

140 FERC ¶ 61,189
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony T. Clark.

Astoria Generating Company L.P and
TC Ravenswood, LLC

v.

Docket No. EL11-50-000

New York Independent System
Operator, Inc.

ORDER ON COMPLAINT

(Issued September 10, 2012)

1. On July 11, 2011, Astoria Generating Company, L.P., (Astoria) and TC Ravenswood (Ravenswood) (collectively, Complainants) filed a complaint (Complaint) against the New York Independent System Operator, Inc. (NYISO) alleging that NYISO improperly implemented its buyer-side market power mitigation rules in the New York City installed capacity (ICAP) market (NYC ICAP market) with respect to the new 575 MW generating facility owned by Astoria Energy II LLC (Astoria II)¹, and potentially other new facilities, including, but not limited to, the approximately 512 MW generating facility being developed by Bayonne Energy Center, LLC (Bayonne). For the

¹ Complainant states that Astoria Generating Company L.P., is a limited partnership and an indirect, wholly-owned subsidiary of Astoria Generating Company Holdings, LLC, which is, in turn, a wholly-owned subsidiary of US Power Generating Company. Complainants July 11, 2011 Complaint at 10. In contrast, the owner of the new Astoria II generating unit is Astoria Energy II, LLC. *Id.* at 1. Although Complainants share the same name as the Astoria II generating unit, they are not the owners of that unit.

reasons discussed below, the Commission grants, in part, and denies, in part, the Complaint and directs NYISO to redo its exemption determinations for the Astoria II and Bayonne facilities consistent with the rulings of this order.

I. Background

2. NYISO administers New York State's ICAP market which utilizes NYISO-determined annual demand curves for each of the three NYISO ICAP zones: the New York Control Area, New York City (NYC) and Long Island. Of relevance here, one of the key parameters NYISO uses to design the demand curves is the cost of a new peaking unit net of likely projected energy and ancillary services revenues (net CONE). Within the NYC (or in-City) ICAP market, NYISO administers market power mitigation procedures pursuant to section 23 (Attachment H)² of its Market Administration and Control Area Services Tariff (Services Tariff). One of the purposes of the mitigation measures is to guard against the exercise of market power by those who buy ICAP and who thus benefit from a low price. This is commonly referred to as "buyer-side mitigation." Section 23.4.5.7 of NYISO's NYC buyer-side mitigation measures provides that, unless exempt from this mitigation, NYC ICAP suppliers that enter the capacity market must do so at a price no lower than the applicable offer floor. As initially approved, the offer floor of section 23.4.5.7 is defined in section 23.2.1 as the lower of: (1) 75 percent of the net cost of new entry of the peaking unit in NYC that is used to establish the NYC ICAP demand curve, which we refer to here as Default net CONE;³ or

² In eTariff, "Attachment H - ISO Market Power Mitigation Measures" is enumerated as section 23 of NYISO's Services Tariff.

³ Section 23.2.1 of the Services Tariff currently provides that what we refer to here as the Default Offer Floor is 75 percent of "Mitigation Net CONE" a new term NYISO proposed in its August 24, 2010 compliance filing in Docket No. ER10-2371-000 in the proceeding that initially established the NYC mitigation provisions of the Services Tariff. NYISO proposed to define that term as "the capacity price on the currently effective In-City Demand Curve corresponding to the average amount of excess capacity above the In-City Installed Capacity requirement, expressed as a percentage of that requirement, that formed the basis for the Demand Curve approved by the Commission." Stated another way, what NYISO refers to as "Mitigation Net CONE" is the price equal to what the Commission defined as the "net CONE" used to design the NYC demand curves. *See New York Indep. Sys. Operator, Inc.*, 131 FERC ¶ 61,170, at P 31 (2010) (May 20, 2010 Order). NYISO's proposed "Mitigation Net Cone" definition was incorrectly included in a compliance tariff record filing in another proceeding (Docket No. ER10-3043) and was inadvertently accepted for filing purposes by delegated letter order in that docket. The proposal still is pending Commission review in Docket No. ER10-2371-000. For clarity purposes in this order, we will use the term "Default net CONE."

(2) the new entrant's actual net cost of new entry for the specific unit, which we refer to here as the Unit net CONE.⁴ We refer here to the first offer floor as the Default Offer Floor, and to the second as the Unit Offer Floor. NYISO determines whether a supplier is exempt from offer floor mitigation pursuant to the process provided in section 23.4.5.7.2 of NYISO's Services Tariff.

3. On September 27, 2010, NYISO filed revisions to its mitigation provisions, which were accepted in part and rejected in part in an order issued November 26, 2010, with an effective date of November 27, 2010.⁵ We refer to the rules initially in place prior to the November 26, 2010 Order as the Pre-Amendment Rules and these Pre-Amendment Rules govern all determinations made prior to the November 27, 2010 effective date of the new rules. Of particular relevance here, the Pre-Amendment Rules mitigation exemption test provided that:

ii) An Installed Capacity Supplier shall be exempt from an Offer Floor if: (a) any ICAP Spot Market Auction price for the two Capability Periods beginning with the first Capability Period for any part of which the Installed Capacity Supplier is reasonably anticipated to offer to supply [unforced capacity (UCAP)] (the "Starting Capability Period") is projected by the ISO to be higher, with the inclusion of the Installed Capacity Supplier, than the highest Offer Floor based on Net CONE that would be applicable to such supplier in such Capability Periods, or (b) the average of the ICAP Spot Market Auction prices in the six Capability Periods beginning with the Starting Capability Period is projected by the ISO to be higher, with the inclusion of the Installed Capacity Supplier, than the reasonably anticipated Unit Net CONE of the Installed Capacity Supplier. The Developer or Interconnection Customer may request the ISO to make such determinations upon execution of all necessary Interconnection Facilities Study Agreements for the Installed Capacity Supplier.⁶

4. Thus, similar to the offer floor, there is a Default exemption prong in (a) and a Unit exemption prong in (b). If the generator meets either of the two prongs by showing that either the projected Default Offer Floor (i.e., Default net CONE) or the Unit net

⁴ See Services Tariff, § 23.4.5.7.3.6.

⁵ *New York Independent System Operator*, 133 FERC ¶ 61,178 (2010) (November 26, 2010 Order), *order on compliance*, 134 FERC ¶ 61,083 (2011), *reh'g denied*, 136 FERC ¶ 61,077 (2011) (August 2, 2011 Order).

⁶ NYISO, FERC Electric Tariff, Original Vol. No. 2, Attachment H, First Revised Sheet No. 476.03-476.04.

CONE is less than the projected ICAP prices over the relevant time period (i.e., one year for the Default exemption in prong (a) and three years for the Unit exemption in prong (b)) with the inclusion of the ICAP supplier's capacity for the relevant periods,⁷ it is exempt from offer floor mitigation.

5. The application of the Unit exemption in prong (b) is particularly relevant in this proceeding. In prong (b), NYISO examines whether a generator's expected capacity revenues would exceed its net costs during the generator's first three years of operation. Prong (b) is passed if: (i) the average of the ICAP spot market auction prices in the six capability periods beginning with the starting capability period is projected by NYISO to be higher, with the inclusion of the generator; than (ii) the reasonably anticipated Unit net CONE of the generator.

6. The application of prong (b) requires estimates of the average ICAP spot market auction price and the generator's Unit net CONE during the generator's first three years of operation. A generator's Unit net CONE is calculated as the generator's levelized gross CONE minus the energy and ancillary service revenues that the generator is expected to receive. Each of these parameters involves a forecast of the future based on data and information available at an earlier point in time. We refer to this earlier point in time as the "analysis reference date." One of the issues in the case, as addressed below, is what date should be used as the analysis reference date. We note that estimates of the future spot market auction prices and of Unit net CONE can change significantly depending on what analysis reference date is chosen because of market conditions and because information available at different dates can change expectations about the future. This is particularly true in the time period at issue here where an economic downturn had a significant impact on earlier-made forecasts.

II. Summary of the Complaint

7. Complainants assert that NYISO permitted the Astoria II project to offer into the July 2011 ICAP auction at a price that was below competitive levels and below its estimated cost, in violation of the requirements of NYISO's Services Tariff and prior Commission orders regarding implementation of the buyer-side market power rules. Complainants state that the results of the July auction, released on July 29, 2011, permitted Complainants to confirm that mitigation determinations must have been made for the Astoria II project and that the filing of the Bayonne protest in Docket No. EL11-42-000 alerted them that such a determination had also been made for the Bayonne

⁷ There are two six-month Capability Periods in each year: a "Summer Capability Period" from May 1 through October 31, and a "Winter Capability Period" from November 1 through the following April 30. *See*, NYISO Market Services Tariff, § 2.3.

project.⁸ Complainants add that they are not aware of when either determination was made, the precise nature of the determinations, or if any other project has also received a mitigation determination. Complainants request that the Commission promptly and summarily require NYISO to re-test and recalculate offer floors for the Astoria II and Bayonne projects, as well as any other project for which mitigation determinations were made prior to November 27, 2010, and that the Commission ensure that any re-testing and re-calculations are done correctly. To the extent that additional information is required in order to grant Complainants' requested relief, Complainants request hearing and settlement procedures. Complainants also request that the Commission establish the earliest possible refund effective date.

8. Complainants argue that NYISO must have made the mitigation exemption determinations under the Pre-Amendment Rules because these units could not have been exempt from mitigation or tested under the currently-effective mitigation rules. They explain that although the Services Tariff exempts from an offer floor an ICAP supplier that is not a Special Case Resource if it was an existing facility on or before March 7, 2008, neither the Astoria II project, which only commenced commercial operation on July 1, 2011, nor the Bayonne project, which had not yet commenced commercial operation at the time of Complainants' July 2011 filing, could lawfully have been exempted from mitigation pursuant to this provision.

9. Complainants also assert that because NYISO has not yet completed the 2009 and 2010 class year cost allocation process, of which the Astoria II project is a member, NYISO must have granted a market mitigation exemption under the Pre-Amendment Rules and that such exemption evaluation must have taken place before November 27, 2010, when the currently-effective buyer-side market power rules took effect.⁹ Complainants explain that this is because under the currently-effective rules, NYISO would perform the exemption analysis concurrently with the OATT Attachment S

⁸ In Docket No. EL11-42-000 Astoria, NRG Companies and Ravenswood filed a complaint against NYISO alleging that NYISO, on an ongoing basis, is violating the requirements of its Services Tariff in its implementation of the buyer-side market power rules, including the mitigation exemption test determinations and the offer floor calculations. Bayonne filed in that proceeding to request that the Commission make clear that the outcome of that proceeding is only applicable to the current buyer-side mitigation rules that were made effective November 27, 2010. Bayonne stated that NYISO had already given it an exemption under the Pre-Amendment Rules. Bayonne Energy Center, Protest, Docket No. EL11-42-000, at 4-5 (filed July 6, 2011).

⁹ Complainants July 11, 2011 Complaint, Younger Aff. ¶ 8.

allocation process,¹⁰ and the Attachment S process for class years 2009 and 2010 have not yet been concluded.

10. Complainants then assert that NYISO could not have lawfully exempted the Astoria II project under the Default exemption test of the Pre-Amendment Rules. Complainants state the Default exemption test compares the expected ICAP clearing price for the first year after entry to Default net CONE. They assert that to apply this prong, NYISO would have been required to take into consideration all reasonably known changes to the market in determining the expected clearing price, including additions of new facilities. Complainants applied the Default exemption test with the conservative assumption that there was one year of capacity market results where the Astoria project would be the only additional operating unit and using market data released by NYISO, as modified for “further conservatism,” calculated an expected clearing price for the 2011/2012 Capability Year of \$50.94/kW-year. According to Complainants, this figure is significantly below Default net CONE, which was \$96.64/kW-year.¹¹ Thus, Complainants conclude that the Astoria II project clearly failed the Default exemption test.

11. Complainants also assert that NYISO could not have lawfully exempted the Astoria II project under the Unit exemption test of the Pre-Amendment Rules, which compares the expected ICAP clearing prices for the six capability periods after the expected entry date, to the new entrant’s Unit net CONE. Complainants argue that NYISO should, at a minimum, have included in its analysis of projected ICAP clearing prices, the Bayonne project, beginning in the 2012/2013 capability year, and the Hudson Transmission Partners (HTP) project, beginning in the 2013/2014 capability year. The expected clearing price for the six capability periods was \$26.18.¹² With respect to Astoria’s Unit net CONE, Complainants assert that in the spring of 2010 when Astoria II obtained \$1.5 billion in financing, the final cost of the Astoria II project was reported to be \$1.3 billion.¹³ Complainants state that although specific cost data for the Astoria II project are not available, Complainants performed a comprehensive analysis based on data released by NYISO and other publicly available information, and concluded that the

¹⁰ *Id.* PP 38-39 (citing NYISO, Filing, Docket No. ER10-3043-000, at 14 (filed September 27, 2010)).

¹¹ Complainants July 11, 2011 Complaint at 33. Complainants also assert that the \$50.94/kW-year clearing price was below the \$124.25/kW-year price that represents 75 percent of the reference price¹¹ for that same capability year.

¹² *Id.*, Younger Aff. ¶ 77.

¹³ *Id.* at 37 (citing Astoria II Press Release, Younger Aff. Exhibit 2).

cost of new entry for a combined cycle facility in New York City would be approximately \$273.42/kW-year.¹⁴ Complainants estimate that Bayonne's Unit net CONE would be \$170.27/kw year.¹⁵ They further calculated that offsetting the CONE with net energy and ancillary services revenues would produce a Unit net CONE of \$147.50/kW-year if the Astoria II, Bayonne, and HTP projects are assumed to enter the market, and a Unit net CONE of \$123.92/kW-year if only the Astoria II and Bayonne projects are included.¹⁶ Complainants conclude that in either case, the Astoria II project fails the Unit exemption test. Similarly, according to Complainants, NYISO could not have properly exempted the Bayonne Project under the Unit exemption test.

12. Complainants request relief with respect to the July 2011 auction and any subsequent ICAP spot market auctions conducted until prospective relief is in place. Complainants argue that legitimate concerns about settled expectations pale by comparison with legitimate, statute-based reliance interests of Complainants and other suppliers who have structured their business arrangements on expectations that the buyer-side market power rules would be applied properly and would operate to prevent artificial price suppression.

13. Complainants assert that even if the Commission finds no technical tariff violation, it should take steps to prevent uneconomic entry that threatens the viability of the ICAP market and markets in general. According to Complainants, the Commission should act under section 206 of the Federal Power Act (FPA) to require that any exemptions granted to the Astoria II and /or Bayonne projects be withdrawn, and that new exemption determinations be made, and new offer floors set, for both projects pursuant to the currently-effective Services Tariff. Complainants argue that the case is distinguishable from past circumstances in which the Commission has refused to mitigate uneconomic entry after it has occurred, in that the two projects at issue here were built with full knowledge that the Commission had approved buyer-side mitigation rules in order to prevent uneconomic entry that would reduce prices below just and reasonable levels.¹⁷

¹⁴ *Id.* at 37-38, Younger Aff. ¶ 63.

¹⁵ *Id.* at n.106, Younger Aff. ¶ 91.

¹⁶ *Id.*, Younger Aff. ¶ 76. (The lower Unit Net Cone would result from higher E&AS revenues due to less supply, if only the Astoria II and Bayonne projects are expected to be in the markets.)

¹⁷ Complainants July 11, 2011 Complaint at 43 (citing *New York Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,211, at P 103 (2008)).

14. Complainants also distinguish the NYC ICAP market, which has no pre-determined price floor from the ISO-New England capacity market. According to Complainants the buyer-side market power rules incorporate a market mechanism, the offer floor, which was designed to produce prices that do not fall below the lower of Default net CONE or the Unit net CONE of a new entrant. Complainants assert that the July 11, 2011 auction shows that the mitigation rules did not work as approved by the Commission or as intended because, unless offers for the Astoria II project are adequately mitigated, the NYC capacity price will continue to plummet. Complainants add that consistent with the Fifth Amendment's prohibition of confiscatory ratemaking and the FPA, rates must be set at levels that provide enough revenue not only for operating expenses but also for the capital costs of the business and be sufficient for the utility to maintain its credit and to attract capital.¹⁸ Complainants assert that the market rules will fail to provide this amount of revenue if they allow the uneconomic entry of the Astoria II and/or the Bayonne project.

III. Notice of Filing and Responsive Pleadings

15. Notice of the Complaint was published in the *Federal Register*, 76 Fed. Reg. 44,899 (2011), with interventions and protests due on or before August 3, 2011.

16. Hudson Transmission Partners, LLC; Consolidated Edison Energy, Inc. and Consolidated Edison Solutions, Inc.; Energy Curtailment Specialists, Inc.; New York Association of Public Power; Exelon Corporation; PSEG Energy Resources & Trade LLC and PSEG Power New York LLC; Dynegy Power Marketing, Inc., Dynegy Northeast Generation, Inc. and Sithe/Independence Power Partners, L.P.; Entergy Nuclear Power Marketing, LLC; Astoria Energy LLC and Astoria Energy II LLC; the PPL Companies;¹⁹ Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc.; Cargil Power Markets, LLC; Edison Mission Energy; and Linden VFT, LLC filed timely motions to intervene.

17. On August 3, 2011, the New York State Public Service Commission filed a notice of intervention.

¹⁸ *Id.* at 44-45 (citing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 607 (1944)).

¹⁹ The PPL Companies are PPL Electric Utilities Corporation; PPL EnergyPlus, LLC; PPL Brunner Island, LLC; PPL Holtwood, LLC; PPL Martins Creek, LLC; PPL Montour, LLC; PPL Susquehanna, LLC; Lower Mount Bethel Energy, LLC; PPL New Jersey Solar, LLC; PPL New Jersey Biogas, LLC; and PPL Renewable Energy, LLC.

18. Hess Corporation and ArcLight Energy Partners Fund III, L.P. filed motions to intervene out of time.

19. NRG Companies (NRG);²⁰ GenOn Energy Management, LLC and GenOn Bowline, LLC (collectively, GenOn); Electric Power Supply Association (EPSA); Independent Power Producers of New York, Inc. (IPPNY); Calpine Corporation (Calpine); and Brookfield Energy Marketing LP (Brookfield) filed motions to intervene and comments in support of the Complaint. The Utility Workers Union of America filed a comment generally supporting the Complaint.

20. The New York Power Authority (NYPA), the City of New York, the Metropolitan Transportation Authority, the Port Authority of New York and New Jersey, New York State Office of General Services, and New York City Housing Authority (collectively, Governmental Customers); the American Public Power Association (APPA); Bayonne Energy Center, LLC (Bayonne); Consolidated Edison Company of New York, Inc. (Con Edison), Orange and Rockland Utilities, Inc., and the Long Island Power Authority (collectively, Indicated Downstate LSEs) filed motions to intervene and protests.

21. On July 12, 2011, NYISO filed an initial answer to the Complaint. On July 13, 2011, Bayonne filed an answer opposing the Complainant's petition for a shortened comment period. Also on July 13, 2011, NYPA and the City of New York filed a motion supporting NYISO's July 12, 2011 answer.

22. On July 29, 2011, Complainants filed a motion to lodge the results of the August 2011 ICAP spot market, a report issued by Standard & Poor's on Complainants' credit rating, and a copy of the long-term power purchase agreement between Astoria II and NYPA.

23. On August 3, 2011 NYISO filed a further answer to the Complaint. On August 9, 2011, Potomac Economics, Ltd. filed a motion to intervene out-of-time and an answer to NYISO's answer filed on August 3, 2011. On August 11, 2011, NYISO filed an answer to comments and protests filed in this proceeding.²¹ On August 15, 2011, NYPA and the

²⁰ For purposes of this filing, the NRG Companies are NRG Power Marketing LLC, Arthur Kill Power LLC, Astoria Gas Turbine Power LLC, Dunkirk Power LLC, Huntley Power LLC, and Oswego Harbor Power LLC.

²¹ This answer responds to the following filings: NRG's comments filed on July 27, 2011; GenOn's comments filed on August 3, 2011; Calpine's comments filed on August 3, 2011; Brookfield's comments filed on August 3, 2011; EPSA's comments filed on August 3, 2011; and IPPNY's comments filed on August 3, 2011. NYISO also requests leave to answer, and provides a limited answer, to Bayonne's and APPA's protests filed on August 3, 2011.

City of New York filed an answer opposing the Complainants' July 29, 2011 motion to lodge. On August 18, 2011, Con Edison and the Orange and Rockland Utilities, Inc., filed an answer to the Complainants' July 29, 2011 motion to lodge, and the August 3, 2011 comments filed by IPPNY, EPSA, Calpine, and GenOn. Also on August, 18, 2011, NYPA filed an answer to the August 3, 2011 answers and protests. On August 19, 2011, Complainants filed an answer to address responses received regarding the Complaint.²² On August 23, 2011, the City of New York filed an answer to comments, answers, and protests filed on or before August 3, 2011. On August 31, 2011, Complainants filed a motion to lodge the results of the September 2011 ICAP spot market auction, focusing on the NYC ICAP zone and NYISO filed an answer to Complainants' August 19, 2011 answer.

24. On August 31, 2011, the Commission issued an order directing NYISO to submit a confidential supplement containing an analysis performed by NYISO regarding its mitigation exemption determination for the Astoria II and Bayonne generating facilities.²³ The order also requires NYISO to make the confidential supplement available to parties that sign a non-disclosure certificate and follow the procedures contained in the associated protective order.²⁴

25. On September 6, 2011, NYISO filed a supplemental answer giving notice that NYISO will not propose an alternative protective agreement with respect to the release of the confidential supplement addressed by the Commission order issued on August 31, 2011. On September 19, 2011, NYISO filed a notice providing the names of individuals who, in accordance with the applicable non-disclosure agreement and protective order, may view the confidential supplement.²⁵

26. On September 8, 2011, in accordance with the August 31, 2011 Order, NYISO filed its confidential supplement, in both confidential and non-confidential form. Also on September 8, 2011, NYISO filed a notice explaining the procedures it intends to follow to distribute copies of the confidential supplement. On September 12, 2011, NYISO filed a correction to its September 8, 2011 confidential supplement filing. On September 23, 2011, Con Edison, and Orange and Rockland Utilities, Inc., Brookfield, IPPNY, Bayonne, and Complainants filed answers to NYISO's September 8, 2011 filing. Also on

²² Complainants' answer does not enumerate the responses it addresses.

²³ *Astoria Generating Company, L.P. and TC Ravenswood, LLC v. New York Indep. Sys. Operator, Inc.*, 136 FERC ¶ 61,155, at P 25 (2011) (August 31, 2011 Order).

²⁴ August 31, 2011 Order, 136 FERC ¶ 61,155 at P 24.

²⁵ On September 22 and 23, and October 11, NYISO filed updated lists.

September 23, 2011, NRG filed further comments addressing the Complaint. On September 27, 2011, Bayonne filed an errata to its September 23, 2011 answer.

27. On October 7, 2011, Complainants filed a motion to lodge documents they received from NYPA pursuant to a request for information. On October 11, 2011, Con Edison, and Orange and Rockland Utilities, Inc. filed an answer to Complainants' September 23, 2011 answer. On October 11, 2011, NYPA and the City of New York filed an answer to address certain comments and answers filed on September 23, 2011, and also the Complainants' October 7, 2011 motion to lodge. On October 11, 2011, Complainants' filed, in both confidential and non-confidential form, an answer to Bayonne's September 23, 2011 answer.²⁶ On October 12, 2011, NYISO filed, in both confidential and non-confidential form, an answer to the September 23, 2011 answers filed by Complainants, Brookfield, and IPPNY; to NRG's September 23, 2011 comments; and to Complainants' October 7, 2011 motion to lodge. On October 13, 2011, Bayonne filed, in both confidential and non-confidential form, an answer to Complainants' September 23, 2011 answer; NRG's September 23, 2011 comments; and Complainants' October 11, 2011 answer.

28. On October 21, 2011, NYPA and the City of New York filed an answer in opposition to Complainants' October 7, 2011 motion to lodge. Also on October 21, 2011, Complainants filed, in both confidential and non-confidential form, an answer to NYISO's October 12, 2011 answer; NYPA and City of New York's October 11, 2011 answer; Con Edison and Orange and Rockland Utilities, Inc.'s October 11, 2011 answer; and Bayonne's October 13, 2011 answer.

29. On October 25, 2011, NRG filed, in both confidential and non-confidential form, a motion to strike, and an answer to NYPA and City of New York's October 11, 2011 answer and NYISO's October 12, 2011 answer. On October 31, 2011, Complainants filed an answer supporting NRG's October 25, 2011 motion to strike.

30. On November 2, 2011, Complainants filed a motion to lodge the results of the installed capacity spot market auction for November 2011, which includes the clearing price for the NYC ICAP zone. On November 9, 2011, NYISO filed, in confidential and non-confidential form, an answer to NRG's October 25, 2011 motion to strike, and an answer to Complainants' October 31, 2011 answer. On November 30, 2011, Complainants filed, in confidential and non-confidential form, a motion to lodge the

²⁶ Complainants characterize Bayonne's September 23, 2011 filing as a motion to dismiss, but Bayonne describes it as a response to NYISO's confidential supplement filed on September 8, 2011. Bayonne's response is an answer because Bayonne previously requested that the Complaint be dismissed in its August 3, 2011 protest.

results of the installed capacity spot market auction for December 2011, which includes the clearing price for the NYC ICAP zone. On December 13, 2011, NYISO filed, in confidential and non-confidential form, an answer to Complainants' November 30, 2011 motion to lodge.

A. Summary of NYISO's August 3, 2011 Answer to the Complaint

31. In its August 3, 2011 Answer, NYISO states that the outcome and details of its analysis and the underlying data used are confidential and protected information under NYISO's tariffs. NYISO discloses that buyer-side exemption determinations were requested for the Bayonne and Astoria II projects, that the determinations were completed under the Pre-Amendment Rules, and that NYISO determined both projects were exempt from offer floor mitigation.²⁷

32. NYISO asserts that it is essential that the Commission require Complainants to fully satisfy their burden of proof, particularly when, as in this proceeding, the Market Monitoring Unit (MMU)²⁸ has been involved and has not raised any concerns about NYISO's adherence to its tariff. NYISO further asserts that Complainants have not met their burden of showing that NYISO's exemption determinations were contrary to the tariff or otherwise unjust and unreasonable. NYISO states that it has acted independently at all times and that Complainants show no evidence to the contrary. NYISO also states that lower capacity prices are not evidence that it has violated its tariff or that existing tariff provisions are unjust and unreasonable. NYISO adds that the Pre-Amendment Rules and the buyer-side mitigation rules were never intended to provide a blanket guarantee that new entry would never substantially reduce prices; nor do they guarantee that a new entrant with a contract to sell power would automatically be deemed to be improperly subsidized and thus subject to an offer floor. Indeed, according to NYISO, it is not unreasonable that economic new entry could reduce prices, perhaps significantly, given the well-understood fact that new entry is likely to be "lumpy" in nature. NYISO states that, for example, Astoria II and Bayonne would constitute approximately five percent of the total NYC unforced capacity. Further, NYISO states that Complainants ignore numerous other variables that could affect capacity prices as well as the non-

²⁷ NYISO August 3, 2011 Answer at 8.

²⁸ In NYISO, the MMU is an external consulting firm or other similar entity that reports to the non-management members of the Board, and that carries out the responsibilities of the MMU identified in Attachment O. *See* NYISO Market Services Tariff, Attachment O, § 30.4. NYISO also establishes a Market Mitigation and Analysis Department, comprised of full-time employees that report to NYISO management. *See* NYISO Market Services Tariff, Attachment O, § 30.3.

capacity market-related variables that impact whether market participants truly have a reasonable opportunity to recover their costs.

33. NYISO agrees with Complainants that it could not have lawfully exempted Astoria II or Bayonne as an “existing facility” under its Tariff²⁹ and NYISO states that it has not done so. NYISO also agrees that it has not made the exemption determinations under its currently effective rules and reaffirms its prior statements that under its currently effective rules, it would not make final determinations until after the class year facilities study process was complete, including all projects posting security in accordance with OATT Attachment S. NYISO states that it will not take any action contrary to these statements or its tariff.

34. NYISO asserts that Complainants’ showing that Astoria II or Bayonne could not reasonably have been exempted from mitigation under the Pre-Amendment Rules is a product of their own assumptions, which NYISO says are either incorrect or differ from those employed by NYISO. NYISO states that, for example, Complainants use the cost of capital from the 2010 ICAP demand curve reset proceeding when, according to NYISO, the cost of debt and equity, and the respective percentages thereof, that underlie the 2010 ICAP demand curve reset cost of capital bear no relation to even publicly available information regarding Astoria II’s financing costs. Further, according to NYISO, Complainants estimate net energy revenues for a combined cycle plant based on information provided in the 2010 ICAP demand curve reset proceeding; but their estimates of net energy revenues use gas prices for the November 1, 2006 to October 31, 2009 period, rather than the period they use for the balance of the analysis, i.e., May 2011 through April 2013.

35. NYISO further asserts that Complainants have not shown that there is any reason for the Commission to require exemption determinations to be withdrawn and projects to be reexamined. Even if the Commission does not conclude that this would constitute retroactive ratemaking, NYISO asserts that Complainants have not met their section 206 burden of showing that their proposed amendment would be just and reasonable.

B. Summary of NYISO’s September 8, 2011 Answer

36. NYISO states that it concluded that neither Astoria II nor Bayonne passed the Default exemption test. Specifically, NYISO concluded that there would be so much capacity offering into the market that the capacity market prices during each generator’s

²⁹ Section 23.4.5.7.6 states that an In-City Installed Capacity Supplier that is not a Special Case Resource shall be exempt from an Offer Floor if it was an existing facility on or before March 7, 2008.

first year would be lower than the highest Default Offer Floor applicable to these generators.

37. NYISO states that it concluded that both Astoria II and Bayonne passed the Unit exemption test.³⁰ That is, NYISO concluded that, for each of these generators, the average spot market capacity auction prices forecast for the generator's first three years of operation would exceed the generator's expected Unit net CONE. NYISO asserts that in making Unit net CONE determinations, the date on which forecasts of the parameters used in determining Unit net CONE were made should be assumed to be the date at which the ICAP supplier made the decision to enter the market (going-forward date). For Astoria, NYISO used July 11, 2008, as the going-forward date on the grounds that on this date Astoria II entered into the power purchase agreement with NYPA and began to make significant financial commitments.³¹ For Bayonne, NYISO used October 20, 2010, as the going-forward date, the date that Bayonne sought a mitigation determination from NYISO.³² We summarize the details of NYISO's analysis of the components of the Unit exemption test below.

1. Estimated ICAP Spot Market Auction Prices

38. The ICAP spot market auction price for the NYC ICAP zone in any month is established at the point where the supply curve developed from supply offers intersects the NYC ICAP demand curve. Thus, the price in any month depends on the amount of capacity offered for supply and the position of the demand curve.

a. Astoria II

39. In forecasting capacity prices applicable for Astoria II, NYISO estimated the amount of supply offered during the six capability periods beginning with the summer 2011 when Astoria II was expected to enter the capacity market from the standpoint of a July 2008 going-forward date. NYISO used load forecasts for the 2011-2014 period from the 2008 Gold Book for estimating levels of existing capacity, scheduled retirements and

³⁰ In the Unit exemption test, NYISO examines whether a generator's expected capacity revenues would exceed its net costs during the generator's first three years of operation. Unit exemption test is passed if: (i) the average of the ICAP spot market auction prices in the six capability periods beginning with the Starting capability period is projected by NYISO to be higher, with the inclusion of the generator; than (ii) the reasonably anticipated Unit Net CONE of the generator.

³¹ NYISO October 12, 2011 Answer, Patton Aff. ¶ 23.

³² NYISO September 8, 2011 Answer, Boles Bayonne Aff. ¶ 38.

resource additions in its ICAP forecasts.³³ NYISO states that it forecast that generator additions between 2008 and 2011 would include certain proposed facilities but only included those that were reasonably anticipated to be online during that period.³⁴

40. In estimating the position of the demand curves for Astoria II, NYISO began with the demand curves and the associated reference points accepted for capability years 2008/2009, 2009/2010, and 2010/2011, the curves that were identified in the NYISO tariff as of the July 2008 entry decision date. NYISO then adjusted them by applying the annual escalation rate underlying these curves (7.8 percent) to arrive at demand curves for the six capability periods beginning with the summer 2011 capability period. Based on these parameters, NYISO forecast that the three-year average ICAP price applicable for Astoria II would be \$78.06/kW-year.³⁵

b. Bayonne

41. In forecasting capacity prices applicable for Bayonne, NYISO estimated the amount of supply offered during the six capability periods beginning with summer 2012. NYISO used load forecasts for the 2012-2014 period from the 2010 Gold Book for estimating levels of existing capacity, scheduled retirements and resource additions to used in ICAP forecasts.³⁶

42. In estimating the position of the demand curves for Bayonne, NYISO began with the demand curves and the associated reference points accepted for capability years 2008/2009, 2009/2010, and 2010/2011, the curves that were identified in the NYISO tariff as of the October 20, 2010 entry decision date. NYISO then adjusted them by applying the annual escalation rate of 7.8 percent underlying these curves to arrive at demand curves for the six capability periods beginning with the summer 2012 capability period. Based on these parameters, NYISO forecast that the three-year average ICAP price applicable for Bayonne would be \$35.67/kW-year.

2. Estimated Gross CONE

43. Gross CONE represents the levelized annual investment cost of a generator per kW plus annual Operations & Maintenance (O&M) costs. To calculate gross CONE,

³³ NYISO September 8, 2011 Answer, Boles Astoria II Aff. ¶¶ 53-56.

³⁴ *Id.*, Boles Astoria II Aff. ¶¶ 58-60.

³⁵ *Id.*, Boles Astoria II Aff. ¶ 57.

³⁶ NYISO September 8, 2011 Answer, Boles Bayonne Aff. ¶¶ 50-53.

NYISO multiplies the total investment cost of the resource, net of sunk costs as of the entry decision date, by a real levelized carrying charge,³⁷ and then adds estimated annual O&M costs. The real levelized carrying charge depends on the weighted average cost of capital and an assumed useful life over which the investment would be amortized.

a. Astoria II

44. NYISO estimated the investment cost per kW of Astoria II excluding two categories of sunk costs. The first category involves comparatively small items, such as priority distribution costs, permitting costs, legal costs, and the cost of environmental and market studies. Complainants do not dispute the exclusion from investment costs of this first category of sunk costs. NYISO states that the second category represents a one-time \$120 million payment to Astoria Energy I for shared facilities that were constructed at the time Astoria Energy I was built.³⁸ As discussed below, Complainants do not agree that this second category is a sunk cost. To arrive at its estimate of gross CONE for Astoria II, NYISO multiplied its estimated investment cost by a real levelized carrying charge. NYISO states that this figure is based on Astoria II's actual debt and equity financing costs, capital structure, expected income taxes, and an assumed 30-year useful life.

b. Bayonne

45. NYISO estimated the investment cost per kW of Bayonne excluding sunk costs associated with permitting, legal costs, and the cost of environmental and market studies. To arrive at its estimate of gross CONE for Bayonne, NYISO multiplied the investment cost by a real levelized carrying charge based on Bayonne's actual debt and equity financing costs, capital structure, expected income taxes, and an assumed 30-year useful life.

3. Unit Net CONE

46. NYISO deducts expected net energy and ancillary services revenues from gross CONE to arrive at an estimate of Unit net CONE. NYISO uses an estimate of net energy revenues derived from the NERA Economic Consulting (NERA) econometric model, which is the same model used in the two most recent ICAP demand curve resets, with certain adjustments. NYISO states that the net energy revenue estimates depend on forecasts of natural gas prices (because natural gas prices affect both the likely energy

³⁷ The NYISO multiplied the per kW investment cost by a real levelized carrying charge to determine the annual capital costs of the project over the first three years after entry.

³⁸ NYISO September 8, 2011 Answer, Boles Astoria II Aff. ¶ 28.

prices as well as the running costs of Astoria II and Bayonne). NYISO uses natural gas futures prices available at the time of the entry decision date to forecast natural gas prices during the applicable capability periods. NYISO states that net energy revenues also depend on supply and demand conditions, and thus, on the level of excess capacity in the market.³⁹

47. NYISO states that for Astoria II, the forecast average expected price of capacity exceeds Astoria II's Unit net CONE. Therefore, NYISO concludes that Astoria II passes the Unit exemption test.⁴⁰ Likewise, for Bayonne, NYISO estimates the forecast average expected price of capacity exceeds Bayonne's Unit net CONE and thus, NYISO concludes that Bayonne passes the Unit exemption test.⁴¹

IV. Discussion

A. Procedural Matters

48. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2012), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2011), prohibits an answer to an answer unless otherwise ordered by the decisional authority. We will accept the answers filed in this proceeding because they have provided information that assisted us in our decision-making process.

49. Complainants filed various motions to lodge which provided information on the August, September, November, and December 2011 ICAP spot market auctions, a report on Complainants' credit rating, information from the NYPA regarding Astoria II's exemption from buyer-side market power mitigation rules, and a copy of the power purchase agreement between Astoria II and the NYPA. We grant the Complainants' motions to lodge because they have provided information that assisted us in our decision-making process.

50. In the Complainants' motion to lodge, filed October 7, 2011, Complainants seek to lodge documents produced by NYPA concerning NYISO's calculation of Unit net CONE for the Astoria II project, and the resulting exemption from buyer-side market power

³⁹ *Id.*, Boles Astoria II Aff. ¶¶ 35-39.

⁴⁰ *Id.*, Boles Astoria II Aff. ¶ 50.

⁴¹ *Id.*, Boles Bayonne Aff. ¶¶ 47-49.

mitigation rules.⁴² The motion sets forth a series of events, one of which is entitled “After Mar. 4, 2009” and states that under the execution of the Common Facilities Ownership Agreement, the Astoria II project agreed to pay \$120 million to Astoria I for facilities used in common, or shared, by both entities. NYISO excluded this amount from the Unit net CONE for the Astoria II project on the theory that the costs were sunk as of a “go-forward” date of July 11, 2008, as determined by NYISO and the Astoria II project.⁴³ Complainants note that in an email dated August 4, 2010, the Astoria II project quoted the estimated capital costs for the project at \$1.24 billion, where this figure made no exception for sunk costs as was made in the Unit net CONE calculation.⁴⁴

B. Substantive Matters

51. In its August 3, 2011 answer, NYISO agrees with Complainants’ assertion that neither Astoria II nor Bayonne was an existing facility prior to March 7, 2008, and therefore neither was exempt from the mitigation test. NYISO discloses that buyer-side exemption determinations were requested for the Bayonne and Astoria II projects, that the determinations were completed under the Pre-Amendment Rules, and that NYISO determined both projects were exempt from offer floor mitigation.⁴⁵ We find here that NYISO’s choice to apply the Pre-Amendment Rules in determining whether to exempt the Bayonne and the Astoria II projects was appropriate. Indeed, no one argues to the contrary. Further, no one challenges NYISO’s conclusion that Astoria II and Bayonne failed the Default exemption test. Rather it is the application of the Unit exemption test that is at issue here.

52. Complainants contend that NYISO’s exemption decisions failed to comport with its Pre-Amendment Rules. Complainants challenge the methodology and a number of the parameters used in applying the mitigation exemption test, including the timing of NYISO’s exemption determination, NYISO’s selection of the analysis reference date, NYISO’s methodology for determining energy and ancillary services revenues, the calculation of sunk costs, and the cost of capital.

⁴² Complainants October 7, 2011 Motion to Lodge at 1.

⁴³ *Id.* at 6.

⁴⁴ *Id.* at 6, n.25.

⁴⁵ NYISO August 3, 2011 Answer at 8.

1. Whether NYISO's Exemption Decisions Were Invalid Because They Occurred Before the Final Cost Allocation

53. Complainants argue that NYISO did not comply with the Services Tariff because, according to Complainants, by their express terms, the Pre-Amendment Rules precluded NYISO from granting exemptions under the Unit exemption test until a given project's interconnection cost allocation process was concluded. They assert that section 23.4.5.7.2 of the Pre-Amendment Rules provides that NYISO "shall inform the requesting entity whether the exemption specified in [the Unit exemption test] is applicable as soon as practicable *after completion* of the relevant Project Cost Allocation." Complainants state that absent a waiver of this tariff provision, which none of the parties sought, NYISO could not issue exemptions to either Astoria II or Bayonne in October 2010 because the interconnection cost allocation process was ongoing as to both projects.⁴⁶

54. Complainants also argue that any Unit net CONE estimate and any statements regarding the expected outcome of the Unit exemption test were only provisional because the Unit net CONE was defined to expressly "includ[e] interconnection costs,"⁴⁷ and interconnection costs were not known until the conclusion of the interconnection cost allocation process. Accordingly, Complainants argue that NYISO was obligated to provide revised price projections upon its issuance of a revised project cost allocation and inform the ICAP supplier if the Unit exemption test was applicable at the conclusion of the cost allocation process. Complainants add that a developer was free to proceed with its project based on NYISO's Unit net CONE projections but would assume the risk that those projections would later change, resulting in revised Unit net CONE calculations and a finding that the project failed the Unit exemption test.

55. NRG agrees with Complainants and explains that the class year allocation process starts with the developer making the request for the determination after: (i) executing "all necessary Interconnection Facilities Study Agreements"; and (ii) providing "all data available to the requesting entity relating to the reasonably anticipated Unit net CONE, but does not end until the cost year allocations are completed."⁴⁸ NRG argues that the class year allocations for 2009 (for Bayonne) and 2010 (for Astoria) were not completed.

⁴⁶ Complainants September 23, 2011 Answer at 10; Complainants October 21, 2011 Answer at 8.

⁴⁷ Complainants September 23, 2011 Answer at 12 (citing the definition of Unit Net CONE in section 23.2.1).

⁴⁸ NRG September 23, 2011 Comments at 8 (citing Original Sheet No. 476.04).

56. NYISO responds that Complainants' and NRG's interpretation of section 23.4.5.7.2 is inconsistent with the plain meaning and conventional understanding of the provision and with the overall structure of the buyer-side mitigation rules, which focus on determining whether entry decisions were reasonable at the time that they were made. NYISO argues that the Pre-Amendment Rules established that entities could obtain information by dates "not later than" certain milestones in the class year facilities study process. NYISO asserts that this language did not restrict or eliminate an entity's right under the tariff to request and receive an exemption determination before the class year facilities study cost allocation process is complete. NYISO contends that there is no reference to "provisional" determination procedures in the tariff and, in fact, Complainants' interpretation would in essence nullify the provisions requiring NYISO to provide the requester with NYISO's determination.⁴⁹

57. NYISO further contends that "Commission precedent and the November 26, 2010 Order in Docket No. EL10-3043 intended to allow a mitigation exemption determination before the developer decided whether to move forward with a project, but also to allow an exemption determination after the project was constructed."⁵⁰ According to NYISO, the August 2, 2011 Order clearly found that the tariff required the exemption determination to be made "prior to when the project accepts its cost allocation and enters the capacity market."⁵¹ Thus, NYISO concludes, the August 2, 2011 Order contradicts arguments that the Pre-Amendment Rules do not permit exemption determinations prior to the end of the relevant class year facilities study process.

58. In addition, NYISO states that the debate in Docket No. EL10-3043 regarding the change from the reasonably anticipated entry date rule under the Pre-Amendment Rules to the three-year rule⁵² centered on concerns regarding a new entrant's ability to decide when it would request a determination. NYISO argues that the flexibility allowed under the Pre-Amendment Rules created the possibility that a new entrant could influence the

⁴⁹ NYISO October 12, 2011 Answer at 13-14.

⁵⁰ August 2, 2011 Order, 136 FERC ¶ 61,077 at P 20.

⁵¹ *Id.* P 27.

⁵² NYISO explains that under the reasonably anticipated entry date rule the exemption analysis used price data starting with the capability period in which an ICAP supplier is reasonably anticipated to offer to supply UCAP. In contrast, under the three-year rule, the exemption analysis used ICAP spot market auction prices for future capability periods beginning with the summer capability period that begins three years from the start of the proposed facility's class year. NYISO October 12, 2011 Answer at 15, n.46.

anticipated entry date used in the determination because in the Pre-Amendment Rules, final mitigation determinations were not tied to the class year process. NYISO asserts that claims that a determination was tied to the class year process are inconsistent with the fact that there were projects in closed class years for which determinations had not yet been made.⁵³

59. Finally NYISO argues that the results of adopting Complainants' and NRG's interpretation of the Pre-Amendment Rules would be absurd and contrary to the August 2, 2011 Order. NYISO claims that the August 2, 2011 Order found that imposing an offer floor on all new entrants until the completion of their class year project cost allocation process, would impose an offer floor on economic entrants for reasons beyond their control and give competitors an undue economic advantage by affecting the price at which the new entrant may offer.

60. Bayonne and NYPA/NYC contend that NYISO's buyer-side mitigation determinations were in compliance with the then-existing NYISO tariff provisions.⁵⁴ Bayonne reiterates NYISO's arguments and states that it invested hundreds of millions of dollars based on its Unit exemption test status. Bayonne argues that where a party has relied on its exemption determination in making financing and other business and economic decisions, absent substantiated claims of fraud or intentional wrongdoing, the exemption determination should not be subject to re-testing one year later.⁵⁵ Bayonne contends that Complainants' and NRG's argument that the Pre-Amendment Rules prohibited an exemption determination before a certain date is motivated by their intent to keep Bayonne out of the market.

Commission Determination

61. Subsection (g)(ii) of the Pre-Amendment Rules of the Services Tariff sets out when NYISO makes the determination of whether an ICAP supplier shall be exempt from offer floor mitigation.⁵⁶ First it provides that the developer may request NYISO to make an exemption determination upon execution of all necessary interconnection

⁵³ NYISO October 12, 2011 Answer at 15 (citing Services Tariff, Attachment H § 23.4.5.7.3).

⁵⁴ NYISO October 12, 2011 Answer at 10-18; Bayonne September 23, 2011 Answer at 3; NYPA/NYC October 11, 2011 Answer at 6.

⁵⁵ Bayonne October 13, 2011 Answer at 12.

⁵⁶ NYISO, FERC Electric Tariff, Original Vol. No. 2, Attachment H, First Revised Sheet No. 476.03-476.04.

facilities study agreements for the ICAP supplier if such request includes all data available to the requesting entity relating to the reasonably anticipated Unit net CONE. It then provides that NYISO must give the developer specified information at certain times or milestones during the interconnection facilities study agreement process. It states that NYISO must provide the requesting entity with the relevant ICAP spot market auction price projections, the Default Offer Floors and its determination of the reasonably anticipated Unit net CONE (less the costs to be determined in the project cost allocation or revised project cost allocation, as applicable),⁵⁷ not later than the commencement of the initial decision period⁵⁸ for the applicable interconnection facilities agreement study. NYISO was also required to give revised price projections to developers that proceed to a subsequent decision period not later than NYISO's issuance of the revised project cost allocation. However, the only time that NYISO informs the developer of its exemption determination and whether the Unit exemption is applicable is "as soon as practicable after completion of the relevant project cost allocation or revised project cost allocation in accordance with methods and procedures specified in ISO Procedures." Attachment S in effect at the time of the NYISO exemption determinations at issue here provided that the "completion" of the interconnection cost allocation process occurs either when none of the remaining projects gives notice of non-acceptance of their cost allocation or all developers have dropped out. That is referred to in the Service Tariff as the "Final Decision Round."⁵⁹

⁵⁷ The NYISO Services Tariff defined "Unit net CONE" to specifically include "interconnection costs." NYISO Services Tariff, § 23.2.1, Attachment H, Definitions.

⁵⁸ Pursuant to section 25.8.2 of the Attachment S rules in effect when NYISO made its exemption determinations at issue here, the "Initial decision Period" is the 30 day period following approval by the NYISO Operating Committee of the cost allocations for the project developer's class year as proposed in the annual interconnection facilities study. *See* current section 25.8.2 of Attachment S of the NYISO Services Tariff. It is during that period that the project developer must notify NYISO that either it accepts or does not accept its initial cost allocation. If any developers reject their cost allocation, NYISO then re-allocates the interconnection costs (which will change) among the remaining class year projects in a "Revised Project Cost Allocation." Developers must provide the notification of acceptance or non-acceptance of a "Revised Project Cost Allocation" within 7 days of NYISO's issuance of the revised cost allocation. The cost allocation process continues until all remaining projects accept their cost allocations or drop out.

⁵⁹ NYISO Services Tariff, § 25.1.2, Attachment S, Definitions.

62. Thus, although NYISO was required to provide certain information during the interconnection study cost allocation process, it was only “as soon as practicable after completion of the relevant Project Cost Allocation or Revised Project Cost Allocation,” that it could make the exemption determination. This is reasonable because it is only after the interconnection costs, which are an explicit component of the definition of Unit net CONE, are known, that a determinative measure of Unit net CONE is possible. The other information that NYISO is obligated to provide earlier allows the developer to estimate whether it will be exempted, but the actual exemption determination only occurs after the relevant cost allocation is accepted by the project developer and the cost allocation process is final and complete. At any other time during the interconnection cost allocation process, NYISO cannot provide the developer with a Unit net CONE amount inclusive of the project’s cost allocation amount and, therefore, cannot provide an exemption determination.

63. We recognize that, due to the iterative nature of the class year interconnection cost allocation process, the Services Tariff did not reflect the originally-stated intent that the developer would have its exemption determination in hand before it would have to decide whether or not to accept its cost allocation. NYISO was, nonetheless, required to follow its tariff. We therefore agree with Complainants’ contention that NYISO’s exemption decisions at issue here violated section 23.4.5.7.2 of the Pre-Amendment Rules⁶⁰ by reason of its failure to wait to perform the determinations until a revised interconnection cost allocation was accepted and became final and the cost allocation process was completed.

64. However, because it took an inordinately long time for NYISO to complete the final project cost allocation for the 2009 and 2010 class years, the Commission will waive this tariff requirement. Astoria has been providing service since July 2011 when its unit entered the capacity market, and Bayonne began service in the summer of 2012. NYISO’s class year interconnection cost allocation process was completed for the 2009 and 2010 class years on November 30, 2011. To be an effective deterrent to uneconomic entry, the mitigation and offer floor determinations should at least be provided before the unit enters the capacity market, not after. Therefore, in this instance only, we will waive this tariff requirement and allow NYISO to make the determination prior to the final project cost allocations applicable to the Astoria and Bayonne projects. We will accept exemption determinations based on the most-recent interconnection process cost allocation to each project developer at the time in 2010. However, because of other

⁶⁰ Referred to at the time as section 4.5(g)(ii).

rulings we make later herein, NYISO must submit exemption determinations using different, updated data on prices, revenues, and costs as of October 2010.⁶¹

65. Further, granting a waiver of the exemption determination timeline in this instance is consistent with our ruling in the August 2, 2011 Order accepting NYISO's Post-Amendment Rules, where we stated that:

irrespective of whether the exemption determination is initially made by NYISO for the first time in a given Class Year or is the result of a reevaluation of the economics of a project in a later Class Year upon request of the project sponsor, the initial exemption determination or redetermination occurs prior to when the project accepts its cost allocation and enters the capacity market (*emphasis added*).⁶²

66. Accordingly, we grant the Complaint with respect to the allegation that NYISO's exemption decisions violated section 25.4.5.7.2 of the Pre-Amendment Rules, but under the circumstances here, grant waiver of such provision to allow NYISO to provide the exemption determinations for Astoria II and Bayonne prior to the date the interconnection cost allocation process is complete.

2. Analysis Reference Date

67. As we noted above,⁶³ the Pre-Amendment Unit mitigation exemption test required the projection of capacity prices and a generator's Unit net CONE for a three-year period commencing with the Unit's reasonably anticipated date of entry into the capacity market, which necessarily involves a forecast of the future based on information available at an analysis reference date. The exact analysis reference date – along with the associated market conditions and information available on that date – to use to forecast the inputs to the calculation of Unit net CONE for Astoria II is one of the major issues of contention in this proceeding.⁶⁴ In brief, the threshold issue is whether the Unit mitigation exemption analysis should only be based on: (a) data and information that were available as of the date that the project developer made the decision to go forward

⁶¹ The MMU, Dr. Patton, states that the determinations were finalized as of October 2010. NYISO September 8, 2011 Answer, Patton Aff. ¶ 25.

⁶² August 2, 2011 Order, 136 FERC ¶ 61,077 at P 27.

⁶³ See *supra* P 5.

⁶⁴ No party disputes NYISO's choice of October 2010 as the analysis reference date for Bayonne.

with the project (even if the exemption analysis happens later), i.e., as of the going-forward date; or (b) the most up-to-date data and information available at the time the exemption analysis is actually performed. NYISO used a going-forward date of July 2008 as the analysis reference date for the Astoria II exemption analysis. NYISO chose an analysis reference date of October 2010 for Bayonne's exemption analysis. NYISO states that it actually made the mitigation exemption determinations for both Astoria II and Bayonne in October 2010.⁶⁵

68. Complainants argue that NYISO had previously established the going-forward point under the Pre-Amendment Rules as coinciding with the completion of the interconnection project cost allocation process and nothing in the Pre-Amendment Rules would allow NYISO to travel back in time to some alternative point. They add that the use of some alternative point in time is inconsistent with Commission precedent and common sense. Complainants and NRG argue that a more appropriate date for Astoria would have been the date of the mitigation exemption test analysis, which was almost two years after the date NYISO used.

69. Further they argue that NYISO implemented the Unit exemption test in a patently unpredictable way, using drastically different testing date assumptions - July 2008 for Astoria II and October 2010 for Bayonne. Complainants assert that the Commission has found that regional transmission organizations like NYISO do not have "unfettered discretion," and must make determinations on the basis of "objective tariff provision[s]" in order to produce "predictable results."⁶⁶ Complainants state that the Commission has recognized that NYISO should "avoid discretionary determinations about when a developer had technically started construction."⁶⁷ In fact, according to Complainants, it was for this reason that the Pre-Amendment Rules, as well as the currently-effective

⁶⁵ NYISO September 8, 2011 Answer, Patton Aff. ¶¶ 21, 24.

⁶⁶ Complainants September 23, 2011 Answer at 16 (citing *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318, at PP 180-181 (2007) (Complainants assert that the Commission rejected a proposal that would have given PJM's market monitor the discretion to set or reset market clearing prices "[b]ecause this discretion would allow the Market Monitor to use its sole judgment to determine inputs that can ultimately set the market clearing price...." Further, Complainants cite the Commission's statement: "Instead of relying on the Market Monitor's discretion, objective criteria should be developed for use in such instances so that predictable results will emerge."), *reh'g denied*, 121 FERC ¶ 61,173 (2007).

⁶⁷ Complainants September 23, 2011 Answer at 17 (citing August 2, 2011 Order, 136 FERC ¶ 61,077 at P 20).

buyer-side market power mitigation rules, link the mitigation exemption determination to objective and easily definable milestones in the interconnection process, thereby avoiding messy attempts to reconstruct what an investor knew and decided at various points in time.⁶⁸

70. In addition, Complainants argue that NYISO made a number of errors in determining the analysis reference date for Astoria II. Complainants assert that NYPA did not begin to inquire about pursuing a mitigation exemption determination until August 11, 2009.⁶⁹ Further, according to Complainants, in 2008, the Astoria II project was still in a preliminary stage because the NYPA power purchase agreement contained a number of provisions pursuant to which the contract could have been cancelled at a relatively small cost.⁷⁰ Further, Complainants state that Astoria II could not have made its final investment decision before it had obtained financing on July 2, 2009,⁷¹ and Astoria II's 2008 capital investments were limited to letters of credit and deposits placed on major equipment, whereas its 2009 expenditures were typical of project financing processes.⁷² Finally Complainants state that Astoria II did not receive its Amended Certificate of Environmental Compatibility and Public Need until April 7, 2009 – a permit required for the project.⁷³ Complainants contend that the key project decision point did not take place until the late spring and summer of 2009.⁷⁴

71. Complainants further contend that if a July 2008 going-forward date was appropriate, NYISO should not have used the load forecast set forth in the 2008 Gold Book for estimating future wholesale market prices because at that time, the estimates were no longer reasonable; by mid-2008, this forecast had become outdated due in part to the state's conservation efforts.

⁶⁸ *Id.* at 17-18 (citing Hieronymus Aff. ¶ 42).

⁶⁹ *Id.*, Younger Aff. ¶ 65 (Complainants assert that once the Astoria II's power purchase agreement with NYPA was signed, Astoria II no longer had any interest in the application of the mitigation rules; rather, it was NYPA that approached NYISO regarding the mitigation exemption determination).

⁷⁰ *Id.*, Younger Aff. ¶ 68.

⁷¹ *Id.*, Younger Aff. ¶ 69.

⁷² *Id.*, Younger Aff. ¶ 70.

⁷³ *Id.*, Younger Aff. ¶ 71.

⁷⁴ *Id.*, Younger Aff. ¶ 72.

a. **NYISO's Response**

72. NYISO contends that its selection of the going-forward dates for both Astoria II and Bayonne, while not the only possible dates, were not only reasonable but were likely the most reasonable possible choice.⁷⁵ NYISO states that a mitigation exemption evaluation should assess whether a rational investor could reasonably expect a project to be economic based on information available at the time the investor committed to going forward.⁷⁶ In addition, NYISO states that each mitigation exemption evaluation should be based on information that would have been available at the time when the investor began to incur significant costs. The MMU, Dr. Patton, also asserts that, to the extent information is not available regarding what an investor thought at the time, the evaluations should use information available about what a rational investor would likely have expected at the time.⁷⁷

i. **Astoria II**

73. NYISO states that it used a July 11, 2008 going-forward date based on the facts that: (1) Astoria II and NYPA executed the Master Power Purchase and Sale Agreement on July 11, 2008; (2) Astoria II signed agreements with key suppliers in July 2008, including a contract with General Electric for purchase of the generators; (3) Astoria II began to incur significant expenses in July 2008; (4) Astoria II would have incurred significant contractual penalties if it had decided not to proceed with the project after signing the power purchase agreement; and (5) by July 2008, Astoria II could anticipate what its final financing would be with reasonable accuracy, and be confident that it would receive an Amended Certificate of Environmental Compatibility and Public Need.⁷⁸

74. NYPA/NYC concur with NYISO's choice of the going-forward date for Astoria II and assert that that date is further supported by the facts that Astoria II sought and received approval under section 69 of the New York Public Service Law on

⁷⁵ NYISO October 12, 2011 Answer at 22.

⁷⁶ *Id.*, Patton Aff. ¶ 15.

⁷⁷ *Id.*, Patton Aff. ¶ 17.

⁷⁸ NYISO October 12, 2011 Answer at 22-23.

December 15, 2008, and that, Astoria II could anticipate its final financing costs, with reasonable accuracy, by July 2008.⁷⁹

ii. Bayonne

75. NYISO states that for its mitigation exemption evaluation of the Bayonne project, it used October 2010 as the going-forward decision date. NYISO states that October 2010 is a reasonable going-forward date because Bayonne's project financing was completed on September 30, 2010.⁸⁰

76. Bayonne does not object to NYISO's use of October 2010 as its going-forward date. It states that, however, development of the Bayonne project started in 2007 and that it submitted its request for an exemption determination and supporting documentation to NYISO in the summer of 2010. Bayonne also states that, at the time NYISO was evaluating its exemption request, Bayonne provided additional information to NYISO, including the fact that it had entered into contracts for its turbines, its cable system, a natural gas delivery pipe line, and design, engineering, procurement and construction services for the Bayonne project. Bayonne notes that its turbine contract was executed in March 2008.⁸¹ Further, Bayonne states that it was in a mature stage of negotiating a Large Generator Interconnection Agreement with NYISO and Con Edison and that the terms of the financing were also known when it submitted its costs estimates for its exemption determination.⁸²

b. Complainants' Response

77. Complainants reiterate the arguments in their Complaint and continue to assert that NYISO's reasons for using July 2008 as the analysis reference date are not persuasive and that it should have used a date coinciding with the completion of the interconnection project cost allocation process.

⁷⁹ NYPA/NYC October 11, 2011 Answer at 17 citing NYPSC Case 08-E-1111, Astoria Energy II LLC and Astoria Energy LLC – Approval of Transfer, Financing, and Lightened Regulation, Order Approving Transfers and Financing And Making Other Findings (December 15, 2008).

⁸⁰ NYISO September 8, 2011 Answer, Patton Aff. ¶¶ 21-22. NYISO notes that Bayonne had incurred significant investment expenses in April 2010, but that using the earlier date would not have affected the outcome of the mitigation exemption evaluation.

⁸¹ Bayonne September 23, 2011 Answer, Shultz Aff. ¶ 8, n.1.

⁸² *Id.*, Shultz Aff. ¶¶ 9-10.

c. **Commission Determination**

78. The initial question before us is whether NYISO's use of data and information as of a going-forward date to conduct evaluations for purposes of the Unit exemption test under the Pre-Amendment Rules for Astoria II was reasonable.⁸³ Based on our finding above regarding the relationship of Unit exemption determinations and the interconnection cost allocation process, and as further discussed below, we conclude that NYISO's decision to project capacity prices for Astoria II based on the information available on a going-forward date of July 11, 2008, is not reasonable or consistent with the NYISO Pre-Amendment Tariff. Instead, based on that finding and our waiver of the Pre-Amendment tariff above, we conclude that the projection of capacity prices for the Unit exemption test should be made based on the most up-to-date data information available during the period when NYISO was evaluating the request to exempt Astoria II and Bayonne from offer floor mitigation, i.e., during 2010.

79. As noted above, following a request for an exemption determination, the Pre-Amendment Rules required NYISO to project capacity prices for three years starting when the facility reasonably is expected to offer capacity, and to compare these prices to the developer's reasonably anticipated Unit net CONE in making a Unit exemption determination. Consistent with our finding above, the Unit exemption determination of section 25.4.5.7.2(b) must include the final cost allocation accepted by the project developer from the Attachment S interconnection cost allocation process. Further, that provision requires NYISO to inform the requesting entity of its exemption decision as soon as practicable after completion of the relevant project cost allocation or revised project cost allocation. Accordingly, for those reasons, we find that the Pre-Amendment mitigation rules must be interpreted to require that all cost, price, and revenue projections used in the Unit exemption determination must be based on the most up-to-date data and information as of the same time frame as the final cost allocation.⁸⁴ To mix cost or other data taken from an earlier time period, for example, as of a much earlier going-forward date, with the cost allocated pursuant to the Attachment S process would mix apples and oranges. Therefore, for these reasons, we conclude that NYISO's approach is not consistent with the Pre-Amendment NYISO Tariff.

⁸³ This is not an issue in evaluating the exemption request by the Bayonne facility, because NYISO concluded that the Bayonne going-forward date was the same as the date when NYISO made its exemption decision and, therefore, NYISO used updated data and information from 2010.

⁸⁴ See *supra* PP 64-66.

80. Astoria II requested an exemption in spring 2010 and NYISO issued its exemption decision in October 2010. However, NYISO argues that its projection of capacity prices for the six capability periods beginning with summer 2011 should be based on the information and market expectations available in July 2008, more than two years before NYISO issued its exemption decision. NYISO's rationale is that in its view, July 11, 2008, is the date on which the investor committed to build the Astoria II facility, since that is the date that Astoria II entered into a power purchase agreement with NYPA and began to incur significant costs. And, according to NYISO, the exemption decision should be based on whether the decision to build appeared to be economically rational as of that date.

81. We conclude that NYISO's approach is not consistent with the Pre-Amendment NYISO tariff. First, we cannot find, and no party has asserted, that there is a provision of NYISO's tariff that supports basing the mitigation determination on a project's going-forward date or that even defines that term. If this was intended to be in the tariff, it was a very significant omission, as such date can be crucial to whether a developer passes or fails the mitigation test. Additionally, the Default exemption test is made in contemplation of a potential ICAP supplier entering the capacity market, and not just in contemplation of the construction of its generating or other facilities. It is entirely feasible that a developer would construct a generating unit primarily for the purpose of providing energy (and related services) rather than capacity. In fact, NYISO's Pre-Amendment tariff explicitly recognized this by providing two types of interconnection service: Energy Resource Interconnection Service (ERIS) and Capacity Resource Interconnection Service (CRIS).⁸⁵ Rather than paying for CRIS and taking on the obligations of a capacity supplier, developers could and have constructed facilities and entered only the energy and related ancillary service markets. So the going-forward date of a project is not necessarily the same as the going-forward date for participation in the capacity market.

82. We also note that NYISO's Pre-Amendment tariff permitted an energy-only ERIS provider to later enter the capacity market provided that it meets certain requirements including acceptance of its share of class year CRIS costs. Under NYISO's Pre-Amendment tariff, the decision to enter into the capacity market, whether the resource is yet to be constructed, or already in service, can only be made when the developer agrees to accept its share of class year project costs. As we found above, it is only then when NYISO can provide the developer with the results of the Default exemption test.

⁸⁵ See NYISO, Market Services Tariff, § 25.1.1, Attachment S. We note that the Post-Amendment Attachment S rules continue these services.

83. The use of information available as of the date NYISO makes the exemption determinations following the completion of the Attachment S interconnection cost allocation process is consistent with Dr. Patton's statements in 2007 as to the intent underlying NYISO's then-proposed buyer-side market mitigation rules: "The evaluation of whether or not the new entrant would be economic should be conducted before the developer commits to go forward with the project and accepts its cost allocation from the facilities study and makes a security deposit in the interconnection process."⁸⁶

84. Moreover, interpreting the tariff to require use of data and information as of a project going-forward date is unreasonable because, as is the case here, such an undefined, ambiguous reference date requires an imprecise and subjective determination, which tends to cause contentious debate over when the investment "going-forward" decision is made. In this regard, we agree with NYISO that the decision to move forward with a project is not generally tied to a single date, but is, instead, a series of decision points over an extended period of time.⁸⁷ Thus, this is consistent with the Commission's previous statements on the intent behind NYISO's buyer mitigation exemption process: "[W]e do not believe it is reasonable to bind NYISO and project developers to a timeline where NYISO must determine what constitutes the ambiguous "beginning of construction" or alternatively when a developer's "investment decision" is made."⁸⁸

⁸⁶ NYISO October 4, 2007 Filing, Docket No. EL07-39-000, Attachment 1 at P 70. Consistent with the August 2, 2010 Order, the Commission reads that statement by Dr. Patton as clarifying that he believed what he called the developer's "go forward" decision would be made no earlier than after the project developer is notified of its cost allocation and the project developer either accepts or rejects its initial cost allocation, not some earlier date when the "investment decision" is made, a date which the Commission found would be "ambiguous." See August 2, 2011 Order, 136 FERC ¶ 61,077 at P 27.

⁸⁷ NYISO October 12, 2011 Answer (citing October 12, 2011 Ungate Aff. ¶ 18). As the Complainants note, even though Astoria II entered into a power purchase agreement in July 2008, it did not obtain financing until almost a year later, and as of that later date, most Astoria's construction costs had not been incurred. Complainants September 23, 2011 Answer, Younger Aff. ¶ 69. As Mr. Younger states (Younger Aff. at n.36), Astoria II would have incurred liquidated damages backed by a \$37 million letter of credit if it had terminated the power purchase agreement, while it would have avoided more than \$1 billion in construction costs that it would avoid by terminating the project." We would expect that a prudent developer contemplating the expenditure of over a billion dollars to build a plant would periodically re-evaluate the economics of its potential investment.

⁸⁸ August 2, 2011 Order, 136 FERC ¶ 61,077 at P 27.

85. Therefore, the Commission concludes that it was not reasonable for NYISO to use data and information as of a going-forward date of July 11, 2008, for Astoria II's mitigation determination. We find, instead, that Astoria II's exemption request should have been based on the information that was available during 2010, when NYISO evaluated the request to exempt Astoria II from offer floor mitigation. However, in light of how events unfolded in this case, as discussed earlier in P 64, we clarify that, in performing the exemption re-determination required by this order, NYISO must use the most recent up-to-date data and information as of 2010 when it made its original determination.

3. Energy and Ancillary Services Revenues

a. Complaint

86. As noted earlier, energy and ancillary service revenues are deducted from gross CONE in order to calculate Unit net CONE. NYISO states that in determining energy and ancillary services revenues, it used the NERA econometric model from the 2010 ICAP demand curve reset.⁸⁹ NYISO explains that the NERA model uses the project-specific inputs, such as heat rates and other physical characteristics, for each project to simulate a hypothetical dispatch and calculate net energy revenues over three years.

87. NYISO states that net energy revenues for Astoria II were derived using projected natural gas future prices as of July 2008 for each month from November 2010 through October 2013.⁹⁰ To these revenues, NYISO added a transportation charge and New York City fuel taxes. For Bayonne, NYISO also used projected natural gas futures prices for Bayonne but without the transportation adder or New York City tax, as the Bayonne facility is in New Jersey.⁹¹ NYISO states net energy revenues for Bayonne were derived using projected natural gas prices as of October 2010 for each month from

⁸⁹ NYISO September 8, 2011 Answer, Meehan Aff. ¶ 16 (citing Independent Study to Establish Parameters of the ICAP Demand Curve for the New York Independent System Operator, Attachment 2 Exhibit B at Appendix 4 pp. 41-43, 52-58, in *New York Independent System Operator, Inc., Tariff Revisions to Implement ICAP Demand Curves for Capability Years 2011/2012, 2012/2013, and 2013/2014*, Docket No. ER11-2224-000 (filed November 30, 2010)).

⁹⁰ NYISO September 8, 2011 Answer, Meehan Aff. ¶¶ 22, 26.

⁹¹ NYISO September 8, 2011 Answer, Meehan Aff. ¶ 18.

November 2010 through October 2013.⁹² Further, NYISO explained that it projected net energy revenues at a 15 percent excess level for Bayonne.⁹³

88. Complainants assert that NYISO failed to calculate the likely projected annual energy and ancillary services revenues for the Astoria II and Bayonne projects in the manner required by the Services Tariff.⁹⁴ Complainants state inflated energy or ancillary service levels will result in an artificially low Unit net CONE.⁹⁵ Complainants assert that NYISO's methodology contains at least two errors that have resulted in inflated energy and ancillary service revenues. Complainants conclude that the two projects at issue here would have failed the Default exemption test if either of the two errors had been corrected. First, according to Complainants, NYISO's calculations are based on an average of energy prices in Zone J, despite the fact that the Astoria II and Bayonne projects will interconnect with the 345 kV interconnection, where energy prices are typically lower. Second, Complainants argue that NYISO erroneously relied on natural gas futures prices rather than historical natural gas prices to forecast natural gas prices.⁹⁶

89. With respect to the first error, Complainants contend that NYISO failed to account for the lower prices Astoria II and Bayonne would receive because they will interconnect with the 345 kV Con Edison system. According to Complainants, NYISO acknowledged the error but applied a flawed formula in trying to correct it. Complainants contend that NYISO artificially reduces its error in that NYISO calculates the price differential: (1) across all hours in the year, including hours where the differential was very small, when neither of the projects would be operating due to their higher operating costs;⁹⁷ and (2) without taking into account the higher winter output ratings for both projects.⁹⁸

⁹² *Id.*, Meehan Aff. ¶¶ 22, 27.

⁹³ *Id.*, Meehan Aff. ¶ 23.

⁹³ Complainants September 23, 2011 Answer at 5.

⁹⁴ *Id.* at 5-6.

⁹⁵ Complainants Aug. 19, 2011 Answer, Younger Supplemental Aff. ¶ 52.

⁹⁶ Complainants September 23, 2011 Answer at 5-6.

⁹⁷ Complainants September 23, 2011 Answer at 29 (citing Younger Second Supplemental Aff. ¶ 25).

⁹⁸ Complainants September 23, 2011 Answer at 29 (citing Younger Second Supplemental Aff. ¶¶ 28-29).

Accordingly, Complainants assert that NYISO is not using reasonably anticipated net energy and ancillary services revenues in its Unit net CONE analysis, in direct contravention to its tariff.

90. The second error that Complainants allege is that NYISO inappropriately used natural gas futures prices rather than historical prices in determining the energy and ancillary services revenues to use in the Unit net CONE determinations.⁹⁹ Complainants state that using natural gas futures prices is inappropriate for two reasons. First, according to Complainants, the NERA model was initially developed using historical natural gas prices, the model does not accurately project operating hours or accurately calculate revenues (because it incorrectly concludes that net energy revenues are inversely correlated with natural gas prices), and thus, it does not produce reasonable results when alternate gas pricing assumptions are used in the model.¹⁰⁰ Second, Complainants argue that, there is not sufficient natural gas futures price data, because the natural gas futures market three to six years beyond the date of the natural gas futures trade is too thinly traded to provide a robust estimate of future natural gas prices.¹⁰¹ Complainants state that NYISO's use of gas futures prices led to its assumption that Bayonne would operate more hours per year than the NERA model projects for a similar unit. Complainants argue that an over-calculation of annual run hours would result in inflated energy and ancillary services revenues. Complainants further argue that correcting this miscalculation would cause the Bayonne and Astoria II facilities to have higher Unit net CONE values, and cause them to fail the Part B Test. In addition to the above factors, NRG argues that NYISO's calculation of energy and ancillary service revenues for Bayonne is overstated because it is based on a number of run hours that exceeds the number allowed under Bayonne's air permit limits.¹⁰²

b. Answers to the Complaint

91. With respect to the Complainants' first criticism of the calculation of energy and ancillary services revenues, NYISO states that the NERA model estimates net energy revenues relative to the Zone J price, which is a load-weighted average price. NYISO further states that an alternate approach would be to further adjust the net energy revenues to account for prices at the 345kV level. NYISO explains that the adjustment

⁹⁹ See Complainants September 23, 2011 Answer, Younger Second Supplemental Aff., ¶¶ 61-64.

¹⁰⁰ *Id.*, ¶¶ 33-42.

¹⁰¹ *Id.*, ¶¶ 33, 62.

¹⁰² NRG Companies October 25, 2011 Answer at 7.

would be based on the average difference between the day-ahead Zone J price and the day-ahead price on the New York City 345 kV system at the Poletti bus over the Historic Period. NYISO adds that this adjustment was not included in the exemption analysis for Astoria II. But an analysis that included this “345” adjustment was included in NYISO’s September 8 Supplemental Answer, and NYISO concludes that even with the adjustment, Astoria II would still be exempt under the Unit exemption test.¹⁰³

92. With respect to the claim that NYISO should have used historical gas prices rather than gas futures prices,¹⁰⁴ NYISO responds that gas futures prices are appropriate for estimating net energy revenues for the Unit net CONE calculations, and that “[the] regression equation and gas price coefficients are a reasonable way to reflect future electricity prices.”¹⁰⁵ In addition, NYISO argues that the “[NERA] model is soundly specified, has strong statistical properties including those associated with the gas price coefficients and was designed for the exact purpose of estimating net energy revenues for various unit types at various reserve margins.”¹⁰⁶

93. NYISO and its consultant, Mr. Meehan, disagree with Complainants that the NERA model produces inaccurate results, and thus, they disagree that gas futures prices should not be used in the NERA model to estimate net energy and ancillary services revenues in the mitigation exemption test. Complainants argue that net energy revenues are positively correlated with gas prices, and that the NERA model’s conclusion to the contrary reveals the model’s flaws. In response, NYISO defends the NERA model and its conclusion that net energy revenues vary inversely with gas prices. Mr. Meehan states that whether or not net revenues fall or rise as gas prices fall depends on the relative effect of gas prices on energy prices and variable operating costs. Mr. Meehan observes that there are hours when a gas resource is not the marginal, price-setting resource, and during these hours, energy prices are likely to be insensitive to gas prices, so that gas price reductions would raise net energy revenues.¹⁰⁷

¹⁰³ NYISO October 12, 2011 Answer at 33 (citing September 8, 2011 Boles Astoria II Aff. ¶¶ 37, 42-44; September 8, 2011 Boles Bayonne Aff. ¶¶ 37, 40-42).

¹⁰⁴ NYISO October 12, 2011 Answer at 34 (citing Complainants’ Answer at 30-32).

¹⁰⁵ *Id.* at 35 (citing Joint Meehan/Falk Aff. ¶ 17).

¹⁰⁶ *Id.* at 35 (citing Joint Meehan/Falk Aff. ¶ 18).

¹⁰⁷ *Id.* at 35 (citing Joint Meehan/Falk Aff. ¶¶ 10-11).

94. NYISO also responds to Complainants' claim that the gas futures market is thin in future years. NYISO argues that: (1) the futures market is well established and there is open interest at least six years out; (2) the gas futures market changes each trading day and reflects the most recent expectations (while the Department of Energy – Energy Information Agency forecasts, derived from historical prices, are generally updated only once a year); and (3) traders market their positions to market data rather than forecasts only when futures markets exist.¹⁰⁸

95. Bayonne notes that the NERA model is the econometric model used to develop Commission-approved demand curves for the 2010 ICAP demand curve reset proceeding.¹⁰⁹ Bayonne further notes that in the 2010 ICAP demand curve reset proceeding, Complainants raised the same argument that NERA's statistical analysis to project net energy and ancillary services revenues cause the model to overstate the revenues and understate the associated reference point price.¹¹⁰ Moreover, Bayonne notes that the Commission rejected the Complainants' critique of the estimated energy and ancillary services offsets and the underlying analyses, concluding "that the estimated values have been provided by objective and reasonable statistical methods."¹¹¹

96. NYISO and Bayonne disagree with Complainants that using the NERA model was unreasonable because it resulted in higher operating hours for the Bayonne project than the LMS100 operating in New York City, which is the Proxy Generating Unit whose net costs are used to develop the ICAP demand curve.¹¹² They assert that the estimate of

¹⁰⁸ *Id.* P 35.

¹⁰⁹ Bayonne September 23, 2011 Answer at 10 (citing Meehan Aff. ¶15).

¹¹⁰ *Id.* at 11 (citing *New York Indep. Sys. Operator, Inc.*, Docket No. ER11-2224-000, Protest of the New York City Suppliers at 57 (filed Dec. 21, 2010)). (The New York City Suppliers are Astoria Generating, TC Ravenswood and NRG.) The price at the reference point is the price on the ICAP demand curve associated with 100 percent of the Minimum Installed Capacity Requirement. See NYISO Market Services Tariff, Section 5.14.1.2.

¹¹¹ Bayonne September 23, 2011 Answer at 11 (citing *New York Indep. Sys. Operator, Inc.*, 134 FERC ¶ 61,058, at P 136, *reh'g*, 135 FERC ¶ 61,170 at P 73 (2011)) (stating that the Commission "remain[s] convinced that the NYISO models [proposed by NERA] rely on a statistical analysis that yields objective results that are just and reasonable").

¹¹² NYISO October 12, 2011 Answer at 36 (citing Complainants' September 23, 2011 Answer at 32).

Bayonne's operating hours is reasonable because the Bayonne unit has a lower adjusted effective heat rate and marginal running cost since it has lower taxes and gas fuel costs (due to its location), quick start capabilities (less than 5 minutes from zero to full output), very short minimum run times, the ability to go from zero to full output in eight distinct increments, no fixed startup charges, very low startup and minimum generator costs, and automatic generation control load following.¹¹³ Therefore, according to NYISO and Bayonne, there are no flaws with the NERA Model.¹¹⁴

97. In response to NRG's assertion that NYISO used an incorrect number of run hours for the Bayonne facility that exceed the number allowed under Bayonne's air permits, NYISO states that it re-calculated net energy and ancillary services revenues using the run hours suggested by NRG. Even with the re-calculation, NYISO found that Bayonne passed the Unit exemption test.¹¹⁵

98. NYISO asserts that after taking account of a run limit, both of Bayonne's Unit net Cone values remain lower than the three-year average annual price forecast. Therefore, NYISO concludes, reduced run hours still result in Bayonne passing the Default exemption test, thereby being exempt from the offer floor.¹¹⁶

c. Commission Determination

99. As noted earlier, NYISO's Tariff provides that NYISO perform the Part B Unit exemption test using the subject project's "reasonably anticipated Unit net CONE."¹¹⁷ Unit net CONE is calculated by deducting net energy and ancillary service revenues from

¹¹³ Bayonne September 23, 2011 Answer at 12 (citing Flemming Aff. ¶ 14), and Meehan/Falk Aff. at PP19-22.

¹¹⁴ NYISO October 12, 2011 Answer at 36 (citing Meehan/Falk Aff. ¶¶ 26-29; Bayonne September 23, 2011 Answer at 13).

¹¹⁵ NYISO Nov. 9, 2011 Answer at 6 and Boles Aff. ¶¶ 8-9. (In order to confirm the results, NYISO calculated net energy revenues under the run limit scenario by removing Bayonne's least profitable contiguous blocks of operation until the necessary run hours were obtained. NYISO argues that removing the least profitable contiguous blocks of operation is a realistic depiction of how a plant would be expected to run, and consistent with how the hypothetical dispatch in the NERA econometric model would treat startup costs and designate run hours.)

¹¹⁶ Boles Supp. Aff. ¶ 14.

¹¹⁷ Pre-Amendment Rules, § 23.4.5.7.2.

the resource's gross CONE. Complainants raise three issues regarding NYISO's calculations of energy and ancillary service revenues. We conclude that NYISO has adequately responded to these criticisms, and we conclude that NYISO's methodology used to calculate the relevant energy and ancillary services revenues was reasonable. However, consistent with our ruling above with respect to the rejection of NYISO's use of a going-forward date for the data reference date, we direct NYISO to re-calculate such revenues using updated data and information from 2010.

100. The first issue concerns the proper location for energy prices to have been used in the calculations. Complainants argue that NYISO's calculations are based on average prices in Zone J, when in fact the two projects will interconnect with the 345 kV interconnection, where energy prices are typically lower. However, as discussed above, NYISO made a reasonable adjustment to account for the lower prices at the 345 kV interconnection. This adjustment is reasonable because it is based on the average difference in the day-ahead Zone J price and the day-ahead price on the New York City 345 kV system at the Poletti bus over the Historic Period.

101. The second issue concerns the choice between using natural gas futures prices and using historic natural gas prices. Complainants argue that NYISO's estimates of energy and ancillary service revenues are inaccurate because they are based on natural gas price forecasts that are derived from gas futures prices, rather than historical gas prices. We find that NYISO's use of natural gas futures prices in performing the Part B Unit exemption test was reasonable as explained below. However, as noted above, we direct NYISO to use more up-to-date natural gas futures prices data and information from 2010.

102. Complainants offer two basic reasons why natural gas futures prices should not have been used and historic prices should have been used instead. First, Complainants argue that natural gas futures prices should not be used as an input to the NERA model in estimating net energy and ancillary services revenues, because the NERA model does not accurately analyze the effect of natural gas prices on net energy and ancillary services revenues. In particular, Complainants contend that the NERA model's results are nonsensical because the model finds that net energy revenues vary inversely with natural gas prices, contrary to the conclusions of most industry experts, including NYISO's MMU. But even if Complainants' criticism of the model were correct, their criticism does not shed light on whether historical natural gas prices or natural gas futures prices should be used as inputs to the model. If the NERA model were flawed, the Complainants should seek to fix the model. Complainants do not explain why using historical natural gas prices in a flawed model would provide a more accurate estimate of net energy and ancillary service revenues than using natural gas futures prices.

103. However, we are not persuaded that the NERA model's results – that find that net energy revenues vary inversely with natural gas prices – are unreasonable or inaccurate, for the following reason. Net energy revenues are calculated as gross energy revenues

(mainly, LBMP multiplied by the quantity of energy sold) minus variable costs (which are largely the fuel costs of producing energy). Of course, natural gas prices influence the LBMP to the extent that the marginal, price-setting resource is fired by gas, since higher gas prices raise the offer price of the marginal resource. And natural gas prices influence the variable costs of a natural gas-fired resource. If a given change – say, an increase – in natural gas prices increases LBMPs by the same percentage as the increase in the variable cost of a natural gas-fired resource, then the result would be an increase in the net energy revenue of the resource. That is because a percentage increase of a larger number, i.e., LBMP, results in a greater dollar increase than the same percentage increase of a smaller number, i.e., variable costs. However, as NYISO observes, a natural gas price increase does not always result in a percentage increase in the variable cost of a natural gas-fired resource that matches the percentage increase in LBMPs. One reason is that the marginal resource that sets the LBMP is not always a natural gas-fired resource, and in these instances, a natural gas price increase may have little or no effect on the LBMP. And if the resulting increase in variable costs is sufficiently large relative to the increase in LBMPs, then the resource's net energy revenues could decrease as a result of a natural gas price increase. Thus, it is not unreasonable for the NERA model to conclude that net energy revenues may vary inversely with natural gas prices.

104. The second argument that Complainants offer against using gas futures prices is that, according to Complainants, there is not enough data on natural gas futures prices to reliably use them in the Default exemption test. We disagree. As NYISO states, the natural gas futures market is well-established and there is open interest at least six years into the future. Therefore, there is enough data to rely on natural gas futures prices.

105. Finally, Complainants raise the issue of air permit limits. NRG argues that NYISO's calculation of energy and ancillary service revenues for Bayonne is overstated because it is based on a number of run hours that exceeds the number allowed under Bayonne's air permit limits. However, while NYISO's original calculation of Bayonne's energy and ancillary service revenues is based on this flaw, NYISO re-calculated Bayonne's energy and ancillary service revenues to reflect a number of run hours that are within Bayonne's air permit limits.¹¹⁸ As a result, NYISO concludes, and we agree, that with respect to energy and ancillary service revenues, the recalculated amounts produce a revised Unit net CONE that is less than Bayonne's expected capacity revenues. As a result, Bayonne would continue to pass the Unit exemption test.

¹¹⁸ See NYISO November 9, 2011 Answer at 6, and Boles Aff. ¶¶ 8-9.

4. Astoria II Sunk Costs

a. Complaint

106. Complainants assert that NYISO erred when it excluded from Unit net CONE an amount that Astoria II paid to Astoria Energy LLC (Astoria I) for shared facilities on the theory that those costs were sunk by virtue of having been incurred by Astoria I – an affiliated but legally separate and distinct entity with different ownership – before July 2008. Complainants assert that the costs at issue were recoverable and therefore do not qualify as sunk costs that can properly be excluded from the costs of this project.¹¹⁹ Complainants argue that the definition of Unit net CONE does not authorize NYISO to designate and exclude certain legitimate and verifiable costs simply because NYISO or the MMU views them as sunk.

107. Complainants argue that even though NYISO is correct in arguing that sunk costs do not affect an investor's decision to initiate a project, this is not a sufficient reason to exclude sunk costs from the Default mitigation exemption test calculation, and to do so would risk skewing the price comparison essential to the calculation.¹²⁰ They assert that it is unreliable to compare a project that excludes sunk costs to forecast demand curve-based capacity market prices that include sunk costs.¹²¹ Complainants further assert that NYISO's approach is susceptible to gaming because a buyer/new entrant can construct the unit before going into the interconnection process and then claim that the facility's construction cost are sunk costs.¹²² Further, Complainants note that the methodology used to choose which costs are classified as sunk is undefined and easily manipulated.¹²³

108. Complainants state that NYISO further argues that these costs were sunk because they were incurred by Astoria I before investors initiated the Astoria II project and because when Astoria II entered, no incremental costs associated with the existing facilities were incurred and no opportunity costs foregone. Complainants argue that Astoria I's costs are irrelevant, it is Astoria II's costs that are at issue, and Astoria II must pay for use of the existing shared facilities. Complainants also argue that even after the

¹¹⁹ Complainants assert that costs are not sunk unless they have no recoverable value. Complainants September 23, 2011 Answer, Marciano Aff. ¶¶ 4, 8.

¹²⁰ Complainants September 23, 2011 Answer at 21.

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.* at 22.

July 2008 going-forward date, Astoria II still had the option of not paying Astoria I for the existing shared facilities so the costs were not sunk as to Astoria II at the July 2008 going-forward date. Complainants further argue that NYISO's failure to recognize opportunity costs of using the facilities fundamentally mischaracterizes opportunity costs and that, as a basic economic principle, any asset would have an opportunity cost to the extent that the asset could be sold.

109. Complainants state that if Astoria II is uneconomic, then the market value of the existing joint facilities under current conditions would fall to zero. Complainants assert that this theory, however, falsely conflates a project's being uneconomic for purposes of the three-year period examined in the Default exemption test with its being uneconomic at a future time or over the long term. The Complainants argue that the fact that Astoria II paid Astoria I for those facilities confirms that they were not worthless and therefore their costs cannot be considered sunk.¹²⁴

b. NYISO's Answer

110. NYISO defines sunk costs as certain costs incurred before a rational investor commits to proceed with an investment project and that cannot be recouped.¹²⁵ NYISO states that, in addition to the preliminary legal and regulatory costs that are typically considered sunk costs, the Astoria II project had sunk costs in the form of shared facility costs, which were paid by Astoria II to Astoria I to compensate Astoria I for Astoria II's use of shared facilities such as land, electricity interconnection, system upgrades, gas pipeline interconnection, pre-construction development, construction permitting, and demolition. According to NYISO this cost is based on a cost allocation to Astoria II that is embodied in the Common Facilities Ownership Agreement between Astoria Energy I and Astoria II.¹²⁶

111. NYISO explains that a rational investor will exclude sunk costs from its evaluation of whether the investment project will be profitable.¹²⁷ NYISO further explains that just

¹²⁴ *Id.* at 12.

¹²⁵ NYISO September 8, 2011 Answer, Patton Aff. ¶ 26.

¹²⁶ *Id.* ¶ 31.

¹²⁷ NYISO provides the following example:

Suppose an investor has spent \$10 on research to estimate that a \$100 investment would provide a likely revenue stream of \$105. A rational investor would move forward with the investment, since the \$10 research cost cannot be saved by not making the investment and earning a \$5 profit

(continued...)

as a rational investor will refrain from including sunk costs in its analysis of investment profitability, the mitigation exemption test should also exclude sunk costs from its assessment of the economics of a project because the mitigation exemption test is a measure of the profitability of the project.¹²⁸ NYISO also warns that if sunk costs are not excluded from the mitigation exemption test, an economic project may be erroneously subject to mitigation.¹²⁹ NYISO also argues that there is no requirement expressly provided in its tariff, nor is there reason to imply as such, that requires it to include sunk costs in the Unit net CONE calculation.¹³⁰

112. NYISO argues that the costs incurred by Astoria I to construct the shared facilities were sunk when Astoria II's investors decided to go forward with the project for the following reasons. First, the costs would not have been reduced or recouped "but for" Astoria II's need for those facilities because they were unsuitable for any purpose other than supporting a second electricity generating plant co-located with the Astoria I plant. Second, Astoria II incurred no incremental costs associated with the shared facilities. Third, there is no factual support for Complainants' assertion that shared costs would have substantial value to a third-party user, either at this time or in the future. NYISO states that at the time Astoria II entered there would have been little basis for believing that future entry would be more economic.¹³¹ Fourth, NYISO argues that the price paid by Astoria II to Astoria I for shared facilities cannot be considered to be the market value. Fifth, NYISO asserts that it is inappropriate to assume a positive market value for the joint facilities because the existing value of the joint facilities is limited to the Astoria II project's excess profits.¹³²

113. NYISO states that no opportunity to sell or lease the facilities was foregone.¹³³ According to NYISO, the contention that the existing shared facilities could be rented to another new entrant concedes that entry would have been sufficiently economic for

on the investment is superior to earning no profit. NYISO September 8, 2011 Answer, Patton Aff. ¶ 26.

¹²⁸ NYISO September 8, 2011 Answer, Patton Aff. ¶ 27.

¹²⁹ *Id.*

¹³⁰ NYISO October 12, 2011 Answer at 28.

¹³¹ NYISO October 12, 2011 Answer, Patton Aff. ¶¶ 47-52.

¹³² NYISO October 12, 2011 Answer at 29.

¹³³ NYISO September 8, 2011 Answer, Patton Aff. ¶ 33.

another entrant to be willing to pay for the use of the facilities. NYISO contends that if entry were not economic, no competing entrant would be willing to pay anything for the use of the existing shared facilities, which means there is no opportunity cost associated with Astoria II using them. Hence, according to NYISO, the proper standard by which to measure opportunity costs is the potential lease revenue from a non-electricity generating entity and since there are no potential alternative uses of these facilities, their costs should be considered sunk for purposes of the Default exemption test.¹³⁴

114. NYISO disagrees with an assertion by IPPNY that the value of the capacity deliverability rights¹³⁵ should have been included in Astoria II's Unit exemption test analysis because, according to NYISO, it is highly uncertain that the deliverability rights could be sold to a competing entrant.¹³⁶ NYISO states that it appears the rights that were transferred to Astoria II would have no material value to another entrant because the rights were previously associated with NYPA's retired Poletti I electric generating facility (Poletti I), and only projects that were operational within three years of its removal from service were eligible to receive the transfer.¹³⁷ NYISO cites Dr. Patton's observation that if Astoria II is the most economic resource that could enter in time to acquire the rights, then their value is based solely on Astoria II's profitability. Dr. Patton further explains that deliverability rights could only have a positive market value if Astoria II were economic. Dr. Patton states that he does not believe that a lower cost entrant could have used the deliverability rights. He identifies the other resources in

¹³⁴ *Id.* ¶ 35.

¹³⁵ Unforced Capacity Deliverability Rights are rights, measured in MWs, associated with new incremental controllable transmission projects that provide a transmission interface to a NYCA Locality (i.e., an area of the NYCA, such as New York City, in which a minimum amount of Installed Capacity must be maintained). When combined with Unforced Capacity which is located in an External Control Area or non-constrained NYCA region, and which is deliverable to the NYCA interface with the applicable transmission facility, these rights allow such Unforced Capacity to be treated as if it were located in the NYCA Locality, thereby contributing to an LSE's Locational Installed Capacity Requirement. *See*, NYISO Market Services Tariff, Section 2.21.

¹³⁶ NYISO October 12, 2011 Answer at 29.

¹³⁷ *Id.* at 30 (citing NYISO OATT, section 25.9.3 Attachment S).

the queue and concludes that each of these likely had costs significantly higher than Astoria II.¹³⁸

115. NYISO also responds to claims that excluding sunk costs, as NYISO has done in this context, creates opportunities for gaming.¹³⁹ NYISO argues that concerns of gaming do not impact the economically correct assumptions made by NYISO in calculating the Unit net CONE and that such arguments are merely attempts by the Complainants to act in the place of the market monitor.¹⁴⁰

c. Comments in Support of the Complaint

116. IPPNY filed an answer supporting Complainants and arguing that NYISO improperly excluded from the Unit net CONE, the costs paid by the Astoria II project to Astoria I for facilities constructed to support a second generating unit at the existing site.¹⁴¹ IPPNY argues that to treat these costs as sunk costs would open up a loophole in the Default exemption test in that a new entrant could pay for the construction of the generating unit prior to beginning the interconnection process and then subsequently claim that all monies spent up to that point were sunk costs.¹⁴²

117. IPPNY further argues that NYISO ignored or vastly understated the value of the capacity deliverability rights that Astoria II acquired from NYPA, which Astoria II needed to be eligible to provide capacity resource interconnection service for its full output. IPPNY states that NYPA transferred its grandfathered capacity deliverability rights from Poletti I to Astoria II and although it is unclear what, if anything Astoria II paid for these deliverability rights, this is not a basis for NYISO to exclude their value in

¹³⁸ *Id.*, Patton Aff. ¶¶ 55-56 (stating that the other three resources in the queue were 79.9 MW simple-cycle natural gas combustion turbines; they were at a different location than Poletti I; and the Poletti I CRIS may or may not have been transferable to a different location).

¹³⁹ NYISO October 12, 2011 Answer at 30.

¹⁴⁰ *Id.* at 30-31.

¹⁴¹ IPPNY September 23, 2011 Answer at 5.

¹⁴² *Id.* at 5-6.

determining Astoria II's CONE. IPPNY states that their value could be as much as \$600 million, as reflected in the latest class year cost allocation process studies.¹⁴³ In addition, IPPNY argues that a buyer of capacity from a new project could avoid mitigation rules by gifting property to the project owner.¹⁴⁴ IPPNY explains, for example, that a load serving entity could build a generating plant, sell the plant to a third party for one dollar, and purchase energy from the third party at an above-market price.¹⁴⁵ IPPNY asserts that based on NYISO's logic, the project would have a CONE of one dollar and would permit the load serving entity to sell the capacity from the plant unmitigated.¹⁴⁶ In IPPNY's view, such a sale would produce an absurd result by crashing the installed capacity price for all other capacity resources supplying the load serving entity.¹⁴⁷ IPPNY argues that there is no logical basis for NYISO's tariff to include the full construction cost of a plant in the calculation of CONE, but to exclude the deliverability costs.¹⁴⁸

118. Brookfield also asserts that NYISO's exclusion of the costs of shared facilities from the calculation of capital costs for Astoria II significantly understates the true marginal costs of the project. Brookfield asserts that the purchase of common facilities by Astoria II should be seen as marginal in terms of the economic decision of the developer to go forward. Brookfield argues that the facilities are not available for incremental use without the new user purchasing them from Astoria I, a purchase that would require the developer's consideration of this cost as part of its overall cost in deciding to go forward. In other words, according to Brookfield, this is simply a representation of the opportunity cost of the common facilities to the original Astoria I facility. Brookfield adds that while NYISO considered this opportunity cost concept, it dismissed it without adequate justification for doing so.

¹⁴³ *Id.* at 4-5. (IPPNY states that NYISO estimated that NRG Energy Inc.'s proposed 744 MW Berrians III project would be required to pay for system deliverability upgrades costing approximately \$666 million to allow the project to sell capacity into the New York City market.)

¹⁴⁴ *Id.* at 4-5.

¹⁴⁵ *Id.* at 5.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

d. Comments in Support of NYISO

119. NYPA supports NYISO's position¹⁴⁹ and asserts that Complainants present hypotheticals and generalities and form arguments and objections based on those hypotheticals and generalities, rather than address the facts and circumstances of this case.¹⁵⁰ NYPA argues that the sunk cost determination was appropriate because of the unique nature of the Astoria II site and its inextricable relationship to Astoria I. NYPA adds that, if the site for the second power block were sold to a competing, unaffiliated developer, the two competitors could not continue to share facilities such as a control room, administrative building, or a boiler room, for instance.

120. NYPA further argues that even if the shared facilities were somehow transferable to a third party, Complainants' allegations are inapposite because their definition of sunk costs is not controlling or relevant. NYPA states that the Services Tariff gives NYISO discretion to determine reasonably anticipated Unit net CONE, and the fact that NYISO, the MMU, and Sargent & Lundy,¹⁵¹ none of whom have a stake in the outcome except the protection of competitive markets, looked at these costs and determined that these costs were appropriately excluded for Astoria II's Unit net CONE.

Commission Determination

121. With regard to Astoria II, we conclude that it was improper for NYISO to exclude the costs associated with the shared facilities from the calculation of Astoria II's Unit net CONE. The developers of Astoria II paid the developers of Astoria I for a portion of the costs of the shared facilities pursuant to an agreement between the parties dated July 11, 2008. NYISO and others argue that this payment should be excluded from the calculation of Astoria II's Unit net CONE because this payment represents a sunk cost as that term is defined by economists, that is, a cost incurred in the past for an asset that no longer has any opportunity cost or market value. But we conclude that the issue of whether the shared facilities have any opportunity cost or market value is irrelevant to the decision whether to include the costs in the calculation of projected Unit net CONE for purposes of the Unit Exemption analysis. The Pre-Amendment Rules (as well as the currently effective tariff) define Unit net CONE as the "localized levelized embedded costs of a specified Installed Capacity supplier, including interconnection costs ... net of

¹⁴⁹ NYPA October 11, 2011 Answer at 6.

¹⁵⁰ *Id.* at 20-21.

¹⁵¹ Sargent & Lundy is one of the consulting firms that conducted cost studies used in developing the most recent ICAP demand curves for NYISO.

likely projected annual Energy and Ancillary Services revenues.”¹⁵² The common meaning of the term “embedded costs” includes all costs that have been incurred in the past, whether or not the associated assets have any opportunity costs or market value.¹⁵³ Thus, in determining whether the costs of the shared facilities should be included in the calculation of Astoria II’s Unit net CONE, it is irrelevant whether the shared facilities have opportunity costs. Since the developers of Astoria II paid for the use of these shared facilities, we conclude that the amount paid by the Astoria II developers should be included in Astoria II’s Unit net CONE.

¹⁵² See Services Tariff, Vol. 2, § 23.2.1.

¹⁵³ For example, in *Resource, An Encyclopedia of Utility Industry Terms*, (PG&E, January 1985, p. 147), embedded cost is defined as

[a]n historical cost, or a cost that was incurred in the past. The costs associated with financing and depreciating current plant are embedded costs, in that they have already been incurred and cannot be varied. The embedded cost of service includes the capital cost of existing capacity, including plants built years ago as well as the most recent capacity additions.

EnergyVortex.com provides the following definition:

Embedded costs represent the total costs of all assets and ongoing charges incurred in providing and maintaining a supply of energy. So named because these costs are ‘embedded’ in the system and cannot be changed or separated from the actual costs of producing and generating energy. Embedded costs most commonly refer to costs incurred in the past which allow an energy utility to produce or deliver energy in the present. (See www.energyvortex.com/energydictionary/EnergyVortex.htm.)

Utilityregulation.com provides the following discussion:

Accountants are concerned primarily with the proper recording and measuring of historical costs based upon a uniform set of rules. They have developed a comprehensive system of recording and reporting data about costs, which is used by managers, investors, regulators, and economists in carrying out their respective jobs. The data, recorded in the books and records of a firm, are referred to as “accounting” or “embedded” costs. (See www.utilityregulation.com/content/essays/t1.pdf.)

122. For similar reasons, we disagree with IPPNY that NYISO should include the opportunity cost or fair value of the deliverability rights that were transferred to Astoria II from NYPA. Of course, capacity deliverability rights are a pre-requisite for Astoria II's participation in NYISO's capacity market. But the Unit exemption test requires a comparison of revenues with *embedded* costs. Astoria II's embedded costs would include the out-of-pocket costs incurred by Astoria II in acquiring these rights, not their opportunity costs or fair value. We also conclude that excluding Astoria II's share of class year 2010 interconnection costs is improper, as they are also a component of embedded costs.

5. Cost of Capital

a. Complaint

123. Complainants argue that in calculating the cost of capital, NYISO used financing terms that were only available to Astoria II as a result of the power purchase agreement and that these financing terms were not the result of legitimate competitive advantage but rather are attributable to out-of-market payments. Complainants assert that the power purchase agreement will lower the project's risk, thus enabling it to attract debt and equity capital investors with lower debt return and lower equity return requirements (i.e., the equity investor will add a lower project risk premium to its cost of equity). Complainants quote NYISO's statement that

the [mitigation exemption test] evaluations seek to determine whether a rational investor would expect the wholesale market revenues earned by the project to exceed the investment cost of the project. If this is true, it is economic regardless of the subsidies. If not, it is uneconomic regardless of the subsidies and should be mitigated.¹⁵⁴

124. Complainants further argue that use of the power purchase agreement is inappropriate because it was the result of a discriminatory contracting process that was limited to new resources. Complainants contend that such limitations indicate that NYPA was willing to purchase capacity from a new entrant even if existing suppliers were willing to provide that capacity at a lower price. Complainants argue that the Default exemption test was expressly designed to prevent uneconomic entry from suppressing capacity market clearing prices and that, to be exempt from mitigation, a new entrant must show that it is economic; it cannot simply rely on having a contract as the basis for exemption. Likewise, according to Complainants, a new entrant also must not be permitted to rely upon beneficial financing or other terms brought about only by its

¹⁵⁴ Complainants September 23, 2011 Answer at 27 (citing NYISO September 8, 2011 Answer, Patton Aff. ¶ 12).

discriminatory contract to artificially reduce its Unit net CONE. Rather, they argue that NYISO should have used the cost of capital figures for the 2010 ICAP demand curve reset proxy unit.¹⁵⁵

125. With respect to Bayonne, Complainants argue that NYISO provides no support for its assumption regarding cost of capital and that an appropriate cost of capital for the Bayonne facility would reflect the risk inherent in the Bayonne project.¹⁵⁶ Further, according to Complainants, NYISO focuses exclusively on Hess' cost of capital and ignores ArcLight, which is also a major investor in the Bayonne project.¹⁵⁷ With respect to Hess, Complainants argue that NYISO's cost-of-equity value is not consistent with publicly available estimates of Hess' after-tax weighted average cost of capital.¹⁵⁸

b. NYISO's Response

126. NYISO states that it used the actual project financing terms (i.e., the capital structure, rate of return and cost of debt) when calculating the gross and net CONE values that were subsequently used to evaluate whether the Astoria II and Bayonne projects should be exempted from mitigation.¹⁵⁹

127. NYISO explains that Astoria II was able to get good financing terms due to: (1) the 20-year power purchase agreement with NYPA, which provides a predictable stream of revenues; and (2) NYPA's good credit rating as a state-chartered entity.¹⁶⁰ NYISO further explains that the power purchase agreement serves as a hedge against volatile short-term capacity prices.¹⁶¹

¹⁵⁵ Complainants September 23, 2011 Answer, Younger Aff. ¶¶ 100-101.

¹⁵⁶ *Id.*, Younger Aff. ¶ 106.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*, Younger Aff. ¶¶ 105-106.

¹⁵⁹ NYISO September 8, 2011 Answer, Patton Aff. ¶¶ 44, 47.

¹⁶⁰ *Id.*, Patton Aff. ¶ 43.

¹⁶¹ *Id.*

128. NYISO states that Bayonne was able to get favorable financing terms because one of its owners has an investment-grade credit rating, which is higher than the non-investment grade rating.¹⁶²

c. Comments

129. Brookfield agrees with Complainants that the power purchase agreement artificially lowers the cost of capital because NYPA is a state-chartered agency that is not subject to market-based constraints regarding cost recovery. According to Brookfield, with a power purchase agreement in place, the cost of funds to Astoria would be the same whether the market was in surplus or in deficit. Brookfield contends that such effects could reasonably be considered if the power purchase agreement counterparty was a private entity that was economically at risk, but it should not be considered here because NYPA is not at risk.¹⁶³ Accordingly, Brookfield asserts that the benefits of a power purchase agreement should be omitted in the calculation of the cost of funds and capital structure.¹⁶⁴

130. NRG contends that NYISO has not made a showing that Hess's cost of capital was approximately equal to the cost of capital for the Bayonne facility and therefore NRG argues that NYISO should have used the default financing assumptions from the 2010 ICAP demand curve reset process.¹⁶⁵

131. NYPA supports NYISO's use of the actual costs in determining the weighted average cost of capital.¹⁶⁶ NYPA argues that Complainants' contention that a power purchase agreement creates an unfair advantage or is evidence of gaming is inconsistent with their statements regarding their own consideration of a power purchase agreement and provides proof that Complainants' real intent is to block new entry. Secondly, NYPA asserts that the Services Tariff does not give Complainants any right or ability to dictate the assumptions and facts that NYISO is to use in performing the mitigation exemption test. NYPA states that the Part B exemption test evaluates *Unit* net CONE, not a proxy net CONE, and not a Unit net CONE with proxy capital structure. NYPA

¹⁶² *Id.*, Patton Aff. ¶ 41. *See also* NYISO October 12, 2011 Answer at 38 (citing NYISO September 8, 2011 Answer, Ungate (Bayonne) Aff. ¶¶ 28-29).

¹⁶³ Brookfield September 23, 2011 Answer, Shanker Aff. at 16-17.

¹⁶⁴ Brookfield September 23 Answer at 4.

¹⁶⁵ NRG September 23, 2011 Comments, Pfeifenberger Aff. ¶ 37.

¹⁶⁶ NYPA October 11, 2011 Answer at 24-27.

adds that there is no basis for ignoring a known cost input and substituting a proxy input just because a new entrant's competitors do not like the fact that the entrant has favorable financing terms.

132. NYPA also argues that Complainants confuse power purchase agreement revenue with capital structure and err in equating the decrease in financing risk to some sort of subsidy. NYPA states that no one is proposing to offset Unit net CONE with Astoria II's revenue stream under the power purchase agreement; rather power purchase agreements reduce project risk and thus financing costs. NYPA maintains that equating this decrease in financing risk to some sort of subsidy is unsupportable.

133. NYPA includes in its answer the affidavit of Consultant Mathew J. Morey who asserts that as an actual and legitimate factor in the development and value of a new entrant, the entrant's power purchase agreement should be reflected in the development of its weighted average cost of capital and Unit Net CONE. Finally NYPA argues that its request for proposals (RFP) process resulting in the power purchase agreement was open and transparent and in no way discriminatory.¹⁶⁷ NYPA asserts that no claim or complaint of discriminatory practices was ever filed against NYPA with respect to its RFP process, and in any event, the RFP is irrelevant to the issue confronting the Commission, i.e., whether NYISO should have ignored Astoria II's actual capital structure and substituted a proxy designed by Astoria II's competitors.

Commission Determination

134. We find that NYISO's use of the actual cost of capital is not consistent with our findings in *PJM Power Providers Group v. PJM Interconnection, L.L.C.*,¹⁶⁸ in which we addressed whether PJM Interconnection, L.L.C. (PJM) appropriately applied its buyer side market power mitigation rules. In *PJM*, we rejected an argument by Hess to require PJM to use a proxy reference unit financing structure rather than allowing project developers to put forth their individual financing structures.¹⁶⁹ We found that such a requirement would not allow PJM to recognize the lower financing costs of sellers that are especially creditworthy or that have negotiated contracts that have enabled them to secure favorable credit terms.¹⁷⁰ However, we also found that PJM and its Internal Market Monitor must exercise discretion in assessing whether "competitive cost

¹⁶⁷ *Id.*

¹⁶⁸ 137 FERC ¶ 61,145 (2011) (*PJM*).

¹⁶⁹ *Id.* P 249 (addressing PJM's Minimum Offer Price Rule, the mechanism that seeks to prevent the exercise of buyer market power in the forward capacity market).

¹⁷⁰ *Id.*

advantages” are legitimate and determine whether there are “irregular or anomalous” cost advantages or sources of revenue that “do not reflect arm’s-length transactions, or that are not in ordinary course of [business].”¹⁷¹ We find that in this proceeding, which also addresses buyer market power, the same rationale is applicable.

135. Here, we agree with Complainants’ assertion that the power purchase agreement itself, which is an out-of-market payment available only to Astoria II, will lower the project’s risk, enabling it to attract debt and equity capital investors on more favorable terms inconsistent with a competitive offer. We further agree that the contracting process that awarded the power purchase agreement to Astoria II was discriminatory – because the process was limited to new resources – and thus, the resulting lower financing costs do not reflect competitive market processes. Because the contracting process was discriminatory, the lower financing costs associated with the power purchase agreement fall into the category of “irregular or anomalous” cost advantages that are “not in the ordinary course of business;” so, consistent with *PJM*, we find that NYISO should use the proxy cost of capital. Accordingly, consistent with our ruling *supra* regarding the analysis reference date, we will require NYISO to use the proxy reference unit’s cost of capital as of the date the analysis for Astoria II was performed in 2010.

136. We disagree with NYPA that Complainants’ efforts to enter into power purchase agreements in order to obtain financing for their own generation projects in New York City somehow impact their allegations regarding Astoria II’s power purchase agreement in this proceeding.¹⁷² Complainants’ support for the use of power purchase agreements for their own generation projects in New York City does not render the contracting process giving rise to the Astoria II power purchase agreement any less discriminatory.

137. We further disagree with NYPA’s assertion that there is no basis for substituting the cost of capital of the proxy unit for the actual cost of capital under the Part B test. While NYPA is correct that the Part B test uses actual inputs from the unit being analyzed, when actual capital costs are improperly impacted by an “irregular or anomalous” cost advantage resulting from a discriminatory contracting process such as the NYPA RFP, actual capital cost should be replaced with proxy capital costs for purposes of the Part B test evaluation. Further, NYPA’s contention that its RFP process was in no way discriminatory because it was open and transparent is inapposite. The contracting process, or RFP, was discriminatory because it was limited to new resources, resulting in financing costs not reflective of competitive market processes. The

¹⁷¹ *Id.* P 245.

¹⁷² NYPA October 11, 2011 Answer at 24-25

transparency with which such a discriminatory process was carried out is immaterial and has no impact on our determination.

138. With respect to Bayonne, we find that Complainants' assertion that Bayonne only used the cost of capital for Hess is without merit. As explained by NYISO, the capital costs of all of Bayonne's owners were used in determining its actual cost of capital.¹⁷³

139. Accordingly, we grant the Complaint with respect to the cost of capital for Astoria and deny the Complaint with respect to the cost of capital for Bayonne.

6. Redetermination of the Offer Floor Mitigation Exemption

140. As discussed above, we direct NYISO to recalculate its exemption determinations using different, updated data on prices, revenues, and costs as of October 2010.¹⁷⁴ Also, as discussed above, with respect to Astoria II, we direct NYISO to recalculate Astoria II's Unit net CONE to include its share of the cost of common facilities, Astoria II's share of class year 2010 project cost allocation, and the out-of-pocket costs (if any) of the transferred capacity deliverability rights as of October 2010.¹⁷⁵

141. If NYISO's redeterminations of the mitigation exemptions for Astoria II and Bayonne result in either of them not being exempt from mitigation, they will be subject to the applicable offer floor for the duration specified in NYISO's tariff. Of course, Astoria II has already participated, and cleared, in several auctions held in past months without being subject to an offer floor. However, even if NYISO finds that either Astoria II or Bayonne is subject to an offer floor, we will not require NYISO to re-run the auctions occurring in the past based on such offer floors. Re-running past auctions would create market uncertainty for market participants and require resolving complex questions. For example, if any resources that cleared the original auction (and actually provided capacity services) did not clear the re-run auction, the question would arise whether such a resource should be paid, and if so, how much. Conversely, if any resources failing to clear the original auction (and thus, not providing capacity services in that past period) would clear in the re-run auction, the question would arise whether such a resource should be paid (despite not providing capacity services in the past period), and if so, how much. We conclude that it is preferable not to re-run these past auctions, in order to provide greater certainty for market participants, and to avoid the need to resolve these complex issues. Because we are not requiring a retroactive remedy, if and at such

¹⁷³ NYISO October 12, 2011 Answer at 37-38.

¹⁷⁴ See *supra* PP 64, 85, and 139.

¹⁷⁵ See *supra* P 122.

time that NYISO determines that the subject projects are not exempt, NYISO should apply the applicable offer floor prospectively from the date of the determination for the period provided in the Services Tariff.

142. We emphasize that our actions herein do not serve to restrict the authority state or local agencies may have to address reliability concerns. NYPA argues that it held a solicitation for new capacity to “address what were, at the time the decision was made to proceed with the project, undisputed significant concerns about the future reliability of the electric system” due to the anticipated retirement of generation in NYC.¹⁷⁶ We note that if NYISO projects a capacity shortfall that threatens reliability, *by design* NYISO’s buyer side mitigation rules exempt new capacity offers from mitigation. Specifically, when NYISO conducts its exemption test, it projects prices for future capacity market auctions based on expected levels of available capacity and the corresponding price levels captured in NYISO’s demand curves. Under NYISO’s demand curves, the Default net CONE corresponds to a specified percentage of capacity in excess of the system needs, and the Default Offer Floor (equal to 75 percent of Default net CONE) corresponds to an even greater level of excess capacity, currently set at approximately 6.3 percent above the New York minimum capacity requirement.¹⁷⁷ If NYISO forecasts capacity levels to be any less than 106.3 percent of minimum requirements, NYISO will project a capacity auction price that exceeds the Default Offer Floor, and thus, will automatically exempt all new capacity offers from offer floor mitigation under the Default exemption prong.¹⁷⁸

¹⁷⁶ See NYPA August 3, 2011 Protest at 10-13 and NYPA October 11, 2011 Answer at 5.

¹⁷⁷ The specific excess corresponding to the Default net CONE and the Default Offer Floor may vary with each demand curve reset and with each capacity zone. Currently, the Default Net CONE is set for the New York City zone at 2.3 percent above the New York minimum capacity requirement. (See, 136 FERC 61,192, at P 55.) The current Default Offer Floor corresponds to a level of capacity that is 6.3 percent above the minimum capacity requirement. [See NYISO Market Services Tariff, Section 5.14.1.2.] We calculate this 6.3 percent figure by determining the quantity associated with the Default Offer Floor price along the demand curve line segment drawn between a price/quantity pair of Default Net Cone and 102.3 percent, and a price/quantity pair of 0 and 118 percent.

¹⁷⁸ We note that an automatic exemption for new capacity offers based on Default net CONE would occur regardless of any finding with respect to the costs in determining Unit net CONE. See *supra* P 4.

The Commission orders:

The Complaint is hereby granted, in part, and denied, in part, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.