



17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
717-731-1970 Main
717-731-1985 Main Fax
www.postschell.com

Devin T. Ryan

dryan@postschell.com
717-612-6052 Direct
717-731-1985 Direct Fax
File #: 158814

April 27, 2015

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: 2016 Total Resource Cost (TRC) Test
Docket No. M-2015-2468992**

Dear Secretary Chiavetta:

Enclosed for filing please find the Comments of PPL Electric Utilities Corporation on the Tentative Order issued in the above-referenced proceeding. Copies will be provided as indicated on the Certificate of Service.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Ryan', is written over a horizontal line.

Devin T. Ryan

DTR/jl
Enclosure

cc: Scott Gebhardt (sgebhardt@pa.gov)
Louis Fink Smith (finksmith@pa.gov)
Certificate of Service

CERTIFICATE OF SERVICE
(Docket No. M-2015-2468992)

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA FIRST CLASS MAIL

Bureau of Investigation & Enforcement
PO Box 3265
Commonwealth Keystone Building
400 North Street, 2nd Floor West
Harrisburg, PA 17105-3265

Office of Small Business Advocate
Commerce Building
300 North Second Street, Suite 202
Harrisburg, PA 17101

Christopher M. Arfaa
Thomas J. Sniscak
Hawke McKeon & Sniscak LLP
100 North Tenth Street
Harrisburg, PA 17101
Pennsylvania State University

Aron J. Beatty
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923
Office of Consumer Advocate

Robin LeBaron
Sr. Analyst
2107 Wilson Blvd., Suite 850
Arlington, VA 22201
Home Performance Coalition

Elizabeth P. Trinkle
McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166
Industrial Customer Groups

Mark C. Morrow
Chief Regulatory Counsel
UGI Corporation
460 North Gulph Road
King of Prussia, PA 19406
UGI Distribution Companies

Jocelyn Grabrynowicz Hill
City of Philadelphia
1515 Arch Street
16th Floor
Philadelphia, PA 19102
City of Philadelphia

Robert Altenburg
610 North Third Street
Harrisburg, PA 17101
Citizens for Pennsylvania's Future

Courtney Lane
1500 Walnut Street
Suite 502
Philadelphia, PA 19102
Citizens for Pennsylvania's Future

John L. Munsch
First Energy Corp.
800 Cabin Hill Drive
Greensburg, PA 15601-1689
*MetEd, Penelec, PennPower &
West Penn Power*

Kathy Jo Kolich
First Energy Corp.
76 South Main Street
Akron, OH 44308
*MetEd, Penelec, PennPower &
West Penn Power*

Harry S. Geller
Elizabeth R. Marx
Pennsylvania Utility Law Project
118 Locust Street
Harrisburg, PA 17101-1414
CAUSE-PA

Logan Welde
135 S. 19th Street
Suite 300
Philadelphia, PA 19103
Clean Air Council

Brian Kauffman
Executive Director
1501 Cherry Street
Philadelphia, PA 19102
Keystone Energy Efficiency Alliance

Terrence J. Fitzpatrick
Donna M. J. Clark
Energy Association of PA
800 North Third Street
Suite 205
Harrisburg, PA 17102
Energy Association of PA

Jack R. Garfinkle
Assistant General Counsel
Exelon Business Services Company
2301 Market Street
Philadelphia, PA 19103
PECO Energy Company

Jackson Morris
Director Regional Affairs
100 Center Road
Danville, PA 17821
Energy Efficiency for All

Jackson Morris
Director Governmental Affairs
744 Broadway
Albany, NY 12207
PACE

Thomas Schuster
PO Box 51
Winber, PA 15963
Sierra Club

Rachel Blake
Mark Schwartz
2 S. Easton road
Glenside, PA 19038
RHLS & PWCC

John Manz
1 College Avenue
Williamsport, PA 17701
National Sustainable Structures Center

Joseph L. Vullo
Burke Vullo Reilly Roberts
1460 Wyoming Avenue
Forty Fort, PA 18704
Pennsylvania Weatherization Task Force

Kimberly H. Childe
PA Department of Environmental Protection
400 Market Street
Harrisburg, PA 17101
PA DEP

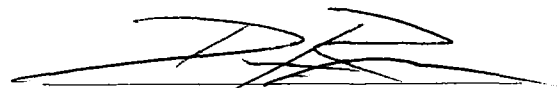
Theodore S. Robinson
2121 Murray Avenue
Pittsburgh, PA 15217
Citizen Power, Inc.

Scott Debroff
One South Market Square
12th Floor
PO Box 1146
Harrisburg, PA 17101
EnerNOC, Inc.

Tishekia Williams
Duquesne Light Company
411 Seventh Avenue, 16th Floor
Pittsburgh, PA 15219
Duquesne Light Company

Josh Craft
Senior Analyst
91 Hartwell Avenue
Lexington, MA 02421
Northeast Energy Efficiency Partnerships

Date: April 27, 2015



Devin T. Ryan

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

2016 Total Resource Cost (TRC) Test : Docket No. M-2015-2468992

**COMMENTS OF
PPL ELECTRIC UTILITIES CORPORATION**

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

On March 11, 2015, the Pennsylvania Public Utility Commission (“Commission”) entered its Tentative Order¹ in the above-captioned proceeding. In the Tentative TRC Order, the Commission issued, for public comment, its proposals for modifying the Total Resource Cost Test (“TRC”) as part of its third phase (“Phase III”) of the Energy Efficiency and Conservation (“EE&C”) Program. PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) generally agrees with the Commission’s proposals in the Tentative TRC Order. However, the Company proposes certain refinements and requests clarification regarding certain proposals in the Tentative TRC Order.

I. BACKGROUND

PPL Electric is a public utility and an electric distribution company (“EDC”) as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code, 66 Pa. C.S. §§ 102, 2803. PPL Electric furnishes electric distribution, transmission, and default supply services to approximately 1.4 million customers throughout its certificated service territory, which includes

¹ *2016 Total Resource Cost (TRC) Test*, Docket No. M-2015-2468992 (Order Entered Mar. 11, 2015) (“Tentative TRC Order”).

all or portions of 29 counties and encompasses approximately 10,000 square miles in eastern and central Pennsylvania.

Pursuant to Act 129 of 2008, P.L. 1592, 66 Pa. C.S. §§ 2806.1 and 2806.2 (“Act 129”), PPL Electric designed and implemented Phase I and Phase II EE&C Plans. On July 1, 2009, PPL Electric filed its Phase I EE&C Plan with the Commission in accordance with to Act 129 and various related Commission orders. The Commission approved PPL Electric’s EE&C Plan, with modifications, on October 26, 2009,² and further revisions were approved on February 17, 2010.³ On November 15, 2012, PPL Electric filed its initial Phase II EE&C Plan. The Commission approved PPL Electric’s initial Phase II EE&C Plan, with modifications, on March 14, 2013.⁴ PPL Electric’s subsequent compliance filing was approved by the Commission on July 11, 2013.⁵

PPL Electric’s Phase I and Phase II EE&C Plans have included a broad portfolio of energy efficiency and energy education programs and initiatives. PPL Electric’s portfolios of programs were designed to provide customer benefits and to meet the energy reduction goals set forth in Act 129. The Phase I and Phase II EE&C Plans have included a range of energy efficiency programs that included every customer segment in PPL Electric’s service territory. For Phase I, the Company achieved 1,642,067 MWh/yr of verified gross energy savings and 340.9 MW of verified gross peak demand reduction, well in excess of its compliance targets of

² See *Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216 (Order Entered Oct. 26, 2009).

³ See *Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216 (Order Entered Feb. 17, 2010).

⁴ See *Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan*, Docket No. M-2012-2334388 (Order Entered Mar. 14, 2013).

⁵ See *Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan*, Docket No. M-2-12-2334388 (Order Entered July 11, 2013).

1,146,4310 MWh/yr and 297 MW respectively. For Phase II, PPL Electric is currently on track to exceed its energy reduction target of 821,072 MWh/yr.

PPL Electric continues to support Act 129 EE&C Programs and appreciates the opportunity to provide input regarding this matter. As an EDC operating an EE&C Program, PPL Electric believes that its Comments will provide the Commission with a valuable perspective in its evaluation of the TRC Test applicable for Phase III.

II. COMMENTS OF PPL ELECTRIC

PPL Electric generally agrees with most of the proposals in the Tentative TRC Order and provides the following comments on the Commission's recommendations. As discussed in detail below, with these Comments, the Company seeks refinements and clarifications of certain aspects of the Tentative TRC Order. Specifically, PPL Electric requests that the Commission make the following revisions or clarifications:

- Clarify whether Demand Response ("DR") and Energy Efficiency ("EE") must both be cost-effective on their own for compliance, or whether only the total EE&C portfolio (EE and DR combined) must be cost-effective;
- Clarify how EDCs should determine the avoided cost of electricity (i.e., energy benefits); and
- Adopt the Company's proposed alternative method for accounting for net-to-gross in the TRC Test, as detailed in Exhibit 1 attached to these Comments.

Consistent with the Tentative TRC Order, and for ease of reference, the topics addressed in these comments are numbered in the same manner as the topics discussed in the Tentative TRC Order. To the extent that the Company does not have comments on a particular topic, it is stated below:

II. TRC Test Explained

PPL Electric has no comments on this section.

III. Stakeholder Comments Regarding The 2016 TRC Test In Response To The Phase III Secretarial Letter

PPL Electric has no comments on this section.

IV. 2016 TRC Test Topics For Which No Changes From Phase II Are Proposed

A. Societal Test As Part Of The TRC Test

On March 11, 2015, the Commission entered the Tentative TRC Order for Pennsylvania's Act 129 Phase III EE&C Plans. Commissioner Cawley issued a statement requesting comments on the following issues:

Does Act 129 prohibit the inclusion of O&M benefits, such as reduced fossil fuel or water costs, into the TRC calculations related to such measures as insulation, weatherization, or other related programs? Is the inclusion of O&M costs related to fuel switching measures consistent with this treatment of similar fossil fuel costs in the TRC calculations? Please respond with reference to the specific statutory language.⁶

PPL Electric believes that Act 129 does not prohibit the inclusion of O&M benefits, such as reduced fossil fuel use or water costs, into the TRC calculations related to such measures as insulation, weatherization, or other related programs see Section 2(B)(1)(I). However, PPL Electric recommends leaving the TRC methodology the same as in Phase II for the following reasons:

1. Consistency across phases allows for the comparison of program performance;
2. The TRC methodology used for compliance needs to be consistent with the methodology used in the Market Potential Study so that benefits are not overstated or understated; and

⁶ "Statement of Commissioner James H. Cawley," *Energy Efficiency and Conservation Program – 2016 PA Total Resource Cost (TRC) Test*, Docket No. M-2015-2468992, at p. 2 (Mar. 11, 2015)

3. Many of the non-electric benefits such as water reductions, productivity and quality of life issues are difficult to verify and would be burdensome for the customer to identify, calculate, and provide to the EDC.

Moreover, PPL Electric believes the inclusion of O&M costs related to fuel switching measures is different because the switch from electric to gas or fossil fuels to gas needs to be converted to a BTU basis. This information also is readily available at the time of conversion unlike the information mentioned above.

B. Use Of TRC Test Assumptions For Other Matters

PPL Electric has no comments with regard to this proposal.

C. Level At Which To Measure TRC Test

In this proceeding, the Commission has stated that no changes will be made to this section and that it “propose[s] to continue applying the TRC Test at the plan level and will continue to reserve the right to reject any program with a low TRC test ratio.” Tentative TRC Order, p. 14. PPL Electric requests clarification as to whether DR and EE must both be cost-effective on their own for compliance, or whether only the total EE&C portfolio (EE and DR combined) must be cost-effective.

**D. Cost-Effectiveness Evaluations And Reporting Results And
Timing Of TRC Test Reports**

PPL Electric has no comments with regard to this proposal.

E. Maximum 15-Year Measure Life

PPL Electric has no comments with regard to this proposal.

F. Definition Of Incentives In TRC Test For Energy Efficiency Measures

PPL Electric has no comments with regard to this proposal.

G. Incentive Payments From An EDC

PPL Electric has no comments with regard to this proposal.

H. Incentive Payments From Sources Outside Of Act 129

PPL Electric has no comments with regard to this proposal.

I. Incremental Costs

PPL Electric has no comments with regard to this proposal.

J. End-Use Adjustments

PPL Electric has no comments with regard to this proposal.

K. Inclusion Or Exclusion Of Customer Avoided Operating And Maintenance Costs In The TRC Test Calculation

PPL Electric has no comments with regard to this proposal.

L. Avoided Costs In Benefit/Cost Ratios In Approved EE&C Plans

PPL Electric has no comments with regard to this proposal.

M. Fuel Switching

PPL Electric has no comments with regard to this proposal.

N. Compliance With AEPS Act And Carbon Issues

PPL Electric has no comments with regard to this proposal.

O. Low-Income Energy Savings

PPL Electric has no comments with regard to this proposal.

P. Low-Income Benefits And Costs Reporting

PPL Electric has no comments with regard to this proposal.

V. Benefits And Costs – Change Proposed

A. Avoided Transmission And Distribution Costs

In this section, the Commission does not specify how the EDCs should determine the avoided cost of electricity (i.e., energy benefits). PPL Electric recommends that the same method outlined in the Commission’s 2012 TRC Test Order be used for Phase III. *See 2012 PA Total Resource Cost (TRC) Test*, Docket No. M-2012-2300653, at pp. 27-32 (Order Entered Aug. 30, 2012) (“2012 TRC Test Order”).

B. Incremental Measure Costs Data

PPL Electric has no comments with regard to this proposal.

C. Transmission, Distribution, And Capacity Costs

PPL Electric has no comments with regard to this proposal.

D. Locational, Temporal, And Zonal Differences

PPL Electric has no comments with regard to this proposal.

VI. Net-To-Gross – Change Proposed

A. Basis Of TRC Test Benefits

PPL Electric has no comments with regard to this proposal.

B. Net-To-Gross (NTG) Adjustments To Savings

PPL Electric has no comments with regard to this proposal.

C. Inclusion Of Costs For Free Riders In TRC Test Calculations

PPL Electric believes that the Commission should adopt the Company's alternative method for accounting for net-to-gross in the TRC Test, which is outlined in Exhibit 1 attached to these comments.

In the Tentative TRC Order, the Commission has recommended a procedure for factoring net-to-gross ("NTG") ratio into the calculation of TRC. The recommended approach is based on the method described in the 2007 Clarification Memo of the California Public Utilities Commission ("CPUC"). The formulation described in the Clarification Memo removes from TRC calculations the associated benefits and only the incentive portion of the incremental installed measure cost. It inflates the TRC costs by treating a portion of the incentives as administrative costs.

However, although this formulation creates more parity between the TRC calculations for direct install programs and rebate programs, it incorrectly reduces the rebate program TRC benefit/cost ratio rather than correctly accounting for the measure costs under a direct install scenario. This treatment contradicts the underlying rationale of the TRC perspective, which should recognize the total costs of an energy-efficient measure, regardless of whether they are borne by the program administrator or the participant. Furthermore, this formulation ignores that in the absence of the program, from a TRC point of view, those participants are considered free-riders who would have had to pay the entire incremental cost of the installed measure, including what is covered by the utility incentives. Moreover, this treatment of NTG, and the lower TRC that it yields, results in understating the value of savings from certain energy efficiency measures and programs. Consequently, PPL Electric proposes an alternative method for accounting for NTG in the TRC to more accurately reflect the underlying principles of the TRC, as the test is used in Pennsylvania. This alternative method, which is described in detail and accompanied with a numeric example in Exhibit 1, is consistent with the methods used in most other jurisdictions, including Oregon, Washington, Idaho, Iowa, Utah, Illinois, Indiana, Michigan, and

Wisconsin.

VII. Demand Response – Change Proposed

A. Inclusion Of Demand Response

PPL Electric has no comments with regard to this proposal.

B. TRC Test Benefits From Demand Response

PPL Electric has no comments with regard to this proposal.

C. 75% Participant Cost Assumption

PPL Electric has no comments with regard to this proposal.

D. Measure Life Of Demand Response Equipment

PPL Electric has no comments with regard to this proposal.

E. Treatment Of DR Payments To CSPs And EDCs From PJM

PPL Electric has no comments with regard to this proposal.

VIII. Frequency Of Review Of TRC Test

PPL Electric has no comments with regard to this proposal.

IX. New Matters

PPL Electric has no comments with regard to this proposal.

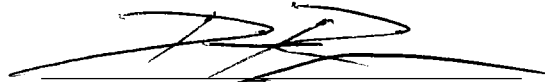
X. TRC Test Formulae For Use In Pennsylvania

PPL Electric has no comments with regard to this proposal.

III. CONCLUSION

For the reasons set forth above, PPL Electric Utilities Corporation respectfully requests that the Commission take these Comments into consideration in preparing its Final TRC Order.

Respectfully submitted,



Paul E. Russell (ID # 21643)
Kimberly A. Klock (ID # 89716)
PPL Services Corporation
Office of General Counsel
Two North Ninth Street
Allentown, PA 18106
Phone: 610-774-4254
Fax: 610-774-6726
E-mail: perussell@pplweb.com
kklock@pplweb.com

David B. MacGregor (ID # 28804)
Post & Schell, P.C.
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2808
Phone: 215-587-1197
Fax: 215-320-4879
E-mail: dmacgregor@postschell.com

Devin T. Ryan (ID # 316602)
Post & Schell, P.C.
17 North Second Street, 12th Floor
Harrisburg, PA 17101-1601
Phone: 717-612-6052
Fax: 717-731-1985
E-mail: dryan@postschell.com

Of Counsel:
Post & Schell, P.C.

Date: April 27, 2015

Attorneys for PPL Electric Utilities Corporation

Exhibit 1

Exhibit 1 – TRC Order

Factoring Net-to-Gross Ratios in Total Resource Cost (TRC) Calculations

In its 2016 tentative order on the TRC test for Phase III of Act 129, the Commission has recommended a procedure for factoring net-to-gross (NTG) ratio into the calculation of TRC.¹ The recommended approach is based on the method described in the 2007 Clarification Memo of the California Public Utilities Commission (CPUC).²

The 2007 Clarification Memo was developed to assure that direct install programs and rebate programs that are fundamentally equivalent yield the same TRC result.

Without further clarification from the 2007 Clarification Memo, the mathematical formulation of the 1988 SPM Correction Memo appears to create a freerider cost advantage to rebate programs relative to direct install programs, which should not occur if all else is equal.³

This issue arises because an NTG adjustment is applied to the participant costs but not to program administrative costs. Under a direct install program, a portion of the measure installation cost is treated as a program administrative cost. As such, a NTG factor is not applied to the portion of the measure cost, which results in higher total resource costs.

The approach outlined in the 2007 Clarification Memo balances the approaches for the direct install and rebate programs by adding the incentives paid to freeriders under a rebate program to the TRC calculation. PPL Electric believes that this approach mischaracterizes the costs of the programs. Incentives are a transfer payment and should not be considered a cost for calculating TRC. TRC should be the measure costs net of freeriders, plus the program administration costs. Therefore, the correct approach for assuring equal treatment of direct install programs with rebate programs is to appropriately apply the NTG adjustment to the measure cost portion of the direct install costs.

PPL Electric proposes an alternative method for accounting for NTG in TRC to more accurately reflect the underlying principles of the TRC; as the test is used in Pennsylvania and is consistent with the methods used in many other jurisdictions, including Oregon, Washington, Idaho, Iowa, Utah, Illinois, Indiana, Michigan, and Wisconsin.

¹ From the Public Meeting of March 11, 2015, at Docket No. M-2015-2468992.

² Mimeo. D.07-09-043 (pp. 154-158).

³ Ibid.

As specified in the Commission’s 2016 tentative order and according to the methods of the CPUC’s Standard Practice Manual for Economic Analysis of Demand-Side Management Programs (SPM),⁴ the TRC test is calculated as the ratio of the net present value (NPV) of the benefits (BTRC) and total installed cost (CTRC) of an energy efficiency measure (or program), as defined in equations 1 and 2:

Equation 1

$$B_{TRC} = \sum_{t=1}^N \frac{S_t * AC_t}{(1 + d)^{t-1}}$$

Equation 2

$$C_{TRC} = \sum_{t=1}^N \frac{UAC_t + IMC_t}{(1 + d)^{t-1}}$$

Where,

- S = Energy savings
- AC = Per-unit utility avoided supply costs
- d = Discount rate
- N = Measure life
- IMC = Incremental installed measure cost
- UAC = Utility program administration costs
- t = Year

The NTG ratio affects both the numerator and the denominator in this equation. The appropriate way to factor the NTG in TRC calculations would be to compare the savings and costs of an energy efficiency program (or measure) with what the savings and costs would have been in the program’s absence. This approach provides a sound framework to account for NTG in calculating the benefits and costs of energy efficiency. The approach is also consistent with the method specified in CPUC’s 1998 Correction Memo to the SPM.⁵ We outline the logic of this approach in the Table 1.

⁴ CPUC. *Standard Practice for Cost-Benefit Analysis of Conservation and Load Management Programs*. February 1983. Revised in 1987, 1988, and 2001.

⁵ CPUC R.06-04-010 COM/DGX, ALJ/MEG/rbg, Attachment, p. 1. It should be noted that the 2007 Clarification Memo adds an additional cost based on incentives paid to freeriders, which is inconsistent with the fundamental principle of determining the cost differential with and without the program.

Table 1. TRC Costs and Benefits

Status	Without Program	With Program	Incremental Difference
Energy Savings	S * FR	S * (1 + SO)	S * (1 - FR + SO)
Costs	IMC * FR	IMC * (1 + SO) + UAC	UAC + IMC * (1 - FR + SO)

The effects of NTG on TRC may be calculated by incorporating the adjustments shown in Table 1 for equations 1 and 2 shown above; these adjustments would result in the following two equations:

Equation 3

$$B_{TRC} = \sum_{t=1}^N \frac{S_t * (1 - FR + SO) * AC_t}{(1 + d)^{t-1}}$$

Equation 4

$$C_{TRC} = \sum_{t=1}^N \frac{UAC_t + IMC_t * (1 - FR + SO)}{(1 + d)^{t-1}}$$

Where FR and SO are freeridership and spillover, respectively, and all other terms are defined as in equations 1 and 2.

Numeric Example

Using equations 3 and 4, the effects of NTG on TRC is illustrated through the following numeric example of a hypothetical energy efficiency program (Table 2).

Table 2. Numeric Example

Characteristic	Value
Number of participants	4
Number of freeriders	1
Freeridership (FR)	25%
Spillover (SO)	0%
Incremental installed measure cost (PC)	\$100
Rebate	\$50
Utility administrative cost (PRC)	\$20 per participant
Energy savings per participant (S)	2000 units
Avoided cost (AC)	\$0.10 per unit
Measure life (N)	1 year (t=1)

To simplify, in the above example, we assume there was no spillover; therefore, the NTG ratio includes only freeridership. We also assumed a one-year cycle for the program. Using these assumed values in equations 3 and 4, we calculated the following TRC ratios:

TRC, Assuming no Freeriders

$$[4*2000*0.10] / [(4*20) + (4*100)] = \$800/\$480 = 1.7$$

TRC, Assuming Freeriders

$$[4*2000*((1-0.25) + 0)*0.1] / [(4*20) + (4*100*((1-0.25) + 0))] = \$600/\$380 = 1.6$$

As this example demonstrates, the application of NTG results in discounting the savings and the installed measure costs by the same proportion, but does not affect the utility’s administrative cost. Because the administrative costs normally constitute a small portion of the installed measure costs, the impact of NTG on TRC tend to be small.

In the 2007 Clarification Memo,⁶ CPUC modified the original method for calculating TRC by adding a “transfer incentive (INC) recapture” term to the cost component of the initial TRC equation, as shown below:

$$\text{TRC Costs} = \text{PRC} + \text{NTG}*\text{PC} + (1.0-\text{NTG})*\text{INC}$$

Where,

PRC = Program administrator program costs

PC = Participant device costs (before INC is received)

NTG = Net-to-gross ratio (1-FR+SO)

INC = Incentive costs, restricted to include only the dollar benefits, assumed to cover 50% of the measure cost or \$50

This formulation removes from TRC calculations the benefits and only the incentive portion of the incremental installed measure cost. Applying the revised formulation to TRC calculations results in a lower TRC ratio:

$$[4*2000*(1-0.25+0)*0.1] / [(4*20) + (4*100*(1-0.25+0)) + (1-.75)*4*(50)] = \$600/\$420 = 1.4$$

While inflating the TRC costs by treating a portion of the incentives as administrative costs may create more parity between the TRC calculations for direct install programs and rebate programs, it does so by incorrectly reducing the rebate program TRC benefit/cost ratio rather than correctly accounting for the measure costs under a direct install scenario. This treatment contradicts the underlying rationale of the TRC perspective, which should recognize the total costs of an energy-efficient measure (PC), regardless of whether they are borne by the program administrator or the participant. This formulation ignores the

⁶ Mimeo. D.07-09-043 (pp. 154-158).

fact that from a TRC point of view, in the absence of the program, those participants considered freeriders would have had to pay the entire incremental cost of the installed measure, including what is covered by the utility incentives. Moreover, this treatment of NTG, and the lower TRC that it yields, results in understating the value of savings from certain energy efficiency measures and programs.

We recommend rejecting the addition of the incentive recapture term as it is inappropriate for rebate programs. Instead, we recommend appropriately applying any NTG adjustment to the measure cost component of a direct install program costs. As previously noted, the approach proposed by PPL Electric is consistent with the methods commonly used in a large number of jurisdictions for accounting for NTG