



Agenda Date: 12/16/15
Agenda Item: 8E

STATE OF NEW JERSEY
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

CLEAN ENERGY

IN THE MATTER OF THE CLEAN ENERGY PROGRAM) ORDER
AUTHORIZATION OF COMMERCIAL AND INDUSTRIAL)
PROGRAM ENERGY EFFICIENCY INCENTIVES)
EXCEEDING \$500,000.00 – MERCK & CO., INC.) DOCKET NO. QG15111314

Party of Record:

Chris Broome, Associate Director of Engineering, Merck & Co., Inc.

BY THE BOARD:¹

The New Jersey Board of Public Utilities (Board) and its New Jersey Clean Energy Program (NJCEP) include nine individual Commercial & Industrial (C&I) Energy Efficiency (EE) Programs targeting the commercial and industrial market segments, consisting of New Construction, Retrofit, Pay for Performance – New Construction, Pay for Performance – Existing Buildings, Local Government Energy Audit, Direct Install, Combined Heat and Power and Fuel Cells, Large Energy Users Program (LEUP), and the Societal Benefits Charge Credit Program. These programs collectively offer financial incentives to encourage the installation of energy efficient products and technologies. Eligible applicants may receive incentives for a portion of the cost of installing energy efficient technologies such as lighting, heating, ventilation and air conditioning, water heating, and other measures. All proposed C&I EE financial incentives and rebates exceeding \$500,000.00 require explicit Board approval. See I/M/O the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for the 2009 through 2012 Clean Energy Program – Revised 2012-2013 Programs & Budgets – Revised Rebate Approval Process, BPU Docket No. EO07030203 (May 3, 2013).

¹ Commissioner Joseph L. Fiordaliso was not present at the December 16, 2015 agenda meeting.

The purpose of the LEUP is to foster self-investment in energy efficiency, and combined heat and power projects while providing necessary financial support to large commercial and industrial utility customers in the State of New Jersey. Incentives will be awarded to customers that satisfy the program's eligibility and program requirements to invest in self-directed energy projects that are customized to meet the requirements of the customers' existing facilities, while advancing the State's energy efficiency, conservation, and greenhouse gas reduction goals. To qualify, eligible entities must have contributed a minimum of \$300,000.00 into New Jersey's Clean Energy Program fund in fiscal year 2014 defined from July 1, 2013 through June 30, 2014 (aggregate of all buildings/sites).

By this Order, the Board considers the application of Merck & Co., Inc. (Merck), for an incentive of \$1,208,835.22, submitted under the 2015 LEUP program pursuant to the TRC FY 2015 Program & Budget Filing (September 17, 2014). The project is located at 126 East Lincoln Avenue, in Rahway, Union County. The application was submitted and accepted under the above-referenced program guidelines in effect from July 1, 2014 through June 30, 2015. This project incentive is within the entity cap, based on the application approval date. The scope of the project entails upgrades to the pumping system of Merck's largest campus-wide chilled water loop. These upgrades will improve flow and reduce mixing, and also include a new variable primary pumping scheme that will allow the system to run more efficiently by meeting the campus chilled water load with less energy. Installing these measures will reduce the annual electric usage by an estimated 3,540,670 kWh and will reduce the annual electric demand by 1,003 kW. These measures will also save the applicant 83,547 therms annually. Overall, the proposed projects will have an estimated annual energy cost savings of \$481,692 at a total project cost of \$2,081,323.57. The applicant will also realize an operational and maintenance savings of \$16,500.00 per year. The simple payback period when factoring in the avoided operational and maintenance costs is 1.8 years.

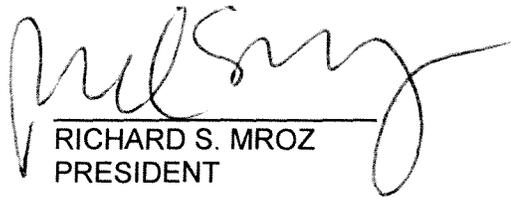
TRC, the Market Manager engaged by the Board to manage the NJCEP C&I EE programs, submitted a certification that the incentive was calculated in accordance with the program policies and procedures, and that the listed amount is the true and accurate estimated incentive for which the applicant is eligible. Further, Applied Energy Group, in its role as the NJCEP Program Coordinator, also reviewed the application and submitted its certification that the incentive was calculated in accordance with the program policies and procedures, and that the listed amount is the true and accurate estimated incentive for which the applicant is eligible. Based on these certifications and the information provided by the Market Manager and Program Coordinator, Board Staff recommends that the Board approve the above-referenced applications.

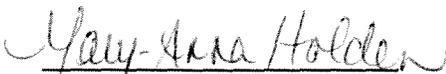
The Board **HEREBY ORDERS** the approval of the aforementioned application for the total estimated incentive amount of \$1,208,835.22 for Merck, and **HEREBY AUTHORIZES** issuance of a standard commitment letter to the applicant identified above, setting forth the terms and conditions of this commitment.

The effective date of this Order is December 26, 2015.

DATED: 12/16/15

BOARD OF PUBLIC UTILITIES
BY:


RICHARD S. MROZ
PRESIDENT

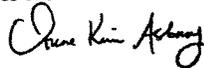

MARY-ANNA HOLDEN
COMMISSIONER


DIANNE SOLOMON
COMMISSIONER


UPENDRA J. CHIVUKULA
COMMISSIONER

ATTEST: 
IRENE KIM ASBURY
SECRETARY

I HEREBY CERTIFY that the within
document is a true copy of the original
in the files of the Board of Public Utilities



**IN THE MATTER OF THE CLEAN ENERGY PROGRAM AUTHORIZATION OF
COMMERCIAL AND INDUSTRIAL (C&I) PROGRAM ENERGY EFFICIENCY INCENTIVES
EXCEEDING \$500,000 – MERCK & CO., INC.
DOCKET NO. QG15111314**

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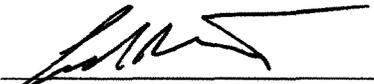
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Christopher Broome
Associate Director of Engineering
Merck & Co., Inc.
126 East Lincoln Avenue
Rahway, NJ 07065

Market Manager Certification
(New Incentive Commitments > \$500,000)

I, Carl Teter, hereby certify that applications on the attached list have been reviewed by TRC or its subcontractors as required by the policies and procedures applicable to each program, that the incentives for which TRC now seeks approval to commit have been calculated in accordance with those policies and procedures, and that the listed amounts are the true and accurate estimated incentives for which each applicant is eligible.

By: 
Carl P. Teter, P.E., LEED AP, Associate Vice President
App# L16269

Date: 11-19-15

1. Application Number: **L16269**
2. Program Name: **FY15 Large Energy Users Program**
3. Customer Contact:

**Christopher Broome, Associate Director of Engineering
Merck & Co., Inc.
126 E. Lincoln Avenue, RY28-470F
Rahway, NJ 07065
(732) 594-4925**

4. Project Name and Address:

**Rahway Chilled Water Optimization Project
126 E. Lincoln Avenue
Rahway, NJ 07065**

5. Incentive Amount: **\$1,208,835.22**

6. Brief description of measures:

Pumping system upgrades to Merck's largest campus-wide chilled water loop. The existing pumping scheme uses 2 sets of pumps to deliver chilled water to buildings on campus and will be converted to a "Variable Primary" scheme which uses only 1 set of pumps that adjust speed based on load conditions, weather and other factors. Along with campus-wide piping modifications to improve flow and reduce mixing, the new variable primary pumping scheme allows the system to run more efficiently by meeting the campus chilled water load with less energy.

7. Annual Estimated Energy Savings:

Electric: 3,540,670 kWh, 1,003 kW

Gas: 83,547 therms

8. Annual Estimated Cost Savings: **\$481,692.00, including operational and maintenance savings**

9. Project Cost: **\$2,081,323.57**

10. Operational and Maintenance Savings: **\$16,500.00**

11. Simple Payback period: **4.3 years without incentives. 1.8 years with incentive.**

12. IRR: **22.55% without incentives. 55.19% with incentive.**

**Program Coordinator Certification
(New Incentive Commitments > \$500,000)**

I, **Maura Watkins**, hereby certify that in its role as Program Coordinator, Applied Energy Group, Inc. has reviewed the referenced below, as required by the policies and procedures applicable to each program, that the standardized equipment incentives for which TRC now seeks approval to commit have been calculated in accordance with those policies and procedures, and that the amount shown below is the true and accurate estimated incentive for which the applicant(s) is(are) eligible.

For incentives based on uniquely calculated estimated energy savings, including the Custom Program, Pay for Performance, Combined Heat & Power and Large Energy Users Program, Applied Energy Group certifies locating documentation supporting the inputs used to calculate the rebate amount and evidencing TRC's evaluation of those inputs as required by the program's policies and procedures.

Maura H Watkins

By: _____

Date: 11-16-2015

Maura Watkins

Quality Assurance Manager - Applied Energy Group, Inc.

Ref: _____
App # L16269

Applicant Merck & Co., Inc.

Payee Merck

Committed Amount: \$1,208,835.22