# PG\&E HEARING EXHIBIT PGE-44 

## A.20-04-023

## PG\&E'S SECURITIZATION 2020

Dowdell Workpapers_DR-TURN-01

## CALCULATIONS SUPPORTING TURN-01: SUMMARY OF RISK ADJUSTED CCT CASH FLOW COMPARISON

## PG\&E Comparative Present Values (in \$ MM except where indicated)

WP FOR TURN-01 p. 13, FN 45

| 1 | CCT Value Discounted at Cost of Equity-\% | 10.25\% |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 |  | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 3 | Annual FRC RRQ/Customer Credit Trust Offset | \$254 | \$305 | \$309 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 |
| 4 | Customer Credit Trust Residual | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 5 | NPV to Ratepayers of Repayment Cash Flows Discounted@0.1025 | \$3,376 |  |  |  |  |  |  |  |  |  |
|  | NPV to Ratepayers of CCT Residual Value |  |  |  |  |  |  |  |  |  |  |
| 6 | Discounted@0.1025 | \$48 |  |  |  |  |  |  |  |  |  |
| 7 | Total Securitization Value to Ratepayers | \$3,424 |  |  |  |  |  |  |  |  |  |
| 8 | Value of FRC from Ratepayers | (\$7,500) |  |  |  |  |  |  |  |  |  |
| 9 | Net Value Gain (Shortfall) to Ratepayers from Securitization | $(\$ 4,076)$ |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |
| 12 | CCT Value Discounted at Weighted Average Cost of Rate Base-\% | 7.34\% |  |  |  |  |  |  |  |  |  |
| 13 |  | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 14 | Annual FRC RRQ/Customer Credit Trust Offset | \$254 | \$305 | \$309 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 |
| 15 | Customer Credit Trust Residual | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 16 | NPV to Ratepayers of Repayment Cash Flows Discounted@0.0734 | \$4,449 |  |  |  |  |  |  |  |  |  |
|  | NPV to Ratepayers of CCT Residual Value |  |  |  |  |  |  |  |  |  |  |
| 17 | Discounted@0.0734 | \$110 |  |  |  |  |  |  |  |  |  |
| 18 | Total Securitization Value to Ratepayers | \$4,559 |  |  |  |  |  |  |  |  |  |
| 19 | Value of FRC from Ratepayers | (\$7,500) |  |  |  |  |  |  |  |  |  |
| 20 | Net Value Gain (Shortfall) to Ratepayers from Securitization | $(\$ 2,941)$ |  |  |  |  |  |  |  |  |  |
| 21 |  |  |  |  |  |  |  |  |  |  |  |
| 23 | CCT Value Discounted at Presumed BB Debt Cost | 6.00\% |  |  |  |  |  |  |  |  |  |
| 24 |  | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 25 | Annual FRC RRQ/Customer Credit Trust Offset | \$254 | \$305 | \$309 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 |
| 26 | Customer Credit Trust Residual | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 27 | NPV to Ratepayers of Repayment Cash Flows Discounted@0.06 | \$5,137 |  |  |  |  |  |  |  |  |  |
|  | NPV to Ratepayers of CCT Residual Value |  |  |  |  |  |  |  |  |  |  |
| 28 | Discounted@0.06 | \$163 |  |  |  |  |  |  |  |  |  |
| 29 | Total Securitization Value to Ratepayers | \$5,300 |  |  |  |  |  |  |  |  |  |
| 30 | Value of FRC from Ratepayers | (\$7,500) |  |  |  |  |  |  |  |  |  |
| 31 | Net Value Gain (Shortfall) to Ratepayers from Securitization | $(\$ 2,200)$ |  |  |  |  |  |  |  |  |  |

CALCULATIONS SUPPORTING TURN-01: SUMMARY OF RISK ADJUSTED CCT CASH FLOW COMPARISON
PG\&E Comparative Present Values (in \$ MM except where indicated) WP FOR TURN-01 p. 13, FN 45


## CALCULATIONS SUPPORTING TURN-01: SUMMARY OF RISK ADJUSTED CCT CASH FLOW COMPARISON

PG\&E Comparative Present Values (in \$ MM except where indicated)
WP FOR TURN-01 p. 13, FN 45

| 1 | CCT Value Discounted at Cost of Equity-\% | 10.25\% |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 |  | 2021 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
| 3 | Annual FRC RRQ/Customer Credit Trust Offset | \$254 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 |
| 4 | Customer Credit Trust Residual | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 5 | NPV to Ratepayers of Repayment Cash Flows Discounted@0.1025 | \$3,376 |  |  |  |  |  |  |  |  |  |
|  | NPV to Ratepayers of CCT Residual Value |  |  |  |  |  |  |  |  |  |  |
| 6 | Discounted @ 0.1025 | \$48 |  |  |  |  |  |  |  |  |  |
| 7 | Total Securitization Value to Ratepayers | \$3,424 |  |  |  |  |  |  |  |  |  |
| 8 | Value of FRC from Ratepayers | (\$7,500) |  |  |  |  |  |  |  |  |  |
| 9 | Net Value Gain (Shortfall) to Ratepayers from Securitization | $(\$ 4,076)$ |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |
| 12 | CCT Value Discounted at Weighted Average Cost of Rate Base-\% | 7.34\% |  |  |  |  |  |  |  |  |  |
| 13 |  | 2021 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
| 14 | Annual FRC RRQ/Customer Credit Trust Offset | \$254 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 |
| 15 | Customer Credit Trust Residual | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 16 | NPV to Ratepayers of Repayment Cash Flows Discounted @ 0.0734 | \$4,449 |  |  |  |  |  |  |  |  |  |
|  | NPV to Ratepayers of CCT Residual Value |  |  |  |  |  |  |  |  |  |  |
| 17 | Discounted@0.0734 | \$110 |  |  |  |  |  |  |  |  |  |
| 18 | Total Securitization Value to Ratepayers | \$4,559 |  |  |  |  |  |  |  |  |  |
| 19 | Value of FRC from Ratepayers | (\$7,500) |  |  |  |  |  |  |  |  |  |
| 20 | Net Value Gain (Shortfall) to Ratepayers from Securitization | $(\$ 2,941)$ |  |  |  |  |  |  |  |  |  |
| 21 |  |  |  |  |  |  |  |  |  |  |  |
| 23 | CCT Value Discounted at Presumed BB Debt Cost | 6.00\% |  |  |  |  |  |  |  |  |  |
| 24 |  | 2021 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 |
| 25 | Annual FRC RRQ/Customer Credit Trust Offset | \$254 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 | \$395 |
| 26 | Customer Credit Trust Residual | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 27 | NPV to Ratepayers of Repayment Cash Flows Discounted @ 0.06 | \$5,137 |  |  |  |  |  |  |  |  |  |
|  | NPV to Ratepayers of CCT Residual Value |  |  |  |  |  |  |  |  |  |  |
| 28 | Discounted@ 0.06 | $\underline{\$ 163}$ |  |  |  |  |  |  |  |  |  |
| 29 | Total Securitization Value to Ratepayers | \$5,300 |  |  |  |  |  |  |  |  |  |
| 30 | Value of FRC from Ratepayers | (\$7,500) |  |  |  |  |  |  |  |  |  |
| 31 | Net Value Gain (Shortfall) to Ratepayers from Securitization | $(\$ 2,200)$ |  |  |  |  |  |  |  |  |  |

CALCULATIONS SUPPORTING TURN-01: SUMMARY OF RISK ADJUSTED CCT CASH FLOW COMPARISON
PG\&E Comparative Present Values (in \$ MM except where indicated)
WP FOR TURN-01 p. 13, FN 45


## NPV of Debt Savings Calculations

## WP FOR TURN-01 p. 18 FN 62

## PV of PG\&E's Claimed Debt Savings

## Assumptions

Acceleration of Investment Grade Credit Ratings (in Years)
Annual Estimated Long Term Debt Savings @ 60 bps (in \$MM)
Assumed Average Debt Life (in Years)
Assumed Annual Short-Term Debt Savings
Discount Rate Applied/Weighted Average Cost of Rate Base (in \%)
NPV of Long Term Debt Savings Annuity Discounted @7.34\% to 2024 \$225.79 NPV of Short Term Debt Savings Annuity Discounted@ 7.34\% to 2024
\$16.20 Total Long-Term and Short Term Debt Savings Discounted to 2024 $\$ 241.98$

3 Total Long-Term and Short Term Debt Savings Discounted back to 2021 $\$ 210.02$

## Source/Calculation Notes

PG\&E Updated Testimony p. 5-33 lines 15-16
PG\&E Updated Testimony p. 5-33 lines 19-24
PG\&E Updated Testimony p. 5-33 lines 19-24/Footnote 86
PG\&E Updated Testimony p. 5-34 lines 7-11
PG\&E Updated Testimony p. 5-34 lines 7-11
PG\&E Updated Testimony p. 6-21 lines 15-17
PV of $\$ 23 \mathrm{MM}$ simple annuity (payments at end of the period) for 18 years discounted at $7.34 \%$ PV of $\$ 9 \mathrm{MM}$ simple annuity (payments at end of the period) for 2 years discounted at $7.34 \%$ Sum Line 11 and Line 12

PV of Line 12 for 2 years disocunted at $7.34 \%$

NPV of Debt Savings Calculations
WP FOR TURN-01 p. 21

## Source/Calculation Notes

## PV of TUR <br> Adjusted Debt Savings

Acceleration of Investment Grade Credit Ratings (in Years)
Assumed Average Debt Life (in Years)
Assumed Annual Short-Term Debt Savings
Incremental Years of Short-Term Debt Savings
Discount Rate Applied/Weighted Average Cost of Rate Base (in \%)
24
25 NPV of Long Term Debt Savings Annuity Discounted @7.34\% to 2024
One Year of Short Term Debt Savings
Total Long-Term and Short Term Debt Savings Discounted back to 2021

1 TURN assumes investment grade issuer ratings are achieved one year earlier rather than two years earlier
$\$ 7.83$ PG\&E Updated Testimony p. 5-33 line 20 give estimated single year savings of $\$ 11.74 \mathrm{MM}$. $\$ 11.74 \times(40 / 60)=\$ 7.83 \mathrm{MM}$
Assuming coupon of $4 \% 10$-year bond paying semi annual interest trading at par value results in 8.33 -year duration: https://dqydj.com/bond-duration-calcul PG\&E Updated Testimony p. 5-34 lines 7-11
TURN assumes investment grade issuer ratings
PG\&E Updated Testimony p. 6-21 lines 15-17
PV of $\$ 7.83 \mathrm{MM}$ simple annuity (payments at end of the period) for 8 years discounted at $7.34 \%$ G\&E Updated Testimony p. 5-34 lines 7-11
Sum Line 23 and Line 24
PV of Line 25 for 2 years disocunted at $7.34^{\circ}$

# A.20-04-023_Dowdell Workpapers_TURN-01.pdf 

WP for TURN-01 p. 7, lines 7-10

## SOURCE: Table 6-2

Schedule of Additional Contributions to Customer Credit Trust
Millions of Dollars

## CALCULATION SUPPORTING TURN-01 p. 7, Lines 7-10

| Sensitivity Assumes 10\% lower than Forecast Taxable |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Income Due to 10\% Lower Allowed Rate B | Base in | 20 |  |  |  | 0\% | 0\% | 0\% | 10\% | 10\% | 10\% | 10\% | 10\% |
| 2 |  | PG\&E B | as | se Totals |  | ck Totals | $\underline{2020}$ | $\underline{2021}$ | $\underline{2022}$ | $\underline{2023}$ | $\underline{2024}$ | $\underline{2025}$ | $\underline{2026}$ | $\underline{2027}$ |
| 3 Federal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Consolidated Forecast Taxable Income | \$ |  | 145,466 | \$ | 128,710 | \$ $(20,599)$ | \$ $(1,325)$ | \$ (166) | \$ 1,429 | \$ 1,742 | \$ 1,898 | \$ 2,120 | \$ 2,361 |
| 5 | Ratepayer NOL, Beginning of Year (BOY) | ) \$ |  | 27,874 |  |  | 5,462 | 5,462 | 5,462 | 5,462 | 4,032 | 2,290 | 386 | - |
| 6 | less: Ratepayer NOLs applied | \$ |  | $(5,462)$ | \$ | $(5,462)$ | - | - | - | $(1,429)$ | $(1,742)$ | $(1,904)$ | (386) | - |
| 7 | Ratepayer NOL, End of Year (EOY) | \$ |  | 22,413 |  |  | 5,462 | 5,462 | 5,462 | 4,032 | 2,290 | 386 | - | - |
| 8 | Shareholder Deductions BOY |  |  |  |  |  | 24,235 | 24,235 | 24,235 | 24,235 | 24,235 | 24,235 | 24,235 | 22,925 |
| 9 | less: Shareholder Deductions Applied | d \$ |  | $(24,235)$ | \$ | $(24,235)$ | - | - | - | - | - | - | $(1,310)$ | $(1,889)$ |
| 10 | Shareholder Deductions EOY |  |  |  |  |  | 24,235 | 24,235 | 24,235 | 24,235 | 24,235 | 24,235 | 22,925 | 21,036 |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 State |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Consolidated Forecast Taxable Income | \$ |  | 95,458 | \$ | 83,257 | \$ $(25,868)$ | \$ $(1,679)$ | \$ (524) | \$ 922 | \$ 1,222 | \$ 1,346 | \$ 1,534 | \$ 1,740 |
| 14 | Ratepayer NOL, BOY |  |  |  |  |  | 1,911 | 1,911 | 1,911 | 1,911 | 989 | - | - | - |
| 15 | less: Ratepayer NOLs applied |  |  | $(1,911)$ | \$ | $(1,911)$ | - | - | - | (922) | (989) | - | - | - |
| 16 | Ratepayer NOL, EOY |  |  |  |  |  | 1,911 | 1,911 | 1,911 | 989 | - | - | - | - |
| 17 | Shareholder Deductions BOY |  |  |  |  |  | 28,292 | 28,292 | 28,292 | 28,292 | 28,292 | 28,060 | 26,714 | 25,180 |
| 18 | less: Shareholder Deductions Applied |  |  | $(28,292)$ | \$ | $(28,292)$ | - | - | - | - | (232) | $(1,346)$ | $(1,534)$ | $(1,740)$ |
| 19 | Shareholder Deductions EOY |  |  |  |  |  | 28,292 | 28,292 | 28,292 | 28,292 | 28,060 | 26,714 | 25,180 | 23,440 |
| 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | Additional Contributions to Trust | \$ |  | 7,590 | \$ | 7,590 | \$ | \$ | \$ | \$ | \$ 21 | \$ 119 | \$ 411 | \$ 550 |
| 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shareholder Deductions are forecast to be |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 exhausted by 2035, thus the forecast horizon for this schedule is 2020-2040 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forecast deductions may not occur as shown |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 on this schedule due to potential changes in taxable income, tax rates and tax law |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## SOURCE: Table 6-2

Schedule of Additional Contributions to Customer Credit Trust
Millions of Dollars
CALCULATION SUPPORTING TURN-01 p. 7, Lines 7-10


# A.20-04-023_Dowdell Workpapers_TURN-01.pdf 

WP for TURN-01 p. 7, lines 7-10

## SOURCE: Table 6-2

Schedule of Additional Contributions to Customer Credit Trust
Millions of Dollars
CALCULATION SUPPORTING TURN-01 p. 7, Lines 7-10


# A.20-04-023_Dowdell Workpapers_TURN-01.pdf 

WP for TURN-01 p. 7, lines 7-10

## SOURCE: Table 6-2

Schedule of Additional Contributions to Customer Credit Trust
Millions of Dollars
CALCULATION SUPPORTING TURN-01 p. 7, Lines 7-10

|  | Sensitivity Assumes 10\% lower than Forecas |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Income Due to 10\% Lower Allowed Rate Bas |  | 10\% |  | 10\% |  | 10\% |  | 10\% |  | 10\% |  | 10\% |
| 2 | PG8 |  | $\underline{2045}$ |  | $\underline{2046}$ |  | $\underline{2047}$ |  | $\underline{2048}$ |  | $\underline{2049}$ |  | $\underline{2050}$ |
| Federal |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Consolidated Forecast Taxable Income | \$ | 8,096 | \$ | 8,503 | \$ | 8,930 | \$ | 9,378 | \$ | 9,850 |  | 10,345 |
| 5 | Ratepayer NOL, Beginning of Year (BOY) |  | - |  | - |  | - |  | - |  | - |  | - |
| 6 | less: Ratepayer NOLs applied |  | - |  | - |  | - |  | - |  | - |  | - |
| 7 | Ratepayer NOL, End of Year (EOY) |  | - |  | - |  | - |  | - |  | - |  | - |
| 8 | Shareholder Deductions BOY |  | - |  | - |  | - |  | - |  | - |  | - |
| 9 | less: Shareholder Deductions Applied |  | - |  | - |  | - |  | - |  | - |  | - |
| 10 | Shareholder Deductions EOY |  | - |  | - |  | - |  | - |  | - |  | - |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 State |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Consolidated Forecast Taxable Income | \$ | 5,904 | \$ | 6,200 | \$ | 6,512 | \$ | 6,840 | \$ | 7,184 | \$ | 7,546 |
| 14 | Ratepayer NOL, BOY |  | - |  | - |  | - |  | - |  | - |  | - |
| 15 | less: Ratepayer NOLs applied |  | - |  | - |  | - |  | - |  | - |  | - |
| 16 | Ratepayer NOL, EOY |  | - |  | - |  | - |  | - |  | - |  | - |
| 17 | Shareholder Deductions BOY |  | - |  | - |  | - |  | - |  | - |  | - |
| 18 | less: Shareholder Deductions Applied |  | - |  | - |  | - |  | - |  | - |  | - |
| 19 | Shareholder Deductions EOY |  | - |  | - |  | - |  | - |  | - |  | - |
| 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Additional Contributions to Trust | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shareholder Deductions are forecast to be |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 exhausted by 2035 , thus the forecast horizon <br> for this schedule is 2020-2040 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forecast deductions may not occur as shown |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 on this schedule due to potential changes in taxable income, tax rates and tax law |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |



$28 \quad$|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
| PV of PG\&E Initial Shareholder Contribution and |  |  |
| Additional Shareholder CCT Contributions @10.25\% | $\$ 4,363$ |  |

29 Total PV of Cash Received from Securitization \$7,500
30
Shareholder Savings from Accelerating Tax Savings \$3,137

26 CALCULATION SUPPORTING TURN-01 p. 25, FN 93.
27 PG\&E Forecast Additional Contributions to Trust
\$ 7,590 \$ 7,590 \$
PV of PG\&E Initial Shareholder Contribution and
Additional Shareholder CCT Contributions @10.25\%
Additional Shareholder CCT Contributions @10.25\% \$4,363

29 Total PV of Cash Received from Securitization Shareholder Savings from Accelerating Tax Savings \$3,137 \$3,137


28 |  |  |  |
| :--- | :--- | :--- | \(\begin{aligned} \& PV of PG\&E Initial Shareholder Contribution and <br>

\& Additional Shareholder CCT Contributions @10.25\%\end{aligned} \quad \$ 4,363\)

29 Total PV of Cash Received from Securitization $\$ 7,500$

2049
$\underline{2050}$
27 PG\&E Forecast Additional Contributions to Trust $\quad$ \$ 7,590 \$ 7,590 \$ $\quad$ -

28

|  |  |
| :--- | :--- |
| PV of PG\&E Initial Shareholder Contribution and |  |
| Additional Shareholder CCT Contributions @10.25\% | $\$ 4,363$ |

29 Total PV of Cash Received from Securitization $\$ 7,500$ 30 Shareholder Savings from Accelerating Tax Savings $\$ 3,137$

