



**STATE OF NEW JERSEY**  
**Board of Public Utilities**  
**Two Gateway Center**  
**Newark, NJ 07102**  
**[www.nj.gov/bpu/](http://www.nj.gov/bpu/)**

CLEAN ENERGY

IN THE MATTER OF REVISIONS TO NEW	)	ORDER
JERSEY'S CLEAN ENERGY PROGRAM DECEMBER	)	
2007 PROTOCOLS TO MEASURE RESOURCE	)	
SAVINGS	)	DOCKET NO. EO09070460

(SERVICE LIST ATTACHED)

BY THE BOARD:

*Background and Procedural History*

On February 9, 1999, the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et al. (EDECA or the Act) was signed into law. The Act established requirements to advance energy efficiency and renewable energy in New Jersey through the societal benefits charge (SBC), at N.J.S.A. 48:3-60(a)(3). EDECA further empowered the Board to initiate a proceeding and cause to be undertaken a comprehensive resource analysis of energy programs, currently referred to as the comprehensive energy efficiency (EE) and renewable energy (RE) resource analysis (CRA). After notice, opportunity for public comment, public hearing, and consultation with the New Jersey Department of Environmental Protection (NJDEP), within eight months of initiating the proceeding and every four years thereafter, the Board would determine the appropriate level of funding for EE and Class I RE programs (now called New Jersey's Clean Energy Program or CEP) that provide environmental benefits above and beyond those provided by standard offer or similar programs in effect as of February 9, 1999.

By Order dated September 30, 2008, Docket No. EO07030203, the Board concluded its third CRA proceeding and set funding levels for the years 2009 through 2012. By Order dated January 8, 2009, Docket No. EO07030203, the Board approved 2009 programs and budgets. By Order dated January 18, 2008, Docket No. EO07120961, the Board approved a document entitled *Protocols to Measure Resource Savings* (Protocols) and dated December 2007. The December 2007 Protocols are the most recent Protocols approved by the Board and which are used by the program managers to estimate energy savings and renewable energy generation.

The Protocols include algorithms for measuring energy and other resource savings that result from implementation of New Jersey's Clean Energy Program. The Protocols require updating from time to time as baselines against which energy savings are changed due to upgrades in



energy codes or appliance efficiency standards, as programs are added or changed, as a result of program evaluations, or due to other changes in the assumptions used to measure resource savings. In this Order, the Board will consider additions to the Protocols that address new programs or program components that were approved by the Board subsequent to the Board's approval of the December 2007 Protocols.

#### *Proposed Revisions to Protocols*

By Order dated January 8, 2009, Docket No. EO07030203, the Board approved 2009 programs and budgets that included several new programs and program components including: the Pay-for-Performance and Direct Install programs, the quality installation verification (QIV) component of the HVAC program and the appliance turn-in component of the Energy Efficient Products program. On February 25, 2009 Honeywell International, Inc. ("Honeywell"), the residential energy efficiency and renewable energy Market Manager, submitted proposed modifications to the Protocols that address the programs it manages and on April 10, 2009 TRC Energy Services ("TRC"), the commercial and industrial energy efficiency Market Manager, submitted proposed modifications to the Protocols that address the programs it manages.

Rutgers Center for Energy, Economic and Environmental Policy (CEEPP) was engaged by the Board to provide certain services related to the evaluation of New Jersey's Clean Energy Program including updating the Protocols. CEEPP reviewed the changes proposed by Honeywell and TRC and prepared a redlined version of the Protocols that showed all of the proposed changes to the December 2007 Protocols that were approved by the Board in the January 18, 2008 Order referenced above.

While the proposed revisions to the Protocols were being developed, an impact evaluation of all NJCEP programs was proceeding. KEMA, Inc. has been engaged by the Board to perform this impact evaluation and will provide additional recommendations regarding proposed changes to the Protocols. KEMA has issued draft reports for three of the six programs it is evaluating. These draft reports have been circulated to interested stakeholders for comment. The final report is scheduled for completion by the end of September 2009.

On April 22, 2009, the Office of Clean Energy (OCE) circulated the proposed changes to the Protocols to the EE and RE Committees of the Clean Energy Council<sup>1</sup>; posted the proposed changes on the NJCEP web site; and requested comments on the proposed changes. Comments were received from the New Jersey Utilities Association (NJUA) and from the Department of the Public Advocate, Division of Rate Counsel (Rate Counsel).

#### *Summary of Comments*

##### NJUA

The NJUA submitted comments on behalf of the State's seven regulated electric and natural gas utilities.

The NJUA recommended that language on page 5 of the Protocols be changed to clarify that the 1,200 kWh per kW of installed solar noted in the example on page 5 is consistent with the CORE program protocol which notes that the estimated energy generation is a result of PV Watts calculations.

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<sup>1</sup> The Clean Energy Council is open to any member of the public and functions as a public stakeholder group.



The Protocols were modified to clarify this point.

The NJUA recommended that language on page 6 of the Protocols be modified to eliminate references to utility review of tracking systems.

This language was inadvertently left in the Protocols after the programs transitioned from the utilities to the Market Managers. Staff concurs with this recommendation and removed the reference to the utilities.

NJUA stated that language regarding measures lives on page 12 of the Protocols is not consistent with language in Appendix A.

Staff concurs and deleted the discussion regarding measure lives on pages 11 and 12 of the draft Protocols.

The Home Performance with Energy Star program includes two references to vendor specific products: the HomeCheck software and the PowerCost Monitor™. The NJUA recommended removing any references to any specific vendor in the Protocols.

- Regarding the reference to the PowerCost Monitor™ Staff concurs and has removed such references.
- Regarding the HomeCheck software, this product is included as an example only and the Protocols note other software that can be used as well. Since the program is currently utilizing the HomeCheck software to estimate savings for the Home Performance with Energy Star program, and given that it is included in the Protocol as an example only, Staff recommends that references to HomeCheck software remain in the Protocol.

#### Rate Counsel

Rate Counsel objected to the inclusion of certain uses given for the Protocols, specifically:

- The calculation of lost margin revenue recovery
- The provision of information to regulators and program administrators for determining eligibility for administrative performance incentives (to the extent that such incentives are approved by the BPU)

Rate Counsel recommended that the two references noted above be removed from the Protocols.

Staff disagrees with Rate Counsel's recommendation to remove these two items from the Protocols. The Protocols state that they "will be used consistently statewide to assess program impacts and calculate energy and resource savings." The Protocols are intended as best estimates of energy savings or generation that result from the installation of energy efficiency and renewable energy measures. Staff believes it is critical that the Board utilize a consistent methodology for estimating energy savings and generation for all purposes.

Also, Staff notes that previous drafts of the Protocols have included the uses to which Rate Counsel now objects.

With respect to the calculation of lost margin revenue recovery, Rate Counsel stated its belief that the draft Protocols "presumptively considers Board approval of consideration of lost margin revenue recovery" and that the Board has yet to rule on this issue.



Staff does not believe that the continued use of this reference in the Protocols presumes Board approval of consideration of lost margin revenue recovery. If and when the Board makes a decision regarding lost margin revenue recovery, the Board can determine whether to utilize the existing Protocols or some other methodology as a tool for calculating lost revenues. However, to help clarify this point, Staff has revised the draft protocol to include the words "as approved by the BPU" after the reference to calculation of lost margin revenue recovery. The reference to performance incentives already includes this language.

Rate Counsel also recommended that the reference to performance incentives should be explicitly limited to only performance incentives for the Market Managers.

Staff does not believe that the process of revising the Protocols, which provide the methodology for measuring energy savings for the NJCEP, is an appropriate forum to discuss issues related to defining performance incentives.

#### *Additional Comments*

Both the NJUA and Rate Counsel submitted a number of comments that relate to the draft KEMA impact evaluation reports noted above. At this time, Staff recommends limiting changes to the Protocols to those changes necessary to estimate savings from the new programs and new program components for which no protocol exists. Staff believes that the changes to the Protocols recommended by KEMA, as well as some of the changes proposed by Rate Counsel and the NJUA, will benefit from additional input from stakeholders and further discussion and will more appropriately be addressed subsequent to the issuance of the final KEMA report. The individual comments are noted below.

The NJUA acknowledged that new standard equipment is an appropriate baseline for new construction. However, the NJUA suggested that the same baseline assumptions are not appropriate for programs that promote the early retirement of functioning equipment.

This comment will benefit from additional input from stakeholders and further discussion.

The NJUA recommended changing the baseline for HVAC equipment from standard efficiency replacement equipment to the efficiency of the equipment being replaced.

This comment will benefit from additional input from stakeholders and further discussion.

The NJUA stated that there are several discrepancies between the algorithms for gas heating equipment in the Residential HVAC program protocol and the C&I Construction program protocol. These discrepancies included differences in the estimated hours of operation and inconsistencies in the definitions used in the residential and C&I protocols.

This comment will benefit from additional input from stakeholders and further discussion.

The NJUA recommended that the energy savings be based on the four summer months of June through September instead of the three months, June through August, currently utilized.

This comment will benefit from additional input from stakeholders and further discussion.

Rate Counsel submitted comments that addressed several recommendations included in the draft KEMA reports noted above, including recommendations related to net-gross ratios, capacity output for gas furnaces and basing CHP savings on post-installation characteristics.



Rate Counsel recommended that several changes to the Protocols be made to incorporate the findings included in KEMA's draft reports.

These comments will benefit from additional input from stakeholders and further discussion.

#### *Staff Recommendations*

Staff has two additional recommendations.

Staff recommends the removal of the proposed changes to HVAC program inputs regarding equivalent full load hours of operation. These changes were proposed by KEMA and, given Staff's foregoing recommendations, Staff now recommends that these factors remain unchanged pending further input from stakeholders.

With respect to Pay-for-Performance, one of the programs approved by the Board on January 8, 2009, Staff notes that this program includes one incentive that is paid when a project is completed and a second incentive that is paid after the measures have been operational for a period of time and the savings are measured and verified. The program is designed such that the first payment will be based on estimated savings included in the Energy Reduction Plan submitted by each applicant. Actual savings will be measured and verified and reported after the project has been operational for a period of one year and the second payment will be made at that time, adjusted to account for actual savings experienced which are higher or lower than anticipated.

Staff recommends that an evaluation be performed subsequent to submittal of a number of energy savings reports on individual projects in which the actual savings have been measured and verified. The evaluation should compare actual savings to the estimated savings in the Energy Reduction Plans to determine if there are major differences between the two. If significant discrepancies exist, Staff would consider proposing changes to the Protocols for consideration by the Board.

CEEEP has prepared a revised draft of the Protocols dated June 2009 that incorporates those changes that Staff believes, on the basis of the analysis discussed above, are appropriate for addressing at this time and will improve the Protocols. Staff believes the revised Protocols are consistent with Board policy, are reasonable and are necessary as a basis for calculating energy savings and generation from the new programs and program components. Therefore, Staff recommends approval of the revised Protocols.

Subsequent to receipt of KEMA's final impact evaluation report, Staff will circulate the report to interested stakeholders for comment and will commence a process for receipt of input on additional changes to the Protocols recommended by KEMA. Staff anticipates that recommendations regarding additional changes to the Protocols will be submitted to the Board for consideration by the end of 2009.

#### Discussion and Finding

The Board **FINDS** that the Protocols should be updated from time to time so that they are current with federal and State codes and standards, are reflective of current technologies and building practices and other changes in the marketplace, including the addition of new NJCEP programs and program components. The Board further **FINDS** that OCE conducted a public process through which it received significant input regarding the development of the proposed changes. The Board **FINDS** that it is important that the Board utilize a consistent methodology for estimating energy savings and generation for all purposes. The Board **FINDS** that including



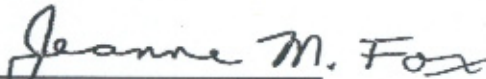
a reference to the use of the Protocols to calculate lost margin revenue recovery does not presume Board approval of such recovery. The Board **FINDS** that, in the event it approves such recovery, it is not bound to use these Protocols in calculating any recovery. The Board **FINDS** that it is not appropriate to consider the extent of or limitations upon performance incentives in this proceeding to review and revise the Protocols for measuring energy savings. The Board also **FINDS** that it will be appropriate to conduct an evaluation of the Pay for Performance program performed by the Center for Economic, Energy and Environmental Policy (CEEPP) after a sufficient number of reports on the actual savings experienced over the first year of operation have been reviewed by the Market Managers. The Board also **FINDS** that an evaluation of the new programs including Direct Install, the quality installation verification (QIV) component of the HVAC program the Home Performance with Energy Star, the appliance turn-in component of the Energy Efficient Products should be performed by CEEPP after one year of operational data is available.

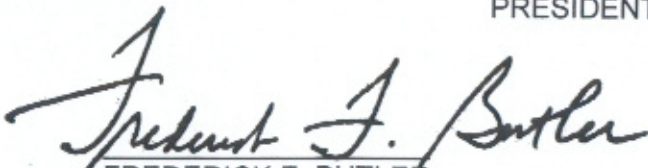
The Board **FINDS** that the proposed Protocols include a reasonable methodology and are appropriate for measuring energy savings and renewable and distributed generation. Therefore, the Board **HEREBY APPROVES** the proposed Protocols for Measuring Resource Savings dated June 2009.

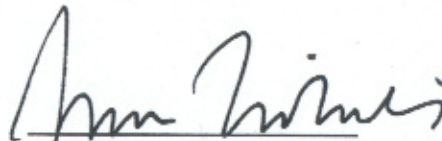
The Board **FURTHER FINDS** that in order to continue the process of updating and modifying the Protocols, additional input from stakeholders regarding several of the changes recommended by Rate Counsel and the NJUA will be beneficial. The Board **FINDS** that it is appropriate to await receipt of KEMA's final impact evaluation report prior to soliciting additional stakeholder input so that all issues can be considered in totality.

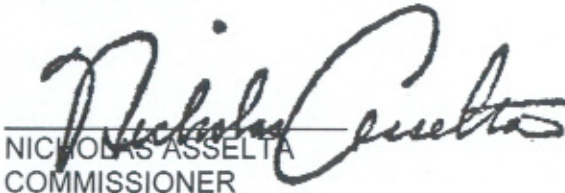
DATED: 8/2/09

BOARD OF PUBLIC UTILITIES  
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ATTEST:

  
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SECRETARY

HEREBY CERTIFY that the within  
document is a true copy of the original  
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