Pacific Gas and Electric Company Securitization

A. 20-04-023

TURN HEARING EXHIBIT

TURN-29

PG&E Responses to TURN Data Request Set 17

Questions 1, 2, 3, 4, 5, 6, 8, 9, 20, 22, 23, 24, 25

PACIFIC GAS AND ELECTRIC COMPANY
Securitization 2020
Application 20-04-023
Data Response

PG&E Data Request No.:	TURN_017-Q01-30		
PG&E File Name:	Securitization2020_DR_TURN_017-Q01-30		
Request Date:	November 20, 2020	Requester DR No.:	TURN-PG&E-17
Date Sent:	December 4, 2020	Requesting Party:	The Utility Reform Network
PG&E Witness:	Q1-Q7: Bradford Cornell Q7: David Thomason Q8-Q9: Bradford Cornell Q10-Q15: Greg Allen Q16: Bradford Cornell, David Thomason Q17-Q18: Jan Berman Q19: David Thomason Q20: Bradford Cornell, David Thomason Q21: David Thomason Q22-Q24: Bradford Cornell Q25: David Thomason, Bradford Cornell Q26-Q27: David Thomason Q28: Jan Berman Q29-Q30: David Thomason	Requester:	Tom Long

GENERAL OBJECTIONS

1. PG&E objects to each request to the extent it seeks information protected from disclosure by the attorney-client privilege, the attorney work-product doctrine, or any other privilege or protection from disclosure. PG&E intends to invoke all such privileges and protections, and any inadvertent disclosure of privileged or protected information shall not give rise to a waiver of any such privilege or protection.

2. These responses are made without waiving PG&E's rights to raise all issues regarding relevance, materiality, privilege, or admissibility in evidence in any proceeding. PG&E reserves the right, but does not obligate itself, to amend these responses as needed based on any changes to PG&E's Application or the proposed securitization structure.

3. PG&E incorporates each of these General Objections into each of its responses below. Each of PG&E's responses below is provided subject to and without waiver of the foregoing objections and any additional objections made below.

QUESTION 01

On pages 10-11 through 10-12 of its rebuttal testimony, PG&E asserts:

> "Whether or not the Additional Shareholder Contributions are 'equivalent to equity' in some sense, is not relevant in the context of determining the value of the Securitization to PG&E's customers. The pertinent question is how PG&E's customers should value the expected cash flows to/from them that arise from the Securitization "

a. Does PG&E agree that the risk of the Additional Shareholder contributions is "equivalent to [PG&E's] equity" in any sense?

   i. If the answer to (a) is yes, what is the appropriate discount rate corresponding to these equity-like risk characteristics?

   ii. If the answer to (a) is no, provide an explanation of the risk characteristics of the Additional Shareholder Contributions and the appropriate discount rate corresponding to these risk characteristics.

b. Provide any and all supporting data, analysis, and documentation used in responding to the above questions.

ANSWER 01

PG&E objects to this request as vague and ambiguous. PG&E further objects to this request as overbroad, and not relevant. Subject to its objections, PG&E responds as follows:

a.i PG&E objects to this request as vague and ambiguous, particularly in use of the phrase "in any sense." A response is not possible without further definition from TURN as to what "sense" of equivalency is the subject of the question. For example, the Additional Shareholder Contributions are "equivalent" to PG&E's equity in the sense that both are denominated in U.S. dollars. In more meaningful senses, the Additional Shareholder Contributions are not equivalent to PG&E's equity.

a.ii PG&E has not performed an analysis of the risk characteristics specific to the Additional Shareholder Contributions as a separate element or developed the appropriate discount rate for the Additional Shareholder Contributions as a separate element. As explained in Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), that analysis is not necessary to estimate the NPV of the Securitization to customers. Rather, the singular risk faced by customers is the risk that Customer Credits do not equal the FRCs; other risks are either merely factors that could affect that fundamental risk, or are beside the point for the core issue of whether the Securitization is neutral to ratepayers.

b. PG&E refers TURN to Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell).

QUESTION 02

On page 10-22 of its rebuttal testimony, PG&E states:

> "Mr. Ellis asserts that PG&E fails to account for an interest tax shield that he claims benefits shareholders but 'comes straight out of the pockets of customers.' Regardless of any benefit to shareholders, the relevant inquiry for present purposes is whether there is any impact on expected cash flows to/from customers."

a. In PG&E's forecast of taxable income in the Excel spreadsheet "2020Securitization_DR_Misc_Chapters 3_6_7_UPDATED08-07-2020_Securitization Application Update Model_Final," tab Taxable Income Forecast, provided in response to TURN DR1-Q3, rows 19 and 39, "Securitization Interest Expense" is deducted from PG&E's Federal and State taxable income. Does PG&E intend to deduct the Securitization interest expense from its taxable income?
   i. If not, why not?
   ii. If so, would PG&E be able to deduct this interest expense without the Securitization?

b. By how much is this deduction expected to reduce PG&E's taxes over the life of the Securitization?

c. What is PG&E's estimate of the present value of this deduction?
   i. What discount rate does PG&E assume in estimating the present value of this deduction?
   ii. If PG&E cannot calculate the present value of this deduction, explain why not.
   iii. Provide any and all supporting data, analysis, and documentation for this calculation.

d. Identify whether customers, PG&E shareholders or a third party would be responsible for paying the interest on the Securitization debt.

e. Would the securitization interest have to be paid in the absence of Securitization?

f. What is the forecasted dollar value of the interest paid over the life of the Securitization?

g. What is PG&E's estimate of the present value of this interest expense to its payer? If PG&E cannot calculate the present value of interest paid, explain why not.

h. Will customers be able to deduct the interest expense from Trust income? Why or why not?

ANSWER 02

a. The consolidated tax group, of which PG&E is a member, deducts interest expense on debt that is issued by all members of the consolidated tax group, including the Temporary Utility Debt or any future debt that is used to replace the Temporary Utility Debt if the Securitization is not approved, and if approved and issued, the Recovery Bonds.

b. The deduction will be equal to interest on the Recovery Bonds and, assuming there is taxable income, will reduce taxable income by that amount. The precise amount of the deduction will depend on the actual interest paid on the Recovery Bonds.

c. PG&E objects to this request as not relevant. PG&E has not prepared this calculation. PG&E refers TURN to Chapter 7, Comparison of Traditional Financing and Securitization (D. Thomason) for the statutorily required present value calculation as described therein of the revenue requirements of the proposed Securitization (subject to final pricing and structuring at issuance).

d. The interest will be paid by the SPE entity that issued the bonds. As stated in Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), in periods where the Customer Credit equals the FRC, customers will not have any net increase in their rates as a result of the proposed Securitization. If the Customer Credit is less than the FRC, then customers will pay some portion of the FRC. In that case, the FRC will be grossed up to include the tax payable on the principal portion of the FRC, but the deduction of interest will reduce the necessary tax-gross up. As a result, if customers pay some portion of the FRC, they receive the benefit of the interest deduction.

e. There would be no securitization interest in the absence of securitization, but there would be interest on Temporary Utility Debt and on any new debt to refinance the Temporary Utility Debt—and, in both cases, the interest would be deducted. PG&E's proposed Securitization is rate-positive, and for the reasons set forth in Chapter 1, Introduction (D. Thomason), Chapter 1, Introduction – Rebuttal (D. Thomason), Chapter 5, Stress Test Methodology (D. Thomason; J. Sauvage), Chapter 5, Stress Test Methodology – Rebuttal (D. Thomason; J. Sauvage), Chapter 6, Customer Credit Mechanism and Investment Returns (D. Thomason; G. Allen), Chapter 6, Customer Credit Mechanism and Investment Returns – Rebuttal (D. Thomason; G. Allen), and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), the risk of payment of the FRC by customers is more than adequately compensated by the benefits of the proposed Securitization.

f. – g. PG&E refers TURN to subpart b above. An estimate of the Recovery Bond structure and principal and interest is included in 2020Securitization_DR_Misc_Chapters 3_6_7_Securitization Application_TestimonyWorkingModel_Final (1).xlsx, which was previously provided in response to TURN Set 1.

h. PG&E objects to this request as vague and ambiguous, in particular with reference to "customers," "deduct," and "Trust income." PG&E refers TURN to subparts a through g above. Under the proposed Securitization, interest expenses and taxable income, including from Customer Credit Trust Returns and the Recovery Bonds (if authorized

and issued), will be reflected on tax returns of the consolidated tax group of which PG&E is a member. Customers are not involved and do not report the income or expense of members of the consolidated tax group of which PG&E is a member.

QUESTION 03

Provide PG&E's estimate of the present value of the Additional Shareholder Contributions to customers and to PG&E shareholders.

a. What discount rates does PG&E use to perform the present value calculations for customers and shareholders?
b. What is the basis for the selection of the specific discount rates?
c. If PG&E did not, or cannot, calculate the present value of the Additional Shareholder Contributions, explain why such calculation is not possible.
d. Provide any and all data, analysis, and documentation used to support PG&E's responses to the above questions.

ANSWER 03

PG&E objects to this request as not relevant. Subject to its objections, PG&E responds as follows:

PG&E refers TURN to Chapter 1, Introduction – Rebuttal (D. Thomason), Chapter 6, Customer Credit Mechanism and Investment Returns – Rebuttal (D. Thomason; G. Allen), and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), for the relevant present value of the proposed Securitization. PG&E has not quantified the potential benefits to shareholders of the proposed Securitization. As set forth in Chapter 1, Introduction – Rebuttal (D. Thomason), the relevant focus in this proceeding is rate neutrality and customer impacts. Chapter 1, Introduction (D. Thomason), Chapter 1, Introduction – Rebuttal (D. Thomason), Chapter 5, Stress Test Methodology (D. Thomason; J. Sauvage), Chapter 5, Stress Test Methodology – Rebuttal (D. Thomason; J. Sauvage), Chapter 6, Customer Credit Mechanism and Investment Returns (D. Thomason; G. Allen), Chapter 6, Customer Credit Mechanism and Investment Returns – Rebuttal (D. Thomason; G. Allen), and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), amply demonstrate that the proposed Securitization is rate neutral and indeed beneficial to customers, and that the benefits are sufficiently large that the proposed Securitization remains beneficial to customers under a wide range of outcomes.

QUESTION 04

Provide PG&E's estimate of the present value of the $7.5-billion Recovery Bond to customers and to PG&E shareholders.

a. What discount rates does PG&E use to perform the present value calculations for customers and shareholders? What is the basis for the selection of the specific discount rates?

b. If PG&E did not, or cannot, calculate the present value of the Additional Shareholder Contributions, explain why such calculation is not possible.

c. Provide any and all data, analysis, and documentation used to support PG&E's responses to the above questions.

ANSWER 04

PG&E objects to this request as vague and ambiguous. In particular, this request first refers to "the present value of the $7.5-billion Recovery Bond" but subsequently refers to "the present value of the Additional Shareholder Contributions." PG&E further objects to this request as not relevant. Subject to its objections, PG&E responds as follows:

PG&E refers TURN to Chapter 7, Comparison of Traditional Financing and Securitization (D. Thomason), Chapter 6, Customer Credit Mechanism and Investment Returns – Rebuttal (D. Thomason; G. Allen), and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell). PG&E has not calculated the present value to shareholders of the proposed Securitization, and submits that, as explained in Chapter 1, Introduction – Rebuttal (D. Thomason), such a calculation is not relevant.

QUESTION 05

Provide PG&E's estimate of the net present value to customers of the Trust's investments.

a. What discount rates does PG&E use to perform the present value calculations for customers and shareholders? What is the basis for the selection of the specific discount rates?

b. If PG&E did not, or cannot, calculate the present value of the Additional Shareholder Contributions, explain why such calculation is not possible.

c. Provide any and all data, analysis, and documentation used to support PG&E's responses to the above questions.

ANSWER 05

PG&E objects to this request as vague and ambiguous. In particular, this request first refers to "the net present value to customers of the Trust's investments" but subsequently refers to "the present value of Additional Shareholder Contributions." PG&E also objects to this request as not relevant to the extent it seeks "present value calculations" for shareholders. Subject to its objections, PG&E responds as follows:

PG&E has not separately calculated the present value of the Customer Credit Trust returns. Rather, as explained in Chapters 6, Customer Credit Mechanism and

Investment Returns – Rebuttal (D. Thomason; G. Allen) and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), PG&E calculated the present value of the Customer Credit Trust surplus, which reflects both the Additional Shareholder Contributions and Customer Credit Trust Returns, as well as the Initial Shareholder Contribution and reductions in the Trust balance for reimbursement to PG&E for the Customer Credit on customers' bills provided by PG&E. The expected nominal and present value to customers is provided in Chapter 1, Introduction – Rebuttal (D. Thomason), and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell).

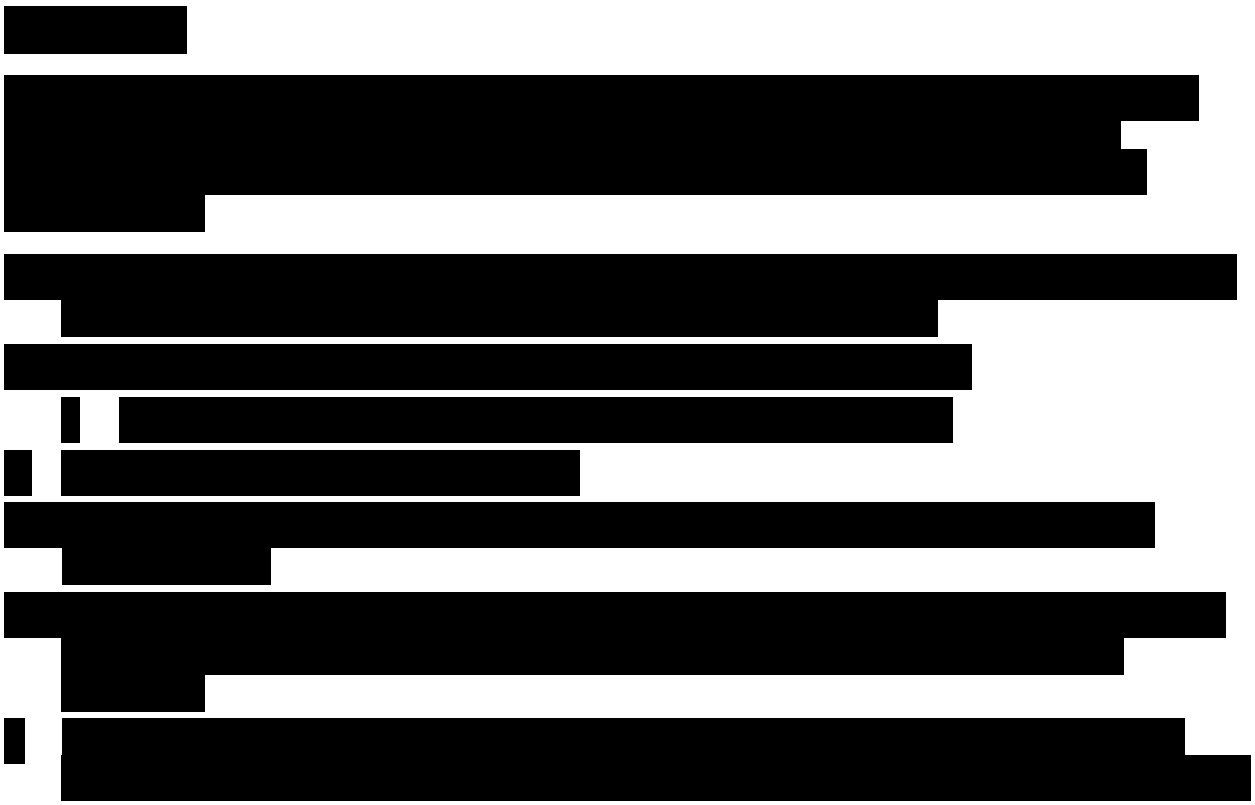
QUESTION 06

Provide proforma income, balance sheet, and cash flow statements for both the Trust and the special purpose entity that will issue the Recovery Bonds for their entire lives or as long as PG&E can forecast. If PG&E is unable to provide these financial forecasts, explain why they cannot be provided.

ANSWER 06

PG&E objects to this request as unduly burdensome and not relevant. Subject to its objections PG&E responds as follows:

PG&E refers TURN to Chapter 6, Customer Credit Mechanism and Investment Returns (D. Thomason; G. Allen), and Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), for the relevant cash flows.



QUESTION 08

Starting on page 10-3 of its rebuttal testimony, PG&E claims that "Intervenors Improperly Segment, and Separately Discount, Elements of the Securitization." In support of this assertion, PG&E provides examples of discounted cash flow analysis that use unsegmented cash flows.

a. Is it incorrect to segment and separately discount elements of the Securitization? If yes, then explain the basis for this conclusion and provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).

b. Is it ever appropriate to segment and separately discount cash flow streams? If so, under what circumstances is it appropriate to do so? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).

c. If it is never appropriate to segment and separately discount cash flow streams, provide explain the basis for this conclusion and provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).

ANSWER 08

a. PG&E objects to this question as vague and ambiguous. Subject to its objections, PG&E responds as follows:

Whether it is correct or incorrect to segment and separately discount elements of the Securitization depends upon the question one is attempting to answer. For the question of whether the Securitization is neutral to customers, segregating the FRCs from the Additional Shareholder Contributions and the Customer Credit Trust Returns is irrelevant to determining the expected present value of net cash flows to/from customers resulting from the Securitization, and accordingly simply distracts from the pertinent analysis.

b. PG&E objects to this question as overbroad. Subject to its objections, PG&E responds as follows:

Whether segmenting and separately discounting cash flow streams is appropriate depends on the facts and circumstances of each analysis and what question that analysis is attempting to address. It is impossible to identify all circumstances in which segregation would be appropriate. However, for example, if one wants to evaluate the present value of asset A independent of other assets; one should segregate the net cash flows associated with asset A from other cash flows. *See Principles of Corporate Finance* by Brealey, Myers, and Allen, Tenth Edition at page 178 for a description of the concept of value additivity.

c. PG&E refers TURN to subparts a and b above.

QUESTION 09

On page 10-4 of its rebuttal testimony, PG&E describes the "enterprise DCF" as a "favorite model of academics and practitioners because it relies solely on how cash flows in and out of the company", citing the well-known reference Valuation. The

description of this model therein refers to using the enterprise weighted average cost of capital (WACC) for the discount rate (p. 117, Fifth Edition). PG&E Updated Testimony page 1- Exh1.5-36 provides the following details of PG&E's enterprise WACC by segment:

Return on equity (ROE) and equity layer: 10.25% / 52%
Regulatory average cost of debt and debt layer: 5.16% / 47.5%
Regulatory cost of preferred stock and preferred stock layer: 5.52% / 0.5%

a. Does PG&E agree or disagree that each of these capital layers reflects a claim of investors on a segmented projected future cash flow stream?
    i. If PG&E disagrees, explain why by reference to textbook(s), academic research, or illustrative spreadsheet model.
b. Does PG&E agree or disagree that the different costs of capital associated with each of these streams reflects their relative risk, e.g., debt has the lowest cost of capital because it is perceived by investors as least risky, equity the highest and most risky?
    i. If PG&E disagrees, explain why by reference to textbook(s), academic research, or illustrative spreadsheet model.
c. Can these individual cost of capital rates be used in a discounted cash flow analysis to estimate the present value of each of these segmented projected cash flow streams, following the methodology described in PG&E Rebuttal (p. 10-4)?
    i. If not, how does cost of capital differ from a discount rate for purposes of DCF analysis?
    ii. If these rates cannot be used, what rates should be used to value these cash flow streams?
d. Can the present values of these cash flow streams be summed to calculate the present value of the enterprise?
    i. If not, why not?
    ii. If so, will this methodology produce the same result as the enterprise DCF model described on p. 10-4 of PG&E Rebuttal. If not, why not?

ANSWER 09

a. PG&E objects to this request as vague and ambiguous, particularly with respect to the phrase "segmented projected cash flow stream." Subject to the objection, PG&E responds as follows:

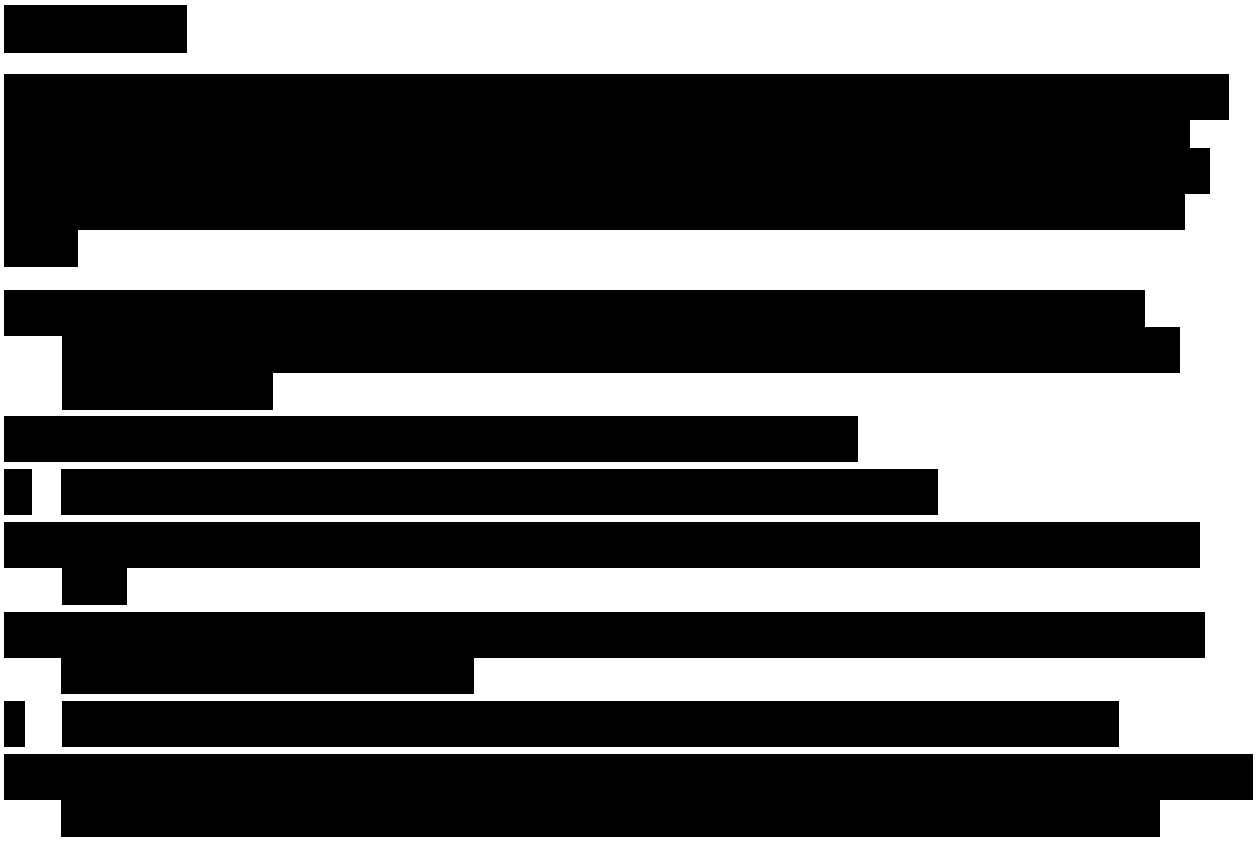
PG&E agrees that each of the capital layers identified by TURN in Question 9 has a specific right to portions of PG&E's projected cash flows, and those rights may create different priorities to PG&E's projected cash flows for each of the capital layers.

b. PG&E agrees that the different costs of capital associated with each of these streams reflects their relative risk.

c. PG&E objects to this request as vague and ambiguous, particularly in the use of the phrase “each of these segmented projected cash flow streams.” Subject to those objections, PG&E responds as follows:

PG&E’s cash flows are distributed to each of the capital layers based on the priority of each capital layer’s right to those cash flows. Theoretically, the *expected* cash flows for each capital layer can be discounted at its appropriate discount rate to arrive at the value of that capital layer. However, whether ascertaining separate present values would be an appropriate approach would depend on the circumstances and the question that one is attempting to analyze. *See, e.g.*, Answer 08 above. Determining the *expected* cash flows for each capital layer is rarely done in practice and each capital layer’s *expected* cash flows are not equivalent to dividing or segmenting the firm’s expected cash flows based on promised contractual payments.

d. Yes, in theory and if the analysis is done correctly, the present value of the *expected* net cash flows to each capital layer can be summed to calculate the enterprise value. However, whether ascertaining separate present values would be an appropriate approach would depend on the circumstances and the question that one is attempting to analyze. *See, e.g.*, Answer 08 above. In fact, such a summing is rarely done in practice, and if attempted it must be the *expected* net cash flows for each capital layer, which is not equivalent to dividing or segmenting the firm’s expected cash flows based on promised contractual payments, that are discounted to arrive at the present value for each capital layer for this approach, to arrive at the same result as the enterprise DCF model described in Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), on page 10-4.



[redacted]

QUESTION 20

On page 1-4 of its rebuttal testimony, PG&E provides two estimates of the Trust's expected value (Table 1-1A and Table 1-2). Revise both tables to show the results under the following discount rates:

a. 0%
b. 5%
c. 10%
d. 20%
e. 25%
f. 50%
g. 100%
h. 1000%

ANSWER 20

PG&E objects that this question is unduly burdensome and seeks information that is irrelevant, particularly in light of the robust alternative calculations already set forth in PG&E's rebuttal testimony, particularly Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell).

Subject to the foregoing objections, PG&E responds by providing alternative versions of Tables 1-1A and 2 with the indicated discount rates.

Recalculation of Table 1-1A at requested discount rates and 7.34%

Line No.		Nominal Surplus (Deficit)	NPV Surplus (Deficit) @ 0.00%	NPV Surplus (Deficit) @ 5.00%	NPV Surplus (Deficit) @ 7.34%	NPV Surplus (Deficit) @ 10.00%
1	Expected Value (EV)[(a)]	$4,414	$4,414	$1,019	$525	$252
2	EV Positive Outcomes	$4,566	$4,566	$1,056	$545	$262
3	EV Negative Outcomes	($152)	($152)	($38)	($20)	($10)
4	EV 25% of Positive, Minus Negative	$990	$990	$227	$116	$56

(a) Where the expected value is equal to the difference between the expected value of the positive and negative outcomes. The EV of negative outcomes includes interim shortfalls and repayments, if any.

Recalculation of Table 1-1A at requested discount rates and 7.34%

Line No.		Nominal Surplus (Deficit)	NPV Surplus (Deficit) @ 20.00%	NPV Surplus (Deficit) @ 25.00%	NPV Surplus (Deficit) @ 50.00%	NPV Surplus (Deficit) @ 100.00%	NPV Surplus (Deficit) @ 1000.00%
1	Expected Value (EV)[(a)]	$4,414	$18	$5	$0	$0	$0
2	EV Positive Outcomes	$4,566	$19	$6	$0	$0	$0
3	EV Negative Outcomes	($152)	($1)	($0)	($0)	($0)	($0)
4	EV 25% of Positive, Minus Negative	$990	$4	$1	$0	$0	($0)

(a) Where the expected value is equal to the difference between the expected value of the positive and negative outcomes. The EV of negative outcomes includes interim shortfalls and repayments, if any.

Recalculation of Table 1-2 at requested discount rates and 7.34%

Line No.		Nominal Surplus (Deficit)	NPV Surplus (Deficit) @ 0.00%	NPV Surplus (Deficit) @ 5.00%	NPV Surplus (Deficit) @ 7.34%	NPV Surplus (Deficit) @ 10.00%
1	Expected Value (EV)[(a)]	$4,858	$4,858	$1,119	$576	$276
2	EV Positive Outcomes	$5,079	$5,079	$1,175	$607	$291
3	EV Negative Outcomes	($221)	($221)	($56)	($30)	($15)
4	EV 25% of Positive, Minus Negative	$1,048	$1,048	$237	$121	$57

(a) Where the expected value is equal to the difference between the expected value of the positive and negative outcomes. The EV of negative outcomes includes interim shortfalls and repayments, if any.

Line No.		Nominal Surplus (Deficit)	NPV Surplus (Deficit) @ 20.00%	NPV Surplus (Deficit) @ 25.00%	NPV Surplus (Deficit) @ 50.00%	NPV Surplus (Deficit) @ 100.00%	NPV Surplus (Deficit) @ 1000.00%
1	Expected Value (EV)[(a)]	$4,858	$20	$6	$0	($0)	($0)
2	EV Positive Outcomes	$5,079	$21	$6	$0	$0	$0
3	EV Negative Outcomes	($221)	($1)	($0)	($0)	($0)	($0)
4	EV 25% of Positive, Minus Negative	$1,048	$4	$1	($0)	($0)	($0)

(a) Where the expected value is equal to the difference between the expected value of the positive and negative outcomes. The EV of negative outcomes includes interim shortfalls and repayments, if any.

[redacted]

QUESTION 22

On page 10-4 of its rebuttal testimony, PG&E cites the "leading MBA finance text", Principles of Corporate Finance by Brealey, Myers, and Allen. The Tenth Edition describes the concept of value additivity (p. 178):

> *The total value is the sum of its parts.*
>
> *This conclusion is important for corporate finance, because it justifies adding present values. The concept of value additivity is so important that we will give a formal definition of it. If the capital market establishes a value PV(A) for asset A and PV(B) for B, the market value of a firm that holds only these two assets is*
>
> $$PV(AB) = PV(A) + PV(B)$$
>
> *A three-asset firm combining assets A, B, and C would be worth PV(ABC) = PV(A) + PV(B) + PV(C), and so on for any number of assets. We have relied on intuitive arguments for value additivity. But the concept is a general one that can be proved formally by several different routes. The concept seems to be widely accepted, for thousands of managers add thousands of present values daily, usually without thinking about it.*

a. Does PG&E agree that value additivity is a valid financial concept?
   i. If not, why not? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).
   ii. If PG&E does accept the validity of value additivity, how does PG&E conclude that "intervenors improperly segment, and separately discount, elements of the securitization" (p. 10-3)? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).

ANSWER 22

a. – a.ii. Value additivity is a valid financial concept. However, what the intervenor witnesses have done does not constitute segmenting the expected net cash flows to customers from the Securitization. For example, the Additional Shareholder Contributions do not go to customers, and therefore valuing them independently is not informative if one is trying to determine whether the Securitization is neutral to customers. The cash flows necessary to analyze the Securitization's neutrality to customers are the expected net cash flows to customers. Multiple finance texts discuss the necessity of valuing expected cash flows to the relevant entity. *See, e.g.*, *Principles of Corporate Finance* by Brealey, Myers, and Allen. The Tenth Edition.

QUESTION 23

On page 10-4 of its rebuttal testimony, PG&E cites the "leading MBA finance text", Principles of Corporate Finance by Brealey, Myers, and Allen. This work discusses risk-adjustment of discount rates (p. 213-14):

Today most companies start with the company cost of capital as a benchmark risk- adjusted discount rate for new investments. The company cost of capital is the right discount rate only for investments that have the same risk as the company's overall business. For riskier projects the opportunity cost of capital is greater than the company cost of capital. For safer projects it is less.

The company cost of capital is not the correct discount rate if the new projects are more or less risky than the firm's existing business. Each project should in principle be evaluated at its own opportunity cost of capital. This is a clear implication of the value- additivity principle [emphasis in original].

a. Does PG&E agree that riskier investments have a higher cost of capital, and therefore should have a higher discount rate, than less risky investments?
    i. If not, why not? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).
b. Does PG&E agree that each investment "should in principle be evaluated at its own cost of capital"?
    i. If not, why not? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).
    ii. If PG&E does accept the validity of risk-adjusted discount rates, how does PG&E apply it to the specific risks of the Trust?
c. Does PG&E agree that segmenting and separately discounting different elements of the securitization is a valid approach to calculating its value?
    i. If not, why not? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).
d. Does PG&E agree that the Securitization Debt is less risky than the Trust investments?
    i. If not, why not? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).
e. Does PG&E agree that the Securitization Debt is less risky than the Trust's investments in market securities?
    i. If not, why not? Provide support by reference to textbook(s), academic research, and/or illustrative spreadsheet model(s).
f. Which does PG&E think is more risky to customers, the Trust's investments in market securities or the Additional Shareholder Contributions?
    i. How did PG&E make this determination? Provide support by reference to internal data and analysis, textbook(s), and/or academic research.
g. What risk-adjusted discount rate should be applied to the Additional Shareholder Contributions?

i. How did PG&E calculate this rate? Provide support by reference to internal data and analysis, textbook(s), and/or academic research.

ANSWER 23

a. PG&E agrees that riskier investments have a higher cost of capital, and therefore should have a higher discount rate, than less risky investments.

b. PG&E agrees that each investment should in principle be evaluated, by the investor, at its own cost of capital.

b.ii PG&E does not apply a discount rate *to the Trust*. As finance theory instructs, PG&E applies discount rates to the expected net cash flows *to ratepayers* to determine whether the Securitization is neutral to ratepayers. PG&E has performed this analysis under multiple scenarios. As explained in Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell), PG&E's return on rate base, currently 7.34 percent, is a reasonable discount rate to value the projected benefits and costs of the Securitization from the perspective of PG&E's customers, and PG&E has applied other discount rates proposed by intervenors to confirm this conclusion.

c. – c.i PG&E objects to this request as vague and ambiguous, particularly in use of the phrase "calculating its [the Securitization's] value." Subject to those objections, PG&E responds as follows:

PG&E does not agree that segmenting and separately discounting separate elements of the Securitization in the manner performed by TURN and other intervenor witnesses is a valid approach to determine the neutrality of the Securitization to ratepayers. TURN has not segmented the expected net cash flows to ratepayers. Multiple finance texts discuss the necessity of valuing expected cash flows to the relevant entity. *See, e.g.*, *Principles of Corporate Finance* by Brealey, Myers, and Allen. The Tenth Edition.

d. PG&E agrees that the Securitization Debt is less risky than the type of investments the Trust is expected to make, although PG&E notes that the Trust will invest in debt instruments that may be of equivalent or less risk than the Securitization Debt. PG&E also notes that this comparison is not relevant to the determination of whether the proposed Securitization is rate neutral to ratepayers. The Securitization Debt and investments by the Trust are only two components of the proposed Securitization. They do not represent the total cash flows to/from ratepayers from the proposed Securitization. To evaluate whether the proposed Securitization is rate neutral to ratepayers, all expected cash flows to/from ratepayers must be evaluated, i.e., the expected net cash flows to ratepayers from the proposed Securitization are the cash flows necessary to determine ratepayer neutrality.

e. PG&E objects to this request as vague and ambiguous, particularly with respect to the reference to "market securities." Subject to those objections, PG&E responds as follows:

See PG&E's response to Question 23.d.

f. PG&E object to this request as not relevant. PG&E has not performed such an analysis. It is not necessary to determine whether the Additional Shareholder Contributions are more or less risky than the type of investments the Trust is expected to make to determine whether the proposed Securitization is rate neutral to ratepayers. The Additional Shareholder Contributions and the Customer Credit Trust Returns are only two components of the proposed Securitization. They do not represent the total cash flows to/from ratepayers from the proposed Securitization. To evaluate whether the proposed Securitization is rate neutral to ratepayers, all expected cash flows to/from ratepayers must be evaluated, i.e., the expected net cash flows to ratepayers from the proposed Securitization are the cash flows necessary to determine ratepayer neutrality.

g. PG&E objects to this request as not relevant. PG&E has not performed such an analysis, and PG&E further notes that it is not necessary to do such an analysis in order the analyze the pertinent issue – whether the Securitization is neutral to ratepayers.

QUESTION 24

In footnote 28 on page 10-25 of its rebuttal testimony, PG&E's critiques TURN's use of probability of shortfall as a metric of the Trust's risk to customers:

> *A simple example will help illustrate this shortcoming: Consider an opportunity where the probability of loss is 50 percent, but any loss is only $1, and the probability of benefit is also 50 percent, but the benefit is $100. The expected benefit from this opportunity is $49.50. Thus, the 50 percent probability of loss is not very informative without additional information (of the sort not contained in Ellis' Figure 12).*

Consider another simple example:

> *An investment with a 50/50 chance of paying $0 or $100 has the same expected value as one paying $50 with certainty. But these two investments do not have the same risk profile. They also have different monetary values. The risky investment is worth less than its expected value; it is discounted commensurate with its risk. Thus, expected value is not very informative without additional information (of the sort not contained in PG&E's Table 6-7).*

a. How does PG&E's use of expected value incorporate risk?

b. Does PG&E adjust the discount rate as a means of incorporating risk into expected value?

   i. If not, why not?

   ii. If so, explain PG&E's process for risk-adjusting discount rates in its use of expected value

c. How did PG&E adjust the discount rate for the specific risks of the Trust:

   i. To shareholders?

   ii. To customers?

ANSWER 24

PG&E objects to this request as vague, ambiguous and misleading. In particular, the question includes a statement from TURN that is not a "question," is not referenced in any of the subparts, and that incorrectly and/or vaguely assumes a fact regarding what is "worth less." Subject to those objections, PG&E responds as follows:

a. PG&E discounts the net cash flows to ratepayers at several discount rates to arrive at a net present value of the expected net cash flows, as reflected in Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell). PG&E has performed this analysis under several scenarios.

b. PG&E objects to this request as vague and ambiguous, particularly with respect to the phrase "as a means of incorporating risk into the expected value." Subject to those objections, PG&E responds as follows:

PG&E discounts the net cash flows to ratepayers at several discount rates to arrive at a net present value of the expected net cash flows to ratepayers. PG&E has performed this analysis under several scenarios.

c. PG&E has not performed a separate analysis of the Trust's risks to shareholders as opposed to customers. The Trust's risk to customers is incorporated in PG&E's analysis of the expected net cash flows to customers as set forth in the Chapter 10, Expert Rebuttal Regarding Customer Benefit (B. Cornell). As explained therein, net cash flows to customers represents their fundamental risk, and having selected an appropriate discount rate for the overall cash flow, it is not necessary or appropriate to make further discount rate adjustments with respect to individual subsidiary risks that could impact the fundamental risk faced by customers – the potential divergences between the FRC and the Customer Credit.

QUESTION 25

Did PG&E conduct any quantitative scenario analysis, sensitivity analysis, stress-testing, risk assessment, or other similar investigation into the uncertainty of the Trust for customers, beyond the following analyses mentioned in its updated testimony and rebuttal?

Updated Testimony Chapter 6.C.6: Historical Context (pp. 6-30 ff.) Rebuttal Testimony Chapter 11.B.5: Potential Impacts of Catastrophic Adverse Events (pp. 10-13 ff.)

- *Catastrophic fire scenario*
- *20% income reduction scenario*
- *TURN contributions forecast scenario*

a. If not, why not?

b. If so, provide copies of those assessments and all supporting data, analyses, and documentation.

ANSWER 25

PG&E objects to this request as seeking information protected from disclosure by the attorney-client privilege and the attorney work-product doctrine. PG&E's response excludes any privileged information or attorney work product. PG&E further objects to this request as referring to "Chapter 11.B.5" when the correct reference is "Chapter 10.B.5." Subject to its objections, PG&E responds as follows:

PG&E confirms that it conducted the three analyses listed above. For the reasons stated in the Rebuttal Testimony, the alternative scenarios are adequate to assess risk and demonstrate that the proposed Securitization is rate neutral under a wide range of outcomes.

[redacted]