COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CONSIDERATION OF THE NEW FEDERAL STANDARDS OF THE ENERGY INDEPENDENCE AND SECURITY ACT OF 2007	))))	CASE NO. 2008-00408

ORDER

On December 19, 2007, President George W. Bush signed into law the Energy Independence and Security Act of 2007 ("EISA 2007"), part of which amends the Public Utility Regulatory Policies Act of 1978 ("PURPA"). EISA 2007 contains four new PURPA standards and one non-PURPA standard applicable to electric utilities. EISA 2007 also includes two new PURPA standards applicable to natural gas utilities.[1] The four PURPA standards applicable to electric utilities relate to:

1. Integrated Resource Planning;
2. Rate Design Modifications to Promote Energy Efficiency Investments;
3. Consideration of Smart Grid Investments; and
4. *Smart Grid Information.*

The one non-PURPA standard relates to incentives for recovery, use and prevention of industrial waste energy.[2]

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[1] Excerpts of the Table of Contents and applicable sections of EISA 2007 taken from a *National Association of Regulatory Utility Commissioners* reference manual are attached to this Order as Appendix A.

[2] A more detailed discussion of each standard is attached to this Order as Appendix B.

The two PURPA standards applicable to natural gas utilities relate to:

1. Energy Efficiency; and

2. Rate Design Modifications to Promote Energy Efficiency Investments.

By this Order, the Commission initiates an administrative proceeding to consider the following requirements of EISA 2007: Section 532(a)(16), Integrated Resource Planning; Section 532(a)(17), Rate Design Modification to Promote Energy Efficiency Investments – Electric Utilities; Section 532(b)(5), Energy Efficiency; Section 532(b)(6), Rate Design Modification to Promote Energy Efficiency Investments – Gas Utilities; Section 1307(a)(16), Consideration of Smart Grid Investments; Section 1307(a)(17), Smart Grid Information; and Section 374, Additional Incentives for Recovery, Use, and Prevention of Industrial Waste Energy.

EISA 2007 requires state regulatory commissions and nonregulated utilities to begin consideration of the rate design and smart grid investments standard no later than December 19, 2008 and to complete the consideration by December 19, 2009. There are no time limits for the integrated resource planning or smart grid information standards. Consideration of the non-PURPA standard is to be completed within six months of receipt of a request from a waste energy project sponsor.

PURPA requires the Commission, with respect to each electric utility and each natural gas utility for which it has rate-making authority, to consider each standard and make a determination as to whether or not to implement the standard. The Commission may implement any standard, decline to implement any standard, or adopt different or modified standards from those described in EISA 2007. The Commission may also take into account previous state action considering or implementing these standards or other

comparable standards. Such consideration constitutes compliance with EISA 2007 and eliminates the need for further state action.

PURPA also specifies the procedural requirements that the Commission is to follow in its consideration of the standards. After public notice and hearing, the Commission's determination is to be in writing and made available to the public. Its findings are to be based upon the evidence gathered during discovery or presented at the hearing. This would allow for either a "paper" hearing, where the Commission makes a determination based on the written filings from interested parties, or a full evidentiary hearing.

Not all of Kentucky's jurisdictional electric utilities or natural gas utilities are subject to PURPA and, therefore, to the new PURPA standards set forth in EISA 2007. Pursuant to Title I of PURPA, only those electric utilities with total annual retail sales greater than 500 million kilowatt hours or 500,000 megawatt hours are subject to PURPA. Big Rivers Electric Corporation ("Big Rivers"), East Kentucky Power Cooperative, Inc. ("EKPC"), and several of their member distribution cooperatives are not subject to these standards. However, the Commission has determined that all Kentucky jurisdictional electric utilities will be made parties to this proceeding as it is possible that they may all be required to comply with any eventual Commission decision.[3]

[3] A list of all jurisdictional electric utilities that have been made parties to this proceeding is attached to this Order as Appendix C. Those utilities that are exempt from PURPA are identified on that list.

Pursuant to Title 15 of PURPA, only those natural gas utilities with total annual retail sales greater than 10 billion cubic feet are subject to PURPA. Delta Natural Gas Company ("Delta") is the only one of the five major jurisdictional natural gas utilities that is not subject to the two new PURPA standards applicable to natural gas utilities. However, the Commission has determined that all five of Kentucky's major jurisdictional natural gas utilities will be made parties to this proceeding as it is possible that they may all be required to comply with any eventual Commission decision relating to the two PURPA standards applicable to natural gas utilities.[4]

The Commission also encourages interested stakeholders to participate, either by intervening or filing suggested guidelines or comments. A courtesy copy of this Order will be sent to groups that either are known to typically intervene in administrative cases or are known to have an interest.[5] Any requests for intervention should be filed by motion within 30 days of the date of this Order. Anyone who wishes to participate but not intervene may do so by filing comments at any time prior to the date of the hearing or by presenting public comments at the hearing.

In addition, the Commission has determined that the most effective way to address the provisions of EISA 2007 is to consider all applicable standards in a single proceeding. Therefore, the Commission will initiate only one administrative proceeding to consider the four PURPA standards and the one non-PURPA standard applicable to

[4] A list of all jurisdictional natural gas utilities that have been made parties to this proceeding is attached to this Order as Appendix D. Delta is the only jurisdictional major natural gas utility that is exempt from PURPA.

[5] A list of stakeholders to whom this Order will be sent is attached as Appendix E.

jurisdictional electric utilities and the two PURPA standards applicable to jurisdictional natural gas utilities.

As previously noted, Appendix A includes applicable excerpts of EISA 2007 and Appendix B includes a detailed discussion of the new standards. The Commission has determined that each utility being made a party to this case should file testimony individually or jointly that, at a minimum, addresses the following issues:

1. Identify any tariff, practice or policy of the utility that is directly responsive to the requirements of each of the applicable EISA 2007 electric or gas standards and explain why the utility believes such tariffs, practices, or policies are responsive to the standards.

2. Explain the impact on customers, in terms of consumption patterns and cost, of each applicable electric or gas standard on each customer class and whether there will be a substantially different impact on particular customers within a class resulting from adoption of the standard.

3. Explain whether or not each of the applicable EISA 2007 electric or gas standards should be considered for adoption.

4. Identify any alternative standard the Commission should consider in lieu of an EISA 2007 standard.

In addition to addressing the four requirements set out above, the subject utilities may address any other EISA 2007 related issues in their testimony.

In responding to the four standards set forth above, keep in consideration the congressional purposes of PURPA to encourage: 1) conservation of energy supplied by

electric utilities; 2) optimal efficiency of electric facilities and resources; and 3) equitable rates for electric consumers.

The testimony described in this Order should be submitted no later than December 12, 2008. Following submission of that testimony, the Commission will develop a procedural schedule allowing for discovery, the opportunity for intervenor testimony, an evidentiary hearing and the submission of briefs as appropriate.

IT IS THEREFORE ORDERED that:

1. This proceeding is opened to permit the Commission to consider the requirements of the federal Energy Independence and Security Act of 2007.

2. All jurisdictional electric utilities are made parties to this proceeding.

3. All jurisdictional electric utilities shall, individually or jointly, file an original and 10 copies of testimony as directed by this Order, no later than December 12, 2008, with copies to each party of record.

4. All five major jurisdictional natural gas utilities are made parties to this proceeding.

5. All five major jurisdictional natural gas utilities shall file an original and 10 copies of testimony as directed by this Order, no later than December 12, 2008, with copies to each party of record.

6. All requests for intervention shall be filed within 30 days of the date of this Order.

7. Public comments by non-parties shall be in writing and shall be filed prior to the hearing or presented at the hearing.

Done at Frankfort, Kentucky, this 13th day of November, 2008.

By the Commission

Chairman Armstrong abstains with regard to Louisville Gas & Electric Co. and Kentucky Utilities Co.

Vice Chairman Gardner abstains with regard to Kentucky Power Co.

ATTEST:

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2008-00408 DATED NOVEMBER 13, 2008

New PURPA Requirements Under the Energy Independence and Security Act of 2007

Excerpts of the
Energy Independence and Security Act of 2007
Table of Contents, Effective Date, and
Section 532 PURPA Standards

ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

Public Law 110–140
110th Congress

An Act

Dec. 19, 2007
[H.R. 6]

To move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Energy Independence and Security Act of 2007.
42 USC 17001 note.

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Energy Independence and Security Act of 2007".

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

42 USC 17001.

SEC. 2. DEFINITIONS.

In this Act:

(1) DEPARTMENT.—The term "Department" means the Department of Energy.

(2) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(3) SECRETARY.—The term "Secretary" means the Secretary of Energy.

42 USC 17002.

SEC. 3. RELATIONSHIP TO OTHER LAW.

Except to the extent expressly provided in this Act or an amendment made by this Act, nothing in this Act or an amendment made by this Act supersedes, limits the authority provided or responsibility conferred by, or authorizes any violation of any provision of law (including a regulation), including any energy or environmental law or regulation.

TITLE XVI—EFFECTIVE DATE

SEC. 1601. EFFECTIVE DATE. 2 USC 1824 note.

This Act and the amendments made by this Act take effect on the date that is 1 day after the date of enactment of this Act.

Approved December 19, 2007.

LEGISLATIVE HISTORY—H.R. 6:

CONGRESSIONAL RECORD, Vol. 153 (2007):
Jan. 18, considered and passed House.
June 12–15, 18–21, considered and passed Senate, amended.
Dec. 6, House concurred in Senate amendments with amendments.
Dec. 12, 13, Senate considered and concurred in House amendments with an amendment.
Dec. 18, House concurred in Senate amendment.
WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 43 (2007):
Dec. 19, Presidential remarks.

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Subtitle D—Energy Efficiency of Public Institutions

SEC. 531. REAUTHORIZATION OF STATE ENERGY PROGRAMS.

Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking "$100,000,000 for each of the fiscal years 2006 and 2007 and $125,000,000 for fiscal year 2008" and inserting "$125,000,000 for each of fiscal years 2007 through 2012".

SEC. 532. UTILITY ENERGY EFFICIENCY PROGRAMS.

(a) ELECTRIC UTILITIES.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

"(16) INTEGRATED RESOURCE PLANNING.—Each electric utility shall—

"(A) integrate energy efficiency resources into utility, State, and regional plans; and

"(B) adopt policies establishing cost-effective energy efficiency as a priority resource.

"(17) RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS.—

"(A) IN GENERAL.—The rates allowed to be charged by any electric utility shall—

"(i) align utility incentives with the delivery of cost-effective energy efficiency; and

"(ii) promote energy efficiency investments.

"(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

"(i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

"(ii) providing utility incentives for the successful management of energy efficiency programs;

"(iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;

"(iv) adopting rate designs that encourage energy efficiency for each customer class;

"(v) allowing timely recovery of energy efficiency-related costs; and

"(vi) offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make energy efficiency improvements more affordable.".

(b) NATURAL GAS UTILITIES.—Section 303(b) of the Public Utility Regulatory Policies Act of 1978 (15 U.S.C. 3203(b)) is amended by adding at the end the following:

"(5) ENERGY EFFICIENCY.—Each natural gas utility shall—

"(A) integrate energy efficiency resources into the plans and planning processes of the natural gas utility; and

"(B) adopt policies that establish energy efficiency as a priority resource in the plans and planning processes of the natural gas utility.

"(6) RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS.—

"(A) IN GENERAL.—The rates allowed to be charged by a natural gas utility shall align utility incentives with the deployment of cost-effective energy efficiency.

"(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

"(i) separating fixed-cost revenue recovery from the volume of transportation or sales service provided to the customer;

"(ii) providing to utilities incentives for the successful management of energy efficiency programs, such

as allowing utilities to retain a portion of the cost-reducing benefits accruing from the programs;

"(iii) promoting the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives; and

"(iv) adopting rate designs that encourage energy efficiency for each customer class.

For purposes of applying the provisions of this subtitle to this paragraph, any reference in this subtitle to the date of enactment of this Act shall be treated as a reference to the date of enactment of this paragraph.".

(c) CONFORMING AMENDMENT.—Section 303(a) of the Public Utility Regulatory Policies Act of 1978 (15 U.S.C. 3203(a)) is amended by striking "and (4)" inserting "(4), (5), and (6)".

Excerpts of the
Energy Independence and Security Act of 2007
Smart Grid Sections
Sections 1301 to 1309

TITLE XIII—SMART GRID

SEC. 1301. STATEMENT OF POLICY ON MODERNIZATION OF ELECTRICITY GRID. 15 USC 17381.

It is the policy of the United States to support the modernization of the Nation's electricity transmission and distribution system

to maintain a reliable and secure electricity infrastructure that can meet future demand growth and to achieve each of the following, which together characterize a Smart Grid:

(1) Increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid.

(2) Dynamic optimization of grid operations and resources, with full cyber-security.

(3) Deployment and integration of distributed resources and generation, including renewable resources.

(4) Development and incorporation of demand response, demand-side resources, and energy-efficiency resources.

(5) Deployment of "smart" technologies (real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices) for metering, communications concerning grid operations and status, and distribution automation.

(6) Integration of "smart" appliances and consumer devices.

(7) Deployment and integration of advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning.

(8) Provision to consumers of timely information and control options.

(9) Development of standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid.

(10) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.

15 USC 17382.

SEC. 1302. SMART GRID SYSTEM REPORT.

The Secretary, acting through the Assistant Secretary of the Office of Electricity Delivery and Energy Reliability (referred to in this section as the "OEDER") and through the Smart Grid Task Force established in section 1303, shall, after consulting with any interested individual or entity as appropriate, no later than 1 year after enactment, and every 2 years thereafter, report to Congress concerning the status of smart grid deployments nationwide and any regulatory or government barriers to continued deployment. The report shall provide the current status and prospects of smart grid development, including information on technology penetration, communications network capabilities, costs, and obstacles. It may include recommendations for State and Federal policies or actions helpful to facilitate the transition to a smart grid. To the extent appropriate, it should take a regional perspective. In preparing this report, the Secretary shall solicit advice and contributions from the Smart Grid Advisory Committee created in section 1303; from other involved Federal agencies including but not limited to the Federal Energy Regulatory Commission ("Commission"), the National Institute of Standards and Technology ("Institute"), and the Department of Homeland Security; and from other stakeholder groups not already represented on the Smart Grid Advisory Committee.

15 USC 17383.

SEC. 1303. SMART GRID ADVISORY COMMITTEE AND SMART GRID TASK FORCE.

(a) SMART GRID ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—The Secretary shall establish, within 90 days of enactment of this Part, a Smart Grid Advisory Committee (either as an independent entity or as a designated sub-part of a larger advisory committee on electricity matters). The Smart Grid Advisory Committee shall include eight or more members appointed by the Secretary who have sufficient experience and expertise to represent the full range of smart grid technologies and services, to represent both private and non-Federal public sector stakeholders. One member shall be appointed by the Secretary to Chair the Smart Grid Advisory Committee. Deadline.

(2) MISSION.—The mission of the Smart Grid Advisory Committee shall be to advise the Secretary, the Assistant Secretary, and other relevant Federal officials concerning the development of smart grid technologies, the progress of a national transition to the use of smart-grid technologies and services, the evolution of widely-accepted technical and practical standards and protocols to allow interoperability and inter-communication among smart-grid capable devices, and the optimum means of using Federal incentive authority to encourage such progress.

(3) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.—The Federal Advisory Committee Act (5 U.S.C. App.) shall apply to the Smart Grid Advisory Committee.

(b) SMART GRID TASK FORCE.—

(1) ESTABLISHMENT.—The Assistant Secretary of the Office of Electricity Delivery and Energy Reliability shall establish, within 90 days of enactment of this Part, a Smart Grid Task Force composed of designated employees from the various divisions of that office who have responsibilities related to the transition to smart-grid technologies and practices. The Assistant Secretary or his designee shall be identified as the Director of the Smart Grid Task Force. The Chairman of the Federal Energy Regulatory Commission and the Director of the National Institute of Standards and Technology shall each designate at least one employee to participate on the Smart Grid Task Force. Other members may come from other agencies at the invitation of the Assistant Secretary or the nomination of the head of such other agency. The Smart Grid Task Force shall, without disrupting the work of the Divisions or Offices from which its members are drawn, provide an identifiable Federal entity to embody the Federal role in the national transition toward development and use of smart grid technologies. Deadline.

(2) MISSION.—The mission of the Smart Grid Task Force shall be to insure awareness, coordination and integration of the diverse activities of the Office and elsewhere in the Federal Government related to smart-grid technologies and practices, including but not limited to: smart grid research and development; development of widely accepted smart-grid standards and protocols; the relationship of smart-grid technologies and practices to electric utility regulation; the relationship of smart-grid technologies and practices to infrastructure development, system reliability and security; and the relationship of smart-grid technologies and practices to other facets of electricity supply, demand, transmission, distribution, and policy. The Smart Grid Task Force shall collaborate with the Smart Grid Advisory Committee and other Federal agencies and offices.

The Smart Grid Task Force shall meet at the call of its Director as necessary to accomplish its mission.

(c) AUTHORIZATION.—There are authorized to be appropriated for the purposes of this section such sums as are necessary to the Secretary to support the operations of the Smart Grid Advisory Committee and Smart Grid Task Force for each of fiscal years 2008 through 2020.

42 USC 17384.

SEC. 1304. SMART GRID TECHNOLOGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION.

(a) POWER GRID DIGITAL INFORMATION TECHNOLOGY.—The Secretary, in consultation with the Federal Energy Regulatory Commission and other appropriate agencies, electric utilities, the States, and other stakeholders, shall carry out a program—

(1) to develop advanced techniques for measuring peak load reductions and energy-efficiency savings from smart metering, demand response, distributed generation, and electricity storage systems;

(2) to investigate means for demand response, distributed generation, and storage to provide ancillary services;

(3) to conduct research to advance the use of wide-area measurement and control networks, including data mining, visualization, advanced computing, and secure and dependable communications in a highly-distributed environment;

(4) to test new reliability technologies, including those concerning communications network capabilities, in a grid control room environment against a representative set of local outage and wide area blackout scenarios;

(5) to identify communications network capacity needed to implement advanced technologies.

(6) to investigate the feasibility of a transition to time-of-use and real-time electricity pricing;

(7) to develop algorithms for use in electric transmission system software applications;

(8) to promote the use of underutilized electricity generation capacity in any substitution of electricity for liquid fuels in the transportation system of the United States; and

(9) in consultation with the Federal Energy Regulatory Commission, to propose interconnection protocols to enable electric utilities to access electricity stored in vehicles to help meet peak demand loads.

(b) SMART GRID REGIONAL DEMONSTRATION INITIATIVE.—

(1) IN GENERAL.—The Secretary shall establish a smart grid regional demonstration initiative (referred to in this subsection as the "Initiative") composed of demonstration projects specifically focused on advanced technologies for use in power grid sensing, communications, analysis, and power flow control. The Secretary shall seek to leverage existing smart grid deployments.

(2) GOALS.—The goals of the Initiative shall be—

(A) to demonstrate the potential benefits of concentrated investments in advanced grid technologies on a regional grid;

(B) to facilitate the commercial transition from the current power transmission and distribution system technologies to advanced technologies;

(C) to facilitate the integration of advanced technologies in existing electric networks to improve system performance, power flow control, and reliability;

(D) to demonstrate protocols and standards that allow for the measurement and validation of the energy savings and fossil fuel emission reductions associated with the installation and use of energy efficiency and demand response technologies and practices; and

(E) to investigate differences in each region and regulatory environment regarding best practices in implementing smart grid technologies.

(3) DEMONSTRATION PROJECTS.—

(A) IN GENERAL.—In carrying out the initiative, the Secretary shall carry out smart grid demonstration projects in up to 5 electricity control areas, including rural areas and at least 1 area in which the majority of generation and transmission assets are controlled by a tax-exempt entity.

(B) COOPERATION.—A demonstration project under subparagraph (A) shall be carried out in cooperation with the electric utility that owns the grid facilities in the electricity control area in which the demonstration project is carried out.

(C) FEDERAL SHARE OF COST OF TECHNOLOGY INVESTMENTS.—The Secretary shall provide to an electric utility described in subparagraph (B) financial assistance for use in paying an amount equal to not more than 50 percent of the cost of qualifying advanced grid technology investments made by the electric utility to carry out a demonstration project.

(D) INELIGIBILITY FOR GRANTS.—No person or entity participating in any demonstration project conducted under this subsection shall be eligible for grants under section 1306 for otherwise qualifying investments made as part of that demonstration project.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated—

(1) to carry out subsection (a), such sums as are necessary for each of fiscal years 2008 through 2012; and

(2) to carry out subsection (b), $100,000,000 for each of fiscal years 2008 through 2012.

SEC. 1305. SMART GRID INTEROPERABILITY FRAMEWORK. 15 USC 17385.

(a) INTEROPERABILITY FRAMEWORK.—The Director of the National Institute of Standards and Technology shall have primary responsibility to coordinate the development of a framework that includes protocols and model standards for information management to achieve interoperability of smart grid devices and systems. Such protocols and standards shall further align policy, business, and technology approaches in a manner that would enable all electric resources, including demand-side resources, to contribute to an efficient, reliable electricity network. In developing such protocols and standards—

(1) the Director shall seek input and cooperation from the Commission, OEDER and its Smart Grid Task Force, the Smart Grid Advisory Committee, other relevant Federal and State agencies; and

(2) the Director shall also solicit input and cooperation from private entities interested in such protocols and standards, including but not limited to the Gridwise Architecture Council, the International Electrical and Electronics Engineers, the National Electric Reliability Organization recognized by the Federal Energy Regulatory Commission, and National Electrical Manufacturer's Association.

(b) SCOPE OF FRAMEWORK.—The framework developed under subsection (a) shall be flexible, uniform and technology neutral, including but not limited to technologies for managing smart grid information, and designed—

(1) to accommodate traditional, centralized generation and transmission resources and consumer distributed resources, including distributed generation, renewable generation, energy storage, energy efficiency, and demand response and enabling devices and systems;

(2) to be flexible to incorporate—

(A) regional and organizational differences; and

(B) technological innovations;

(3) to consider the use of voluntary uniform standards for certain classes of mass-produced electric appliances and equipment for homes and businesses that enable customers, at their election and consistent with applicable State and Federal laws, and are manufactured with the ability to respond to electric grid emergencies and demand response signals by curtailing all, or a portion of, the electrical power consumed by the appliances or equipment in response to an emergency or demand response signal, including through—

(A) load reduction to reduce total electrical demand;

(B) adjustment of load to provide grid ancillary services; and

(C) in the event of a reliability crisis that threatens an outage, short-term load shedding to help preserve the stability of the grid; and

(4) such voluntary standards should incorporate appropriate manufacturer lead time.

(c) TIMING OF FRAMEWORK DEVELOPMENT.—The Institute shall begin work pursuant to this section within 60 days of enactment. The Institute shall provide and publish an initial report on progress toward recommended or consensus standards and protocols within 1 year after enactment, further reports at such times as developments warrant in the judgment of the Institute, and a final report when the Institute determines that the work is completed or that a Federal role is no longer necessary.

(d) STANDARDS FOR INTEROPERABILITY IN FEDERAL JURISDICTION.—At any time after the Institute's work has led to sufficient consensus in the Commission's judgment, the Commission shall institute a rulemaking proceeding to adopt such standards and protocols as may be necessary to insure smart-grid functionality and interoperability in interstate transmission of electric power, and regional and wholesale electricity markets.

(e) AUTHORIZATION.—There are authorized to be appropriated for the purposes of this section $5,000,000 to the Institute to support the activities required by this subsection for each of fiscal years 2008 through 2012.

SEC. 1306. FEDERAL MATCHING FUND FOR SMART GRID INVESTMENT COSTS. 42 USC 17386.

(a) MATCHING FUND.—The Secretary shall establish a Smart Grid Investment Matching Grant Program to provide reimbursement of one-fifth (20 percent) of qualifying Smart Grid investments.

(b) QUALIFYING INVESTMENTS.—Qualifying Smart Grid investments may include any of the following made on or after the date of enactment of this Act:

(1) In the case of appliances covered for purposes of establishing energy conservation standards under part B of title III of the Energy Policy and Conservation Act of 1975 (42 U.S.C. 6291 et seq.), the documented expenditures incurred by a manufacturer of such appliances associated with purchasing or designing, creating the ability to manufacture, and manufacturing and installing for one calendar year, internal devices that allow the appliance to engage in Smart Grid functions.

(2) In the case of specialized electricity-using equipment, including motors and drivers, installed in industrial or commercial applications, the documented expenditures incurred by its owner or its manufacturer of installing devices or modifying that equipment to engage in Smart Grid functions.

(3) In the case of transmission and distribution equipment fitted with monitoring and communications devices to enable smart grid functions, the documented expenditures incurred by the electric utility to purchase and install such monitoring and communications devices.

(4) In the case of metering devices, sensors, control devices, and other devices integrated with and attached to an electric utility system or retail distributor or marketer of electricity that are capable of engaging in Smart Grid functions, the documented expenditures incurred by the electric utility, distributor, or marketer and its customers to purchase and install such devices.

(5) In the case of software that enables devices or computers to engage in Smart Grid functions, the documented purchase costs of the software.

(6) In the case of entities that operate or coordinate operations of regional electric grids, the documented expenditures for purchasing and installing such equipment that allows Smart Grid functions to operate and be combined or coordinated among multiple electric utilities and between that region and other regions.

(7) In the case of persons or entities other than electric utilities owning and operating a distributed electricity generator, the documented expenditures of enabling that generator to be monitored, controlled, or otherwise integrated into grid operations and electricity flows on the grid utilizing Smart Grid functions.

(8) In the case of electric or hybrid-electric vehicles, the documented expenses for devices that allow the vehicle to engage in Smart Grid functions (but not the costs of electricity storage for the vehicle).

(9) The documented expenditures related to purchasing and implementing Smart Grid functions in such other cases as the Secretary shall identify. In making such grants, the Secretary shall seek to reward innovation and early adaptation,

even if success is not complete, rather than deployment of proven and commercially viable technologies.

(c) INVESTMENTS NOT INCLUDED.—Qualifying Smart Grid investments do not include any of the following:

(1) Investments or expenditures for Smart Grid technologies, devices, or equipment that are eligible for specific tax credits or deductions under the Internal Revenue Code, as amended.

(2) Expenditures for electricity generation, transmission, or distribution infrastructure or equipment not directly related to enabling Smart Grid functions.

(3) After the final date for State consideration of the Smart Grid Information Standard under section 1307 (paragraph (17) of section 111(d) of the Public Utility Regulatory Policies Act of 1978), an investment that is not in compliance with such standard.

(4) After the development and publication by the Institute of protocols and model standards for interoperability of smart grid devices and technologies, an investment that fails to incorporate any of such protocols or model standards.

(5) Expenditures for physical interconnection of generators or other devices to the grid except those that are directly related to enabling Smart Grid functions.

(6) Expenditures for ongoing salaries, benefits, or personnel costs not incurred in the initial installation, training, or start up of smart grid functions.

(7) Expenditures for travel, lodging, meals or other personal costs.

(8) Ongoing or routine operation, billing, customer relations, security, and maintenance expenditures.

(9) Such other expenditures that the Secretary determines not to be Qualifying Smart Grid Investments by reason of the lack of the ability to perform Smart Grid functions or *lack of direct relationship to Smart Grid functions.*

(d) SMART GRID FUNCTIONS.—The term "smart grid functions" means any of the following:

(1) The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time of use, nature of use, storage, or other information relevant to device, grid, or utility operations, to or from or by means of the electric utility system, through one or a combination of devices and technologies.

(2) The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time of use, nature of use, storage, or other information relevant to device, grid, or utility operations to or from a computer or other control device.

(3) The ability to measure or monitor electricity use as a function of time of day, power quality characteristics such as voltage level, current, cycles per second, or source or type of generation and to store, synthesize or report that information by digital means.

(4) The ability to sense and localize disruptions or changes in power flows on the grid and communicate such information instantaneously and automatically for purposes of enabling automatic protective responses to sustain reliability and security of grid operations.

(5) The ability to detect, prevent, communicate with regard to, respond to, or recover from system security threats, including cyber-security threats and terrorism, using digital information, media, and devices.

(6) The ability of any appliance or machine to respond to such signals, measurements, or communications automatically or in a manner programmed by its owner or operator without independent human intervention.

(7) The ability to use digital information to operate functionalities on the electric utility grid that were previously electro-mechanical or manual.

(8) The ability to use digital controls to manage and modify electricity demand, enable congestion management, assist in voltage control, provide operating reserves, and provide frequency regulation.

(9) Such other functions as the Secretary may identify as being necessary or useful to the operation of a Smart Grid.

(e) The Secretary shall— Procedures.

(1) establish and publish in the Federal Register, within 1 year after the enactment of this Act procedures by which applicants who have made qualifying Smart Grid investments can seek and obtain reimbursement of one-fifth of their documented expenditures; Federal Register, publication. Deadline.

(2) establish procedures to ensure that there is no duplication or multiple reimbursement for the same investment or costs, that the reimbursement goes to the party making the actual expenditures for Qualifying Smart Grid Investments, and that the grants made have significant effect in encouraging and facilitating the development of a smart grid;

(3) maintain public records of reimbursements made, recipients, and qualifying Smart Grid investments which have received reimbursements; Records.

(4) establish procedures to provide, in cases deemed by the Secretary to be warranted, advance payment of moneys up to the full amount of the projected eventual reimbursement, to creditworthy applicants whose ability to make Qualifying Smart Grid Investments may be hindered by lack of initial capital, in lieu of any later reimbursement for which that applicant qualifies, and subject to full return of the advance payment in the event that the Qualifying Smart Grid investment is not made; and

(5) have and exercise the discretion to deny grants for investments that do not qualify in the reasonable judgment of the Secretary.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as are necessary for the administration of this section and the grants to be made pursuant to this section for fiscal years 2008 through 2012.

SEC. 1307. STATE CONSIDERATION OF SMART GRID.

(a) Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

"(16) CONSIDERATION OF SMART GRID INVESTMENTS.—

"(A) IN GENERAL.—Each State shall consider requiring that, prior to undertaking investments in nonadvanced grid technologies, an electric utility of the State demonstrate

to the State that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including—

"(i) total costs;
"(ii) cost-effectiveness;
"(iii) improved reliability;
"(iv) security;
"(v) system performance; and
"(vi) societal benefit.

"(B) RATE RECOVERY.—Each State shall consider authorizing each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified smart grid system.

"(C) OBSOLETE EQUIPMENT.—Each State shall consider authorizing any electric utility or other party of the State to deploy a qualified smart grid system to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified smart grid system, based on the remaining depreciable life of the obsolete equipment.

"(17) SMART GRID INFORMATION.—

"(A) STANDARD.—All electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to information from their electricity provider as provided in subparagraph (B).

"(B) INFORMATION.—Information provided under this section, to the extent practicable, shall include:

"(i) PRICES.—Purchasers and other interested persons shall be provided with information on—

"(I) time-based electricity prices in the wholesale electricity market; and

"(II) time-based electricity retail prices or rates that are available to the purchasers.

"(ii) USAGE.—Purchasers shall be provided with the number of electricity units, expressed in kwh, purchased by them.

"(iii) INTERVALS AND PROJECTIONS.—Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information, where available, and shall include a day-ahead projection of such price information to the extent available.

"(iv) SOURCES.—Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

"(C) ACCESS.—Purchasers shall be able to access their own information at any time through the Internet and on other means of communication elected by that utility

for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.".

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding the following at the end thereof:

"(6)(A) Not later than 1 year after the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standards established by paragraphs (17) through (18) of section 111(d). Deadlines.

"(B) Not later than 2 years after the date of the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by paragraphs (17) through (18) of section 111(d).".

(2) FAILURE TO COMPLY.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended by adding the following at the end:

"In the case of the standards established by paragraphs (16) through (19) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs.".

(3) PRIOR STATE ACTIONS.—Section 112(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(d)) is amended by inserting "and paragraphs (17) through (18)" before "of section 111(d)".

SEC. 1308. STUDY OF THE EFFECT OF PRIVATE WIRE LAWS ON THE DEVELOPMENT OF COMBINED HEAT AND POWER FACILITIES.

(a) STUDY.—

(1) IN GENERAL.—The Secretary, in consultation with the States and other appropriate entities, shall conduct a study of the laws (including regulations) affecting the siting of privately owned electric distribution wires on and across public rights-of-way.

(2) REQUIREMENTS.—The study under paragraph (1) shall include—

(A) an evaluation of—

(i) the purposes of the laws; and

(ii) the effect the laws have on the development of combined heat and power facilities;

(B) a determination of whether a change in the laws would have any operating, reliability, cost, or other impacts on electric utilities and the customers of the electric utilities; and

(C) an assessment of—

(i) whether privately owned electric distribution wires would result in duplicative facilities; and

(ii) whether duplicative facilities are necessary or desirable.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report that describes the results of the study conducted under subsection (a).

SEC. 1309. DOE STUDY OF SECURITY ATTRIBUTES OF SMART GRID SYSTEMS.

Deadline. Reports.

(a) DOE STUDY.—The Secretary shall, within 18 months after the date of enactment of this Act, submit a report to Congress that provides a quantitative assessment and determination of the existing and potential impacts of the deployment of Smart Grid systems on improving the security of the Nation's electricity infrastructure and operating capability. The report shall include but not be limited to specific recommendations on each of the following:

(1) How smart grid systems can help in making the Nation's electricity system less vulnerable to disruptions due to intentional acts against the system.

(2) How smart grid systems can help in restoring the integrity of the Nation's electricity system subsequent to disruptions.

(3) How smart grid systems can facilitate nationwide, interoperable emergency communications and control of the Nation's electricity system during times of localized, regional, or nationwide emergency.

(4) What risks must be taken into account that smart grid systems may, if not carefully created and managed, create vulnerability to security threats of any sort, and how such risks may be mitigated.

(b) CONSULTATION.—The Secretary shall consult with other Federal agencies in the development of the report under this section, including but not limited to the Secretary of Homeland Security, the Federal Energy Regulatory Commission, and the Electric Reliability Organization certified by the Commission under section 215(c) of the Federal Power Act (16 U.S.C. 824o) as added by section 1211 of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 941).

Excerpts of the
Energy Independence and Security Act of 2007
Industrial Waste Energy Sections
Sections 451 and 371 to 374

Subtitle D—Industrial Energy Efficiency

SEC. 451. INDUSTRIAL ENERGY EFFICIENCY.

(a) IN GENERAL.—Title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.) is amended by inserting after part D the following:

"PART E—INDUSTRIAL ENERGY EFFICIENCY

"SEC. 371. DEFINITIONS. 42 USC 6341.

"In this part:

"(1) ADMINISTRATOR.—The term 'Administrator' means the Administrator of the Environmental Protection Agency.

"(2) COMBINED HEAT AND POWER.—The term 'combined heat and power system' means a facility that—

"(A) simultaneously and efficiently produces useful thermal energy and electricity; and

"(B) recovers not less than 60 percent of the energy value in the fuel (on a higher-heating-value basis) in the form of useful thermal energy and electricity.

"(3) NET EXCESS POWER.—The term 'net excess power' means, for any facility, recoverable waste energy recovered in the form of electricity in quantities exceeding the total consumption of electricity at the specific time of generation on the site at which the facility is located.

"(4) PROJECT.—The term 'project' means a recoverable waste energy project or a combined heat and power system project.

"(5) RECOVERABLE WASTE ENERGY.—The term 'recoverable waste energy' means waste energy from which electricity or useful thermal energy may be recovered through modification of an existing facility or addition of a new facility.

"(6) REGISTRY.—The term 'Registry' means the Registry of Recoverable Waste Energy Sources established under section 372(d).

"(7) USEFUL THERMAL ENERGY.—The term 'useful thermal energy' means energy—

"(A) in the form of direct heat, steam, hot water, or other thermal form that is used in production and beneficial measures for heating, cooling, humidity control, process use, or other valid thermal end-use energy requirements; and

"(B) for which fuel or electricity would otherwise be consumed.

"(8) WASTE ENERGY.—The term 'waste energy' means—

"(A) exhaust heat or flared gas from any industrial process;

"(B) waste gas or industrial tail gas that would otherwise be flared, incinerated, or vented;

"(C) a pressure drop in any gas, excluding any pressure drop to a condenser that subsequently vents the resulting heat; and

"(D) such other forms of waste energy as the Administrator may determine.

"(9) OTHER TERMS.—The terms 'electric utility', 'nonregulated electric utility', 'State regulated electric utility', and other terms have the meanings given those terms in title I of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2611 et seq.).

42 USC 6342.

"SEC. 372. SURVEY AND REGISTRY.

"(a) *RECOVERABLE WASTE ENERGY INVENTORY PROGRAM.*—

"(1) IN GENERAL.—The Administrator, in cooperation with the Secretary and State energy offices, shall establish a recoverable waste energy inventory program.

"(2) SURVEY.—The program shall include—

"(A) an ongoing survey of all major industrial and large commercial combustion sources in the United States (as defined by the Administrator) and the sites at which the sources are located; and

"(B) a review of each source for the quantity and quality of waste energy produced at the source.

"(b) CRITERIA.—

Deadline. Publication. Regulations.

"(1) IN GENERAL.—Not later than 270 days after the date of enactment of the Energy Independence and Security Act of 2007, the Administrator shall publish a rule for establishing criteria for including sites in the Registry.

"(2) INCLUSIONS.—The criteria shall include—

"(A) a requirement that, to be included in the Registry, a project at the site shall be determined to be economically feasible by virtue of offering a payback of invested costs not later than 5 years after the date of first full project operation (including incentives offered under this part);

"(B) standards to ensure that projects proposed for inclusion in the Registry are not developed or used for

the primary purpose of making sales of excess electric power under the regulatory provisions of this part; and

"(C) procedures for contesting the listing of any source or site on the Registry by any State, utility, or other interested person.

"(c) TECHNICAL SUPPORT.—On the request of the owner or operator of a source or site included in the Registry, the Secretary shall—

"(1) provide to owners or operators of combustion sources technical support; and

"(2) offer partial funding (in an amount equal to not more than one-half of total costs) for feasibility studies to confirm whether or not investment in recovery of waste energy or combined heat and power at a source would offer a payback period of 5 years or less.

"(d) REGISTRY.—

"(1) ESTABLISHMENT.—

"(A) IN GENERAL.—Not later than 1 year after the date of enactment of the Energy Independence and Security Act of 2007, the Administrator shall establish a Registry of Recoverable Waste Energy Sources, and sites on which the sources are located, that meet the criteria established under subsection (b). Deadline.

"(B) UPDATES; AVAILABILITY.—The Administrator shall—

"(i) update the Registry on a regular basis; and

"(ii) make the Registry available to the public on the website of the Environmental Protection Agency. Public information. Website.

"(C) CONTESTING LISTING.—Any State, electric utility, or other interested person may contest the listing of any source or site by submitting a petition to the Administrator.

"(2) CONTENTS.—

"(A) IN GENERAL.—The Administrator shall register and include on the Registry all sites meeting the criteria established under subsection (b).

"(B) QUANTITY OF RECOVERABLE WASTE ENERGY.—The Administrator shall—

"(i) calculate the total quantities of potentially recoverable waste energy from sources at the sites, nationally and by State; and

"(ii) make public—

"(I) the total quantities described in clause (i); and

"(II) information on the criteria pollutant and greenhouse gas emissions savings that might be achieved with recovery of the waste energy from all sources and sites listed on the Registry.

"(3) AVAILABILITY OF INFORMATION.—

"(A) IN GENERAL.—The Administrator shall notify owners or operators of recoverable waste energy sources and sites listed on the Registry prior to publishing the listing. Notification.

"(B) DETAILED QUANTITATIVE INFORMATION.—

"(i) IN GENERAL.—Except as provided in clause (ii), the owner or operator of a source at a site may

elect to have detailed quantitative information concerning the site not made public by notifying the Administrator of the election.

"(ii) LIMITED AVAILABILITY.—The information shall be made available to—

"(I) the applicable State energy office; and

"(II) any utility requested to support recovery of waste energy from the source pursuant to the incentives provided under section 374.

"(iii) STATE TOTALS.—Information concerning the site shall be included in the total quantity of recoverable waste energy for a State unless there are fewer than 3 sites in the State.

"(4) REMOVAL OF PROJECTS FROM REGISTRY.—

"(A) IN GENERAL.—Subject to subparagraph (B), as a project achieves successful recovery of waste energy, the Administrator shall—

"(i) remove the related sites or sources from the Registry; and

"(ii) designate the removed projects as eligible for incentives under section 374.

"(B) LIMITATION.—No project shall be removed from the Registry without the consent of the owner or operator of the project if—

"(i) the owner or operator has submitted a petition under section 374; and

"(ii) the petition has not been acted on or denied.

"(5) INELIGIBILITY OF CERTAIN SOURCES.—The Administrator shall not list any source constructed after the date of the enactment of the Energy Independence and Security Act of 2007 on the Registry if the Administrator determines that the source—

"(A) was developed for the primary purpose of making sales of excess electric power under the regulatory provisions of this part; or

"(B) does not capture at least 60 percent of the total energy value of the fuels used (on a higher-heating-value basis) in the form of useful thermal energy, electricity, mechanical energy, chemical output, or any combination thereof.

"(e) SELF-CERTIFICATION.—

"(1) IN GENERAL.—Subject to any procedures that are established by the Administrator, an owner, operator, or third-party developer of a recoverable waste energy project that qualifies under standards established by the Administrator may self-certify the sites or sources of the owner, operator, or developer to the Administrator for inclusion in the Registry.

"(2) REVIEW AND APPROVAL.—To prevent a fraudulent listing, a site or source shall be included on the Registry only if the Administrator reviews and approves the self-certification.

"(f) NEW FACILITIES.—As a new energy-consuming industrial facility is developed after the date of enactment of the Energy Independence and Security Act of 2007, to the extent the facility may constitute a site with recoverable waste energy that may qualify for inclusion on the Registry, the Administrator may elect to include the facility on the Registry, at the request of the owner, operator, or developer of the facility, on a conditional basis with

the site to be removed from the Registry if the development ceases or the site fails to qualify for listing under this part.

"(g) OPTIMUM MEANS OF RECOVERY.—For each site listed in the Registry, at the request of the owner or operator of the site, the Administrator shall offer, in cooperation with Clean Energy Application Centers operated by the Secretary of Energy, suggestions for optimum means of recovery of value from waste energy stream in the form of electricity, useful thermal energy, or other energy-related products.

"(h) REVISION.—Each annual report of a State under section 548(a) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)) shall include the results of the survey for the State under this section.

"(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to—

"(1) the Administrator to create and maintain the Registry and services authorized by this section, $1,000,000 for each of fiscal years 2008 through 2012; and

"(2) the Secretary—

"(A) to assist site or source owners and operators in determining the feasibility of projects authorized by this section, $2,000,000 for each of fiscal years 2008 through 2012; and

"(B) to provide funding for State energy office functions under this section, $5,000,000.

"SEC. 373. WASTE ENERGY RECOVERY INCENTIVE GRANT PROGRAM. 42 USC 6343.

"(a) ESTABLISHMENT.—The Secretary shall establish in the Department of Energy a waste energy recovery incentive grant program to provide incentive grants to—

"(1) owners and operators of projects that successfully produce electricity or incremental useful thermal energy from waste energy recovery;

"(2) utilities purchasing or distributing the electricity; and

"(3) States that have achieved 80 percent or more of recoverable waste heat recovery opportunities.

"(b) GRANTS TO PROJECTS AND UTILITIES.—

"(1) IN GENERAL.—The Secretary shall make grants under this section—

"(A) to the owners or operators of waste energy recovery projects; and

"(B) in the case of excess power purchased or transmitted by a electric utility, to the utility.

"(2) PROOF.—Grants may only be made under this section on receipt of proof of waste energy recovery or excess electricity generation, or both, from the project in a form prescribed by the Secretary.

"(3) EXCESS ELECTRIC ENERGY.—

"(A) IN GENERAL.—In the case of waste energy recovery, a grant under this section shall be made at the rate of $10 per megawatt hour of documented electricity produced from recoverable waste energy (or by prevention of waste energy in the case of a new facility) by the project during the first 3 calendar years of production, beginning on or after the date of enactment of the Energy Independence and Security Act of 2007.

"(B) UTILITIES.—If the project produces net excess power and an electric utility purchases or transmits the excess power, 50 percent of so much of the grant as is attributable to the net excess power shall be paid to the electric utility purchasing or transporting the net excess power.

"(4) USEFUL THERMAL ENERGY.—In the case of waste energy recovery that produces useful thermal energy that is used for a purpose different from that for which the project is principally designed, a grant under this section shall be made to the owner or operator of the waste energy recovery project at the rate of $10 for each 3,412,000 Btus of the excess thermal energy used for the different purpose.

"(c) GRANTS TO STATES.—In the case of any State that has achieved 80 percent or more of waste heat recovery opportunities identified by the Secretary under this part, the Administrator shall make a 1-time grant to the State in an amount of not more than $1,000 per megawatt of waste-heat capacity recovered (or a thermal equivalent) to support State-level programs to identify and achieve additional energy efficiency.

Regulations.

"(d) ELIGIBILITY.—The Secretary shall—

"(1) establish rules and guidelines to establish eligibility for grants under subsection (b);

"(2) publicize the availability of the grant program known to owners or operators of recoverable waste energy sources and sites listed on the Registry; and

"(3) award grants under the program on the basis of the merits of each project in recovering or preventing waste energy throughout the United States on an impartial, objective, and not unduly discriminatory basis.

"(e) LIMITATION.—The Secretary shall not award grants to any person for a combined heat and power project or a waste heat recovery project that qualifies for specific Federal tax incentives for combined heat and power or for waste heat recovery.

"(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary—

"(1) to make grants to projects and utilities under subsection (b)—

"(A) $100,000,000 for fiscal year 2008 and $200,000,000 for each of fiscal years 2009 through 2012; and

"(B) such additional amounts for fiscal year 2008 and each fiscal year thereafter as may be necessary for administration of the waste energy recovery incentive grant program; and

"(2) to make grants to States under subsection (b), $10,000,000 for each of fiscal years 2008 through 2012, to remain available until expended.

42 USC 6344.

"SEC. 374. ADDITIONAL INCENTIVES FOR RECOVERY, USE, AND PREVENTION OF INDUSTRIAL WASTE ENERGY.

"(a) CONSIDERATION OF STANDARD.—

Deadline.
Notification.

"(1) IN GENERAL.—Not later than 180 days after the receipt by a State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority), or nonregulated electric utility, of a request from a project sponsor or owner or operator, the State regulatory authority or nonregulated electric utility shall—

"(A) provide public notice and conduct a hearing respecting the standard established by subsection (b); and

"(B) on the basis of the hearing, consider and make a determination whether or not it is appropriate to implement the standard to carry out the purposes of this part.

"(2) RELATIONSHIP TO STATE LAW.—For purposes of any determination under paragraph (1) and any review of the determination in any court, the purposes of this section supplement otherwise applicable State law.

"(3) NONADOPTION OF STANDARD.—Nothing in this part prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any standard described in paragraph (1), pursuant to authority under otherwise applicable State law.

"(b) STANDARD FOR SALES OF EXCESS POWER.—For purposes of this section, the standard referred to in subsection (a) shall provide that an owner or operator of a waste energy recovery project identified on the Registry that generates net excess power shall be eligible to benefit from at least 1 of the options described in subsection (c) for disposal of the net excess power in accordance with the rate conditions and limitations described in subsection (d).

"(c) OPTIONS.—The options referred to in subsection (b) are as follows:

"(1) SALE OF NET EXCESS POWER TO UTILITY.—The electric utility shall purchase the net excess power from the owner or operator of the eligible waste energy recovery project during the operation of the project under a contract entered into for that purpose.

"(2) TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTY.—The electric utility shall transmit the net excess power on behalf of the project owner or operator to up to 3 separate locations on the system of the utility for direct sale by the owner or operator to third parties at those locations.

"(3) TRANSPORT OVER PRIVATE TRANSMISSION LINES.—The State and the electric utility shall permit, and shall waive or modify such laws as would otherwise prohibit, the construction and operation of private electric wires constructed, owned, and operated by the project owner or operator, to transport the power to up to 3 purchasers within a 3-mile radius of the project, allowing the wires to use or cross public rights-of-way, without subjecting the project to regulation as a public utility, and according the wires the same treatment for safety, zoning, land use, and other legal privileges as apply or would apply to the wires of the utility, except that—

"(A) there shall be no grant of any power of eminent domain to take or cross private property for the wires; and

"(B) the wires shall be physically segregated and not interconnected with any portion of the system of the utility, except on the customer side of the revenue meter of the utility and in a manner that precludes any possible export of the electricity onto the utility system, or disruption of the system.

"(4) AGREED ON ALTERNATIVES.—The utility and the owner or operator of the project may reach agreement on any alternate arrangement and payments or rates associated with the

arrangement that is mutually satisfactory and in accord with State law.

"(d) RATE CONDITIONS AND CRITERIA.—

"(1) DEFINITIONS.—In this subsection:

"(A) PER UNIT DISTRIBUTION COSTS.—The term 'per unit distribution costs' means (in kilowatt hours) the quotient obtained by dividing—

"(i) the depreciated book-value distribution system costs of a utility; by

"(ii) the volume of utility electricity sales or transmission during the previous year at the distribution level.

"(B) PER UNIT DISTRIBUTION MARGIN.—The term 'per unit distribution margin' means—

"(i) in the case of a State-regulated electric utility, a per-unit gross pretax profit equal to the product obtained by multiplying—

"(I) the State-approved percentage rate of return for the utility for distribution system assets; by

"(II) the per unit distribution costs; and

"(ii) in the case of a nonregulated utility, a per unit contribution to net revenues determined multiplying—

"(I) the percentage (but not less than 10 percent) obtained by dividing—

"(aa) the amount of any net revenue payment or contribution to the owners or subscribers of the nonregulated utility during the prior year; by

"(bb) the gross revenues of the utility during the prior year to obtain a percentage; by

"(II) the per unit distribution costs.

"(C) PER UNIT TRANSMISSION COSTS.—The term 'per unit transmission costs' means the total cost of those transmission services purchased or provided by a utility on a per-kilowatt-hour basis as included in the retail rate of the utility.

"(2) OPTIONS.—The options described in paragraphs (1) and (2) in subsection (c) shall be offered under purchase and transport rate conditions that reflect the rate components defined under paragraph (1) as applicable under the circumstances described in paragraph (3).

"(3) APPLICABLE RATES.—

"(A) RATES APPLICABLE TO SALE OF NET EXCESS POWER.—

"(i) IN GENERAL.—Sales made by a project owner or operator of a facility under the option described in subsection (c)(1) shall be paid for on a per kilowatt hour basis that shall equal the full undiscounted retail rate paid to the utility for power purchased by the facility minus per unit distribution costs, that applies to the type of utility purchasing the power.

"(ii) VOLTAGES EXCEEDING 25 KILOVOLTS.—If the net excess power is made available for purchase at voltages that must be transformed to or from voltages

exceeding 25 kilovolts to be available for resale by the utility, the purchase price shall further be reduced by per unit transmission costs.

"(B) RATES APPLICABLE TO TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTIES.—

"(i) IN GENERAL.—Transportation by utilities of power on behalf of the owner or operator of a project under the option described in subsection (c)(2) shall incur a transportation rate that shall equal the per unit distribution costs and per unit distribution margin, that applies to the type of utility transporting the power.

"(ii) VOLTAGES EXCEEDING 25 KILOVOLTS.—If the net excess power is made available for transportation at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be transported to the designated third-party purchasers, the transport rate shall further be increased by per unit transmission costs.

"(iii) STATES WITH COMPETITIVE RETAIL MARKETS FOR ELECTRICITY.—In a State with a competitive retail market for electricity, the applicable transportation rate for similar transportation shall be applied in lieu of any rate calculated under this paragraph.

"(4) LIMITATIONS.—

"(A) IN GENERAL.—Any rate established for sale or transportation under this section shall—

"(i) be modified over time with changes in the underlying costs or rates of the electric utility; and

"(ii) reflect the same time-sensitivity and billing periods as are established in the retail sales or transportation rates offered by the utility.

"(B) LIMITATION.—No utility shall be required to purchase or transport a quantity of net excess power under this section that exceeds the available capacity of the wires, meter, or other equipment of the electric utility serving the site unless the owner or operator of the project agrees to pay necessary and reasonable upgrade costs.

"(e) PROCEDURAL REQUIREMENTS FOR CONSIDERATION AND DETERMINATION.—

"(1) PUBLIC NOTICE AND HEARING.—

"(A) IN GENERAL.—The consideration referred to in subsection (a) shall be made after public notice and hearing.

"(B) ADMINISTRATION.—The determination referred to in subsection (a) shall be—

"(i) in writing;

"(ii) based on findings included in the determination and on the evidence presented at the hearing; and

"(iii) available to the public.

"(2) INTERVENTION BY ADMINISTRATOR.—The Administrator may intervene as a matter of right in a proceeding conducted under this section—

"(A) to calculate—

"(i) the energy and emissions likely to be saved by electing to adopt 1 or more of the options; and

"(ii) the costs and benefits to ratepayers and the utility; and

"(B) to advocate for the waste-energy recovery opportunity.

"(3) PROCEDURES.—

"(A) IN GENERAL.—Except as otherwise provided in paragraphs (1) and (2), the procedures for the consideration and determination referred to in subsection (a) shall be the procedures established by the State regulatory authority or the nonregulated electric utility.

"(B) MULTIPLE PROJECTS.—If there is more than 1 project seeking consideration simultaneously in connection with the same utility, the proceeding may encompass all such projects, if full attention is paid to individual circumstances and merits and an individual judgment is reached with respect to each project.

"(f) IMPLEMENTATION.—

"(1) IN GENERAL.—The State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) or nonregulated electric utility may, to the extent consistent with otherwise applicable State law—

"(A) implement the standard determined under this section; or

"(B) decline to implement any such standard.

"(2) NONIMPLEMENTATION OF STANDARD.—

"(A) IN GENERAL.—If a State regulatory authority (with respect to each electric utility for which the authority has *ratemaking authority) or nonregulated electric utility* declines to implement any standard established by this section, the authority or nonregulated electric utility shall state in writing the reasons for declining to implement the standard.

"(B) AVAILABILITY TO PUBLIC.—The statement of reasons shall be available to the public.

"(C) ANNUAL REPORT.—The Administrator shall include in an annual report submitted to Congress a description of the lost opportunities for waste-heat recovery from the project described in subparagraph (A), specifically identifying the utility and stating the quantity of lost energy and emissions savings calculated.

"(D) NEW PETITION.—If a State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) or nonregulated electric utility declines to implement the standard established by this section, the project sponsor may submit a new petition under this section with respect to the project at any time after the date that is 2 years after the date on which the State regulatory authority or nonregulated utility declined to implement the standard.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2008-00408 DATED NOVEMBER 13, 2008

DISCUSSION OF THE EISA 2007 PURPA AND THE NON-PURPA STANDARDS TO BE CONSIDERED BY THE COMMISSION

Integrated Resource Planning

Each electric utility shall:

- integrate energy efficiency resources into utility, state, and regional plans; and
- adopt policies establishing cost-effective energy efficiency as a priority resource.

Rate Design Modifications to Promote Energy Efficiency Investments

The rates allowed to be charged by any electric utility shall:

- align utility incentives with the delivery of cost-effective energy efficiency; and
- promote energy efficiency investments.

In complying with these two items, each state regulatory authority and each nonregulated utility shall consider:

- removing the throughput incentive and other regulatory and management disincentives to energy efficiency;
- providing utility incentives for the successful management of energy efficiency programs;
- including the impact on adoption of energy efficiency as one of the goals of retail rate design;

- adopting rate designs that encourage energy efficiency for each customer class;
- allowing timely recovery of energy efficiency-related costs; and
- offering home energy audits, demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing federal and state incentives that make energy efficiency improvements more affordable, including the availability of low-cost loans.

Energy Efficiency

Each natural gas utility shall:

- integrate energy efficiency resources into its plans and planning processes; and
- adopt policies establishing energy efficiency as a priority resource.

Rate Design Modifications to Promote Energy Efficiency Investments

The rates allowed to be charged by a natural gas utility shall:

- align utility incentives with the delivery of cost-effective energy efficiency.

In complying with these two items, each state regulatory authority and each nonregulated natural gas utility shall consider:

- separating fixed-cost revenue recovery from the volume of transportation or sales service;
- providing utility incentives for the successful management of energy efficiency programs, such as allowing utilities to retain a portion of cost-reducing benefits accruing from the programs;

- promoting the impact on adoption of energy efficiency as one of the goals of retail rate design; and
- adopting rate designs that encourage energy efficiency for each customer class.

Consideration of Smart Grid Investments

Each state shall consider requiring, prior to undertaking investments in nonadvanced grid technologies, that an electric utility of the state demonstrate to the state that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including:

- total costs;
- cost-effectiveness;
- improved reliability;
- security;
- system performance; and
- societal benefit.

Smart Grid Information

All electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to information from their electricity provider such as:

- Prices - Purchasers and other interested persons shall be provided with information on time-based electricity prices in the wholesale electricity market, and time-based electricity retail prices or rates that are available to the purchasers.

- Usage - Purchasers shall be provided with the number of electricity units, expressed in kWh, purchased by them.
- Intervals and Projections - Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information when available, and shall include a day-ahead projection of such price information to the extent available.
- Sources - Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

Additional Incentives for Recovery, Use, and Prevention of Industrial Waste Energy

Consideration of Standard - Not later than 180 days after the receipt by a state regulatory authority of a request from a project sponsor or owner or operator, the state regulatory authority or nonregulated electric utility shall provide public notice and shall conduct a hearing respecting the standard and, on the basis of the hearing, shall consider and make a determination as to whether or not it is appropriate to implement the standard to carry out the purposes of this part.

For purposes of any determination and any review of the determination in any court, the purposes of this section supplement otherwise applicable state law.

Nothing prohibits any state regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any standard pursuant to this section of EISA 2007.

The standard for sale of excess power shall provide that an owner or operator of a waste energy recovery project that generates net excess power be eligible to benefit from at least one of the options for disposal of the net excess power in accordance with certain rate conditions and limitations described later in this standard. Those options are:

- sale of net excess power to the utility;
- transport by utility for direct sale to a third party;
- transport over private transmission lines; or
- agreed alternatives.

APPENDIX C

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2008-00408 DATED NOVEMBER 13, 2008

Kentucky's Jurisdictional Electric Utilities
Made Parties to Case No. 2008-00408[1]

Investor-owned Electric Utilities:
- Duke Energy Kentucky, Inc.
- Kentucky Power Company
- Kentucky Utilities Company
- Louisville Gas and Electric Company

Rural Electric Cooperatives:

Electric Generation and Transmission Cooperatives
- *Big Rivers Electric Corporation
- *East Kentucky Power Cooperative

Electric Distribution Cooperatives
- *Big Sandy Rural Electric Cooperative Corporation
- Blue Grass Energy Cooperative Corporation
- *Clark Energy Cooperative
- *Cumberland Valley Electric
- *Farmers Rural Electric Cooperative Corporation
- Fleming-Mason Energy
- *Grayson Rural Electric Cooperative Corporation
- *Inter-County Energy Cooperative
- Jackson Energy Cooperative
- Jackson Purchase Energy Corporation
- Kenergy Corporation
- *Licking Valley Rural Electric Cooperative Corporation
- *Meade Co. Rural Electric Cooperative Corporation
- Nolin Rural Electric Cooperative Corporation
- Owen Electric Cooperative
- Salt River Electric
- *Shelby Energy Cooperative
- South Kentucky Rural Electric Cooperative Corporation
- Taylor County Rural Electric Cooperative Corporation

[1] An asterisk (*) identifies the jurisdictional electric utilities that are exempt from PURPA.

APPENDIX D

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2008-00408 DATED NOVEMBER 13, 2008

Kentucky's Jurisdictional Natural Gas Utilities
Made Parties to Case No. 2008-00408

Atmos Energy Corporation
Columbia Gas of Kentucky, Inc.
Delta Natural Gas Company, Inc. [1]
Duke Energy Kentucky, Inc.
Louisville Gas and Electric Company

[1] Delta Natural Gas Company, Inc. is not subject to PURPA.

APPENDIX E

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2008-00408 DATED NOVEMBER 13, 2008

Stakeholders Sent a Courtesy Copy
of the Order Establishing Case No. 2008-00408

Community Action Council for Lexington-Fayette, Bourbon, Harrison and Nicholas Counties, Inc.
Community Action Kentucky, Inc.
Office of the Attorney General Utility and Rate Intervention Division
Kentucky Industrial Utility Customers, Inc.
Kentucky Resources Council, Inc.
Legal Aid Society, Louisville, Kentucky
Northern Kentucky Community Action Commission, Inc.
People Organized and Working for Energy Reform
The Association of Community Ministry
The Cumberland Chapter of the Sierra Club
Metro Human Needs Alliance
The Department for Energy Development and Independence
The Legal Aid Society of Northern Kentucky