Testimony of James P. Danly

before the

Subcommittee on Economic Growth, Energy Policy, and Regulatory Affairs
Committee on Oversight and Accountability

March 12, 2024

Chairman Fallon, Ranking Member Bush, and members of the subcommittee:

Good morning, it is an honor to have been asked to appear before you for today's hearing. This topic is critical and deserves everyone's urgent attention. I appreciate the opportunity to share my experience from the years I spent at FERC, as general counsel and commissioner, working on these very subjects.

It would be nearly impossible to overstate the importance of a stable, secure and reliable bulk power system. Virtually every aspect of modern life requires reliable and affordable electricity, and the demand for electricity is growing and will continue to grow.

At the same time, the bulk power system faces ever increasing threats, among them physical attacks, cyber attacks, intermittency, and resource adequacy, including resource adequacy challenges driven by inadequate infrastructure.

Before the hearing begins I would like to take a moment to talk about an important distinction that is often overlooked in policy discussions on this topic. Frequently, when policymakers discuss the consistent and stable operation of the bulk power system, they conflate two related but distinct topics: reliability and resource adequacy. Reliability refers to the ability of the bulk electric system to operate under ordinary conditions, and withstand sudden,

foreseeable disruptions. Resource adequacy, on the other hand, refers to the ability of the bulk power system to meet demand with sufficient generation at all times.

The reliability of the bulk power system is primarily ensured by the mandatory reliability standards promulgated by the North American Electric Reliability Corporation (NERC) under the supervision of the Federal Energy Regulatory Commission and, of course, by the efforts of utilities and balancing authorities to follow industry best practices. Reliability is primarily a matter of engineering and adherence to technical standards.

Resource adequacy is different. It is not a matter of technical requirements, but a matter of economics, regulations, and tariffs. Resource adequacy refers to the bulk power system's ability to meet aggregate demand. Depending upon which region of the country is at issue, we achieve (or at least, attempt to achieve) resource adequacy by one of two different means. In vertically integrated states, those that have franchise monopoly utilities overseen by a state public service commission, resource adequacy is typically achieved by the utility's regular submission of an integrated resource plan which establishes the utility's projected system requirements and the planned development of generation and transmission necessary to satisfy predicted demand. That integrated resource plan, in combination with the utility's statutory obligation to serve their customers (and the penalties that attend failure to meet that obligation), ensures that the utility will do its utmost to have sufficient generation to serve their customers' needs.

In addition to the states that have traditional vertically integrated utilities, there is another model, that of the FERC-jurisdictional markets, the RTOs and ISOs. These markets provide the wholesale electricity to about two thirds of the country's population. Though there are differences between the markets, generally, in the regions served by the RTOs, decisions

regarding generation development are not based on an integrated resource plan, and there is often no equivalent statutory duty to serve imposed upon wholesale electric generators. Instead, FERC has established market mechanisms that are supposed to create the incentives, through prices, that will attract the new generation necessary to meet demand, and to incentivize the orderly retirement of less efficient resources. For these markets to achieve their goal of ensuring resource adequacy, they must have accurate price formation. A problem will arise if the value placed on that new capacity is inaccurate, and inaccurate price formation is virtually assured when the markets are subject to external subsidies which suppress prices and reduce the value placed on new capacity.

Moreover, not all capacity is the same. Different classes of generation assets have different attributes. Thermal generators, for example, are dispatchable—they can be predictably relied upon when needed. Thermal generation also has spinning mass which helps the bulk power system ride through disturbances, and it can reliably provide the ancillary services which are required by the transmission system. Such attributes are critical and market tariffs, by and large, have failed to properly distinguish between the capabilities of different types of generation assets, with the result that, especially given the effects of subsidies, FERC-jurisdictional markets have come to over- or under-procure particular types of generation. If this continues, we will drift toward an increasingly unreliable bulk power system and consequent higher costs to electric ratepayers.

Lastly, it is impossible to have an informed discussion on the reliability and resource adequacy of the bulk power system without also considering the interstate natural gas pipeline system. The bulk electric system is absolutely reliant upon the network of interstate natural gas pipelines that deliver natural gas throughout the country for electric generation, household

heating, and industrial use. One of the greatest threats to the operation of the bulk power system is that caused by the constraints posed by the underdevelopment of natural gas pipeline infrastructure. The bulk power system cannot function, absent sufficient natural gas to fuel its natural gas generator fleet.

Some areas of the country, particularly New England, are suffering the effects of severe natural gas transmission capacity constraints. This has imperiled resource adequacy and caused ratepayers to suffer dramatically increased rates. During times of scarcity, these regions struggle to ensure that needed generation assets are fully fueled. This is especially problematic during the winter when the local distribution companies, which provide retail ratepayers with gas for household heating and commercial uses, experience their highest demand. Electric blackouts can cause tremendous damage, but the failure of the natural gas system to supply local distribution companies would be catastrophic. The solution, of course, is to remove the obstacles, primarily regulatory, to further expansion of the pipeline system. Without action being taken to relieve these constraints, an eventual failure of the electric system in some regions appears very likely. And, of course, the natural gas pipeline system is subject to many of the same threats that the bulk power system faces, including physical and cybersecurity threats, which makes the need for the expansion of the natural gas pipeline system all the more critical.

Again, thank you for asking me to appear before you today. I look forward to your questions.