Agenda Date: 6/29/16
Agenda Item: 8C

STATE OF NEW JERSEY

Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
Post Office Box 350
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

		CLEAN ENERGY
IN THE MATTER OF THE CLEAN ENERGY PROGRAM AUTHORIZATION OF COMMERCIAL AND INDUSTRIAL PROGRAM ENERGY EFFICIENCY INCENTIVES EXCEEDING $500,000	)	ORDER
KELLOGG COMPANY	)	DOCKET NOS. QG16060501
MACERICH DEPTFORD LLC	)	QG16060502
FREEMALL ASSOCIATES LLC	)	QG16060503

Parties of Record:

Erin Augustine, Sustainability Manager, Kellogg Company
Jeff Bedell, Vice President, Sustainability, Macerich Deptford LLC and Freemall Associates LLC

BY THE BOARD:

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, 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 Dkt. No. EO07030203 (May 3, 2013).

The 2016 Combined Heat and Power & Fuel Cell (2016 CHP/FC) program is open to all C&I customers contributing to the Societal Benefits fund and installing CHP or FC systems to further energy efficiency in their buildings through on-site power generation thereby reducing existing and new demands to the electric power grid. Incentives are disbursed upon completion of three

program milestones: (1) proof of purchase of equipment; (2) project installation and operation, including successful inspection; and (3) acceptance and confirmation of achievement of the required performance thresholds based upon twelve months of operating data.

By this Order, the Board considers three applications for incentives submitted under the 2016 CHP/FC program pursuant to the TRC FY 2016 Program & Budget Filing (June 15, 2015): (1) Kellogg Company, at 322 South Egg Harbor Road, in Hammonton, Atlantic County; (2) Macerich Deptford Mall, at 1750 Deptford Center Road, in Deptford, Gloucester County; and (3) Macerich Freehold Raceway Mall, at 3710 Route 9, in Freehold, Monmouth County. All applications were accepted under the above-referenced program guidelines in effect from July 1, 2015 through June 30, 2016. These project incentives are within the entity cap, based on the application approval date.

Kellogg Company submitted an application for a financial incentive of $2,000,000.00 under the 2016 CHP/FC Program. The project includes the installation of three (3) fuel cells with a total system capacity of 750 kW to be installed at a frozen foods processing facility. The system does not have any waste heat component and is intended for electric generation only. The system is estimated to have an overall annual efficiency of 56%. The estimated first incentive, for purchase of the equipment, is $600,000.00. The estimated second incentive, for completed installation of the system, is $1,200,000.00. The estimated third incentive, granted after acceptance and confirmation of required performance threshold data, is $200,000.00. The project is anticipated to generate 6,241,500 kWh of electricity annually. There is no heat recovery component in this system. The project will have a cost of $9,397,287.00 and will save on average $338,480.89 in annual energy costs after a first year cost savings of $451,140.42. The project has a 17.86 year payback without incentives, which is reduced to 14.06 years with incentive.

Macerich Deptford LLC submitted an application for a financial incentive of $2,000,000.00 under the 2016 CHP/FC Program. The project includes the installation of four (4) fuel cells with a total system capacity of 800 kW to be installed at the Macerich Deptford Mall. The system does not have any waste heat component and is intended for electric generation only. The system is estimated to have an overall annual efficiency of 56%. The estimated first incentive, for purchase of the equipment, is $600,000.00. The estimated second incentive, for completed installation of the system, is $1,200,000.00. The estimated third incentive, granted after acceptance and confirmation of required performance threshold data, is $200,000.00. The project is anticipated to generate 6,660,403 kWh of electricity annually. There is no heat recovery component in this system. The project will have a cost of $10,897,237.82 and will save on average $397,491.15 in annual energy costs after a first year cost savings of $389,060.15. The project has a 21.41 year payback without incentives, which is reduced to 17.48 years with incentive.

Freemall Associates LLC submitted an application for a financial incentive of $2,000,000.00 under the 2016 CHP/FC Program. The project includes the installation of four (4) fuel cells with a total system capacity of 1 MW to be installed at the Macerich Freehold Raceway Mall. The system does not have any waste heat component and is intended for electric generation only. The system is estimated to have an overall annual efficiency of 56%. The estimated first incentive, for purchase of the equipment, is $600,000.00. The estimated second incentive, for completed installation of the system, is $1,200,000.00. The estimated third incentive, granted after acceptance and confirmation of required performance threshold data, is $200,000.00. The project is anticipated to generate 8,325,504 kWh of electricity annually. There is no heat recovery component in this system. The project will have a cost of $13,471,546.91 and will save on average $443,756.50 in annual energy costs after a first year cost savings of

$548,884.37. The project has a 19.99 year payback without incentives, which is reduced to 17.02 years with incentive.

ICF International, the Program Manager engaged by the Board to manage the NJCEP CHP/FC program, submitted its certifications that the incentives were 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 Administrator, also reviewed the applications and submitted its certifications that the incentives were 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 these certifications and the information provided by the Program Manager and Program Administrator, Board 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 amount of $2,000,000.00 for Kellogg Company, $2,000,000.00 for Macerich Deptford LLC, and $2,000,000.00 for Freemall Associates LLC, and **HEREBY AUTHORIZES** issuance of standard commitment letters to the applicants identified above, setting forth the terms and conditions of these commitments.

The effective date of this Order is July 9, 2016.

DATED: June 30, 2016

BOARD OF PUBLIC UTILITIES
BY:

RICHARD S. MROZ
PRESIDENT

JOSEPH L. FIORDALISO
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

Commissioner Mary-Anna Holden dissent:

After careful consideration I cannot vote to support staff's recommendation to provide combined incentives of $6 million for three projects under the Combined Heat & Power/Fuel Cell Program. This is consistent with my previously articulated position on fuel cell-only projects.

The projects under consideration in the instant had been in the project queue (listed as "complete – under review") in January 2016 when staff requested a transfer of $5 million into the Combined Heat & Power/Fuel Cell program which at the time was fully subscribed. I voted against that authorization as eligibility is not an entitlement.

It was my reason then, as it is now, that the incentive provided for fuel cell-only projects is not the best use of the ratepayer-funded Societal Benefits Charge, or SBC. At the very least, the fuel-cell incentive is too generous. Even in the proposed Comprehensive Resource Analysis, or CRA, budget the fuel-cell incentive will be 2-4 times that of surrounding states. Today's awards are based upon the old incentives, which are substantially higher.

I base my position on the fact that the project economics indicate paybacks longer than the expected equipment life (two even with the incentive figured in) and negative lifecycle savings. Addressing the latter point, these projects have negative savings in excess of $2 million to over $4 million based on data provided by the program administrator. Others may argue that there is supplemental data that may be considered. However, all projects in the Clean Energy program have been evaluated on the same set of criteria. If such additional information is pertinent, it should be provided for all projects in the Clean Energy program and not on a selective basis.

I understand that the customer realizes savings from day 1, but the ratepayers who fund the SBC do not.

There are many initiatives and incentives available in our Clean Energy Program, and it is incumbent upon me as a member of this Board to allocate incentives that will bring the greatest value to the program. The incentives not paid to these projects could be used to fund energy efficiency initiatives. Another option could be to incent fuel cell projects that are partnered with thermal load, or at a minimum, utilize waste-heat recapture to increase overall system efficiency thereby yielding better project economics.

Also on our agenda today there is an item which addresses Clean Energy program revisions and evaluation of the cost, emissions and benefits of all distributed generation technologies, including electric only fuel cells. I am glad that staff is proposing such modifications and heartened that we will finally initiate an evaluation of program as to effectiveness and economics.

The evaluation process should address several of the comments that were raised by various stakeholders during the recent CRA Straw Proposal/Budgetary process. Only with a full program evaluation may we properly address concerns raised by various stakeholders and not rush to adopt quick fixes to what might be a robust and competitive fuel -cell program.

This is not just about the applicant saving money. It is this Board's duty to spend the ratepayers' "donation" to the Societal Benefits Charge wisely.

In any event, a kWh is a kWh —we should produce the cleanest kWh possible at the lowest possible cost or not use it at all, through energy efficiency.

June 29, 2016

MARY-ANNA HOLDEN
COMMISSIONER
BOARD OF PUBLIC UTILITIES

ATTEST:

IRENE KIM ASBURY
SECRETARY

FINAL VOTE ON AGENDA ITEM 8C, June 29, 2016

Commissioner Fiordaliso	Yes	
Commissioner Holden		No
Commissioner Solomon	Yes	
Commissioner Chivukula	Yes	
President Mroz	Yes	

IN THE MATTER OF THE CLEAN ENERGY PROGRAM AUTHORIZATION OF COMMERCIAL AND INDUSTRIAL (C&I) PROGRAM ENERGY EFFICIENCY INCENTIVES EXCEEDING $500,000.00 – KELLOGG COMPANY, MACERICH DEPTFORD LLC, FREEMALL ASSOCIATES LLC
DOCKET NOS. QG16060501, QG16060502, and QG16060503

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Jeff Bedell
Vice President, Sustainability
Macerich Deptford LLC
And Freemall Associates LLC
401 Wilshire Blvd, Suite 700
Santa Monica, CA 90401

Program Administrator Certification
(New Incentive Commitments > $500,000)

I, **MAURA WATKINS**, Quality Assurance Manager for NJCEP Program Administrator, Applied Energy Group, Inc., here by certify that, I have reviewed the Combined Heat & Power and Fuel Cells Program application referenced below and determined that, as required by the policies and procedures applicable to the program, (1) the equipment incentives for which ICF now seeks approval to commit NJCEP funds have been calculated in accordance with those policies and procedures, and (2) that the amount shown below is the true and accurate estimated incentive for which the applicant(s) is(are) eligible.

Additionally, for incentives based on estimated energy savings that are uniquely calculated, including those granted for approved Combined Heat & Power and Fuel Cells Program projects, I also certify that I was able to locate and review documentation supporting the inputs used to calculate the rebate amount and evidencing ICF's evaluation of those inputs as required by the program's policies and procedures.

By: Maura H Watkins **MAURA WATKINS** Date: 6/6/16

Quality Assurance Manager - Applied Energy Group, Inc.

Application No.:	NJFCPS1532391587
Applicant:	Kellogg Company
Payee:	Kellogg Company
Committed Amount:	$2,000,000.00

Program Administrator Certification
(New Incentive Commitments > $500,000)

I, **MAURA WATKINS**, Quality Assurance Manager for NJCEP Program Administrator, Applied Energy Group, Inc., here by certify that, I have reviewed the Combined Heat & Power and Fuel Cells Program application referenced below and determined that, as required by the policies and procedures applicable to the program, (1) the equipment incentives for which ICF now seeks approval to commit NJCEP funds have been calculated in accordance with those policies and procedures, and (2) that the amount shown below is the true and accurate estimated incentive for which the applicant(s) is(are) eligible.

Additionally, for incentives based on estimated energy savings that are uniquely calculated, including those granted for approved Combined Heat & Power and Fuel Cells Program projects, I also certify that I was able to locate and review documentation supporting the inputs used to calculate the rebate amount and evidencing ICF's evaluation of those inputs as required by the program's policies and procedures.

By: Maura H Watkins **MAURA WATKINS** Date: 6/6/16

Quality Assurance Manager - Applied Energy Group, Inc.

Application No.: NJFCPS1532391629

Applicant: Macerich Deptford LLC

Payee: Macerich Deptford Limited Partnership

Committed Amount: $2,000,000.00

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

I Kathryn O'Rourke hereby certify that application(s) on the attached list have been reviewed by ICF or its subcontractors as required by the policies and procedures applicable to each program, that the incentives for which ICF 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. This review does not include an analysis of the financial viability of the project(s) on this list. Item #11 on following page is provided for informational purposes only based on data submitted by applicant.

By: Kathryn O'Rourke Date: 6/8/2016

Kathryn O'Rourke, Program Manager
Application Number: 35598CHP
Vision Number: NJFCPS1532391604

1. Application Number: **35598CHP**

2. Vision Number: **NJFCPS1532391604**

3. Program Name: **NJ Clean Energy Program Combined Heat and Power/Fuel Cells**

4. Customer Contact (name, title, company, address, phone #):
Jeff Bedell
Vice President, Sustainability
Freemall Associates
401 Wilshire Blvd, Suite 700
Santa Monica, CA 90401
424-229-3486

5. Project Name and Address:
Freemall Associates
3710 Route 9, Suite 1000, Freehold, NJ 07728

6. Rebate amount:
Incentive #1: $600,000.00
Incentive #2: $1,200,000.00
Incentive #3: $200,000.00
Total: $2,000,000.00

7. Brief description of Fuel Cell to be installed:
The proposed Bloom Energy server will operate on a Grid-connected Operating Mode and provide a Grid-Connected energy solution to the Macerich mall located in Freehold, NJ. The energy solution is designed to provide 1000 kW of grid parallel (GP) base load operation with a 56% system efficiency. Each individual Bloom Energy ES-5710 Fuel Cell system is a self-contained 250 kW device comprised of six independent power modules and a single input/output module (IOM). The IOM contains UL 1741 listed DC-AC inverters that are matched to each module in the cluster. The Energy Server inverters have the UL 1741 certification meeting anti-islanding requirements which prevent power from being fed back into the grid in the event of an outage.

8. Annual Estimated Energy Savings:
Expected Annual Electricity Production: 8,325,504 kWh

9. Project Cost: **$13,471,546.91**

10. Project Funding Type (capital purchase, lease, finance, PPA, other/describe):
Power Purchase Agreement

11. Financials:

Simple Payback Period (years) w/o incentive	**19.99**
Simple Payback Period (years) w/ incentive	**17.02**
IRR w/o incentive	**-4%**
First Year (Annual) Cost Savings	**$548,884.37**

Average Annual Cost Savings	$443,756.50
Lifecycle Savings	-$4,854,840.52

***_Note_: the above financial metrics are based on the total project cost (as listed in #8) and the expected energy cost savings. The Contractor (Bloom Energy), would like to clarify that "the subject project is being financed via a Power Purchase Agreement (PPA) structure and as such there is no traditional 'customer payback period' for this project site. Rather the customer savings begin on the first day. Further, the payback periods presented are based upon standard program project economic models which do not incorporate the Federal Business Investment Tax Credit (ITC), which varies between fuel cell and CHP project types (30% for fuel cells, 10% for CHP as of 2016). The payback to the project company, which is the owner of the Bloom Energy Servers and provides electricity to the customer through a PPA, is less than five years, when including the Federal Investment Tax Credit."**

Program Administrator Certification
(New Incentive Commitments > $500,000)

I, **MAURA WATKINS**, Quality Assurance Manager for NJCEP Program Administrator, Applied Energy Group, Inc., here by certify that, I have reviewed the Combine Heat & Power and Fuel Cells Program application referenced below and determined that, as required by the policies and procedures applicable to the program, (1) the equipment incentives for which ICF now seeks approval to commit NJCEP funds have been calculated in accordance with those policies and procedures, and (2) that the amount shown below is the true and accurate estimated incentive for which the applicant(s) is(are) eligible.

Additionally, for incentives based on estimated energy savings that are uniquely calculated, including those granted for approved Combined Heat & Power and Fuel Cells Program projects, I also certify that I was able to locate and review documentation supporting the inputs used to calculate the rebate amount and evidencing ICF's evaluation of those inputs as required by the program's policies and procedures.

By: Maura H Watkins **MAURA WATKINS** Date: 6/6/16

Quality Assurance Manager - Applied Energy Group, Inc.

Application No.:	NJFCPS1532391604
Applicant:	Freemall Associates, LLC
Payee:	Freehold Chandler Trust, LLC
Committed Amount:	$2,000,000.00

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

I Kathryn O'Rourke hereby certify that application(s) on the attached list have been reviewed by ICF or its subcontractors as required by the policies and procedures applicable to each program, that the incentives for which ICF 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. This review does not include an analysis of the financial viability of the project(s) on this list. Item #11 on following page is provided for informational purposes only based on data submitted by applicant.

By: Kathryn O'Rourke Date: 6/8/2016

Kathryn O'Rourke, Program Manager
Application Number: 35541CHP
Vision Number: NJFCPS1532391587

1. Application Number: **35541CHP**

2. Vision Number: **NJFCPS1532391587**

3. Program Name: **NJ Clean Energy Program Combined Heat and Power/Fuel Cells**

4. Customer Contact (name, company, address, phone #):
Erin Augustine
Sustainability Manager
Kellogg Company
322 South Egg Harbor Road
Hammonton, NJ 08037
269-961-6368

5. Project Name and Address:
Kellogg Hammonton
322 South Egg Harbor Road, Hammonton, NJ 08037

6. Rebate amount:
Incentive #1: $600,000.00
Incentive #2: $1,200,000.00
Incentive #3: $200,000.00
Total: **$2,000,000.00**

7. Brief description of Fuel Cell to be installed:
The proposed Bloom Energy server will provide a grid-connected energy solution to the Kellogg's Frozen Foods plant located in Hammonton, NJ. The energy solution is designed to provide 750 kW of grid parallel (GP) base load operation with a 56% system efficiency. Each individual Bloom Energy ES5-710 Fuel Cell system is a self-contained 250 kW device comprised of six independent power modules and a single input/output module (IOM). The IOM contains UL 1741 listed DC-AC inverters that are matched to each module in the cluster. The Energy Server inverters have the UL 1741 certification meeting anti-islanding requirements which prevent power from being fed back into the grid in the event of an outage.

8. Annual Estimated Energy Savings:
Expected Annual Electricity Production: 6,241,500 kWh

9. Project Cost: **$9,397,287.00**

10. Project Funding Type (capital purchase, lease, finance, PPA, other/describe):
Power Purchase Agreement

11. Financials:

Simple Payback Period (years) w/o incentive	**17.86**
Simple Payback Period (years) w/ incentive	**14.06**
IRR w/o incentive	**-3%**
First Year (Annual) Cost Savings	**$451,140.42**
Average Annual Cost Savings	**$338,480.89**

Lifecycle Savings	-$2,665,990.60

***_Note_: the above financial metrics are based on the total project cost (as listed in #8) and the expected energy cost savings. The Contractor (Bloom Energy), would like to clarify that "the subject project is being financed via a Power Purchase Agreement (PPA) structure and as such there is no traditional 'customer payback period' for this project site. Rather the customer savings begin on the first day. Further, the payback periods presented are based upon standard program project economic models which do not incorporate the Federal Business Investment Tax Credit (ITC), which varies between fuel cell and CHP project types (30% for fuel cells, 10% for CHP as of 2016). The payback to the project company, which is the owner of the Bloom Energy Servers and provides electricity to the customer through a PPA, is less than five years, when including the Federal Investment Tax Credit."**

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

I Kathryn O'Rourke hereby certify that application(s) on the attached list have been reviewed by ICF or its subcontractors as required by the policies and procedures applicable to each program, that the incentives for which ICF 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. This review does not include an analysis of the financial viability of the project(s) on this list. Item #11 on following page is provided for informational purposes only based on data submitted by applicant.

By: Kathryn O'Rourke Date: 6/8/2016

Kathryn O'Rourke, Program Manager
Application Number: 35597CHP
Vision Number: NJFCPS1532391629

1. Application Number: **35597CHP**

2. Vision Number: **NJFCPS1532391629**

3. Program Name: **NJ Clean Energy Program Combined Heat and Power/Fuel Cells**

4. Customer Contact (name, company, address, phone #):
Jeff Bedell
Vice President, Sustainability
Macerich Deptford LLC
401 Wilshire Blvd, Suite 700
Santa Monica, CA 90401
424-229-3486

5. Project Name and Address:
Macerich Deptford LLC
1750 Deptford Center Road, Deptford, NJ 08096

6. Rebate amount:
Incentive #1: $600,000.00
Incentive #2: $1,200,000.00
Incentive #3: $200,000.00
Total: **$2,000,000.00**

7. Brief description of Fuel Cell to be installed:
The proposed Bloom Energy server will provide a grid-connected energy solution to the Macerich mall located in Deptford, NJ. The energy solution is designed to provide 800 kW of grid parallel (GP) base load operation with a 56% system efficiency. Each individual Bloom Energy ES5-BA2AA0 Fuel Cell system is a self-contained 200 kW device comprised of six independent power modules and a single input/output module (IOM). The IOM contains UL 1741 listed DC-AC inverters that are matched to each module in the cluster. The Energy Server inverters have the UL 1741 certification meeting anti-islanding requirements which prevent power from being fed back into the grid in the event of an outage.

8. Annual Estimated Energy Savings:
Expected Annual Electricity Production: 6,660,403 kWh

9. Project Cost: **$10,897,237.82**

10. Project Funding Type (capital purchase, lease, finance, PPA, other/describe):
Power Purchase Agreement

11. Financials:

Simple Payback Period (years) w/o incentive	**21.41**
Simple Payback Period (years) w/ incentive	**17.48**
IRR w/o incentive	**-5%**
First Year (Annual) Cost Savings	**$389,060.15**
Average Annual Cost Savings	**$397,491.15**

Lifecycle Savings -$4,354,964.56

***_Note_: the above financial metrics are based on the total project cost (as listed in #8) and the expected energy cost savings. The Contractor (Bloom Energy), would like to clarify that "the subject project is being financed via a Power Purchase Agreement (PPA) structure and as such there is no traditional 'customer payback period' for this project site. Rather the customer savings begin on the first day. Further, the payback periods presented are based upon standard program project economic models which do not incorporate the Federal Business Investment Tax Credit (ITC), which varies between fuel cell and CHP project types (30% for fuel cells, 10% for CHP as of 2016). The payback to the project company, which is the owner of the Bloom Energy Servers and provides electricity to the customer through a PPA, is less than five years, when including the Federal Investment Tax Credit."**