FOR PUBLICATION

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

MPS MERCHANT SERVICES, INC.,
Petitioner,

CALIFORNIA PUBLIC UTILITIES COMMISSION,
Intervenor,

PACIFIC GAS & ELECTRIC COMPANY; SOUTHERN CALIFORNIA EDISON CO.; THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. KAMALA D. HARRIS, ATTORNEY GENERAL,
Intervenors,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

No. 15-73803

ILLINOVA CORPORATION, on behalf of Illinova Energy Partners, Inc.,
Petitioner,

CALIFORNIA PUBLIC UTILITIES COMMISSION; PACIFIC GAS & ELECTRIC COMPANY; SOUTHERN CALIFORNIA EDISON CO.; THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. KAMALA D. HARRIS, ATTORNEY GENERAL,
Intervenors,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

No. 15-73818

FERC No.
EL00-95-280

BP ENERGY COMPANY,
Petitioner,

CALIFORNIA PUBLIC UTILITIES COMMISSION; PACIFIC GAS & ELECTRIC COMPANY; SOUTHERN CALIFORNIA EDISON CO.; THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. KAMALA D. HARRIS, ATTORNEY GENERAL,
Intervenors,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

No. 15-73905

APX, INC.,
Petitioner,

CALIFORNIA PUBLIC UTILITIES COMMISSION; PACIFIC GAS & ELECTRIC COMPANY; SOUTHERN CALIFORNIA EDISON CO.; THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. KAMALA D. HARRIS, ATTORNEY GENERAL,
Intervenors,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

No. 15-73912

SHELL ENERGY NORTH AMERICA (US), L.P.,
Petitioner,

CALIFORNIA PUBLIC UTILITIES COMMISSION; PACIFIC GAS & ELECTRIC COMPANY; SOUTHERN CALIFORNIA EDISON CO.; THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. KAMALA D. HARRIS, ATTORNEY GENERAL,
Intervenors,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

No. 16-70004

MPS MERCHANT SERVICES, INC., *Petitioner*, CALIFORNIA PUBLIC UTILITIES COMMISSION; PACIFIC GAS & ELECTRIC COMPANY; SOUTHERN CALIFORNIA EDISON COMPANY; THE PEOPLE OF THE STATE OF CALIFORNIA, EX REL. KAMALA D. HARRIS, ATTORNEY GENERAL, *Intervenors*, v. FEDERAL ENERGY REGULATORY COMMISSION, *Respondent*.	No. 16-70524
ILLINOVA CORPORATION, on behalf of Illinova Energy Partners, Inc., *Petitioner*, v. FEDERAL ENERGY REGULATORY COMMISSION, *Respondent*.	No. 16-70525

SHELL ENERGY NORTH AMERICA (US), L.P.,
Petitioner,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

No. 16-70868

FERC No. EL00-95-287

OPINION

On Petition for Review of an Order of the Federal Energy Regulatory Commission

Argued and Submitted August 1, 2016
San Francisco, California

Filed September 8, 2016

Before: Sidney R. Thomas, Chief Judge, and M. Margaret McKeown and Richard R. Clifton, Circuit Judges.

Opinion by Chief Judge Thomas

SUMMARY[*]

Federal Energy Regulatory Commission

The panel denied in part and dismissed in part consolidated petitions for review brought by various power companies, and held that the Federal Energy Regulatory Commission ("FERC") did not arbitrarily and capriciously determine that the energy companies committed tariff violations in California during the summer of 2000.

As part of deregulating its investor-owned, regulated, vertically integrated electric utility market, California created two non-profit entities: the California Power Exchange Corporation (CalPX) and the California Independent System Operator Corporation (Cal-ISO). Both entities were subject to FERC jurisdiction, with CalPX operating pursuant to a FERC-approved tariff and wholesale rate schedule. The tariff incorporated a protocol, the Market Monitoring and Information Protocol, which set forth rules for identifying and protecting against abuses of market power.

The panel held that FERC's determination – that electric sellers Shell Energy North America, LP, MPS Merchant Services, Inc., and Illinova Corporation violated the Cal-ISO tariff and Market Monitoring and Information Protocol – was not arbitrary, capricious, or an abuse of discretion. Specifically, the panel held that FERC reasonably interpreted the Cal-ISO tariff and Market Monitoring and Information Protocol to prohibit the practices of false export, false load

[*] This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

scheduling, and Types II and III anomalous bidding. The panel further held that FERC reasonably concluded that the sellers engaged during the Summer Period (the period from May 1, 2000, to October 1, 2000) in the practices deemed tariff violations by the orders on review.

The panel further held that FERC's Summer Period determinations regarding APX, Inc., and BP Energy Co. were not arbitrary, capricious, or an abuse of discretion. The panel held that FERC reasonably determined that APX engaged in economic withholding and overscheduling, and therefore violated the Cal-ISO tariff.

Finally, the panel held that because FERC's remedial order is not final, the panel lacked appellate jurisdiction over it.

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Beth G. Pacella, Deputy Solicitor; Robert H. Solomon, Solicitor; Max Minzner, General Counsel; Washington, D.C.; as and for Respondent Federal Energy Regulatory Commission.

OPINION

THOMAS, Chief Circuit Judge:

In these petitions for review, we consider whether the Federal Energy Regulatory Commission ("FERC" or "Commission") arbitrarily and capriciously determined that various energy companies committed tariff violations in California during the summer of 2000. We conclude that it did not, and we deny the petitions for review.

I

This case is part of a long-standing series of decisions arising out of California's energy crisis in 2000 and 2001. The relevant factual background was described in our prior opinions, so we need not describe it in detail here.[1] In brief, FERC in the 1990s commenced a program of deregulating and "unbundling" the wholesale electric power industry by restructuring and separating electrical generation, transmission, and distribution.[2] As a result, California

[1] *See, e.g.*, *Cal. ex. rel. Lockyer v. FERC*, 383 F.3d 1006 (9th Cir. 2004); *Pub. Utils. Comm'n of State of Cal. v. FERC*, 462 F.3d 1027 (9th Cir. 2006) ("*CPUC*"); *Cal ex. rel. Harris v. FERC*, 809 F.3d 491 (9th Cir. 2015) ("*Harris*").

[2] *See Promoting Wholesale Competition Through Open Access Nondiscriminatory Transmission Services by Public Utilities*, 61 Fed. Reg. 21,540, 21,541 (May 10, 1996) ("FERC Order No. 888"), *on reh'g*, 62 Fed. Reg. 12,274 (Mar. 14, 1997), *on reh'g*, 62 Fed. Reg. 64,688 (Dec. 9, 1997), *on reh'g*, 82 FERC ¶ 61,046 (1998), *aff'd Transmission Access Policy Study Grp. v. FERC*, 225 F.3d 667 (D.C. Cir.2000) (per curiam), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

deregulated its investor-owned, regulated, vertically integrated utility market.[3]

As part of the deregulation, California created two non-profit entities: the California Power Exchange Corporation ("CalPX") and the California Independent System Operator Corporation ("Cal-ISO"). *CPUC*, 462 F.3d at 1037–39. CalPX was a wholesale clearinghouse created primarily to operate two spot markets: (1) the "day-ahead" trading market, in which the market clearing price was derived from the sellers' and buyers' price and quantity determinations for the next day's energy transactions, and (2) the "day of" or "hour-ahead" trading market, in which CalPX would determine, on an hourly basis, a single market clearing price which all suppliers would be paid. *Id.* at 1038. Cal-ISO managed California's electricity transmission grid and was responsible for all real-time operations, including balancing electrical supply and demand. *Id.* at 1038–39. Both entities were subject to FERC jurisdiction, with CalPX operating pursuant to a FERC-approved tariff and wholesale rate schedule. *Pac. Gas & Elec. Co.*, 77 FERC ¶ 61,204 at 61,803–05 (1996), *reh'g denied*, 81 FERC ¶ 61,122 (1997).

The Cal-ISO tariff comprehensively regulated California's power markets. In relevant part, the tariff barred power marketers from buying electricity in the day-ahead market in order to resell that electricity in the real-time market. And the tariff incorporated a protocol—the Market Monitoring and Information Protocol ("MMIP")—which set forth rules for identifying and protecting against abuses of

[3] Act of September 23, 1996, 1996 Cal. Legis. Serv. 854 (codified at Cal. Pub. Util. Code §§ 330–398.5).

market power. *See Am. Elec. Power Serv. Corp.*, 103 FERC ¶ 61,345 at para. 8 (2003).

Unlike most energy markets, 80% of the California transactions during the relevant period were conducted in the spot markets. *See CPUC*, 462 F.3d at 1039. Most electricity, by design, traded in CalPX's day-ahead market. After a summer 2000 spike in energy prices and a series of rolling blackouts, San Diego Gas & Electric Company ("SDG&E") filed a complaint with FERC under § 206 of the Federal Power Act, 16 U.S.C. § 824(e). *See id.* at 1040–41. SDG&E's complaint requested that the agency impose a price cap on sales into the CalPX and Cal-ISO markets. *See id.* at 1041. FERC denied the request, but then commenced an investigatory proceeding into the justness and reasonableness of the market rates. *San Diego Gas & Elec. Co.*, 92 FERC ¶ 61,172 (2000). FERC ultimately issued a number of orders, which have been the subject of prior petitions for review. This case returns to us after our decision in *CPUC*, in which we directed FERC to determine whether certain sellers of electricity in California power markets violated the rules governing those markets in the summer of 2000, and whether these violations could be remedied under the agency's authority in § 309 of the FPA. *CPUC*, 462 F.3d at 1048–51, 1065.

Following our remand in *CPUC*, FERC instructed an administrative law judge ("ALJ") to determine for the period from May 1, 2000 to October 1, 2000 (the "Summer Period"): (1) which market practices and behaviors constituted a violation of the then-current Cal-ISO, CalPX, and individual seller's tariffs and Commission orders; (2) whether any of the respondents engaged in those tariff violations; and (3) whether any such tariff violations affected the market

clearing price. *San Diego Gas & Elec. Co.*, 135 FERC ¶ 61,183 at para. 31 (2011).

Months of hearings followed. The California Parties,[4] the energy companies and Commission staff presented evidence, producing a transcript more than 10,000 pages long. An Initial Decision issued in February 2013. *See San Diego Gas & Elec. Co.*, 142 FERC ¶ 63,011 (2013) ("Initial Decision"). The Initial Decision found that certain energy companies had violated the Cal-ISO tariff via several marketing strategies, which the ALJ dubbed "False Export," "False Load Scheduling" and "Anomalous Bidding."

A False Export violation occurred when a marketer purchased electricity from the CalPX or other sources internal to California, scheduled that electricity in advance for export, and subsequently scheduled that electricity in real-time for import. *See, e.g.*, *San Diego Gas & Elec. Co.*, 149 FERC ¶ 61,116 at para. 108 (2014) ("Op.536"); *San Diego Gas & Elec. Co.*, 153 FERC ¶ 61,144 at para. 80 (2015) ("Op.536-A"). The twin transactions "disguised [the] energy [as] sourced from outside," 142 FERC ¶ 63,011 at para. 36, even though the electricity never left California. *See* 149 FERC ¶ 61,116 at para. 122 (noting that electricity "scheduled from A . . . to B . . . and from B to C . . . actually just went from A to C."). The False Export strategy let sellers "evade the [Cal-ISO] real time price caps," which did not apply to imported power. 142 FERC ¶ 63,011 at para. 26.

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[4] Collectively, the term "California Parties" refers to the State of California, the CPUC, Pacific Gas & Electric Company, and Southern California Edison Company.

False Load Scheduling—or, "overscheduling"—occurred when sellers in California's day-ahead market submitted exaggerated demand schedules to Cal-ISO. *See, e.g.*, 142 FERC ¶ 63,011 at para. 38. The so-called "uninstructed energy" would then flow on California's transmission grid. Cal-ISO would direct the energy to real-time shortages and, in exchange, pay the seller the real-time market's clearing price. 142 FERC ¶ 63,011 at para. 27. As an expert for the California Parties explained, "the objective of the transaction [was] to earn the [market-clearing price] in the [real-time] market on the power which was purchased from the PX at the [day-ahead] price, thus earning the difference between the two prices[.]" Both the False Load Scheduling and False Export strategies "in simple terms d[id] the same thing[:] They pull[ed] energy out of the day-ahead market . . . and they dump[ed] it in the realtime market." The tactics relied on two Summer Period market realities: (1) real-time prices generally exceeded day-ahead prices, and (2) little real-time volume went unsold, as the demand for real-time energy is inelastic.

The third tariff violation at issue is what the ALJ termed "Anomalous Bidding." *See* 149 FERC ¶ 61,116 at para. 3. The ALJ defined Anomalous Bidding as "bidding behavior that departs from normal competitive behavior in violation of the CAISO MMIP[.]" 142 FERC ¶ 63,011 at para. 16.

The ALJ went on to identify three types of Anomalous Bidding that violated the MMIP. The Initial Decision defined "Type I Anomalous Bidding" as "[b]ids that vary in output in ways that are unrelated to cost[.]" 142 FERC ¶ 63,011 at para. 18. This type of Anomalous Bidding forms no part of this appeal: the California Parties, the ALJ found, did not meet their *prima facie* burden of demonstrating that Type I

Anomalous Bidding affected market clearing prices. *See* 142 FERC ¶ 63,011 at para. 33.

The Initial Decision defined "Type II Anomalous Bidding" as "bids with prices above marginal cost *in combination with* some other tariff violation[.]" 142 FERC ¶ 63,011 at para. 18 (emphasis added). And the Initial Decision defined "Type III Anomalous Bidding," also known as "Economic Withholding," as "[b]ids used to effectuate supply withholding[.]" 142 FERC ¶ 63,011 at para. 18. Those bids occurred whenever the bid price was greater than market-clearing price and the seller's marginal cost was less than the market-clearing price. Some Type III anomalous bids "were set so high above the market price that it was likely that they would not be accepted, thereby either diminishing the available supply to the Cal-ISO or increasing the market clearing price." 142 FERC ¶ 63,011 at para. 28.

As relevant to these petitions, the ALJ determined that False Export, False Load Scheduling, and Types II and III Anomalous Bidding violated the Cal-ISO tariff. *See generally* 142 FERC ¶ 63,011 at para. 1. False Load Scheduling and False Export, the ALJ concluded, required "the submission of false information" to Cal-ISO, *see* 142 FERC ¶ 63,011 at paras. 36, 42, and therefore violated "[t]he collective import" of several tariff provisions. *See* 142 FERC ¶ 63,011 at paras. 36, 43. Type II Anomalous Bidding "depart[ed] significantly" from competitive market behavior in violation of several MMIP provisions. *See* 142 FERC ¶ 63,011 at para. 24. And economic withholding, the ALJ explained, violated provisions in the MMIP that barred withholding and manipulation. *See* 142 FERC ¶ 63,011 at paras. 31–32. The ALJ found 34,020 Summer Period transactions that amounted to tariff violations. *See*

142 FERC ¶ 63,011 at para. 14. Of these, the ALJ found more than 20,000 that affected the market clearing price. *Id.*

Over the course of the agency proceedings, a number of entities settled with the California Parties and were dismissed from the case. The remaining entities in this petition for review are:

- MPS Merchant Services, Inc. ("MPS"), formerly known as Aquila Merchant Services, Inc., a power marketer during the Summer Period.

- Illinova Corporation, on behalf of Illinova Energy Partners, Inc., ("Illinova"), a power marketer during the Summer Period.

- Shell Energy North America, LP ("Shell"), a successor-in-interest to Coral Power, LLC, which purchased and resold energy and capacity during the Summer Period.

- APX, Inc. ("APX"), which served as a middleman between electricity buyers and sellers and California's energy markets during the Summer Period.

- BP Energy Co. ("BP"), which sold electricity into the Cal-ISO market through APX.

FERC in November 2014 affirmed in part and vacated in part the Initial Decision. *See generally* 149 FERC ¶ 61,116. The Commission found that Shell, MPS, APX, and Illinova violated the Cal-ISO tariff and that those violations "impacted the market clearing price." 149 FERC ¶ 61,116 at para. 3. The Commission explained that the False Export

strategy contravened tariff provisions that barred "unusual activity . . . relating to imports" and required sellers to specify customers' identities and power demands. *See* 149 FERC ¶ 61,116 at para. 120 (citing Cal-ISO Tariff §§ 2.2.11.1, 2.2.11.1.1-2 and MMIP §§ 2.1.1.5, 2.1.1.1). FERC held that False Load Scheduling violated MMIP provisions that required sellers to "submit balanced schedules" to Cal-ISO and that barred "unusual trades and transactions." *See* 149 FERC ¶ 61,116 at paras. 170–71 (citing Cal-ISO Tariff §§ 2.2.7.2, 2.2.11.1 and MMIP §§ 2.1.1.3, 2.1.1.5). Finally, the Commission held that Type II Anomalous Bidding and economic withholding violated several MMIP provisions proscribing anomalous market behavior. *See* 149 FERC ¶ 61,116 at paras. 94, 99 (citing MMIP §§ 2.1.1, 2.1.3, 2.1.1.4, 2.1.1.1). A November 2015 rehearing order largely preserved these results. *See* 153 FERC ¶ 61,144.

At the California Parties' request, FERC in February 2016 again clarified its Summer Period determinations. *See generally San Diego Gas & Elec. Co.*, 154 FERC ¶ 61,063 (2016) ("Op.536-B"). The February order "clarif[ied] that the remaining Respondents . . . are liable to disgorge overcharges and excess payments they received for *all* sales during *all* hours of the Summer Period during which the market prices were inflated by tariff violations committed by *any* of the Respondents." *Id.* at para. 8. The Commission left "[o]ther [pending] requests for rehearing"—notably, a request filed by MPS in December 2015—for "a separate order." 154 FERC ¶ 61,063 at para. 1.

These consolidated petitions for review followed. The Federal Power Act provides us jurisdiction to review "order[s] issued by the Commission." *See* 16 U.S.C. § 825*l*(b). We have limited that jurisdictional grant to *final*

orders, *see Steamboaters v. FERC*, 759 F.2d 1382, 1387–88 (9th Cir. 1985), and therefore lack appellate jurisdiction to consider the sellers' ongoing challenge to the remedy that FERC ordered for the violations that the agency identified. *See* 154 FERC ¶ 61,063 at para. 8. FERC and the sellers agree that order is not final. The evolving scope of the agency's remedy supports that conclusion. *Compare* 149 FERC ¶ 61,116 at para. 209, *with* 153 FERC ¶ 61,144 at para. 142, *and* 154 FERC ¶ 61,063 at para 8. Nevertheless, we have jurisdiction to review the final agency findings on liability. *See Harris*, 809 F.3d at 499–500.

We review decisions by FERC to determine whether its action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2); *see also Fall River Rural Elec. Coop., Inc. v. FERC*, 543 F.3d 519, 525 (9th Cir. 2008). We recognize that FERC's discretion "is at its zenith when . . . fashioning . . . remedies and sanctions[.]" *CPUC*, 462 F.3d at 1053 (internal quotation omitted). We review FERC's interpretation of a tariff with a "two-step, *Chevron*-like analysis." *PSEG Energy Res. & Trade LLC v. FERC*, 665 F.3d 203, 208 (D.C. Cir. 2011) (internal quotation marks omitted). We review the agency's findings of fact for substantial evidence and will not disturb such findings even if "the evidence is susceptible of more than one rational interpretation." *CPUC*, 462 F.3d at 1045. Our review "is limited to . . . the administrative record," *Envtl. Coal. of Ojai v. Brown*, 72 F.3d 1411, 1414 (9th Cir. 1995), and to those "grounds upon which . . . the record discloses that [the agency's] action was based." *SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943).

II

FERC's determination that Shell, MPS, and Illinova ("sellers") violated the Cal-ISO tariff and MMIP during the Summer Period was not arbitrary, capricious, or an abuse of discretion.

A

FERC reasonably interpreted the Cal-ISO tariff and MMIP to prohibit the practices of False Export, False Load Scheduling, and Types II and III Anomalous Bidding. FERC interpreted Cal-ISO Tariff §§ 2.2.11.1, 2.2.11.1.1-2 and MMIP §§ 2.1.1.1, 2.1.1.5 to prohibit False Export. The Commission interpreted Cal-ISO Tariff §§ 2.2.7.2, 2.2.11.1 and MMIP §§ 2.1.1.3, 2.1.1.5 to prohibit False Load Scheduling. Types II and III Anomalous Bidding, the Commission concluded, violated MMIP §§ 2.1.1 *et seq*.

1

The text of the tariff and MMIP provisions supports FERC's conclusions. Cal-ISO Tariff § 2.2.7.2 required sellers to "submit to the ISO only Balanced Schedules," which the tariff defined as schedules where "Generation, adjusted for Transmission Losses equal[ed] forecast Demand[.]" Cal-ISO Tariff §§ 2.2.11 *et seq.* required the submitted schedules to "include the name and identification number" of electricity customers, as well as customers' location and demand. The MMIP provisions called for "corrective action" in response to, respectively, "withholding of Generation capacity," "unusual trades or transactions," and "unusual activity or circumstances relating to imports . . . or exports[.]"

FERC reasonably determined that False Export, False Load Scheduling and Anomalous Bidding violated these provisions. FERC explained that False Export required that sellers "submit[] [information that] did not correspond to actual load." 149 FERC ¶ 61,116 at para. 120. That falsification amounted to "unusual activity or circumstances relating to imports . . . or exports[.]" 149 FERC ¶ 61,116 at para. 120. Additionally, because the practice "effectively withheld capacity from day-ahead markets," 149 FERC ¶ 61,116 at para. 120. FERC determined that False Export violated MMIP § 2.1.1.1. As for False Load Scheduling, the Commission determined that sellers violated the balanced schedule requirement by "schedul[ing] fictitious load in anticipation of actual load." 149 FERC ¶ 61,116 at para. 170. Type II and III anomalous bids, the Commission concluded, relied on the above violations or on withholding strategies that departed from competitive market behavior. *See* 149 FERC ¶ 61,116 at paras. 94, 99.

These determinations comport with the plain text of the Cal-ISO Tariff, of which Summer Period electricity sellers were on notice. *See Cal. ex rel. Brown*, 139 FERC ¶ 61,210 at para. 26 (2012); *see also* 142 FERC ¶ 63,011 at para. 42. At minimum, we defer to FERC's reasonable constructions of ambiguous tariff language. *See PSEG*, 665 F.3d at 208. The sellers' contrary position on overscheduling—that sellers could inflate for California's grid operators the sellers' forecasts of how much electricity the sellers' customers would draw from California's grid—is self-refuting; renders superfluous much of the Cal-ISO tariff; and thwarts California's efforts to supply electricity efficiently and reliably through day-ahead markets. *See* 153 FERC ¶ 61,144 at para. 96.

Contrary to the sellers' assertions, FERC reasonably interpreted the MMIP to provide notice that FERC could sanction practices "subject to scrutiny."[5] *See PSEG*, 665 F.3d at 208. "The MMIP was part of [Cal-ISO]'s tariff," 153 FERC ¶ 61,144 at para. 111. *See also* 103 FERC ¶ 61,345 at paras. 8, 23 (2003), which the Commission could interpret and enforce. *See* 142 FERC ¶ 63,011 at para. 16. The protocols "put[] market participants on notice regarding their rights and obligations in the marketplace," 103 FERC ¶ 61,345 at para. 23, and contemplated "corrective action[s]," and "sanctions or penalties," by "the appropriate regulatory agencies." *See also* MMIP § 1.1 (providing for "[ISO Markets'] protection from abuses of market power in both the short term and the long term"). FERC's legal interpretation of the MMIP follows agency precedent, *see Investigation of Anomalous Bidding Behavior and Practices in the Western Markets*, 103 FERC ¶ 61,347 at paras. 7–11 (2003), and we see no reason to disturb that interpretation here.

In conclusion, FERC reasonably interpreted the Cal-ISO tariff and the MMIP according to the plain text of those documents. We therefore reject the sellers' claims that the tariff and MMIP did not proscribe the practices identified by the agency.

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[5] We decline FERC's invitation to uphold the agency's several liability findings on the theory that the sellers waived the issue of Cal-ISO Tariff § 2.2.11.1 (requiring that Scheduling Coordinators identify "the Location Code of the Take-Out Point" and "[t]he aggregate quantity (in MWh) of Demand being served at each Take-Out Point"). Waiver is inappropriate in these unique circumstances, where the sellers' opening briefs repeatedly contest the liability theory for which § 2.2.11.1 provides support, even if those briefs do not mention the section by name.

2

The sellers next contest the policy foundations of FERC's interpretations. The agency's interpretation of the Cal-ISO tariff and the MMIP, the sellers argue, unreasonably characterized permissible arbitrage as a False Export violation. *See, e.g.*, 153 FERC ¶ 61,144 at para. 140. The sellers further claim that FERC's interpretations unreasonably punish False Load Scheduling, a practice which—the sellers contend—arose in response to underscheduling by California's investor-owned utilities. The sellers also argue that False Load Scheduling actually enhanced grid reliability. *See* 149 FERC ¶ 61,116 at para. 152.

The record evidence bears out FERC's view of these policy considerations. The record establishes that California and FERC intended Cal-ISO's real-time market as an exchange of last resort, not as a full-fledged alternative to the CalPX that would facilitate arbitrage and price convergence. *See, e.g.*, 153 FERC ¶ 61,144 at para. 149; 103 FERC ¶ 61,345 at para. 32*; see also Lockyer*, 383 F.3d at 1009. The record supports FERC's finding that False Export and False Load Scheduling strategies forced California's investor-owned utilities increasingly to rely on the real-time market in order to serve load. *See, e.g.*, 149 FERC ¶ 61,116 at paras. 163–64, 183. The record supports FERC's conclusion that the False Export and False Load Scheduling strategies threatened to compromise the reliability of California's electrical transmission grid. *See, e.g.*, 149 FERC ¶ 61,116 at para. 142; 142 FERC ¶ 63,011 at paras. 49–50. Thus, FERC's interpretation of the Cal-ISO tariff and the MMIP finds support not only in text, but in policy as well.

3

Illinova asserts that a section of the Cal-ISO tariff provides the company a safe harbor from overscheduling liability.[6] We disagree. The section in question, § 22.1, carries the title, "Temporary Simplification of Schedule Validation Tolerances," and provides:

> Notwithstanding any other provision in the ISO Tariff, including the ISO Protocols, *a Schedule shall be treated as a Balanced Schedule when aggregate Generation, adjusted for Transmission Losses, is within 20 MW of aggregate Demand*, or such lower amount, greater than 1 MW, as may be established from time to time by the ISO. The ISO may establish the Schedule validation tolerance level at any time, between a range from 1 MW to 20 MW, by giving seven days' notice published on the ISO's "Home Page," at http://www.caiso.com or such other Internet address as the ISO may publish from time to time.

Illinova contends that this section creates a *de minimis* exception for overscheduling liability. The exception shields Illinova, the company continues, because its overscheduling never exceeded 20 MW. Illinova claims that a definition of

[6] Illinova styles its claim as a challenge to the agency's liability findings. In substance, the company contests the agency's *interpretation* of the tariff provision. Accordingly, we review Illinova's § 22.1 arguments under the framework of *PSEG*, 665 F.3d at 208.

"Demand" contained in the Cal-ISO tariff support the company's reading of § 22.1.

FERC offers a competing interpretation. The agency construes § 22.1 as an "administrative threshold for Cal-ISO to accept a schedule from the CalPX market." FERC rejects the notion that § 22.1 was intended to—or did—create a *de minimis* exception to overscheduling liability.

FERC's interpretation of § 22.1—albeit not incontrovertible—survives this court's review. In particular, the agency's interpretation squares with § 2 of the Cal-ISO tariff, which prescribes the duties of scheduling coordinators. That section provides that "[i]f a Scheduling Coordinator submits a schedule that is not a Balanced Schedule, the ISO shall reject that Schedule provided that Scheduling Coordinators shall have an opportunity to validate their Schedules prior to the deadline for submission to the ISO[.]" The section treats schedule validation—the process that § 22.1 purports to govern—as an *ex ante* condition that precedes the transmission of electricity, not as an *ex post* condition whose violation results in liability. Indeed, Illinova's claim that "the tolerance band in § 22.1 requires data on actual demand," cannot be reconciled with Cal-ISO's design, which required schedule submission prior to real-time.[7]

[7] This claim also appears to misrepresent the Cal-ISO tariff, which defined "Demand" as "[t]he rate at which Energy is delivered to Loads and Scheduling Points by Generation, transmission or distribution facilities. It is the product of voltage and the in-phase component of alternating current measured in units of watts or standard multiples thereof[.]"

Ultimately, we need not decide which reading of § 22.1 "is the best . . . interpretation." *See Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 980 (2005). Instead, we defer to FERC's construction "so long as that construction is reasonable," *PSEG*, 665 F.3d at 208, and allow the retroactive application of such a construction unless "manifest injustice" would result, *Thorpe v. Hous. Auth. of the City of Durham*, 393 U.S. 268, 282 (1969). Given the "sophistication of modern energy trading," *CPUC*, 462 F.3d at 1039, we see no such injustice or unfair surprise here. FERC's construction of Cal-ISO tariff § 22.1 was reasonable and foreseeable.

4

In short, FERC reasonably interpreted the Cal-ISO tariff and the MMIP to prohibit the practices of False Export, False Load Scheduling and Anomalous Bidding. In addition, the agency reasonably concluded that the tariff and MMIP sufficed to put sellers on notice that such practices were not permitted.

B

FERC reasonably concluded that the sellers engaged during the Summer Period in the practices deemed tariff violations by the orders on review.

1

FERC's conclusion that MPS overscheduled and thereby violated the Cal-ISO tariff, *see* 149 FERC ¶ 61,116 at para. 174, was not arbitrary, capricious, or an abuse of

discretion.[8] MPS contends that it did not overschedule because the City of Azusa, California, submitted the controverted schedules. Azusa's actions, MPS argues, cannot support liability for MPS.

We must reject such artificial formalism. FERC properly concluded in Op.536-A that "[t]he agreement with Azusa grant[ed] MPS the ability to make uninstructed sales . . . [and] enabled MPS to engage in False Load Scheduling." 153 FERC ¶ 61,144 at para. 148. Specifically, the agreement between Azusa and MPS's predecessor-in-interest, Aquila, gave Aquila the right to provide a pre-schedule of energy deliveries to Azusa. The agreement then required Azusa to release that energy into Cal-ISO. The fact that MPS laundered its overschedules through a municipal utility does not render arbitrary and capricious FERC's liability determination. *See id.* Thus, substantial evidence supports FERC's finding that MPS engaged in False Load Scheduling in violation of the Cal-ISO tariff.

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[8] We have jurisdiction to review this determination. "In order after order, FERC has not budged from its position," *Harris*, 809 F.3d at 499, that MPS overscheduled in violation of the Cal-ISO tariff. *See, e.g.*, 142 FERC ¶ 63,011 at para. 61; 149 FERC ¶ 61,116 at para. 185; 153 FERC ¶ 61,144 at para. 148. Moreover, the question whether MPS and Azusa's contractual status insulates one party from overscheduling liability "presents a legal question capable of resolution by this court in a way that does not invade the agency's province." *Harris*, 809 F.3d at 499. Accordingly, we conclude that FERC's overscheduling determination satisfies the test for administrative finality and warrants this court's review.

2

Substantial evidence supports FERC's finding that MPS and Shell engaged in False Export. FERC determined that the California Parties established a *prima facie* case of False Export (1) by matching day-ahead transactions that exported electricity *from* California to real-time transactions that imported electricity *to* California,[9] and (2) with evidence of "parking"—that is, arrangements by which exporters sold energy outside the Cal-ISO to entities who then nominally resold the energy to the exporter for a fee. *See* 142 FERC ¶ 63,011 at para. 37; 149 FERC ¶ 61,116 at para. 123; 153 FERC ¶ 61,144 at para. 59. FERC relies on evidence of at least five parking arrangements between MPS or Shell and utilities or municipalities. *See* 153 FERC ¶ 61,144 at para. 64. FERC also cited MPS and Shell's consistent patterns of False Export behavior: specifically, the agency found that MPS and Shell engaged in False Export during, respectively, 403 and 110 hours of the Summer Period. *See* 149 FERC ¶ 61,116 at para. 127.

Shell and MPS argue—with some force—that most of the California Parties' evidence involved mere correlation, not direct proof that the matched transactions were causally related. Nevertheless, the agency's findings are supported by substantial evidence. *Cf. Snoqualmie Indian Tribe v. FERC*, 545 F.3d 1207, 1212 (9th Cir. 2008) ("Substantial evidence means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.") (internal quotation omitted). The California Parties' screen identified

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[9] A California Parties' expert testified that the signature of a False Export is matching day-ahead exports and real-time imports or out-of-market sales.

a significant, sustained pattern of bid behavior for which the sellers produced no exculpatory evidence. *See* 153 FERC ¶ 61,144 at para. 60. That pattern predates and postdates the formalization of parking arrangements by MPS and Shell, 153 FERC ¶ 61,144 at para. 65, which expressly contemplated false export transactions. "Where, as here, 'a court reviews an agency action involv[ing] primarily issues of fact, and where analysis of the relevant documents requires a high level of technical expertise, we must defer to the informed discretion of the responsible federal agencies.'" *Snoqualmie Indian Tribe*, 545 F.3d at 1212 (quoting *Sierra Club v. EPA*, 346 F.3d 955, 961 (9th Cir. 2003)). Substantial evidence supports FERC's False Export findings.

3

Substantial evidence supports FERC's findings that the sellers' tariff violations increased market-clearing prices for electricity. *See* 149 FERC ¶ 61,116 at paras. 132–33; 153 FERC ¶ 61,144 at paras. 79–82. The record supports FERC's reliance on a model proposed by the California Parties' expert, Peter Fox-Penner. Under that methodology, the actual market clearing price in each hour was compared to what the clearing price would have been had each individual tariff violation not occurred. The model reasonably considered the price effects of False Export and False Load Scheduling only in the *day-ahead* market. According to the expert, False Export and False Load Scheduling injected artificial demand into the day-ahead market, thereby increasing day-ahead prices. The expert's model incorporated all bid data submitted to CalPX during the Summer Period. That market operated simply: CalPX generated supply and demand curves by summing supply and demand bids at various prices. The market cleared at the

price where the curves crossed. As a result, the expert's model closely tracked the market's operation and outcomes.

The California Parties' expert testimony therefore provides substantial evidence for FERC's finding that the sellers' tariff violations increased market-clearing prices for electricity in the CalPX. Indeed, substantial evidence supports FERC's finding that the expert's model *understates* the price effects of sellers' actions—even if the model does not quantify the magnitude of that understatement. *See* 153 FERC ¶ 61,144 at para. 81.

The sellers argue that the model ignores the electricity that False Export and False Load Scheduling moved into Cal-ISO's real-time market. That increased supply, the sellers continue, *reduced* real-time electricity prices. FERC rejected the argument, *see* 153 FERC ¶ 61,144 at para. 80, and substantial evidence supports that rejection. Because CalPX day-ahead volumes greatly exceeded Cal-ISO real-time volumes, the California Parties' expert explained that "a price change of a given magnitude in the PX market-clearing price had a much larger impact on the buyers of electricity than that same price change would have in the [real-time] market."

Finally, MPS and Illinova claim that modeled CalPX price effects of "less than 10 cents . . . [or] less than one dollar . . . were, in fact, smaller than the margin of error for the analysis." But the portions of the record cited by MPS and Illinova provide offer *no* margin of error for Fox-Penner's day-ahead model. Instead, MPS, Illinova and Shell erroneously have mapped the *real-time model*'s errors to the *day-ahead model*. For this reason, we decline to discard the California Parties' modeling efforts on the basis of the sellers' arguments about "false precision."

In sum, substantial evidence supports FERC's conclusion that the violations affected the CalPX market price. The sellers' attacks on the methodology employed are not persuasive.[10]

4

FERC's findings on Type III Anomalous Bidding—economic withholding—are supported by the record, and neither Shell nor APX offers developed—let alone persuasive —arguments for disturbing those findings. *See generally* 153 FERC ¶ 61,144 at paras. 39–42, 46; 149 FERC ¶ 61,116 at paras. 84–86, 99–105. Indeed, the record indicates that Shell's Type III anomalous bids exceeded real-time *market-clearing prices*, not just the market's marginal cost. *See* 149 FERC ¶ 61,116 at para. 51; 142 FERC ¶ 63,011 at para. 29. FERC reasonably determined that such conduct contravened MMIP provisions §§ 2.1.1.1 and 2.1.3, which generally barred withholding and manipulation. *See* 149 FERC ¶ 61,116 at para. 99.

[10] The analysis presented in Parts II.A through II.B.1–3 of this opinion provides ample reason to deny review of the agency's finding that Shell engaged in Type II Anomalous Bidding. *See* 153 FERC ¶ 61,144 at para. 45. Shell's challenge to that finding relies exclusively on the company's arguments concerning False Export and False Load Scheduling. Those arguments were unpersuasive when considering False Export and overscheduling alone; and those arguments are still unpersuasive when we consider False Export and overscheduling as means of effecting Type II anomalous bids.

III

FERC's Summer Period determinations regarding APX and BP were not arbitrary, capricious, or an abuse of discretion.

A

FERC reasonably determined that APX engaged in economic withholding and overscheduling, and therefore violated the Cal-ISO tariff. *See* 153 FERC ¶ 61,144 at para. 16; 149 FERC ¶ 61,116 at para. 29. FERC reasonably argues that APX-scheduled sales required the combined actions of APX and its customers. *See Automated Power Exch., Inc. v. FERC*, 204 F.3d 1144, 1153 (D.C. Cir. 2000) (upholding FERC jurisdiction over APX in part because the market-maker was "an integral part of [electricity] transaction[s]"). Moreover, record evidence demonstrates that APX instructed its members—albeit after the Summer Period ended—on how to engage in tariff violations through APX's services.

APX disputes FERC's determination that the market-maker was jointly and severally liable for overscheduling and Type III Anomalous Bidding. But FERC's determination followed more than a decade of agency decisions establishing APX's joint and several liability for participant violations when liability cannot be apportioned to individual customers based on specific transactions. *See, e.g.*, *San Diego Gas & Elec. Co.*, 127 FERC ¶ 61,269 at para. 272 (2009); *San Diego Gas & Elec. Co.*, 105 FERC ¶ 61,066 at para. 170 (2003). Those decisions acknowledge and reasonably respond to the idiosyncrasies that APX claims the agency ignores. *See San Diego Gas & Elec. Co.*, 127 FERC ¶ 61,269 at para. 272 ("[T]he unique situation of the APX requires that the APX

and its sellers be held jointly and severally liable for refunds where the refund liability cannot be apportioned[.]"). Indeed, FERC argues that its application of the joint and several liability standard provides "an exception from the general rule that scheduling coordinators are individually liable for violations related to schedules they submit." The agency carved out that exception in part because FERC expected that "[APX] bid data will be sufficiently complete in nearly all instances to permit apportionment." *San Diego Gas & Elec. Co.*, 107 FERC ¶ 61,165 at paras. 45–46 (2003) (describing APX liability when apportionment impossible as "an equitable solution and consistent with precedent"). Given that the agency's discretion "is at its zenith when it is fashioning [ ] policies, remedies and sanctions," *CPUC*, 462 F.3d at 1053 (alteration in original), we decline to hold arbitrary or capricious FERC's application of joint and several liability in these unusual circumstances.

At heart, APX's objection boils down to a question of scienter: as a market-maker, it argues that it cannot be held liable for violations when it did not know that schedules reflected false load or economic withholding. However, FERC long and repeatedly has held that "[t]he language in Sections 205(b) and 206 does not contain any reference to intent . . . . [T]he Commission is to be concerned with anticompetitive *effects*, not motives." *In re Missouri Power & Light Co.*, 5 FERC ¶ 61,086, 61,140 (1978); *see also Transcon. Gas Pipe Line Corp.*, 26 FERC ¶ 61,029, 61,054 n.26 (1984) (same). Consistent with controlling authority, *see Fed. Power Comm'n v. Conway Corp.*, 426 U.S. 271, 279 (1976) (directing FERC to consider "anticompetitive *effects*" of conduct alleged to have violated § 205 of the Federal Power Act) (emphasis added), the agency may apply such strict liability to determinations pursuant to § 309. *See*

16 U.S.C. § 825h. Congress said nothing of scienter in that provision, and we see nothing unreasonable about FERC's interpretation. *See Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 844 (1984).

In sum, substantial evidence supports FERC's finding that APX engaged in overscheduling and economic withholding.

B

APX and BP finally contend that FERC should have found the market-maker a "net buyer" for the Summer Period. This argument is premature. FERC made no findings on this issue and, in fact, sought new evidence on the question.

To the extent that APX and BP argue that FERC's *sequencing* of apportionment proceedings alone constitutes capricious action, that argument fails. *See, e.g.*, 153 FERC ¶ 61,144 at para. 13. The Supreme Court has long "emphasized that the formulation of procedures [is] basically to be left within the discretion of the agencies[.]" *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 524 (1978).

IV

In sum, FERC's interpretation of the Cal-ISO and MMIP Tariffs was reasonable and its determination of tariff violations was not arbitrary, capricious, or an abuse of discretion. Because the Commission's remedial order is not final, we lack appellate jurisdiction over it.

PETITIONS FOR REVIEW DENIED IN PART AND DISMISSED IN PART.