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Date: 26 March 2012

To: Office of Electricity Delivery and Energy Reliability DOE/OE-20 U.S. Dept. of Energy 1000 Independence Ave., SW Washington, DC 20585

Email: http://energy.gov/oe/congestion-study-2012

Subject: Comments for Consideration in Preparation of the 2012 Congestion Study

Citizens Against the Kemptown Electric Substation, Inc. (C.A.K.E.S) is a coalition of residents from communities in Maryland who have united to oppose the proposed PATH project and the building of a massive 42 acre 765,000-volt electric transmission substation in the middle of over 1350 homes. Our 100% volunteer 501(c)(4) grassroots organization comprises hard working parents and families, neighbors, business owners, and concerned citizens who share the goal of preserving the character and harmony of our communities, our property values, our health, our safety and well being, our picturesque view shed, and all that encompasses our way of life in Maryland.

If the active citizens of WV, MD and VA had not intervened, the PATH project would be in construction now even though it was found not to be needed now or in the foreseeable future, perhaps as far out as 2024 or beyond and was withdrawn in all three states. But still the utility company receives high incentive rates while the project is in abeyance.

We respectfully submit the following comments for consideration in the preparation of the 2012 National Electric Congestion Study

This letter addresses three fundamental reasons that have caused the two previous U.S. Department of Energy (DOE) congestion studies (2006 and 2009) and the concept of national corridors to be fatally flawed: (1) lack of alternatives, (2) lack of impact analysis for each alternative, and (3) study participants imposing an answer before the situation was analyzed.

Transmission congestion is an energy issue worth careful analysis. But "national corridors" is a utilities' transmission solution in search of a problem. A reasonable context is "grid optimization", which includes transmission <u>and</u> generation alternatives. The pre-ordained national corridor concept that was greedily promoted by study participants, most of whom had an inherent conflict of interest, has little merit and is not reasonable to pursue monolithically by DOE.

Is yet another DOE congestion study really needed? The first two studies have failed because they were fatally flawed. In 2011, the 9th Circuit Court of Appeals invalidated the DOE congestion study and vacated the designation of the NIETC ("National Interest Electricity Transmission Corridor"), which had provided the legal predicate for Federal Energy Regulatory Commission (FERC) siting authority. In 2010, the Fourth Circuit Court held that the federal backstop siting authority does not attach to a project that has been affirmatively denied a permit at the state level. DOE and FERC (an agency in DOE) both need to recommend to the U.S. Congress that the Energy Policy Act of 2005 (EPAct 2005) be amended to reform the transmission siting process rather than perpetuate fatally flawed congestion studies by DOE and fatally flawed regulatory attempts by FERC. Technology development and state policies have outdated these DOE studies and FERC regulatory attempts.

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For the PJM Regional Transmission Organization (RTO), the North American Electric Reliability Corporation (NERC) concluded the following (Ref.: NERC 2011 Summer Reliability Assessment, May 2011):

- "There were no resource reliability concerns identified in the regional assessment."
- "No transmission reliability concerns were raised during this assessment."
- "No significant operation challenges are projected this summer."

In addition, NERC concluded the following (Ref.: NERC 2011 Long-Term Reliability Assessment, Nov. 2011):

- "No subregions exist in PJM."
- "No resource-related reliability concerns were identified."
- "No additional transmission reliability concerns have been identified."

<u>IF</u> yet another DOE congestion study is undertaken by DOE, then it must be a vastly more impartial objective analysis of alternative approaches and their impacts that include up-to-date technologies and concepts. Any other attempt at a study would merely promote yet again a fatally flawed congestion study and decreed conclusion by DOE and FERC.

The following comments apply for the next congestion study, <u>IF</u> undertaken.

Alternatives

"It's one thing to identify areas of congestion. It's entirely another to know how necessarily to solve it." (Ref.: D. Nazarian, Chair of the Maryland Public Service Commission, at the U.S. DOE National Electric Congestion Study Workshop, Philadelphia, PA, 6 Dec. 2011.) Previous DOE congestion studies have led utilities and their transmission affiliates to 'jump the gun' and start expensive unneeded projects regarding congestion at great and unending public expense without knowing "how necessarily to solve it", for example, PJM's PATH Project.

A comprehensive study is needed that objectively recognizes all reasonable alternatives and relevant impacts of energy generation <u>and</u> transmission without the subjective influence of a special interest group such as the utilities and their transmission affiliates. The study needs to include a comprehensive systematic assessment of alternative approaches using consistent evaluation criteria, not a subjectively based fait accompli. [See, for example, Long Term Electricity Report for Maryland, PPRP, 1 Dec. 2011.] Industry participants in previous DOE congestion studies hardly could be considered impartial and objective.

State governments and public safety commissions have wisely begun recognizing the economic efficiency and long term health benefits of clean renewable energy resources that are located near the load demand, such as offshore wind energy resources along the East Coast. Many state governments and commissions, especially along the East Coast, have instituted policies and passed regulations for Renewable Portfolio Standards (RPS) for renewable clean energy generation, which leads to long term environmental improvement (e.g., avoids air pollution, mitigates global climate change, reduces waste, preserves natural habitats, conserves valuable natural resources, etc.).

The two previous congestion studies were monolithic. They did not identify evaluation criteria nor assess alternatives or other scenarios or strategies, in particular, alternatives to transmission lines and alternative technologies. It is essential that DOE direct its National Laboratories to do a risk assessment for all reasonable alternatives before DOE can credibly select an effective alternative or designate a national corridor. Utilities and their transmission affiliates have demonstrated the great risk in pursuing predetermined designations and unfounded conclusions, and have created great expense to ratepayers, as FERC (an agency in DOE) freely dispenses to utilities huge incentive bonus payments, which continue even after projects are removed from a

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regional transmission expansion plan and utilities withdraw their applications from state public service commissions because of their poorly conceived and poorly supported project plans. (For example, ref. PATH Project applications by AEP/Allegheny Energy/First Energy/Potomac Edison in Maryland, Virginia, and West Virginia.) The lack of adequate justification and reasonable alternatives has created great uncertainty in subsequent planning by utilities and great expense to ratepayers and the public overall.

Many factors affecting congestion have been ignored in the previous two congestion studies. In particular, they failed to make clear the connection of congestion with its generation component and its transmission component. These two congestion studies generally ignored the generation component and have been made to focus on the transmission component by the participating utilities and their transmission affiliates, who recognized it as the creation of a new highly profitable business area. As a result, the study conclusions lack independence and credibility with the public.

It makes a difference in the analysis as well as the conclusions whether the DOE congestion study addresses physical congestion or economic congestion. Unfortunately, previous DOE congestion studies did not describe the difference nor clarify which was being addressed in the studies. Two recent examples in New York that did not require additional cross country transmission lines nor a designated corridor to reduce congestion are the addition of new electricity generation (physical) and decline in natural gas costs (economic).

It is worth emphasizing that "presence of congestion does not have to equal the absence of reliability" and noting DOE's position: "Identification of a congestion area does not necessarily lead in any automatic way to designation of a national corridor". Once the DOE studies have opened "Pandora's box" of framing congestion solely in the context of corridors of transmission, even without official designation by DOE, it becomes incumbent on DOE to answer the question: Are transmission lines the only solution? Or would other alternative solutions to congestion, such as a locally sited generation or demand resource, better resolve the issue? Clearly there are alternatives other than transmission lines to solve congestion, and all should be carefully addressed by DOE. Transmission lines should not be put above other available options.

DOE has not adequately assessed alternatives to transmission lines to address congestion. "In some cases, building transmission is quite expensive and not in the public interest." "Some transmission projects that alleviate congestion might be extremely expensive and the national interest might be better served with other solutions." (Ref.: U.S. DOE National Electric Congestion Study Workshop, Philadelphia, PA, 6 Dec. 2011.) There is significant technological progress since 2009 that needs to be taken into account in the next DOE congestion study. DOE congestion studies will continue to be fatally flawed if non-transmission alternatives are not analyzed.

DOE did not properly consider non-transmission alternatives before designating transmission solutions to resolve congestion. Without consideration of non-transmission alternatives, DOE cannot demonstrate the need for a national corridor, as none may be needed when all reasonable alternatives are taken into account. Likewise, DOE fails to explain why transmission lines were the only alternative analyzed. Identifying an issue, e.g. congestion, is not the same as designating a solution, e.g. a national transmission corridor.

The two previous congestion studies have neglected obvious and reasonable alternatives to transmission corridors. For example, more assessment is needed for offshore wind resources, nuclear power, demand response, energy efficiency, demand side management, distributed generation, and energy storage, all of which contributes to mitigation of congestion. DOE National Laboratories have the requisite technological capability to undertake assessment of all alternatives, and they should be used for such.

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Smart Grid is a vital component of President Obama's comprehensive energy plan. The President has promised by 2035, that 80 percent of America's electricity will come from clean energy sources. (Ref.: The White House, Office of the Press Secretary, "Remarks by the President in State of the Union Address." January 25, 2011.) DOE has recognized that to realize Smart Grid capabilities, deployments must integrate a variety of smart devices and systems. DOE will monitor and assess the progress of deployments in the

U.S. (Ref.: U. S. Department of Energy, Office of Electricity Delivery and Energy Reliability, Recovery Act Financial Assistance Funding Opportunity Announcement, Smart Grid Investment Grant Program, DE-FOA-0000058, June 25, 2009.) How will DOE reflect these requirements in DOE's 2012 congestion study?

Before concluding resolution of congestion, DOE needs to assess the following potential advantages enabled by Smart Grid technology that were identified by the National Institute of Standards and Technology (NIST) (Ref.: NIST Framework and Roadmap for Smart Grid Interoperability Standards, Feb. 2012.).

• Increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid;

• Dynamic optimization of grid operations and resources;

• Deployment and integration of distributed resources and generation, including renewable resources;

• Development and incorporation of demand response, demand-side resources, and energy-efficiency resources;

• Deployment of "smart" technologies for metering, communications concerning grid operations and status, and distribution automation;

• Integration of "smart" appliances and consumer devices;

• Deployment and integration of advanced electricity storage and peak-shaving technologies;

• Provision to consumers of timely information and control options;

• Development of standards for communication and interoperability of appliances and

equipment connected to the electric grid, including infrastructure serving the grid; and

• Identification and lowering of unreasonable or unnecessary barriers to adoption of Smart Grid technologies, practices, and services.

Numerous relevant newer technologies, many of which were developed under DOE R&D programs, are maturing for use but are resisted by conservative utilities and their transmission line affiliates. These include, inter alia, technology and programs for high voltage direct current and underground lines, SMART GRID, demand side management, demand response programs, energy efficiency, and offshore wind energy generation. DOE congestion studies need to take into account the newer and better technologies and alternatives. DOE needs to further address these in its DOE ARPA-E (Advanced Research Projects Agency – Energy) Program, which was established by the U.S. Congress "to enhance the economic and energy security of the U.S. through the development of energy technologies".

Impact Analyses

Based on the 2006 DOE congestion study and subsequent comments by participants, the DOE Secretary designated national corridors in 2007. The consequences of designation should have been fully assessed with the associated impact analysis prior to designation because designation enables the DOE FERC to approve siting of transmission facilities (lines and substations) within a national corridor. The public must be made fully aware of the potential consequences of national corridor designation. Impact analysis is needed before such a decision concerning designation because it puts so many public ratepayers at potentially high risks, including economic.

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<u>Public Safety Risk</u> --- Previous DOE congestion studies did not adequately address public safety risk and impacts for national corridors designated by the DOE Secretary. For example, there is potentially significant safety risk due to long distance transmission lines that would run from the Midwest to the East Coast as a result of continued reliance on remote coal and oil resources instead of relying on plentiful clean renewable offshore wind resources nearby the East Coast load demand. In 2010 alone, there were 11 deaths suffered as a result of the Deepwater Horizon oil rig disaster in the Gulf off the coast of Louisiana, and there were 29 deaths suffered in the Upper Big Branch coal mine disaster in West Virginia. Both DOE congestion studies ignored human safety risks, and no risk analysis was undertaken before considering national corridor designation or an alternative.

<u>Public Health Risks</u> --- Both DOE congestion studies ignored the comparative health risks and impacts of using dirty coal in the Midwest to generate electricity for the East Coast load centers. The National Renewable Energy Laboratory identified plentiful clean renewable offshore wind energy resources along the East Coast, while the National Oceanic and Atmospheric Administration identified the pollution patterns flowing with the west to east weather patterns carrying pollution from the dirty coal plants in the Midwest all across the highly populated states to the east. Long term human health risk was not addressed during previous congestion studies nor before designating a national corridor.

<u>National Security</u> --- DOE is required by law to address security. This critical aspect is ignored in the two previous congestion studies. Both cyber security and physical security analyses and their impact on national security are lacking. Utilities and their transmission affiliates have proposed inter-connecting the entire electrical infrastructure! Does DOE really believe it is prudent national security policy to chain link the nation's transmission lines and promote concentration of the nation's electrical infrastructure in unprotected cross-country corridors? DOE should use its National Laboratories, such as Sandia National Laboratory, to conduct the appropriate vulnerability analyses of all alternatives, especially the idea of concentrated transmission lines in national corridors.

<u>Environmental Pollution</u> --- The general public, as well as all flora and fauna, east of the dirty coal plants in the Midwest are exposed to pollution of the air, water, and land as a result of the west to east weather pattern. The cumulative effects of this pollution have been extensively studied by USG agencies including the Environmental Protection Agency. The environmental cost of this pollution was not addressed during the congestion studies nor before designating national corridors. In particular, the next congestion study needs to address the affects of two recent EPA regulations for all alternatives? [Ref.: Mercury and Air Toxics Standards (MATS) rule; and Cross-State Air Pollution Rule (CSAPR)]

<u>Legality</u> --- The two previous congestion studies did not identify implications for states' rights. In particular, the next congestion study should address the significance and limitations of DOE designating national corridors, which then automatically allow DOE FERC to exercise backstop authority, i.e., second guess state public utility commission decisions on transmission line applications.

<u>Other impacts</u> --- For each alternative identified in DOE congestion studies, in addition to those identified above, other possible impacts and consequences need to be analyzed, for example, socioeconomic, environmental justice, individual rights regarding rights of way, economics (ratepayer versus utilities), etc. All impacts need to be analyzed before allowing utilities and their subsidiaries to begin projects, and utilities should not be entitled to DOE FERC incentive subsidies before all impacts are carefully analyzed.

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Participants

Previous DOE congestion studies were fatally flawed due to the financial interests of participating utilities and their transmission affiliates and due to their influence during preparation of the

studies. DOE did not seek reasonable representation of stakeholders that should include ratepayers, who represent a majority of those who are most affected by the cost and impacts of transmission lines. For example, for input to the 2009 congestion study, DOE listed 39 total contributors of which only 3 were private persons. Also, DOE listed nearly 200 total participants of which there were about 100 utilities and transmission affiliates but no private ratepayers. Clearly, DOE's public outreach efforts failed to achieve appropriate stakeholder ratepayer participation.

Previous DOE congestion studies started with the supposition that national corridors were needed. Not surprisingly, participating utilities and transmission affiliates greedily supported this supposition in their own self interest.

Some study participants, for example AEP and First Energy, have enthusiastically exploited previous DOE congestion studies that have enabled remunerative incentives even without approval of siting transmission facilities (lines and substations) by FERC. Missouri Public Service Commissioner, Jeff Davis, captured the reason for the enthusiasm by utilities and their transmission affiliates: "FERC's repudiation of the 'beneficiaries pay' doctrine along with all the 'candy' incentives they are offering have created a modern-day gold rush to the transmission sector. Unfortunately, all the gold in this mine winds up in the hands of the transmission owners who get paid handsomely to build assets they end up owning. Consumers won't even realize they have gotten 'the shaft' until a few years from now when their electric bills start going up to pay for these projects." (Ref.: Transmission and Distribution World, 1 Nov. 2010)

Overall, DOE congestion study management and direction need to be more balanced and objective. Analyses for congestion studies should be performed by DOE National Laboratories that have the requisite technical and analytical expertise rather than by utilities or their transmission affiliates or their consultants that promote private business interests. The DOE National Laboratories have far more technical expertise and objectivity.

Respectfully submitted,

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