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Competitive Transmission Development Technical Conference	**)** **)**	**Docket No. AD16-18-000**

Opening Remarks of Kim C. Hanemann, Senior Vice President
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Good afternoon. My name is Kim Hanemann, and I am the Senior Vice President – Delivery Projects & Construction for Public Service Electric and Gas Company ("PSE&G"). I am an engineer. I am not a lawyer or a lobbyist. Instead I spend my time managing all aspects of PSE&G's transmission portfolio, including construction, permitting, operations and maintenance.

PSE&G has been very actively involved in upgrading and adding to its transmission system over the last several years. These have included large and challenging EHV transmission projects covering hundreds of miles in some of the most densely populated areas in the nation. By any measure, PSE&G is an industry leader in planning and constructing improvements to the electric grid in our country. Over the 2011 to 2015 time horizon, for instance, PSE&G completed construction of transmission projects equal to nearly $7 billion in value, including substations, switching stations, transmission line upgrades, transmission line construction and underground transmission expansion.[1] Many of these investments occurred in response to a call for the development of more robust transmission infrastructure in the aftermath of the 2003 blackout in the Northeast.

You will not be surprised to hear that PSE&G does not view Order No.1000 as improving the transmission planning process or bringing value to customers. While PSE&G remains an avid supporter of markets and the efficiencies that competition can bring, there are certain areas that simply don't readily lend themselves to competition. Planning transmission projects to ensure the reliability and safety of our electric grid is one of these areas. In addition, as I will discuss

[1] Significant projects have included, for example, the 500 kV Susquehanna-Roseland project, and several large 230 kV conversion projects such as Burlington-to-Camden, North Central Reliability and Mickleton-to-Gloucester-to-Camden, and the Northeast Grid project. We are also focused on building transmission that adds resiliency to the system, replaces aging infrastructure and maintains regional grid reliability. Most of these projects replaced infrastructure that was built in the 1920s.

later, including cost containment provisions within this process, rather than ensuring that necessary projects are built and built prudently, adds few if any benefits.

We were skeptical at its inception that Order No. 1000 would bring the intended benefits, no matter how well intentioned, and we are disappointed to see that the implementation of Order No. 1000, five years after inception, continues to be fraught with challenges and inefficiencies. We encourage the Commission to take a hard look to evaluate whether the rule has delivered its intended benefits. Unfortunately, our experience would suggest that Order No. 1000, as implemented, is not delivering the benefits it was designed to provide and may in fact have become more of an impediment than a help.

The path followed by the United Kingdom regarding how they introduced competition into transmission development is instructive. Rather than attempting to immediately introduce competition into *all* phases of transmission development – design, construction and operation – of the backbone transmission system, the regulatory authority began by offering competitive opportunities to maintain and operate offshore generator leads previously constructed by wind generation owners. This experiment has appeared to work well and given regulators an opportunity to explore, for a very narrow scope of simple projects, how to create a competitive framework in connection with the provision of transmission services.

In contrast to the experience in the UK, the attempt under Order No. 1000 to apply competition processes simultaneously to multiple aspects of transmission development has been problematical. A fundamental problem we have encountered is that Order No. 1000 processes often emphasize short-term cost savings over real efficiency gains that can only be measured over time.

Sound transmission planning requires consideration of many factors besides initial construction costs. A narrow focus on short-term construction cost savings cannot be expected to identify the solutions with the greatest overall value. Systematically picking the lowest-cost short term solution will fail to take account of the solution's robustness over years into the future as system conditions change. The project with the greatest overall value may be more expensive in the short term but may anticipate, and thus avoid, other potential problems that have not yet reached the point of having become violations of formal reliability standards. Further, a project with somewhat more expensive upfront costs may have ancillary benefits, such as reducing energy congestion and replacing aging infrastructure, that the lowest cost solution does not provide.

Transmission planning decisions also require that consideration be given to choosing projects that minimize environmental disruptions and that can be reasonably expected to obtain necessary permits. For example, if the lowest-cost solution that addresses a particular reliability issue in a minimal manner requires construction in an environmentally-sensitive area, choosing that project may exacerbate the risk of there being a need for future transmission construction in

that area. For example, for the Susquehanna-Roseland project, we developed and constructed a project that addressed numerous thermal violations as well as replaced 1927 vintage 230 kV infrastructure with a new 500/230 kV structures. From a land use perspective we provided these long term benefits in one project eliminating multiple impacts to customers and the environment. In a selection process that focuses primarily on the lowest cost solution, there is a high likelihood that project solutions of this kind would not have materialized. We can't forget that siting and building transmission projects is really very difficult as it often has substantial impacts on many residents and businesses.

Further, the RTOs and ISOs, while well intentioned, have not always adequately administered the Order No. 1000 open window process. Indeed, our experience suggests that they generally lack the full range of necessary skills for the task. To evaluate the costs and feasibility of many project proposals requires a wide range of skills and expertise as well as the ability to evaluate complicated construction procurement processes. Knowledge of commercial practices, environmental permitting requirements, local regulations, equipment procurement practices and construction cost estimating capabilities are all needed. Although RTOs and ISOs have the necessary engineering and planning skills, without the other skills I just listed, the constructability of a project cannot be properly evaluated. And, unfortunately, the ISOs and RTOs do not have adequate proficiency in all these areas. If Order No. 1000 is to be successful, the process needs to change so that ISOs and RTOs either are relieved of responsibility for these functions or are provided with the necessary resources to perform them in a competent manner.

The challenges facing RTOs and ISOs in administering an open window process for transmission development are particularly acute in the context of the "sponsorship model" under which the transmission planner choses the winning project from numerous submittals with different designs and costs. PJM, for example, has implemented a "sponsorship model" under which it has "mixed and matched" elements of different bidders' proposals and supplemented proposals to make them viable. This has subverted the iterative process and collaboration between PJM and the transmission owner which has served as the foundation of transmission planning in PJM for the past 17 years and which has been both efficient and effective. We believe that the planning function should remain with PJM and the transmission owner.

At a minimum, the Commission should adopt reforms to ensure that project selection criteria used in Order No. 1000 processes focus on the overall value of a project – in other words the most robust and cost-effective solution that can be reasonably constructed taking into account all types of short-term and long-term benefits. Placing a disproportionate focus on seeking the lowest level of initial construction costs inevitably obscures this type of analysis, and will thwart the development and selection of the best long term solutions. Simply put, the project with the lowest bid cost is not necessarily the best project or best value for our customers.

While a cost containment provision could limit the level of initial construction costs for which consumers are responsible, ascribing much weight to cost containment provisions in the

selection process exacerbates the risk that the decision-maker will fail to adequately consider other benefits. In addition, if the project decision-maker is truly qualified to consider competing proposals, it should be able to discern when cost estimates are not defensible and to evaluate the bids accordingly.

There are also many practical issues around cost containment provisions that limit (or even cancel out) whatever theoretical value they may have. We hear the term "binding" cost cap quite a bit in the Order 1000 context. But, what does that really mean? Commercially reasonable cost caps are typically accompanied by exclusions, such as change in laws or regulations, RTO-directed changes to a project, and failure of the regulatory agency to grant the necessary permits and approvals. A cost cap is not a guaranty that the expectations of each party will be met and due to the lack of experience of RTOs with these arrangements it is likely that there are already misunderstandings on the actual value and enforceability of these caps. Given these circumstances, the ultimate meaning and effect of such caps – which are in turn dictated by their specific terms including associated exclusions -- will likely be determined in the context of a dispute and ensuing litigation.[2] Fundamentally, we are putting the RTO – whose responsibility it is to plan and operate the system - in the role of a decision maker on commercial terms and conditions as well as associated risks. PSE&G questions whether this is the proper role for an RTO and whether RTOs have the requisite capabilities to be making those types of determinations.

If the Commission believes that some form of construction cost caps should be included in Order No.1000 projects, then FERC should provide guidance on how these caps will be enforced and require the RTOs to have clear guidelines for evaluating them. This plan should include the development of clearly understood and judicially recognized cost containment provisions for use by all bidders participating in the RTOs' open window process. These provisions must be predictable, commercially reasonable and enforceable. The RTOs should have transparent criteria that define how they are evaluating and comparing cost containment proposals to ensure fair and reasonable outcomes that ultimately benefit customers.

For the reasons discussed above, it is questionable whether Order No. 1000 will benefit consumers or simply add costs and inefficiencies. Our suggestion is that the Commission re-evaluate whether Order No. 1000 in its current form even makes sense. However, if Order No.

[2] There are numerous opportunities for disputes associated with cost cap terminology that is unclear or not commercially accepted. For instance, transmission construction is fraught with challenges, which may be intentionally omitted by a developer in a "low ball" bid or overlooked by an inexperienced developer, and in such circumstances a cost cap may ultimately end up being less valuable than originally anticipated. Another example is that a thinly capitalized winning developer may have incorrectly priced the risk and defaults in the face of having to either make good on a promised cap or bow out. Having a developer drop out of a project during construction could cost the ratepayers much more than the promised savings in the costs cap proposal.

1000 is to have any chance of delivering its intended benefits under the current construct, then significant changes are required. One such change with regard to its implementation is that the consideration of cost containment as a factor in selecting projects in open windows be minimized or eliminated. Instead, the focus of the selection process should be on picking the most robust and cost-effective solution, taking account of all types of customer benefits as well as the feasibility of constructing the project as proposed and in a timely manner.

Thank you.