170 FERC ¶ 61,051 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman; Richard Glick and Bernard L. McNamee.

New York Independent System Operator, Inc.

Docket No. ER18-1743-002

ORDER DENYING REHEARING

(Issued January 24, 2020)

1. On October 5, 2018, the Commission issued an order accepting New York Independent System Operator, Inc.'s (NYISO) filing made pursuant to section 205 of the Federal Power Act (FPA),¹ which revised sections 2.12 and 5.11 of its Market Administration and Control Area Services Tariff (Services Tariff)² to revise the methodology used to determine Locational Minimum Installed Capacity Requirements (LCRs) in the Installed Capacity (ICAP) market, effective October 9, 2018.³

2. On November 5, 2018, Long Island Power Authority and its wholly owned subsidiary, the Long Island Light Company d/b/a Power Supply Long Island (LIPA), filed a timely request for rehearing of the LCR Order.⁴ In this order, we deny that rehearing request.

I. <u>Background</u>

3. Each year, New York State Reliability Council, L.L.C. (NYSRC) establishes the Installed Reserve Margin (IRM) for the upcoming Capability Year, which spans the period beginning May 1 of a given year and ending April 30 of the following year. The IRM is expressed as a percentage, and NYISO multiplies this value by the forecasted

¹ 16 U.S.C. § 824d (2018).

² NYISO, Services Tariff, <u>NYISO MST, 2.12 MST Definitions - L (8.0.0)</u> and <u>NYISO MST, 5.11 MST Requirements Applicable to LSEs (8.0.0)</u>.

³ N.Y. Indep. Sys. Operator, Inc., 165 FERC ¶ 61,011 (2018) (LCR Order). The proposed revisions also renumbered certain tariff sections and eliminated obsolete language.

⁴ LIPA November 5, 2018 Rehearing Request (Rehearing Request).

peak load for the New York Control Area (NYCA) to calculate the statewide minimum ICAP requirement for each Capability Year, which is expressed in megawatts (MW).

4. NYISO's ICAP market⁵ rules require all load-serving entities (LSEs) to purchase a specified amount of capacity to count toward this statewide minimum, based on each LSE's coincident peak load. LSEs with customers in certain transmission-constrained areas, defined as Localities, must fulfill a portion of their respective purchase obligations from capacity resources electrically located within those areas, i.e., LCRs. NYISO has designated three such Localities: the G-J Locality, which is composed of load zones G, H, I, and J in the Lower Hudson Valley; New York City (Zone J), which is nested within the G-J Locality; and Long Island (Zone K).

5. Prior to the instant proceeding, NYISO determined LCRs using the Unified Method. The Unified Method recognizes the fact that the loss-of-load-expectation (LOLE) reliability standard used by NYSRC in setting the IRM may be achieved by carrying many different combinations of ICAP in various locations.⁶ With the creation of the G-J Locality, NYISO supplemented the Unified Method with steps to calculate the LCR for the G-J Locality. Since 2016, NYISO and stakeholders had been exploring alternatives to the Unified Method, because of concerns that it was not designed to accommodate nested Localities (such as the G-J Locality), and that anomalous LCR results had been observed when generators entered or exited the G-J Locality.⁷

6. On June 5, 2018, NYISO filed, in the instant proceeding, its proposed Alternative LCR Methodology to revise the methodology used to determine LCRs in the ICAP market. NYISO stated that the Alternative LCR Methodology uses an economic optimization algorithm to minimize the total cost of capacity for the NYCA, which will result in lower total ICAP costs than the LCRs established using the Unified Method. NYISO asserted that the Alternative LCR Methodology will maintain the 0.1 days/year LOLE reliability standard, respect the NYSRC-approved IRM, and avoid violations of

⁶ NYISO June 5, 2018 Transmittal at 3 (Transmittal).

⁵ The ICAP market is designed to ensure that there is sufficient generating capacity available to supply energy needs while providing adequate operating reserves. The product bought and sold in the ICAP market is called unforced capacity (UCAP). UCAP represents the amount of ICAP that is available at a particular time; it is the amount of ICAP available, adjusted for periods that resources are not available to supply ICAP due to forced outages.

⁷ NYISO August 9, 2018 Deficiency Letter Response, Attachment I at 2–4 (Deficiency Response).

transmission security limits.⁸ On July 10, 2018, Commission staff issued a deficiency letter requesting additional information from NYISO. On August 9, 2018, NYISO submitted its Deficiency Response.

7. On October 5, 2018, the Commission issued an order accepting NYISO's tariff revisions containing the Alternative LCR Methodology. On November 5, 2018, LIPA filed its Rehearing Request.

II. Discussion

A. LOLE Reliability Standard

8. In the LCR Order, the Commission found that the Alternative LCR Methodology satisfies the 0.1 days/year LOLE reliability standard while economically optimizing the LCRs to minimize the total cost of procuring capacity in NYCA.⁹ On rehearing, LIPA argues that the Commission's conclusion is not supported by substantial evidence.¹⁰ LIPA asserts that NYISO only explained the design of the Alternative LCR Methodology and its intended treatment of the 0.1 days/year LOLE standard within the design rather than provide a demonstration or certification that the algorithm produces a result that meets the LOLE standard. In contrast, LIPA argues that it provided actual data and analysis on LOLE results from the application of the Alternative LCR Methodology.¹¹

9. We are unpersuaded by these claims. NYISO presented sufficient record evidence in this proceeding to support its claim that the Alternative LCR Methodology will meet the 0.1 days/year LOLE reliability standard. In NYISO's Deficiency Response, NYISO explained that it was a fundamental and absolute design condition for the Alternative LCR Methodology to identify LCRs that satisfy the 0.1 days/year LOLE criterion.¹² NYISO stated that, to meet this primary objective, GE Energy Consulting developed the economic optimization as an iterative program within the GE Multi-Area Reliability

⁹ LCR Order, 165 FERC ¶ 61,011 at P 47.

¹⁰ Rehearing Request at 38-41.

¹¹ Id. at 40-41.

¹² Deficiency Response, Attachment I at 9.

⁸ Transmittal at 3.

Simulation (GE MARS) tool to produce LCRs for a defined IRM that meets the LOLE criterion.¹³

NYISO explained that the economic optimization program works by minimizing 10. the cost of capacity procurement within a set of given constraints that are user defined. NYISO explained that, in the Alternative LCR Methodology, GE MARS is run for each iteration of the optimization to ensure the LOLE standard is met when the model has found the least cost solution. Further, each set of LCR combinations evaluated by the optimization tool iteratively runs GE MARS at 2,500 replications, producing results from GE MARS simulations that allow NYISO to confirm that the results meet the LOLE standard. NYISO stated that the optimization stops when the least cost solution is found and a 0.1 days/year LOLE is met using the resulting LCR values.¹⁴ NYISO asserted that the results are verified by reviewing the GE MARS outcomes for the final iterations to confirm the solution meets the 0.1 days/year LOLE standard. In Attachments III and IV (Exhibits 1-39) of its Deficiency Response, NYISO presented the results of the sensitivity analyses NYISO conducted with GE to support the development and refinement of the proposed Alternative LCR Methodology. Thus, NYISO submitted evidence sufficient to support its proposal.

11. Moreover, LIPA has not provided evidence that would persuade us otherwise. LIPA presents different LOLE values in support of its position, but its evidence is inherently different from the LOLE values calculated by NYISO because LIPA relies on a masked version of the IRM database.¹⁵ NYISO stated that an unmasked version of the database is required to reproduce LCRs under the Alternative LCR Methodology, but that the unmasked database cannot be shared with market participants "because it contains a great deal of [market participant confidential information], such as generator output, generator availability, heat rates and transition rate data."¹⁶ LIPA's inability to independently reproduce NYISO's results does not undercut the value of the evidence provided by NYISO. Accordingly, we affirm that there is record evidence to support the Commission's conclusion that the Alternative LCR Methodology will satisfy the 0.1 days/year LOLE reliability standard.

¹³ Id.

¹⁴ Id. at 10.

¹⁵ LIPA August 30, 2018 Comments, Exhibit A at ¶ 5.

¹⁶ Deficiency Response, Attachment I at 15.

B. <u>Sufficiency of NYISO's Tariff Language and Alternative LCR</u> <u>Methodology</u>

12. In the LCR Order, the Commission found that the Services Tariff contains sufficient information regarding the determination of LCRs to satisfy the requirement that practices significantly affecting rates and services be filed with the Commission and that the "rule of reason" does not require NYISO to make further revisions to the Services Tariff.¹⁷

13. On rehearing, LIPA argues that NYISO's brief, vague tariff language violates the filed rate doctrine.¹⁸ LIPA asserts that the Services Tariff amendments contain inadequate detail on material factors and elements of the Alternative LCR Methodology. LIPA provides the following examples to support its point: (1) the Services Tariff contains no formula for the calculation of the LCRs under the Alternative LCR Methodology; (2) the Services Tariff language fails to identify core assumptions, procedures, and analytical procedures that will be used in the Alternative LCR Methodology; (3) the Services Tariff states that NYISO will ensure that transmission security limits "are respected," but does not detail what factors will be considered or how the inputs to transmission security limits will be weighted; and (4) NYISO pledges to "utilize results from probabilistic modeling of reliability simulations," but does not specify any particular form of probabilistic modeling.¹⁹ We find LIPA's arguments to be unpersuasive and affirm the Commission's prior conclusions.

14. We reiterate that the detail contained in the Services Tariff regarding the Alternative LCR Methodology is consistent with the Commission's "rule of reason."²⁰ As the Commission has stated,

[u]nder the rule of reason, the Commission does not require such contracts to be filed unless they significantly affect rates and services. In deciding what must be filed, the Commission balances the need for full disclosure of pertinent contracts, which provide real benefits to existing and potential customers, against the burden that would be imposed by

¹⁷ LCR Order, 165 FERC ¶ 61,011 at P 53.

¹⁹ *Id.* at 43-44.

²⁰ LCR Order, 165 FERC ¶ 61,011 at P 53.

¹⁸ Rehearing Request at 42-46.

requiring public utilities to file contracts that do not significantly affect rates and services.²¹

15. The rule of reason recognizes that there are an "infinitude of practices affecting rates and services,"²² and "allows the Commission to exercise its discretion to allow utilities to forego filing particular contracts or practices."²³ As we stated in the LCR Order, the Services Tariff sets forth the process for determining the LCRs for each Locality and outlines the parameters of the LCR calculation.²⁴ Moreover, NYISO indicated that it will post a public version of the procedure used to develop the LCR values, including the methods used to develop transmission security limits, net cost-of-new-entry (net CONE) curves, and the mechanics of running the optimizer.²⁵ NYISO explained that this is consistent with current practice, in which the LCR calculation process to stakeholders.²⁶ We affirm that these procedures provide stakeholders with sufficient transparency into the LCR-setting process.

16. While LIPA seeks additional technical details in the Services Tariff, we do not find these details to be necessary. We agree with NYISO that the Services Tariff contains the appropriate level of detail. NYISO explained that adding further technical details comprised of each facet of the Alternative LCR Methodology could limit NYISO's ability to accommodate changes to the NYSRC processes and future system resource and transmission changes.²⁷ We agree with this rationale. The Commission has

²¹ PacifiCorp, 127 FERC ¶ 61,144, at P 11 (2009) (PacifiCorp).

²² City of Cleveland v. FERC, 773 F.2d 1368, 1376 (D.C. Cir. 1985).

²³ PacifiCorp, 127 FERC ¶ 61,144 at P 9 n.14 (citing Pub. Serv. Co. of Colo., 67 FERC ¶ 61,371, at 62,267 (1994)). Town of Easton v. Delmarva Power & Light Co., 24 FERC ¶ 61,251, at 61,531 (1983) ("[A]s we have stated on several occasions 'the determination of what agreements 'affect or relate to' electric service within the purview of section 35.2(b) must be judged by the rule of reason.") (quoting Pacific Gas and Elec. Co., 7 FERC ¶ 61,267, at 61,565 (1979), affirmed, Pacific Gas and Elec. Co. v. FERC, 679 F.2d 262 (D.C. Cir. 1982)).

²⁴ LCR Order, 165 FERC ¶ 61,011 at P 53.

²⁵ Deficiency Response, Attachment I at 15.

²⁶ Id.

²⁷ Id. at 18.

previously recognized that, consistent with the rule of reason, not all specific assumptions and methodologies that impact an installed capacity requirement need to be listed in the tariff.²⁸ We find that same principle applies here.

17. We also disagree that an annual filing of LCR values is necessary and do not find LIPA's citation to *ISO New England Inc.*²⁹ to be compelling on this point. LIPA argues that, in that proceeding, the Commission noted that ISO-NE's tariff requires an annual FPA section 205 filing showing the basis of its installed capacity requirement calculations.³⁰ However, the Commission did not impose that condition in the *ISO New England Inc.* proceeding. Under FPA section 205, a transmission provider such as NYISO has discretion to determine what to propose in its filing.³¹ Here, the Commission found NYISO's proposal to be just and reasonable and not unduly discriminatory or preferential without the annual filing requirement and we affirm that finding here.³²

18. Finally, we find unpersuasive arguments that the Commission failed to address the following matters within LIPA's June 26, 2018 Protest: (i) NYISO's alleged failure to model and analyze "known" likely future system conditions; and (ii) the sensitivity of the Alternative LCR Methodology to actions, such as election of unforced deliverability rights, taken in Zone J that adversely affect Zone K. LIPA's arguments reduce to a disagreement with NYISO regarding the number and type of sensitivity analyses that

²⁹ 155 FERC ¶ 61,145.

³⁰ Rehearing Request at 47-48.

³¹ Midwest Indep. Transmission Sys. Operator, Inc., 153 FERC ¶ 61,229, at P 168 (2015); Sw. Power Pool, Inc., 131 FERC ¶ 61,252, at P 117 (2010); W. Mass. Elec. Co., 23 FERC ¶ 61,025 (1983) (company has the right in the first instance to change its rates as it will, unless it has undertaken by contract not to do so), aff'd sub nom. Commonwealth of Mass. v. FERC, 729 F.2d 886 (1st Cir. 1984).

³² See, e.g., City of Bethany v. FERC, 727 F.2d 1131, 1136 (D.C. Cir. 1984) (when determining whether a proposed rate was just and reasonable, the Commission properly did not consider "whether a proposed rate schedule is more or less reasonable than alternative rate designs").

²⁸ See ISO New England Inc., 155 FERC ¶ 61,145, at P 11 (2016) ("Also consistent with the rule of reason, the ISO-NE Tariff does not list all of the specific assumptions or methodologies that could impact the ICR and/or load forecast, as those factors could vary year-by-year and therefore are not 'reasonably susceptible to specification.'") (internal citations omitted).

NYISO should have conducted prior to filing its proposal with the Commission.³³ In the LCR Order, the Commission acknowledged LIPA's desire for NYISO to have studied specific sensitivities,³⁴ but found that NYISO's analysis of over 80 sensitivities— assessing both the Unified Method and the Alternative LCR Methodology across two different IRM databases³⁵—adequately reflected the performance of the methodology across a range of scenarios involving generation retirements and transmission topology changes.³⁶ Because the Commission addressed LIPA's arguments regarding these specific sensitivities in the LCR Order, and LIPA now fails to articulate why the Commission's reasoning was inadequate, we deny rehearing on these matters.

C. <u>Alignment of Reliability Costs and Benefits</u>

19. In the LCR Order, the Commission found that the Alternative LCR Methodology results in a cost-effective and efficient set of capacity requirements by producing lower overall capacity costs to consumers and continuing to send the appropriate price signals to attract and retain the required investment in resources to maintain a reliable system.³⁷ The Commission also stated that the reliability benefits associated with the LCRs under the Alternative LCR Methodology are roughly commensurate with the costs associated with satisfying those locational capacity purchase obligations.³⁸ On rehearing, LIPA takes issue with these findings.

1. <u>Evidentiary Burden</u>

20. LIPA asserts that NYISO failed to provide any evidence showing alignment of costs and benefits under the Alternative LCR Methodology. LIPA argues that the Commission failed to require NYISO, as the filing utility, to meet the burden of proof and to provide quantification of costs and benefits in a manner capable of demonstrating that the roughly commensurate standard has been met.³⁹ LIPA argues that NYISO

³³ Rehearing Request at 41-42.

³⁴ LCR Order, 165 FERC ¶ 61,011 at P 33, n.34.

³⁵ Deficiency Response, Attachment I at 5.

³⁶ LCR Order, 165 FERC ¶ 61,011 at P 52.

³⁷ *Id.* P 48.

³⁸ Id. P 70.

³⁹ Rehearing Request at 16-17.

simply asserted that the Alternative LCR Methodology will provide LCR values consistent with their historic range, and that the Commission engaged in an "improper attempt" to rescue NYISO from its failure by relying on generalized assumptions.⁴⁰ LIPA also claims that these generalized assumptions and observations regarding costs and benefits do not quantify benefits for the purpose of examining "rough commensurability."⁴¹

21. We are unpersuaded by these arguments. NYISO stated in its original filing that the Alternative LCR Methodology uses an economic algorithm to minimize the total cost of capacity for the NYCA, which will result in lower total ICAP costs than the LCRs established using the Unified Method. NYISO also explained that the Alternative LCR Methodology will maintain the 0.1 days/year LOLE reliability standard, respect the NYSRC-approved IRM, and avoid violations of transmission security limits.⁴² NYISO demonstrated that the LCRs resulting from the Alternative LCR Methodology are within the range of historical LCRs (i.e., under the Unified Method) given comparable system conditions, while minimizing the total NYCA cost to procure capacity and reducing the volatility of the LCRs due to changes in existing capacity.⁴³ NYISO, in fact, provided the results of over 80 sensitivity analyses (which were also shared with stakeholders in developing the Alternative LCR Methodology) in support of its findings.⁴⁴

22. The Commission concurred with NYISO's explanation. Regarding reliability benefits, the Commission noted that the sloped nature of the ICAP Demand Curves inherently acknowledges that reliability benefits continue to accrue, albeit at a diminishing marginal rate, as a Locality adds capacity above the reference value (which corresponds to the LCR).⁴⁵ In other words, provided that the LCR does not exceed the quantity associated with the zero crossing point, Long Island consumers continue to derive reliability benefits from increased procurement of local capacity (i.e., Long Island's LOLE under the Alternative LCR Methodology decreases, which means that Long Island is *more* reliable than under the Unified Method). The Commission further found, and we affirm, that the costs and benefits are roughly commensurate

⁴¹ *Id.* at 31.

⁴² Transmittal at 3.

⁴³ Id.; Deficiency Response, Attachment I at 18-19.

⁴⁴ Deficiency Response, Attachments III and IV (Exhibits 1-39).

⁴⁵ LCR Order, 165 FERC ¶ 61,011 at P 76.

⁴⁰ Id. at 14.

because the process for defining and updating the ICAP Demand Curves for each Locality incorporate the net CONE for capacity. Specifically, at each quadrennial reset of the ICAP Demand Curves, each Locality's net CONE is recalculated, and the resulting net CONE cost curves serve as the basis for the economic optimization under the Alternative LCR Methodology. In between the quadrennial ICAP Demand Curve resets, NYISO annually updates certain parameters of each ICAP Demand Curve based on cost escalation factors (among other factors). In this way, capacity costs in a Locality are inherently reflected in determining both (1) the amount of capacity that must be purchased locally (i.e., the LCR), and (2) the reliability benefits to that Locality. We thus affirm it was appropriate for the Commission to rely on the ICAP Demand Curve parameters, together with the design of the Alternative LCR Methodology, to find that benefits and costs are reasonably aligned.⁴⁶

23. Moreover, the fact that the Commission buttressed NYISO's explanation and evidence with its own observations of economic principles does not make NYISO's proposal unjust and unreasonable. As the D.C. Circuit has recognized, the Commission may base its findings on "reasonable economic propositions" and predictive judgments grounded in basic economic principles.⁴⁷ The LCR Order is consistent with those principles.

24. We also disagree with LIPA that NYISO's showing in this proceeding contrasts with *Illinois Commerce Commission v. FERC*, in which the filing utility had identified, with quantification, reliability benefits through "voluminous evidentiary materials" including an "elaborate quantification of costs and benefits."⁴⁸ These references do not describe what is required to show that a rate is just and reasonable in each and every proceeding; the court was explaining why the Commission saw no need for an evidentiary hearing in that particular case.⁴⁹

⁴⁶ Id. P 77.

⁴⁷ S.C. Pub. Serv. Auth. v. FERC, 762 F.3d 41, at 65, 68 (D.C. Cir. 2014); Emera Maine v. FERC, 854 F.3d 662, 671 (D.C. Cir. 2017); Sacramento Mun. Util. Dist. v. FERC, 616 F.3d 520, 531 (D.C. Cir. 2010) ("[I]t was perfectly legitimate for the Commission to base its findings . . . on basic economic theory, given that it explained and applied the relevant economic principles in a reasonable manner.").

⁴⁸ Rehearing Request at 17 (citing *Ill. Commerce Comm'n v. FERC*, 721 F.3d 764, 775 (7th Cir. 2013)).

⁴⁹ Ill. Commerce Comm'n v. FERC, 721 F.3d at 775.

25. We likewise find unpersuasive LIPA's citations to Old Dominion Electric Cooperative v. FERC and N.Y. Indep. Sys. Operator, Inc. to argue that it is inappropriate to shift costs to an entity that does not receive a commensurate level of benefits or for an entity to receive disproportionate benefits without paying its share of the costs.⁵⁰ As noted in the LCR Order, LIPA failed to substantiate its claims that Long Island consumers would derive no benefit from – or benefits that are trivial relative to incremental capacity costs of - increased LCRs.⁵¹ LIPA has provided no argument on rehearing to persuade us to modify the Commission's findings. As to the precedent cited, Old Dominion Electric Cooperative v. FERC involved a cost allocation methodology for high voltage transmission facilities.⁵² As discussed in more detail below, cost allocation under the Services Tariff is not at issue in this proceeding. As to the Thunderstorm Alert program examined in N.Y. Indep. Sys. Operator, Inc., reliability benefits of the program accrued solely to New York City, and on that basis assigned costs solely to LSEs serving load in New York City.⁵³ Here, the capacity added on Long Island benefits consumers on Long Island, in addition to any reliability benefit accruing to neighboring Localities, including New York City. While LIPA argues that this is "simply an attempt to skirt the Commission's obligation" to quantify costs and benefits, we disagree. The facts in this proceeding demonstrate, without contradiction, that Long Island receives reliability benefits; this distinguishes this proceeding from the Thunderstorm Alert proceeding.

2. Flawed Assumptions

26. We also disagree with LIPA that the Commission's approval of the Alternative LCR Methodology without requiring a revised cost allocation is based on a series of flawed assumptions.⁵⁴

27. First, LIPA argues that the Commission erred in stating that it "expect[s] that increasing the LCR on Long Island would, in the short run, stand to benefit LIPA's resources by increasing the revenues that LIPA receives for this excess capacity" and that "the reduced LCRs in New York City, for instance, would allow LSEs in New York City

⁵⁰ Rehearing Request at 34-35 (citing *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254 (D.C. Cir. 2018) and *N.Y. Indep. Sys. Operator, Inc.*, 102 FERC ¶ 61,284, at PP 13, 16 (2003) (examining cost allocation for NYISO's Thunderstorm Alert program)).

⁵¹ LCR Order, 165 FERC ¶ 61,011 at P 76.

⁵² Old Dominion Elec. Coop. v. FERC, 898 F.3d 1254.

⁵³ N.Y. Indep. Sys. Operator, Inc., 102 FERC ¶ 61,284 at P 13.

⁵⁴ Rehearing Request at 17-22.

to procure some of this excess capacity, thus yielding additional revenues for LIPA's capacity that would otherwise sit idle or . . . might have even retired."⁵⁵ LIPA asserts that, in suggesting that increased capacity revenues under the Alternative LCR Methodology would stand to benefit LIPA's generation resources, the Commission made an "incomplete observation" because the increased revenues are outweighed by the increased costs incurred by Long Island ratepayers.⁵⁶ LIPA also argues that the Commission assumes market conditions and competitive implications that have no basis in the record.⁵⁷

28. We disagree. As an initial matter, we reiterate that the Commission may base its findings on "reasonable economic propositions" and predictive judgments grounded in basic economic principles.⁵⁸ Further, we affirm the Commission's finding that, under conventional economic principles, it is likely that LIPA will receive increased capacity revenues under the Alternative LCR Methodology.⁵⁹ Having excess capacity means that it is underutilized, and therefore if other zones are able to purchase some excess capacity (as is the very intent of an economic optimization), then that would generate revenues for capacity that would otherwise not be purchased. While it may be that there is a price effect—wherein this new ability of LSEs in other zones to "shop" for cheaper capacity on Long Island—that is how the capacity market is intended to work. As noted in the LCR Order, "[o]ver time, we would expect the Alternative LCR Methodology to lead to convergence across Localities of the cost of reliability improvement, which would signal that the ICAP market is functioning efficiently."⁶⁰

29. Moreover, we do not find that NYISO's customer impact analysis undermines our expectations of these market dynamics. The Commission never disagreed with the proposition that customers on Long Island would face higher capacity costs; indeed, this follows from the Commission's observation that the Alternative LCR Methodology would send price signals for more capacity to be built on Long Island, where it is

⁵⁵ *Id.* at 3 (citing LCR Order, 165 FERC ¶ 61,011 at P 78).

⁵⁶ Id. at 3, 18-19.

⁵⁷ Id.

⁵⁸ S.C. Pub. Serv. Auth. v. FERC, 762 F.3d at 65, 68; Emera Maine v. FERC, 854 F.3d at 671; Sacramento Mun. Util. Dist. v. FERC, 616 F.3d at 531.

⁵⁹ LCR Order, 165 FERC ¶ 61,011 at P 78.

⁶⁰ Id.

economically efficient to do so.⁶¹ As LIPA points out, NYISO's customer impact analysis demonstrates that short-run capacity costs on Long Island increase by up to \$251 million, while in the long-run annual capacity cost increases are expected to range from \$15-\$37 million.⁶² Yet, capacity cost increases alone do not render NYISO's proposal unjust or unreasonable. The underlying price signals reflect that it is economically efficient for new capacity to be built on Long Island, which is consistent with the objective of the ICAP market to procure sufficient capacity at least cost. Furthermore, the Commission considered capacity cost increases on Long Island relative to: (1) the marginal reliability benefits to Long Island customers associated with purchasing more local capacity;⁶³ and (2) the substantial capacity cost savings realized statewide as a result of the Alternative LCR Methodology (\$528 million in annual savings in the short run, and \$34-\$35 million in annual savings in the long run).⁶⁴ We find that it was appropriate for the Commission to balance those competing interests in making its determination that NYISO's proposal was just and reasonable.⁶⁵

30. Second, we find no merit to LIPA's arguments that the slope of the Demand Curve is not the metric by which reliability benefits are quantified.⁶⁶ LIPA's argument misses the Commission's point in the LCR Order, which was to disagree with LIPA's assertion⁶⁷

⁶² Rehearing Request at 28, n.98 (citing Deficiency Response, Attachment I at 20).

⁶³ LCR Order, 165 FERC ¶ 61,011 at P 76.

⁶⁴ Id. P 48.

⁶⁵ See, e.g., S.C. Pub. Serv. Auth. v. FERC, 762 F.3d at 88 ("the Commission's balancing of the competing goals of reducing monitoring burdens and adopting policies that ensure that cost allocation maximally reflects cost causation is wholly reasonable under the deferential review we accord in rate-related matters"); N.Y. Indep. Sys. Operator, Inc., 104 FERC ¶ 61,311, at P 30 (2003) ("Based on this balancing of interests, the Commission finds NYISO's proposed revisions to its creditworthiness requirements, as conditioned below, to be reasonable").

⁶⁶ Rehearing Request at 20.

⁶⁷ LIPA August 30, 2018 Comments at 10-11.

⁶¹ Capacity costs increase because of two effects: (1) a higher LCR within a Locality increases the amount of local capacity that a LSE must purchase (a quantity effect); and (2) that quantity effect increases demand for local capacity, which, all else being equal, results in a clearing price that is higher along the supply curve (a price effect).

that Long Island derived no, or trivial, benefits from capacity procured consistent with the Alternative LCR Methodology. It is true, as LIPA notes,⁶⁸ that the ICAP Demand Curve expresses "economic" conditions—namely, the relationship between capacity price and incremental capacity. However, LIPA does not refute the Commission's observation that until the zero crossing point (at which incremental capacity provides no additional reliability benefit) is reached, each additional megawatt provides at least some benefit.⁶⁹ Quantitative analysis is not required to demonstrate this property of the ICAP Demand Curve. Further, we find no merit to LIPA's argument that the 2003 and 2008 ICAP Demand Curve proceedings cannot be used to support the Commission's statements.⁷⁰ Those proceedings were cited to describe the characteristics of the sloped Demand Curve, and contrary to LIPA's arguments,⁷¹ the Commission undoubtedly may rely on its own precedent.⁷²

31. We also find no merit to LIPA's argument that the Commission erred by: (i) assuming that the relationship between the annual calculation of LCRs and the ICAP Demand Curve establishes an alignment of costs and benefits; and (ii) failing to recognize the temporal misalignment of the setting of price assumptions within the Demand Curves and economic assumptions embedded in the optimization methodology.⁷³ LIPA argues that changes in the ICAP Demand Curve do not directly

⁶⁸ Rehearing Request at 20.

⁶⁹ As we recognized in the LCR Order, "the sloped nature of the ICAP Demand Curves inherently acknowledges that reliability benefits continue to accrue, albeit at a diminishing marginal rate, as a Locality adds capacity above the reference value (which corresponds to the LCR)." LCR Order, 165 FERC ¶ 61,011 at P 76 (citations omitted).

⁷⁰ Rehearing Request at 19 (citing LCR Order, 165 FERC ¶ 61,011 at P 76 (citing *N.Y. Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,201, at P 35 (2003) ("The proposed downward sloping demand curve reflects the decreasing but still positive value of additional reserves") and *N.Y. Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,064, at P 62 (2008) ("The zero-crossing point, the point on the demand curve where the curve crosses the x-axis where the value of capacity is zero, and the reference point, the point on the demand curve where the net cost of new entry, determine the slope of the demand curve."))).

⁷¹ *Id.* at 19-20.

 72 See, e.g., Williston Basin Interstate Pipeline Co., 68 FERC \P 61,357, at 62,432 (1994).

⁷³ Rehearing Request at 20-22.

equate to a co-equal change in reliability benefits. However, there is no standard which requires a "co-equal change."⁷⁴ As noted above, we affirm the Commission's reliance on the ICAP Demand Curve parameters, together with the design of the Alternative LCR Methodology, to find that benefits and costs are reasonably aligned.⁷⁵ We agree with LIPA that NYISO establishes the LCRs at a different time of the year than it updates the ICAP Demand Curves. However, LIPA notes this characteristic of NYISO's process incorrectly, as if it were a flaw. Yet, no party contests that the LCR for a given Locality is an *input* to that Locality's ICAP Demand Curve. It follows that the data used to calculate the LCR necessarily differ temporally from the data used to establish the ICAP Demand Curve. LIPA has failed to demonstrate that the Commission's reliance on the structure of the ICAP Demand Curve or the relationship between LCRs and the ICAP Demand Curve prices was in error.

3. <u>Relevant Data and Analysis</u>

32. We also disagree with rehearing arguments asserting that the Commission improperly disregarded and failed to fully consider relevant data and analysis.⁷⁶ First, LIPA argues that the Commission's rejection of LIPA's loss of energy expectation (LOEE) analysis is improper. In the LCR Order, the Commission stated:

LOLE is a measure of the likelihood of a day occurring in which there is at least one generation inadequacy event, whereas LOEE – more commonly known in the industry as Expected Unserved Energy – is a measure of the magnitude and duration of generation inadequacy events over a given period of time. The ICAP market is specifically designed to ensure sufficient capacity to satisfy the statewide IRM, which itself is calculated to ensure that the 0.1 days/year LOLE reliability standard is met.⁷⁷

33. LIPA argues this finding was improper because the LOEE analysis is recognized by both the NYSRC and NYISO as a relevant reliability metric.⁷⁸ LIPA also argues that

⁷⁵ LCR Order, 165 FERC ¶ 61,011 at P 77.

⁷⁶ Rehearing Request at 22-31.

⁷⁷ LCR Order, 165 FERC ¶ 61,011 at P 72.

⁷⁸ Rehearing Request at 22.

⁷⁴ *Id.* at 21.

the Commission's presumption that LOEE calculations do not have a relationship to the IRM is incorrect.⁷⁹ LIPA asserts that the zonal LOEE contribution reflects the quantity of reliability support between zones. Likewise, LIPA states that the calculation of the IRM depends on the relationship of reliability support between zones. Thus, LIPA asserts that the LOEE analysis included within its protest presents quantification of reliability benefits under the Alternative LCR Methodology based upon a relevant "reliability metric."⁸⁰

34. We affirm the Commission's finding in the LCR Order. While we do not dispute that the LOEE is a reliability metric, we find that the reliability metric relevant in setting the IRM, and thus relevant to the ICAP market and this case, is LOLE. NYSRC's Reliability Rule A.1, which the Commission cited in the LCR Order,⁸¹ establishes the requirement for NYSRC to annually calculate the IRM requirement for the upcoming Capability Year. That rule requires that NYSRC must "probabilistically establish the IRM requirement for the NYCA such that the [LOLE] of disconnecting firm load due to resource deficiencies shall be, on average, no more than 0.1 days per year."⁸² In other words, the IRM must be sufficient to ensure the 0.1 days/year LOLE reliability criterion is met. In turn, NYISO uses the IRM to establish the Installed Capacity Requirement in the ICAP market. The IRM is a collective capacity purchase obligation imposed on all LSEs, subdivided based on whether a LSE serves load in certain Localities (in which case the associated LCR applies). Beyond vague assertions about the relationship between LOEE and the IRM,⁸³ LIPA fails to articulate how LOEE is relevant to the functioning of the ICAP market.

35. Second, LIPA argues that the Commission erred in disregarding LIPA's LOLE analysis. In its June 26, 2018 Protest, LIPA argued that, under the Unified Method, the Lower Hudson Valley, New York City, and Long Island contribute in "roughly equal measure to LOLE," whereas this equivalency is lost under the Alternative LCR Methodology. To illustrate this point, LIPA compared the ratio of the LOLE values for New York City and Long Island, under the Unified Method versus the Alternative LCR

⁷⁹ Id.

⁸⁰ Id. at 23.

⁸¹ LCR Order, 165 FERC ¶ 61,011 at P 72, n.108.

⁸² NYSRC, Reliability Rule A.1 (Establishing NYCA Installed Reserve Margin Requirements), at Requirement R1.1, *available at* http://nysrc.org/pdf/Reliability%20Rules%20Manuals/RRC%20Manual%20V44.pdf.

⁸³ Rehearing Request at 22-23.

Methodology.⁸⁴ In the LCR Order, the Commission disagreed with this argument, asserting that "LIPA's use of ratios of LOLE values for neighboring zones misses the point of the Alternative LCR Methodology, which is to ensure that the 0.1 days/year LOLE reliability standard is met in each of the Localities, and in the NYCA as a whole, at least cost."⁸⁵ The Commission explained, "[w]hether the LOLE in a given zone or Locality is higher or lower than in a neighboring zone or Locality is irrelevant to whether this fundamental objective is achieved."⁸⁶

36. On rehearing, LIPA asserts that the Commission's depiction was inaccurate because components of the LOLE results included in LIPA's protests were calculations made by NYISO and presented to the NYSRC, and LIPA did not apply the LOLE results in terms of ratios between New York City and Long Island. Rather, LIPA claims that the LOLE analysis examined the differences in zonal contributions to LOLE values under the Alternative LCR Methodology and the Unified Method and this analysis confirmed that the Alternative LCR Methodology results in inter-zonal shifting of reliability and outage contributions and reflected the magnitude of those shifts via relevant shifts in LOLE values.⁸⁷ As an initial matter, we note that the Commission did not disregard relevant evidence, as LIPA claims. Rather, the Commission disagreed with LIPA's analysis, and in particular, its construct of "zonal contribution" to overall system reliability. The germane question is whether the resulting LCRs collectively satisfy the 0.1 days/year LOLE reliability criterion. Thus, it is irrelevant whether New York City has a higher LOLE value than Long Island, nor is that necessarily indicative of one zone leaning on another. LIPA's analysis of the LOLE impact of adding 200 MW of additional capacity

⁸⁶ Id.

⁸⁴ LIPA stated that, under the Unified Method, New York City's LOLE is 0.081 days/year and Long Island's LOLE is 0.0841 days/year, which LIPA characterizes as New York City contributing 96.3 percent as much to reliability as compared to Long Island's contribution. Under the Alternative LCR Methodology, LIPA states that New York City's LOLE is 0.093 days/year, while Long Island's LOLE is 0.0763 days/year. Using the same ratio, LIPA states that New York City is at 121.9 percent of the Long Island LOLE contribution, which constitutes a significant departure from the prior equivalency of LOLE contributions. LIPA June 26, 2018 Protest at 17.

⁸⁵ LCR Order, 165 FERC ¶ 61,011 at P 73.

⁸⁷ Rehearing Request at 23-24.

within Long Island (Zone K),⁸⁸ is irrelevant for the same reasons stated above. We also note that LIPA fails to acknowledge that variation in LOLE impacts are to be expected, depending on which side of a congested interface additional capacity is added, because of historic flows during peak system conditions that affect the deliverability of that capacity to neighboring zones.

37. We also find unpersuasive LIPA's argument that the Commission's order was inconsistent in its treatment of LOLE data.⁸⁹ LIPA argues that, in one instance, the Commission declined to consider LIPA's discussion of LOLE data and how it reflected asymmetric benefits, yet, in a separate discussion of reliability benefits, the Commission then relied upon relative changes in LOLE values to assert a finding of reliability benefits accruing to Long Island.⁹⁰ LIPA's argument is misplaced. As noted above, it is irrelevant to the capacity market construct whether, under a given LCR methodology, one zone has a LOLE value that differs from another zone. The capacity market requirement is binary; either the NYCA has LOLE that is at or below the 0.1 days/year reliability criterion, or it does not. However, we maintain it is not internally inconsistent to compare the resulting LOLE values *within* a zone across two LCR methodologies. Such a comparison simply reflects the relationship between incremental capacity and reliability benefits (which, as previously noted, is also reflected in the Locality's ICAP Demand Curve). Thus, we do not find any internal inconsistency in the Commission's findings.

38. We also disagree that the Commission erred in disregarding the disparity of cost savings realized by other localities and significant imposition of costs upon Long Island.⁹¹ LIPA argues that, under the Alternative LCR Methodology, LIPA bears 100 percent of the costs to acquire more locational capacity while the cost savings (i.e., the putative goal and desired benefit of this approach) flow to the other Localities and the rest of New York State.⁹² While the Commission indicated in the LCR Order that "LIPA mischaracterizes the changes in capacity costs resulting from the Alternative LCR Methodology as a cost allocation issue," LIPA argues that this finding is inconsistent with the Commission's recognition of economic benefits – including cost savings –

⁹⁰ Id. at 26.

⁹¹ Id. at 27-31.

⁹² Id. at 27.

⁸⁸ *Id.* at 24-25. *See also* LIPA June 26, 2018 Protest, Fishman Declaration at ¶ 13. LIPA observes that adding 200 MW to each of Zone J, Zone K, and the G-J Locality has an LOLE impact that differs depending on the zone in which the capacity is added.

⁸⁹ Rehearing Request at 26-27.

within a cost allocation inquiry.⁹³ LIPA also argues that the Commission's use of a Market Monitoring Unit (MMU) report explaining that the Alternative LCR Methodology corrects for inefficiently high and inefficiently low relative LCRs resulting from the Unified Method is not explained or supported. Further, LIPA asserts that the Commission appears to be suggesting that a cost allocation issue can be ignored to obtain market efficiency, and such an argument would dissociate benefits and costs in contravention of the beneficiary pays principle.⁹⁴

39. We find LIPA's arguments unpersuasive. As we stated in the LCR Order, the change from the Unified Method to the Alternative LCR Methodology does result in changes in capacity costs for each zone. We clarify here that this is the result of LCRs changing the quantity of local capacity that must be purchased, which affects the capacity clearing price in a given Locality, all else being equal.⁹⁵ However, this market dynamic does not demonstrate an issue with the cost allocation methodology.⁹⁶ The central feature of the Alternative LCR Methodology is a cost-minimization algorithm, i.e., the Alternative LCR Methodology determines the optimal distribution of capacity across Localities to achieve a least cost solution, given assumed costs of new capacity entry, while not violating any fixed reliability constraints. Thus, the methodology does not change how NYISO allocates capacity costs under its Services Tariff.⁹⁷ Moreover, the cases cited to by LIPA to support its position are inapposite. In MISO, the Commission examined a proposal by the Midwest Independent Transmission System Operator, Inc. to establish a new category of transmission projects designated as Multi Value Projects and how to allocate the costs of those projects.⁹⁸ Similarly, in PJM Interconnection, L.L.C., the Commission examined on remand the appropriate methodology to be used by PJM Interconnection, L.L.C. to allocate costs associated with new transmission facilities that

⁹⁴ Id. at 30.

⁹⁵ See supra note 61. The Alternative LCR Methodology pertains only to setting the quantity.

⁹⁶ LCR Order, 165 FERC ¶ 61,011 at P 71.

⁹⁷ NYISO September 14, 2018 Answer at 5.

98 MISO, 133 FERC ¶ 61,221 at P 1.

⁹³ Id. at 29 (citing Midwest Indep. Transmission Sys. Operator, Inc., 133 FERC
¶ 61,221, at P 229 (2010) (MISO), order on reh'g, 137 FERC ¶ 61,074 (2011), aff'd in part, vacated in part, Ill. Commerce Comm'n, 721 F.3d 764; PJM Interconnection, L.L.C., 138 FERC ¶ 61,230, at P 78 (2012), order on reh'g, 142 FERC ¶ 61,216 (2013), remanded, Ill. Commerce Comm'n v. FERC, 756 F.3d 556 (7th Cir. 2014)).

will operate at or above 500 kV.⁹⁹ Unlike this proceeding, those proceedings involved whether a particular cost allocation approach was just and reasonable. The fact that economic benefits, including cost savings, were discussed within those cost allocation inquiries does not render the LCR Order inconsistent with that precedent. Moreover, in contrast to LIPA's argument, the Commission is not suggesting that a cost allocation issue can be ignored to obtain market efficiency;¹⁰⁰ a cost allocation change is simply not what is at issue in this proceeding. LIPA itself recognizes that the calculation of LCRs "at its core, is a reliability determination."¹⁰¹

40. As to the MMU's statement that the Alternative LCR Methodology corrects for inefficiently high and inefficiently low relative LCRs resulting from the Unified Method, this statement is taken directly from the record in this proceeding.¹⁰² As the MMU explained:

The proposed revisions would be a significant improvement because they would lead to capacity prices that would be more consistent with the incremental value of capacity at each location. This would provide better signals to investors because it would signal where capacity would provide the most reliability value for a given investment cost. By inducing more efficient investment, the proposed revisions would lead to lower costs to consumers.

41. We find these statements to be relevant to the Commission's determination that the Alternative LCR Methodology is just and reasonable.

D. <u>Historic Values</u>

42. LIPA argues that it was incorrect for the Commission to approve the Alternative LCR Methodology based on the assertion that NYISO's "sensitivity analyses produced results that fall within the range of historical LCR values."¹⁰³ LIPA asserts that NYISO's

⁹⁹ *PJM Interconnection*, *L.L.C.*, 138 FERC ¶ 61,230 at P 1.

¹⁰⁰ Rehearing Request at 30.

¹⁰¹ LIPA June 26, 2018 Protest at 1.

¹⁰² MMU July 11, 2018 Comments at 3 (citing Table 13 of the 2016 State of the Market Report).

¹⁰³ Rehearing Request at 36 (citing LCR Order, 165 FERC ¶ 61,011 at P 52).

projections of LCRs using the Alternative LCR Methodology produced values outside of historic ranges for both Zone J and Zone K and alleges that they are statistically significant departures from the historic range.¹⁰⁴ To support its point, LIPA presents data in two different ways: (1) a comparison of LCR values for 2018-2019 (recalculated using the Alternative LCR Methodology) relative to historic values for each of Zones J and K;¹⁰⁵ and (2) a comparison of Zone K's LCR values for the 2017-2018, 2018-2019, and 2019-2020 capability years under the Unified Method relative to under the Alternative LCR Methodology.¹⁰⁶ Beyond a conclusory statement, LIPA fails to articulate how either of these comparisons demonstrate "statistically significant departures from the historic range."¹⁰⁷ Furthermore, as explained below, we find LIPA's analysis to be unpersuasive.

43. Regarding the first comparison, LIPA offers a hypothetical LCR for Zone K for the 2018-2019 capability period in isolation. LIPA fails to acknowledge that the LCR for that year had already been determined using the Unified Method, and that the more relevant comparison is Zone K's LCR for 2019-2020 (i.e., the first year in which the Alternative LCR Methodology would be used)—which NYISO reported in its September 14, 2018 Answer was 103.6 percent.¹⁰⁸ Comparing 103.6 percent for the 2018-2019 capability year relative to LIPA's alleged historic maximum LCR for Zone K of 107 percent shows that the Alternative LCR Methodology (at least for this one year in question) does not exceed the historical range defined by LIPA.¹⁰⁹

44. Regarding the second comparison, LIPA's reasoning—that because the LCRs for Zone K under the Alternative LCR Methodology are higher than they would be under the Unified Method, it demonstrates that the Alternative LCR Methodology results in LCR values that exceed the historical range—is incorrect. Comparing LCR values under the Unified Method relative to the Alternative LCR Methodology, over the same time period,

¹⁰⁴ *Id.* at 36.

¹⁰⁵ Id.

¹⁰⁶ *Id.* at 37-38. Values for 2017-2018 and 2018-2019 were hypothetical, since the Unified Method was used for those capability years. Values for 2019-2020 were projected.

¹⁰⁷ *Id.* at 36.

¹⁰⁸ NYISO September 14, 2018 Answer at 7.

¹⁰⁹ Further, LIPA does not specify the time period over which it examined LCR values to determine that the historical maximum was 107 percent.

simply illustrates the economic optimization underlying the Alternative LCR Methodology at work. We thus find unpersuasive LIPA's claims that the Commission's analysis is flawed because the analysis fails to evaluate the Alternative LCR Methodology and the Unified Method in the same year.¹¹⁰ While there may be alternative ways in which the parties could analyze the data, the Commission found NYISO's sensitivity analyses to be persuasive in demonstrating that the Alternative LCR Methodology is just and reasonable.¹¹¹ We affirm that finding here.

The Commission orders:

The request for rehearing is hereby denied, as discussed in the body of this order.

By the Commission.

(SEAL)

Kimberly D. Bose, Secretary.

¹¹⁰ Rehearing Request at 37.

¹¹¹ See, e.g., Cal. Indep. Sys. Operator Corp., 128 FERC \P 61,265, at P 21 (2009) ("the issue before the Commission is whether the CAISO's proposal is just and reasonable and not whether the proposal is more or less reasonable than other alternatives"); see also OXY USA Inc. v. FERC, 64 F.3d 679, 692 (D.C. Cir. 1995) (finding that under the FPA, as long as the Commission finds a methodology to be just and reasonable, that methodology "need not be the only reasonable methodology, or even the most accurate" one).