



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/

STATE ENERGY OFFICE

IN THE MATTER OF THE IMPLEMENTATION OF <u>L.</u>)	ORDER APPROVING RANKING
2018, <u>c.</u> 16 REGARDING THE ESTABLISHMENT OF A)	CRITERIA FOR ELIGIBLE
ZERO EMISSION CERTIFICATE PROGRAM FOR)	NUCLEAR POWER PLANTS TO
ELIGIBLE NUCLEAR POWER PLANTS)	RECEIVE ZECs
)	
)	DOCKET NO. EO18080899

BY THE BOARD:

I. BACKGROUND

On May 23, 2018, Governor Phil Murphy signed into law L. 2018, c. 16 (C. 48:3-87.3 to -87.7) ("Act"). The Act requires the New Jersey Board of Public Utilities ("Board" or "BPU") to create a program and mechanism for the issuance of Zero Emission Certificates ("ZECs"), each of which represents the fuel diversity, air quality, and other environmental attributes of one megawatt-hour of electricity generated by an eligible nuclear power plant selected by the Board to participate in the program. Under the program, certain eligible nuclear energy generators may be approved to provide ZECs for the State's energy supply, which in turn will be purchased by Atlantic City Electric Company ("ACE"), Jersey Central Power and Light Company ("JCP&L"), Public Service Electric and Gas Company ("PSE&G"), Rockland Electric Company ("RECO") – collectively, the state's four (4) investor-owned Electric Distribution Companies ("EDCs") – and Butler Municipal Power & Light Company ("Butler"). The Act identifies the basic steps required to establish this program, including program logistics, funding, costs, application, eligibility requirements, selection process, and the timelines associated with each aspect of the legislation.

The Act required that the Board complete a proceeding within 180 days after the date of enactment of the Act, i.e., by November 19, 2018, to allow for the commencement of a ZEC program. In the proceeding, the Board is required – after notice, the opportunity for comment, and public hearings – to issue an order establishing a ZEC program for selected nuclear power plants. The Board's Order must include but need not be limited to: (i) a method and application process for determination of the eligibility and selection of nuclear power plants; and (ii) establishment of a mechanism for each EDC to purchase ZECs from selected nuclear power plants. See N.J.S.A. 48:3-87.5(b).

The Act also requires that the Board complete the proceeding to certify applicant nuclear power plants as eligible for the program and establish a rank-ordered list of the nuclear power plants eligible to be selected to receive ZECs. This proceeding must be completed no later than 330 days after the date of enactment of the Act, i.e., by April 18, 2019, after notice, the opportunity for comment and public hearing. See N.J.S.A. 48:3-87.5(d).

II. PROCEDURAL HISTORY

A. INITIATING ORDER

Under the Act, the Board is responsible for creating and administering the ZEC program. On August 29, 2018, the Board approved an Order¹ initiating the creation of the ZEC program. Specifically, the Board: (i) directed Staff to facilitate the establishment of a ZEC application process and related Act activities, and take all necessary steps required per the Act, including scheduling public hearings, establishing a comment process, and preparing for consideration by the Board a completed application process by November 19, 2018; (ii) directed the EDCs to file tariffs in compliance with the Act by October 22, 2018, for approval by the Board; (iii) designated President Joseph L. Fiordaliso as the Presiding Officer, who is authorized to rule on all motions that arise during the pendency of final Board action as required under the Act and modify any schedules that may be set as necessary to secure a just and expeditious determination of the issues; and (iv) directed that any entities seeking to intervene or participate in the tariff portion of this matter file the appropriate application with the Board by October 23, 2018.

Consistent with the Act, the Board sought stakeholder input on the method and application process for determining the eligibility and selection of nuclear power plants, and on the establishment of a mechanism for each EDC to purchase ZECs from selected nuclear power plants. This process included stakeholder meetings to review the legislative requirements, and solicitation and review of stakeholder comments, toward the goal of establishing a ZEC application and selection process.

Three (3) public hearings were held on October 4, 2018 in Hackensack; October 10, 2018 in Atlantic City; and October 11, 2018 in New Brunswick. The hearings were well attended, with twelve (12) to twenty (20) participants per hearing.

B. NOVEMBER 19, 2018 ORDER

On November 19, 2018, the Board ordered² that the ZEC program be implemented to comply with the Act and determined that the ZEC application developed by Staff was sufficient to meet the Act's application requirements and that the program procedures developed by Board staff will provide a full and complete record for the eligibility determination of a ZEC applicant. The Board also approved the ZEC application and ordered the ZEC application window open and to remain open until December 19, 2018. In addition, the Board approved a December 31, 2018 deadline for requests for access to information submitted on a confidential basis, pursuant to N.J.S.A. 48:3-87.5(a). The Board also approved the implementation schedule and procedural schedule recommended by Board staff for application eligibility and ranking.

¹ I/M/O the Implementation of L. 2018, c. 16 Regarding the Establishment of a Zero Emission Certificate Program for Eligible Nuclear Power Plants, BPU Docket No. EO18080899 (August 29, 2018).

² I/M/O the Implementation of L. 2018, c. 16 Regarding the Establishment of a Zero Emission Certificate Program for Eligible Nuclear Power Plants, BPU Docket No. EO18080899 (November 19, 2018).

The implementation plan provided for the establishment of two teams, the Application Eligibility Team and the Ranking Team. The Ranking Team was to consist of BPU staff, New Jersey Department of Environmental Protection Agency ("DEP") staff, and representatives of the Board's consultant.

Under the implementation plan approved by the Board, the ZEC Ranking Team was to finalize the scoring methodology and criteria for review at the February 27, 2019 Agenda Meeting. As part of the November 19, 2018 Order, the Board approved staff's recommendation that the appropriate methodology by the Ranking team will weight ranking criteria for a total score of 100 or modify this approach if the Ranking Team determines that another method is more practicable, and that the Ranking Team will then review applications received from the Application Eligibility Team and score each application based on their established scoring criteria and matrix creating a Ranked List of the nuclear units deemed eligible by the Eligibility Team. Once the Ranking Team completes the scoring of all eligible applications, it will create a "ranked list" of eligible units, from highest score to lowest score, per the Act. In the unlikely event that two or more applications have the same score, the tie will be broken based on the air quality impact score(s) of each application.

Staff will then present the ranked list, composed of all applicant Units, listed from highest score to lowest score, along with the results of its review of all eligible applications, to the Board at the April 2019 Agenda meeting for approval. Per the Act, the highest ranked units, in order, will be selected to receive ZECs until their combined total capacity equals no more than 40% of the total number of MWh distributed in the State in the 2017 energy year.³

Pursuant to the Board's November 19, 2018 Order, the Board received applications from three (3) nuclear units seeking ZEC Credit by the mandated due date of December 19, 2018.

C. DECEMBER 18, 2018 ORDER

By its December 18, 2018 Order,⁴ the Board approved the selection of Levitan & Associates, Inc. to serve as a consultant to Staff and directed Staff to execute a contract for services related to the ZEC program as described in the RFQ and scope of work. The Board also indicated that an eligibility team and a ranking team would be established to evaluate the various requirements of the ZEC program, with each team to include Staff, NJDEP staff, and members of Levitan.

The Board executed a contract with Levitan on January 16, 2019 and Levitan commenced working with the Board on January 16, 2019.

III. DISCUSSION AND FINDINGS

The Ranking Team met, and after reviewing the Act and the record, developed a Ranking Criteria to utilize in weighting the many factors identified in the Act and provided in the

³ See N.J.S.A. 48:3-87.5(g)(1).

⁴ I/M/O the Implementation of L. 2018, c. 16 Regarding the Establishment of a Zero Emission Certificate Program for Eligible Nuclear Power Plants, BPU Docket No. EO18080899 (December 18, 2018).

applications for determining the ranked order of the eligible nuclear units, as determined by the Application Eligibility Committee.

The seven (7) ranking criteria include 1) Unit Economic Viability, 2) Annual Unit Generation Net of Power Exports out of the State, 3) Plant Capacity Factor, 4) Nuclear Regulatory Commission ("NRC") Safety Rating, 5) Full time Annual Payroll plus Property Taxes or Payments in Lieu of taxes, 6) Total Avoided Carbon Dioxide ("CO₂") Emissions Tons, and 7) Avoided Total Sulfur Dioxide ("SO₂"), Nitrogen Oxides ("NO_x") and Particulate Matter ("PM") Emissions Tons.

Each criterion is described and weighted below:

RANKING TEAM ZEC RANKING CRITERIA

The Ranking team has developed the following criteria for ranking the ZEC Applications.

1. The Unit Economic Viability Metric

This metric combines the economic viability and the subsidy requirement considerations. The scaling points reflect the focus on providing ZECs to those units that are most likely to benefit from an allocation of ZECs to remain in operation, i.e. marginal and unprofitable units. The unit's economic viability is determined by the net difference between the unit's average revenue (in \$ per MWh) and the average going forward costs for the unit (in \$ per MWh). All subsidies received by the unit including any direct or indirect payment or credit under a law, rule, regulation, order, tariff, or other action of this State or any other state, or a federal law, rule, regulation, order, tariff, or other action, or a regional compact will be factored into its economic viability. The weighting for this criterion would be 20%. The scaling points would be assigned as follows:

Highly unprofitable unit	net revenues -\$10/MWh or less	5 points
Unprofitable unit	net revenues between -\$10 and \$0/MWh	7 points
Marginal Unit	net revenues between \$0 and \$10/MWh	10 points
Profitable Unit	net revenues greater than \$10/MWh	0 points

2. Annual Unit Generation Net of Power Exports out of the State

This metric takes into account available generation by netting out the power exported out of state by a unit. The scaling score is based on a performance band of plus or minus 10% around the base year generation. A unit for which the average 3 year projected generation falls in the performance band is awarded 5 points, units above the performance band are rewarded and units below the performance band are penalized. The unit's annual generation, net of power exports out of the state is determined by the unit's generation for a base year e.g. 2017. The weighting for this criterion would be 20%. The scaling points would be assigned as follows:

Average annual forecast of generation for unit over the 3 year ZEC period	
If +/- 10% of base year annual generation	5 points
More than - 10% of base year generation	0 points
More than +10% of base year generation	10 points

3. Plant Capacity Factor

This metric would take into consideration the unit's efficiency in terms of capacity utilization. This criterion would have a 10% weight. The scaling points would be assigned as follows:

Most recent three (3) year historical average capacity factor

less than 70%	0 points
70% to 80%	5 points
80% to 90%	7 points
Greater than 90%	10 points

4. NRC Safety Rating

The NRC characterizes the safety performance of operating reactors through the Reactor Oversight Process ("ROP") on a quarterly basis. Classification in Column 1 in the ROP Action Matrix indicates the reactor is operating at the highest level of safety. The Column 2 reflects a minor safety problem in an isolated area. Any lower safety ratings must be addressed immediately by the reactor operator and from a scoring perspective would not receive any points. This criterion would have a 10% weight. The scaling points would be assigned as follows:

Column 1 rating	10 points
Column 2 rating	5 points
Other rating	0 points

5. Full Time Annual Payroll Plus Property Taxes or Payments in lieu of Taxes

As a proxy for the economic impact on New Jersey, this metric would use the total dollar amount of the unit's direct payroll plus either property taxes or payments in lieu of taxes. This criterion would have a 10% weight. The scaling points would be assigned as follows:

Average of 3 year projected dollar amounts:

- equal to base year amount	7 points
- greater than base year amount	10 points
- less than base year amount	5 points

6. Total Avoided CO₂ Emissions Tons

Over time renewable generation can be expected to supplement the generation lost by nuclear unit retirements. However if a shutdown occurs, coal and natural gas generation would immediately supplement this loss until the renewables are up to full capacity. In this regard, the largest amount of emissions avoided would be for 100% of the avoided generation to be coal-fired. Likewise, the least amount of emissions avoided would be if the avoided generation is 100% gas-fired. Since it is highly unlikely that either of these extremes (100% coal or 100% gas-fired generation) would occur, the scoring would be based on the relative proportions of the gas and coal-fired generation that comprise the nuclear unit's avoided generation. For example, if the avoided generation mix would be 67% gas and 33% coal, the scaling score would be calculated as 10 points x 0.33 + 5 points x 0.67 to result in 6 points (rounded to the nearest whole point). The minimum scale of 5 points generally reflects that combined cycle gas-fired generation emits about

half of the CO₂ that a coal generation emits. This criterion, which addresses the unit's impact on greenhouse gas emissions, would have a 15% weight. The scaling would range between the CO₂ emissions assuming that avoided generation was 100% coal generation and the CO₂ emissions assuming that the avoided generation was 100% natural gas generation, based on the average coal plant and gas plant emissions rate for a base year. The scale points would be proportioned between the maximum points based on the assumed percentage mix of coal and natural gas generation.

100% coal avoided generation mix emissions	10 points
100% natural gas avoided generation mix emissions	5 points

7. Total Avoided SO₂, NO_x, and PM Emissions Tons

This criterion addresses the impact on air quality of non-CO₂ emissions. Similar to the CO₂ emissions scaling points, this criterion would cover the combined total of SO₂, NO_x, and PM emissions for coal and natural gas plants with the mix of avoided generation used to proportion the points in between the two limits i.e 100% coal generation and 100% natural gas generation. The minimum scale points of 2 reflects the significantly lower (much less than half) SO₂, NO_x and PM emissions associated with gas-fired generation relative to coal-fired generation. This criterion would have a 15% weight.

100% coal avoided generation emissions	10 points
100% natural gas avoided generation emissions	2 points

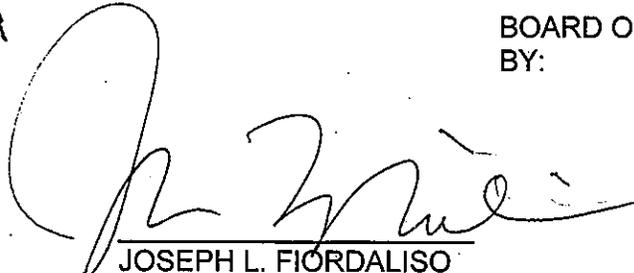
The Ranking Team has reviewed the Act and the record and developed the ZEC Ranking Criteria. The Ranking Team recommended that the Board approve the ZEC Ranking Criteria as proposed and approve the Ranking Team's use of these criteria to establish a rank-ordered list of nuclear power plants eligible to receive ZECS.

After review of the Staff's recommendations, the Board **HEREBY APPROVES** the ZEC Ranking Criteria as proposed by the ZEC Ranking Team and **HEREBY DETERMINES** that the ZEC Ranking Criteria meet the requirements of the Act. The Board **HEREBY ORDERS** that the ZEC Ranking Team proceed with its evaluation of the eligible Unit applications utilizing the Ranking Criteria to evaluate and rank the eligible nuclear units from most eligible to least eligible.

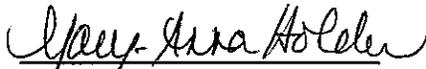
This Order shall be effective on March 9, 2019.

DATED: 2/27/19

BOARD OF PUBLIC UTILITIES
BY:



JOSEPH L. FIORDALISO
PRESIDENT



MARY-ANNA HOLDEN
COMMISSIONER



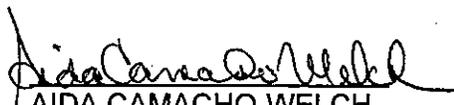
DIANNE SOLOMON
COMMISSIONER



UPENDRA J. CHIVUKULA
COMMISSIONER



ROBERT M. GORDON
COMMISSIONER

ATTEST: 
AIDA CAMACHO-WELCH
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 Implementation of L. 2018, c. 16 Regarding the Establishment of a
Zero Emission Certificate Program for Eligible Nuclear Power Plants**

Docket No. EO18080899

SERVICE LIST

Division of Rate Counsel

140 East Front Street, 4th Floor
Post Office Box 003
Trenton, NJ 08625-0003

Stefanie A. Brand, Esq., Director
sbrand@rpa.nj.gov

Brian O. Lipman, Esq., Litigation Manager
blipman@rpa.nj.gov

Felicia Thomas-Friel, Esq.
Managing Attorney – Gas
ftomas@rpa.nj.gov

Ami Morita, Esq.
Assistant Deputy Rate Counsel
amorita@rpa.nj.gov

Diane Schulze, Esq.
Assistant Deputy Rate Counsel
dschulze@rpa.nj.gov

Sarah H. Steindel, Esq.
Assistant Deputy Rate Counsel
ssteinde@rpa.nj.gov

Lisa Gurkas
Office Manager/Paralegal
lgurkas@rpa.nj.gov

Debora Layugan, Paralegal
dlayugan@rpa.nj.gov

Celeste Clark, Legal Secretary
cclark@rpa.nj.gov

Rate Counsel Consultants

Andrea Crane
The Columbia Group
2805 East Oakland Park Blvd, #401
Ft. Lauderdale, FL 33306
ctcolumbia@aol.com

Max Chang
Bob Fagan
Synapse Energy Economics, Inc.
485 Massachusetts Ave., Suite 2
Cambridge, MA 02139
mchang@synapse-energy.com
rfagan@synapse-energy.com

Independent Market Monitor for PJM

Jeffrey W. Mayes
General Counsel
Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Eagleville, PA 19403
jeffrey.mayes@monitoringanalytics.com

Michael J. Ash, Esq.
Attorney for Monitoring Analytics, LLC
Carlin & Ward, P.C.
P.O. Box 751
25A Vreeland Road
Florham Park, NJ 07932
michael.ash@carlinward.com

Board of Public Utilities

44 South Clinton Avenue, 3rd Floor, Suite 314
Post Office Box 350
Trenton, NJ 08625-0350

Aida Camacho-Welch, Secretary of the Board
aida.camacho@bpu.nj.gov

Paul Flanagan, Executive Director
paul.flanagan@bpu.nj.gov

Benjamin Witherell, Chief Economist
benjamin.witherell@bpu.nj.gov

Noreen Giblin, Esq., Chief Counsel
noreen.giblin@bpu.nj.gov

Bethany Rocque-Romaine, Esq.
Deputy Chief Counsel
bethany.romaine@bpu.nj.gov

Stacy Ho Richardson, Esq., Legal Specialist
stacy.richardson@bpu.nj.gov

Thomas Walker, Director
Office of State Energy Services
thomas.walker@bpu.nj.gov

Stacy Peterson, Director, Division of Energy
stacy.peterson@bpu.nj.gov

Kevin Nedza
Director of Special Projects
kevin.nedza@bpu.nj.gov

Division of Law

124 Halsey Street
Post Office Box 45029
Newark, NJ 07101-45029

Joseph Snow, AAG
joseph.snow@law.njoag.gov

Caroline Vachier, SC, DAG
caroline.vachier@law.njoag.gov

Geoffrey Gersten, DAG
geoffrey.gersten@law.njoag.gov

Division of Law, cont'd

Carolyn McIntosh, DAG
carolyn.mcintosh@law.njoag.gov

Alex Moreau, DAG
alex.moreau@law.njoag.gov

Renee Greenberg, DAG
renee.greenberg@law.njoag.gov

Patricia Krogman, DAG
patricia.krogman@law.njoag.gov

Peter Van Brunt, DAG
peter.vanbrunt@law.njoag.gov

Emma Yao Xiao, DAG
emma.xiao@law.njoag.gov

Atlantic City Electric Company

500 N. Wakefield Drive
PO Box 6066
Newark, DE 19714-6066

Philip J. Passanante, Esq.
Mailstop 92DC42
philip.passanante@pepcoholdings.com

Susan DeVito
Director, Pricing and Regulatory Services
Mailstop 92DC56
susan.devito@pepcoholdings.com

Butler Electric Utility

Robert H. Oostdyk, Jr., Esq.
Murphy McKeon, P.C.
51 Route 23 South
P.O. Box 70
Riverdale, NJ 07457
roostdyk@murphymckeonlaw.com

Jason Lampmann
Borough Administrator
One Ace Road
Butler, NJ 07405
jlampmann@butlerborough.com

Jersey Central Power & Light

300 Madison Avenue
PO Box 1911
Morristown, NJ 07962-1911

Mark A. Mader
Director, Rates & Regulatory Affairs – NJ
mamader@firstenergycorp.com

Tom Donadio
tdonadio@firstenergycorp.com

Sally Cheong
scheong@firstenergycorp.com

Gregory Eisenstark
Windels Marx Lane & Mittendorf, LLP
120 Albany Street Plaza
New Brunswick, NJ 08901
geisenstark@windelsmarx.com

Public Service Electric and Gas Company

PSEG Services Corporation
80 Park Plaza, T5G
PO Box 570
Newark, NJ 07102-4194

Joseph F. Accardo, Jr., Esq.
Deputy General Counsel and
Chief Regulatory Officer
joseph.accardojr@pseg.com

Matthew Weissman, Esq.
General State Regulatory Counsel
matthew.weissman@pseg.com

Justin B. Incardone, Esq.
Associate General Regulatory Counsel
justin.incardone@pseg.com

Stephen Swetz
Senior Director, Corporate Rates and
Revenue Requirements
stephen.swetz@pseg.com

Michele Falcao
Regulatory Filings Supervisor
michele.falcao@pseg.com

PSEG, cont'd

Caitlyn White
Regulatory Case Coordinator
caitlyn.white@pseg.com

Michael McFadden
michael.mcfadden@pseg.com

Bernard Smalls
bernard.smalls@pseg.com

Rockland Electric Company

4 Irving Place
New York, NY 10003

Margaret Comes, Esq.
Associate Counsel
comesm@coned.com

William Atzl
Director – Rate Engineering
atzlw@coned.com

Cheryl Ruggiero
ruggieroc@coned.com

New Jersey Large Energy Users Coalition

Steven S. Goldenberg, Esq.
Giordano, Halleran & Ciesla, P.C.
125 Half Mile Road, Suite 300
Red Bank, NJ 07701-6777
sgoldenberg@ghclaw.com

Paul F. Forshay, Esq.
Eversheds Sutherland (US) LLP
700 Sixth Street, N.W., Suite 700
Washington, D.C. 20001-3980
paulforshay@eversheds-sutherland.com

NRG Energy, Inc.

Jennifer Hsia, Esq.
Counsel
804 Carnegie Center
Princeton, NJ 08540
jennifer.hsia@nrg.com

PJM Power Providers Group

Decotiis, Fitzpatrick, Cole & Giblin, LLP
Glenpointe Centre West
500 Frank W. Burr Boulevard
Teaneck, NJ 07666

William Harla, Esq.
wharla@decotiislaw.com

Alice M. Bergen, Esq.
abergen@decotiislaw.com

Exelon Generation Company, LLC

Jeanne J. Dworetzky, Esq.
Assistant General Counsel
101 Constitution Avenue, NW, Suite 400E
Washington, DC 20001
jeanne.dworetzky@exeloncorp.com

James B. Blackburn IV, Esq.
Day Pitney LLP
Counsel to Exelon Generation Company, LLC
1100 New York Avenue NW
Washington, DC 20005
jblackburn@daypitney.com

Florence K.S. Davis, Esq.
Day Pitney LLP
Counsel to Exelon Generation Company, LLC
242 Trumbull Street
Hartford, CT 06103
fkdavis@daypitney.com

Naju R. Lathia, Esq.
Day Pitney LLP
Counsel to Exelon Generation Company, LLC
One Jefferson Road
Parsippany, NJ 07054-2891
nlathia@daypitney.com