

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

New Jersey Capacity Issues – Technical Conference

**In the Matter of the New Jersey Board of Public Utilities
Review of the State’s Electric Power and Capacity Needs
BPU Docket No. EO09110920**

AFFIDAVIT OF WILLIAM W. HOGAN
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SUMMARY

1. The New Jersey Basic Generation Service (BGS) auction is an important innovation that provides an effective framework for utilizing the competitive electricity market while providing forward price certainty for eligible customers in meeting their load, reliability and ancillary service requirements. The BGS serves as a model for the rest of the country, as part of a spectrum of policies for demand response, energy efficiency, transmission and supply. The focus here is on modification of the supply options and the interaction with the BGS. Choosing the duration of the covered period, currently up to three years, involves tradeoffs that balance risk exposure in the short term and long term. The LS Power proposal argues for longer term obligations. However, the LS Power proposal goes much further in fundamentally redefining the product not as full requirements service under the BGS auction but as plant specific contracts for a restricted group of new generating facilities. In effect, the LS Power proposal would recreate the procurement problems that the BGS auction was designed to address. The LS Power proposal would add risks to end-use customers and increase the costs of the remaining BGS service.

PERSONAL AND PROFESSIONAL BACKGROUND

2. My name is William W. Hogan. I am the Raymond Plank Professor of Global Energy Policy at Harvard University's John F. Kennedy School of Government, and a Director of LECG, LLC. My business address is 79 John F. Kennedy Street, Cambridge, MA 02318.

3. I am Research Director of the Harvard Electricity Policy Group (HEPG), which is exploring the issues involved in the transition to a more competitive electricity market. I am or have been a consultant on electric market reform and transmission issues for Allegheny Electric Global Market, American Electric Power, American National Power, Aquila, Australian Gas Light Company, Avista Energy, Barclays, Brazil Power Exchange Administrator (ASMAE), British National Grid Company, California Independent Energy Producers Association, California Independent System Operator, Calpine Corporation, Canadian Imperial Bank of Commerce, Centerpoint Energy, Central Maine Power Company, Chubu Electric Power Company, Citigroup, Comision Reguladora De Energia (CRE, Mexico), Commonwealth Edison Company, COMPETE Coalition, Conectiv, Constellation Power Source, Coral Power, Credit First Suisse Boston, DC Energy, Detroit Edison Company, Deutsche Bank, Duquesne Light Company, Dynegy, Edison Electric Institute, Edison Mission Energy, Electricity Corporation of New Zealand, Electric Power Supply Association, El Paso Electric, GPU Inc. (and the Supporting Companies of PJM), Exelon, GPU PowerNet Pty Ltd., GWF Energy, Independent Energy Producers Assn, ISO New England, Luz del Sur, Maine Public Advocate, Maine Public Utilities Commission, Merrill Lynch, Midwest ISO, Mirant Corporation, JP Morgan, Morgan Stanley Capital Group, National Independent Energy Producers, New England Power Company, New York Independent System

Operator, New York Power Pool, New York Utilities Collaborative, Niagara Mohawk Corporation, NRG Energy, Inc., Ontario IMO, Pepco, Pinpoint Power, PJM Office of Interconnection, PPL Corporation, Public Service Electric & Gas Company, Public Service New Mexico, PSEG Companies, Reliant Energy, Rhode Island Public Utilities Commission, San Diego Gas & Electric Corporation, Sempra Energy, SPP, Texas Genco, Texas Utilities Co, Tokyo Electric Power Company, Toronto Dominion Bank, Transalta, Transcanada, TransÉnergie, Transpower of New Zealand, Tucson Electric Power, Westbrook Power, Western Power Trading Forum, Williams Energy Group, and Wisconsin Electric Power Company. The views presented here are not necessarily attributable to any of those mentioned, and any remaining errors are solely my responsibility. (Related papers can be found on the web at www.whogan.com)

OVERVIEW

4. The subject of my affidavit is a proposal that is pending before the Board of Public Utilities (“BPU”) to modify the structure of the auctions used to purchase energy, capacity and ancillary services to meet the needs of end-use customers receiving Basic Generation Service (“BGS”).

5. Currently, suppliers of these services to meet the needs of BGS customers are identified through a set of BGS auctions. In those auctions, prospective suppliers compete for the right to provide the energy, capacity and ancillary services that will be needed to meet the needs of a specified proportion (or “tranche”) of the customer load served by one of the four electricity distribution companies (“EDCs”), for a term of either one or three years, depending on the auction.¹ The BGS auctions utilize a multiple-round

¹ There are separate BGS auctions for customers in different rate classes; in addition, customers may migrate away from BGS. Therefore, each tranche for a given EDC actually represents a given proportion

descending clock format, under which the auctioneer announces the price at which a given EDC's tranches will be served for that round, and prospective suppliers respond by indicating the number of each EDC's tranches they are willing to supply at the price announced for that round. The auctioneer then determines the price for that EDC's tranches in the next round, based on a comparison of the number of that EDC's tranches that suppliers were willing to supply at the preceding round's price to the number of tranches of that EDC's load that must be served—i.e., a determination of the amount by which supply exceeds demand at the price announced for the preceding round.

6. My understanding is that LS Power is advocating a third competitive process (auction or RFP) that would be limited to new, in-state generating resources with long term contracts of 15 years to serve a portion of the BGS-FP load. Specifically, the BGS auction would be modified to carve out a portion of the BGS-FP auction from the standard 3-year auction to make available in a separate competitive process for new, in-state-only, generators.²

7. Supporters of this proposed alternative argue that the one- or three-year purchases made through the current BGS auction do not provide sufficient revenue certainty to support the development of new generation in New Jersey, as they only provide revenue certainty for a small portion of a potential new generator's lifespan. The intent of the proposed alternative carve out of part of the load covered in the BGS auction would be to better support the development of additional generation in New Jersey, to

of the load of end-use customers served by that EDC that are in a given set of rate classes and that have not migrated. For the purposes of most of this discussion, I will ignore these complications as they will not affect my arguments, although from time to time, it will be important to mention the ability for end-use customers to migrate from BGS

² LS Power, "Final Comments of LS Power Development, LLC", In the Matter of the Provision of Basic Generation Service for State of New Jersey Board of Public Utilities The Period Beginning June 1, 2010, Docket No. EO 0905035, October 7, 2009, p. 3

improve reliability, produce emissions benefits, and reduce costs by replacing older, less efficient generation with newer, more efficient generation, and create jobs.

8. There seems to be no disagreement among the parties that any procurement process should rely on competitive markets with a broadest definition of the products that meet the stated objectives. Hence the proposal is not to arrange a particular contract for a project offered by LS Power. Rather the proposal is to create an additional auction procedure that carves out part of the BGS load to be served through some other mechanism that would result in longer-term contracts for specific plants offered by the bidders. Because LS Power may not actually be the winning bidder of such a solicitation, my comments focus primarily in the generic question of the procurement mechanism and do not address the details of the LS Power project.

9. The main points concern the nature of the proposed carve out of the BGS auction and the interaction the resulting contracts would have with the reduced BGS auction.

10. Most importantly, the LS Power proposal is not simply to create an extended term for the BGS auction. In fact, the proposal offers a fundamentally different product that would have different risk characteristics, economics, and likely material affects on the existing products included in the BGS auction. As I will discuss in more detail below, the most significant concerns are:

- Differences between the obligations of suppliers in the current BGS auctions and the obligations that would be assumed by suppliers in this proposed long-term procurement procedure would likely increase the cost of procurement in the current short-term BGS auctions, would likely

require end-use customers to bear more risk than they currently bear, and would require the BPU to assume responsibility for allocating those risks among end-use customers, the EDCs, and suppliers.

- Differences between the portfolio of energy, capacity and ancillary services offered by suppliers purchasing/relying on different generators will make it difficult or impossible to use the existing BGS auction mechanism to select winning suppliers under LS Power's proposal to carve out a portion of BGS purchases for long-term purchases arrangements. Instead, it will be very similar to contracting with new generation identified through a request for proposals. Hence, the carve-out is unlikely to achieve the many attractive features of the open BGS auction.
- Long-term purchases at fixed prices increase the risk of significant differences between the cost of energy, capacity and ancillary services and short-term costs of those services, which may induce customers to exit the BGS program. This added risk is likely to raise future prices in the BGS auctions.
- The promised benefits in terms of reliability, emissions benefits, and jobs, and improved efficiency may not materialize, as it is necessary to compare the full impact of any new generation that would be developed under the proposed long-term procurement procedure, including the impact on competing facilities, to assess the net benefits resulting from the development of additional generation. To the extent that it is necessary to

take action regarding issues such as reliability or emissions concerns, there are more efficient ways to address such concerns.

11. Some of these concerns would be addressed by modifying the proposal to make the obligations assumed by winning bidders in the proposed long-term procurement procedure conform to the same product definition as used in the current BGS auctions. In the event that the BPU determines that it should investigate longer-term procurement further, it would be more fruitful to focus on a modified version of the proposal that could be judged on its own merits.

RISKS BORNE BY WINNING BIDDERS IN THE CURRENT SHORT-TERM BGS AUCTIONS THAT WOULD NOT BE BORNE BY WINNING BIDDERS IN THE PROPOSED LONG-TERM PROCUREMENT PROCEDURE

12. Initially, it is important to realize that, apart from the difference in the duration of the purchases, the services that would be procured through the proposed long-term procurement procedure are quite different from the services that are currently purchased in the BGS auctions. Fundamentally, they are materially different products. The BGS product is a full requirements product for delivered load at the end-use customer location. The proposed alternative is in effect a purchase of a particular power plant(s) with some performance guarantees that do not support full requirements or meet the necessary conditions to deliver to and follow the end-use customer load.

13. In the BGS auctions, a winning bidder assumes full requirements responsibility for all of the energy, capacity and ancillary services requirements of its proportion of a given EDC's load. Therefore, if a given tranche represents 10 percent of a given EDC's load, the winning supplier assumes the responsibility to provide 10 percent of the energy, capacity and ancillary services needed to serve that EDC's

customers at each and every point in time over the one- or three-year term of the purchase.

14. This means that winning suppliers assume many risks. Initially, winning suppliers must assume quantity risk, in that they do not know in advance the quantity of energy, capacity or ancillary services that they will need to provide. The amount of energy that must be supplied to meet 10 percent of a given EDC's load, for example, varies from minute to minute. The amount of ancillary services and capacity that must be purchased to meet a tranche's requirements also vary from time to time. In addition, end-use customers may migrate away from BGS, causing an additional level of uncertainty regarding the amount of energy, capacity and ancillary services that must be provided to meet the needs of a given tranche.

15. Winning suppliers also assume price risk, as the price of purchasing energy, capacity and ancillary services to meet the needs of their tranche may vary. They may own or contract with generating facilities that provide energy, capacity and ancillary services which may partially or fully hedge them against the price risks described above, but that introduces a new set of risks. Such suppliers assume performance risk, as the ability to hedge those costs using one's own facilities only exists if those facilities are able to provide energy, capacity and ancillary services when required. They also assume cost risk, in that the cost of fuel and other costs associated with operating their facilities are not known with certainty. Such suppliers also assume risk associated with locational price differences, as the resources that ultimately provide energy, capacity and ancillary services will not necessarily share the same location as the end-use customers included in the tranche they serve. Since the prices for each of these services can vary from location

to location, that means that a winning supplier in the current BGS auction must cover the risk that it will need to pay the price difference between the location where its generating facilities are located and the location of the loads in its tranche. The customer does not bear the risks of the volatility in these locational differences.

16. In contrast, it appears that under the proposed long-term procurement procedure, winning suppliers would assume few of these risks. Winning suppliers, under the proposal, would sell the energy, capacity and ancillary services produced by a given new generator for a fixed price per MWh produced, plus the variable cost incurred to produce that energy. Therefore, they would not assume quantity risk, as variation in the amount of energy, capacity and ancillary services necessary to meet the needs of a given EDC's customers would not affect them. Similarly, they would not assume price risk, as they would assume no obligation to cover the difference between the services their generator would provide and the services required to meet the needs of a tranche of a given EDC's customers. They also would avoid most of the cost risk, as the variable costs associated with operating new generation would be passed on to some group of end-use customers. And it appears that they would avoid the risk of locational price differences, as I am unaware of any suggestion that the winning bidders in this proposed long-term procurement procedure cover differences in the locational marginal prices (LMPs) at the location of their generators and the location of any specifically identified set of customers for any EDC, or any costs reflecting locational price differences for capacity or ancillary services.

17. It has been suggested that winning suppliers would assume some performance risk, so that they might be liable in the event that their generators are unable

to produce energy, capacity or ancillary services, but the specifics of this guarantee are not clear. It is easy to envision “guarantees” that would not require winning bidders to assume all performance risk—e.g., if all that is guaranteed is that a generator will meet a minimum performance standard, then the owner of that generator would not assume the risk of variations in that generator’s output above that minimum standard. In any case, even if this guarantee were to assure that winning bidders assumed all performance risk such suppliers would nevertheless assume far less risk than do winning bidders in the current BGS auctions.

18. Yet those risks still exist, so someone needs to bear them. Some of these risks could be assigned to participants in the current BGS auctions. For example, current BGS suppliers could be required to provide the difference between (1) a specified percentage of a given EDC’s load and (2) a specified percentage of the energy produced by generators whose energy is being purchased under the proposed alternative long-term procurement procedure. This would increase the quantity risk that bidders in the short-term BGS auctions face, as it would introduce an additional element of uncertainty in the amount of energy, capacity and ancillary services they should be prepared to provide. It is very likely that this would cause bidders in these auctions to increase the minimum price at which they are willing to supply tranches in those auctions, as they either would need to be compensated for those additional risks, or would need to undertake arrangements to hedge those additional risks and would need to recover the costs of those hedging arrangements. Consequently, shifting some of these risks to the short-term BGS auctions would likely increase the price of BGS service.

19. It is hard to see how some of these risks could be assigned to winning bidders in the current short-term BGS auctions without fundamentally changing the structure of those auctions. For example, consider the risks associated with locational price differences. Even if the quantity of energy provided by a given new generator was equal to the amount of energy needed to serve a tranche of a given EDC's load, the LMP at that generator's location is likely to differ from the average LMP at the locations of that EDC's load. This difference would have to be shouldered by end-use customers. End-use customers would also have to assume much of the cost risk, as the variable cost the new generator would incur to produce energy would be passed through to them. (They also might assume the other risks, if those risks are not assigned to winning bidders in short-term BGS auctions.)

20. This will open the question of which EDC's loads should be assigned these long-term purchases and have the proportion of their loads served by the short-term BGS auction reduced to account for these long-term purchases. These loads would also have to bear these costs, which are currently borne by sellers in the short-term BGS auctions. Part of the purpose of BGS was to avoid the need for the BPU to undertake such proceedings and make the difficult judgments implied.

ABILITY TO APPLY THE CURRENT BGS AUCTION STRUCTURE TO THE PROPOSED LONG-TERM PROCUREMENT PROCEDURE

21. Supporters of the proposed long-term procurement procedure describe it as an extension of the existing BGS auctions. However, I question whether the BGS auction procedures can be extended to cover the proposed long-term procurement procedure, due to differences between the value of the energy, capacity and ancillary services that different generators would be able to provide.

22. Under the current BGS auction structure, bidders to serve a tranche of a given EDC's load assume precisely the same obligations. Winning bidders must provide the same amount of energy, capacity and ancillary services at the same locations. As a result, the selection of winning bidders can be based solely on price. As successively lower prices are announced in each round of the descending clock auction, the number of a given EDC's tranches that bidders are willing to supply decreases, until it eventually equals the number of tranches that must be served. The winning bidders for each EDC's tranches are the suppliers who were willing to meet the needs of that EDC's load at the lowest price. There is no need to consider any other characteristics of each supplier's bid as every bidder is providing a fungible product

23. In contrast, the value of long-term purchases from different generators could differ enormously, meaning that the supplier with the lowest price may not, and often will not, provide the best value for end-use customers. Since the value of energy, capacity and ancillary services depends on the location of the generator, the services that would be provided by one generator at a location where prices are generally lower would be worth less than services provided by a generator at another location where prices are generally higher. The costs that generators incur also matter, since under the proposal, generators would be permitted to pass through the variable costs that they incur when producing energy. This would tend to make generators with higher variable costs a worse deal than generators with lower variable costs. Performance risk also comes into play, as it is possible that loads would be exposed to the risk of purchasing energy, capacity and ancillary services if the generator is unable to provide those services.

24. Any reasonable plant specific long-term procurement procedure would need to take all of these factors into account, in addition to the price at which a given generator offers its services, the operational experience and guarantees of the generator, the type of technology, the availability of fuel, etc. Assessing the consequences of differences between competing generators' locations, for example, on the value of the services they provide will entail some degree of judgment, as it will be necessary to consider not only the projected prices of energy, capacity and ancillary services at each generators' locations but also the degree of certainty attached to those estimates. This is not the sort of thing that the descending clock auction is designed to do. The descending clock auction is intended to determine the lowest price at which suppliers will be willing to provide a homogenous product, but it is quite likely that the products that different suppliers in the proposed long-term procurement procedure would be offering would not be homogeneous.

25. Consequently, determining the winning suppliers is not a task to which the existing BGS procurement mechanism, the descending clock auction, is well suited. Instead, the proposed long-term procurement procedure would more closely resemble procurement using a request for proposal ("RFP"). It would be necessary to solicit bids, and to determine the winning bidders not solely based on price, but also on many other attributes of each proposal. As a result, the proposed long-term procurement procedure really boils down to a proposal to enter into long-term contracts with new generators identified through RFPs.

26. In other words, the proposed alternative creates the procurement problems that the BGS auction was designed to avoid and creates risks for customers that the BGS

was designed to shift away from customers. Depending on how the process unfolds, it might sufficiently undermine the BGS auction as to make the whole system unravel.

27. Of course, the concept of issuing RFPs for new generation, and contracting for long-term purchases with some of the generators that are identified through responses to the RFP, is hardly a novel concept. This is an approach that has been used for years, and which continues to be used in many areas today. But it is important to realize the potential consequences of such a move. Offering to enter into long-term contracts with new generation may discourage anyone from building new generation without such contracts. As a result, the state might, over time, have to contract with all new generation, assuming greater and greater risks for customers

28. There are two similar, but slightly different, reasons why the implementation of this approach could induce all developers of new generators to insist on long-term contracts. The first results from the fact that the terms of the long-term contracts differ from contract to contract. It is likely that some of those contracts will be perceived as relatively favorable to the developer, providing the developer with better terms than he or she would have received elsewhere. If other developers perceive this (correctly or incorrectly), they may prefer such contracts too.

29. The second reason has to do with concerns over the exercise of market power on behalf of purchasers. Often, it may be in the short-term interest of buyers of energy, capacity and ancillary services to contract with a new generator to provide additional energy, capacity and ancillary services, even if the price that would need to be paid for those services exceeds the market value of those services, because the additional supply would drive down the price of energy, capacity and ancillary services purchased

from other suppliers in the market. The savings that would be realized due to the suppression of cost of market purchases may exceed the cost of the above-market purchases from the new generator.

30. At first blush, this may seem to be a good thing: a case where competition has driven down prices, as it is supposed to do. However, this view is myopic, because in this case, prices were not driven down by a competitor entering the market in the expectation that it would be able to operate profitably, given market prices. Instead, this competitor was subsidized. It was paid above-market prices in order to suppress the prices paid to others.

31. Competitive markets should lead to efficient behavior, as development of a new generator should only proceed when the net present value of the cost of developing, constructing and operating that generator is less than the net present value of the energy, capacity and ancillary services that generator can provide. If generators' revenues reflect the market-determined value of those services, then developers will only have incentives to proceed with development when they believe the generators they plan to develop are consistent with competitive outcomes. But if developers' revenues are based upon payments from a long-term contract issued in response to an RFP, as opposed to revenues determined through the market, they may proceed with development that they believe is inefficient and inconsistent with competitive outcomes. The inefficiencies are created because the revenue they receive from payments under the contract exceeds the cost of developing, constructing and operating the new generator, even though the anticipated market value of the services that new generator would provide fall short of the

costs of developing, constructing and operating that generator. As a result, an RFP-driven approach to new generation may yield inefficiency.

32. Moreover, even if this approach appeared to be in the short-term interests of end-use customers, it would not be in their long-term interest, because developers would be aware of these incentives. Consider a developer that is considering building new generation in the belief that it could do so profitably, given its expectations of future market prices for energy, capacity and ancillary services. Such a developer would be much more hesitant to proceed with such plans if it anticipated that those prices would be suppressed in the future by the subsidized entry of new generation that was being built not because it could cover its costs in the market, but instead because it was intended to suppress prices that other generators would receive.

33. Instead, if developers expect prices to be suppressed below competitive levels as a result of the development of uneconomic new generation funded by long-term contracts, they will insist on long-term plant specific contracts of their own. As a result, all new generators may require long-term contracts. This would preclude competitive electricity markets from providing many of the benefits that were hoped for when those markets were initially developed. Much of the impetus for the development of those contracts came from the results of long-term planning processes conducted by utilities and state regulatory commissions, which identified new generators which did not always earn their keep. Nevertheless, end-use customers had to pay these stranded costs. Competitive electricity markets, on the other hand, would give developers incentives to identify profitable opportunities for the development of new generation. If they were correct in identifying such opportunities, they would realize the profits, and if they were

wrong, they would absorb the losses. An RFP-driven approach to identifying new generation would eliminate these potential benefits from the development of competitive electricity markets. As such, it would not be in the long-term interest of end-use consumers.

CONSEQUENCES OF LONG-TERM PROCUREMENT GIVEN THE POTENTIAL FOR MIGRATION FROM BGS

34. Another concern pertains to the duration of the commitment that would result from entering into long-term contracts with new generation, contrasted with the ability for BGS customers to migrate from BGS at any time.

35. Load-serving entities (“LSEs”) can manage their risks by matching the duration of their purchase obligations to the duration of their sales. So, an LSE with contracts to serve a retail customer for three years could manage its risks by entering into arrangements to purchase the energy, capacity and ancillary services required to meet that customer’s needs for three years. To the extent it is able to match the duration of its purchases to the duration of its sales, it avoids the need to make spot purchases in the ISO-administered markets, and the attendant price risk.

36. If the proposed long-term procurement procedure were adopted, New Jersey’s EDCs would effectively be required to enter into long-term contracts with new generators, as described above, to provide service to end-use customers that are served under BGS. However, the EDCs do not have a long-term sales agreement with those end-use customers. The customers can migrate from BGS at any time. As a result, the duration of the purchase commitments made to new generators supplying BGS service would not match the duration of the sales commitments to BGS end-use customers.

37. This creates unhedged risk. Consider what would happen if, over time, market prices of energy, capacity and ancillary services fall below the prices specified in these long-term contracts. In that case, the costs incurred by BGS customers would exceed costs incurred by other customers pay prices that reflect current market levels. This would give BGS customers an incentive to migrate away, thereby avoiding the need to cover the costs of these long-term contracts. In turn, that would mean that the costs of those contracts need to be borne by a smaller group of BGS customers, giving them an even larger incentive to migrate away from BGS.

38. There are two possible conclusions to this scenario, neither of them desirable. Under one scenario, so many customers migrate away from BGS so that it becomes impossible to recover those costs of those long-term contracts from BGS customers because there are so few of them. In effect, these long-term contracts would become stranded costs, which would need to be funded in some manner.

39. Alternatively, there may be a subset of customers who, for some reason, cannot migrate away from BGS. If there are enough such captive customers, they might be able to cover the costs of these long-term contracts with generators. However, this means that the costs of these purchases would be disproportionately incurred by the smallest and least well-off customers. It is questionable, to say the least, whether the BPU should pursue policies that may have such an outcome.

40. In contrast, by focusing on one- to three-year term purchases, the current BGS structure minimizes this risk. The nature of current BGS purchases makes it less likely that there will be significant divergence between the price of BGS purchases and current market prices, simply because market prices are likely to move further in a long

time period than in a short time period. In the event that there is such a divergence (because market prices have changed significantly in a short time period), the nature of current BGS purchases ensures that those purchases will not last for too long, thereby ensuring that the BGS price is not held at uncompetitive levels for long periods of time. The transient nature of any such divergence between BGS prices and the price of service for non-BGS customers limits incentives for BGS customers to migrate, leaving BGS purchase obligations behind.

OTHER CLAIMED BENEFITS FROM THE DEVELOPMENT OF NEW GENERATION

41. It is claimed that the new generation that would be provided as a result of the proposed long-term procurement procedure would improve reliability and efficiency, reduce harmful emissions, and create jobs. However, it is far from clear that this proposal would actually yield these benefits.

42. In order to determine the net impact of a proposal, it is first necessary to determine *all* of the consequences of that proposal, and then to compare those consequences to what would have happened if the proposal had not been implemented.

43. Consider the impact of the proposed long-term procurement procedure on jobs, for example. Proponents of the proposal state that it would create jobs, both during the construction phase, and when the generator becomes operational. However, development of the new generator might prompt other generators to retire, which would cost jobs. The net impact on jobs is therefore indeterminate.

44. In the alternative, suppose that the proposed long-term procurement procedure is not adopted. Developers would still have incentives to develop new generators when they believe that the revenues such generators can earn will exceed the

cost of developing, constructing and operating those generators. Consequently, new generators might still be developed. Suppose that they are, and also suppose that the location of those new generators, the size of those generators, and the technology used by those generators are similar to what would have been developed under the proposed long-term procurement procedure. In that case, the institution of the proposed long-term procurement procedure would not change the net impact on jobs, as it did not affect which generators would be developed.

45. By design the long-term procurement restricts eligible generators and eliminates lower cost alternatives for meeting load. As a result, the LS Power proposal would mandate the development of at least some generation in amounts, locations, or sizes that are not needed to meet load. If the LS Power proposal increases the costs incurred by BGS customers, the additional costs those customers incur might have been spent elsewhere if the new generator had not been developed, supporting jobs in other industries. If, instead, the LS Power proposal decreases revenues realized by the owners of existing generation, it will reduce their profits, and consequently their ability to pass those profits to their shareholders, who could then use those profits to support jobs in other industries. Either way, if the proposed long-term procurement procedure leads to inefficient development of generation, the resources that were inefficiently devoted to the development of the new generation could have been devoted elsewhere instead, more efficiently supporting the development of new jobs. Similar critiques apply to the other benefits that are claimed for new generation that would be developed under the aegis of the proposed long-term procurement procedure.

46. In general, the best way to solve a problem is to develop a mechanism that is targeted on solving that problem of meeting load and the various associated reliability and ancillary services requirements. So, for example, if there is a concern about reliability within a portion of New Jersey, then the capacity market should reflect the need for capacity in a given location, which would give developers price signals to develop any capacity that is needed to buttress reliability in that location. Similarly, concerns about emissions are best addressed by charging generators for harmful emissions, thereby giving developers incentives to build plants with lower emissions.

47. These mechanisms will meet policy objectives such as any desired improvements in reliability or reductions in emissions more efficiently than will proposals to identify a particular method for meeting that policy objective, as that method may not be the most efficient method. Reliability concerns, for example, might be more efficiently addressed through transmission system modifications or repowering of existing generators than by the construction of new generators. Emissions concerns might be more efficiently addressed by repowering or by the development of demand response resources. Efficient procedures for addressing these public policy goals would focus on identifying the most efficient means for reaching those goals, instead of assuming the means.

ELIMINATING THE REQUIREMENT FOR WINNING BIDDERS TO BUILD NEW GENERATORS WOULD IMPROVE THE PROPOSAL

48. While extending the term of obligations assumed under the BGS auction would create its own issues, longer-term commitments could be addressed within the BGS framework. Any proposed long-term procurement procedure would be improved considerably if it focused simply on long-term procurement—i.e., if it did not restrict the

eligible winners or require them to construct new plants. The product would be full requirements service, not plant-specific contracts.

49. One of the great strengths of the existing BGS auctions is their focus on obtaining the best possible price at which the needs of each EDC's load can be served. To do this, they permit anyone to participate (subject to reasonable constraints that are intended to ensure that only financially responsible entities assume the obligation to provide BGS service), without imposing artificial constraints that exclude certain categories of competitors. In contrast, imposing constraints requiring winning bidders to build generating facilities with 100 MW of generating capacity would limit participation, and would therefore be quite likely to drive up the price at which energy, capacity ancillary services are provided, as it may require them to build unnecessary and/or uneconomic generation, whose costs would have to be shouldered by end-use customers in New Jersey.

50. Eliminating the unnecessary requirement stating that long-term purchases be made only from entities that are building new generators with generating capacity of 100 MW or more could also permit changes in the proposed long-term procurement procedure that would alleviate many of the other concerns I expressed above. New capacity issues would be better addressed through the mechanisms of the PJM Reliability Pricing Model (RPM).

51. If the services to be purchased in the long-term procurement procedure were identical to the services currently purchased in the current BGS auction, so that winning bidders were required to supply the energy, capacity and ancillary services needs of a given proportion of a given EDC's BGS customers, with the only difference being

that the purchase commitment lasts considerably longer than the one- or three-year commitments in the current BGS auctions, it would then be possible to use the existing BGS auction structure when identifying the winning bidders for long-term BGS service. In contrast to the specific plant auction proposed by LS Power, this would make it more likely that those services would be purchased at the lowest possible price, because it would not be necessary to compare competing offers to provide long-term BGS service that vary in many different dimensions. Instead, all bidders would be competing to provide the same service, permitting the selection of the winning bidder to be made purely based on which bidders offer the best price.

52. In addition, if the obligations assumed by winning bidders in the long-term procurement procedure with respect to a given tranche were identical to those currently assumed by winning bidders in the short-term BGS auctions, the concerns that I raised above regarding the risks that would be shifted to end-use customers or suppliers in the short-term BGS auctions would no longer apply. Suppliers identified in the long-term BGS auction would assume the responsibility to meet the needs of a given tranche, which will fluctuate, so they would assume quantity risk. They would assume price risk associated with the unpredictability of the price at which they would need to purchase or sell the difference between the energy, capacity or ancillary services needed to serve their tranche, and the amount of each of those services that can be provided by resources under their control. They would assume all performance risk associated with the variations in the ability of those resources to provide energy, capacity or ancillary services, and all risks associated with variations in the cost of inputs, such as fuel, that are used to provide these services. And they would assume all risks associated with price differences

between the location of whichever generators they use to provide these services and the price of those services at the locations of the end-use customers in the tranche.

53. Additionally, as I mentioned above, in the wake of stranded costs resulting from generating facilities that were developed in conjunction with the integrated planning processes adopted by various utilities and state regulators, it was hoped that competitive electricity markets would provide improved incentives for developing the right kind and size of generating facilities in the right locations. By breaking the unnecessary and counterproductive requirement for those assuming the obligation to serve a BGS load to also build new generators to serve that load, instead of permitting them to select whichever method for hedging those obligations they consider most appropriate given their respective portfolios of service obligations and assets, the BGS-like alternative to the proposed long-term procurement procedure would also address the concern that the long-term procurement procedure would lead to the development of inefficiently large amounts of generating capacity in New Jersey.

54. None of this is to say that I necessarily endorse revamping the current BGS auction structure to incorporate long-term purchases. While the modification to the proposed long-term procurement procedure that I suggest here would address many of the concerns with that procedure that I described above, it does not address all of those concerns. In particular, it does not address my concern with what might happen if significant differences develop between the price stated in these long-term BGS purchases and short-term prices that non-BGS customers can pay, which may give customers incentives to migrate to or from BGS.

55. However, it is possible that long-term procurement could provide some benefits as well. Entities seeking to build new generation certainly might be interested in participating in a long-term BGS auction, as the duration of the sale made by winning bidders in such an auction would match to a degree with the services they would be able to provide if they build new generation. As a result, a long-term BGS auction might attract participation by entities who are not currently participating in BGS auctions due to the lack of a long-term sale option.

56. But the likelihood that adding long-term BGS auctions would reduce the cost of BGS service would be considerably greater if counterproductive restrictions, such as the requirement that winning bidders build new generation with more than 100 MW of generating capacity, were dropped. Therefore, if the BPU determines that further investigation is warranted as to whether the current BGS auction structure could be improved through the addition of a long-term procurement procedure, I recommend that that investigation focus on the modified version of that procedure that I describe here.

57. This concludes my affidavit.

A handwritten signature in black ink, appearing to read "William W. Hogan". The signature is written in a cursive style with some flourishes.

William W. Hogan