Re: Grid Resiliency Pricing Rule
FERC Docket No. RM18-1-000

COMMENTS OF NINETY-ONE ORGANIZATIONS
IN OPPOSITION TO THE PROPOSED RELIABILITY AND RESILIENCY RULE

The below-signed ninety-one (91) organizations submit these comments in opposition to the proposed market rules in the above captioned proceeding. On September 29, 2017, the U.S. Department of Energy (“DOE”) submitted a letter to the Federal Energy Regulatory Commission (“FERC”) demanding changes to pricing rules for certain generation units in competitive wholesale electricity markets. On October 2, 2017, FERC accepted DOE’s proposal and issued an accelerated schedule for public comments (October 23, 2017) and reply comments (November 7, 2017). Numerous parties filed motions for an extension of the public comment schedule, and FERC denied those requests on October 11. In the mean time, on October 10, 2017, DOE published a notice of the proposed rulemaking in the Federal Register, with a significant modification from the proposal submitted to FERC on September 29. FERC also issued a notice on October 11 of DOE’s Federal Register notice and the amended version of the proposed rule.

Specifically, DOE is proposing a new market rule to bail out coal and nuclear power plants in the nation’s competitive electricity markets and to insulate them from future market competition against natural gas and more modern, flexible, and cost-effective energy resources. As proposed, the rule would guarantee the profitability of about 100 power plants which are located in certain regional markets (i.e., those with competitive generation and capacity markets) and exhibit certain characteristics. The rule would do so by requiring regional markets to provide these nuclear and coal plants with cost-of-service ratemaking—that is, pricing the electricity they generate at rates that cover their full costs of operation and capital, as well as a rate of return...
(profit) on investment. Most pertinent among the attributes qualifying for this extraordinary relief is that the facility stores sufficient fuel on-site to operate for at least 90 days. DOE coins a new and novel term for these power plants: “fuel-secure generation.”

It is widely understood that these criteria would apply almost exclusively to commercial nuclear reactors and coal-fired power plants in four regional markets covering thirty states and the District of Columbia: the Independent System Operator of New England (“ISO-NE”); the Midcontinent Independent System Operator (“MISO”); the New York Independent System Operator (“NYISO”); and PJM Interconnection (“PJM”). The nuclear power industry would receive an unprecedented level of industrial protection: 43 of the 99 reactors currently operating in the U.S. would be covered by the rule, totaling 43,601 MW of generation capacity. An even larger number of coal-fired power plants (68) and some natural gas- and biomass-fired plants could qualify. ¹

The proposed rule is too vague and future energy price forecasts are too speculative to divine a reliable estimate of the cost increase to consumers at this stage; however, the Sierra Club has estimated that such a rule would have cost over $14 billion in 2016, alone, based on reported market prices and the operating costs of eligible power plants.² At that rate, if the rule were approved and implemented in 2018 as DOE demands, the total cost to customers in above-market rates could exceed $180 billion (2016 USD) by 2030. However, the actual cost of the proposed would be much greater than that, due to the proposed rule’s provision for full cost-of-service ratemaking, including a “reasonable” rate of return on investment, which typically runs approximately 10% in the utility sector. This amounts to an extraordinary subsidy to incumbent owners of aging power plants, with no substantive cost-benefit justification, environmental analyses, or consideration of alternatives. For the following reasons, FERC must reject DOE’s proposal.

¹ Derived from data tables published by Sierra Club via press release.

DOE’s Proposed Rule Specifically Favors Dirty, Dangerous, Destructive Energy Sources: FERC has long maintained that electricity markets should be regulated without regard to fuel source preferences, favoring instead attributes that meet identified system performance needs, such as lower cost, peaking capacity, frequency regulation, voltage support, etc. Yet, contrary to its stated intent, DOE’s proposed rule would overturn FERC’s “fuel-neutral” market paradigm by remaking markets to promote two favored fuel sources – specifically, nuclear and coal generation—which have massive environmental and public health impacts that cannot be ignored. Mining of coal and uranium lays waste to large areas and pollutes water resources. Uranium mining and reactor fuel production generate over 25,000 pounds of radioactive waste for every pound of fuel that is used in a reactor—nearly all of which is deposited in open-air piles and ponds, disproportionately impacting indigenous communities in the U.S. and abroad. Every year, reactors consume 2,000 tonnes of enriched uranium fuel, which itself becomes lethally radioactive and a public safety risk for hundreds of years, while posing threats to public health, drinking water, and nuclear proliferation for hundreds of thousands of years. The potential for catastrophic accidents puts whole regions of the country at risk, and could entail hundreds of billions in losses and damages. Coal plants produce solid and liquid wastes and air pollutants that threaten drinking water and public health, costing thousands of lives each year in the process, while generating more climate-disrupting carbon dioxide than any other energy source.

Baseload Generation Is Not Needed for Reliability: DOE fabricated the “fuel-secure generation” attribute which the rule would favor specifically for the purpose of justifying economic relief and regulatory preferences for coal and nuclear. This is a characteristic that, as defined, uniquely applies almost exclusively to coal and nuclear generation units, but it has no meaningful value for grid reliability. According to DOE’s official data on system failures, based on mandatory reports of such events by utilities, “fuel-secure generation” has virtually nothing to do with grid reliability. Over the last five years (2012-16), Energy Information Administration data show that only 0.00007% of reported system failures were due to power plant fuel supply

disruptions; of that number, 98% of the outage megawatt-hours were due to the outage of a single coal-fired plant in northern Minnesota.\(^5\) That is, less than one out of every million megawatt-hours of power outages might be remedied by DOE’s proposed solution, while entirely failing to address the other 999,999 megawatt-hours.

Today’s electricity system requires flexibility and responsiveness, not power plants that operate inflexibly at full generation capacity for weeks or months on end. Studies by several grid operators and regulators have demonstrated that reliability can be maintained or enhanced with very high levels of renewable energy generation. For instance, the Southwest Power Pool published a report in 2016 confirming that its transmission system can be operated reliably with 60% wind generation, and that it foresees being able to do so in the future with up to 75% wind.\(^6\) Presently, Germany’s electrical grid has nearly 10 times fewer system failures than the U.S., with 30% generation from renewables compared to 17% in the U.S. in 2016.\(^7\) DOE’s August 2017 grid reliability report acknowledges that the U.S. electrical grid remains reliable, with a growing share of renewable generation and the closures of significant numbers of coal-fired power plants and six nuclear reactors.\(^8\)

In fact, baseload generation sources require greater resources to ensure reliability, and they can lead to or exacerbate reliability problems. FERC rules require grid operators to provide reserve capacity equivalent to the largest single generator on the system—most often a nuclear or coal power plant, where such units are available. The sudden loss of such large single generators


creates both reliability risks and increases the cost to consumers. Reliability problems and market price increases in PJM during the January 2014 Polar Vortex were exacerbated by the emergency shutdown of the Calvert Cliffs 1 and 2 nuclear reactors (1,750 MW) due to electrical malfunctions caused by ice intrusion and inadequate maintenance. Nuclear reactors frequently have to reduce power or shut down under severe weather conditions, precisely when grid reliability is at a premium. High winds and/or flooding have led to reactors being offline for days to months at a time at peak load periods. Warming water temperatures have forced reactors to reduce power output or shut down in summer months, both in the U.S. and abroad—effectively making the “security” of the generator’s fuel supply during peak periods less relevant than the condition of its cooling water source. Furthermore, nuclear reactors in particular pose a unique and significant risk to system reliability that has never been evaluated. As the Fukushima and Chernobyl disasters have demonstrated, a single reactor disaster can create long-term disruptions in electricity supplies, and/or economic and political instability.

DOE’s Proposed Rule Would Not Improve Grid Resiliency: DOE’s proposed rule change would actually run counter to at least one of its ostensible rationales: enhancing system


resiliency. While resiliency has not been formally defined and requires substantially more study in order to do so, it is widely accepted that grid resiliency is served by the ability to restore electricity service quickly when it has been lost—for instance, by being able to isolate system failures to as small an area as possible and to locate electricity sources (generation and/or storage) close to points of consumption. Thus, new grid architectures (such as islandable microgrids) and distributed energy resources (DER, such as rooftop solar and energy storage) may very well be found to have greater value for reliability and resiliency than large, centralized generation sources like nuclear and coal plants that must be connected to load centers by long transmission systems. Nuclear power plants take several days to restart after being taken offline, and they lack key resiliency attributes, such as “black start” capability to repower the grid after an outage.

**The Nuclear-and-Coal Bailout Rule Has Far-Reaching Implications:** By arbitrarily privileging and dramatically over-valuing one characteristic of nuclear and coal power plants as a supposed reliability attribute—i.e., 90 days of on-site fuel supplies, or what DOE coins “fuel secure generation”—the rule could lead to further energy market reforms to guarantee commensurate compensation for natural gas generation, based on an obsolete and unnecessarily rigid paradigm for reliability. Such a grid and market design would be technologically and economically incompatible with renewable energy, energy storage, and other new technologies that have far greater potential in providing for the nation’s energy security, reliability, and resiliency. In short, market rules to bail out nuclear and coal generation would turn back the clock on our energy system by 30 years, allocating billions of ratepayer dollars every year to sustaining aging power plants that are already reaching the ends of their technical lives. Such a policy would prevent investment in infrastructure and technology upgrades necessary for a reliable, resilient, efficient energy system. FERC must not allow this to happen.

**FERC Should Prioritize Grid Modernization and Integration of Renewables:** At its core, the fundamental failure represented by DOE’s proposed bailout rule is not one of markets and reliability, and it cannot simply be “fixed” by returning aging coal and nuclear plants to the all-but-bygone era of cost-of-service ratemaking under which those machines were built decades ago. Cuba has kept 1950s-era American automobiles on the roads for over a half-century out of
basic necessity. But DOE’s proposed rule would have the U.S. do the same in our electricity sector with no vision or innovation, simply out of political capture by powerful corporate interests with too much avarice and too little principle and vision to embrace change.

It is obvious that the electricity system is on the cusp of a fundamental, generational transition in technology and design. Indeed, the same is true of the energy industry as a whole, stretching far beyond the traditional electric sector, to transportation, heating, and industrial energy uses. In fact, it is possible that most if not all energy uses could eventually shift to electricity, replacing the direct consumption of fossil fuels and biomass in cars, furnaces, boilers, etc., with electricity-driven systems. Numerous studies have demonstrated that there is abundant, economically feasible renewable energy potential in the United States to meet the requirements of such a transition, with multiple collateral economic, environmental, and public health benefits. The issue that must be addressed is modernizing electric transmission and distribution systems to integrate renewable energy supplies with storage, demand management, and transportation systems. Our energy infrastructure and the economic rules by which electricity and energy services are priced and transacted can and must evolve to support this transition. But they must not regress or relapse, as DOE’s proposed rule would do.

FERC should prioritize investments and regulations that facilitate the modernization of the grid and the integration of renewables, storage, demand response, and distributed energy resources. The $180 billion that consumers in 30 states would pay to subsidize old power plants could be greatly reduced and spent far more cost-effectively and beneficially.

**FERC Should Create a Community and Worker Transition Program:** One of the repeated themes in comments filed in this proceeding, as well as similar ones at the state level, is the economic impacts of power plant closures on vulnerable stakeholders: workers, communities, and related local businesses, who have no control over market dynamics and corporate decisions about power plant closures. The needs of workers and local communities are important, but it would be far more beneficial and cost-effective for FERC to develop rules to mitigate the impacts of power plant closures and smooth the impacts of transitions in the energy markets than to kick the can down the road by indefinitely subsidizing them. Without proactive measures,
communities and workers will be no better prepared for the eventual closures of power plants years from now, and federal, state, and local governments will have failed to take the opportunity to prepare for the transition years in advance.

Community and worker transition programs could be created to provide tax revenue, economic development, and re-employment assistance when power plants retire. The costs of such programs would be far less than the cost of bailing out coal and nuclear power plants,\textsuperscript{16} and enable the electricity markets to evolve without creating long-term harm to innocent stakeholders in the process. FERC could play a vital role by authorizing tariffs to finance such programs as an investment in reliability and resiliency and the efficient functioning of markets.

Respectfully submitted this October 23, 2017,

Timothy L. Judson
Executive Director
Nuclear Information and Resource Service
6930 Carroll Ave., Suite 340
Takoma Park, MD  20912

**National Organizations**

Kevin Kamps  
Radioactive Waste Specialist  
Beyond Nuclear  
6930 Carroll Avenue, Suite 400  
Takoma Park, Maryland  20912

Lynn Thorp  
Campaigns Director  
Clean Water Action  
1444 Eye Street, NW, Suite 400  
Washington  20005

Michael J. Keegan  
Chair  
Coalition for a Nuclear Free Great Lakes  
P.O. Box 453  
Monroe, Michigan  48161

Elizabeth Schuster  
Energy Policy Manager  
Food & Water Watch  
1616 P Street, NW, Suite 300  
Washington, DC  20036

Todd Larsen  
Executive Co-Director  
Green America  
1612 K Street NW, Suite 600  
Washington , DC  20006

Diane Brandli  
President  
GreeningUSA  
P.O. Box 464  
Liverpool, New York  13088

Basav Sen  
Climate Justice Director  
Institute for Policy Studies  
1301 Connecticut Ave. NW Suite 600  
Washington, DC  20036

Alice Slater  
NY Director  
Nuclear Age Peace Foundation  
446 E. 86 Street  
New York, New York  10028

Janet Redman  
U.S. Policy Director  
Oil Change International  
714 G Street, SE  
Washington, DC, 20001

Laura Haight  
Senior Policy Director  
Partnership for Policy Integrity

**State and Local Organizations**

**Arizona**

Tommy Rock  
Technical Person  
Dine No Nukes  
1239 East Stone Ridge Drive  
Flagstaff, Arizona  86001

Julia Collier  
Producer  
Radioactive Nation  
1507 N San Francisco St.  
Flagstaff, Arizona  86001

**California**

Linda Seeley  
Spokesperson  
San Luis Obispo Mothers for Peace  
P.O. Box 3806  
San Luis Obispo , California  93402

Marylia Kelley  
Executive Director  
Tri-Valley CAREs  
4049 First Street, Suite 139A  
Livermore, California  94551
Jean Merrigan  
Policy Advocate  
Women's Energy Matters  
P. O. Box 548  
Fairfax, California  94978

**Florida**

Farid Khavari, Ph.D.  
President  
Zero Cost Economics Institute  
P.O. BOX 570502  
Miami, Florida  33257-0502

**Georgia**

Becky Rafter  
Executive Director  
Georgia Women's Action for New Directions  
250 Georgia Ave SE, Suite 202  
Atlanta, Georgia  30312

**Illinois**

David Kraft  
Director  
Nuclear Energy Information Service  
3411 W. Diversey, Ste. 13  
Chicago, Illinois  60647

Steven Sondheim  
Director  
Public Issues Forum  
462 W. Briar  
Chicago, Illinois  60657

**Iowa**

Mike Carberry  
Director  
Green State Solutions  
2029 Friendship St  
Iowa City, Iowa  52245

**Massachusetts**

Diane Turco  
Director  
Cape Downwinders  
P.O. Box 303  
South Harwich, Massachusetts  02646

Deborah Katz  
Executive Director  
Citizens Awareness Network  
P.O. Box 83  
Shelburne Falls, Massachusetts  01370

Cynthia Luppi  
New England Director  
Clean Water Action-New England  
88 Broad St.  
Lower Level  
Boston, Massachusetts  02110

Adele Franks  
Steering Committee Member  
Climate Action Now, Western Massachusetts  
123 Black Birch Trail  
Florence, Massachusetts  01062

Rebecca Chin  
Co-Chair  
Duxbury Nuclear Advisory Committee  
31 Deerpath Trail North  
Duxbury, Massachusetts  02332

Cole Harrison  
Executive Director  
Massachusetts Peace Action  
11 Garden St  
Cambridge, Massachusetts  02138

Angela Wilcox  
Co-Coordinator  
No Norfolk MA Gas Pipeline  
22 Fleetwood Drive  
Norfolk, Massachusetts  02056
Dorothy Anderson  
Member  
Occupy Hingham  
Hull Street  
Hingham, Massachusetts  02043 

Sheila Parks, Ed.D.  
Founder  
On Behalf of Planet Earth  
319 Arlington Street  
Watertown, Massachusetts  02472 

Janet Azarovitz  
Co-ordinating Committee member  
Pilgrim Legislative Advisory Coalition, PLAC  
20 Shapquit Bars Circle  
West Falmouth, Massachusetts  02574 

Mary Lampert  
Director  
Pilgrim Watch  
148 Washington Street  
Duxbury, Massachusetts  02332 

Laura Kelley  
President  
Pocca Cape Cod  
P.O. Box 17  
North Eastham, Massachusetts  02651 

James Michel  
Co-founder  
Resist the Pipeline  
11 Riverside Square  
Hyde Park, Massachusetts  02136 

**Michigan**

Jessie Collins  
Co-Chair  
Citizens’ Resistance at Fermi 2 (CRAFT)  
17397 Five Points Street  
Redford, Michigan  48240 

Alice Hirt  
Co-Chair  
Don’t Waste Michigan  
6677 Summitview  
Holland, Michigan  49422 

**Montana**

Anne Hedges  
Deputy Director  
Montana Environmental Information Center  
1620 Ohio Ave  
Helena, Montana  59601 

**New Jersey**

David Pringle  
NJ Campaign Director  
Clean Water Action-New Jersey  
333 Walnut Ave.  
Cranford, New Jersey  07016 

Sally Jane Gellert  
Member  
Occupy Bergen County  
Teaneck, New Jersey 

William deCamp, Jr.  
President  
Save Barnegat Bay  
725-B Mantoloking Road  
Brick, New Jersey  08723 

**New York**

Andra Leimanis  
Communications & Outreach Coordinator  
Alliance for a Green Economy  
2013 E. Genesee St.  
Syracuse, New York  13210 

George Povall  
All Our Energy  
P.O. Box 381  
Point Lookout, New York  11569
Adam Flint
Southern Tier Solar Works Program
Manager
Binghamton Regional Sustainability Coalition
P.O. Box 907
Binghamton, New York  13902

Charlotte Phillips
Chairperson
Brooklyn For Peace
PMB 106
41 Schermerhorn Street
Brooklyn, New York  11201

Katherine Nadeau
Deputy Director
Catskill Mountainkeeper
P.O. Box 1000
Livingston Manor, New York  12758

Barbara Warren
Executive Director
Citizens’ Environmental Coalition
422 Oakland Valley Rd.
Cuddebackville, New York  12729

Jennifer Metzger
Director
Citizens for Local Power
P.O. Box 415
Rosendale, New York  12472

Peter Wirth
Founder
Climate Change Awareness & Action
113 Camnot Lane
Fayetteville, New York  13066

Katherine Burns
Facilitator
Climate Justice Subcommittee, CNYSC
Syracuse, New York  13210

Katherine Burns
Sub-committee facilitator
CNY Solidarity Coalition
Syracuse, New York  13210

Judith K. Canepa
Coordinator
Coalition Against the Rockaway Pipeline
716 East 11th Street, #2P
New York, New York  10009

Michel Lee
Chairman
Council on Intelligent Energy & Conservation Policy
265 Madison Road
Scarsdale, New York  10583

Marie McRae
Spokesperson
Dryden Resource Awareness Coalition
710 Irish Settlement Rd
Freeville, New York  13068

Charley Bowman
Co-Chair
Environmental Justice Task Force
1272 Delaware Ave
Buffalo, New York  14209

Irene Weiser
Coordinator
Fossil Free Tompkins
Ithaca, New York  14850

Susan Hito
President
Goshen Green Farms
3301 Route 207
Goshen, New York  10924

Gary Shaw
Member of the Leadership Council
Indian Point Safe Energy Coalition (IPSEC)
P.O. Box 131
Ossining, New York  10562
Mari Inoue
Member
Manhattan Project for a Nuclear-Free World
New York, New York  10016

Judith K Canepa
Co-Founding Member
New York Climate Action Group
716 East 11th Street #2P
New York, New York  10009

Jerry Rivers
North American Climate, Conservation and
Environment
8-Gombert Place
Roosevelt, New York  11575

Diane R. Swords
Committee Chair
Nuclear Free World Committee of Syracuse
Peace Council
2013 E. Genesee St., Syracuse  13210

Blair Horner
Executive Director
NYPIRG
107 Washington Avenue
Albany, New York  12210

Kate Alexander
Policy Director
Peace Action New York State
64 Fulton Street, #403
New York, New York  10038

Diana Wright
Facilitator
People of Albany United for Safe Energy
36 Summit Ave
Albany, New York  12209

Susan Hito Shapiro
Authorized Representative
Public Health and Sustainable Energy (PHASE)
75 North Middletown Road
Nanuet, New York  10954

Gordian Raacke
Executive Director
Renewable Energy Long Island (reLI)
P.O. Box 4103
East Hampton, New York  11937

Linda Isaacson Fedele
Leadership Team member
Rochester People’s Climate Coalition
26 Cypress St.
Rochester, New York  14620

Linda DeStefano
Core Member
ShaleshockCNY
5031 Onondaga Rd.
Syracuse, New York  13215-1403

Larysa Dyrszka
Co-founder
Sullivan Area Citizens for Responsible Energy Development
P.O. Box 355
White Lake, New York  12786

Gay Nicholson
President
Sustainable Tompkins
309 N Aurora
Ithaca, New York  14850

Carol Baum
Staff Organizer
Syracuse Peace Council
2013 E Genesee St.
Syracuse, New York  13210
Ling Tsou  
Co-founder  
United for Action  
80 Beekman Street  
New York, New York  10038

Charley Bowman  
Co-Chair  
Western NY Drilling Defense  
48 Sandelwood Dr  
Getzville, New York  14068

Charley Bowman  
Co-Chair, Environmental Justice Task Force  
Western NY Peace Center  
1272 Delaware Ave  
Buffalo, New York  14209

North Carolina

Tana Hartman Thorn  
Treasurer  
Balance & Accuracy in Journalism  
3010 Butler Glen Dr  
Chapel Hill, North Carolina  27516

Tana Hartman Thorn  
Member  
Citizens Climate Collaborative  
3010 Butler Glen Dr  
Chapel Hill, North Carolina  27516

John Runkle  
Counsel  
NC WARN  
2121 Damascus Church Rd  
Chapel Hill, North Carolina  27516

Ohio

Terry Lodge  
Convenor  
Toledo Coalition for Safe Energy  
316 N. Michigan St., Ste. 520  
Toledo, Ohio  43604-5627

Pennsylvania

David Hughes  
President  
Citizen Power, Inc.  
4353 Murray Avenue  
Pittsburgh, Pennsylvania  15217

Eric Epstein  
Chairman  
Three Mile Island Alert, Inc.  
4100 Hillsdale Road  
Harrisburg, Pennsylvania  17112

Tennessee

Steven Sondheim  
Director  
Citizens for Transportation Reform  
271 Rose  
Memphis, Tennessee  38117

Ralph Hutchison  
Coordinator  
Oak Ridge Environmental Peace Alliance  
P.O. Box 5743  
Oak Ridge, Tennessee  37920

Utah

Sarah Fields  
Program Director  
Uranium Watch  
P.O. Box 344  
Moab, Utah  84532

Vermont

Dr. Zoe Kopp  
President  
GRACE Cares  
773 Guilford St  
Brattleboro, Vermont  05301
L. Sternberg
Trustee
Greater Bennington Peace & Justice Center
P.O. Box 1437 Bennington Vt 05201
Bennington, Vermont 05201

Schuyler Gould
President
New England Coalition on Nuclear Pollution
139 Main Street
Brattleboro, Vermont 05301

Debra Stoleroff
Vermont Yankee Decommissioning Alliance
158 New Hamburger Rd
Plainfield, Vermont 05667

Chris Williams
President
Vermont Citizens Action Network
P.O. Box 16
Hancock, VT 05748

**Virginia**

Jim Schulman
President
A Thousand Friends of Virginia’s Future
5761 Rexford Ct., Unit C
Springfield, Virginia 22152

**Washington**

Steven Gilbert
Executive Director
Institute of Neurotoxicology & Neurological Disorders
3711 47th PL NE
Seattle, Washington 98105

Nancy Morris
Co-Director
Safe Utility Meters Alliance - NW
P.O. Box 77295
Seattle, Washington 98177

**Ontario, Canada**

Siegfried (Ziggy) Kleinau
Co-Founder and Outreach Director
Bruce Peninsula Environment Group
P.O. Box 364
Binbrook, Ontario L0R1C0