal in Response to Sec. 451.2(b)

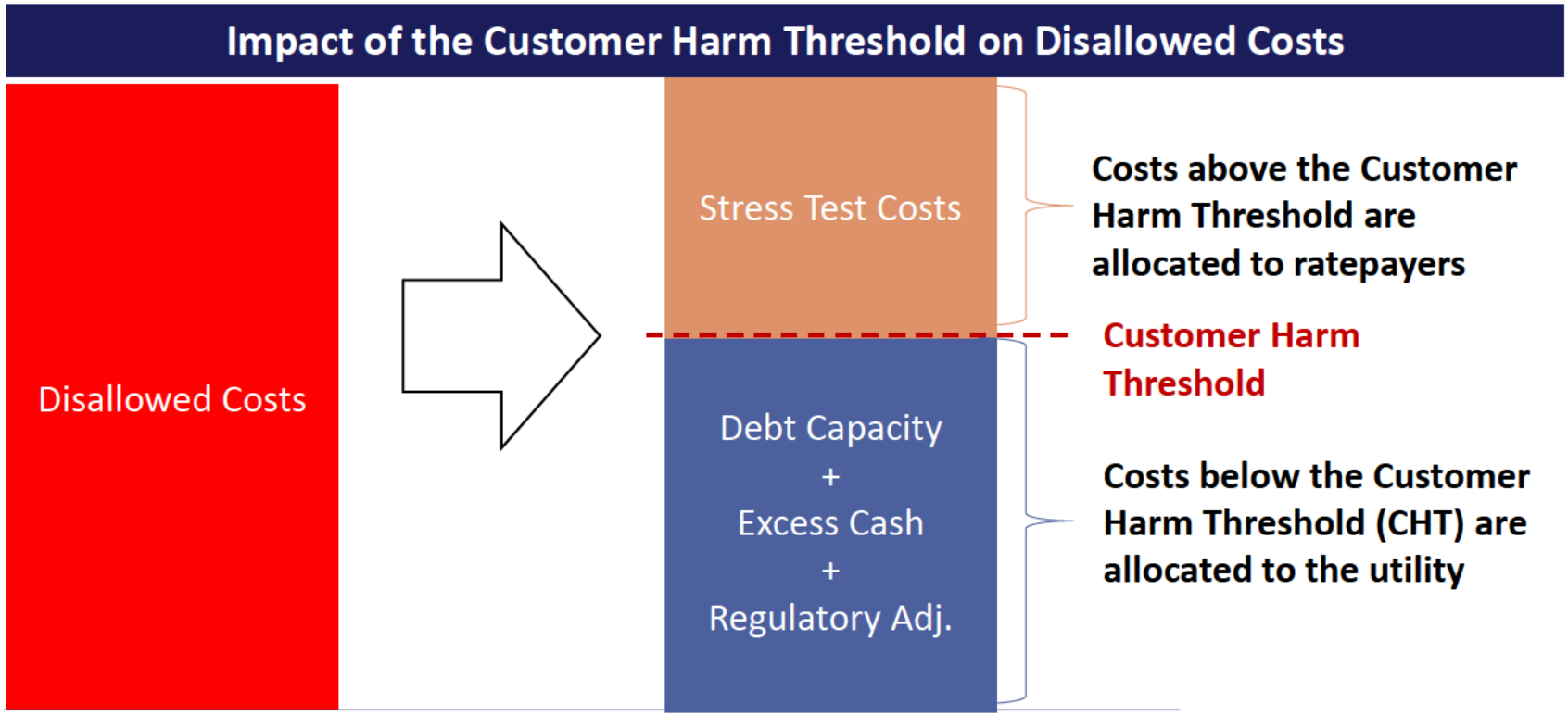
- Falling below investment grade will "materially impact[a utility's] ability to provide adequate and safe service"
  - Access to capital on reasonable terms is critical to support capital investments and ongoing operational needs
- Falling credit ratings also "harm[s] ratepayers"
  - Increased cost of debt raises overall cost of capital, and
  - Additional collateral and working capital requirements

Stress Test Framework

- The Stress Test is intended to be the financing mechanism of last resort for addressing disallowed 2017 catastrophic wildfire costs
  - Staff has developed the Customer Harm Threshold, which will require that utilities exhaust all available resources while maintaining an investment grade credit rating before ratepayers fund any disallowed 2017 wildfire costs
  - Staff has developed two potential Ratepayer Protection Measures for the Commission to consider as a condition of authorizing a utility to use the Stress Test Framework. They are intended to mitigate ratepayer harm and parties should address their feasibility.

Overview of Customer Harm Threshold (CHT)

Stress Test Costs *equals* Disallowed Costs *minus* CHT



Overview of Customer Harm Threshold

Customer Harm Threshold

Maximum Incremental Debt Capacity	**[A]**
Excess Cash	**[B]**
Regulatory Adjustments	**[C]**
Customer Harm Threshold	**[A+B+C]**

CHT Component 1: Maximum Incremental Debt Capacity

- Primary driver of the Customer Harm Threshold is the Maximum Incremental Debt Capacity a utility can take on and retain minimum investment grade credit ratings
  - Baa3 for Moody's and BBB- for S&P under the current analytical credit models at the time the utility's application is filed.
  - Ratings account for non-financial factors (e.g., legislative, regulatory environment) and financial factors (e.g., credit ratios)

~50-60% of weighting

~40-50% of weighting

CHT Component 2: Excess Cash

- Ensures any excess cash is used to satisfy wildfire liabilities and is intended to prevent a utility from hoarding cash
- Seeks to capture any excess cash the Maximum Incremental Debt Capacity component may not identify, such as
  - Excess balance sheet cash,
  - Quantifiable cash proceeds from pending asset sales, or
  - Other sources of cash

CHT Component 3: Regulatory Adjustments

- Commission may adjust the sum of the first two components up or down 20%, based on
  - Commission's ratemaking expertise, and
  - The record of the proceeding
- A utility applying for the Stress Test must describe other business opportunities it considered to pay disallowed wildfire costs, such as
  - Ability to raise equity capital
  - Asset sales
  - Financial policy changes (e.g. tax structuring)
  - Capital flows to and from the parent corporation

Defined Terms

- Debt – funds borrowed[1]
- FFO – funds from operations
- FFO/Debt – funds from operations / debt
- EBITDA – earnings before interest, taxes, depreciation and amortization
- Debt/EBITDA – debt / earnings before interest, taxes, depreciation and amortization
- Warrants – the right to purchase a share in a company at a predetermined price
- ROE – return on equity

(1) Both Moody's and S&P have definitions of debt that vary from Generally Accepted Accounting Principles (i.e., debt reported by utilities) based on their views of other debt-like obligations utilities incur (e.g., power purchase agreements)

Maximum Incremental Debt Capacity S&P Example

- S&P determines its core rating by combining a utility's Business Risk Profile and Financial Risk Profile to determine "Anchor Ratings"
- The Stress Test would determine debt capacity based on the maximum Financial Risk Profile a utility could withstand based on its Business Risk Profile
- The following slides give an overview of the application of the Maximum Incremental Debt Capacity process.

Maximum Incremental Debt Capacity S&P Example

1. **Non-Financial Factors Step 1:** Evaluate a utility's existing Business Risk Profile at the time to capture changes in legislative/regulatory environment
2. **Financial Factors Step 2:** Determine highest Financial Risk Profile the utility can obtain while remaining investment grade
3. **Financial Metrics Step 3:** Identify financial ratios for selected Financial Risk Profile and determine Maximum Incremental Debt Capacity

1 Non-Financial Factors		2 Financial Factors: Financial Risk Profile					
		1 (Minimal)	2 (Modest)	3 (Intermediate)	4 (Significant)	5 (Aggressive)	6 (Highly Leveraged)
Business Risk Profile	1 (Excellent)	AAA/AA+	AA	A+/A	A	BBB	*BBB-/BB+*
	2 (Strong)	AA/AA-	A+/A	A-/BBB+	BBB	BB+	BB
	3 (Satisfactory)	A/A-	BBB+	BBB/BBB-	*BBB-/BB+*	BB	B+
	4 (Fair)	BBB/BBB-	BBB-	BB+	BB	BB-	B
	5 (Weak)	BB+	BB+	BB	BB-	B+	B/B-
	6 (Vulnerable)	BB-	BB-	BB-/B+	B+	B	B-
3	FFO / Debt	>50 %	35% - 50 %	23% - 35%	13% - 23%	9% - 13%	<9 %
	Debt / EBITDA	<1.75x	1.75x - 2.50 x	2.50 x - 3.50 x	3.50 x - 4 .50 x	4 .50 x - 5.50 x	>5.50 x

Investment Grade (BBB- or greater) | *Partially Investment Grade (BBB- or lower)*

CHT: Maximum Incremental Debt Capacity S&P Example

As a simple hypothetical:

1. A utility with a "Strong" Business Risk Profile and "Intermediate" Financial Risk Profile would have an anchor rating of A-/BBB+
2. This utility's Financial Risk Profile could increase to "Significant" and still maintain an investment grade rating (a rating that is greater than or equal to BBB-)
3. A "Significant" Financial Risk Profile requires a Funds from Operations / Debt ratio between 13% - 23% (implying a midpoint of 18%) and Debt / EBITDA of 3.5x – 4.5x

		Financial Factors: Financial Risk Profile					
Non-Financial Factors		1 (Minimal)	2 (Modest)	3 (Intermediate)	4 (Significant)	5 (Aggressive)	6 (Highly Leveraged)
Business Risk Profile	1 (Excellent)	AAA/AA+	AA	A+/A	A	BBB	*BBB-/BB+*
	2 (Strong)	AA/AA-	A+/A	A-/BBB+	BBB	BB+	BB
	3 (Satisfactory)	A/A-	BBB+	BBB/BBB-	*BBB-/BB+*	BB	B+
	4 (Fair)	BBB/BBB-	BBB-	BB+	BB	BB-	B
	5 (Weak)	BB+	BB+	BB	BB-	B+	B/B-
	6 (Vulnerable)	BB-	BB-	BB-/B+	B+	B	B-
	FFO / Debt	>50 %	35% - 50 %	23% - 35%	13% - 23%	9% - 13%	<9 %
	Debt / EBITDA	<1.75x	1.75x - 2.50 x	2.50 x - 3.50 x	3.50 x - 4 .50 x	4 .50 x - 5.50 x	>5.50 x

Investment Grade (BBB- or greater) | *Partially Investment Grade (BBB- or lower)*

(1) This example is simplified and does not take into account that debt service costs that would reduce FFO by adding incremental debt. The actual test will account for a utility's incremental interest expense and account for all other adjustments utilized to determine credit ratings

CHT: Maximum Incremental Debt Capacity S&P Example

Simple hypothetical continued:

- Assuming the utility has a Funds from Operations (FFO) of $2.9bn, the maximum debt capacity for the utility would be $16.1bn ($2.9bn / 18%) based on its FFO / Debt ratio [1]

S&P FFO / Debt Ratio		Target Financial Ratio		Max Debt Capacity		Max Debt Capacity Value
$[FFO/Debt]\% = \frac{\$\,FFO}{\$\,Debt}$	⇒	$18\% = \frac{\$\,2.9bn}{\$\,Debt}$	⇒	$\$\,Debt = \frac{\$\,2.9bn}{18\%}$	⇒	$\$16.1bn$

- Assuming the utility has pre-existing debt of $10.0bn, the Maximum Incremental Debt Capacity would be $6.1bn ($16.1bn – $10bn)[2]

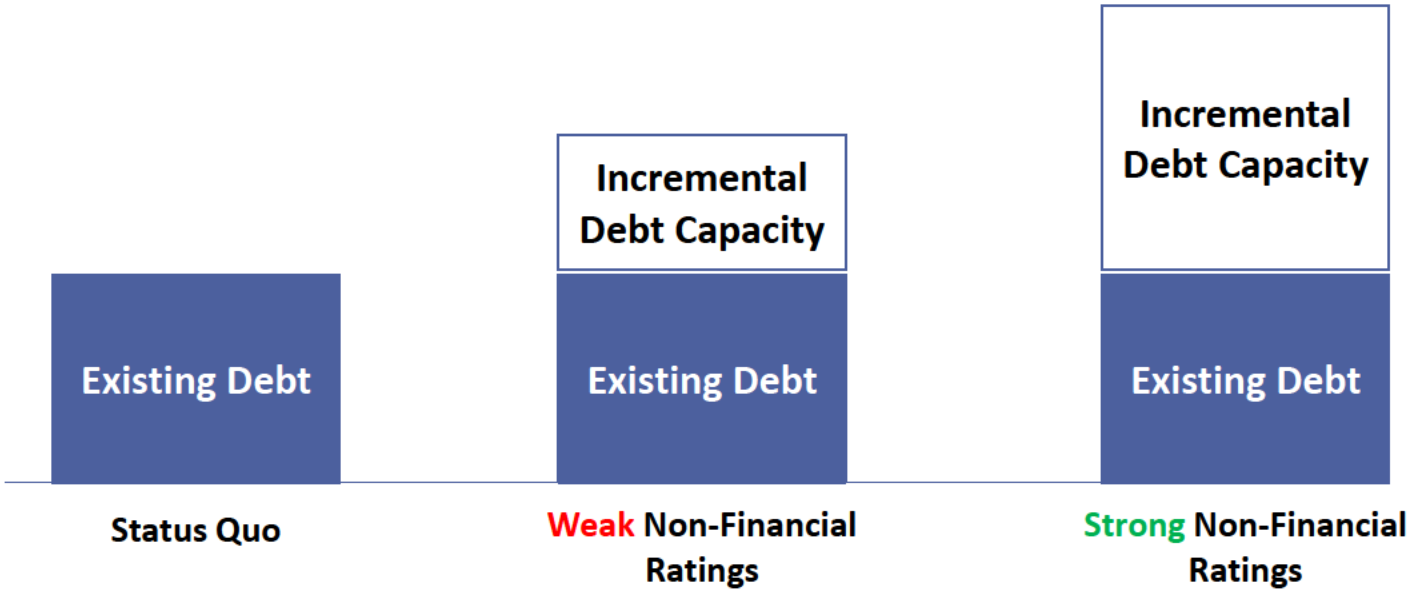
	Financial Risk Profile					
	1 (Minimal)	2 (Modest)	3 (Intermediate)	4 (Significant)	5 (Aggressive)	6 (Highly Leveraged)
FFO / Debt (Midpoint of Ranges)	>50 %	43%	29%	18%	11%	<9 %
			Status Quo	*Maximum Allowed*		

(1) For illustrative purposes, this example only evaluates the FFO / Debt ratio – this process would need to be undertaken for all the financial ratios evaluated by the rating agencies to determine credit ratings

(2) This example is simplified and does not take into account that debt service costs that would reduce FFO by adding incremental debt. The actual test will account for a utility's incremental interest expense and account for all other adjustments utilized to determine credit ratings

Maximum Incremental Debt Capacity

- As a company's Non-Financial Ratings become stronger, it can take on more debt and still maintain an investment grade credit rating.



Stress Test Model Assumptions: Utilities Below Investment Grade

- A utility can only access the Stress Test if:
  - It is currently at an investment grade rating; or
  - It is currently below an investment grade rating, but can demonstrate a pathway to achieve investment grade
- An ability to achieve investment grade may be a result of the following, among others:
  - Allowance of wildfire related liabilities for recovery in rates,
  - Equity issuances,
  - Asset sales, and/or
  - Other sources of capital infusion
- In this case, CHT may be at or near zero
  - Regulatory adjustment may be up to 5% of disallowed wildfire costs

Potential Ratepayer Protection Measures

- Staff proposes the Commission consider two potential Ratepayer Protection Measures
- Would be adopted as a condition of a utility's recovery of Stress Test Costs, recognizing ratepayers are bearing a risk typically borne by shareholders
- These measures are intended to address fairness concerns and mitigate ratepayer harm
  - Ratepayers participate in upside as utility's financial health improves, and
  - Utility views Stress Test as the financing source of last resort

Ratepayer Protection Concept 1: Return on Equity De-Escalation

- Utilities are likely to request escalation in return on equity (ROE) from the Commission due to wildfires
  - Utilities are seeking wildfire-related ROE increases from the Federal Energy Regulatory Commission (FERC)
- Staff proposes the Commission consider a downward adjustment of ROE
  - If Commission authorizes wildfire-related ROE increases (cost of capital proceeding), and
  - If utility allocates wildfire costs to ratepayers under the Stress Test, then
  - Utility would decrease its applied ROE from the authorized amount for a period of up to five years

Ratepayer Protection Concept 1: Return on Equity De-Escalation

- ROE de-escalation could increase 20 basis points (bps) (i.e. 0.2%) for every $500 million of wildfire liabilities allocated to ratepayers subject to a 300 bps (i.e. 3%) cap

ROE De-Escalation Scale															
ROE Reduction (bps)	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300
Max Liability Allocated ($bn)	$0.5	$1.0	$1.5	$2.0	$2.5	$3.0	$3.5	$4.0	$4.5	$5.0	$5.5	$6.0	$6.5	$7.0	∞

Ratepayer Protection Concept 1: Return on Equity De-Escalation

- Initial analysis of the concept indicates that reduced profitability from ROE de-escalation may reduce debt capacity, thereby reducing the CHT
- This occurs because de-escalation reduces cash flow metrics analyzed to determine debt capacity.

5-Year Rate Impact of ROE Reduction					
($ in millions)					
Illustrative ROE Reduction		1.00%	1.00%	1.00%	
(x) Illustrative Equity Ratio		50.00%	50.00%	50.00%	
(x) Illustrative Ratebase		$1,000	$1,000	$1,000	
Annual Revenue Requirement Reduction		$5	$5	$5	
(x) Illustrative De-Escalation Period		5.0	5.0	5.0	
Cumulative Revenue Requirement Reduction	**[A]**	**$25**	**$25**	**$25**	← 5-year rate savings from ROE
All-In CHT Cost of ROE Reduction					
Annual EBITDA Reduction		$5	$5	$5	← Reduced cash flow proxy
(x) Maximum S&P Debt / EBITDA[1]		4.0x	4.5x	5.0x	
Reduction in Customer Harm Threshold		$20	$23	$25	← Reduced CHT debt capacity
Illustrative Securitization Tenor (Years)		20.0	20.0	20.0	
Illustrative Securitization Rate		4.00%	4.00%	4.00%	
Illustrative Annual Incremental Securitization Cost		$1 5	$1.7	$1.8	
(x) Illustrative Securitization Tenor		20.0	20.0	20.0	
Cumulative Securitization Cost	**[B]**	**$29**	**$33**	**$37**	← Implied all-in cost of reduced CHT debt capacity
All-In CHT Cost is Greater Than 5-Year ROE Savings					
Cumulative Revenue Requirement Reduction	[A]	$25	$25	$25	
(-) Cumulative Securitization Cost	[B]	(29)	(33)	(37)	
Net Impact of ROE Penalty		**($4)**	**($8)**	**($12)**	

A $25mm reduction in rates may result in $25mm less debt capacity, which would cause an increase in Stress Test Costs that costs ratepayers more on a net basis

(1)This example utilizes the impact on S&P's Debt / EBITDA metric to quantify the potential reduction on the Maximum Incremental Debt Capacity calculation.

Ratepayer Protection Concept 2: Provide Equity Upside to Ratepayers

- Staff proposes ratepayers benefit if utility's equity value increases post-Stress Test
  - This mitigates impacts to ratepayers of Stress Test Costs, and
  - Aligns future interest of ratepayers and shareholders
- Equity upside participation proposed to take the form of warrants
  - Warrants may be allocated to a trust for the benefit of ratepayers

Ratepayer Protection Concept 2: Provide Equity Upside to Ratepayers

- Staff proposes the warrant allocation would increase 1.0% for every $500 million of wildfire liabilities allocated to ratepayers subject to a 15% cap

Ratepayer Share of Future Equity Increases															
Share of Upside (%)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
Max Liability Allocated ($bn)	$0.5	$1.0	$1.5	$2.0	$2.5	$3.0	$3.5	$4.0	$4.5	$5.0	$5.5	$6.0	$6.5	$7.0	∞

Ratepayer Protection Concept 2: Equity Upside to Ratepayers

- Initial analysis suggests warrants may offset some Stress Test Costs, i.e. this would create ratepayer benefit all else being equal (assuming there is no resulting upward effect on the cost of equity)

($ in millions)

Stress Test Costs	$500	$1,500	$2,500	$3,500	$4,500	$5,500	$6,500	$7,500
Ratepayer Warrant Allocation	1.00%	3.00%	5.00%	7.00%	9.00%	11.00%	13.00%	15.00%

		Ratepayer Warrant Appreciation							
	$500	$5	$15	$25	$35	$45	$55	$65	$75
	$2,500	$25	$75	$125	$175	$225	$275	$325	$375
Illustrative Increase	**$5,000**	$50	$150	$250	$350	$450	$550	$650	$750
in Utility Equity Value	**$7,500**	$75	$225	$375	$525	$675	$825	$975	$1,125
	$10,000	$100	$300	$500	$700	$900	$1,100	$1,300	$1,500

Assuming $500mm in Stress Test Costs, ratepayers could realize 1.0% of increases in equity value, or $100mm based on a $10bn value increase (20% of Stress Test Costs)

Process

- The amount of disallowed wildfire costs must be known in order to determine the Customer Harm Threshold
- A utility's request should include at least the following information:
  - Identify total disallowed costs sought under the Stress Test model,
  - Financial metrics for the current fiscal year and two additional fiscal years,
  - Detailed analysis of alternatives to minimize the costs borne by ratepayers,
  - Is waiver needed from authorized capital structure,
  - *If applicable*: A showing of how recovery of Stress Test Costs will allow the utility to regain a stable minimum investment grade credit rating

Additional Information - Updated 4/12

- **Upcoming Dates**
  - Opening Comment: April 24, 2019
  - Reply Comments: May 1, 2019
- **Energy Division Staff**
  - Brandon Gerstle, Brandon.Gerstle@cpuc.ca.gov
  - Michael Conklin, Michael.Conklin@cpuc.ca.gov

Appendix A: Regulatory Adjustment Examples

- The Staff Proposal includes a Regulatory Adjustment up to 20% (+/-) of the sum of the first two components of the Customer Harm Threshold (Maximum Incremental Debt Capacity and Excess Cash).
- But if utility is already at or below the minimum investment grade rating, this sum may be very low or zero. In this scenario only, staff proposes:
  - Commission may authorize Stress Test Cost recovery if a utility can demonstrate a path to investment grade, and
  - Regulatory Adjustment equals 5% of the disallowed wildfire liability.
- An April 12, 2019, ruling asks for party comments on this in Question 3.D.
- The following slides are for illustrative purposes only, not a change to the staff proposal.

Appendix A:
Regulatory Adjustment Example 1

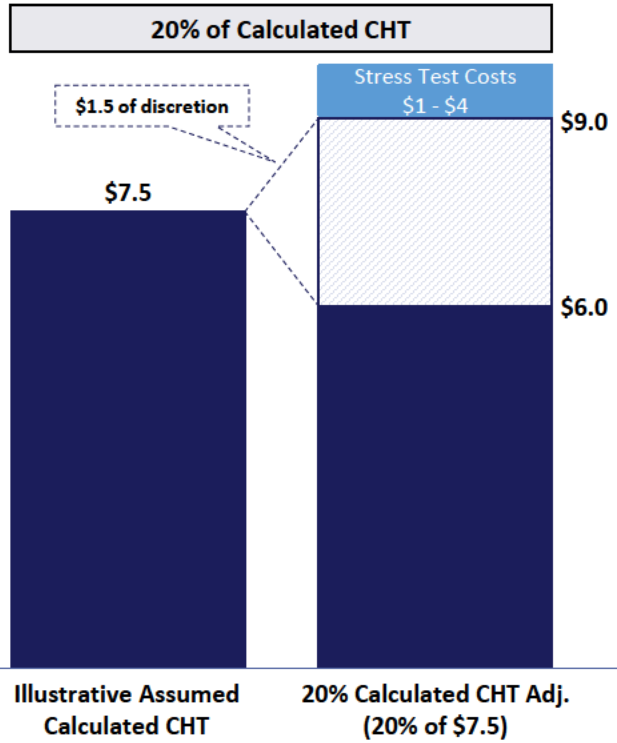
Staff Proposal, default scenario:

- Regulatory Adjustment Component is +/- 20% to the Customer Harm Threshold (CHT)

Example 1: 20% Customer Harm Threshold Regulatory Adjustment

Assumptions:

- $10.0 disallowed costs
- $7.5 sum of the first two CHT components

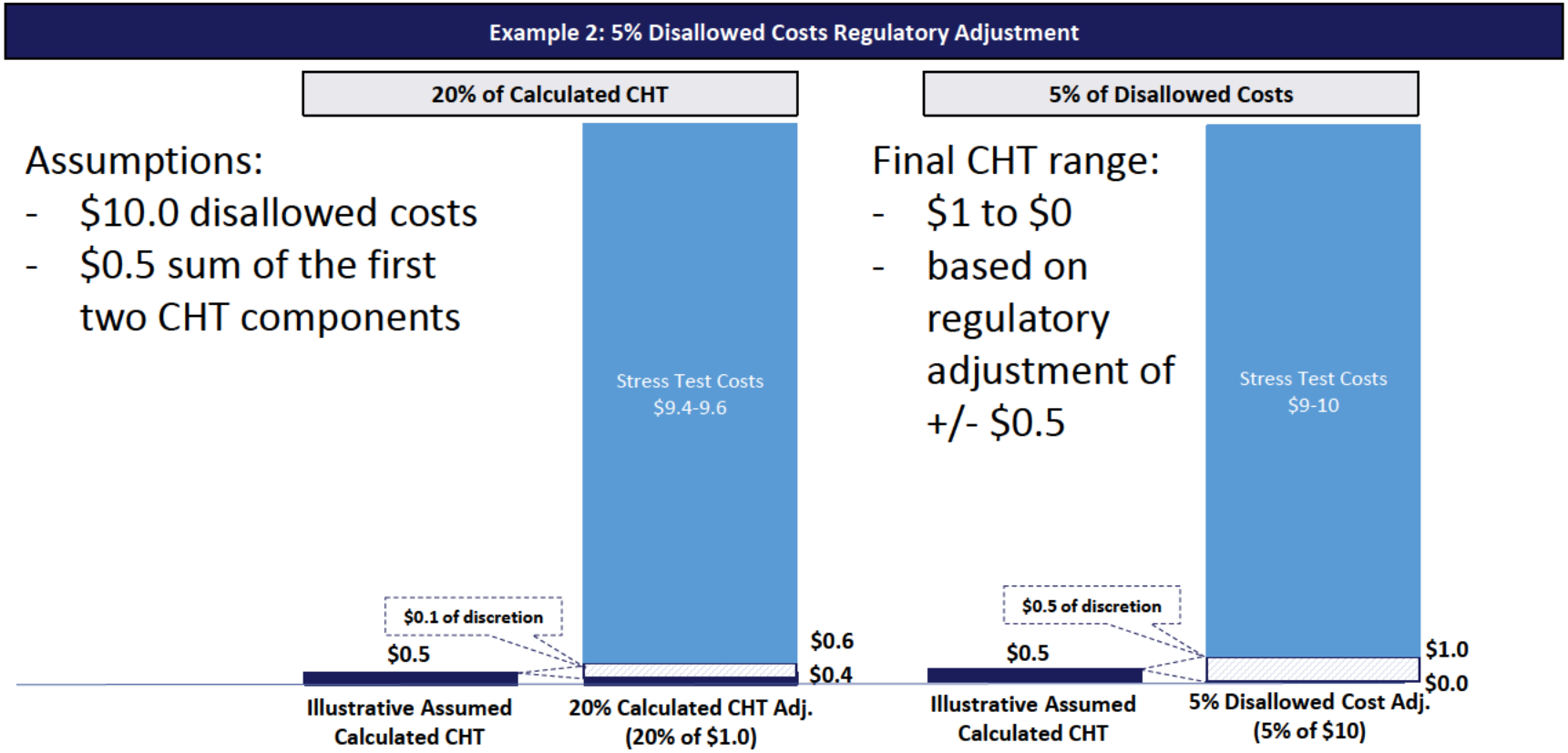


Final CHT range:

- $6 to $9
- based on regulatory adjustment of
- +/- $1.5

Appendix A: Regulatory Adjustment Example 2

Staff Proposal, scenario where utility is at or below minimum investment grade when it applies for the Stress Test:
- Regulatory Adjustment Component is +/- 5% of disallowed wildfire costs



Note: A below investment grade utility would also need to demonstrate to the Commission a path to return to investment grade in order to receive authorization to recover Stress Test Costs