



Agenda Date: 12/19/12
Agenda Item: 8A

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

CLEAN ENERGY

IN THE MATTER OF THE CLEAN ENERGY PROGRAM)	ORDER
AUTHORIZATION OF COMMERCIAL AND INDUSTRIAL)	
(C&I) PROGRAM ENERGY EFFICIENCY INCENTIVES)	
EXCEEDING \$300,000)	DOCKET NOS.
)	
IRVINGTON BOARD OF EDUCATION)	EO12111031V
)	
EQUINIX INC.)	EO12111032V
)	
COUNTRY CLUB ASSOCIATES)	EO12111033V
)	
RIDER UNIVERSITY)	EO12111034V

Parties of Record:

Roger Monel, Associate School Business Administrator, Irvington Board of Education
Tony McCoy, Direct Install Program Manager, Lime Energy
Carl Fung, Senior Mechanical Engineer, Equinix Inc.
Bill Palmer, Senior Director of Energy Management, Country Club Associates
Julie Karns, Treasurer & Vice President of Finance, Rider University

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 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, Heat Ventilation and Air Conditioning, water heating or other measures in new or existing buildings.

Irvington Board of Education, Irvington, NJ, has submitted an application for a financial incentive in the amount of \$330,343 under the 2012 C&I Retrofit program in conjunction with

the 2012 Schools Lighting Initiative for complete fixture replacements, for a project located at University Middle School, 255 Myrtle Avenue, Irvington, NJ. The project consists of removing all the T-12 lights and replacing them with more efficient T-8 and T-5 fixtures. This project enables an estimated annual energy savings of 216,564 kWh of electricity to the customer, and a demand savings of 53.55 kW. The project has an estimated cost savings of \$30,319 at an estimated first project installation cost of \$330,343.

Equinix Inc., Sunnyvale, CA, has submitted an application for a financial incentive in the amount of \$428,820.73 under the 2012 Large Energy Users Pilot (LEUP) program, for a project located at Equinix NY1, 165 Halsey Street, Newark, NJ. The project consists of installing energy efficient electrical distribution technology at an existing data center. The applicant proposes to replace eight uninterruptible power supply (UPS) units with four smaller, more efficient units to provide a source of backup power should the data center's main source of power fail. Installing these units would raise overall efficiency of the UPS system to approximately 96%. Also, because these units do not contain transformers, they occupy less space on the data center's floor and emit less waste heat, which results in a reduced cooling load. Installing these measures will enable an estimated annual energy savings of 1,814,819 kWh, and will result in 207 kW of electric demand reduction. Overall, this applicant will have an estimated annual energy cost savings of \$211,548 at an estimated total project cost of \$910,000.

Country Club Associates, Englewood Cliffs, NJ, has submitted an application for a total financial incentive in the amount of \$549,346 under the 2011 Pay for Performance – Existing Buildings Program, for a project located at the Country Club Apartments, 2 Country Club Road, Eatontown, NJ. The first estimated incentive, for the energy reduction plan (ERP), is \$27,920. The estimated second incentive, for completed performance-based installation of recommended measures (including hot water boiler upgrades, installation of zone valves and automatic temperature controls on the hot water system, envelope insulation, hot water pipe insulation, lighting upgrades, and installation of low flow water fixtures), is \$260,713. The estimated third incentive, for the post construction benchmarking report, which is based on the one-year true up of the ERP, is \$260,713. This project has an estimated 15.12% total energy savings, which equates to an estimated annual energy savings of 461,822 kWh of electricity, estimated annual electric demand reduction of 148 kW, and estimated annual energy savings of 167,930 therms of natural gas. Overall, this application will have an estimated annual energy cost savings of \$379,526 at an estimated first project installation cost of \$2,044,241.

Rider University, Lawrenceville, NJ, has submitted an application for a total financial incentive in the amount of \$1,000,000 under the 2012 Combined Heat and Power Program, for a project located at 2083 Lawrenceville Road, Lawrenceville, NJ. The applicant proposes to install a one megawatt Cummins C1100N6C reciprocating engine to provide on-site electricity generation, space heating, and cooling to the campus. The system is expected to produce 8,545,053 kWh of electricity annually and 21,029 MMBtu of recovered natural gas heat annually for space cooling and heating. Overall, this application will have an estimated annual energy cost savings of \$472,057 at an estimated turn-key cost of \$4,594,188.

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

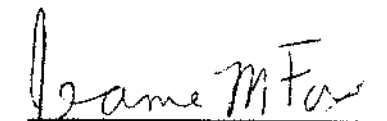
certifications that the incentives for which TRC now seeks approval to commit have been calculated in accordance with the program policies and procedures, and that the listed amounts are the true and accurate estimated incentives for which the applicants are eligible. Based on the above, the Staff recommends that the Board approve the above-referenced applications.

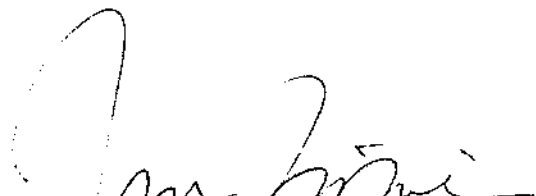
The Board **HEREBY ORDERS** the approval of the aforementioned applications for the total estimated incentive amounts of \$330,343 for Irvington Board of Education, \$428,820.73 for Equinix Inc., \$549,346 for Country Club Associates, and \$1,000,000 for Rider University, and **AUTHORIZES** issuance of standard commitment letters to the applicants identified above, setting forth the terms and conditions of these commitments.


DATED: 12/19/12

BOARD OF PUBLIC UTILITIES
BY:


ROBERT M. HANNA
PRESIDENT


JEANNE M. FOX
COMMISSIONER


JOSEPH L. FIORDALISO
COMMISSIONER

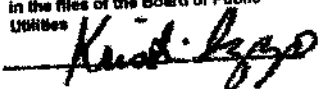

NICHOLAS ASSELTA
COMMISSIONER


MARY-ANNA HOLDEN
COMMISSIONER

ATTEST:


KRISTI IZZO
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 \$300,000 – IRVINGTON BOARD OF EDUCATION, EQUINIX INC., COUNTRY
CLUB APARTMENTS, RIDER UNIVERSITY

DOCKET NOS. EO12111031V, EO12111032V, EO12111033V, & EO12111034V

SERVICE LIST

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Newark, NJ 07102

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Administrator
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Newark, NJ 07102

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Senior Mechanical Engineer
Equinix Inc.
255 Caspian Drive
Sunnyvale, CA 94089

Michael Ambrosio
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Rachel Boylan
Counsel's Office
Board of Public Utilities
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Bill Palmer
Senior Director of Energy
Management
Country Club Associates
270 Sylvan Avenue
Englewood Cliffs, NJ 07632

James Nappi
Applied Energy Group, Inc.
317 George Street
Suite 305
New Brunswick, NJ 08901

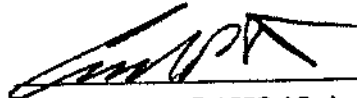
Elizabeth M. Teng
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Board of Public Utilities
P.O. Box 350
Trenton, NJ 08625-0350

Julie Karns
Treasurer and VP of Finance
Rider University
2083 Lawrenceville Road
Lawrenceville, NJ 08648

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

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 true and accurate estimated incentives for which each applicant is eligible.

By:



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

App # 17441

Date: 10-18-12

1. Application Number: **17441**
2. Program Name: **NJ SmartStart Buildings – Prescriptive Lighting – K-12 Schools Lighting Initiative**
3. Customer Contact (Name, company, address, phone #):
**Roger Monel, Assoc. School Business Administrator
Irvington Board of Education
255 Myrtle Ave School
Irvington, NJ 07111**
4. Project Address: **255 Myrtle Avenue School, Irvington, NJ 07111**
5. Incentive amount: **\$330,343.00**
6. Brief description of measures

The Irvington Myrtle Ave School has applied for Incentives under the T12 Schools Lighting Initiative. The project consists of removing all T-12 lighting fixtures and replacing them with various T8 and T5 fluorescent fixtures.

7. Annual Estimated Energy Savings:
**Annual Savings - 216,564 kWh
Demand Savings - 53.55 kW**

**Program Coordinator Certification
(New Incentive Commitments > \$300,000)**

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 and Large Energy Users Pilot 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: 11-05-2012

Maura Watkins

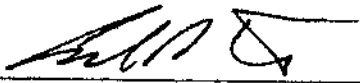
Quality Assurance Manager - Applied Energy Group, Inc.

Ref:	
App #	<u>17441</u>
Applicant	<u>Irvington Board of Education</u>
Payee	<u>Lime Energy</u>

Committed Amount: \$330,343.00

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

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# L16249

Date: 11-19-12

1. Application Number: **L16249**
2. Program Name: **Large Energy Users Pilot Program**
3. Customer Contact (name, company, address, phone #):
Carl Fung, Senior Mechanical Engineer
255 Casplan Drive, Sunnyvale, CA 94089
408-543-6065
4. Project Name and Address:
Equinix NY1 Site
165 Halsey Street, Newark, NJ 07102
5. Incentive amount: **\$428,820.73**
6. Brief description of measures:
 - 1) **UPS upgrades:** Replacement of eight (8) 375KVA/300KW Liebert units with four (4) 500KW/550KVA Toshiba G9000 UPS units. These new units are equipped with advance IGBT technology, deliver high input power factors (greater than 99%) and are capable of handling 100% unbalanced load. Additionally, they do not contain any transformers and hence, occupy a very small footprint on the data center floor. Installation of the new UPS system would raise the overall efficiency of the system to approximately 96%. Additionally, indirect savings are likely to be realized as a lower amount of waste heat will be added to the space as cooling load.
7. Annual Estimated Energy Savings: **1,814,819 kWh; 207 KW**
8. Annual Estimate Energy Cost Savings: **\$211,548.00**

**Program Coordinator Certification
(New Incentive Commitments > \$300,000)**

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 and Large Energy Users Pilot 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: 11-15-2012

Maura Watkins

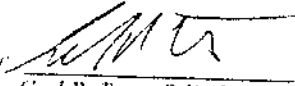
Quality Assurance Manager - Applied Energy Group, Inc.

Ref:	
App #	<u>L16249</u>
Applicant	<u>Equinix Inc.</u>
Payee	<u>Equinix Inc.</u>

Committed Amount: \$428,820.73

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

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# 14061

Date: 11-20-12

1. Application Number: 14061
2. Program Name: Pay for Performance- Existing Buildings
3. Customer Contact (name, company, address, phone #):
Bill Palmer, Sr. Director Energy Management
Country Club Associates
270 Sylvan Avenue, Englewood Cliffs, NJ 07632
201-227-2288
4. Project Name and Address:
Country Club Apartments
2 Country Club Road, Eatontown, NJ 07724
5. Rebate amount:
Incentive #1: \$27,920.00
Incentive #2: \$260,713.00
Incentive #3: \$260,713.00

Total: \$ 549,346.00

6. Brief description of measures

Measure Name	Measure Details	Fuel Affected	Qty
1 Hot Water Boiler Upgrades	Replace boilers with (3) 2000 MBH modular condensing boilers rated at 95%; DHW heater boiler with 95% efficiency and two 120 gallons of storage tank; Install new variable speed pumps on the secondary heating loops.	Natural Gas	7
2 Zone Control of Hot Water System	Install Zone Valves in all apartments and Automatic Temperature Controls to modulate control valves.	Natural Gas	all
3 Envelope Insulation	Provide crawl space with 2" of closed cell foam insulation on the entire underside of the first floor apartment; Replace existing fiberglass insulation and provide 1.5" of closed cell foam insulation on attic floor. Perform weatherization work to reduce infiltration.	Natural Gas	all
4 Hot Water Pipe Insulation	Provide insulation on 6000 linear feet of hot water distribution piping system.	Natural Gas	all
5 Lighting Upgrades	Replace existing incandescent and older T8 fixtures with qualified LED fixtures.	Electric	all
6 Low Flow Fixtures	Install low flow fixtures for showerheads and faucets: 1.64 gpm - 82 fixtures, 2.00 gpm - 245 fixtures; existing faucets (kitchens and bathrooms): 3.24 gpm - 262 fixtures, 2.08 gpm - 392 fixtures	Natural Gas	See left

7. Annual Estimated Energy Savings: **461,822 kWh; 148 kW; 167,930 therms**
8. Annual Estimate Energy Cost Savings: **\$379,526.00**

Program Coordinator Certification
(New Incentive Commitments > \$300,000)

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 and Large Energy Users Pilot 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: 11-20-2012

Maura Watkins


Quality Assurance Manager - Applied Energy Group, Inc.

Ref:	
App #	<u>14061</u>
Applicant	<u>Country Club Associates</u>
Payee	<u>Country Club Associates</u>

Committed Amount: \$549,346.00

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

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By: 
Carl P. Teter, P.E., LEED AP, Associate Vice President
App# 17507CHP

Date: 11-26-12

1. Application Number: **17507CHP**
2. Program Name: **CHP**
3. Customer Contact (name, company, address, phone #):
**Julie Karns, Vice President & Treasurer Finance
Rider University
2083 Lawrenceville Road, Lawrenceville, NJ 08648
609-896-5016**
4. Project Name and Address:
**Rider University
2083 Lawrenceville Road, Lawrenceville, NJ 08648**
5. Rebate amount:
**Incentive #1: \$200,000.00
Incentive #2: \$600,000.00
Incentive #3: \$200,000.00
Total: **\$1,000,000.00****
6. Brief description:
Installation of a 1MW Cummins C1100N6C reciprocating engine to provide on-site electricity generation, space heating and cooling to Rider University.
7. Annual Estimated Energy Savings:
**Expected Annual Electricity Production: 8,545,053 kWh
Expected Annual Thermal Energy Production: 21,029 MMBtu of recovered heat for space cooling and heating.**
8. Annual Estimate Energy Cost Savings: **\$472,057.00**

**Program Coordinator Certification
(New Incentive Commitments > \$300,000)**

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.

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Maura H Watkins

By: _____

Date: 11-21-2012

Maura Watkins

Quality Assurance Manager - Applied Energy Group, Inc.

Ref: _____
App # 17507CHP
Applicant Rider University
Payee Rider University

Committed Amount: \$1,000,000.00