

**COMMONWEALTH OF PUERTO RICO
PUERTO RICO ENERGY COMMISSION**

COMISIÓN DE ENERGÍA DE PUERTO RICO	
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IN RE:

PUERTO RICO ELECTRIC POWER
AUTHORITY REVITALIZATION
CORPORATION,

Petitioner.

NO. CEPR-AP-2016-0001

SUBJECT: *Motion Submitting
Supplemental Rebuttal Testimonies, in
compliance with Act 4-2016 and the
Resolution and Order issued by the
Energy Commission on April 22, 2016*

**THE PREPA REVITALIZATION CORPORATION'S
MOTION SUBMITTING SUPPLEMENTAL REBUTTAL TESTIMONIES**

Comes now the Petitioner, Puerto Rico Electric Power Authority Revitalization Corporation (the "Corporation"), through the undersigned counsel, and respectfully states, alleges, and prays as follows:

1. The Corporation herewith submits to this honorable Commission its Supplemental Rebuttal Testimonies and exhibits thereto, with confirming Affidavits, in support of its Verified Petition for a Restructuring Order ("Verified Petition")

2. These materials are submitted pursuant to Article 6.25A of Act 57-2014, as amended; the procedures established by Resolution No. CEPR-MI-2015-0001, Administrative Order on Adjudicative Procedures, Deficiency Notices, Rate Review, and Investigations before the Puerto Rico Energy Commission, issued by this honorable Commission on April 22, 2016.

3. The Corporation herewith submits to the Commission the revised Direct Testimony of Ralph Zarumba, Corporation Exhibit 6.0, as shown on the attached "redline." In sum, the revisions to Mr. Zarumba's testimony (Corporation Exhibit 6.0REV) are as follows:

- In header, add "REV" after "Corporation Ex. 6.00"
- On cover page, add "Revised" before the word "Testimony"

- On cover page, change “April 7” to “May 20”
- In the illustrative example between lines 205 and 206:
 - Change “Estimated” to “Actual”
 - Change “12 Months Ending 3/31/16” to “FY 2015”
 - Change “Distribution” to “Allocation”
 - Within “Residential” - change “6,354,141,574” to “6,249,541,676”
 - Within “Residential” - change “38%” to “37.83%”
 - Within “Non-Residential” - change 10,174,334,514 to “10,270,239,212
 - Within “Non-Residential” - change “62%” to “62.17%”
 - Within “Total” - change 16,528,476,088” to “16,519,780,888”
- At lines 207-208, change “the previous 12-month period (ending with the end of the most recently completed calendar quarter for which data is available)” to “FY 2015”
- At line 208, change “16,528,476,088” to “16,519,780,888”
- At line 210, change “6,354,141,574” to “6,249,541,676”
- At line 210, change “38%” to “37.83%”

4. For the benefit of the Commission and intervening parties, the Corporation is refiling only the testimony as Corporation Exhibit 6.00REV, without refiling any exhibits thereto.

WHEREFORE, the Puerto Rico Electric Power Authority Revitalization Corporation respectfully requests that the honorable Commission deem the Corporation in compliance with the legal disposition previously cited.

WE HEREBY CERTIFY that the foregoing was sent via email to: José Pérez-Velez, Esq., (jperez@oipc.pr.gov); Coral M. Odier-Rivera, Esq., (codier@oipc.pr.gov); Marc G. Roumain Prieto, Esq., (mgrprcorp@gmail.com); Fernando Agrait, Esq., (agraitfe@agraitlawpr.com); Edwin J. Quiñones Porrata, Esq., (edwin.quinones@ae.pr.gov); José G. Maeso Gonzalez, Esq. (jose.maeso@ae.pr.gov); Victor Luis Gonzalez, Esq., (victorluisgonzalez@yahoo.com); and Dr. Guillermo M. Riera, PE (guillermo.m.riera@gmail.com).

RESPECTFULLY SUBMITTED,

IN SAN JUAN, PUERTO RICO, THIS 20th DAY OF MAY, 2016

**PUERTO RICO ELECTRIC POWER
AUTHORITY REVITALIZATION CORPORATION**

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** Pursuant to Moción Suplementaria de Solicitud de Admisión por Cortesía (pending)

By: _____



**COMMONWEALTH OF PUERTO RICO
PUERTO RICO ENERGY COMMISSION**

IN RE:

PUERTO RICO ELECTRIC POWER
AUTHORITY REVITALIZATION
CORPORATION,

Petitioner.

NO.

**SUBJECT: TESTIMONY
SUPPORTING PETITION FOR
RESTRUCTURING ORDER**

Revised Testimony of

RALPH ZARUMBA

Director, Navigant Consulting, Inc.

On behalf of the

Puerto Rico Electric Power Authority Revitalization Corporation

May 20, 2016

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1 **I. INTRODUCTION**

2 **A. Witness Identification**

3 **Q. Please state your name, title, employer, and business address.**

4 A. My name is Ralph Zarumba. I am a Director in the Energy Practice at Navigant
5 Consulting, Inc. (“Navigant”). My business address is 30 S. Wacker Drive, Suite 3100,
6 Chicago, Illinois 60606.

7 **Q. On whose behalf are you testifying?**

8 A. I am testifying as a witness on behalf of the Puerto Rico Electric Power Authority
9 Revitalization Corporation (the “Corporation”).

10 **B. Summary of Direct Testimony and Attachments**

11 **Q. What does your testimony focus upon?**

12 A. The primary purpose of my testimony is to explain and support how the Calculation
13 Methodology for the Transition Charges¹ and Adjustment Mechanism (collectively, the
14 “Calculation Methodology”) operate to distribute Financing Costs² and derive and adjust
15 specific Transition Charges in a manner that ensures the full and timely payment of the
16 Restructuring Bonds issued under the Restructuring Resolution (the “Bonds”) and other
17 Ongoing Financing Costs. My testimony supports and explains: (1) the determination of
18 Customer classes among which Ongoing Financing Costs are distributed and the
19 mechanics of how those allocations are made; (2) the calculation of Transition Charges

¹ Where I use capitalized terms that are defined in the Petition or the Attachments thereto, I intend the same meaning.

² “Financing Costs” are defined in PRA, Art. 31, para. 13. They include Upfront Financing Costs and Ongoing Financing Costs.

for Non-Residential Customers based upon historic energy usage (kWh) data; (3) the calculation of Transition Charges for Residential Customers on a per service agreement basis and the reasoning behind the Corporation's determination to calculate them in that manner; and (4) the calculation of estimated load including load served by net metering or distributed generation ("behind the meter") for the purposes of calculating Transition Charges, and the reasoning behind the Corporation's determination to propose that load be calculated in that manner ("Net Metering Determination"). I verify that the Calculation Methodology is practicable to administer and, based on its design and operation, and Customers' practical inability to bypass it without disconnecting from the system, ensures the full and timely payment of the Bonds.

Q. How is your testimony organized?

A. My testimony is organized in the following sections:

I. Introduction

II. Calculation Methodology

A. The Revenue Requirement and Its Distribution to Customer Classes

B. Calculation and Adjustment of Transition Charges

C. Treatment of Delinquencies

D. Net Metering and Behind the Meter Generation

E. Other Calculation Issues

F. Practicable to Administer and Ensures Full and Timely Payment

III. Independent Financial Consultant's Report

IV. Other Transition Charge Issues

V. Conclusion

43 Q. Are there any exhibits to your testimony?

44 A. Yes. My testimony includes the following exhibits:

- 45 • Exhibit 6.01: My resume;
- 46 • Exhibit 6.02: Puerto Rico Electric Power Authority's ("PREPA") current
- 47 tariff classes and a mapping to the "Residential" or "Non-Residential"
- 48 Customer classes; and
- 49 • Exhibit 6.03: Calculation of the Transition Charge. This Exhibit details the
- 50 calculations supporting the Transition Charge and periodic adjustments
- 51 thereto and includes the information that would be included in future
- 52 quarterly reconciliation filings to the Commission. It allows the
- 53 Commission to replicate the Transition Charge calculations in my testimony
- 54 and Exhibit thereto.

55 In addition, while I discuss several Attachments³, I specifically support the
56 following Attachments to the Petition:

- 57 • Attachment 3.02: Identifies and estimates Transition Charges by class and
- 58 compares estimates of the Transition Charges to estimates of total charges to
- 59 Customers over the life of the Transition Charge; and
- 60 • Attachment 6.00: Independent Financial Consultant's Report provided
- 61 pursuant to Article 6.25A(e)(3).

³ To avoid confusion in the designation of documents, attachments to the Petition are designated as "Attachments" and testimony, and documents attached thereto, are designated as "Exhibits."

C. Qualifications and Professional Background

Q. What are your duties and responsibilities at Navigant?

A. I lead Navigant's efforts in Retail Regulatory matters. Retail Regulatory matters include pricing, cost of service, determination of revenue requirements for state and local review of utility pricing, and cost of service reviews. The group I lead also advises clients on regulatory policy matters associated with state, territorial, provincial, and local regulatory oversight.

Q. Prior to your current position, what was your professional background?

A. For the past 20 years, I have worked in the Energy Practices of a number of consulting firms. From 1985 through 1995, I was employed by a number of regulated electric and combination electric and natural gas Investor-Owned Utilities ("IOU") in the United States which included Illinois Power Company, Eastern Utility Associates, Wisconsin Electric Power Company, and San Diego Gas and Electric Company.

Q. What is your educational background?

A. I graduated from Illinois State University, Normal, Illinois, with a Bachelor of Science degree in economics. I received my Master of Arts degree in economics from DePaul University, Chicago, Illinois.

Q. Have you prepared a resume presenting your background and experience in greater detail?

A. Yes. My resume is attached as Exhibit 6.01.

Q. Have you appeared as a witness in other regulatory or legal proceedings?

83 A. Yes, I appeared as an expert witness in a number of regulatory and legal proceedings
84 addressing electric generation, transmission and distribution issues, unregulated
85 operations of utility holding companies, asset valuation, and regulatory treatment of
86 Smart Grid investments. I provided testimony before the Federal Energy Regulatory
87 Commission (“FERC”), the Nova Scotia Utility and Review Board, the Massachusetts
88 Department of Public Utilities, the Rhode Island Public Utilities Commission, the Illinois
89 Commerce Commission, the Wisconsin Public Service Commission, the Ontario Energy
90 Board, the New York Public Service Commission, the New Mexico Public Regulation
91 Commission, the Kansas Corporation Commission and the Texas Public Service
92 Commission, as well as a number of other venues.

93 **II. CALCULATION METHODOLOGY**

94 **A. The Revenue Requirement and Its Distribution to Customer Classes**

95 **Q. What costs will be recovered in the Transition Charge mechanism?**

96 A. Ultimately, the Approved Restructuring Costs, including those paid from the proceeds of
97 the Bonds, are recovered over time through the Transition Charge. As provided in
98 Finding of Fact 4 of the Restructuring Resolution (Attachment 1.00):

99 The Approved Restructuring Costs to be paid through the issuance of the
100 Bonds and recovered through Transition Charges shall include the costs of
101 (a) retiring the PREPA Bonds in exchange for the Exchange Offer Bonds
102 or the 2016 PREPA Bonds in exchange for Post-Closing Date Bonds;
103 (b) legally or economically defeasing Insured PREPA Bonds and 2016
104 PREPA Bonds through the issuance of Mirror Bonds and the payment of
105 such Mirror Bonds; (c) restructuring, refunding, redeeming, defeasing
106 (legally or economically through the issuance of additional Mirror Bonds
107 or otherwise), or purchasing PREPA Bonds through the issuance of
108 Syncora Bonds; (d) the retirement of the obligations due and owing by
109 PREPA under the Credit Agreements through the issuance of the Lender
110 Bonds; (e) funding or replenishing any debt service reserve fund or

111 account or any other restricted accounts or subaccounts required to be
112 established by the Trust Agreement, and to the extent permitted in the
113 Trust Agreement, any Ancillary Agreement, including an additional
114 reserve fund, to its required level, as provided in the Trust Agreement and,
115 to the extent permitted in the Trust Agreement, any Ancillary Agreement
116 (as the case may be), to secure payment of all or a portion of the Bonds;
117 (f) funding any payment to the Internal Revenue Service (the "IRS") in
118 accordance with any PREPA agreement with the IRS under the voluntary
119 closing agreement or similar program; (g) funding a deposit to the self-
120 insurance fund (the "PREPA Self Insurance Fund"), established pursuant
121 to the trust agreement, dated as of January 1, 1974, as amended, by and
122 between PREPA and U.S. Bank National Association, as successor
123 trustee, in an amount not to exceed \$50 million; (h) paying Financing
124 Costs, including the Upfront Financing Costs, in connection with any
125 issuance of Bonds and approved for recovery in the Restructuring
126 Resolution; and (i) refunding, redeeming or purchasing Uninsured PREPA
127 Bonds.

128 Because some of those costs are paid or financed by the Bonds themselves, the
129 Calculation Methodology recovers those costs over time by establishing Transition
130 Charges that recover "the sum of (a) principal of (in accordance with the scheduled
131 maturity date or dates (including scheduled mandatory sinking fund redemption dates)
132 and interest on the Bonds when due and as accruing through and including the First Bond
133 Payment Date, (b) any amount necessary or expected to be necessary to fund or replenish
134 any debt service reserve fund or account, or any other restricted accounts or subaccounts
135 required to be established by the Trust Agreement or any Ancillary Agreement as an
136 additional reserve fund, to their required level, as and to the extent such funding or
137 replenishment is required by the Trust Agreement or any Ancillary Agreement (as the
138 case may be) on or prior to the First Bond Payment Date, and (c) all other Ongoing
139 Financing Costs required to be paid or deposited on or prior to the First Bond Payment
140 Date." *Id.*

141 Q. **Please describe how the Corporation determined the Customer classes among which**
142 **Ongoing Financing Costs are distributed.**

143 A. The Revitalization Act specifies that the Transition Charges are to be distributed to
144 Residential and Non-Residential Customer classes.⁴ Beyond those broad categories, the
145 determination of Customer classes among which Ongoing Financing Costs are distributed
146 and the distribution of Ongoing Financing Costs among Customer classes is addressed by
147 the Restructuring Resolution and the Calculation Methodology and Adjustment
148 Mechanism to Establish and Adjust the Transition Charge (the “Calculation
149 Methodology”) (Attachment 1.00, and Appendix 2 thereto). Exhibit 6.02 to my
150 testimony lists each of PREPA’s current tariff classes and maps them to the “Residential”
151 or “Non-Residential” Customer classes for the purposes of the Calculation Methodology.
152 If and when those PREPA rate classes evolve, the effective division will be preserved for
153 Transition Charge calculation purposes.

154 Q. **Please describe what Customer groups are captured in the “Residential” and “Non-**
155 **Residential” categories.**

⁴ “Customer” means “any Person that is connected to or takes or receives electric service within the Commonwealth by means of the electric generation, transmission or distribution facilities constituting part of Electric System Assets, whether or not those electric generation, transmission, or distribution facilities are owned by PREPA. PREPA shall not be a Customer. Each municipality in the Commonwealth shall be a Customer to the extent that the dollar value of its usage of electric service (including in determining such dollar value of Transition Charges which would otherwise be imposed on such municipality and PREPA charges) in any fiscal year exceeds the dollar value owed by PREPA to such municipality as a contribution in lieu of taxes for such fiscal year.” PRA, Article 31, para. 7. For the avoidance of doubt, previous Customers that completely disconnect from Electric System Asset and have no service agreement with PREPA, including for backup, standby, or other service, are no longer considered to be “Customers” for all purposes under the Act and the Restructuring Resolution unless and until said customers reconnect.

A. Residential Customers are those Customers that use electricity for domestic use. For purposes of calculating the Transition Charges, all other Customers, including Governmental Customers, are considered Non-Residential Customers. PREPA generally follows the FERC system of accounts which defines Residential and Non-Residential Customers in this manner.

Q. How does the Calculation Methodology distribute Ongoing Financing Costs between the Residential and Non-Residential Classes?

A. The Calculation Methodology established in Appendix 2 to the Restructuring Resolution (Attachment 1.00) distributes the Revenue Requirement to determine specific Residential and Non-Residential Revenue Requirements for the Residential Customer Class and Non-Residential Customer Class (including Government Customers). In particular, the division is made based upon the share of the total actual historical kWh billed to Residential and Non-Residential (including Government) Customers, respectively, in the previous 12-month period ending with the last day of the most recently completed calendar quarter for which data is available.

The historical energy (kWh) usage data for Residential Customers, Non-Residential Customers, and Governmental Customers⁵ that is used in the calculation of Transition Charges, by the Adjustment Mechanism, and in the distributions described in Article 6.25A(e)(1)(ii), (iii), (iv), and (vi) is provided in Attachment 5.00, along with prior historical data for reference and information purposes. This data includes, in most

⁵ For purposes of calculating the Transition Charges, Governmental Customers are a subset of Non-Residential Customers and are provided in Attachment 5.00 for informational purposes.

cases, usage that is directly measured (*e.g.*, with a meter), but also includes usage that is calculated (*e.g.*, for a light fixture), or estimated (*e.g.*, where a meter fails or cannot be read). This data is the basis of the distributions of the Revenue Requirements between Customer classes and of the kWh calculations underlying the estimated and exemplar Transition Charges discussed in the Corporation's filing. Of course, actual Transition Charges over time will be based on updated data.

Q. Why are the various existing PREPA rate classes consolidated into two Customer classes (Residential and Non-Residential) for purposes of distributing the Ongoing Financing Costs?

A. The Calculation Methodology will not change over the life of the Bonds and, thus, it would undoubtedly become obsolete if it tracked PREPA's current rate classes. Nor is there any need for a more granular allocation of the Transition Charges in the Calculation Methodology. Maintaining two broad Customer classes in the Calculation Methodology gives the Commission and PREPA more flexibility to adjust rate classes down the road. For example, if the Commission at some point in the future seeks to approve a different rate design that eliminates a particular Customer class, it would be difficult to implement the change if that class was hard-wired in the Calculation Methodology.

Cost allocations shift over time between classes depending on a multitude of factors including energy use, economic issues, technology, expansion/contraction of the grid and other factors that we have no way of knowing far in advance. The Commission has broad discretion over the allocation of PREPA costs in rate cases. Simply stated, the allocation of PREPA's costs will be addressed in the Embedded Cost of Service analysis

filed in the upcoming and future PREPA rate cases. Moreover, because the Commission retains jurisdiction over PREPA's rates, it can effectively allocate the total cost paid by Customers without altering, or being able to alter, in any way the Transition Charges or their distribution among Customer Classes.

Q. Please provide an example of how the Calculation Methodology distributes Revenue Requirement between the Residential and Non-Residential Customer classes.

A. The following is an illustrative projected example of the calculation used as part of the development of Attachment 6.03, the Transition Charge calculation:

Actual KWH (No CILT) Billed FY 2015			Customer Allocation
Residential	6,249,541,676		37.83%
Non-Residential	10,270,239,212		62.17%
Total	16,519,780,888		100%

In this example, for Residential Customers, the total actual historical kWh billed in FY 2015 or 16,519,780,888 kWh is divided into the actual historical kWh billed to Residential Customers, or 6,249,541,676, resulting in a 37.83% distribution of the Revenue Requirement to Residential Customers.

B. Calculation and Adjustment of Transition Charges

Q. Please describe the Calculation Methodology including the Adjustment Mechanism and the manner of calculation of Transition Charges.

A. For both Residential and Non-Residential Customers, the Calculation Methodology distributes Financing Costs and determines class-specific Revenue Requirements. Mathematically, the Calculation Methodology established in Appendix 2 of the Restructuring Resolution (Attachment 1.00) provides:

(a) Step 1: Calculate Customer Class Revenue Requirement Shares. As I discuss above, the Calculation Methodology distributes Financing Costs to determine a Residential Net Revenue Requirement and a Non-Residential Net Revenue Requirement based on the Residential Customer Allocation and the Non-Residential Customer Allocation, respectively. To do this, it specifies shares, which sum to 100%, of the total Revenue Requirement:

- (1) Divide the Aggregated Actual kWh Billed for the previous 12-month period ending with the end of the most recently completed calendar quarter for which data are available into the Actual kWh Billed to Residential Customers during that same 12-month period. The resultant percentage is the “Residential Customer Allocation.”
- (2) Divide the Aggregated Actual kWh Billed for the previous 12-month period ending with the end of the most recently completed calendar quarter for which data are available into the Actual kWh Billed for all Non-Residential Customers and Government Customers during the same 12-month period. The resultant percentage is the “Non-Residential and Government Customer Allocation.”

This process meets the requirements of Article 6.25A(d)(ii)(1). As provided by Article 6.25A(e)(1)(vi), for net metering Customers and Customers with “behind the meter” generation, the Corporation has determined that it should

include their gross usage for purposes of calculating Transition Charges. This subject is discussed below in Section II.D of my testimony. Exhibit 6.03 demonstrates these distribution calculations.

(b) **Step 2: Compare the Projected Transition Charge Revenues to the Required Revenues.** The Calculation Methodology provides for a direct mathematical comparison between the costs that must be recovered and the expected Transition Charge Revenues. The Adjustment Mechanism (Appendix 2 to Attachment 1.00) describes the steps as follows:

- (3) Project the Transition Charge Revenues expected to be held by the Trustee on the proposed True-Up Adjustment Date after payment of Ongoing Financing Costs due on or prior to such date (but excluding amounts held or to be held on such date by the Trustee in any debt service reserve fund or account, or in any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as an additional reserve fund), and add to that amount the Transition Charge Revenues expected to be received by the Trustee after the True-Up Adjustment Date and during the First Collection Period from bills rendered prior to the True-Up Adjustment Date based on the Transition Charges then or previously in effect.
- (4) Calculate the sum of (a) principal of (in accordance with the scheduled maturity date or dates (including scheduled mandatory sinking fund redemption dates)) and interest on the Bonds when due and as accruing through and including the First Bond Payment Date, (b) any amount necessary or expected to be necessary to fund or replenish any debt service reserve fund or account, or any other restricted accounts or sub accounts required to be established by the Trust Agreement or any Ancillary Agreement as a an additional reserve fund, to their required level, as and to the extent such funding or replenishment is required by the Trust Agreement or any Ancillary Agreement (as the case may be) on or prior to the First Bond Payment Date, and (c) all other Ongoing Financing Costs required to be paid or deposited on or prior to the First Bond Payment Date.
- (5) Subtract the amount in clause (3) from the amount in clause (4) to determine the "Net Revenue Requirement" for the First Collection Period.

272 This is a mathematically sound and accurate way of determining over time
273 the quantity of Transition Charge Revenues that are required to cover the
274 Financing Costs. It complies with the requirements of Article 6.25A(d)(1) by
275 providing for “the full and timely payment of the Restructuring Bonds in
276 accordance with their terms and other Ongoing Financing Costs... .” Exhibit 6.03
277 demonstrates how the calculations in Step 2 are calculated.

278 (c) **Step 3: Calculate the Gross Billing Requirements required to collect**
279 **necessary Transition Charge Revenues for each Customer class and period.**

280 In order to calculate a correct Transition Charge, the required revenues must be
281 adjusted or “grossed up” to take into account the fact that not all Customers pay
282 and all Customers who do pay over time, pay at varying rates. To accomplish
283 this, the Adjustment Mechanism calculates a Gross Billing Requirement for both
284 the Residential and Non-Residential Classes for each relevant period. Those
285 Gross Billing Requirements adjust (or gross up) the Net Revenue Requirement to
286 account for historical billing data, the Composite Collection Curve – which I will
287 discuss further below – and the write-off assumption, so that the Transition
288 Charge Revenues expected to be remitted to the Trustee meet the calculated
289 Revenue Requirements. The Adjustment Mechanism (Appendix 2 to Attachment
290 1.00) describes this step as follows:

- 291 (6) Adjust (or gross up) the Net Revenue Requirement [to give effect to the
292 number of billing cycles, the Composite Collection Curve and the write-
293 off assumption,] to ensure that the Transition Charge Revenues expected
294 to be remitted to the Trustee during the First Collection Period will satisfy
295 the Net Revenue Requirement for the First Collection Period on a timely
296 basis and will result in the Excess Funds Account held under the Trust

297 Agreement to be zero by the First Bond Payment Date. The result will be
298 the “Gross Billing Requirement” for the First Collection Period.

299 Functionally, as I explain below, this results in the proper allocation of
300 delinquencies – Transition Charges that are not collected from Customers – as I
301 discuss in Section II.C, below, and it takes into account lag in the payment of
302 Transition Charges. Exhibit 6.03 demonstrates how the Step 3 calculations will
303 be performed.

304 **(d) Step 4: Calculate Transition Charge.** For Non-Residential Customers (which
305 includes all Customers of PREPA other than Residential Customers), the
306 Transition Charge is based on kWh consumption of each Customer by applying a
307 rate derived from the Non-Residential Net Revenue Requirement and the total
308 historical kWh usage of Non-Residential Customers, as specified above. For
309 Residential Customers, the Transition Charge is a flat charge based on the
310 Residential Net Revenue Requirement and the Residential Service Agreement
311 Count, defined as the average number of Residential Service Agreements used for
312 billing purposes during the previous 12-month period ending with the end of the
313 most recently completed calendar quarter for which data is available as of the date
314 of any calculation. The Adjustment Mechanism (Appendix 2 to Attachment 1.00)
315 describes these steps as follows:

316 (7) Multiply the Gross Billing Requirement for the First Collection Period by
317 the Residential Customer Allocation. The result will be the “Residential
318 Gross Billing Requirement” for the First Collection Period.

319 (8) Multiply the Gross Billing Requirement for the First Collection Period by
320 the Non-Residential and Government Customer Allocation. The result

will be the “Non-Residential and Government Gross Billing Requirement”
for the First Collection Period.

(9) Divide the Residential Gross Billing Requirement for the First Collection
Period by the Residential Service Agreement Aggregate Count for First
Collection Period to produce a \$/per service agreement Transition Charge.
The result will be the first possible Transition Charge for each Residential
Customer to be effective on the True-Up Adjustment Date.

(10) Divide the Non-Residential and Government Gross Billing Requirement
for the First Collection Period by the Actual kWh Billed for Non-
Residential Customers and Government Customers during the comparable
period to the First Collection Period in the prior 12-month period for
which data are available (i.e., the calendar dates one year prior to the
calendar dates in the First Collection Period, to produce an estimated
volumetric (per kWh) Transition Charge. Subject to clause (12), the result
will be the first possible Transition Charge (per kWh) for all Non-
Residential and Government Customers to be effective on the True-Up
Adjustment Date.

(11) Repeat the calculations described in clauses (3) through (10), inclusive, to
determine the Transition Charges necessary to satisfy the revenue
requirement for each consecutive Collection Period which ends during the
Annual Calculation Period, replacing “First Bond Payment Date” with
“Second Bond Payment Date” and “First Collection Period” with “Second
Collection Period,” etc. through the Third and Fourth Collection Periods
(if any) respectively.

(12) Compare the revenues produced by each set of Transition Charges
resulting from the calculations above (i.e., one set for each Collection
Period). The set of Transition Charges which is expected to produce the
greatest revenue by the end of the First Collection Period will be the set of
Transition Charges to be effective on the True-Up Adjustment Date.

These steps assure that the Transition Charges that go into effect assure a
level of charges sufficient to pay the Bonds and related costs on each payment
date. Exhibit 6.03 demonstrates how the calculations in Step 4 would be
performed.

(e) **Step 5: True-Up and prospectively adjust the Transition Charge quarterly or more frequently, if required.** Transition Charges are initially established and are thereafter trued-up and prospectively adjusted, at least quarterly, through the formulaic Adjustment Mechanism. This mechanism accounts, over time, both for changes in the Revenue Requirement and for variations and changes in other parameters influencing the calculation of the Transition Charges and their collection. The Restructuring Resolution and the Calculation Methodology provide that PREPA, as the Servicer will recalculate the Transition Charge, subject to review by the Calculation Agent. For the purpose of assuring the mathematical accuracy of the calculations, true-ups will be conducted: (a) quarterly, beginning no more than three months from issuance of the Bonds and continuing until the Bonds and all other Ongoing Financing Costs are paid in full, and (b) at any other time if the Corporation, the Commission, the Calculation Agent, or any party to an Ancillary Agreement or the requisite bondholders determine that such adjustment is required to assure the timely payment of the Bonds and other Ongoing Financing Costs. The Adjustment Mechanism (Appendix 2 to Attachment 1.00) states:

The Corporation will adjust the Transition Charges for each Class as requested in each True-Up Letter, and such Transition Charges will be effective on the date specified in the True-Up Letter, so long as such effective date is at least 30 days after the filing with the Commission of such True-Up Letter, subject only to the correction of any mathematical errors by the Commission as set forth in the next sentence. Any adjustment to correct the mathematical inaccuracy, if ordered by the Commission, shall be made by the Servicer no later than the next succeeding True-Up Adjustment on which such adjustment can practically be made without delaying the effective date set forth in the True-Up Letter.

Those periodic adjustments will (i) correct for any over-collections or under-collections of Transition Charges by adjusting the revenues required going forward, and (ii) to ensure that expected Transition Charge remittances to the Trustee, after taking into account assumed charge-offs and payment delays, are adequate (a) to pay timely principal of (in accordance with the expected amortization schedule) and interest on the Bonds in the next 12-month period, (b) to replenish the debt service reserve fund or account (or in any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as a rate stabilization or additional reserve fund) to its required level no later than the date specified in the Trust Agreement and other operative documents, and (c) to make timely payment of all other Ongoing Financing Costs.

Q. Why, as reflected in Step 4, has the Corporation determined that Transition Charges applicable to Residential Customers should be a flat charge calculated on a per service agreement basis?

A. The per service agreement determination is administratively simple and will be able to be administered in a consistent manner over the life of the Transition Charges. Moreover, the per service agreement determination is reasonable because low income users tend to have a higher kWh usage due to PREPA's legacy flat charge rate design and generally inefficient electric use among these Customers. A Transition Charge based on kWh usage would place a significantly higher burden on these Customers than the per service agreement basis.

404 Q. **How are Transition Charges calculated at each Adjustment date for a Collection**
405 **Period?**

406 A. The Transition Charge is calculated to meet all payments due during the Collection
407 Period in the 12-months following the rate effective date. The rate must be calculated to
408 collect sufficient funds to meet scheduled payments of Ongoing Financing Costs
409 (including debt service on the Bonds) as they become due.

410 Q. **Please describe the process where PREPA as the Servicer will monitor the level of**
411 **collections and determine if an adjustment is required to assure the timely payment**
412 **of the principal and interest on the Bonds.**

413 A. After month-end data is available, PREPA as the Servicer will prepare monthly reports
414 which will compare the actual collection of revenues for the Transition Charge to that
415 which was estimated for that month. The Calculation Methodology describes the steps as
416 follows:

417 To initiate any True-Up Adjustment, the Servicer will make a preliminary
418 calculation of the True-Up Adjustment and will prepare and submit to the
419 Calculation Agent a draft request for adjustment (a "True-Up Letter").
420 The Calculation Agent will review the draft True-Up Letter, including the
421 mathematical calculations related to the proposed True-Up Adjustment,
422 and forward any corrections or modifications to the Servicer. The
423 Servicer will then file the True-Up Letter, reflecting any such corrections
424 or modifications, with the Corporation, the Commission and the Trustee,
425 not later than 30 days prior to the proposed effective date of the
426 adjustment set forth in the True-Up Letter (such effective date being
427 referred to as the "True-Up Adjustment Date").

428 Each True-Up Adjustment will be designed (i) to correct for any over-
429 collections or under-collections of Transition Charges through the
430 proposed True-Up Adjustment Date and (ii) to ensure that expected
431 Transition Charge Revenues remitted or to be remitted to the Trustee, after
432 taking into account assumed charge-offs and payment delays, are adequate
433 (A) to pay timely principal of (in accordance with the scheduled maturity

date or dates (including scheduled mandatory sinking fund redemption dates)) and interest on the Bonds on each of the Payment Dates that occurs during the related Annual Calculation Period (defined below), (B) to fund or replenish any debt service reserve fund or account or any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as an additional reserve fund) to its required level, as provided in the Trust Agreement or the Ancillary Agreement (as the case may be), and (C) to make timely payment of all other Ongoing Financing Costs during the related Annual Calculation Period.

Q. Explain how the filing provides information sufficient to allow the Commission to replicate the Transition Charges for Non-Residential and Residential Customers.

A. For any level of Revenue Requirement, the data provided with the filing would allow the Commission to replicate the calculation of the Transition Charges that I have performed. Attachment 3.02 estimates the Transition Charges by class and compares the estimates to the total charges to Customers over the life of the Transition Charges. Exhibit 6.03 details all of the calculations supporting the Transition Charge calculation and contains the information that would be provided in future quarterly reconciliation filings to the Commission. The calculations in this Exhibit are straightforward and allow the Commission to replicate each step of the process to understand precisely how the Transition Charge was calculated.

Q. Does the distribution of responsibility for Transition Charges among Customer classes and Customers limit the discretion of the Commission in addressing the allocation of responsibility for the PREPA revenue requirement in any PREPA rate case?

459 A. No. In PREPA's general rate proceedings, the cost of service analysis will reflect all of
460 the components of PREPA's revenue requirement, as well as debt service on the
461 Restructuring Bonds and related costs. This approach would be utilized whether or not a
462 debt restructuring occurs. Thus, for rate design purposes, PREPA will include the debt
463 service of the Restructuring Bonds in the cost of service analysis while including the
464 revenues from the Transition Charge as a revenue credit. In future PREPA rate cases, the
465 Commission will approve a design for PREPA rates that allocates all total costs billed to
466 Customers (including debt service and other costs associated with the Bonds). While the
467 decisions in those cases cannot affect the Transition Charges themselves, they can adjust
468 how PREPA costs are allocated among Customers, preserving the full discretion of the
469 Commission over how the Transition Charges impact Customers.

470 Q. **Please describe how costs are allocated to rate classes in the PREPA rate case.**

471 A. The Embedded Cost of Service Study ("ECOSS") will be performed without regard to
472 the existence of the Transition Charges, and will allocate total costs using a methodology
473 generally accepted in the industry. After the overall responsibility for revenue
474 requirements has been determined for each rate class under an ECOSS methodology, the
475 revenues from the Transition Charge will be deducted and the remaining PREPA revenue
476 requirement will be recovered from base rates and other rate design components. (In the
477 event that the Commission elects to rely on a Marginal Cost of Service Study, the same
478 principles will apply and the overall allocation of charges will simply be driven by
479 marginal as opposed to embedded costs.) Transition Charges will be calculated and
480 collected as established by the Restructuring Resolution and the Revitalization Act and

remain unaffected by PREPA rate cases, while the Commission retains jurisdiction over the overall costs assessed to, and price signals sent to, particular rate classes.

Q. Please explain what would occur in a rate case if the Transition Charges imposed on a particular Customer class collect more than the share of debt service costs attributed to that class in a cost study.

A. If the Transition Charges impute more than a particular class' debt service share (as determined by the cost of service study), the overall cost allocation (including debt service and other costs), with all else being equal, will be adjusted downward so that the allocation of total costs and determination of rates for that class is equitable.⁶ Again, that does not change the Transition Charges themselves, but it preserves the Commission's authority of the design of the rates that govern the total liability of Customers for electric service, including the PREPA rates.

C. Treatment of Delinquencies

Q. Will Customer delinquencies in any period be added to the revenue requirement of the next period and allocated among all Customer classes consistent with the methodology described above?

A. Yes. The Restructuring Resolution includes a provision that delinquencies of any class of Customers will be distributed among all Customer classes as previously described and included in the Adjustment Mechanism (Appendix 2 to Attachment 1.00). Consistent

⁶ By way of illustration only, and using entirely hypothetical numbers for ease of explanation, if the Commission desired to reduce the economic effect of a fixed \$2.00 Transition Charge on a group of Customers, it could reduce the allocation of PREPA charges to that group of Customers by \$1.00. While the Transition Charge would remain payable by those Customers without change, the effective change in those Customer's total bill due to the imposition of the Charge would have been modulated.

with Article 6.25A(d)(3) of the Revitalization Act, the calculation of the Gross Billing Requirement in the Adjustment Mechanism allocates delinquencies among all Customer classes consistently with how other Financing Costs are allocated.

Q. What is a Composite Collection curve and how is it used in the Calculation Methodology?

A. A Composite Collection Curve is used to determine the appropriate gross-up factor for the collections lag. Using historical data, the Composite Collection Curve calculates the estimated time it takes all Customers to pay their bills. This estimated time is then used to determine the amount of collections relative to when debt service payments are due. Following is a description of the Composite Collection Curve in the Adjustment Mechanism (Appendix 2 to Attachment 1.00):

In estimating the expected receipts of Transition Charges for any period the Servicer will apply a “collection curve” reflecting the most recent 12-month history of collections for which data are available. In connection with each True-Up Adjustment filing, the Servicer will develop one collection curve reflecting payment history for all Customers (the “Composite Collection Curve”). A collection curve is data reflecting the timing of payments of outstanding bills during a 12-month period, adjusted to assume that any Transition Charges which are not collected within 120 days of billing are written off. Each month’s billings are divided into aging buckets based on the number of days for which such billings have been outstanding (e.g., 0 to 29 days, 30 to 59 days, 60 to 89 days, and 90 to 119 days outstanding). The aging buckets are then used to estimate the dollar amount of each month’s billings collected within 30, 60, 90 and 120 days, as well as the dollar amount not collected within 120 days (amount written off) for the 12-month period. For such 12-month period, the collection curve is calculated by dividing each of the total dollar amount of billings collected within 30, 60, 90, and 120 days by the total dollar amount of billings collected within 120 days. The Composite Collection Curve will also be used to calculate the Days Sales Outstanding referred to in Annex 3 to the Servicing Agreement

531 Q. **Is the use of a Composite Collection Curve in the Calculation Methodology an**
532 **appropriate tool to forecast receipts of Transition Charge revenues?**

533 A. Yes. The Composite Collection Curve utilizes past collection experience to forecast the
534 amount of revenue that is expected to be received from the Transition Charges. A
535 Composite Collection Curve represents the amount and timing by which outstanding bills
536 have been paid during a collection period⁷ adjusted to assume that any Transition
537 Charges which are not collected within 120 days of billing are written off. A description
538 of the Composite Collection Curve in the Adjustment Mechanism (Appendix 2 to
539 Attachment 1.00) is provided in the answer to the immediately preceding question.

540 Q. **How frequently will the Composite Collection Curve be updated?**

541 A. The Composite Collection Curve will be updated with each reconciliation adjustment is
542 filed with the Commission.

543 **D. Net Metering and Behind the Meter Generation**

544 Q. **Does the Calculation Methodology include the estimated load served by net**
545 **metering or distributed generation (“behind the meter”)?**

546 A. The Corporation has made a determination, as I recommend, that Transition Charges will
547 be calculated based on total gross load of Customers, including total behind the meter
548 consumption, as it becomes practicable to measure or estimate that load reliably. The Net
549 Metering Determination is reflected in the Calculation Methodology (Appendix 2 to
550 Attachment 1.00) which defines “Actual kWh Billed,” for this purpose, “without regard

⁷ “Collection Period” means, for the purposes of any True-Up Adjustment, the period which commences on a True-Up Adjustment Date and which ends five (5) Business Days prior to a designated Bond Payment Date. Adjustment Mechanism (Appendix 2 to Attachment 1.00).

to any offset for net-metering and adjusted for estimated distributed generation usage.”

Initially, the Corporation proposes that Customers be charged the total kWh measured by the billing meter, with no offset for exported – or “net metered” – kWh. As it becomes practicable over time, and as meter data measuring the output of the distributed generation itself becomes available, the load of such Customers for these purposes will include the gross output of the distributed generation plus the net deliveries from PREPA.

Q. Will the Net Metering Determination materially affect all classes of Customers?

A. No. Due to the Corporation’s per service agreement determination, the Net Metering Determination will mainly prevent Non-Residential net metering Customers from bypassing the Transition Charges. Residential Customers will not be affected in any material respect because each service agreement – whether net metering or not – will be subject to a flat Transition Charge. Thus, the amount of load behind the meter will not affect the Transition Charge to an individual Residential net metering Customer.

Q. Please explain the reasons for the Corporation’s Net Metering Determination to include estimated load served by net metering or estimated distributed generation (“behind the meter”) in determining Customer energy usage.

A. Absent the Net Metering Determination, these Customers could reduce their responsibility to pay Transition Charges, and the responsibility for those avoided charges would be transferred to other Customers. This is not equitable given that the Financing Costs recovered through the Transition Charges result from historical PREPA operating and fuel costs and investment expenditures. Those costs and expenditures are reflected in

the PREPA legacy debt burden that the restructuring should mitigate. Current Customers should not be permitted to bypass paying their share of costs related to those historical obligations – and shift their share to other Customers – by deciding to install behind the meter generation. This cost shift would also disproportionately impact those Customers that could not afford to purchase such equipment to bypass the charges.

Allowing Customers to avoid their share of those costs would also create an artificial incentive to install and use such generation behind the meter and send an improper price signal encouraging the bypass of system electric supply even when not economic. Indeed, the increase in other Customers' Transition Charges would itself also create an even greater uneconomic incentive to bypass the PREPA system. This would increase further the inequitable shift in the responsibility for Transition Charges.

Q. In light of the Corporation's Net Metering Determination, will the rates charged to net metering Customers satisfy the criteria set out in Article 4 of Law No. 114-2007, as amended by Article 29 of the Revitalization Act ("Article 4 requirements") that charges to net metering Customers "be just?"

A. Yes. The application of Transition Charges to net metering Customers' entire load is just because, as I mention above, these charges cover historical operating and fuel costs and investment expenditures. They were incurred to benefit all Customers and, therefore, should be distributed to all Customers. It would be not be just to allow net metering Customers to bypass the Transition Charges because doing so would place a greater burden on other Customers, including those who cannot afford to install distributed generation.

595 Q. In light of the Corporation's Net Metering Determination, will the rates charged to
596 net metering Customers satisfy the Article 4 requirements that charges to net
597 metering Customers "will cover operational and administrative costs of network
598 services that the consumer received with the Net Metering Agreement?"

599 A. Yes. The imposition of a Transition Charge will not affect how the overall rates charged
600 to net metering Customers cover operational and administrative costs of network services
601 that the consumer receives through the Net Metering Agreement. The overall rates
602 charged to these Customers cover the operational and administrative costs related to
603 serving them.

604 Q. In light of the Corporation's Net Metering Determination, will the rates charged to
605 net metering Customers satisfy the Article 4 requirements requiring that charges
606 "never will be excessive or established in such a way that it becomes an obstacle to
607 the deployment of renewable energy projects?"

608 A. Yes. In making the determination to include estimated load served by net metering in
609 determining Customer energy usage, the Corporation and PREPA considered this Article
610 of the Revitalization Act and believe that the Transition Charges will not affect the
611 justness of charges to net metering Customers or the coverage of operational and
612 administrative costs of network services provided to these Customers under their Net
613 Metering Agreement with PREPA. In addition, the Transition Charges are not being
614 established in a way that makes them an obstacle to the deployment of renewable energy
615 projects.

I have reviewed the Transition Charges and how they are applied to net metering Customers. Here, the Transition Charge is just and will be paid by all Customers and will not be a greater burden on net metering Customers versus other PREPA Customers. Furthermore, it is very important that the Transition Charges remain neutral with no incentive – or disincentive – to implement behind the meter distributed generation. Either would create uneconomic incentives/disincentives to implement such technology. Thus, the inclusion of estimated load served by net metering in determining Customer energy usage should not play a role in a Customer’s decision whether to implement behind the meter distributed generation.

Q. Will the inclusion of estimated load served by net metering or estimated distributed generation (“behind the meter”) in determining Customer energy usage limit the Commission’s authority over the overall charges paid by such Customers?

A. No. The Commission retains authority over the design of PREPA’s rates, including the charges applicable to net metering Customers. As I testified earlier, the Corporation’s calculation of the Transition Charge, including how load is measured, will not affect that authority or limit the design of the PREPA rate charged to such Customers.

Q. Will the methodology for the inclusion of the estimated load served by net metering or distributed generation (“behind the meter”) in the calculation of Transition Charges, in accordance with the Net Metering Determination, ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs?

637 A. Yes. Not allowing Customers who use behind the meter generating equipment to avoid
638 paying a Transition Charge reflecting their actual and, typically, historical load will
639 enhance the assurance that the Corporation will make full and timely payment of the
640 Bonds.

641 Q. **Can you confirm that the methodology for including the estimated load served by**
642 **net metering or distributed generation (“behind the meter”) in the calculation of**
643 **Transition Charges, in accordance with the Net Metering Determination, is**
644 **practical to administer?**

645 A. Yes. The inclusion of the estimated load served by net metering Customers in the
646 calculation of Transition Charges is practical to administer. I am familiar with PREPA’s
647 billing systems and customer information systems and do not see any issue with
648 administering this methodology.

649 Q. **How will PREPA practically extract and provide the gross usage of net metering**
650 **Customers as required in administering the calculation of the Transition Charges**
651 **on a quarterly basis?**

652 A. Currently, PREPA has advanced electronic meters for all net metering Customers,
653 measuring both total kWh used by the Customer from PREPA and total kWh exported to
654 PREPA. Both of these separate values are transmitted by the remote metering systems
655 and stored in the Billing System, where they are later netted out in the current rate
656 structure. This enables PREPA to use the total kWh delivered from the PREPA system to
657 calculate Transition Charges without an exported kWh offset, regardless of how other
658 rates are calculated. As it becomes practicable, a second meter will be installed or

enabled in the largest net metering Customers to measure the true gross generation, and determine the total behind the meter kWh.

E. Other Calculation Issues

Q. What are contributions in lieu of taxes (“CILT”) of municipalities?

A. As a public corporation, PREPA is not required to pay property and other taxes, including to municipalities. CILT is a payment which PREPA provides to municipalities in lieu of taxes which they would be required to pay if they were a privately owned enterprise.

Q. Does the Calculation Methodology include the entire estimated load of municipalities including the portion covered by CILT?

A. No. The definition of “Customer” under the Article 31 of the Revitalization Act provides that “(e)ach municipality in the Commonwealth shall be a Customer to the extent that the dollar value of its usage of electric service (including in determining such dollar value of Transition Charges which would otherwise be imposed on such municipality and PREPA charges) in any fiscal year exceeds the dollar value owed by PREPA to such municipality as a contribution in lieu of taxes for such fiscal year.” PRA, Article 31, para. 7. Thus, only the usage of municipalities that exceeds CILT is included in the Calculation Methodology.

Q. Will the Calculation Methodology permit the Commission to discharge its obligation to require PREPA (or other Servicer) to demonstrate that PREPA (or such other Servicer) has been prudent in addressing late payments, past-due bills, and non-payments?

680 A. Yes. The Calculation Methodology includes an adjustment for late payments, past-due
681 bills, and non-payments. Nothing in the Calculation Methodology prevents or interferes
682 with the Commission's ability to require PREPA (or any subsequent Servicer) to
683 demonstrate that it has been prudent in addressing late payments, past-due bills, and non-
684 payments. Any finding of imprudence, however, will not – as provided by Article
685 6.25A(d)(3) – affect the allocation of delinquencies.

686 Q. **How are the above concerns addressed?**

687 A. Detailed collection data will be included in each quarterly filing which will provide the
688 Commission with the necessary information to discharge its obligation to require PREPA
689 (or other Servicer) to demonstrate that PREPA (or such other Servicer) has been prudent
690 in addressing late payments, past-due bills, and non-payments.

691 **F. Practicable to Administer and Ensures Full and Timely Payment**

692 Q. **Is the Calculation Methodology “designed to provide for the full and timely**
693 **payment of the Restructuring Bonds in accordance with their terms and other**
694 **Ongoing Financing Costs?”**

695 A. Yes. As is demonstrated in my testimony, the mechanism which has been designed will
696 ensure that the Restructuring Bonds will receive full and timely payment.

697 Q. **Is the share of Financing Costs to be recovered from each Customer class calculated**
698 **“in such manner which is practicable to administer?”**

699 A. Yes. The calculation supporting the distribution of Financing Costs to each Customer
700 class (*i.e.* Residential and Non-Residential) is based upon kWh sales adjusted for

collections. The data required to perform these calculations is produced in the normal course of business at PREPA and is readily available.

Q. Is the share of Financing Costs to be recovered from each Customer class calculated in a manner “which ensures the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs?”

A. Yes. The Calculation Methodology provides reasonable assurance that timely payment of the Bonds will occur. The following provisions are included in the calculation which ensures compliance with the Act: (1) calculations are based upon forward looking information; (2) trends in the number of service agreements and kWh sales are captured in the calculation; and (3) periodic reconciliations are performed in order to reduce significant variations from projected costs.

Q. Please explain the basis for the Corporation’s determination that the Transition Charges and Adjustment Mechanism are designed and calculated to ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs.

A. The Restructuring Resolution, and Appendices thereto, set forth the Calculation Methodology and contain a form of Servicing Agreement under which PREPA, as the initial Servicer, will remit Transition Charge Revenues which are each designed to ensure adequate funds are available to pay debt service on the Bonds when due as well as other Ongoing Financing Costs. As I describe in more detail in the Independent Financial Consultant’s Report, attached to the Petition as Attachment 6.00, we have compared the projections of the Ongoing Financing Costs to the revenues expected from the Transition

Charges and conclude that the Calculation Methodology, including this periodic application of the Adjustment Mechanism, will ensure that the Transition Charge Revenues are sufficient to provide for the timely payment of Ongoing Financing Costs.

Q. **Are the provisions of the Restructuring Resolution, including the Calculation Methodology for the Transition Charges and the Adjustment Mechanism related to such Restructuring Bonds, consistent with the criteria set forth in Article 6.25A(d)?**

A. Yes. The provisions of the Restructuring Resolution, including the Calculation Methodology for the Transition Charges and the Adjustment Mechanism related to such Restructuring Bonds, are consistent with the requirements of Article 6.25A(d) and are sufficient for and provide for adequate protection for the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs.

III. INDEPENDENT FINANCIAL CONSULTANT'S REPORT

Q. **Are you an independent financial consultant with recognized expertise in financing public electric utilities?**

A. Yes. My personal qualifications are stated above. Navigant has provided similar services to other clients.

Q. **Does the Petition include or attach a report as described in Article 6.25A(e)(2)?**

A. Yes, I sponsor the Independent Financial Consultant's Report attached to the Petition as Attachment 6.00. The Independent Financial Consultant's Report, among other things, sets forth historical energy (kWh) usage by Customer class, includes a projection of Ongoing Financing Costs and Transition Charges during the term of the Restructuring Bonds and any other material assumptions used in the Report, and concludes that such

Transition Charges have been calculated as provided in Section 6.25A(e)(1) and, in accordance with the assumptions included in such Report, will ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and all other Ongoing Financing Costs during the term of the Restructuring Bonds. In reaching that conclusion, I assume that the Calculation Methodology is properly administered and that accurate information is used.

Q. What additional information is included in the Report?

A. The Report includes: (a) historical energy (kWh) usage, a projection of Ongoing Financing Costs and Transition Charges during the term of the Restructuring Bonds and any other material assumptions used in the report; (b) my conclusion that the Transition Charges have been calculated as provided in clauses (ii), (iii), (iv) and (vi) of Article 6.25A(e)(1), as applicable; and (c) my conclusion that in accordance with the assumptions included therein, that the Transition Charges will ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and all other Ongoing Financing Costs during the term of the Restructuring Bonds.

IV. OTHER TRANSITION CHARGE ISSUES

Q. Can you estimate the initial Transition Charges by Customer class including the percentage of the charge to total charges?

A. Yes. That information is shown in the table below:

Line No.	Item	Amount
1	Residential Customers	
2	Average Monthly Revenue per Customer - FY 2014	\$99.34
3	Proposed Transition Charge - \$/Service Agreement	\$11.98
4	Transition Charge as a Percentage of 2014 Monthly Revenues	12.1%
5		
6	Non-Residential Customers	
7	Average Revenue per KWH - FY 2014	\$0.26418
8	Proposed Transition Charge - \$/KWH	\$0.03055
9	Transition Charge as a Percentage of 2014 Average Revenue per KWH	11.6%

764

765 Q. **Have you also estimated Transition Charges and how they compare to total charges**
766 **to Customers for electric service over the life of the Transition Charges?**

767 A. Yes. Attachment 3.02 sets forth estimates of Transition Charges by class and provides a
768 comparison of Transition Charges to total charges to Customers, each over the life of the
769 Transition Charges. The estimate is based upon the number of services agreements and
770 kWh usage in the current transition charge calculation and the estimated level of debt
771 service and other costs which will be captured in each time period.

772 Q. **How was the comparison of projected Transition Charges to total charges made?**

773 A. Two estimates were used to provide these estimates, one for Residential Customers and
774 one for Non-Residential Customers.

775 Q. **Please describe the approach used to estimate the projected Transition Charge to**
776 **the bills of Residential Customers.**

777 A. The average Residential Customer's bill for the time period fiscal year 2015 was used the
778 denominator of the equation. The numerator of the equation is the transition charge, as
779 stated in dollars per service agreement, as estimated above.

780 Q. **Please describe the approach used to estimate the projected Transition Charge to**
781 **the bills of Non-Residential Customers.**

782 A. Non-Residential Customers are not as homogenous as Residential Customers. Further,
783 the Transition Charge for these Customers is calculated on a per kWh basis. Therefore,
784 the Transition Charge stated in dollars per kWh was compared to the average revenue per
785 kWh for PREPA's non-residential tariff classes for the fiscal year.

786 Q. **Your calculations estimating the impacts of the Transition Charge on Customers**
787 **assumes that PREPA's rate is constant over the long-run. Is that assumption**
788 **realistic?**

789 A. PREPA's rate can be expected to change over time and will be impacted by a multitude
790 of factors such as the cost of capital, fuel costs, and other factors. Adoption of the
791 assumption that the average or average rate remains constant over time is a conservative
792 assumption and will in all likelihood overstate the impact of the Transition Charge.

793 Q. **Will the Transition Charges be collected through a separate rate rider?**

794 A. Yes. The transition charge will be collected through a new Rider XX.

795 V. **CONCLUSION**

796 Q. **Does this complete your testimony?**

797 A. Yes.

ATTESTATION

The undersigned, RALPH ZARUMBA, being of legal age, married, executive and consultant, and resident of City of Evanston, County of Cook, State of Illinois, in his capacities as Director of Navigant Consulting, Inc., states that the foregoing testimony, presented in written Question and Answer format, is true and correct to the best of his knowledge and belief.

IN WITNESS WHEREOF, I have hereunto signed my name this ____ day of May 2016.

RALPH ZARUMBA

Director
Navigant Consulting, Inc.

Affidavit No. ____

Acknowledged and subscribed before me by Ralph Zarumba, of the personal circumstances above mentioned, in his capacities as Director of Navigant Consulting, Inc., who is personally known to me, in San Juan, Puerto Rico, this ____ day of May 2016.

Notary Public

**COMMONWEALTH OF PUERTO RICO
PUERTO RICO ENERGY COMMISSION**

IN RE:

PUERTO RICO ELECTRIC POWER
AUTHORITY REVITALIZATION
CORPORATION,

Petitioner.

NO.

**SUBJECT: TESTIMONY
SUPPORTING PETITION FOR
RESTRUCTURING ORDER**

Revised Testimony of

RALPH ZARUMBA

Director, Navigant Consulting, Inc.

On behalf of the

Puerto Rico Electric Power Authority Revitalization Corporation

~~April 7~~ May 20, 2016

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1 **I. INTRODUCTION**

2 **A. Witness Identification**

3 **Q. Please state your name, title, employer, and business address.**

4 A. My name is Ralph Zarumba. I am a Director in the Energy Practice at Navigant
5 Consulting, Inc. (“Navigant”). My business address is 30 S. Wacker Drive, Suite 3100,
6 Chicago, Illinois 60606.

7 **Q. On whose behalf are you testifying?**

8 A. I am testifying as a witness on behalf of the Puerto Rico Electric Power Authority
9 Revitalization Corporation (the “Corporation”).

10 **B. Summary of Direct Testimony and Attachments**

11 **Q. What does your testimony focus upon?**

12 A. The primary purpose of my testimony is to explain and support how the Calculation
13 Methodology for the Transition Charges¹ and Adjustment Mechanism (collectively, the
14 “Calculation Methodology”) operate to distribute Financing Costs² and derive and adjust
15 specific Transition Charges in a manner that ensures the full and timely payment of the
16 Restructuring Bonds issued under the Restructuring Resolution (the “Bonds”) and other
17 Ongoing Financing Costs. My testimony supports and explains: (1) the determination of
18 Customer classes among which Ongoing Financing Costs are distributed and the
19 mechanics of how those allocations are made; (2) the calculation of Transition Charges

¹ Where I use capitalized terms that are defined in the Petition or the Attachments thereto, I intend the same meaning.

² “Financing Costs” are defined in PRA, Art. 31, para. 13. They include Upfront Financing Costs and Ongoing Financing Costs.

for Non-Residential Customers based upon historic energy usage (kWh) data; (3) the calculation of Transition Charges for Residential Customers on a per service agreement basis and the reasoning behind the Corporation's determination to calculate them in that manner; and (4) the calculation of estimated load including load served by net metering or distributed generation ("behind the meter") for the purposes of calculating Transition Charges, and the reasoning behind the Corporation's determination to propose that load be calculated in that manner ("Net Metering Determination"). I verify that the Calculation Methodology is practicable to administer and, based on its design and operation, and Customers' practical inability to bypass it without disconnecting from the system, ensures the full and timely payment of the Bonds.

Q. How is your testimony organized?

A. My testimony is organized in the following sections:

I. Introduction

II. Calculation Methodology

A. The Revenue Requirement and Its Distribution to Customer Classes

B. Calculation and Adjustment of Transition Charges

C. Treatment of Delinquencies

D. Net Metering and Behind the Meter Generation

E. Other Calculation Issues

F. Practicable to Administer and Ensures Full and Timely Payment

III. Independent Financial Consultant's Report

IV. Other Transition Charge Issues

V. Conclusion

43 Q. **Are there any exhibits to your testimony?**

44 A. Yes. My testimony includes the following exhibits:

- 45 • Exhibit 6.01: My resume;
- 46 • Exhibit 6.02: Puerto Rico Electric Power Authority's ("PREPA") current
47 tariff classes and a mapping to the "Residential" or "Non-Residential"
48 Customer classes; and
- 49 • Exhibit 6.03: Calculation of the Transition Charge. This Exhibit details the
50 calculations supporting the Transition Charge and periodic adjustments
51 thereto and includes the information that would be included in future
52 quarterly reconciliation filings to the Commission. It allows the
53 Commission to replicate the Transition Charge calculations in my testimony
54 and Exhibit thereto.

55 In addition, while I discuss several Attachments³, I specifically support the
56 following Attachments to the Petition:

- 57 • Attachment 3.02: Identifies and estimates Transition Charges by class and
58 compares estimates of the Transition Charges to estimates of total charges to
59 Customers over the life of the Transition Charge; and
- 60 • Attachment 6.00: Independent Financial Consultant's Report provided
61 pursuant to Article 6.25A(e)(3).

³ To avoid confusion in the designation of documents, attachments to the Petition are designated as "Attachments" and testimony, and documents attached thereto, are designated as "Exhibits."

C. Qualifications and Professional Background

Q. What are your duties and responsibilities at Navigant?

A. I lead Navigant's efforts in Retail Regulatory matters. Retail Regulatory matters include pricing, cost of service, determination of revenue requirements for state and local review of utility pricing, and cost of service reviews. The group I lead also advises clients on regulatory policy matters associated with state, territorial, provincial, and local regulatory oversight.

Q. Prior to your current position, what was your professional background?

A. For the past 20 years, I have worked in the Energy Practices of a number of consulting firms. From 1985 through 1995, I was employed by a number of regulated electric and combination electric and natural gas Investor-Owned Utilities ("IOU") in the United States which included Illinois Power Company, Eastern Utility Associates, Wisconsin Electric Power Company, and San Diego Gas and Electric Company.

Q. What is your educational background?

A. I graduated from Illinois State University, Normal, Illinois, with a Bachelor of Science degree in economics. I received my Master of Arts degree in economics from DePaul University, Chicago, Illinois.

Q. Have you prepared a resume presenting your background and experience in greater detail?

A. Yes. My resume is attached as Exhibit 6.01.

Q. Have you appeared as a witness in other regulatory or legal proceedings?

83 A. Yes, I appeared as an expert witness in a number of regulatory and legal proceedings
84 addressing electric generation, transmission and distribution issues, unregulated
85 operations of utility holding companies, asset valuation, and regulatory treatment of
86 Smart Grid investments. I provided testimony before the Federal Energy Regulatory
87 Commission (“FERC”), the Nova Scotia Utility and Review Board, the Massachusetts
88 Department of Public Utilities, the Rhode Island Public Utilities Commission, the Illinois
89 Commerce Commission, the Wisconsin Public Service Commission, the Ontario Energy
90 Board, the New York Public Service Commission, the New Mexico Public Regulation
91 Commission, the Kansas Corporation Commission and the Texas Public Service
92 Commission, as well as a number of other venues.

93 **II. CALCULATION METHODOLOGY**

94 **A. The Revenue Requirement and Its Distribution to Customer Classes**

95 **Q. What costs will be recovered in the Transition Charge mechanism?**

96 A. Ultimately, the Approved Restructuring Costs, including those paid from the proceeds of
97 the Bonds, are recovered over time through the Transition Charge. As provided in
98 Finding of Fact 4 of the Restructuring Resolution (Attachment 1.00):

99 The Approved Restructuring Costs to be paid through the issuance of the
100 Bonds and recovered through Transition Charges shall include the costs of
101 (a) retiring the PREPA Bonds in exchange for the Exchange Offer Bonds
102 or the 2016 PREPA Bonds in exchange for Post-Closing Date Bonds;
103 (b) legally or economically defeasing Insured PREPA Bonds and 2016
104 PREPA Bonds through the issuance of Mirror Bonds and the payment of
105 such Mirror Bonds; (c) restructuring, refunding, redeeming, defeasing
106 (legally or economically through the issuance of additional Mirror Bonds
107 or otherwise), or purchasing PREPA Bonds through the issuance of
108 Syncora Bonds; (d) the retirement of the obligations due and owing by
109 PREPA under the Credit Agreements through the issuance of the Lender
110 Bonds; (e) funding or replenishing any debt service reserve fund or

account or any other restricted accounts or subaccounts required to be established by the Trust Agreement, and to the extent permitted in the Trust Agreement, any Ancillary Agreement, including an additional reserve fund, to its required level, as provided in the Trust Agreement and, to the extent permitted in the Trust Agreement, any Ancillary Agreement (as the case may be), to secure payment of all or a portion of the Bonds; (f) funding any payment to the Internal Revenue Service (the “IRS”) in accordance with any PREPA agreement with the IRS under the voluntary closing agreement or similar program; (g) funding a deposit to the self-insurance fund (the “PREPA Self Insurance Fund”), established pursuant to the trust agreement, dated as of January 1, 1974, as amended, by and between PREPA and U.S. Bank National Association, as successor trustee, in an amount not to exceed \$50 million; (h) paying Financing Costs, including the Upfront Financing Costs, in connection with any issuance of Bonds and approved for recovery in the Restructuring Resolution; and (i) refunding, redeeming or purchasing Uninsured PREPA Bonds.

Because some of those costs are paid or financed by the Bonds themselves, the Calculation Methodology recovers those costs over time by establishing Transition Charges that recover “the sum of (a) principal of (in accordance with the scheduled maturity date or dates (including scheduled mandatory sinking fund redemption dates) and interest on the Bonds when due and as accruing through and including the First Bond Payment Date, (b) any amount necessary or expected to be necessary to fund or replenish any debt service reserve fund or account, or any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as an additional reserve fund, to their required level, as and to the extent such funding or replenishment is required by the Trust Agreement or any Ancillary Agreement (as the case may be) on or prior to the First Bond Payment Date, and (c) all other Ongoing Financing Costs required to be paid or deposited on or prior to the First Bond Payment Date.” *Id.*

141 Q. **Please describe how the Corporation determined the Customer classes among which**
142 **Ongoing Financing Costs are distributed.**

143 A. The Revitalization Act specifies that the Transition Charges are to be distributed to
144 Residential and Non-Residential Customer classes.⁴ Beyond those broad categories, the
145 determination of Customer classes among which Ongoing Financing Costs are distributed
146 and the distribution of Ongoing Financing Costs among Customer classes is addressed by
147 the Restructuring Resolution and the Calculation Methodology and Adjustment
148 Mechanism to Establish and Adjust the Transition Charge (the “Calculation
149 Methodology”) (Attachment 1.00, and Appendix 2 thereto). Exhibit 6.02 to my
150 testimony lists each of PREPA’s current tariff classes and maps them to the “Residential”
151 or “Non-Residential” Customer classes for the purposes of the Calculation Methodology.
152 If and when those PREPA rate classes evolve, the effective division will be preserved for
153 Transition Charge calculation purposes.

154 Q. **Please describe what Customer groups are captured in the “Residential” and “Non-**
155 **Residential” categories.**

⁴ “Customer” means “any Person that is connected to or takes or receives electric service within the Commonwealth by means of the electric generation, transmission or distribution facilities constituting part of Electric System Assets, whether or not those electric generation, transmission, or distribution facilities are owned by PREPA. PREPA shall not be a Customer. Each municipality in the Commonwealth shall be a Customer to the extent that the dollar value of its usage of electric service (including in determining such dollar value of Transition Charges which would otherwise be imposed on such municipality and PREPA charges) in any fiscal year exceeds the dollar value owed by PREPA to such municipality as a contribution in lieu of taxes for such fiscal year.” PRA, Article 31, para. 7. For the avoidance of doubt, previous Customers that completely disconnect from Electric System Asset and have no service agreement with PREPA, including for backup, standby, or other service, are no longer considered to be “Customers” for all purposes under the Act and the Restructuring Resolution unless and until said customers reconnect.

156 A. Residential Customers are those Customers that use electricity for domestic use. For
157 purposes of calculating the Transition Charges, all other Customers, including
158 Governmental Customers, are considered Non-Residential Customers. PREPA generally
159 follows the FERC system of accounts which defines Residential and Non-Residential
160 Customers in this manner.

161 Q. **How does the Calculation Methodology distribute Ongoing Financing Costs between**
162 **the Residential and Non-Residential Classes?**

163 A. The Calculation Methodology established in Appendix 2 to the Restructuring Resolution
164 (Attachment 1.00) distributes the Revenue Requirement to determine specific Residential
165 and Non-Residential Revenue Requirements for the Residential Customer Class and Non-
166 Residential Customer Class (including Government Customers). In particular, the
167 division is made based upon the share of the total actual historical kWh billed to
168 Residential and Non-Residential (including Government) Customers, respectively, in the
169 previous 12-month period ending with the last day of the most recently completed
170 calendar quarter for which data is available.

171 The historical energy (kWh) usage data for Residential Customers, Non-
172 Residential Customers, and Governmental Customers⁵ that is used in the calculation of
173 Transition Charges, by the Adjustment Mechanism, and in the distributions described in
174 Article 6.25A(e)(1)(ii), (iii), (iv), and (vi) is provided in Attachment 5.00, along with
175 prior historical data for reference and information purposes. This data includes, in most

⁵ For purposes of calculating the Transition Charges, Governmental Customers are a subset of Non-Residential Customers and are provided in Attachment 5.00 for informational purposes.

cases, usage that is directly measured (*e.g.*, with a meter), but also includes usage that is calculated (*e.g.*, for a light fixture), or estimated (*e.g.*, where a meter fails or cannot be read). This data is the basis of the distributions of the Revenue Requirements between Customer classes and of the kWh calculations underlying the estimated and exemplar Transition Charges discussed in the Corporation's filing. Of course, actual Transition Charges over time will be based on updated data.

Q. Why are the various existing PREPA rate classes consolidated into two Customer classes (Residential and Non-Residential) for purposes of distributing the Ongoing Financing Costs?

A. The Calculation Methodology will not change over the life of the Bonds and, thus, it would undoubtedly become obsolete if it tracked PREPA's current rate classes. Nor is there any need for a more granular allocation of the Transition Charges in the Calculation Methodology. Maintaining two broad Customer classes in the Calculation Methodology gives the Commission and PREPA more flexibility to adjust rate classes down the road. For example, if the Commission at some point in the future seeks to approve a different rate design that eliminates a particular Customer class, it would be difficult to implement the change if that class was hard-wired in the Calculation Methodology.

Cost allocations shift over time between classes depending on a multitude of factors including energy use, economic issues, technology, expansion/contraction of the grid and other factors that we have no way of knowing far in advance. The Commission has broad discretion over the allocation of PREPA costs in rate cases. Simply stated, the allocation of PREPA's costs will be addressed in the Embedded Cost of Service analysis

filed in the upcoming and future PREPA rate cases. Moreover, because the Commission retains jurisdiction over PREPA's rates, it can effectively allocate the total cost paid by Customers without altering, or being able to alter, in any way the Transition Charges or their distribution among Customer Classes.

Q. Please provide an example of how the Calculation Methodology distributes Revenue Requirement between the Residential and Non-Residential Customer classes.

A. The following is an illustrative projected example of the calculation used as part of the development of Attachment 6.03, the Transition Charge calculation:

Estimated Actual KWH (No CILT) Billed 12 Months Ending 3/31/16 FY 2015			Customer DistributionAllocation
Residential	6,354,141,574 6,249,541,676		38 37.83%
Non-Residential	10,174,334,514 10,270,239,212		62.17%
Total	16,528,476,088 16,519,780,888		100%

In this example, for Residential Customers, the total actual historical kWh billed in the ~~previous 12 month period (ending with the end of the most recently completed calendar quarter for which data is available)~~ FY 2015 or ~~16,528,476,088~~16,519,780,888 kWh is divided into the actual historical kWh billed to Residential Customers, or ~~6,354,141,574~~6,249,541,676, resulting in a ~~38~~37.83% distribution of the Revenue Requirement to Residential Customers.

B. Calculation and Adjustment of Transition Charges

Q. Please describe the Calculation Methodology including the Adjustment Mechanism and the manner of calculation of Transition Charges.

A. For both Residential and Non-Residential Customers, the Calculation Methodology distributes Financing Costs and determines class-specific Revenue Requirements. Mathematically, the Calculation Methodology established in Appendix 2 of the Restructuring Resolution (Attachment 1.00) provides:

(a) Step 1: Calculate Customer Class Revenue Requirement Shares. As I discuss above, the Calculation Methodology distributes Financing Costs to determine a Residential Net Revenue Requirement and a Non-Residential Net Revenue Requirement based on the Residential Customer Allocation and the Non-Residential Customer Allocation, respectively. To do this, it specifies shares, which sum to 100%, of the total Revenue Requirement:

- (1) Divide the Aggregated Actual kWh Billed for the previous 12-month period ending with the end of the most recently completed calendar quarter for which data are available into the Actual kWh Billed to Residential Customers during that same 12-month period. The resultant percentage is the “Residential Customer Allocation.”
- (2) Divide the Aggregated Actual kWh Billed for the previous 12-month period ending with the end of the most recently completed calendar quarter for which data are available into the Actual kWh Billed for all Non-Residential Customers and Government Customers during the same 12-month period. The resultant percentage is the “Non-Residential and Government Customer Allocation.”

This process meets the requirements of Article 6.25A(d)(ii)(1). As provided by Article 6.25A(e)(1)(vi), for net metering Customers and Customers with “behind the meter” generation, the Corporation has determined that it should

include their gross usage for purposes of calculating Transition Charges. This subject is discussed below in Section II.D of my testimony. Exhibit 6.03 demonstrates these distribution calculations.

(b) **Step 2: Compare the Projected Transition Charge Revenues to the Required Revenues.** The Calculation Methodology provides for a direct mathematical comparison between the costs that must be recovered and the expected Transition Charge Revenues. The Adjustment Mechanism (Appendix 2 to Attachment 1.00) describes the steps as follows:

- (3) Project the Transition Charge Revenues expected to be held by the Trustee on the proposed True-Up Adjustment Date after payment of Ongoing Financing Costs due on or prior to such date (but excluding amounts held or to be held on such date by the Trustee in any debt service reserve fund or account, or in any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as an additional reserve fund), and add to that amount the Transition Charge Revenues expected to be received by the Trustee after the True-Up Adjustment Date and during the First Collection Period from bills rendered prior to the True-Up Adjustment Date based on the Transition Charges then or previously in effect.
- (4) Calculate the sum of (a) principal of (in accordance with the scheduled maturity date or dates (including scheduled mandatory sinking fund redemption dates)) and interest on the Bonds when due and as accruing through and including the First Bond Payment Date, (b) any amount necessary or expected to be necessary to fund or replenish any debt service reserve fund or account, or any other restricted accounts or sub accounts required to be established by the Trust Agreement or any Ancillary Agreement as a an additional reserve fund, to their required level, as and to the extent such funding or replenishment is required by the Trust Agreement or any Ancillary Agreement (as the case may be) on or prior to the First Bond Payment Date, and (c) all other Ongoing Financing Costs required to be paid or deposited on or prior to the First Bond Payment Date.
- (5) Subtract the amount in clause (3) from the amount in clause (4) to determine the "Net Revenue Requirement" for the First Collection Period.

This is a mathematically sound and accurate way of determining over time the quantity of Transition Charge Revenues that are required to cover the Financing Costs. It complies with the requirements of Article 6.25A(d)(1) by providing for “the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs... .” Exhibit 6.03 demonstrates how the calculations in Step 2 are calculated.

(c) Step 3: Calculate the Gross Billing Requirements required to collect necessary Transition Charge Revenues for each Customer class and period.

In order to calculate a correct Transition Charge, the required revenues must be adjusted or “grossed up” to take into account the fact that not all Customers pay and all Customers who do pay over time, pay at varying rates. To accomplish this, the Adjustment Mechanism calculates a Gross Billing Requirement for both the Residential and Non-Residential Classes for each relevant period. Those Gross Billing Requirements adjust (or gross up) the Net Revenue Requirement to account for historical billing data, the Composite Collection Curve – which I will discuss further below – and the write-off assumption, so that the Transition Charge Revenues expected to be remitted to the Trustee meet the calculated Revenue Requirements. The Adjustment Mechanism (Appendix 2 to Attachment 1.00) describes this step as follows:

- (6) Adjust (or gross up) the Net Revenue Requirement [to give effect to the number of billing cycles, the Composite Collection Curve and the write-off assumption,] to ensure that the Transition Charge Revenues expected to be remitted to the Trustee during the First Collection Period will satisfy the Net Revenue Requirement for the First Collection Period on a timely basis and will result in the Excess Funds Account held under the Trust

Agreement to be zero by the First Bond Payment Date. The result will be the “Gross Billing Requirement” for the First Collection Period.

Functionally, as I explain below, this results in the proper allocation of delinquencies – Transition Charges that are not collected from Customers – as I discuss in Section II.C, below, and it takes into account lag in the payment of Transition Charges. Exhibit 6.03 demonstrates how the Step 3 calculations will be performed.

(d) Step 4: Calculate Transition Charge. For Non-Residential Customers (which includes all Customers of PREPA other than Residential Customers), the Transition Charge is based on kWh consumption of each Customer by applying a rate derived from the Non-Residential Net Revenue Requirement and the total historical kWh usage of Non-Residential Customers, as specified above. For Residential Customers, the Transition Charge is a flat charge based on the Residential Net Revenue Requirement and the Residential Service Agreement Count, defined as the average number of Residential Service Agreements used for billing purposes during the previous 12-month period ending with the end of the most recently completed calendar quarter for which data is available as of the date of any calculation. The Adjustment Mechanism (Appendix 2 to Attachment 1.00) describes these steps as follows:

- (7) Multiply the Gross Billing Requirement for the First Collection Period by the Residential Customer Allocation. The result will be the “Residential Gross Billing Requirement” for the First Collection Period.
- (8) Multiply the Gross Billing Requirement for the First Collection Period by the Non-Residential and Government Customer Allocation. The result

will be the “Non-Residential and Government Gross Billing Requirement”
for the First Collection Period.

(9) Divide the Residential Gross Billing Requirement for the First Collection
Period by the Residential Service Agreement Aggregate Count for First
Collection Period to produce a \$/per service agreement Transition Charge.
The result will be the first possible Transition Charge for each Residential
Customer to be effective on the True-Up Adjustment Date.

(10) Divide the Non-Residential and Government Gross Billing Requirement
for the First Collection Period by the Actual kWh Billed for Non-
Residential Customers and Government Customers during the comparable
period to the First Collection Period in the prior 12-month period for
which data are available (i.e., the calendar dates one year prior to the
calendar dates in the First Collection Period, to produce an estimated
volumetric (per kWh) Transition Charge. Subject to clause (12), the result
will be the first possible Transition Charge (per kWh) for all Non-
Residential and Government Customers to be effective on the True-Up
Adjustment Date.

(11) Repeat the calculations described in clauses (3) through (10), inclusive, to
determine the Transition Charges necessary to satisfy the revenue
requirement for each consecutive Collection Period which ends during the
Annual Calculation Period, replacing “First Bond Payment Date” with
“Second Bond Payment Date” and “First Collection Period” with “Second
Collection Period,” etc. through the Third and Fourth Collection Periods
(if any) respectively.

(12) Compare the revenues produced by each set of Transition Charges
resulting from the calculations above (i.e., one set for each Collection
Period). The set of Transition Charges which is expected to produce the
greatest revenue by the end of the First Collection Period will be the set of
Transition Charges to be effective on the True-Up Adjustment Date.

These steps assure that the Transition Charges that go into effect assure a
level of charges sufficient to pay the Bonds and related costs on each payment
date. Exhibit 6.03 demonstrates how the calculations in Step 4 would be
performed.

(e) **Step 5: True-Up and prospectively adjust the Transition Charge quarterly or more frequently, if required.** Transition Charges are initially established and are thereafter trued-up and prospectively adjusted, at least quarterly, through the formulaic Adjustment Mechanism. This mechanism accounts, over time, both for changes in the Revenue Requirement and for variations and changes in other parameters influencing the calculation of the Transition Charges and their collection. The Restructuring Resolution and the Calculation Methodology provide that PREPA, as the Servicer will recalculate the Transition Charge, subject to review by the Calculation Agent. For the purpose of assuring the mathematical accuracy of the calculations, true-ups will be conducted: (a) quarterly, beginning no more than three months from issuance of the Bonds and continuing until the Bonds and all other Ongoing Financing Costs are paid in full, and (b) at any other time if the Corporation, the Commission, the Calculation Agent, or any party to an Ancillary Agreement or the requisite bondholders determine that such adjustment is required to assure the timely payment of the Bonds and other Ongoing Financing Costs. The Adjustment Mechanism (Appendix 2 to Attachment 1.00) states:

The Corporation will adjust the Transition Charges for each Class as requested in each True-Up Letter, and such Transition Charges will be effective on the date specified in the True-Up Letter, so long as such effective date is at least 30 days after the filing with the Commission of such True-Up Letter, subject only to the correction of any mathematical errors by the Commission as set forth in the next sentence. Any adjustment to correct the mathematical inaccuracy, if ordered by the Commission, shall be made by the Servicer no later than the next succeeding True-Up Adjustment on which such adjustment can practically be made without delaying the effective date set forth in the True-Up Letter.

Those periodic adjustments will (i) correct for any over-collections or under-collections of Transition Charges by adjusting the revenues required going forward, and (ii) to ensure that expected Transition Charge remittances to the Trustee, after taking into account assumed charge-offs and payment delays, are adequate (a) to pay timely principal of (in accordance with the expected amortization schedule) and interest on the Bonds in the next 12-month period, (b) to replenish the debt service reserve fund or account (or in any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as a rate stabilization or additional reserve fund) to its required level no later than the date specified in the Trust Agreement and other operative documents, and (c) to make timely payment of all other Ongoing Financing Costs.

Q. Why, as reflected in Step 4, has the Corporation determined that Transition Charges applicable to Residential Customers should be a flat charge calculated on a per service agreement basis?

A. The per service agreement determination is administratively simple and will be able to be administered in a consistent manner over the life of the Transition Charges. Moreover, the per service agreement determination is reasonable because low income users tend to have a higher kWh usage due to PREPA's legacy flat charge rate design and generally inefficient electric use among these Customers. A Transition Charge based on kWh usage would place a significantly higher burden on these Customers than the per service agreement basis.

405 Q. **How are Transition Charges calculated at each Adjustment date for a Collection**
406 **Period?**

407 A. The Transition Charge is calculated to meet all payments due during the Collection
408 Period in the 12-months following the rate effective date. The rate must be calculated to
409 collect sufficient funds to meet scheduled payments of Ongoing Financing Costs
410 (including debt service on the Bonds) as they become due.

411 Q. **Please describe the process where PREPA as the Servicer will monitor the level of**
412 **collections and determine if an adjustment is required to assure the timely payment**
413 **of the principal and interest on the Bonds.**

414 A. After month-end data is available, PREPA as the Servicer will prepare monthly reports
415 which will compare the actual collection of revenues for the Transition Charge to that
416 which was estimated for that month. The Calculation Methodology describes the steps as
417 follows:

418 To initiate any True-Up Adjustment, the Servicer will make a preliminary
419 calculation of the True-Up Adjustment and will prepare and submit to the
420 Calculation Agent a draft request for adjustment (a "True-Up Letter").
421 The Calculation Agent will review the draft True-Up Letter, including the
422 mathematical calculations related to the proposed True-Up Adjustment,
423 and forward any corrections or modifications to the Servicer. The
424 Servicer will then file the True-Up Letter, reflecting any such corrections
425 or modifications, with the Corporation, the Commission and the Trustee,
426 not later than 30 days prior to the proposed effective date of the
427 adjustment set forth in the True-Up Letter (such effective date being
428 referred to as the "True-Up Adjustment Date").

429 Each True-Up Adjustment will be designed (i) to correct for any over-
430 collections or under-collections of Transition Charges through the
431 proposed True-Up Adjustment Date and (ii) to ensure that expected
432 Transition Charge Revenues remitted or to be remitted to the Trustee, after
433 taking into account assumed charge-offs and payment delays, are adequate
434 (A) to pay timely principal of (in accordance with the scheduled maturity

date or dates (including scheduled mandatory sinking fund redemption dates)) and interest on the Bonds on each of the Payment Dates that occurs during the related Annual Calculation Period (defined below), (B) to fund or replenish any debt service reserve fund or account or any other restricted accounts or subaccounts required to be established by the Trust Agreement or any Ancillary Agreement as an additional reserve fund) to its required level, as provided in the Trust Agreement or the Ancillary Agreement (as the case may be), and (C) to make timely payment of all other Ongoing Financing Costs during the related Annual Calculation Period.

Q. Explain how the filing provides information sufficient to allow the Commission to replicate the Transition Charges for Non-Residential and Residential Customers.

A. For any level of Revenue Requirement, the data provided with the filing would allow the Commission to replicate the calculation of the Transition Charges that I have performed. Attachment 3.02 estimates the Transition Charges by class and compares the estimates to the total charges to Customers over the life of the Transition Charges. Exhibit 6.03 details all of the calculations supporting the Transition Charge calculation and contains the information that would be provided in future quarterly reconciliation filings to the Commission. The calculations in this Exhibit are straightforward and allow the Commission to replicate each step of the process to understand precisely how the Transition Charge was calculated.

Q. Does the distribution of responsibility for Transition Charges among Customer classes and Customers limit the discretion of the Commission in addressing the allocation of responsibility for the PREPA revenue requirement in any PREPA rate case?

460 A. No. In PREPA's general rate proceedings, the cost of service analysis will reflect all of
461 the components of PREPA's revenue requirement, as well as debt service on the
462 Restructuring Bonds and related costs. This approach would be utilized whether or not a
463 debt restructuring occurs. Thus, for rate design purposes, PREPA will include the debt
464 service of the Restructuring Bonds in the cost of service analysis while including the
465 revenues from the Transition Charge as a revenue credit. In future PREPA rate cases, the
466 Commission will approve a design for PREPA rates that allocates all total costs billed to
467 Customers (including debt service and other costs associated with the Bonds). While the
468 decisions in those cases cannot affect the Transition Charges themselves, they can adjust
469 how PREPA costs are allocated among Customers, preserving the full discretion of the
470 Commission over how the Transition Charges impact Customers.

471 Q. **Please describe how costs are allocated to rate classes in the PREPA rate case.**

472 A. The Embedded Cost of Service Study ("ECOSS") will be performed without regard to
473 the existence of the Transition Charges, and will allocate total costs using a methodology
474 generally accepted in the industry. After the overall responsibility for revenue
475 requirements has been determined for each rate class under an ECOSS methodology, the
476 revenues from the Transition Charge will be deducted and the remaining PREPA revenue
477 requirement will be recovered from base rates and other rate design components. (In the
478 event that the Commission elects to rely on a Marginal Cost of Service Study, the same
479 principles will apply and the overall allocation of charges will simply be driven by
480 marginal as opposed to embedded costs.) Transition Charges will be calculated and
481 collected as established by the Restructuring Resolution and the Revitalization Act and

remain unaffected by PREPA rate cases, while the Commission retains jurisdiction over the overall costs assessed to, and price signals sent to, particular rate classes.

Q. Please explain what would occur in a rate case if the Transition Charges imposed on a particular Customer class collect more than the share of debt service costs attributed to that class in a cost study.

A. If the Transition Charges impute more than a particular class' debt service share (as determined by the cost of service study), the overall cost allocation (including debt service and other costs), with all else being equal, will be adjusted downward so that the allocation of total costs and determination of rates for that class is equitable.⁶ Again, that does not change the Transition Charges themselves, but it preserves the Commission's authority of the design of the rates that govern the total liability of Customers for electric service, including the PREPA rates.

C. Treatment of Delinquencies

Q. Will Customer delinquencies in any period be added to the revenue requirement of the next period and allocated among all Customer classes consistent with the methodology described above?

A. Yes. The Restructuring Resolution includes a provision that delinquencies of any class of Customers will be distributed among all Customer classes as previously described and included in the Adjustment Mechanism (Appendix 2 to Attachment 1.00). Consistent

⁶ By way of illustration only, and using entirely hypothetical numbers for ease of explanation, if the Commission desired to reduce the economic effect of a fixed \$2.00 Transition Charge on a group of Customers, it could reduce the allocation of PREPA charges to that group of Customers by \$1.00. While the Transition Charge would remain payable by those Customers without change, the effective change in those Customer's total bill due to the imposition of the Charge would have been modulated.

with Article 6.25A(d)(3) of the Revitalization Act, the calculation of the Gross Billing Requirement in the Adjustment Mechanism allocates delinquencies among all Customer classes consistently with how other Financing Costs are allocated.

Q. What is a Composite Collection curve and how is it used in the Calculation Methodology?

A. A Composite Collection Curve is used to determine the appropriate gross-up factor for the collections lag. Using historical data, the Composite Collection Curve calculates the estimated time it takes all Customers to pay their bills. This estimated time is then used to determine the amount of collections relative to when debt service payments are due. Following is a description of the Composite Collection Curve in the Adjustment Mechanism (Appendix 2 to Attachment 1.00):

In estimating the expected receipts of Transition Charges for any period the Servicer will apply a “collection curve” reflecting the most recent 12-month history of collections for which data are available. In connection with each True-Up Adjustment filing, the Servicer will develop one collection curve reflecting payment history for all Customers (the “Composite Collection Curve”). A collection curve is data reflecting the timing of payments of outstanding bills during a 12-month period, adjusted to assume that any Transition Charges which are not collected within 120 days of billing are written off. Each month’s billings are divided into aging buckets based on the number of days for which such billings have been outstanding (e.g., 0 to 29 days, 30 to 59 days, 60 to 89 days, and 90 to 119 days outstanding). The aging buckets are then used to estimate the dollar amount of each month’s billings collected within 30, 60, 90 and 120 days, as well as the dollar amount not collected within 120 days (amount written off) for the 12-month period. For such 12-month period, the collection curve is calculated by dividing each of the total dollar amount of billings collected within 30, 60, 90, and 120 days by the total dollar amount of billings collected within 120 days. The Composite Collection Curve will also be used to calculate the Days Sales Outstanding referred to in Annex 3 to the Servicing Agreement

532 Q. **Is the use of a Composite Collection Curve in the Calculation Methodology an**
533 **appropriate tool to forecast receipts of Transition Charge revenues?**

534 A. Yes. The Composite Collection Curve utilizes past collection experience to forecast the
535 amount of revenue that is expected to be received from the Transition Charges. A
536 Composite Collection Curve represents the amount and timing by which outstanding bills
537 have been paid during a collection period⁷ adjusted to assume that any Transition
538 Charges which are not collected within 120 days of billing are written off. A description
539 of the Composite Collection Curve in the Adjustment Mechanism (Appendix 2 to
540 Attachment 1.00) is provided in the answer to the immediately preceding question.

541 Q. **How frequently will the Composite Collection Curve be updated?**

542 A. The Composite Collection Curve will be updated with each reconciliation adjustment is
543 filed with the Commission.

544 **D. Net Metering and Behind the Meter Generation**

545 Q. **Does the Calculation Methodology include the estimated load served by net**
546 **metering or distributed generation (“behind the meter”)?**

547 A. The Corporation has made a determination, as I recommend, that Transition Charges will
548 be calculated based on total gross load of Customers, including total behind the meter
549 consumption, as it becomes practicable to measure or estimate that load reliably. The Net
550 Metering Determination is reflected in the Calculation Methodology (Appendix 2 to
551 Attachment 1.00) which defines “Actual kWh Billed,” for this purpose, “without regard

⁷ “Collection Period” means, for the purposes of any True-Up Adjustment, the period which commences on a True-Up Adjustment Date and which ends five (5) Business Days prior to a designated Bond Payment Date. Adjustment Mechanism (Appendix 2 to Attachment 1.00).

552 to any offset for net-metering and adjusted for estimated distributed generation usage.”
553 Initially, the Corporation proposes that Customers be charged the total kWh measured by
554 the billing meter, with no offset for exported – or “net metered” – kWh. As it becomes
555 practicable over time, and as meter data measuring the output of the distributed
556 generation itself becomes available, the load of such Customers for these purposes will
557 include the gross output of the distributed generation plus the net deliveries from
558 PREPA.

559 **Q. Will the Net Metering Determination materially affect all classes of Customers?**

560 **A.** No. Due to the Corporation’s per service agreement determination, the Net Metering
561 Determination will mainly prevent Non-Residential net metering Customers from
562 bypassing the Transition Charges. Residential Customers will not be affected in any
563 material respect because each service agreement – whether net metering or not – will be
564 subject to a flat Transition Charge. Thus, the amount of load behind the meter will not
565 affect the Transition Charge to an individual Residential net metering Customer.

566 **Q. Please explain the reasons for the Corporation’s Net Metering Determination to**
567 **include estimated load served by net metering or estimated distributed generation**
568 **(“behind the meter”) in determining Customer energy usage.**

569 **A.** Absent the Net Metering Determination, these Customers could reduce their
570 responsibility to pay Transition Charges, and the responsibility for those avoided charges
571 would be transferred to other Customers. This is not equitable given that the Financing
572 Costs recovered through the Transition Charges result from historical PREPA operating
573 and fuel costs and investment expenditures. Those costs and expenditures are reflected in

the PREPA legacy debt burden that the restructuring should mitigate. Current Customers should not be permitted to bypass paying their share of costs related to those historical obligations – and shift their share to other Customers – by deciding to install behind the meter generation. This cost shift would also disproportionately impact those Customers that could not afford to purchase such equipment to bypass the charges.

Allowing Customers to avoid their share of those costs would also create an artificial incentive to install and use such generation behind the meter and send an improper price signal encouraging the bypass of system electric supply even when not economic. Indeed, the increase in other Customers' Transition Charges would itself also create an even greater uneconomic incentive to bypass the PREPA system. This would increase further the inequitable shift in the responsibility for Transition Charges.

Q. In light of the Corporation's Net Metering Determination, will the rates charged to net metering Customers satisfy the criteria set out in Article 4 of Law No. 114-2007, as amended by Article 29 of the Revitalization Act ("Article 4 requirements") that charges to net metering Customers "be just?"

A. Yes. The application of Transition Charges to net metering Customers' entire load is just because, as I mention above, these charges cover historical operating and fuel costs and investment expenditures. They were incurred to benefit all Customers and, therefore, should be distributed to all Customers. It would be not be just to allow net metering Customers to bypass the Transition Charges because doing so would place a greater burden on other Customers, including those who cannot afford to install distributed generation.

596 Q. **In light of the Corporation’s Net Metering Determination, will the rates charged to**
597 **net metering Customers satisfy the Article 4 requirements that charges to net**
598 **metering Customers “will cover operational and administrative costs of network**
599 **services that the consumer received with the Net Metering Agreement?”**

600 A. Yes. The imposition of a Transition Charge will not affect how the overall rates charged
601 to net metering Customers cover operational and administrative costs of network services
602 that the consumer receives through the Net Metering Agreement. The overall rates
603 charged to these Customers cover the operational and administrative costs related to
604 serving them.

605 Q. **In light of the Corporation’s Net Metering Determination, will the rates charged to**
606 **net metering Customers satisfy the Article 4 requirements requiring that charges**
607 **“never will be excessive or established in such a way that it becomes an obstacle to**
608 **the deployment of renewable energy projects?”**

609 A. Yes. In making the determination to include estimated load served by net metering in
610 determining Customer energy usage, the Corporation and PREPA considered this Article
611 of the Revitalization Act and believe that the Transition Charges will not affect the
612 justness of charges to net metering Customers or the coverage of operational and
613 administrative costs of network services provided to these Customers under their Net
614 Metering Agreement with PREPA. In addition, the Transition Charges are not being
615 established in a way that makes them an obstacle to the deployment of renewable energy
616 projects.

I have reviewed the Transition Charges and how they are applied to net metering Customers. Here, the Transition Charge is just and will be paid by all Customers and will not be a greater burden on net metering Customers versus other PREPA Customers. Furthermore, it is very important that the Transition Charges remain neutral with no incentive – or disincentive – to implement behind the meter distributed generation. Either would create uneconomic incentives/disincentives to implement such technology. Thus, the inclusion of estimated load served by net metering in determining Customer energy usage should not play a role in a Customer’s decision whether to implement behind the meter distributed generation.

Q. Will the inclusion of estimated load served by net metering or estimated distributed generation (“behind the meter”) in determining Customer energy usage limit the Commission’s authority over the overall charges paid by such Customers?

A. No. The Commission retains authority over the design of PREPA’s rates, including the charges applicable to net metering Customers. As I testified earlier, the Corporation’s calculation of the Transition Charge, including how load is measured, will not affect that authority or limit the design of the PREPA rate charged to such Customers.

Q. Will the methodology for the inclusion of the estimated load served by net metering or distributed generation (“behind the meter”) in the calculation of Transition Charges, in accordance with the Net Metering Determination, ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs?

638 A. Yes. Not allowing Customers who use behind the meter generating equipment to avoid
639 paying a Transition Charge reflecting their actual and, typically, historical load will
640 enhance the assurance that the Corporation will make full and timely payment of the
641 Bonds.

642 Q. **Can you confirm that the methodology for including the estimated load served by**
643 **net metering or distributed generation (“behind the meter”) in the calculation of**
644 **Transition Charges, in accordance with the Net Metering Determination, is**
645 **practical to administer?**

646 A. Yes. The inclusion of the estimated load served by net metering Customers in the
647 calculation of Transition Charges is practical to administer. I am familiar with PREPA’s
648 billing systems and customer information systems and do not see any issue with
649 administering this methodology.

650 Q. **How will PREPA practically extract and provide the gross usage of net metering**
651 **Customers as required in administering the calculation of the Transition Charges**
652 **on a quarterly basis?**

653 A. Currently, PREPA has advanced electronic meters for all net metering Customers,
654 measuring both total kWh used by the Customer from PREPA and total kWh exported to
655 PREPA. Both of these separate values are transmitted by the remote metering systems
656 and stored in the Billing System, where they are later netted out in the current rate
657 structure. This enables PREPA to use the total kWh delivered from the PREPA system to
658 calculate Transition Charges without an exported kWh offset, regardless of how other
659 rates are calculated. As it becomes practicable, a second meter will be installed or

enabled in the largest net metering Customers to measure the true gross generation, and
determine the total behind the meter kWh.

E. Other Calculation Issues

Q. What are contributions in lieu of taxes (“CILT”) of municipalities?

A. As a public corporation, PREPA is not required to pay property and other taxes, including
to municipalities. CILT is a payment which PREPA provides to municipalities in lieu of
taxes which they would be required to pay if they were a privately owned enterprise.

**Q. Does the Calculation Methodology include the entire estimated load of
municipalities including the portion covered by CILT?**

A. No. The definition of “Customer” under the Article 31 of the Revitalization Act provides
that “(e)ach municipality in the Commonwealth shall be a Customer to the extent that the
dollar value of its usage of electric service (including in determining such dollar value of
Transition Charges which would otherwise be imposed on such municipality and PREPA
charges) in any fiscal year exceeds the dollar value owed by PREPA to such municipality
as a contribution in lieu of taxes for such fiscal year.” PRA, Article 31, para. 7. Thus,
only the usage of municipalities that exceeds CILT is included in the Calculation
Methodology.

**Q. Will the Calculation Methodology permit the Commission to discharge its obligation
to require PREPA (or other Servicer) to demonstrate that PREPA (or such other
Servicer) has been prudent in addressing late payments, past-due bills, and non-
payments?**

681 A. Yes. The Calculation Methodology includes an adjustment for late payments, past-due
682 bills, and non-payments. Nothing in the Calculation Methodology prevents or interferes
683 with the Commission's ability to require PREPA (or any subsequent Servicer) to
684 demonstrate that it has been prudent in addressing late payments, past-due bills, and non-
685 payments. Any finding of imprudence, however, will not – as provided by Article
686 6.25A(d)(3) – affect the allocation of delinquencies.

687 Q. **How are the above concerns addressed?**

688 A. Detailed collection data will be included in each quarterly filing which will provide the
689 Commission with the necessary information to discharge its obligation to require PREPA
690 (or other Servicer) to demonstrate that PREPA (or such other Servicer) has been prudent
691 in addressing late payments, past-due bills, and non-payments.

692 **F. Practicable to Administer and Ensures Full and Timely Payment**

693 Q. **Is the Calculation Methodology “designed to provide for the full and timely
694 payment of the Restructuring Bonds in accordance with their terms and other
695 Ongoing Financing Costs?”**

696 A. Yes. As is demonstrated in my testimony, the mechanism which has been designed will
697 ensure that the Restructuring Bonds will receive full and timely payment.

698 Q. **Is the share of Financing Costs to be recovered from each Customer class calculated
699 “in such manner which is practicable to administer?”**

700 A. Yes. The calculation supporting the distribution of Financing Costs to each Customer
701 class (*i.e.* Residential and Non-Residential) is based upon kWh sales adjusted for

collections. The data required to perform these calculations is produced in the normal course of business at PREPA and is readily available.

Q. Is the share of Financing Costs to be recovered from each Customer class calculated in a manner “which ensures the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs?”

A. Yes. The Calculation Methodology provides reasonable assurance that timely payment of the Bonds will occur. The following provisions are included in the calculation which ensures compliance with the Act: (1) calculations are based upon forward looking information; (2) trends in the number of service agreements and kWh sales are captured in the calculation; and (3) periodic reconciliations are performed in order to reduce significant variations from projected costs.

Q. Please explain the basis for the Corporation’s determination that the Transition Charges and Adjustment Mechanism are designed and calculated to ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs.

A. The Restructuring Resolution, and Appendices thereto, set forth the Calculation Methodology and contain a form of Servicing Agreement under which PREPA, as the initial Servicer, will remit Transition Charge Revenues which are each designed to ensure adequate funds are available to pay debt service on the Bonds when due as well as other Ongoing Financing Costs. As I describe in more detail in the Independent Financial Consultant’s Report, attached to the Petition as Attachment 6.00, we have compared the projections of the Ongoing Financing Costs to the revenues expected from the Transition

Charges and conclude that the Calculation Methodology, including this periodic application of the Adjustment Mechanism, will ensure that the Transition Charge Revenues are sufficient to provide for the timely payment of Ongoing Financing Costs.

Q. Are the provisions of the Restructuring Resolution, including the Calculation Methodology for the Transition Charges and the Adjustment Mechanism related to such Restructuring Bonds, consistent with the criteria set forth in Article 6.25A(d)?

A. Yes. The provisions of the Restructuring Resolution, including the Calculation Methodology for the Transition Charges and the Adjustment Mechanism related to such Restructuring Bonds, are consistent with the requirements of Article 6.25A(d) and are sufficient for and provide for adequate protection for the full and timely payment of the Restructuring Bonds in accordance with their terms and other Ongoing Financing Costs.

III. INDEPENDENT FINANCIAL CONSULTANT'S REPORT

Q. Are you an independent financial consultant with recognized expertise in financing public electric utilities?

A. Yes. My personal qualifications are stated above. Navigant has provided similar services to other clients.

Q. Does the Petition include or attach a report as described in Article 6.25A(e)(2)?

A. Yes, I sponsor the Independent Financial Consultant's Report attached to the Petition as Attachment 6.00. The Independent Financial Consultant's Report, among other things, sets forth historical energy (kWh) usage by Customer class, includes a projection of Ongoing Financing Costs and Transition Charges during the term of the Restructuring Bonds and any other material assumptions used in the Report, and concludes that such

Transition Charges have been calculated as provided in Section 6.25A(e)(1) and, in accordance with the assumptions included in such Report, will ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and all other Ongoing Financing Costs during the term of the Restructuring Bonds. In reaching that conclusion, I assume that the Calculation Methodology is properly administered and that accurate information is used.

Q. What additional information is included in the Report?

A. The Report includes: (a) historical energy (kWh) usage, a projection of Ongoing Financing Costs and Transition Charges during the term of the Restructuring Bonds and any other material assumptions used in the report; (b) my conclusion that the Transition Charges have been calculated as provided in clauses (ii), (iii), (iv) and (vi) of Article 6.25A(e)(1), as applicable; and (c) my conclusion that in accordance with the assumptions included therein, that the Transition Charges will ensure the full and timely payment of the Restructuring Bonds in accordance with their terms and all other Ongoing Financing Costs during the term of the Restructuring Bonds.

IV. OTHER TRANSITION CHARGE ISSUES

Q. Can you estimate the initial Transition Charges by Customer class including the percentage of the charge to total charges?

A. Yes. That information is shown in the table below:

Line No.	Item	Amount
1	Residential Customers	
2	Average Monthly Revenue per Customer - FY 2014	\$99.34
3	Proposed Transition Charge - \$/Service Agreement	\$11.98
4	Transition Charge as a Percentage of 2014 Monthly Revenues	12.1%
5		
6	Non-Residential Customers	
7	Average Revenue per KWH - FY 2014	\$0.26418
8	Proposed Transition Charge - \$/KWH	\$0.03055
9	Transition Charge as a Percentage of 2014 Average Revenue per KWH	11.6%

765

766 Q. **Have you also estimated Transition Charges and how they compare to total charges**
767 **to Customers for electric service over the life of the Transition Charges?**

768 A. Yes. Attachment 3.02 sets forth estimates of Transition Charges by class and provides a
769 comparison of Transition Charges to total charges to Customers, each over the life of the
770 Transition Charges. The estimate is based upon the number of services agreements and
771 kWh usage in the current transition charge calculation and the estimated level of debt
772 service and other costs which will be captured in each time period.

773 Q. **How was the comparison of projected Transition Charges to total charges made?**

774 A. Two estimates were used to provide these estimates, one for Residential Customers and
775 one for Non-Residential Customers.

776 Q. **Please describe the approach used to estimate the projected Transition Charge to**
777 **the bills of Residential Customers.**

778 A. The average Residential Customer's bill for the time period fiscal year 2015 was used the
779 denominator of the equation. The numerator of the equation is the transition charge, as
780 stated in dollars per service agreement, as estimated above.

781 Q. **Please describe the approach used to estimate the projected Transition Charge to**
782 **the bills of Non-Residential Customers.**

783 A. Non-Residential Customers are not as homogenous as Residential Customers. Further,
784 the Transition Charge for these Customers is calculated on a per kWh basis. Therefore,
785 the Transition Charge stated in dollars per kWh was compared to the average revenue per
786 kWh for PREPA's non-residential tariff classes for the fiscal year.

787 Q. **Your calculations estimating the impacts of the Transition Charge on Customers**
788 **assumes that PREPA's rate is constant over the long-run. Is that assumption**
789 **realistic?**

790 A. PREPA's rate can be expected to change over time and will be impacted by a multitude
791 of factors such as the cost of capital, fuel costs, and other factors. Adoption of the
792 assumption that the average or average rate remains constant over time is a conservative
793 assumption and will in all likelihood overstate the impact of the Transition Charge.

794 Q. **Will the Transition Charges be collected through a separate rate rider?**

795 A. Yes. The transition charge will be collected through a new Rider XX.

796 V. **CONCLUSION**

797 Q. **Does this complete your testimony?**

798 A. Yes.

ATTESTATION

The undersigned, RALPH ZARUMBA, being of legal age, married, executive and consultant, and resident of City of Evanston, County of Cook, State of Illinois, in his capacities as Director of Navigant Consulting, Inc., states that the foregoing testimony, presented in written Question and Answer format, is true and correct to the best of his knowledge and belief.

IN WITNESS WHEREOF, I have hereunto signed my name this ____ day of May 2016.

RALPH ZARUMBA

Director
Navigant Consulting, Inc.

Affidavit No. _____

Acknowledged and subscribed before me by Ralph Zarumba, of the personal circumstances above mentioned, in his capacities as Director of Navigant Consulting, Inc., who is personally known to me, in San Juan, Puerto Rico, this ____ day of May 2016.

Notary Public