

Agenda Date: 1/23/13 Agenda Item: 8B

### STATE OF NEW JERSEY

Board of Public Utilities
44 South Clinton Avenue, 9<sup>th</sup> Floor
Post Office Box 350
Trenton, NJ 08625-0350
www.nj.gov/bpu/

#### **CLEAN ENERGY**

IN THE MATTER OF THE CLEAN ENERGY PROGRAM AUTHORIZATION OF COMMERCIAL AND INDUSTRIAL (C&I) PROGRAM ENERGY EFFICIENCY INCENTIVES	ORDER
EXCEEDING \$300,000	DOCKET NOS.
COUNTRY CLUB TOWERS II, LLC	EO12121078V
OWENS CORNING SALES, LLC	EO13010003V
SOCIETY HILL APARTMENTS ASSOCIATES, LP D/B/A WASHINGTON WAY APARTMENTS	EO13010004V
TD BANK	EO13010005V

#### Parties of Record:

**Bill Palmer**, Senior Director of Energy Management, Kamson Corporation, Country Club Towers II, LLC

Amy Via, Global Energy Sourcing Leader, Owens Corning Sales, LLC Bill Palmer, Senior Director of Energy Management, Kamson Corporation, Society Hill Apartments Associates, LP d/b/a Washington Way Apartments
Chuck Engler, Vice President of Facilities, TD Bank

#### BY THE BOARD:

The New Jersey Board of Public Utilities' (the Board) Commercial and Industrial (C&I) Energy Efficiency Program, which is marketed as the New Jersey SMARTSTART Buildings Program (SSBP or SMARTSTART), includes the C&I New Construction, C&I Retrofit, Pay-for-Performance New Construction, Pay-for-Performance Existing Buildings, Local Government Energy Audit, Direct Install, Combined Heat and Power and Fuel Cells, and Large Energy Users Pilot. These programs collectively offer financial incentives to New Jersey property owners 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 or other measures in new or existing buildings.

Country Club Towers II, LLC, Englewood Cliffs, NJ, has submitted an application for a total financial incentive in the amount of \$373,449 under the 2012 Pay for Performance – Existing Buildings Program, for a project located at the Country Club Towers II apartments, 140 Hepburn Road, Clifton, NJ. The first estimated incentive, for the energy reduction plan (ERP), is \$36,631. The estimated second incentive, for completed performance-based installation of recommended measures (including hot water boiler upgrades, installation of apartment zone controls, installation of variable frequency drives (VFDs) on motors and pumps, insulation of hot water pipes, lighting upgrades, and replacement of existing exhaust fans with VFD models), is \$168,409. The estimated third incentive, for the post construction benchmarking report, which is based on the one-year true up of the ERP, is \$168,409. This project has an estimated 37.4% total energy savings, which equates to an estimated annual energy savings of 501,375 kWh of electricity, estimated annual electric demand reduction of 126 kW, and estimated annual energy savings of 90,606 therms of natural gas. Overall, this application will have an estimated annual energy cost savings of \$149,597 at an estimated first project installation cost of \$1,081,900.

Owens Corning Sales, LLC, Granville, OH, has submitted an application for a total financial incentive in the amount of \$1,500,000 under the 2012 Combined Heat and Power (CHP) and Fuel Cells Program, for a project located at 1249 Newark Turnpike, Kearny, NJ. The applicant proposes to install a 500 kW fuel cell system powered by natural gas, designed to provide up to 500 kW of grid parallel base load operation, with 300kW of grid-independent capacity available for use by the facility's critical loads. The system is all-electric, designed to utilize waste heat internally to boost overall electrical efficiency. Therefore the system demonstrates approximately 52% fuel conversion efficiency. A table of fuel cell system emissions is provided in the Market Manager Certification attached to this order. The system is expected to produce 4,161,000 kWh of electricity annually. Overall, this application will have an estimated annual energy cost savings of \$103,010 at an estimated project cost of \$4,660,073.

Society Hill Apartments Associates, LP d/b/a Washington Way Apartments, Englewood Cliffs, NJ, has submitted an application for a total financial incentive in the amount of \$445,900 under the 2012 Pay for Performance — Existing Buildings Program, for a project located at Washington Way Apartments, 2049 Barnsboro Road, Blackwood, NJ. The first estimated incentive, for the energy reduction plan, is \$42,300. The estimated second incentive, for completed performance-based installation of recommended measures (including boiler and pump upgrades, installation of building management system and unit controls, lighting upgrades, installation of building insulation, and installation of pipe insulation), is \$201,800. The estimated third incentive, for the post construction benchmarking report, which is based on the one-year true up of the ERP, is \$201,800. This project has an estimated 34.5% total energy savings, which equates to an estimated annual energy savings of 620,231 kWh of electricity, estimated annual electric demand reduction of 250.8 kW, and estimated annual energy savings of 106,860 therms of natural gas. Overall, this application will have an estimated annual energy cost savings of \$259,260 at an estimated first project installation cost of \$1,747,000.

TD Bank, Mount Laurel, NJ, has submitted an application for a total financial incentive in the amount of \$341,936 under the 2012 Pay for Performance – Existing Buildings Program, for a project located at 6000 Atrium Way, Mount Laurel, NJ. The first estimated incentive, for the energy reduction plan, is \$12,882. The estimated second incentive, for completed performance-based installation of recommended measures (including upgrades to existing building automation controls, installation of demand control ventilation, installation of new motors and VFDs on condensed water fans, and interior lighting retrofits), is \$164,527. The estimated third incentive, for the

post construction benchmarking report, which is based on the one-year true up of the ERP, is \$164,527. This project has an estimated 22.6% total energy savings, which equates to an estimated annual energy savings of 1,482,078 kWh of electricity, estimated annual electric demand reduction of 54 kW, and estimated annual energy savings of 2,224 therms of natural gas. Overall, this application will have an estimated annual energy cost savings of \$185,634 at an estimated first project installation cost of \$658,107.

TRC, the Market Manager engaged by the Board to manage the New Jersey Clean Energy Program (NJCEP) C&I energy efficiency programs, has submitted certifications that the incentives for which TRC now seeks approval to commit have been calculated in accordance with the program policies and procedures, and that the listed amounts are the true and accurate estimated incentives for which the applicants are eligible. Further, Applied Energy Group, in its role as the NJCEP Program Coordinator, has reviewed the applications and submitted certifications that the incentives for which TRC now seeks approval to commit have been calculated in accordance with the program policies and procedures, and that the listed amounts are the true and accurate estimated incentives for which the applicants are eligible. Based on the above, the Staff recommends that the Board approve the above-referenced applications.

The Board <u>HEREBY ORDERS</u> the approval of the aforementioned applications for the total estimated incentive amounts of \$373,449 for Country Club Towers II, LLC; \$1,500,000 for Owens Corning Sales, LLC; \$445,900 for Society Hill Apartments Associates, LP d/b/a Washington Way Apartments; and \$341,936 for TD Bank, and <u>AUTHORIZES</u> issuance of standard commitment letters to the applicants identified above, setting forth the terms and conditions of these commitments.

DATED: 1/23/13

BOARD OF PUBLIC UTILITIES

ROBERT M. HANNA

**PRESIDENT** 

JEANNE M. FOX COMMISSIONER

NICHOLAS ASSELTA

COMMISSIONER

ATTEST:

KRISTI IZZO

JOSEPH L. FIORDALISO

COMMISSIONER

MARY-ANNA HOLDEN COMMISSIONER

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

3 BPU DOCKET NOS. E012121078V, E013010003V, E013010004V & E013010005V

IN THE MATTER OF THE CLEAN ENERGY PROGRAM AUTHORIZATION OF COMMERCIAL AND INDUSTRIAL (C&I) PROGRAM ENERGY EFFICIENCY INCENTIVES EXCEEDING \$300,000 – COUNTRY CLUB TOWERS II, LLC; OWENS CORNING SALES, LLC; SOCIETY HILL APARTMENTS ASSOCIATES, LP D/B/A WASHINGTON WAY APARTMENTS; TD BANK

DOCKET NOS. E012121078V, E013010003V, E013010004V, & E013010005V

### SERVICE LIST

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Elizabeth M. Teng Office of Clean Energy Board of Public Utilities P.O. Box 350 Trenton, NJ 08625-0350 Allison E. Mitchell Office of Clean Energy Board of Public Utilities P.O. Box 350 Trenton, NJ 08625-0350

Bill Palmer Senior Director of Energy Management, Kamson Corporation Country Club Towers II, LLC 270 Sylvan Avenue Englewood Cliffs, NJ 07632

Bill Palmer Senior Director of Energy Management, Kamson Corporation Society Hill Apartments Assoc., LP 270 Sylvan Avenue Englewood Cliffs, NJ 07632

Amy Via Global Energy Sourcing Leader Owens Corning Sales, LLC 2790 Columbus Road Granville, OH 43023

Chuck Engler Vice President of Facilities TD Bank 1200 Horizon Way Mount Laurel, NJ 08054

Coordinator, abelow, as required program, that seeks approve policies and p	Applied Energy Group, Inc. has reviewed the referenced uired by the policies and procedures applicable to each the standardized equipment incentives for which TRC now all to commit have been calculated in accordance with those procedures, and that the amount shown below is the true and mated incentive for which the applicant(s) is(are) eligible.
including the Pilot Program, supporting the	based on uniquely calculated estimated energy savings, Custom Program, Pay for Performance and Large Energy Users Applied Energy Group certifies locating documentation inputs used to calculate the rebate amount and evidencing on of those inputs as required by the program's policies and
•	r.a. 4 Warkens  Date:
Maura W Quality Ass	
Ref: App #	15810
Applicant	Country Club Towers I LLC
Payee	Country Club Towers II LLC
Committed Ar	nount: \$373,449.00

### Market Manager Certification (New Incentive Commitments > \$300,000)

I <u>Carl Teter</u> 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.

Date: 12-4-12

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

App# 15810

1. Application Number: 15810

2. Program Name: Pay for Performance- Existing Buildings

Customer Contact (name, company, address, phone #):
 Bill Palmer - Sr. Director of Energy Management
 Country Club Towers II, LLC
 270 Sylvan Avenue, Englewood Cliffs, NJ 07632
 201-227-2288

4. Project Name and Address:
Country Club Towers II
140 Hepburn Road, Clifton, NJ 07012

5. Rebate amount:

Incentive #1: \$ 36,631.00 Incentive #2: \$ 168,409.00 Incentive #3: \$ 168,409.00

Total:

\$ 373,449.00

6. Brief description of measures

	Messure Name	Measure Details	Fuel Affected	Qty
1	Hot Water Boiler Upgrades	Replace boilers with (2) 3000 MBH modular condensing boilers rated at 95% CE or higher; Replace DHW heater with (3) 500 MBH 94% efficient hot water heaters; and replace 1000 gallon storage tanks with (3) 120 gallons of storage tank;	Natural Gas	Sce left
2	Apartment Zone Control	Install Zone Valves in all apartments and Automatic Temperature Controls to modulate control valves and cycle fan motors in unit fancolls.	Natural Gas	all
3	Motor and Pump VFDs	Install Variable Frequency a Drives on system pumps and chilled water pumps	Electric	4
4	Hot Water Pipe Insulation	Provide insulation on 360 linear feet of hot water distribution piping system.	Natural Gas	alj.
5	Lighting Upgrades	Replace existing metal halide, T12, and incandescent fixtures with qualified LED technology, Replace older T8 fixtures with low wattage T8 fixtures.	Electric	all.
6	Exaust Fan VFDs	Replace existing exhaust fans with models containing high, efficiency motors with VFD control and BMS capability to adjust ventilation rates.	Electric	. 22

- 7. Annual Estimated Energy Savings: 501,375 kWh; 126 kW; 90,606 therms
- 8. Annual Estimate Energy Cost Savings: \$149,597.00

Coordinator, Ap below, as requir program, that the seeks approval policies and pro-	A Watkins  , hereby certify that in its role as Program oplied Energy Group, Inc. has reviewed the referenced red by the policies and procedures applicable to each the standardized equipment incentives for which TRC now to commit have been calculated in accordance with those ocedures, and that the amount shown below is the true and atted incentive for which the applicant(s) is(are) eligible.
including the Co Pilot Program, A supporting the in	ased on uniquely calculated estimated energy savings, ustom Program, Pay for Performance and Large Energy Users pplied Energy Group certifies locating documentation nputs used to calculate the rebate amount and evidencing n of those inputs as required by the program's policies and
Maur	a UWatkins
By:	
Maura Wa Quality Assur	atkins ance Manager - Applied Energy Group, Inc.
Ref: App #	17868CHP
Applicant	Owens Corning Sales, LLC
Payee	Owens Corning Sales, LLC
Committed Amo	ount: \$1,500,000.00

### Market Manger Certification (New Incentive Commitments > \$300,000)

FCarl 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., LFFD AP, Associate Vice President
App: 17868CHP

1. Application Number: 17868CHP

2. Program Name: Combined Heat and Power/Fuel Cell

Customer Contact (name, company, address, phone #):
 Amy Via, Global Energy Sourcing Leader
 Owens Corning
 2790 Columbus Rd., Granville, OH 43023
 740-321-5074

4. Project Name and Address:
Owens Corning
1249 Newark Turnpike, Kearny, NJ 07032

5. Rebate amount.

Incentive #1: \$300,000.00 Incentive #2: \$900,000.00 Incentive #3: \$300.000,00 Total: \$1,500,000.00

 Brief description of <CHP/Fuel Cell> to be Installed (size, efficiency, emission, equipment to be replaced).

Bloom Energy proposes to install a SOOkW fuel cell system powered by natural gas. The system is designed to provide up to SOOkW of grid parallel (GP) base load operation, with 300kW of grid-independent (GI) capacity available for use by the facility's critical loads. Of the 300kW GI, an Uninterruptible Power Module (UPM) provides up to 160 kW of high-quality power to the facility 'critical load' via a standalone inverter output. The grid-independent UPM will continue to serve its load even during an interruption of utility power.

Bloom Energy's system is all-electric, designed to utilize waste heat internally to boost overall electrical efficiency. Therefore the system demonstrates approximately 52% fuel conversion efficiency.

It produces negligible emissions of pollutants, and reduces CO2 emissions substantially by decreasing demand for power from traditional, centralized and inefficient combustion-based generators. Emissions provided by Bloom Energy are:

Vendor	Supplied Fuel Cell System	Emissions	
NOx	0.01 lbs/MWh		
SOx	< 0.01 lbs/MWh		
PM-10	• 0.000217 lbs/MWh	•	- 4
CO2	773 lbs/MWh		***
CO	6 16 lbs MWh	•	
Voc "	0.02 lbs/MWh		

 Annual Estimated Energy Savings: Expected Annual Electricity Production: 4,161,000 kWh (approx. 78% of total annual electricity consumed on site during analysis period).

8. Project Cost: \$4,660,073.00

9. Annual Estimate Energy Cost Savings: \$103,010.00

Coordinator, A below, as requ program, that t seeks approval policies and pro-	A Watkins  , hereby certify that in its role as Program pplied Energy Group, Inc. has reviewed the referenced ired by the policies and procedures applicable to each the standardized equipment incentives for which TRC now to commit have been calculated in accordance with those ocedures, and that the amount shown below is the true and lated incentive for which the applicant(s) is(are) eligible.
including the C Pilot Program, A supporting the	pased on uniquely calculated estimated energy savings, sustom Program, Pay for Performance and Large Energy Users Applied Energy Group certifies locating documentation inputs used to calculate the rebate amount and evidencing on of those inputs as required by the program's policies and
Maur	a 4 Watkins
Ву:	
Maura Wa Quality Assu	atkins rance Manager - Applied Energy Group, Inc.
Ref: App #	16490
Applicant	Society Hill Apartment Associates LP
Payee	Society Hill Apartment Associates LP
Committed Am	sount: \$445,900.00

### Market Manager Certification (New Incentive Commitments > \$300,000)

I <u>Carl Teter</u> 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. TEED AP, Associate Vice President

1. Application Number: 16490

2. Program Name: Pay for Performance- Existing Buildings

Customer Contact (name, company, address, phone #):
 Bill Palmer - Sr. Director of Energy Management
 Society Hill Apartments Associates, LP
 270 Sylvan Avenue, Englewood Cliffs, NJ 07632
 201-227-2288

4. Project Name and Address:

Society Hill Apartments Associates, LP /dba Washington Way Apartments 2049 Barnsboro Road, Blackwood, NJ 08012

5. Rebate amount:

Incentive #1: \$42,300.00 Incentive #2: \$201,800.00 Incentive #3: \$201,800.00 Total: \$445,900.00

6. Brief description of measures

<del></del> ,	Measure Name	Measure Details (Describe Equipment/Controls to be Installed )	Fuel Affected	Quantity
1	Boiler & Pump Upgrades	Replace boilers for heating and DHW with modular condensing boilers rated at 95% CE and new pumps with VFD's	Natural Gas	9 Boiler Rooms HHW and DHW
2	BMS & Unit Controls	Install unit thermostats with central BMS Control for boilers, pumps and unit temp control via Day/Night scheduling and Outside Air Reset for boilers and pumps.	Natural Gas	400 Unita
3	Lighting Upgrades	Replace all interior and exterior incandescent and lower efficiency T8 fluorescent lighting with Energy Star LED lighting fixtures and lamps	Electric	all
<b>4</b> ,	Building Insulation	Install Attic and Crawlspace insulation	Natural Gas	all
	Pipe Insulation	Install pipe insulation on heating piping in unheated crawlspaces	Natural Gas	all

 Annual Estimated Energy Savings: 620,231 kWh 250.8 kW 106,860 therms

8. Annual Estimate Energy Cost Savings: \$259,260.00

Coordinator, App below, as require program, that the seeks approval to policies and pro-	Watkins , hereby certify that in its role as Program olied Energy Group, Inc. has reviewed the referenced ed by the policies and procedures applicable to each e standardized equipment incentives for which TRC now o commit have been calculated in accordance with those cedures, and that the amount shown below is the true and ited incentive for which the applicant(s) is(are) eligible.
including the Cu Pilot Program, Al	ased on uniquely calculated estimated energy savings, estom Program, Pay for Performance and Large Energy Users oplied Energy Group certifies locating documentation of those inputs as required by the program's policies and
Maur	a UWatkins
By:	Date: 12-28-2012
Maura Wa	ıtkins
Quality Assur	ance Manager - Applied Energy Group, Inc.
Ref: App #	16145
Applicant	TD Bank
Payee	TD Bank
Committed Am	ount: \$341,936.00

### Market Manager Certification (New Incentive Commitments > \$300,000)

I <u>Carl Teter</u> hereby certify that applications on the attached list have been reviewed by IRC or its subcontractors as required by the policies and procedures applicable to each program, that the incentives for which IRC 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. Leter, P.F., LTED AP, Associate Vice President

1. Application Number: 16145

2. Program Name: Pay for Performance- Existing Buildings

 Customer Contact (name, company, address, phone #): Chuck Engler , V.P. of Facilities
 TD Bank
 1200 Horizon Way, Mount Laurel, NJ 08054

215-778-5699

4. Project Name and Address:

TD Bank 6000 Atrium Way, Mount Laurel, NJ 08054

5 Rebate amount:

Incentive #1: \$12,882.00 Incentive #2: \$164,527.00 Incentive #3: \$164.527.00 Total: \$341,936.00

#### 6. Brief description of measures

	Measure Name	Measure Details (Describe Equipment/Controls to be Installed )	Fuel Affected	Quantity
ı	Controls Upgrade	Upgrade existing building automation controls and implement unoccupied night setback	Natural Gas	N/A
2	Demand Control Ventilation	Install CO2 sensors on RTUs to adjust the outside air according to the CO2 level in the space.	Electric	6
3	VFD on Cooling Tower	New motors and VFD on cooling tower fans to reduce the speed when the load is low	Flectne	] 3
4	VFD on Chilled Water Pump	New motors and VFD on condensed water fans to reduce the speed when the load is low	Electric	1
5	Interior Lighting Retrofit	Replace existing T8 fluorescent lighting fixtures with energy efficient T5 and low-wattage T8 lighting fixtures and add occupancy sensors	Electric	2733

7 Annual Estimated Energy Savings:

1,482,078 kWh

54 kW

2,224 therms

8. Annual Estimate Energy Cost Savings: \$185,634.00