PG&E HEARING EXHIBIT PGE-07

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PG&E'S SECURITIZATION 2020

Chapter 7 ... Comparison of Traditional Financing & Securitization (David Thomason)

PACIFIC GAS AND ELECTRIC COMPANY CHAPTER 7 COMPARISON OF TRADITIONAL FINANCING AND SECURITIZATION WITNESS: DAVID THOMASON

PACIFIC GAS AND ELECTRIC COMPANY CHAPTER 7 COMPARISON OF TRADITIONAL FINANCING AND SECURITIZATION

TABLE OF CONTENTS

A.	Intr	oduction	. 7-1
B.		venue Requirements for Recovery of \$7.5 Billion of 2017 Catastrophic dfire Costs	. 7-3
	1.	Revenue Requirements Under Traditional Ratemaking	. 7-3
	2.	Revenue Requirements with Securitized Debt Financing	. 7-4
	3.	Net Difference in Revenue Requirements	. 7-5
C.	Re	venue Requirement Savings of Securitization	. 7-6
	1.	The Bonds Reduce Revenue Requirements on a Present Value Basis	. 7-6
	2.	The Bonds Are Designed to Accelerate PG&E's Path Back to Investment Grade	. 7-6
D.	Со	nclusion	. 7-7

PACIFIC GAS AND ELECTRIC COMPANY CHAPTER 7 COMPARISON OF TRADITIONAL FINANCING AND SECURITIZATION WITNESS: DAVID THOMASON

A. Introduction

 This chapter develops and presents a comparison of the revenue required from customers to recover \$7.5 billion of Pacific Gas and Electric Company's (PG&E) costs and expenses related to catastrophic wildfires that ignited in 2017 (2017 Catastrophic Wildfire Costs) under traditional utility financing mechanisms versus the revenue required to recover such costs if financed with securitized debt. The analysis in this Chapter establishes that, even in the absence of the proposed Customer Credit (as described in Chapter 6, Customer Credit Mechanism and Investment Returns (D. Thomason; G. Allen)),

[t]he recovery of recovery costs through the designation of the fixed recovery charges . . . , and the issuance of recovery bonds in connection with the fixed recovery charges, would reduce, to the maximum extent possible, the rates on a present value basis that consumers within the electrical corporation's service territory would pay as compared to the use of traditional utility financing mechanisms, which shall be calculated using the electrical corporation's corporate debt and equity in the ratio approved by the commission at the time of the financing order.

Public Utilities Code (Pub. Util. Code) § 850.1(a)(1)(A)(ii)(III).

Under traditional ratemaking PG&E assumes recovery of 2017 Catastrophic Wildfire Costs is authorized in the same manner as the costs of other long-term assets that are recovered over many years and are placed into rate base with a carrying cost equal to the Commission adopted return on rate base at the time of the financing order. Using the Commission approved capital structure, PG&E presents illustrative calculations assuming \$7.5 billion of the 2017 Catastrophic Wildfire Costs are financed with two different mechanisms: (a) the same

This comparison is required by Pub. Util. Code § 850.1(a)(1)(A)(ii)(III) and is prepared without regard to the Customer Credit discussed in Chapter 6, Customer Credit Mechanism and Investment Returns (D. Thomason; G. Allen). The Customer Credit is designed to equal the proposed securitization charges, which would avoid any impact to customers of the securitization. A summary of customer benefits from the securitization is set forth Chapter 1, Introduction (D. Thomason).

treatment as other assets in rate base, or (b) using securitized debt. These models are presented in a simplified, annual form so that the concepts are clearly presented and the calculations reasonably accurate. Details that have little cost impact have not been shown so that the overall savings from the use of the securitized debt financing is apparent. The actual accounting for these transactions will use a detailed monthly model.

On July 1, 2020, PG&E emerged from Chapter 11 pursuant to the Plan. In connection with its Chapter 11 exit financing, PG&E refinanced prepetition debt and issued new debt as set forth in the Plan and related documents resolving the Chapter 11 cases, resulting in significant interest cost savings. Therefore, PG&E's cost of long-term debt is now lower than the rate of 5.16 percent previously authorized by the Commission in PG&E's 2020 cost of capital proceeding.² PG&E recently submitted a Tier 2 advice letter as directed by the Commission in Decision (D.) 20-05-053 to update its cost of debt from 5.16 percent to 4.17 percent, thereby implementing the interest cost savings resulting from the Plan.³ This advice letter is subject to review and approval by the Commission's Energy Division. Based on this update to PG&E's cost of long-term debt, PG&E's overall return on rate base would be reduced from 7.81 percent to 7.34 percent. Moreover, in the intervening time since PG&E filed its testimony in this matter, the projected interest rate on the recovery bonds that would issue out of these proceedings has been reduced from 3 percent to 2.9 percent. Accordingly, PG&E is updating this chapter to incorporate the anticipated lower 7.34 percent return on rate base and the change in interest rate on the recovery bonds from 3 percent to 2.9 percent.

The remainder of this Chapter is organized into the following sections:

- Section B presents the revenue requirements calculations for both

 (1) recovery of \$7.5 billion of 2017 Catastrophic Wildfire Costs under traditional ratemaking versus (2) through securitized debt financing, and shows the net difference in revenue requirements between the two approaches;
- Section C presents the savings derived from securitized debt financing; and

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² See D.19-12-056.

³ See D.20-05-053 at 122 (Ordering Paragraph 6); Advice Letter 4275-G/5887-E (July 22, 2020).

Section D presents the conclusion.

B. Revenue Requirements for Recovery of \$7.5 Billion of 2017 Catastrophic Wildfire Costs

The annual revenue required from customers for PG&E to recover \$7.5 billion of 2017 Catastrophic Wildfire Costs depends on the method of financing used. If approved by the Commission, PG&E will finance \$7.5 billion of 2017 Catastrophic Wildfire Costs with securitized debt rather than conventional rate base financing. The revenue requirements for each of these financing mechanisms are illustrated below.

1. Revenue Requirements Under Traditional Ratemaking

PG&E calculates the 2017 Catastrophic Wildfire Costs annual revenue requirements based on the following assumptions for traditional rate base financing and cost recovery:

- The \$7.5 billion of 2017 Catastrophic Wildfire Costs are amortized straight-line over a 30-year period beginning on January 1, 2021, resulting in rate base starting at \$7.5 billion and declining to zero by the end of 2050. The amortized costs are not grossed up for taxes on the assumption that the related deductions offset the principal portion of the revenue requirement and obviate the need for a gross-up;
- The rate of return allowed on the unrecovered balance (rate base) of the 2017 Catastrophic Wildfire Costs is PG&E's proposed authorized rate of return (7.34 percent); and
- Because PG&E does not collect all the revenue that is billed, an allowance for uncollectible accounts expenses is added to the debt service.

Table 7-1 presents the revenue requirements for PG&E to amortize and recover the \$7.5 billion of 2017 Catastrophic Wildfire Costs using traditional utility financing mechanisms over 30 years. Based on these assumptions, the illustrative annual 2017 Catastrophic Wildfire Costs revenue requirements are expected to decrease from approximately \$948 million in year one (2021) to approximately \$263 million in year 30 (2050).

TABLE 7-1
RECOVERY OF 2017 CATASTROPHIC WILDFIRE COSTS, TRADITIONAL RATEMAKING (MILLIONS OF DOLLARS)

Line No.																
140.		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1	Reg Asset Rev Req															
2	Interest	\$ 146.0	\$ 141.0	\$ 136.1	\$ 131.1	\$ 126.2	\$ 121.2	\$ 116.3	\$ 111.3	\$ 106.4	\$ 101.4	\$ 96.5	\$ 91.5	\$ 86.6	\$ 81.6	\$ 76.7
3	Preferred Dividend	\$ 2.0	\$ 2.0	\$ 1.9	\$ 1.8	\$ 1.8	\$ 1.7	\$ 1.6	\$ 1.6	\$ 1.5	\$ 1.4	\$ 1.3	\$ 1.3	\$ 1.2	\$ 1.1	\$ 1.1
4	Earning for Common	\$ 393.1	\$ 379.8	\$ 366.4	\$ 353.1	\$ 339.8	\$ 326.5	\$ 313.1	\$ 299.8	\$ 286.5	\$ 273.2	\$ 259.8	\$ 246.5	\$ 233.2	\$ 219.9	\$ 206.5
5	Taxes on Return	\$ 153.5	\$ 148.3	\$ 143.1	\$ 137.9	\$ 132.7	\$ 127.5	\$ 122.3	\$ 117.1	\$ 111.9	\$ 106.7	\$ 101.5	\$ 96.3	\$ 91.1	\$ 85.9	\$ 80.7
6	Return	\$ 694.6	\$ 671.1	\$ 647.5	\$ 624.0	\$ 600.4	\$ 576.9	\$ 553.3	\$ 529.8	\$ 506.2	\$ 482.7	\$ 459.1	\$ 435.6	\$ 412.1	\$ 388.5	\$ 365.0
7	Principal Amortization	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0	\$ 250.0
8	Subtotal	\$ 944.6	\$ 921.1	\$ 897.5	\$ 874.0	\$ 850.4	\$ 826.9	\$ 803.3	\$ 779.8	\$ 756.2	\$ 732.7	\$ 709.1	\$ 685.6	\$ 662.1	\$ 638.5	\$ 615.0
9	Uncollectibles	\$ 3.1	\$ 3.0	\$ 3.0	\$ 2.9	\$ 2.8	\$ 2.7	\$ 2.7	\$ 2.6	\$ 2.5	\$ 2.4	\$ 2.3	\$ 2.3	\$ 2.2	\$ 2.1	\$ 2.0
10	Total Rev Req	\$ 947.7	\$ 924.1	\$ 900.5	\$ 876.9	\$ 853.2	\$ 829.6	\$ 806.0	\$ 782.4	\$ 758.7	\$ 735.1	\$ 711.5	\$ 687.9	\$ 664.2	\$ 640.6	\$ 617.0
11																
12	Reg Asset Balance															
13	BOY Reg Asset Bal	\$ 7,500	\$ 7,250	\$ 7,000	\$ 6,750	\$ 6,500	\$ 6,250	\$ 6,000	\$ 5,750	\$ 5,500	\$ 5,250	\$ 5,000	\$ 4,750	\$ 4,500	\$ 4,250	\$ 4,000
14	Amortization	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)	\$ (250)
15	EOY Reg Asset Balance	\$ 7,250	\$ 7,000	\$ 6,750	\$ 6,500	\$ 6,250	\$ 6,000	\$ 5,750	\$ 5,500	\$ 5,250	\$ 5,000	\$ 4,750	\$ 4,500	\$ 4,250	\$ 4,000	\$ 3,750
		2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
1	Reg Asset Rev Reg															
2																
	Interest	\$ 88.8	\$ 82.7	\$ 76.6	\$ 70.5	\$ 64.3	\$ 58.2	\$ 52.1	\$ 46.0	\$ 39.8	\$ 33.7	\$ 27.6	\$ 21.4	\$ 15.3	\$ 9.2	\$ 3.1
3		\$ 88.8 \$ 1.0	\$ 82.7 \$ 0.9	\$ 76.6 \$ 0.9	\$ 70.5 \$ 0.8		\$ 58.2 \$ 0.7			\$ 39.8 \$ 0.4	\$ 33.7 \$ 0.4	\$ 27.6 \$ 0.3	\$ 21.4 \$ 0.2	\$ 15.3 \$ 0.2	\$ 9.2 \$ 0.1	\$ 3.1 \$ 0.0
3 4	Preferred Dividend						,			\$ 39.8 \$ 0.4 \$ 86.6	\$ 33.7 \$ 0.4 \$ 73.3	,	\$ 21.4 \$ 0.2 \$ 46.6	\$ 15.3 \$ 0.2 \$ 33.3	\$ 9.2 \$ 0.1 \$ 20.0	\$ 3.1 \$ 0.0 \$ 6.7
		\$ 1.0	\$ 0.9	\$ 0.9	\$ 0.8	\$ 0.7	\$ 0.7	\$ 0.6	\$ 0.5	\$ 0.4	\$ 0.4	\$ 0.3	\$ 0.2	\$ 0.2	\$ 0.1	\$ 0.0
4	Preferred Dividend Earning for Common	\$ 1.0 \$ 193.2	\$ 0.9 \$ 179.9	\$ 0.9 \$ 166.6	\$ 0.8 \$ 153.2	\$ 0.7 \$ 139.9	\$ 0.7 \$ 126.6	\$ 0.6 \$ 113.3	\$ 0.5 \$ 99.9	\$ 0.4 \$ 86.6	\$ 0.4 \$ 73.3	\$ 0.3 \$ 60.0	\$ 0.2 \$ 46.6	\$ 0.2 \$ 33.3	\$ 0.1 \$ 20.0	\$ 0.0 \$ 6.7
4 5	Preferred Dividend Earning for Common Taxes on Return Return	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4
4 5	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0
4 5 6 7	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4
4 5 6 7 8 9	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal Uncollectibles	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5 \$ 2.0	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0 \$ 583.8 \$ 1.9	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1 \$ 1.8	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3 \$ 1.8	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6 \$ 1.7	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9 \$ 1.6	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2 \$ 1.5	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4 \$ 1.4	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0 \$ 410.7 \$ 1.4	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0 \$ 1.3	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3 \$ 1.2	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5 \$ 1.1	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8 \$ 1.0	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1 \$ 0.9	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4 \$ 0.9
4 5 6 7 8	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4
4 5 6 7 8 9	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal Uncollectibles Total Rev Req	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5 \$ 2.0	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0 \$ 583.8 \$ 1.9	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1 \$ 1.8	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3 \$ 1.8	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6 \$ 1.7	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9 \$ 1.6	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2 \$ 1.5	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4 \$ 1.4	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0 \$ 410.7 \$ 1.4	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0 \$ 1.3	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3 \$ 1.2	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5 \$ 1.1	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8 \$ 1.0	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1 \$ 0.9	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4 \$ 0.9
4 5 6 7 8 9 10	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal Uncollectibles Total Rev Req Reg Asset Balance	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5 \$ 2.0	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0 \$ 583.8 \$ 1.9	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1 \$ 1.8 \$ 560.9	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3 \$ 1.8	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6 \$ 1.7	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9 \$ 1.6	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2 \$ 1.5	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4 \$ 1.4	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0 \$ 410.7 \$ 1.4	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0 \$ 1.3	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3 \$ 1.2	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5 \$ 1.1	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8 \$ 1.0	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1 \$ 0.9	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4 \$ 0.9
4 5 6 7 8 9 10 11	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal Uncollectibles Total Rev Req	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5 \$ 2.0 \$ 610.5	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0 \$ 583.8 \$ 1.9 \$ 585.7	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1 \$ 1.8 \$ 560.9	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3 \$ 1.8 \$ 536.1	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6 \$ 1.7 \$ 511.3	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9 \$ 1.6 \$ 486.5	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2 \$ 1.5 \$ 461.7	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4 \$ 1.4 \$ 436.9	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0 \$ 410.7 \$ 1.4 \$ 412.1	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0 \$ 1.3 \$ 387.3	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3 \$ 1.2 \$ 362.5	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5 \$ 1.1 \$ 337.6	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8 \$ 1.0 \$ 312.8	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1 \$ 0.9 \$ 288.0	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4 \$ 0.9 \$ 263.2
4 5 6 7 8 9 10 11 12 13	Preferred Dividend Earning for Common Taxes on Return Return Principal Amortization Subtotal Uncollectibles Total Rev Req Reg Asset Balance BOY Reg Asset Bal	\$ 1.0 \$ 193.2 \$ 75.5 \$ 358.5 \$ 250.0 \$ 608.5 \$ 2.0 \$ 610.5	\$ 0.9 \$ 179.9 \$ 70.2 \$ 333.8 \$ 250.0 \$ 583.8 \$ 1.9 \$ 585.7	\$ 0.9 \$ 166.6 \$ 65.0 \$ 309.1 \$ 250.0 \$ 559.1 \$ 1.8 \$ 560.9	\$ 0.8 \$ 153.2 \$ 59.8 \$ 284.3 \$ 250.0 \$ 534.3 \$ 1.8 \$ 536.1	\$ 0.7 \$ 139.9 \$ 54.6 \$ 259.6 \$ 250.0 \$ 509.6 \$ 1.7 \$ 511.3	\$ 0.7 \$ 126.6 \$ 49.4 \$ 234.9 \$ 250.0 \$ 484.9 \$ 1.6 \$ 486.5	\$ 0.6 \$ 113.3 \$ 44.2 \$ 210.2 \$ 250.0 \$ 460.2 \$ 1.5 \$ 461.7	\$ 0.5 \$ 99.9 \$ 39.0 \$ 185.4 \$ 250.0 \$ 435.4 \$ 1.4 \$ 436.9	\$ 0.4 \$ 86.6 \$ 33.8 \$ 160.7 \$ 250.0 \$ 410.7 \$ 1.4 \$ 412.1	\$ 0.4 \$ 73.3 \$ 28.6 \$ 136.0 \$ 250.0 \$ 386.0 \$ 1.3 \$ 387.3	\$ 0.3 \$ 60.0 \$ 23.4 \$ 111.3 \$ 250.0 \$ 361.3 \$ 1.2 \$ 362.5	\$ 0.2 \$ 46.6 \$ 18.2 \$ 86.5 \$ 250.0 \$ 336.5 \$ 1.1 \$ 337.6	\$ 0.2 \$ 33.3 \$ 13.0 \$ 61.8 \$ 250.0 \$ 311.8 \$ 1.0 \$ 312.8	\$ 0.1 \$ 20.0 \$ 7.8 \$ 37.1 \$ 250.0 \$ 287.1 \$ 0.9 \$ 288.0	\$ 0.0 \$ 6.7 \$ 2.6 \$ 12.4 \$ 250.0 \$ 262.4 \$ 0.9 \$ 263.2

Assumes \$7.5B in wildfire costs recovered through traditional ratemaking, 0.33% uncollectibles, 8.84% State Tax Rate, 21% Federal Tax Rate

2. Revenue Requirements with Securitized Debt Financing

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PG&E estimates the annual revenue requirements under securitized debt financing by following standard financial formulas for principal and interest payments on a mortgage-style loan.⁴ The guidelines and assumptions for this calculation are discussed below:

The \$7.5 billion of 2017 Catastrophic Wildfire Costs are amortized, using a modified mortgage-style, equal payment for principal and interest combined beginning on April 1, 2021, except for the first two and a half to three years, which will have lower principal and interest payments;

Mortgage-style financing includes a constant annual payment amount consisting of combined principal amortization and interest payments. Over time, the interest due decreases as the principal balance is paid off. This decrease in interest payments is offset by an increase in the amount paid to principal to maintain a constant annual payment amount over the life of the loan. PG&E uses this assumption for purposes of determining the revenue requirement; however, the amortization treatment for PG&E's proposed transaction, which is addressed in more detail in Chapter 3, Transaction Overview (M. Becker), Section H (Recovery Bond Characteristics), will have equal annual payments, except that the annual payments will be lower in the first two and a half to three years.

 Because PG&E does not collect all the revenue that is billed, an allowance for uncollectible accounts expenses is added to the revenue requirement;

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- The securitized bonds are estimated to be repaid by the end of 2050;
 and
- The interest rate on the securitized bonds is estimated to be
 2.90 percent.

Table 7-2 presents the revenue requirements for PG&E to recover the \$7.5 billion of 2017 Catastrophic Wildfire Costs through securitized debt. Based on these assumptions, the illustrative annual revenue requirements are expected to be approximately \$395 million annually, except for the first two and a half to three years, which will have lower principal and interest payments.

TABLE 7-2 SECURITIZED DEBT REVENUE REQUIREMENTS CALCULATION (MILLIONS OF DOLLARS)

Line No.			2024		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2022		2034		2035
4	Fixed Recovery Charge (FRC)		2021		2022		2023		2024		2023		2020		2021		2020		2029		2030		2031		2032		2033		2034		2033
2	Annual Debt Service	\$	186.4	6	299.6	6	299.6	6	389 1	¢	200.1	¢	200.1	¢	200.1	6	200.1	e	200.1	6	200.1	¢	389 1	6	389 1	¢	389 1	¢	389.1	s	389.1
3	Servicing & Administrative Fees (PG&E)	\$	2.9	ą.	3.8	ą.	3.8	ą.	3.8	φ	3.8	Φ	3.8	Φ	3.8	ė.	3.8	φ φ	309.1	ō.	3.8	ą.	3.8	ō.	3.8	Φ	3.8	\$	3.8	\$	3.8
4	Rating Agency Fees	ų e	0.2	e e	0.2	ě	0.2	é	0.2	φ	0.2	φ	0.2	φ		\$	0.2	ų e	0.2	é	0.2	ę	0.2	é	0.2	φ	0.2	Φ	0.2	\$	0.2
		φ	0.2	٠		٠		ب		Ψ		Ψ		Ψ		φ		φ		٠		٠		٠		Ψ		Ψ		_	
5	Ongoing Financing Costs ^{1,2}	\$	0.2	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3	\$	0.3
6	Subtotal	\$	189.7	\$	303.9	\$	303.9	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4	\$	393.4
7	Collection Lag Gross Up ³	\$	63.2	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
8	Uncollectibles	\$	0.8	\$	1.0	\$	1.0	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3	\$	1.3
9	Annual FRC RRQ	\$	253.7	\$	304.9	\$	304.9	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7	\$	394.7
		·	2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050
1	Fixed Recovery Charge (FRC)	·	2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050
1 2		\$	2036 389.1	\$	2037 389.1	\$	2038 389.1	\$	2039 389.1	\$	2040 389.1	\$	2041 389.1	\$	2042 389.1	\$	2043 389.1	\$	2044 389.1	\$	2045 389.1	\$	2046 389.1	\$	2047 389.1	\$	2048 389.1	\$	2049 389.1	\$	2050 389.1
1 2 3	Fixed Recovery Charge (FRC)	\$		\$	2037 389.1 3.8	\$		\$	2039 389.1 3.8	\$	2040 389.1 3.8	\$	2041 389.1 3.8	\$	2042 389.1 3.8	\$	2043 389.1 3.8	\$	2044 389.1 3.8	\$	2045 389.1 3.8	\$	2046 389.1 3.8	\$		\$	2048 389.1 3.8	\$		\$	
	Fixed Recovery Charge (FRC) Annual Debt Service	\$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$ \$ \$	389.1	\$ \$	389.1	\$ \$	389.1	\$	389.1
3	Fixed Recovery Charge (FRC) Annual Debt Service Servicing & Administrative Fees (PG&E) Rating Agency Fees	-	389.1	\$ \$ \$	389.1	\$ \$ \$	389.1	\$ \$ \$	389.1	\$ \$ \$	389.1	\$ \$ \$	389.1	\$ \$ \$	389.1	-	389.1	\$	389.1	Ψ	389.1	\$ \$ \$ \$	389.1	\$ \$ \$ \$	389.1	\$ \$ \$	389.1	\$	389.1	\$	389.1
3	Fixed Recovery Charge (FRC) Annual Debt Service Servicing & Administrative Fees (PG&E)	-	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	-	389.1 3.8 0.2	\$	389.1 3.8 0.2	Ψ	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$	389.1 3.8 0.2	\$	389.1 3.8 0.2	\$ \$ \$	389.1 3.8 0.2
3 4 5	Fixed Recovery Charge (FRC) Annual Debt Service Servicing & Administrative Fees (PG&E) Rating Agency Fees Ongoing Financing Costs ^{1,2}	\$	389.1 3.8 0.2 0.3	\$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$	389.1 3.8 0.2	-	389.1 3.8 0.2	\$	389.1 3.8 0.2	Ψ	389.1 3.8 0.2	\$ \$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$	389.1 3.8 0.2 0.3
3 4 5	Fixed Recovery Charge (FRC) Annual Debt Service Servicing & Administrative Fees (PG&E) Rating Agency Fees Ongoing Financing Costs ^{1,2} Subtotal	\$	389.1 3.8 0.2 0.3 393.4	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$ \$	389.1 3.8 0.2	-	389.1 3.8 0.2	\$	389.1 3.8 0.2	Ψ	389.1 3.8 0.2	\$ \$ \$ \$ \$ \$	389.1 3.8 0.2	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$	389.1 3.8 0.2 0.3	\$ \$ \$ \$	389.1 3.8 0.2 0.3 393.4

Assumes \$7.5B securitization starts on 4/1/2021, ~17 yr WAL, 2.9%, 0.051% servicing fees, 0.003% rating agency fees, and 0.33% uncollectibles, 8.84% State Tax Rate, 21% Federal Tax Rate

3. Net Difference in Revenue Requirements

The net reduction in the revenue requirements stemming from the use of securitized debt is the difference between the annual 2017 Catastrophic Wildfire Costs revenue requirements under conventional rate base financing (Table 7-1) and the securitized debt revenue requirements (Table 7-2). Table 7-3 presents the illustrative net revenue requirements reductions for each year 2021 through 2050.

¹Accountant's, Legal, Trustee/Trustee's Counsel, Independent Managers', Printing/Edgarizing and Miscellaneous Fees ²RRQ assumes issuance fees are paid by PG&E. Indicative pricing for upfront fees ranges from \$36M - \$57M

³ Collection lag gross up assumes a 45 day accounts receivables lag that must be pre-collected to ensure the SPE can service the debt in 2021, with a corresponding reversal in 2050

TABLE 7-3 NET REDUCTION IN RRQ FOR USE OF SECURITIZED BONDS (MILLIONS OF DOLLARS)

Line																
No.																
1		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
2	Traditional Ratemaking RRQ	\$947.7	\$924.1	\$900.5	\$876.9	\$853.2	\$829.6	\$806.0	\$782.4	\$758.7	\$735.1	\$711.5	\$687.9	\$664.2	\$640.6	\$617.0
3	Securitized Debt RRQ	\$253.7	\$304.9	\$304.9	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7	\$394.7
4	Annual Savings	\$694.0	\$619.2	\$595.5	\$482.1	\$458.5	\$434.9	\$411.2	\$387.6	\$364.0	\$340.4	\$316.7	\$293.1	\$269.5	\$245.9	\$222.3
5	Cumulative Annual Savings	\$694.0	\$1,313.1	\$1,908.7	\$2,390.8	\$2,849.3	\$3,284.1	\$3,695.4	\$4,083.0	\$4,447.0	\$4,787.4	\$5,104.1	\$5,397.2	\$5,666.7	\$5,912.6	\$6,134.9
1		2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
1	Traditional Ratemaking RRQ	\$593.4	\$569.7	\$546.1	\$522.5	\$498.9	\$475.2	\$451.6	\$428.0	\$404.4	\$380.8	\$357.1	2047 \$333.5	\$309.9	2049 \$286.3	\$262.6
1 2 3	Traditional Ratemaking RRQ Securitized Debt RRQ															
1 2 3 4		\$593.4	\$569.7	\$546.1	\$522.5	\$498.9	\$475.2	\$451.6	\$428.0	\$404.4	\$380.8	\$357.1	\$333.5	\$309.9	\$286.3	\$262.6
	Securitized Debt RRQ	\$593.4 \$394.7	\$569.7 \$394.7	\$546.1 \$394.7	\$522.5 \$394.7	\$498.9 \$394.7	\$475.2 \$394.7	\$451.6 \$394.7	\$428.0 \$394.7	\$404.4 \$394.7	\$380.8 \$394.7	\$357.1 \$394.7	\$333.5 \$394.7	\$309.9 \$394.7	\$286.3 \$394.7	\$262.6 \$331.3
4	Securitized Debt RRQ Annual Savings	\$593.4 \$394.7 \$198.6	\$569.7 \$394.7 \$175.0	\$546.1 \$394.7 \$151.4	\$522.5 \$394.7 \$127.8	\$498.9 \$394.7 \$104.1	\$475.2 \$394.7 \$80.5	\$451.6 \$394.7 \$56.9	\$428.0 \$394.7 \$33.3	\$404.4 \$394.7 \$9.6	\$380.8 \$394.7 -\$14.0	\$357.1 \$394.7 -\$37.6	\$333.5 \$394.7 -\$61.2	\$309.9 \$394.7 -\$84.9	\$286.3 \$394.7 -\$108.5	\$262.6 \$331.3 -\$68.7
4	Securitized Debt RRQ Annual Savings	\$593.4 \$394.7 \$198.6	\$569.7 \$394.7 \$175.0	\$546.1 \$394.7 \$151.4	\$522.5 \$394.7 \$127.8	\$498.9 \$394.7 \$104.1	\$475.2 \$394.7 \$80.5	\$451.6 \$394.7 \$56.9	\$428.0 \$394.7 \$33.3	\$404.4 \$394.7 \$9.6	\$380.8 \$394.7 -\$14.0	\$357.1 \$394.7 -\$37.6	\$333.5 \$394.7 -\$61.2	\$309.9 \$394.7 -\$84.9	\$286.3 \$394.7 -\$108.5	\$262.6 \$331.3 -\$68.7

¹PG&E Return on Ratebase

C. Revenue Requirement Savings of Securitization

1. The Bonds Reduce Revenue Requirements on a Present Value Basis

The revenue requirement savings associated with securitizing \$7.5 billion of 2017 Catastrophic Wildfire Costs are summarized in Table 7-3 on an annual basis, on an accumulated nominal basis, and as the present value of the net revenue requirement reductions. Table 7-3 reports the nominal savings are approximately \$6.7 billion. Using a discount rate of 7.34 percent, 5 the present value of the savings is approximately \$4.2 billion. This is consistent with the requirement that, on a net present value basis, the use of securitized debt will save ratepayers money by reducing the charges necessary to finance the \$7.5 billion of 2017 Catastrophic Wildfire Costs both nominally and on a present value basis compared to the use of traditional rate base financing. 6

2. The Bonds Are Designed to Accelerate PG&E's Path Back to Investment Grade

Mr. Joseph Sauvage's testimony in Chapter 5, Stress Test Methodology (D. Thomason; J. Sauvage) reviews the impact of securitization on PG&E's credit ratings.

PG&E assumes that the discount rate should be applied to the entire period of cost recovery and should be set equal to the return on rate base contained in PG&E's Tier 2 Advice Letter, which is 7.34 percent. See D.20-05-053 at 122 (Ordering Paragraph 6); Advice Letter 4275-G/5887-E (July 22, 2020).

⁶ See Pub. Util. Code § 850.1(a)(1)(A)(ii)(III).

D. Conclusion

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The revenue requirement calculations, showing a present value difference of approximately \$4.2 billion through issuance of securitized debt rather than a traditional recovery method for \$7.5 billion of the 2017 Catastrophic Wildfire Costs, demonstrate that PG&E's customers will benefit from the issuance of securitized debt based on the assumptions in this analysis.⁷

⁷ The Customer Credit described in Chapter 6, Customer Credit Mechanism and Investment Returns (D. Thomason; G. Allen), is designed to make the proposed securitization charges rate-neutral.