### SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., GOSHEN GREEN FARMS, LLC, TOWN OF NORTH SALEM, NEW YORK PUBLIC INTEREST RESEARCH GROUP FUND, INC., NUCLEAR INFORMATION AND RESOURCE SERVICE. BEYOND NUCLEAR, INDIAN POINT SAFE ENERGY COALITION, PROMOTING HEALTH AND SUSTAINABLE ENERGY, INC., GREEN EDUCATION AND LEGAL FUND, INC., SAFE ENERGY RIGHTS GROUP, INC., SCOTT CHASE, RICHARD HAMMER, SCOTT CHASE, RICHARD HAMMER, JOYCE HARTSFIELD, JOSEPH J. HEATH, WILLIAM MCKNIGHT, SR., BRUCE ROSEN, GEORGE STADNIK, LYNNE TEPLIN, ELLEN C. BANKS, CARYL BARON, LINDA BELISLE, DANIEL BIRN, MIRIAM BLUESTONE, J. ALLISON CROCKETT, LAURA DEL GAUDIO. ALLEGRA DENGLER, MICHELLE FREEDMAN. DEAN GALLEA, VALERIE GILBERT, ALLAN GOLDHAMMER, CARLTON GORDON, JENNIFER GORMAN, STEVEN L. GOULDEN, CATHY A. HAFT, RICHARD HAMMER, BRIAN HOBERMAN. OBIE HUNT, ROBERT V. JACOBSON, VICKEY KAISER, ALVIN KONIGSBERG, JUDITH A. LASKO. SUSAN D. LEIFER, MIKHAELA MARICICH. FREDERICK MARTIN, III, PATRICIA MATTESON, JANE MAYER, JANET MCBRIDE, VALERIE NIEDERHOFFER, TERESA OLANDER, VICTOR PALIA, CAROLINE PAULSON, GAIL PAYNE, THOMAS RIPPOLON, ROSEMARIE SANTIESTEBAN, CHERYL SCHNEIDER, CAROL SKRYM, MELVYN T. STEVENS, STEVEN STUART, MONICA WEISS, ERIC WESSMAN, TODD D. WOLGAMUTH, JUDITH M. ZINGHER.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,

Index No. 07242-16

AFFIRMATION OF SUSAN H. SHAPIRO IN SUPPORT OF AMENDED VERIFIED PETITION AND COMPLAINT

#### -against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR FITZPATRICK, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC.

Nominal Respondents-Defendants

Index No. 07242-16

AFFIRMATION OF SUSAN H. SHAPIRO IN SUPPORT OF AMENDED VERIFIED PETITION AND COMPLAINT SUSAN H. SHAPIRO, an attorney duly admitted to practice before the Courts of the State of New York, affirms pursuant to CPLR Section 2106, as follows:

- 1. I am an attorney with the Rockland Environmental Group, LLC, counsel for Petitioners-Plaintiffs ("Petitioners") in the above-captioned matter.
- 2. I submit this Affirmation in support of Petitioners' hybrid proceeding, pursuant to Article 78 of the New York State Civil Practice Law and Rules ("CPLR") and CPLR §3001 for declaratory relief, requesting the Court to annul, vacate and set aside the Tier 3 portion of Public Service Commission ("PSC") Orders issued on August 1, 2016 in Case 15-E-0302 and Case 16-E-0270 (the "August 1 Order" attached as Exhibit 1 to the Amended Petition and Complaint) and the two subsequent PSC Orders, dated November 17, 2016 (the "November 17 Orders" attached as Exhibit 2 to Amended Petition and Complaint), as well as the PSC Rehearing Denial, dated December 15, 2015 (the "Rehearing Denial" attached as Exhibit 3 to the Amended Petition and Complaint) (hereinafter collectively referred to as "Tier 3" or "Orders"), all in connection with the enactment of the Clean Energy Standard, Matter Master Reference # 15-01168/15-E-0302.
- 3. Subsequent to the filing of the original Petition in this case, the Commission denied all Petitions for Rehearing except for those made by

Nominal Defendants in this matter. Upon the PSC's Rehearing Denial, all administrative remedies were exhausted.

- 4. Petitioners submit this Amended Petition to amend and supersede their Verified Petition originally filed with the Court on November 30, 2016. The Amended Verified Petition is substantially similar to its predecessor and is being submitted for the purpose of ease of readability for the Court.
- 5. Attached hereto are true and correct copies of the following Petitioner Affidavits:
  - Exhibit A Affidavit of David Conover, Interim Executive Director of Hudson River Sloop Clearwater, Inc., sworn to on January 11, 2017, in support of the Amended Verified Petition and Complaint;
  - Exhibit B Affidavit of Susan Hito Shapiro, Managing Member of Goshen Green Farms, LLC, sworn to on January 12, 2017, in support of the Amended Verified Petition and Complaint;
  - Exhibit C Affidavit of Warren J. Lucas, Supervisor of Town of North Salem, sworn to on January 11, 2017, in support of the Amended Verified Petition and Complaint;
  - Exhibit D Joint Affidavit of Marilyn Elie, Leadership Council Member of Indian Point Safe Energy Coalition, sworn to on January 11, 2017 and Michel Lee, Senior Analyst with Promoting Health and Sustainable Energy, sworn to on January 10, 2017, in support of the Amended Verified Petition and Complaint;
  - Exhibit E Affidavit of Mark Dunlea, Chairperson of Green Education and Legal Fund, Inc., sworn to on December 20, 2016, in support of the Verified Article 78 Petition;
  - Exhibit F Affidavit of Nancy S. Vann, President of Safe Energy Rights Group, Inc., sworn to on January 11, 2017, in support of the Amended Verified Petition and Complaint;

- Exhibit G Affidavit of Blair Horner, Executive Director of New York Public Interest Research Group Fund, Inc., sworn to on January 11, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit H Affidavit of Kevin Kamps, Radioactive Waste Specialist at Beyond Nuclear, sworn to on January 10, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit I Affidavit of Timothy Judson, Executive Director of Nuclear Information and Research Service, sworn to on January 12, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit J Affidavit of Scott Chase, sworn to on January 10, 2017; in support of the Amended Verified Petition and Complaint;
- Exhibit K Affidavit of Richard Hammer, sworn to on January 11, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit L Affidavit of Joyce Hartsfield, sworn to on January 10, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit M Affidavit of Bruce Rosen, sworn to on January 10, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit N Affidavit of George Stadnik, sworn to on January 10, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit O Affidavit of Lynne Teplin, sworn to on January 10, 2017, in support of the Amended Verified Petition and Complaint;
- Exhibit P Affidavit of William Mcknight, Sr., sworn to on January 9, 2017, in support of the Amended Verified Petition and Complaint; and

 Exhibit Q-Affidavit of Joseph J. Heath, Esq., sworn to on January 11, 2017, in support of the Amended Verified Petition and Complaint.

Dated: January 12, 2017

Nanuet New York

Respectfully submitted,

By:

Susan Shapiro, Esq/

Attorneys for the Plaintiffs

75 N Middletown Road Nanuet, New York 10954

### SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,
-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR FITZPATRICK, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

AFFIDAVIT OF
DAVID CONOVER
IN SUPPORT OF
AMENDED VERIFIED
ARTICLE 78 PETITION
AND COMPLAINT

STATE OF NEW YORK	)
	) ss
COUNTY OF DUTCHESS	)

# AFFIDAVIT OF PETITIONER HUDSON RIVER SLOOP CLEARWATER, INC. BY DAVID CONOVER, INTERIM EXECUTIVE DIRECTOR

DAVID CONOVER, INTERIM EXECUTIVE DIRECTOR, being duly sworn, hereby deposes and, under penalties of perjury, states as follows:

- I, David Conover, am the Interim Director of Hudson Sloop Clearwater, Inc.
   ("Clearwater"), a New York State registered corporation doing business at 724 Wolcott Avenue,
   Beacon, New York, 12508.
- 2. I submit this Affidavit on behalf of Clearwater, in further support of Petitioners' effort, pursuant to Article 78 of the New York State Civil Practice Law and Rules to annul, vacate, and set aside the Tier 3 portion of the Public Service Commission Orders dated August, 1 2016, and November 17, 2016, and the Rehearing Denial dated December 15, 2016 (the "Orders').
- 3. I am fully familiar with the facts and issues raised in the accompanying Amended Petition. As Interim Executive Director, I am responsible for overseeing and guiding all of the programs and operations of Hudson River Sloop Clearwater, Inc., including advancing litigation. We are a membership organization open to the general public with thousands of members, all of whom share an interest in and are actively engaged on the Hudson River and in issues of concern affecting the future of the River and its Valley.
- 4. The organization was incorporated under the laws of the State of New York in 1966. The stated purpose of our organization is "To defend and restore the Hudson River, one of the great

and historic rivers of this nation; to investigate and conduct research into any cause or sources of contamination and destruction of this river, its tributaries and similar river systems; to inform the public of such dangers and to assist the public in taking such measures as to stop such contamination; to educate the general populace as to the importance of preserving the Hudson River, its tributaries and similar river systems; to foster the historic and cultural heritage of the Hudson River Valley from the mountains to the sea; to concern itself with the well-being of those individuals who dwell along its bank and related areas; to protect and restore other great waterways; and to conduct other actions including, but not limited to, litigation that will enhance and improve the environment of the Hudson River Valley and related areas." Our membership includes a diverse cross-section of Hudson Valley residents, including those who fish, boat, kayak, sail, swim, and use the River for economic, aesthetic and educational purposes. The organization owns and operates the sloop Clearwater, which is a historically-accurate tall-ship sailing vessel of a kind that was used on the Hudson River for centuries. The sloop Clearwater regularly travels up and down the Hudson River as part of its educational, cultural, and environmental program and mission.

- 5. Our organization and our members are electricity ratepayers directly affected by the proceeding and the Order that are the subject of the Amended Petition.
- 6. Clearwater has submitted comments and participated in public hearings, in the proceeding leading to the Public Service Commission August 1, 2016 Order where we expressed concerns regarding Tier 3 of the Order that forces electricity ratepayers, such as Clearwater and its members, to pay for a nuclear energy power plant subsidy for three nuclear facilities that would other be economically unsustainable without such ratepayer funding. This includes actively participating the Reforming the Energy Vision (REV) proceedings, filing Clearwater

Comments on the Clean Energy Standard on May 27, 2016, Clearwater Comments Urging PSC to Reconsider the 12-Year Nuclear Subsidy on July 22, 2016, and Clearwater Comments on Petition for Rehearing of CES Nuclear Subsidy on November 13, 2016.

- Clearwater has actively worked to educate our members, the community at large, and elected officials about the dangers of nuclear power and the global climate crisis, and to promote the transition a renewable energy economy, throughout our newsletter, e-blasts and social media and by convening many well-attended conferences on these and related topics. In 2015 2016 Clearwater asked our members and others to take a 5-kw Solar Pledge, promising to install or cause to be installed 5 or more kilowatts of solar panels on their home, school, house of worship or other community and municipal buildings. Many responded by taking this pledge and implementing their promise.
- 8. Many Clearwater members purchase 100% renewable energy through Energy Supply Companies (ESCOs) and will suffer an additional surcharge as a result of the Orders, when they already pay a premium for their choice to contract for 100% renewable energy. Recent outreach to our members and others resulted in 247 responses to a Survey Monkey questionnaire. All of the responders objected to the Tier 3 nuclear subsidy, most are purchasing 100% renewable energy and a few are generating their energy from solar systems they had paid to install; several are doing both. A few indicated that they could not afford to continue to purchase renewable energy if they also had to pay a nuclear subsidy. Most of the responders live in the Lower Hudson Valley Capacity Zone, and are already paying a surcharge to ostensibly ensure additional capacity in this region. Some of the survey responders are named as Petitioners in this proceeding and some have provided affidavits that are being submitted in connection with the Amended Petition.

- 9. Clearwater and its members' economic and environmental interests are impacted by the Orders because climate changing emissions released into the atmosphere from the entire nuclear energy production cycle from mining to processing to electricity generation for an additional twelve years in New York State nuclear generating facilities will result in cumulative radioactive, greenhouse gas, and thermal emissions contamination that will negatively impact Clearwater and its members who are particularly focused on such impacts.
- 10. Clearwater and its members are uniquely concerned about the environmental and community impacts from nuclear energy generation that are caused by routine releases and reactor leaks into the Hudson River Valley, and into New York State groundwaters, particularly around the Indian Point nuclear generating facility, and that directly reduce air quality.
- 11. Clearwater and its members are impacted by additional electricity costs in New York

  State that will create deleterious economic impacts and be unduly burdensome to economically
  challenged and distressed members due to increased costs in New York State caused by increase
  nuclear waste being produced and stored indefinitely and possibly permanently in New York

  State.
- 12. Clearwater and its members will be impacted by prolonged nuclear reactor operation and waste disposal because of the further increased risk due to the Nuclear Regulatory Commission new waste rule requiring nuclear waste to be re-casked every 100 years, or sooner, but does not provide a means of federal funding for this potentially expensive requirement.
- 13. Clearwater and its members are also concerned with the PSC public record in this case that identifies nuclear energy as being emission free.

The ongoing damage to the Hudson River from continued emissions necessary to provide 14.

nuclear fuel to nuclear generating facilities is preventing us from one of the fundamental

purposes of our organization, which is to restore the Hudson River.

15. Clearwater and its members use and enjoyment of clean water and clean air are impacted

by increased radioactive releases into the environment that cause detrimental damage.

particularly around the Indian Point nuclear generating facility where a radiological event could

cause permanent damage to our organization.

16. The ongoing degradation of the Hudson River caused by additional 12 years of nuclear

energy generation by the 4 reactors in New York, and possibly by the two reactors at the Indian

Point nuclear generating facility through 2020-21 or longer if an extension is granted, will make

it more difficult to attract public participation in our programs, and will distort and impair the

content of the educational programs we offer to the public.

17. The PSC has not taken any action to address the issues and concerns Clearwater has

raised in the proceeding, and therefore, we file this Article 78 to preserve the rights of the

Petitioners and to challenge the underlying orders for the reasons set forth in the Amended

Petition.

DAVID CONOVER

Sworn to before me this 11th day of January, 2017

CHRISTINE C NAUMAN Notary Public - State of New York NO. 01NA6203791

Qualified in Dutchess Cohoty

My Commission Expires 41.311

## SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,
-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR FITZPATRICK, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

AFFIDAVIT OF SUSAN HITO SHAPIRO IN SUPPORT OF AMENDED VERIFIED ARTICLE 78 PETITION AND COMPLAINT

STATE OF NEW YORK	)
	) ss:
COUNTY OF ROCKLAND	)

SUSAN HITO SHAPIRO being duly sworn, hereby deposes and, under penalties of perjury, states as follows:

- 1. I, Susan Hito Shapiro, am the managing member of GOSHEN GREEN FARMS, LLC, ("Green Farms") a New York State registered limited liability corporation doing business at 3317 Route 207, Goshen, Orange County, New York.
- 2. I submit this Affidavit on behalf of Green Farms, in further support of Petitioners' effort, pursuant to Article 78 of the New York State Civil Practice Law and Rules to annul, vacate and set aside the Tier 3 portion of the Public Service Commission's August, 1 2016, Order and November 17, 2016 Orders, as well as December 15, 2017 (the "Orders").
- 3. I am also the attorney for the other Petitioners in this matter and am fully familiar with the facts and legal issues herein.

#### Green Farms is Organic and Committed to Renewable Energy Sources

- 4. Green Farms, established in 2009 as a small family run organic produce farm, is currently a commercial organic farm providing organic produce to farmers markets, retails stores and local restaurants.
- 5. Green Farms' location within the 50-mile radius from Indian Point nuclear reactors, approximately 244 miles from FitzPatrick and 270 miles from Ginna.<sup>1</sup>.

The Chernobyl Exclusion Zone was established soon after the nuclear disaster. The Exclusion Zone has since been widened and it now covers an area of 2,600 square kilometers (1,600 square miles).

- 6. Green Farms is committed to renewable energy purchases elected to source its electricity from a supplier that get 100% of its energy from wind power.<sup>2</sup>
- 7. Green Farms is an electricity ratepayer in New York State ("NYS") and is directly affected financially by increased utility rates and by the negative environmental consequences of the nuclear energy industry.

#### Green Farms will be financially impacted by Tier 3 of the Orders

- 8. Tier 3 involves the implementation of an additional surcharge on all purchasers of electricity being regulated by the PSC. This additional surcharge is in addition to the surcharge already in place designated for green energy which Green Farms supports. Under Tier 3 of the Orders, Green Farms will be not only be forced to pay increased utility rates, these increased rates will subsidize nuclear energy in NYS, to which Green Farms is steadfastly opposed.
- 9. As a small agri-business, increased energy costs negatively impact Green Farms' ability to operate its farm.
- 10. Green Farms has little or no profit; therefore, the additional surcharges for electricity, as ordered by the PSC in this case for a nuclear energy bailout, will create a financial hardship, which has the potential to force Green Farms out of business.
- 11. Green Farm is also concerned that tying additional electricity costs to the subsidy of nuclear energy in NYS will cause further deleterious economic impacts and be unduly burdensome to Green Farms due to ever increasing and not properly forecasted costs caused by the increased nuclear waste that being produced and the subsequent need to store this waste indefinitely, and possibly permanently, in NYS. The impacts will fall

Green Farms has also started installing solar panels on-site but cannot rely on the solar panels for its electrical needs.

directly to NYS because the Nuclear Regulatory Commission new waste rule requires nuclear waste to be re-casked every 100 years, but does not provide a means of federal funding for this requirement which is potentially far more expensive than currently accounted for.

#### Green Farms will be environmentally impacted by Tier 3 of the Orders

- 12. Green Farms currently sources all electricity from solar and wind energy, and opposes being forced to pay a surcharge for dangerous, toxic and emission-spewing nuclear energy.
- 13. Green Farms will be injured as a result of PSC's misleading characterization of nuclear energy as being "zero emissions." Everyday radiation emissions, additional Carbon-14 and climate change due to routine thermal emissions from the nuclear plants--particularly Indian Point--can negatively impact Green Farms' agri-business and its organic farming practices, as well as Green Farms' honeybees, which are critical for pollination<sup>3</sup>.
- 14. Green Farms environmental and commercial interests are impacted because climate changing emissions released into the atmosphere from the entire nuclear energy production cycle from mining to processing to electricity generation for an additional twelve years in New York State nuclear generating facilities will result in cumulative radioactive, greenhouse gas, and thermal emissions that will negatively impact my use and enjoyment Green Farms as an owner.
- 15. Green Farm objects to the PSC's improper reference to nuclear energy as being emission free. As an organic farm, which relies on clean water and clean air,

<sup>&</sup>lt;sup>3</sup> "Climate change impacts on bumblebees converge across continents" By Jeremy T. Kerr, et al. *SCIENCE*10 JUL 2015: 177-180

Farms is located within the peak injury zone of the Indian Point nuclear generating facility, as a manager and owner, I am very concerned that a radiological event would cause irreparable harm to our business.

#### Green Farms has actively participated in the public hearings opposing Tier 3

- As a representative of Green Farms, I have submitted comments, participated in two public hearings, and requested a rehearing on the Public Service Commission's August 1, 2016 Order because Tier 3 of the Order specifically forces Green Farms to become a captured consumer of nuclear energy.
- 17. Green Farms is a business that already relies solely on renewable energy sources including solar, wind and geothermal energy. Green Farms actively advocates for additional funding for rapid installation of solar, wind, geothermal energy, increasing energy efficiencies in energy transmission in NYS. It should be patently obvious that Green Farms is wholly opposed to nuclear energy and therefore should not be forced to participate in paying for an egregious nuclear energy power plant bailout.
- 18. In written comments submitted in the PSC proceedings that led to the Orders objecting to the inclusion of the Tier 3 nuclear bailout, I provided an image of a thermal plume being emitted from Indian Point, which I am attaching here as Exhibit A.
- 19. Green Farms also filed a petition with the PSC for a rehearing, which was denied in the December 2016.
- 20. Green Farm is especially concerned about the environmental and community impacts from nuclear energy reactors caused by routine releases and reactor leaks will have on New York State's groundwater and air quality.

- 21. Green Farms is also concerned about the increased costs associated with detrimental health and safety risks to it and its employees caused by cumulative radioactive, greenhouse gases, and thermal emissions caused by 12 additional years of the operation of the nuclear facilities addressed by this Order.
- 22. Furthermore, Goshen Farms is aware that the limited liability insurance established by the federal Price Anderson Act, limits the nuclear industries liability to only 12.2 billion dollars, whereas the property value in 50-mile radius around Indian Point is well over at least 5.8 trillion dollars. Thus, the costs and risks associated with continued operations of outdated and aging nuclear energy reactors that would not be economically viable but for the nuclear bailout ordered in this case could cause irreparable economic damage to Green Farms.
- 23. Upon information and belief, the PSC never audited the books and records of the corporations operating the nuclear generating facilities that are the subject of the bailout monies ordered by the PSC in this case. Nor does the PSC order restrict the use of the bailout funds, if provided, in any way. Thus, Green Farm, as a captured ratepayer, may be unknowingly and unwillingly forced to support the nuclear industries false advertisement and litigation to continue operations of the State's aging and unsafe nuclear fleet.
- 24. Green Farm timely filed a petition for hearing to the PSC for the order in this case and the PSC has failed to rule on this petition within the legally required 30-day period; thus, we file this petition because the rehearing petition may be deemed to have been denied.
- 25. The PSC has not taken any action to timely respond to the Green Farms rehearing request, and thus may be deemed denied. Nor has PSC otherwise addressed the

issues raised by Green Farms regarding the Orders in this case, and therefore, we file this Article 78 to preserve the rights of the Petitioners and to challenge the underlying orders for the reasons set forth in the Amended Verified Petition.

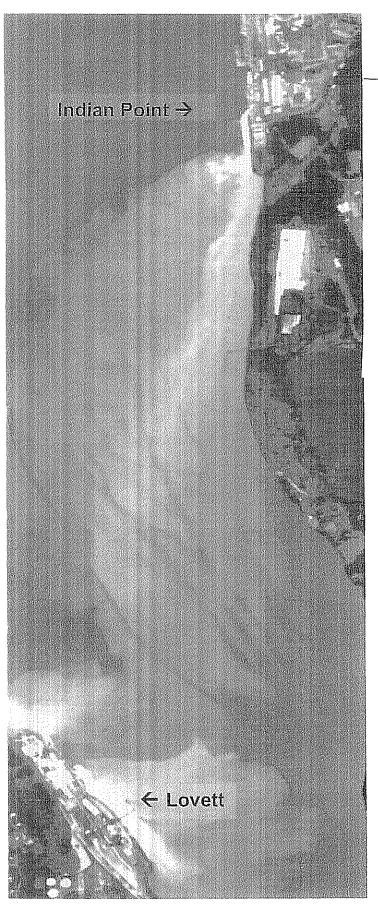
SUSAN HITO SHAPIR

Sworn to before me this /3 1/4 day of January, 2017

Notary Public

MELANIE L. GOLDEN
NOTARY PUBLIC-STATE OF NEW YORK
NO 02G06336568
QUALIFIED IN ROCKLAND COUNTY
MY COMMISSION EXPIRES 02-08-2020

### Thermal Pollution



The thermal plume from Indian Point and Lovett power plants is clearly visable in this infra-red image taken in 1998 by scientists from GER/SpectroTech, Inc The reds indicate discharge temperatures from 1-8 degrees hotter than ambient rivel water, and the yellows go up to 14.5 degrees hotter. One scientist noted that the plume appeared to be devoid of life.

### SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,
-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

AFFIDAVIT OF
WARREN J. LUCAS
IN SUPPORT OF
AMENDED VERIFIED
ARTICLE 78 PETITION
AND COMPLAINT

STATE OF NEW YORK	)
	) ss:
COUNTY OF WESTCHESTER	)

### AFFIDAVIT OF PETITIONER TOWN OF NORTH SALEM BY WARREN J. LUCAS, SUPERVISOR

WARREN LUCAS, being duly sworn, hereby deposes and, under penalties of perjury, states as follows:

- 1. I, Warren J. Lucas, am Supervisor of the Town of North Salem, New York ("North Salem,") whose offices are located at 266 Titicus Road, North Salem, New York 10560.
- 2. I submit this Affidavit on behalf of North Salem, in further support of Petitioners' effort, pursuant to Article 78 of the New York State Civil Practice Law and Rules to annul, vacate, and set aside the Tier 3 portion of the Public Service Commission's August, 1 2016, and November 17, 2016 Orders.
- 3. North Salem is one of 20 municipalities in Westchester County that joined the Community Choice Aggregation ("CCA") program managed by Sustainable Westchester Inc. under New York State's Reforming the Energy Vision strategy. This program allows Westchester municipalities to contract directly with energy suppliers to realize bulk discounts on retail rates for their constituents, and to choose power from non renewable or renewable sources.
- 4. North Salem along with a number of other municipalities in Westchester County further chose to purchase 100% renewable power from Constellation Energy under CCA.
- 5. As a result of these choices, individual residents and small businesses in North Salem receive the benefits of 100% renewable power, unless they specifically opt out of the program.

Practically all residences, over 80%, in North Salem get 100% renewable power paying additionally for Renewable Energy Credits ("RECs") for wind power.

- 6. Under Tier 3, North Salem residents and small businesses would be required to pay additionally to support aging nuclear plants. In essence paying REC's for nuclear energy.
- 7. There should be no subsidies for any generating plants including nuclear. If plants cannot deliver electricity at a reasonable cost they should not be compensated by taxpayers or ratepayers. In any event, the people and businesses of North Salem should not have to pay additional monies for subsidies, REC's, on nuclear power when they are already paying additionally for RECs for wind power for 100% of their energy needs.
- North Salem has demonstrated its support for the State's renewable energy goals. To 8. require us or any other municipality in the CCA program who selected renewable energy to pay additional subsidies is totally inequitable and flies in the face of the States focus on renewable energy.

Sworn to before me this //

day of January 2017

Rosemary datas Notary Proble: State of New York
No. 01JA6093953 – Qualified in
Westchester County
My Commission Expires June 9, 2019



#### TOWN OF NORTH SALEM

DELANCEY HALL 266 TITICUS ROAD NORTH SALEM, NEW YORK 10560

OFFICE OF THE TOWN CLERK VERONICA E. HOWLEY

#### **RESOLUTION #43-17**

TO SUPPORT THE TOWN SUPERVISOR IN SIGNING AN AFFIDAVIT IN SUPPORT OF THE VERIFIED ARTICLE 78 PETITION IN THE MATTER OF HUDSON RIVER SLOOP CLEARWATER, GOSHEN GREEN FARMS LLC AGAINST THE NEW YORK STATE PUBLIC SERVICE COMMISSION AND CONSTELLATION ENERGY NUCLEAR GROUP, LLC

Motion made by Supervisor Lucas Seconded by Councilman Aronchick

WHEREAS, the residents of the Town of North Salem as part of the Community Choice Aggregation Program (CCA) approved by Governor Cuomo's office and the Public Service Commission have committed to use only recoverable energy sources and;

WHEREAS, North Salem and 13 other municipalities in Westchester County as part of Sustainable Westchester's CCA program have contracted with Con Edison and Constellation Energy for our renewable electricity needs and have purchased Renewable Energy Credits (RECs) for 100% recoverable energy and;

WHEREAS, North Salem's residents in supporting renewable energy should not also be paying subsidies for nuclear energy or other non-renewable energy sources as part of the Governor's announced \$7.6B agreement.

THEREFORE, BE IT RESOLVED, that the Town Board of the Town of North Salem hereby authorizes the Supervisor in signing an affidavit in support of the verified Article 78 petition in the matter of Hudson River Sloop Clearwater, Goshen Green Farms LLC against the New York State Public Service Commission and Constellation Energy Nuclear Group, LLC, to annul, vacate and set aside the Tier 3 portion of the Public Service Commission's August 1, 2016 and November 17, 2016 Orders specifically dealing with additional rate charges for North Salem residents and other recoverable energy communities, and secondly, to provide the Supervisor authorization to sign the retainer to allow *Rockland Environmental Group, LLC* to represent us at no cost to the Town in the above mentioned Article 78 and Declaratory Judgment.

Supervisor Lucas - Aye Councilwoman Douglas - Absent Councilman Golisano - Aye Councilman Kamenstein - Aye Councilman- Aronchick-Aye Resolution Adopted.

SEAL

I, Patricia Butler, Deputy Town Clerk of the Town of North Salem, County of Westchester, State of New York, do certify that the above is a true and exact copy of a Resolution adopted by the Town Board of said Town at a meeting held on January 10, 2017.

Patricia Butler, Deputy Town Clerk

Telephone: (914) 669-5577 \* Fax: (914) 669-8731 \* E-mail: vhowley@northsalemny.org

### SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,
-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

JOINT AFFIDAVIT OF MARILYN ELIE AND MICHEL LEE IN SUPPORT OF AMENDED VERIFIED ARTICLE 78 PETITION AND COMPLAINT

STATE OF NEW YORK	)
	) ss
COUNTY OF WESTCHESTER	)

# AFFIDAVIT OF MARILYN ELIE ON BEHALF OF THE INDIAN POINT SAFE ENERGY COALITION ("IPSEC") AND MICHEL LEE ON BEHALF OF PROMOTING HEALTH AND SUSTAINABLE ENERGY ("PHASE")

MARILYN ELIE, a Leadership Council Member of IPSEC and MICHEL LEE, a Senior Analyst with PHASE, being duly sworn hereby deposes and, under penalties of perjury, states as follows:

- 1. I, MARLIYN ELIE, am a member of the Leadership Council of the INDIAN POINT SAFE ENERGY COALITION ("IPSEC"), a New York State based, nonprofit, nonpartisan coalition of public interest, health advocate, environmental and citizen groups, with offices located at 7 John Dorsey Drive, Cortlandt Manor, New York 10566.
- 2. I, MICHEL LEE, am a member of the Leadership Council of IPSEC and a member and Senior Analyst with PROMOTING HEALTH AND SUSTAINABLE ENERGY ("PHASE"), a New York State based nonprofit public interest group, which promotes and advocates for public health and sustainable energy, primarily through research, with offices located at 75 North Middletown Road, Nanuet, New York 10954.
- 3. We submit this joint Affidavit in support of Petitioners' effort, pursuant to Article 78 of the New York State Civil Practice Law and Rules to rescind, annul, vacate, or,

alternatively, to order modification of Tier 3 of the orders issued by the New York State Public Service Commission ("PSC or Commission") dated August 1, 2016, November 17, 2016, and Rehearing Denial of December 15, 2016 ("the Orders").

- 4. We are fully familiar with the facts and issues raised in the underlying Verified Petition and IPSEC and PHASE are parties to the Petition for Rehearing, which was denied. IPSEC and several of its member groups, including PHASE and the Council on Intelligent Energy & Conservation Policy ("CIECP"), have also filed Comments in the underlying PSC case.
- 5. The IPSEC coalition formed in 2001, initially in response to two events: a steam generator explosion in 2000, which shutdown Indian Point Unit 2 for nine months, and the 9/11 terror attack. In the 15 years since its founding, IPSEC has engaged with experts in many disciplines and fought vigorously to try to shine sunlight on the safety, security, environmental, environmental justice, public health, and economic costs and risks of continued operation of Indian Point. Many of our efforts have been actively supported by the elected representatives and the State of New York, which has also strongly opposed the relicensing of Indian Point for the past decade.<sup>2</sup>
- 6. IPSEC and PHASE oppose Tier 3 because it contravenes the articulated intent of NewYork's Reforming the Energy Vision (NY REV) and State Energy Plan (SEP); represents a major impediment to New York's transition to a clean energy economy; increases the risks and hazards of New York's aging nuclear plants; and rests, in its entirety upon the fallacy that

nuclear is "zero-emission." Nothing in the record shows that there is a public necessity for Tier 3.

- 7. Most of the individual members of IPSEC and members PHASE in New York
  State are electricity ratepayers, and some contract to purchase 100% renewable energy. All will
  be directly affected by the proceeding and the Orders that are the subject of the Verified Petition.
  Those purchasing 100% renewable energy will be unfairly deprived of their ability to chose
  100% renewable generation, and will be paying an additional surcharge on top of the premium
  on that they pay to obtain 100% renewable energy.
- 8. All available evidence suggests the REV and the PSC's effort to implement the goals of the REV and SEP via the Clean Energy Standard (CES) were begun with the most honorable and firm intent to spur the transformation of New York's energy system. As REV was publicized:
  - "We are changing New York's energy policy to put customers first and make sure energy efficiency, increased use of renewable, and reliance on more resilient distributed energy resources like microgrids are at the core of our energy system."
  - "Our Clean Energy Fund will mobilize private capital, jumpstart innovation and eliminate market barriers to make clean energy affordable and scalable for all New Yorkers."
  - "New York State government is leading by example, actively investing in reducing its energy costs and saving taxpayers money through energy efficiency projects across public buildings and facilities. Local municipalities are also joining to demonstrate the benefits of clean energy."

- 9. The SEP advances New York's pursuit of a new clean and efficient energy system and highlights the need to create a regulatory scheme with increased access to renewable, implementation of demand response programs, development of energy storage facilities, reduced transmission congestion, and lower electricity costs. But without due notice to the public, the plan changed dramatically from one that promoted a clean energy standard to one that aggressively and rigidly shackles the state to nuclear power. The changes could be disastrous for New York and the broader effort to combat climate change.
- 10. The PSC's adorning of this heavy industrial activity as graced with "environmental values and attributes" is farcical. The nuclear full fuel cycle has created Superfund sites and over 1,500 mines leaching radioactivity and heavy metals into despoiled ecosystems. The impact on environmental justice, particularly Native American, communities has been horrific. Nuclear releases a continuing stream of radioactive emissions into air and source waters as part of ordinary reactor operation. Virtually every nuclear power site in the country New York's included have had accidental radioactive leaks. Nuclear involves the heavy exploitation of water systems. It destroys billions of fish and other aquatic life in cooling intake systems and pumps out massive thermal pollution plumes. Every day New York's reactors run they create nuclear waste a material so poisonous the National Academy of Sciences has determined it must be sequestered from the environment for a million years.
- The plain and ordinary terms used to describe an electric plant that uses nuclear fission are "nuclear power plant," "nuclear reactor" or "nuclear power station". On July 8, 2016, the PSC issued "Staff's Responsive Proposal for Preserving Zero-Emissions Attributes" ("July 8,

2016 Responsive Proposal") which defines an electric plant that uses nuclear fission as a "Zero Carbon Electric Generating Facility." This definition is in contrast to the normal definition of nuclear plants and represents an extraordinarily disingenuous use of language as a substitute for evidence.

- 12. To justify Tier 3 and its "Zero-Emissions Credit" ("ZEC") requirement, the PSC engages in an undisguised effort to depict nuclear as an enterprise which makes no greenhouse contribution to the planet. Promotion of this conceit is done via the use of terminology in lieu of explication. Thus virtually every reference to nuclear is presaged with the PR tagline "zero-emission attributes". The PSC also uses the term "emissions" in a manner that does not comport with ordinary understanding. Providing cover to the Tier 3 nuclear subsidy by labeling it "ZEC" is casuistry. A simple Google search, reveals emission(s) defined as "the production and discharge of something, especially gas or radiation"; listed synonyms include discharge, release and leak. Merriam-Webster defines emission as "an act or instance of emitting" or "putting into circulation" or "something sent forth by emitting" and includes the example of electromagnetic radiation from an antenna. The "zero-emission" terminology is thus in direct conflict with both the commonly understood meaning of the word "emissions" and dictionary definitions.
- As elaborated upon at length in filings submitted by IPSEC's member groups, including CIECP and PHASE, designation of nuclear power as "zero-carbon" or "zero-emissions" is utterly illegitimate as a matter of science, not just semantics. Nuclear generates greenhouse gas emissions, radioactivity emissions, radioactive leak emissions, waste emissions, and heat emissions. This point warrants the strongest emphasis: Whatever policy the

Commission might have legitimately promulgated in furtherance of near-term electrical grid reliability needs, resource constraints, or even expedience, the use of misleading terminology to give cover to policy is arbitrary, capricious and constitutes a supreme violation of the public trust.

- 14. The PSC asserts that, if New York's nuclear plants closed, every baseload MWh of power lost from the nuclear units would be replaced with fossil-fuels. This assertion is an unsupported assumption. The Commission simply adopts, without critical evaluation, the conclusion offered to the PSC in a report commissioned by nuclear proponents with a vested interest in the nuclear plants the PSC pronounced to be "qualified" for subsidies. The multibillion corporations which run nuclear plants in New York, and have long reaped the profits provided by long-term and very large subsidies and deregulation of the electric market in the 1990s and early 2000s. This is not an argument for giving them more subsidies now that they cannot compete. And the record is bereft of evidence that giving even more subsidies and creating an even more uneven playing field to prop up aging costly nuclear plants is a "public necessity."
- The assumption credulously accepted by the PSC that every single MWh of reduced nuclear generation would inevitably result in increased fossil fuel use cannot withstand scrutiny. In fact, there is no valid reason to even assume closure of all of New York's nuclear plants would happen immediately or to anticipate closures would result in a net increased use of fossil fuel in New York beyond a very short period.
- Climate-relevant evaluation of greenhouse gas contribution necessarily involves full fuel cycle analysis. While other kinds of pollution (chemical releases, oil spills, mercury, lead, etc) stay more or less within a geographic region, greenhouse gasses pollute not because of

where they sit, but because they rise into the atmosphere and alter atmospheric conditions. From a climate change perspective, it is entirely irrelevant where a carbon emitter is located. Therefore climate change analysis of every form of energy generation – and even every energy efficiency technology – must take into consideration all emissions generated throughout the *entire* fuel cycle. If one stage of a particular cycle produces minimal carbon, but every other stage produces prodigious amounts, that industry is a big climate change polluter. The full fuel cycle shows why nuclear is a poor choice for the planet. Nuclear power is actually a chain of highly energy-intensive industrial processes which – combined – consume large amounts of fossil fuels and generate potent warming gases. These include:

- Uranium mining
- Milling
- Enrichment
- Fuel fabrication
- Transport
- Construction and maintenance of the heavy concrete nuclear reactors and all the other massive industrial structures
- Emissions of new man-created carbon atoms, released into atmosphere as Radioactive Carbon and Methane
- Environmental remediation of closed nuclear facilities
- Disposal and burial of voluminous amounts of so-called "low-level" nuclear waste (all the structures and components and materials which are contaminated, but not themselves spent fuel)
- Long-term on-site containment of high-level nuclear waste (spent fuel)
- Permanent disposal of high-level nuclear waste, including the construction and maintenance of all waste depositories
- 17. It is worthy of emphasis that, whereas the burning of fossil fuels releases sequestered carbon, nuclear fission creates new carbon carbon that never existed in nature.
- Indeed voluminous evidence was offered by multiple parties in the proceeding detailing the many ways New York could very substantially reduce carbon emissions via, e.g., more aggressive rapid expansion of renewables, efficiency (including cleaner geothermal and

solar heating and cooling systems), demand side initiatives, transmission upgrades, etc. The comments filed included citation and discussion of findings of published reviews and independent, academic peer-reviewed research. The question of how power will be generated in New York depends largely on the design of the PSC's scheme. Transformation of the energy system, as the PSC itself has acknowledged, is not a question of simplistically substituting one kind of MWh generation for another, it is a matter of transforming the energy system from a model based on having a limited number of very big fossil fuel and nuclear power plants providing baseload power to a model in which efficiency and demand-side management allow renewable generators to provide reliable power distributed power throughout the grid.

Lumbering nuclear giants are ill-suited to a future energy system which must be agile and efficient. Nuclear plants are a heavy drag on the system because they must run constantly and have to always dispose of their power production, regardless of whether or not it is needed.

19. Likewise, PSC's failure to evaluate the many costs imposed by nuclear is arbitrary, capricious and unreasonable. These costs are real and irrefutable. For example, some 300,000 people live within 10 miles of Indian Point. About a million live within 20 miles, and over 17 million people live within 50 miles. Indian Point has already – in its first 40-odd years of operation – had fires; explosions; cooling system malfunctions; emergency sump pump defects; main boiler feed pump breakdowns; water clogged water intakes; safety injection system degradation; boric acid corrosion; nitrogen gas accumulation; hydrogen gas buildup; steam generator accidents; reactor control rod malfunctions; electrical failures; backup generator failures; security system malfunctions; emergency communication system collapses; computer software problems; pipe breaks; and a series of radiation leaks. Over just the past couple of years, Indian Point had a transformer explosion and fire, sprung new radiation leaks, and

inspections revealed significant deterioration of vital reactor cooling system components. A serious accident at Indian Point could effectively render the New York Metropolitan region uninhabitable and cost trillions of dollars.<sup>11</sup>

- All of this is directly relevant to the Petition before this Court, because the sudden inclusion of Indian Point as a potential recipient of billions of dollars in subsidies was a shocking change of course for the State. Until the July 8, 2016 Responsive Proposal, IPSEC, its ally groups, PHASE, the citizens of New York and most elected officials had no reason whatsoever to suspect the PSC would suddenly proclaim Indian Point to be a potentially "qualified" recipient of public funding. The utter irrationality of the proposition is plain: the PSC proposed funding a facility the State of New York has been expending considerable resources to shut down.
- 21. The mere 14 days the PSC gave IPSEC and the public to respond to this major and nonsensical change in New York policy in the middle of the summer, no less, and with public interest groups having to waste time seeking an extension to the PSC's initial even shorter 10 day allowance was grossly inadequate. There is large public opposition to Indian Point, especially in the downstate New York region, where thousands of citizens have protested operation of the plant and the PSC knows this. PSC's avowed rush to push the subsidy scheme forward to accommodate the supposed financial planning needs of the Exelon corporation constituted a deprivation of the public's right.
- 22. Other substantial and material changes suddenly put forth in the July 8, 2016
  Responsive Proposal relate to the Tier 3 scheme as a whole. Among the most remarkable was the increase of the nuclear subsidy by one or more orders of magnitude. Significantly, the July 8, 2016 Responsive Proposal was not at all transparent. It did not disclose a fact which would be of prime importance to most members of the public and their elected representatives: the

astronomical potential size of the subsidy. The number crunching was left to nonprofits, which then had to expend their own time and resources figuring out that the PSC was postulating figures in the range of \$7.6 billion to \$10.4 billion, depending upon whether Indian Point becomes qualified. The nebulous terms of the Orders intimates that \$10.4 billion may not even be a cap.

- 23. The sudden selection of a 12 year mandatory period for propping up New York's nuclear plants was another major change in the scheme that came as a total shock to IPSEC and PHASE. There is no colorable rationale for such a lengthy term. It is hard to think of anything more arbitrary and capricious than chaining New York with no escape mechanism to uncompetitive, dangerous, and polluting old nuclear plants for more than a decade. Simply stating the logic reveals its absurdity. In the name of promotion of renewables, carbon reduction, efficiency, cost and consumer choice, the PSC Orders:
  - Force all ratepayers to pay massive subsidies to nonrenewable nuclear power plants, with the total of such subsidies being far greater than those provided renewables.
  - Force ratepayers who buy 100% renewable electricity (even those willing to pay more for clean power) to buy nonrenewable nuclear.
  - Force all types of renewable generation to compete against one another for the requisite

    Renewable Energy Credits (RECs) under Tier 1, but elevate nuclear generation out of the

    competitive market scheme entirely via Tier 3.
  - Force New York ratepayers to pay for electricity put out by very old increasingly costly nuclear operations, even if new increasingly cheaper renewable, energy efficiency and

- transmission modernization can result in truly clean safe forms of power being able to provide 100% of New York's electricity reliably.
- Force New York to be locked into ZEC obligations under Tier 3 for 12 years, whereas the terms supporting RECs are subject to review and reconsideration every 2 years.
- 24. The entire CES proceeding began as a clean energy standard and was heavily promoted to the public as being a strong wind in the sails of renewables. What happened, bluntly put, was a bait and switch. The proceeding turned into a mandated diversion of billions of dollars away from renewables and a prolonged corporate welfare deal for entrenched interests.
- 25. Another conceit which came out of left field in the July 8, 2016 Responsive Proposal, was a "public necessity" determination formula. This was presented in a paragraph which spools into multiple rings of circular reasoning twisted into knots. To quote the PSC:
  - "Public necessity shall be determined on a plant-specific basis in the discretion of the Public Service Commission (Commission) considering (a) the verifiable historic contribution the facility has made to the clean resource mix consumed by retail consumers in New York State regardless of the location of the facility; (b) the degree to which energy, capacity and ancillary services revenues projected to be received by the facility are at a level that is insufficient to provide adequate compensation to preserve the zero-emission environmental values or attributes historically provided by the facility; (c) the costs and benefits of such a subsidy for zero-emissions attributes for the facility in relation to other clean energy alternatives for the benefit of the electric system, its customers and the environment; (d) the impacts of such costs on ratepayers; and (e) the public interest." <sup>12</sup>
- 26. It is submitted that the above paragraph is, on its face, such an intertwined mess of threads of vague, ill- or un-defined terms, and conflicting objectives that it represented not just an entirely new proposed policy, but an entirely unintelligible one. The public was accordingly deprived of due process. After proffering the brand new and oblique "public necessity"

Nine Mile Point were projected to all be qualified to receive ZECs upon inception of the final order. How these facilities meet the (a) through (e) postulations is not made transparent.

- 27. In the August 1, 2016 PSC Order, the Commission asserts that Tier 3 is a "public necessity" and in the "public interest" because the loss of the nuclear "zero-emissions attributes" would "undoubtedly result, based on current market conditions, in significantly increased air emissions due to heavier utilization of existing fossil-fueled plants or the construction of new gas plants." Well aren't the current market conditions the very thing the CES is supposedly aiming to alter? In the name of "public necessity," the Commission is imposing an enormous cost and risk burden upon the public and completely failing to take into consideration the uncontested fact that renewable power has improved technologically by leaps and bounds over recent years. The cost of renewables (especially wind and solar) and efficiency technologies have been plummeting and are expected to continue to decline in the foreseeable future. In short, renewables are becoming better and cheaper. New York's nuclear plants are old, aging and carry considerable operational costs. Indeed, the improved economics and viability of renewables is one of the main reasons New York's old nuclear plants can no longer complete.
- 28. Service of the basic public interest, and fulfillment of its obligation to protect the environment and public health warranted a defensible cost-benefit analysis. The Commission failed to provide one.
- 29. As noted, the Tier 3 argument collapses upon removal of the fallacious "zero-emissions" foundation. But massive subsidization of New York's aging nuclear plants does not pass a straight faced public necessity test even if nuclear produced no carbon. Greenhouse gases

are not the only noxious emissions product of nuclear. As the record reflects, nuclear power uses voluminous quantities of water and generates massive amounts of thermal pollution. Impacts on water will increasingly interact additively and in synergistically negative ways with changing climate conditions. Indian Point's cooling intake systems alone annually suck in an amount of water equivalent to the volume of the Hudson River from Troy, New York to Lower Manhattan. In addition to the flat out killing of aquatic life via cooling water intake systems, the superheating of waters imperils aquatic life directly. Thermal pollution represents an especially negative impact in a warming world. Indian Point, for example, dumps billions of BTUs of heat into the Hudson River each day – approximately equivalent to the heat which would be produced by the detonation of a Hiroshima-sized atomic bomb. Warm waters also promote algae blooms which, in turn, degrade the quality of waters, kill aquatic life and create hypoxic conditions which degrades water ecosystems further, making them even more vulnerable to the stresses imposed by climate change. Water resources are also of concern because droughts - expected to increase even in the Northeast - lead to low-flowing water in lakes and rivers. This reduces both water quality and quantity.

Climate change also exacerbates vulnerabilities. Heavy precipitation and wide temperature swings in the region will likely take a further toll on all of the states aging plants, accelerating corrosion and rusting in buried pipes and cables. Degraded systems could then operate seemingly fine for years, but then fail if stressed by storm or accident conditions. Drought and too warm cooling supply waters increase the risks associated with the cooling systems of reactors and spent fuel pools. Paradoxically, extreme weather, intense precipitation and flooding events put nuclear cooling systems at even more risk. This is because such events portend station blackout from the potential loss of offsite power (the loss of offsite power, not

the earthquake, not the tsunami, was the direct cause of the Fukushima disaster) and challenge buried site electrical wiring, cables and other systems. In addition, storms and floods send debris flowing. In February 2007, for example, an "Unusual Event" was declared at Indian Point. The combination of low Hudson River water level, icing conditions, and rushing debris clogged rotating screens used to prevent material from entering the water intake structure. (The plant's poor maintenance, the Nuclear Regulatory Commission determined, was another contributor.)

Divers had to be sent into the frigid Hudson waters to clean out the blockage.

- 31. The elevated danger engendered by severe storm conditions was evident during Superstorm Sandy when Indian Point and other plants were forced into emergency shutdowns. During heat waves, nuclear plants have been forced to go offline due to overly hot or lowered waterways. And heat reduces the efficiency of thermoelectric power plants both nuclear and fossil fuel plants. That means as summers get hotter, nuclear will become a less reliable generator.
- 32. Notably the PSC has evaded consideration of the massive intergenerational costs and risks uniquely imposed upon the state by aging nuclear plants and their ever-enlarging inventory of nuclear waste. Emblematic of the Commission's lack of understanding or, worse, willingness to turn a blind eye to the magnitude of the risk is its statement in the December 15, 2016 Order that: "Nothing in the record supports the premise that these facilities are not properly insured." <sup>15</sup> This statement is demonstrably wrong as a matter of fact. The federal Price-Anderson Act of 1957 places the primary liability for a nuclear accident squarely on the shoulders of the public. In the more than half-a-century which has transpired since its enactment, neither the insurance industry, nor the nuclear power industry has been willing to assume full liability for the consequences of a catastrophic event. In addition, the federal Nuclear Waste

Policy Act of 1982 places the full liability for long-term storage of nuclear waste on the public.

Despite over half-a-century of effort, funded by many billions of taxpayer dollars, there is still no solution to the disposal problem. Every year New York's nuclear plants operate they will generate more nuclear waste for which the taxpayers of the nation and state will be responsible. This waste may well end up sitting in New York permanently. Further, there is no manner of insurance which covers the despoilment and exploitation of precious water resources.

- reactors emissions and the strong possibility the subsidies will enable their operator(s) to run these plants substantially longer especially given the fact that the PSC Orders enable nuclear to maintain its hold over the energy system. Each year of emissions is a year of added radioactivity in the environment. The fact is, is no one really knows the extent of harm which will result from the additional long-lived bioaccumulating radionuclides which will necessarily be released chronically into the air, soil, and waters for more than another decade or more on top of the four decades of emissions which have already been released into the environment. <sup>16</sup> Radioactive carbon (carbon-14) produced by nuclear plants has a half life of 5,700±30 years.
  - 34. Nuclear power plants produce well over 100 different radioactive isotopes comprising three different types of radiation produced by nuclear power generation. Each has different characteristics and behaviors. The National Academy of Sciences has concluded even extremely low doses of radiation pose a health and cancer risk. Specifically, it found that there is no threshold of exposure below which ionized radiation can be deemed harmless. Some radionuclides, such as tritium and carbon-14, distribute widely throughout the body. Others accumulate in particular organs and cause chronic exposures. For instance, iodine-131 is absorbed like non-radioactive iodine and concentrates in the thyroid gland, increasing the risk of

thyroid cancer and other thyroid disorders. (Notably, while iodine-131 has an environmental half-life of only 8 days, when absorbed into the thyroid, its biological half-life is 100 days.)

Cesium-137 is absorbed by the body like potassium and concentrates in muscles. Strontium-90, is absorbed like calcium, accumulating in teeth, bones, bone marrow, and mammary glands. It is thus implicated in leukemia, bone cancer, breast cancer and immune disorders. Radiation causes cellular damage by directly interacting with target tissues, or by producing free radicals and other harmful molecules. The effects vary depending upon the cell's typical rate of division and the extent of cell differentiation. Different organ systems have different degrees of sensitivity to irradiation. Broadly, the most radio-sensitive are the lymphoid, reproductive, respiratory, gastrointestinal, and hematologic. Other systems, such as the brain and nervous system, are less sensitive in adults but highly vulnerable in utero. Radiation can produce chromosome breaks in a variety of somatic cells that can persist for decades after exposure. And, of course, radiation exposure can also induce inheritable genetic defects. The risks of radiation exposure are cumulative and disproportionately affect women, children, girls, babies, and babies in utero.

- Our coalition's members, like most New York's consumers, want freedom of choice. New York's citizens want a cleaner safer world, with freedom from worry about toxic contaminants, freedom of concern over industrial disasters, and fewer terrorist targets. Operating nuclear power plants present an ever present risk. Perhaps, in the mid 20<sup>th</sup> century when the risks were not well apprehended, the costs underestimated, the reactors new, and the options limited gambling with nuclear made some sense. Today, with cleaner cheaper safer alternatives available, that gamble is senseless and reckless, and most certainly not a "public necessity."
- 36. The Commission has grievously abdicated its self-professed responsibility to act in the public interest and protect the environment and public health. The Orders give nuclear –

and nuclear alone – a stranglehold over the energy sector. The rigid terms of the Orders lock the State into purchase and subsidization of aging, obsolete facilities, no matter how detrimental nuclear may become over the years, even from a safety and security perspective. The Orders encumber intervention by the New York legislature and even forestall future governors and PSC Commissioners from altering course. We turn to the courts as a last recourse.

SHARON L GILLEO Notary Public - State of New York NO. 01GI6292187 Qualified in Westchester County My Commission Expires Nov 4, 2017 Marelyn Clie

MARILYN ELIE, on behalf of INDIAN POINT SAFE ENERGY COALITION

Sworn to before me this

\_\_day of January 2017

Notary Public

MICHEL LEE on behalf of PROMOTING HEALTH AND SUSTAINABLE ENERGY, INC.

Sworn to before me this \_\_\_\_ day of January 2017

Notary Public

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Sworn to before me this

 $\frac{111}{11}$  day of January 2017

Notary Public

Alsounder Angelo Franzin! Notary Public, State of New York No. 01FF0351736 Qualified in Nasseu County Commission Expires 12/12/2020

- CIECP-PHASE Comments on PSC Staff White Paper on Clean Energy Standard, Apr 22, 2016. These comments also contained a detailed exposition of the nuclear-climate nexus (pp 2-7) and provided supportive authority in Annotated Appendices: Appendix A "Nuclear is Not the Answer to Climate Change: Full Fuel Cycle Analysis;" Appendix B "Nuclear is Not the Answer to Climate Change: Water Use and Exploitation;" and Appendix C "Human Rights and Environmental Justice."
- CIECP-PHASE Comments on PSC Order Further Expanding Scope of Proceeding and Seeking Comments on Proceeding on Motion of Commission to Implement a Large-Scale Renewable Program and Clean Energy Standard, May 2, 2016, pp 2-3.
- Alliance for a Green Energy Economy (AGREE) and Nuclear Information and Resource Service (NIRS) Comments on PSC Order Further Expanding Scope of Proceeding and Seeking Comments on Proceeding on Motion of Commission to Implement a Large-Scale Renewable Program and Clean Energy Standard, May 2, 2016, p 7.

<sup>&</sup>lt;sup>1</sup> Subsequent to 2000 event, it was revealed that the accident also resulted in a radiation release non-disclosed at the time of the accident. Witherspoon, Roger, NRC ignored signs of danger, Journal News, Jun 24, 2002. Following 9/11, the 9/11 Commission revealed that Mohamed Atta had considered specifically targeting Indian Point. Final Report of the National Commission on Terrorist Attacks Upon the United States: The 9/11 Commission Report, W.W. Norton & Company, New York, London, Jul 2004. <a href="http://www.9-11commission.gov/report/911Report.pdf">http://www.9-11commission.gov/report/911Report.pdf</a>, pp 154, 242 & 245 (noting the original plan was to hit nuclear plants and that Mohamed Atta, the tactical leader of the plot and pilot of the lead plane, American Airlines Flight 11, at a July 8, planning meeting for the attacks in Madrid, mentioned that considering targeting the nuclear facility he had seen during his surveillance flights along the Hudson River).

<sup>&</sup>lt;sup>2</sup> For example, in its denial of Indian Point's request for a Coastal Zone Consistency Determination, the New York Secretary of State stated: "An accidental release of radiation from the facilities could contaminate drinking water supplies and render uninhabitable large swaths of property in the NYC Metropolitan region. Such a catastrophe would cause dramatic human as well as economic losses. Replacing radionuclide-contaminated drinking water resources for millions of City residents would likely be at unimaginable expense." Perales, Cesar A, New York Secretary of State, Department of State, Letter to Fred Dacimo, Vice President Operations License Renewal, Entergy Nuclear Northeast Indian Point re: F-2012-1028, Coastal Zone Management Act Consistency Determination, Indian Point Nuclear Generating Unit Nos. 2 & 3, NRC License Nos. DPR-26 and DPR-64, NRC Docket Nos. 50-247 and 50-286, Nov 6, 2015, p 28. The State also noted: "Additional radiological releases could destabilize the real estate, infrastructure, and the economy in New York City and other regional municipalities." Id at p 30.

<sup>&</sup>lt;sup>3</sup> See, Wikipedia, https://en.wikipedia.org/wiki/Nuclear\_power\_plant.

<sup>&</sup>lt;sup>4</sup> PSC July 8, 2016 Responsive Proposal, p 2.

<sup>&</sup>lt;sup>5</sup> Google, accessed Aug 30, 2016. https://www.google.com/?gws\_rd=ssl#q=emissions+definition+\_finds.

<sup>&</sup>lt;sup>6</sup> Merriam-Webster, accessed Aug 30, 2016.: <a href="http://www.merriam-webster.com/dictionary/emission">http://www.merriam-webster.com/dictionary/emission</a>.

Nuclear's greenhouse gas (GHG) and other polluting and hazardous emissions was elaborated upon in the following filings in the PSC Case 15-E-0302, Large-Scale Renewable Program and Clean Energy Standard:

- CIECP-PHASE Comments on the DPS Clean Energy Standard White Paper Cost Study, New York Public Service Commission, Jun 6, 2016. These comments also emphasized the impacts of the toxic nuclear fuel cycle upon environmental justice communities and provided Annotated Appendices: Appendix A titled "Economics of Clean Energy" and Appendix B "Economics of Nuclear".
- IPSEC Comments on New York State Department of Public Service (DPS) Clean Energy Standard White Paper Cost Study, Jun 16, 2016, pp 1-3. (GHG and toxic emissions are noted, with emphasis on impacts upon environmental justice communities.
- Susan Shapiro, Esq. Comments on PSC Staff July 8, 2016 Responsive Proposal, Jul 18, 2016, p 2.
- CIECP-PHASE, Manhattan Project for a Nuclear-Free World, and Indian Point Safe Energy Coalition (IPSEC) Supplemental Multi-Party Comments on PSC Staff July 8, 2016 Responsive Proposal, Jul 22, 2016. Emissions and climate impacts were delineated in Annotated Appendices: Appendix A "Human Rights and Environmental Justice" (pp 2-29); Appendix B "Public Health Evidence Supporting Detrimental Consequences to Human Health from Low-Level Ionizing Radiation: Chronic and Synergistic Toxic Exposures" (pp 29-93); Appendix C "Nuclear is Not the Answer to Climate Change: Nuclear Impact and Risk in Era of Climate Change, Water Insecurity, and Toxic Pollutant Stress" (pp 94-134); Appendix D "Nuclear is Not the Answer to Climate Change: Full Fuel Cycle Analysis" (pp 134-149); and Appendix E "Clean Energy Economy Rising But Impeded if Nuclear Continues to Be Subsidized (pp 150-257). These comments were supplemental to the Alliance for a Green Energy Economy (AGREE), Nuclear Information and Resource Service (NIRS), CIECP, and Sierra Club Atlantic Chapter Comments on the July 8, 2016 Responsive Proposal, Jul 22, 2016.
- CIECP-PHASE, Physicians for Social Responsibility, New York; Sierra Club Lower Hudson Valley Group; Rockland Sierra Club; Indian Point Safe Energy Coalition (IPSEC); Goshen Green Farms, LLC; Ellen Jaffee, New York State Assemblymember District 97; and Andrew Stewart, Orangetown Supervisor Petition for Rehearing, PSC Case 15-E-0302, Large-Scale Renewable Program and Clean Energy Standard, Aug 31, 2016.

The report the PSC placed its "benefit-cost" evaluation on was referred to by the PSC as the Brattle Group report (see, e.g., July 8, 2016 Responsive Proposal, p 1), was actually a 12 page December 2015 report drafted by two economists affiliated with the Brattle Group, Inc., who acknowledge it to be an "extension and refinement" of a previous report dated July 7, 2015. Berkman M and Murphy D, New York's Upstate Nuclear Power Plants' Contribution to the State Economy, Dec 2015. <a href="http://www.brattle.com/system/publications/pdfs/000/005/229/original/New York's Upstate Nuclear Power Plants' Contribution to the State Economy.pdf?1449526735">http://www.brattle.com/system/publications/pdfs/000/005/229/original/New York's Upstate Nuclear Power Plants' Contribution to the State Economy.pdf?1449526735</a>, preface, p 1, & p 4 fn 6. Both reports expressly note they do not represent the opinion of The Brattle Group. Id and Berkman M and Murphy D, The Nuclear Industry's Contribution to the U.S. Economy, Report prepared for Nuclear Matters, Jul 7, 2015.

http://www.brattle.com/system/news/pdfs/000/000/895/original/The Nuclear Industry's Contribution to the U.S. Economy.pdf?1436280+14. The July 7 2015 report was prepared for Nuclear Matters, a nuclear promotional group linked to Exclon. As Elliott Negin of the Union of Concerned Scientists, notes, despite 2013 revenues of \$23.5 billion, Exclon has sought state and federal help in rescuing its financially ailing reactors. As part of that effort, Exclon "launched a front group, Nuclear Matters, to sell the public on the need to keep the remaining U.S. fleet of some 100 reactors running. ... A New York public

relations firm, Sloane & Company, is managing Nuclear Matters for Exelon." Negin, Elliott, Nuclear Giant Exelon Launches Front Group to Cover Its Assets, Huffington Post, Jun 2, 2014, updated Nov 5, 2014. http://www.huffingtonpost.com/elliott-negin/nuclear-giant-exelon-laun b 5428994.html. See also. Knauss, Tim, Upstate New York's nuclear plants support 25,000 jobs, industry consultant says. Syracuse.com, Dec 7, 2015.

http://www.syracuse.com/news/index.ssf/2015/12/upstate new yorks nuclear plants support 25000 io bs industry consultant says.html.

<sup>9</sup> The inability of the commercial nuclear power industry to exist without large subsidies is hardly limited to New York and has persisted since the dawn of the nuclear age. See, e.g., Cooper M, Renaissance in Reverse: Competition Pushes Aging U.S. Nuclear Reactors to the Brink of Economic Abandonment Report, Institute for Energy and the Environment at Vermont Law School, Jul 2013, http://216.30.191.148/071713%20VLS%20Cooper%20at%20risk%20reactor%20report%20FINAL1.pdf Koplow D, Nuclear Power: Still Not Viable without Subsidies, Report of the Union of Concerned Scientists, Feb 2011.

http://www.ucsusa.org/assets/documents/nuclear\_power/nuclear\_subsidies\_report.pdf.

<sup>10</sup> Sec. e.g., CIECP, PHASE, AGREE and NIRS comments noted in Endnote no. 7 above; Alliance for a Green Energy Economy (AGREE) and Nuclear Information and Resource Service (NIRS) Comments on PSC Staff White Paper on Clean Energy Standard, Apr 22, 2016; and AGREE, NIRS, CIECP, and Sierra Club Atlantic Chapter Comments on PSC Staff July 8, 2016 Responsive Proposal, Jul 22, 2016.

The Chernobyl nuclear disaster rendered some 1,000 square miles uninhabitable for centuries. The Fukushima Daiichi nuclear disaster affected less land because winds blew 80% of the radioactivity out over the Pacific Ocean. New York's muclear plants are all inland, on rivers and lakes. They are surrounded by populated areas, vital agricultural lands, and pristing forests. So any major radioactivity release will fall on New York. As long as New York nuclear plants operate they will increase the amount of high level nuclear waste held in their spent fuel pools. The more recent the waste, the hotter, more radioactive, and more dangerous it is. And the spent fuel pools were constructed decades ago with the expectation they would need to hold only one year's of new spent fuel inventory. Since then, with no plan for nuclear waste disposition, the spent fuel pools have become overpacked - holding 5 to 6 times the amount of spent fuel they were designed to hold. In May 2016, the National Academies of Science (NAS) released a report warning of the vulnerability of U.S. nuclear power spent fuel pools. The NAS panel revealed that a spent fuel pool fire was narrowly averted at Fukushima Daiichi by sheer luck of a spring of an accidental leak from another part of the installation. National Academies, Lessons Learned From The Fukushima Nuclear Accident For Improving Safety and Security of U.S. Nuclear Plants: Phase 2, Committee on Lessons Learned from the Fukushima Nuclear Accident for Improving Safety and security of U.S. Nuclear Plants; Nuclear and Radiation Studies Board; and Division on Earth and Life Studies of the National Academies of Sciences, Engineering, and Medicine, Washington, DC: The National Academies Press, Doi: 10.17226/21874, 2016. http://www.nap.edu/read/21874/chapter/1. Applying the NAS data, Princeton University researchers, ran a sophisticated weather modeling computer program, and determined that a fire at a U.S. nuclear power plant pool could contaminate nearly 39,000 square miles. Stone, Richard, Near miss at Fukushima is a warning for U.S., panel says, Science Magazine, May 20, 2016. http://www.sciencemag.org/news/2016/05/burning-reactor-fuel-could-have-worsened-fukushimadisaster (reporting on findings - final publ at: von Hippel, FN and Schoeppner M, Reducing the Danger from Fires in Spent Fuel Pools, Science & Global Security (2016); 24 (3): 141-173. http://www.tandfonline.com/doi/abs/10.1080/08929882.2016.1235382.

http://seienceandglobalsecurity.org/archive/sgs24vonhippel.pdf. See also.

Witherspoon, Roger, Degradation of Indian Point Reactor Triggers NRC Investigation, Huffington Post,

Jun 1, 2016. http://www.huffingtonpost.com/roger-witherspoon/degradation-of-indian-

#### poi b 10197520.html

- How does the PSC define the ambit of its "discretion"?
- Why is the "historic contribution" relevant to a scheme which by express intent is supposed to transform the energy system into a substantial departure from the historic norm?
- How does the PSC define "clean energy"? Does PSC deem the toxic radioactive effluent releases from reactor sites (both operational and accidental) into the air, soil, site structures, groundwater lakes and rivers to be "clean"? How would the State press for site cleanup during decommissioning of what the State already deemed clean?
- Why would "contribution" to energy resources be determined "regardless of location" when location is an obvious crucial variable related, inter alia, to capacity and reliability?
- How does the "zero-emission environmental values or attributes" criteria differ from the "zero-emissions attributes for the facility"?
- How, where and in what manner does the PSC determine costs and benefits of the ZEC subsidy in relation to "other clean energy alternatives"?
- In what way does the PSC determine the impacts of the ZEC costs on ratepayers? How is that impact distinct from the supposedly carbon savings?'
- How is "public interest" defined? How is it distinguished from the "public necessity" it purports to inform?

See CIECP-PHASE Comments on PSC Staff White Paper on Clean Energy Standard, Apr 22, 2016, pp 5-7, Appendix B "Nuclear is Not the Answer to Climate Change: Water Use and Exploitation;" and Appendix C "Human Rights and Environmental Justice." One study of particular interest noted in Appendix B is Kenna TC, Chillrud SN, Chanky DA, Simpson HJ, McHugh CM, Shuster EL, Bopp RF, Determining Sources and Transport of Nuclear Contamination in Hudson River Sediments with Plutonium, Neptunium, and Cesium isotope ratios, The Smithsonian/NASA Astrophysics Data System (2004), American Geophysical Union, Fall Meeting 2004, Abstract #H411-05. <a href="http://adsabs.harvard.edu/abs/2004AGUFM.H41L.05K">http://adsabs.harvard.edu/abs/2004AGUFM.H41L.05K</a>. In this study of radioactive sediment transport in the Hudson River, led by Timothy C. Kenna of Lamont-Doherty Earth Observatory of Columbia University, the scientists collected samples of river sediment up to 18 miles (30km) downstream from Indian Point and found that some samples from the lower Hudson Estuary contain elevated levels of cesium-137. The authors stated: "We attribute the elevated Cs-137 levels in these Lower Hudson sediments to contamination originating from IPNPP {Indian Point nuclear power plant}."

<sup>&</sup>lt;sup>12</sup> July 8, 2016 Responsive Proposal, p 3.

<sup>&</sup>lt;sup>13</sup> Among the questions unelaborated by the PSC:

<sup>&</sup>lt;sup>14</sup> PSC August 1, 2016 Order, p 128.

<sup>&</sup>lt;sup>15</sup> PSC December 15, 2016 Order, p 39.

<sup>&</sup>lt;sup>17</sup> See CIECP-PHASE, Manhattan Project for a Nuclear-Free World, and IPSEC Supplemental Multi-Party Comments on PSC Staff July 8, 2016 Responsive Proposal, Jul 22, 2016, p 3 and Appendix B "Public Health – Evidence Supporting Detrimental Consequences to Human Health from Low-Level

Ionizing Radiation: Chronic and Synergistic Toxic Exposures" at pp 29-93. Particularly poignant and compelling are large population-based studies conducted by German scientists from the Institute for Medical Biostatistics, Epidemiology and Informatics and the German Childhood Cancer Registry. University Mainz. These studies are known as the "KiKK Studies" because KiKK is the German acronym for "Childhood Cancer in the Vicinity of Nuclear Power Plants". These studies reviewed data from 25 years of research on childhood cancer near nuclear plants in two journals: the International Journal of Cancer and the European Journal of Cancer. The researchers found higher levels of cancer and a stronger association with nuclear reactor installations than previously known. The evidence showed a 117% increase in leukaemia among young children living near all 16 large German nuclear facilities between 1980 and 2003 as well as a 60% increase in solid cancers. KiKK Studies (companion studies): Kaatsch P, Spix C, Schulze-Rath R, Schmiedel S, and Blettner M, Leukaemia in young children living in the vicinity of German nuclear power plants, International Journal of Cancer (2008); 122 (4): 721-726. http://onlinelibrary.wiley.com/doi/10.1002/ijc.23330/full; and Spix C, Schmiedel S, Kaatsch P, Schulze-Rath R, and Blettner M, Case-control study on childhood cancer in the vicinity of nuclear power plants in Germany 1980-2003, European Journal of Cancer (2008); 44 (2): 275-284. http://www.sciencedirect.com/science/article/pii/S0959804907008556. Publication of the KiKK studies (and similar findings in France) is a reason Germany made the decision to turn away from nuclear power. The 2011 Fukushima disaster then led the German government to accelerate closure of that nation's nuclear fleet and move aggressively towards renewables.

#### SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,
-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

AFFIDAVIT OF
MARK DUNLEA
IN SUPPORT OF
AMENDED VERIFIED
ARTICLE 78 PETITION
AND COMPLAINT

STATE OF NEW YORK	)
	) ss:
COUNTY OF KINGS	)

## AFFIDAVIT OF PETITIONER GREEN EDUCATION AND LEGAL FUND, INC.. BY MARK DUNLEA, CHAIRPERSON

Mark Dunlea, Chair of GELF, being duly sworn, hereby deposes and, under penalties of perjury, states as follows:

- I, Mark Dunlea, am the Chairperson of the Green Education and Legal Fund., Inc.
   (GELF) a New York State corporation doing business at 315 Greene Ave. 2B, Brooklyn NY 11238.
- 2. I submit this Affidavit on behalf of GELF, in further support of Petitioners' effort, pursuant to Article 78 of the New York State Civil Practice Law and Rules to annul, vacate, and set aside the Tier 3 portion of the Public Service Commissions August, 1 2016, and November 17, 2016 Order.
- 3. The organization was incorporated in 1997 as a Type "B" corporation as defined in Section 201 of the Not-for-Profit Corporation Law. The stated purpose of our organization is "a) to conduct research, education, charitable and legal efforts in furtherance of the green principles of ecology, grassroots democracy, non-violence, social and economic justice, decentralization, community economics, feminism, respect for diversity, personal and global responsibility, and future focus; b) to provide training and education to individuals to enable them to increase their participation in the democratic process of governance, including developing alternative democratic models for increased citizen and community input into economic and political decisions that impact upon their quality of life;

- c) to develop and promote alternative models for organizing economic activity, including but not limited to cooperatives, worker ownership, community supported agriculture, monetary systems and Green business principles; d) to receive and administer funds for scientific, educational and charitable purposes."
- 4. The Board members of GELF are electricity ratepayers directly affected by the proceeding and the Order that are the subject of the Verified Petition.
- 5. GELF has submitted comments and participated in public hearings, in the proceeding leading to the Public Service Commission August 1, 2016 Order. GELF supported increased funds being provided to accelerate the development of renewable energy and energy efficiency in New York State under the Clean Energy Standard and REV, including advocating for a Power Purchase Agreement for off shore wind. GELF opposed the creation of subsidies within CES to support nuclear power.
- 6. GELF coordinates a statewide campaign to have all of New York State's energy needs to be met by renewable energy by 2030. The PSC' order of August 1, 2016 undercuts such campaign. In addition, such order provides far more funding for nuclear subsidies than it does for renewable energy.
- 7. GELF has educated the public about the environmental, financial and safety dangers associated with various nuclear power plants in New York State.

- 8. GELF and its members' economic and environmental interests are impacted by the August 1, 2016 Order because climate changing emissions released into the atmosphere from the entire nuclear energy production cycle from mining to processing to electricity generation for an additional twelve years in New York State nuclear generating facilities will result in cumulative radioactive, greenhouse gas, and thermal emissions contamination that will negatively impact GELF and its members.
- 9. GELF and its members are uniquely concerned about the environmental and community impacts from nuclear energy generation that are caused by routine releases and reactor leaks into New York State groundwaters, and that directly reduce air quality.
- 10. GELF and its members are impacted by additional electricity costs in New York State that will create deleterious economic impacts and be unduly burdensome to economically challenged and distressed members due to increased costs in New York State caused by increased nuclear waste being produced and stored indefinitely and possibly permanently in New York State.
- 11. GELF and its members will be impacted by prolonged nuclear reactor operation and waste disposal because of the further increased risk due to the Nuclear Regulatory Commission's new waste rule, which requires nuclear waste to be recasked every 100 years, but does not provide a means of federal funding for this potentially expensive requirement.

12. GELF is also concerned with the PSC public record in this case that identifies nuclear energy as being emission free.

Mark Dunlea

Sworn to before me this day of December 2016

Notary Public

ALL ISOS THOMPSON
Notary Public - State of flew York
Hard ITESCOUNCY
Qualified in Kings County
Hy Commission
Expires Sept. 28, 20 | 9

## SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,
-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

AFFIDAVIT OF
NANCY S. VANN
IN SUPPORT OF
AMENDED VERIFIED
ARTICLE 78 PETITION
AND COMPLAINT

STATE OF NEW YORK	)
	) ss
COUNTY OF PUTNAM	,

#### AFFIDAVIT OF PETITIONER SAFE ENERGY RIGHTS GROUP, INC. NANCY S. VANN, PRESIDENT

NANCY S. VANN, PRESIDENT, being duly sworn, hereby deposes and, under penalties of perjury, states as follows:

- 1. I, Nancy S. Vann, am the President of Safe Energy Rights Group, Inc.

  ("SEnRG"), a New York State registered corporation doing business at 201 Union Avenue,

  Peekskill, New York.
- 2. I submit this Affidavit on behalf of SEnRG, in further support of Petitioners' effort, pursuant to Article 78 of the New York State Civil Practice Law and Rules to annul, vacate, and set aside the Tier 3 portion of the Public Service Commissions August, 1 2016, and November 17, 2016 Order, and the Rehearing Denial dated December 15, 2016.
- 3. I am fully familiar with the facts and issues raised in the underlying Verified Petition.
- 4. As President, I am responsible for overseeing and guiding all of the programs and operations of SEnRG, including advancing litigation. We are actively engaged in the Hudson River Valley area and in issues of concern affecting the future of the Valley.
- 5. SEnRG is a group of citizens working together to protect communities in the Northeast from unsafe energy development and infrastructure. We employ our experience and professional expertise to assist those impacted by harmful projects in exercising their rights to safe, sustainable energy. Our goal is to provide credible information and support to ensure that communities of all sizes can protect their health and safety. To this end, we assist citizens in

taking social, legal, and political action as they demand meaningful dialogue and adherence to the law from elected officials and permitting agencies. The organization was incorporated under the laws of the State of New York in 2015. The stated purpose of our organization is "seeking and providing information and support to the public, communities, and other organizations regarding safe and healthy energy rights, resources, activities and options." Our organization and its Board and Officers are electricity ratepayers directly affected by the proceeding and the Order that are the subject of the Verified Petition. Our Board includes a member who purchases her residential electricity from 100% renewable sources.

- 6. SEnRG participated in public information sessions, in the proceedings leading to the Public Service Commission August 1, 2016 Order where we expressed concerns regarding Tier 3 of the Order that forces electricity ratepayers, such as SEnRG, to pay for a nuclear energy power plant subsidy and bailout for three nuclear facilities that would other be economically unsustainable without such ratepayer funding.
- 7. SEnRG's economic and environmental interests are impacted by the August 1, 2016 Order because climate changing emissions released into the atmosphere from the entire nuclear energy production cycle from mining to processing to electricity generation for an additional twelve years in New York State nuclear generating facilities will result in cumulative radioactive, greenhouse gas, and thermal emissions contamination that will negatively impact SEnRG who is particularly focused on such impacts.
- 8. SEnRG is uniquely concerned about the environmental and community impacts from nuclear energy generation that are caused by routine releases and reactor leaks into the Hudson River Valley, and into New York State groundwaters, particularly around the Indian Point nuclear generating facility, and that directly reduce air quality.

- 9. SEnRG is impacted by additional electricity costs in New York State that will create deleterious economic impacts and be unduly burdensome to economically challenged and distressed members due to increased costs in New York State caused by increase nuclear waste being produced and stored indefinitely and possibly permanently in New York State.
- 10. SEnRG will be impacted by prolonged nuclear reactor operation and waste disposal because of the further increased risk due to the Nuclear Regulatory Commission new waste rule requires nuclear waste to be recasked every 100 years, but does not provide a means of federal funding for this potentially expensive requirement. SEnRG is also concerned with the PSC public record in this case that identifies nuclear energy as being emission free.
- 11. The ongoing damage to the Hudson River and the air and water in the Peekskill area from continued emissions necessary to provide nuclear fuel to nuclear generating facilities is preventing us from one of the fundamental purposes of our organization, which is to assure clean safe energy to all communities.
- 12. SEnRG's use and enjoyment of clean water and clean air are impacted by increased radioactive releases into the environment that cause detrimental damage, particularly around the Indian Point nuclear generating facility where a radiological event could cause permanent damage to our organization.
- 13. The ongoing degradation of the Hudson River and surrounding areas caused by additional 12 years of nuclear energy generation by the 4 reactors in New York, and possibly by the 2 reactors at the Indian Point nuclear generating facility, will make it more difficult to attract public participation in our programs, and will distorts and impairs the programs and services we offer to the public.

14. The PSC has not taken any action to address the issues and concerns SEnRG has raised in the proceeding, and therefore, we file this Article 78 to preserve the rights of the Petitioners and to challenge the underlying orders for the reasons set forth in the Verified Petition.

Nancy S Vann

Sworn to before me this 11th day of Januaryr, 2017

Herthen Careser

Notary Public

HEATHER N CARLSON
Notary Public - State of New York
NO. 01CA6317062
Qualified in Westchester County
My Commission Expires Dec 22, 2018

## SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF ALBANY

In the Matter of

HUDSON RIVER SLOOP CLEARWATER, INC., et al.

Petitioners-Plaintiffs,

For a Judgment pursuant to Article 78 of the CPLR,

-against-

NEW YORK STATE PUBLIC SERVICE COMMISSION, along with KATHLEEN BURGESS in her official capacity as Secretary, AUDREY ZIBLEMAN in her official capacity as Chair, PATRICIA L. ACAMPORA, GREGG C. SAYRE, and DIANE X. BURMAN, in their official capacities as Commissioners,

Respondents-Defendants,

-and

CONSTELLATION ENERGY NUCLEAR GROUP, LLC, with Subsidiaries and affiliates EXELON GENERATION COMPANY, LLC, R.E. GINNA NUCLEAR POWER PLANT, LLC, NINE MILE POINT NUCLEAR STATION, LLC, ENTERGY NUCLEAR FITZPATRICK, LLC, ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC,

Nominal Respondents-Defendants

Index No. 07242-16

AFFIDAVIT OF BLAIR HORNER IN SUPPORT OF AMENDED VERIFIED ARTICLE 78 PETITION AND COMPLAINT

STATE OF NEW YORK	)
	) ss
COUNTY OF ALBANY	)

# AFFIDAVIT OF NEW YORK PUBLIC INTEREST RESEARCH GROUP FUND, INC. BY BLAIR HORNER, EXECUTIVE DIRECTOR

BLAIR HORNER, EXECUTIVE DIRECTOR, being duly sworn, hereby deposes and, under penalties of perjury, states as follows:

- 1. I, Blair Horner, am the Executive Director of the New York Public Interest Research Group Fund, Inc. ("NYPIRG"), a not-for-profit corporation formed in 1976 under the laws of New York State with corporate headquarters located at 9 Murray Street, Lower Level, New York, New York.
- 2. I submit this Affidavit on behalf of NYPIRG, in further support of Petitioners' effort pursuant to Article 78 of the New York Civil Practice Law and Rules to annul, vacate, and set aside the Tier 3 portion of the Public Service Commission's August, 1 2016, and November 17, 2016 Orders.
- 3. I am fully familiar with the facts and issues raised in the underlying Verified Petition. As Executive Director, I am responsible for overseeing and guiding all of the programs and operations of NYPIRG, including advancing litigation. NYPIRG has tens of thousands of supporters from across all regions of the state who are keenly interested in policies affecting the environment, energy, public health and safety, consumer protection, corporate responsibility, and open, accountable and transparent government. NYPIRG works to promote citizen understanding and engagement in policy decisions at the local, state and federal levels of government.
- 4. Our organization and its supporters are electricity ratepayers directly affected by the proceeding and the Orders that are the subject of the Verified Petition. Upon information and

belief our supporters include individuals and families in New York State who struggle to pay their utility bills.

- 5. NYPIRG supports the state's overhaul of our electric energy distribution system through the Reforming the Energy Vision initiative ("REV") and related proceedings. To limit the most devastating effects of human caused climate change, it is imperative that the state rapidly transition to a 21<sup>st</sup> century energy system that prioritizes efficiency, demand reduction and green renewable energy production.
- 6. Since 2014, NYPIRG has worked to inform and educate New Yorkers about and engage them in the REV proceedings to press for a stronger emphasis on reducing greenhouse gas emissions, efficiency and rapid transition to renewable energy. At the same time, NYPIRG has advocated that New York must ensure that restructuring our electric system results in affordable energy for low- and fixed-income New Yorkers and that the new REV marketplace is open, transparent and closely policed by the state's Public Service Commission ("PSC").
- 7. As part of its public education efforts, NYPIRG researched, drafted and in June 2015 released *Energy Crossroads*: *Combating Climate Change; Modernizing the Power Grid; Keeping Rates Affordable*, a report on and citizens' guide to the REV proceedings. *Energy Crossroads* was designed to educate New Yorkers about the issues, opportunities and concerns about restructuring electric generation and distribution in New York. The report may be accessed at <a href="http://www.nypirg.org/pubs/rev\_report.pdf">http://www.nypirg.org/pubs/rev\_report.pdf</a>.
- 8. Since the proceedings commenced, NYPIRG staff have spoken directly to tens of thousands of New Yorkers about REV—in most instances the first these residents and taxpayers had heard of the process and its proposals. While we found overwhelming support for tackling climate change and boosting renewable energy, New Yorkers in every region of the state expressed concerns about energy affordability.

- 9. NYPIRG has submitted formal comments and made statements at public hearings conducted under the REV initiative and its offshoot proceedings, including at several of the statutory public hearings conducted in locations across the state for the Large Scale Renewable proceeding leading to the Public Service Commission August 1, 2016 and November 17, 2016 Orders that are central to Petitioners' challenge herein.
- 10. In NYPIRG's statements we expressly opposed the Tier 3 proposal, which would force electric power ratepayers, such as NYPIRG and its supporters, to pay an estimated \$7.6 billion more on their electric bills for the twelve-year period from 2017-2029 to subsidize nuclear facilities that otherwise would be economically unsustainable without such ratepayer funding. In our statement delivered in Albany on May 17, 2016, for example, NYPIRG stated for the record:

We oppose a nuclear tier. Nuclear power is dangerous, expensive, and unreliable. Nuclear power plants should not receive subsidies and detract from support for truly green, renewable energy sources. The Clean Energy Standard must focus our renewable resources on truly clean, green renewable energy sources, including aggressive efficiency measures, wind and solar energy.

- 11. The environmental and public health interests of NYPIRG and its supporters are impacted by the August 1<sup>st</sup> and November 17th 2016 Orders because climate changing emissions released into the atmosphere from the entire nuclear energy production cycle—from mining to processing to electricity generation—will be prolonged for an additional twelve years in New York State, resulting in cumulative radioactive, greenhouse gas, and thermal emissions contamination that will negatively impact NYPIRG and its supporters who are particularly focused on such impacts.
- 12. Moreover, NYPIRG and its supporters will be significantly impacted by the additional electric costs they will be forced to bear as a direct result of the mandatory nuclear subsidies imposed by Tier 3—economic impacts that will be unduly burdensome to economically

challenged and distressed New Yorkers. These New Yorkers are among the hundreds of thousands of state residents at risk of utility shut off at any given time.

- 13. An analysis by independent utility watchdog and low-income ratepayer advocacy group the Public Utility Law Project estimated that of the projected \$7.6 billion in subsidy payments, residential customers (homeowners and renters) will pay \$2.3 billion more on their electric bills over the course of 2017-2029 as a result of the Tier 3 subsidy mandate. According to the Public Utility Law Project analysis, residential ratepayers served by Con Edison will pay \$705.8 million more; residents served by the Long Island Power Authority in Nassau and Suffolk Counties will pay \$501.4 million more; residential ratepayers served by Niagara Mohawk (National Grid) will pay \$465.1 million more; New York State Electric and Gas residential customers will pay \$348.4 million more; Rochester Gas and Electric customers will pay \$138.4 million more; Central Hudson customers will pay \$87.19 million more; and Orange and Rockland customers will pay \$85 million more.
  - 14. NYPIRG's concerns about adding to the energy insecurity of New Yorkers are underscored by data filed by New York's electric utilities showing that more than 766,000 New Yorkers were in arrears of more than 60 days in paying their utility bills. According to the arrears data, which the PSC requires utilities to periodically file, 273,332 Con Edison ratepayers were in arrears more than 60 days; 202,557 Niagara Mohawk (National Grid) ratepayers were in arrears more than 60 days; 117,808 Long Island Power Authority ratepayers were in arrears more than 60 days; 87,365 New York State Electric and Gas ratepayers were in arrears more than 60 days; 60,837 Rochester Gas and Electric ratepayers were in arrears more than 60 days; 14,531 days; 60,837 Rochester Gas and Electric ratepayers were in arrears more than 60 days; 14,531

Data on latest arrears reports filed by utilities as of November 10, 2016 accessed at http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=1331&MN ()=91-M-0744.

Orange and Rockland ratepayers were in arrears more than 60 days; and 10,545 Central Hudson Gas and Electric ratepayers were in arrears more than 60 days.<sup>2</sup>

- NYPIRG also is deeply troubled by the secrecy surrounding the sale of the Fitzpatrick 15. nuclear plant from Entergy to Exelon-likely to be the sole corporate beneficiary of the multibillion dollar nuclear subsidy. Despite open records requests from media and community groups to release the sale agreement, the Public Service Commission released only a heavily redacted document. This prompted the state government transparency watchdog Robert Freeman, Executive Director of New York State's Committee on Open Government, to tell Syracuse.com: "Having dealt with the Freedom of Information Law since it was enacted in 1974, I have never heard of an agreement of this nature where seemingly innocuous elements of a contractual agreement are being withheld."3
  - The PSC has not taken any action to address the issues and concerns NYPIRG has raised 16. in the proceeding, and therefore, we join this Article 78 Petition to preserve the rights of the Petitioners and to challenge the underlying orders for the reasons set forth in the Verified Petition.

Sworn to before me this 11th day of January, 2017

Russ Haven, Notary Public

RUSS HAVEN

Molary Public, State of Idew York

No. 5923930, Nassau County

Commission Expires

<sup>&</sup>lt;sup>3</sup> "Why Might NY Pay \$35M to Nuclear Plant? None of Your Business, State Says," Tim Knauss, The Post-Standard, November 7, 2016. Accessed at www.syracuse.com/news/index.ssf/2016/11/why might ny owe 35m to nuclear plant none of your business state says.html.