UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Compensation for Reactive Power Within the Standard Power Factor Range	)	Docket No. RM22-2-001

REQUEST FOR REHEARING OF THE INDICATED GENERATION PARTIES

Pursuant to Section 313(a) of the Federal Power Act ("FPA")[1] and Rule 713 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("FERC" or the "Commission"),[2] Vistra Corp. and Dynegy Marketing and Trade, LLC (together, "Vistra"), the Electric Power Supply Association ("EPSA"),[3] Coalition of Midwest Power Producers ("COMPP"),[4] Independent Power Producers of New York, Inc. ("IPPNY"),[5] New England Power Generators Association, Inc. ("NEPGA"),[6] The PJM Power Providers Group ("P3"),[7] Calpine Corporation ("Calpine"), National Grid Renewables Development, LLC ("NG Renewables"), LS Power Development, LLC ("LS Power"), J-POWER USA Development Co., Ltd. ("J-POWER"), and Alpha Generation, LLC ("AlphaGen" and, collectively, the "Indicated Generation Parties") respectfully request rehearing of Order No. 904 and the Commission's decision to categorically

[1] 16 U.S.C. § 825*l*(a).

[2] 18 C.F.R. § 385.713.

[3] This filing represents the position of EPSA as an organization, but not necessarily the views of any particular member with respect to any issue.

[4] This filing represents the position of COMPP as an organization, but not necessarily the views of any particular member with respect to any issue.

[5] This filing represents the position of IPPNY as an organization, but not necessarily the views of any particular member with respect to any issue.

[6] This filing represents the position of NEPGA as an organization, but not necessarily that of any particular member.

[7] This filing represents the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue.

eliminate compensation for reactive power produced within the standard power factor range.[8] Order No. 904 is arbitrary, capricious, unsupported by substantial evidence, not the product of reasoned decision-making, contrary to the FPA and U.S. Constitution, and should be reversed on rehearing.

I. REHEARING REQUEST

The Commission has no authority to modify or abrogate existing rates, terms, or conditions of FERC-jurisdictional service—whether through an individual proceeding or in the rulemaking context—unless it meets the two-part burden imposed by Section 206 of the FPA. Specifically, the Commission has the burden to demonstrate that (1) the existing rate, term, or condition that it seeks to change is unjust, unreasonable, or unduly discriminatory or preferential based on substantial evidence; and (2) that its proposed alternative rate, term, or condition is just, reasonable, and not unduly discriminatory or preferential.[9] Unless it meets the exacting two-step burden imposed by Section 206, FERC has no authority to impose a new rate,[10] and is "bound to enforce the . . . filed rate."[11] FERC has not carried its burden here.

Order No. 904 eliminates hundreds of millions of dollars in annual reactive power compensation without any showing that the existing reactive power rates that are being eliminated are unjust and unreasonable or that its proposed replacement rate—no compensation—is just, reasonable, and not unduly discriminatory or preferential. Indeed, Order No. 904 is remarkably devoid of any assessment of the actual reactive power rates that will be eliminated by the final rule or any evidence showing that these existing rates are outside the range of reasonableness. Instead,

[8] *Compensation for Reactive Power Within the Standard Power Factor Range*, Order No. 904, 189 FERC ¶ 61,034 (2024) ("Order No. 904").

[9] *Winfield v. FERC*, 744 F.2d 871, 874 (D.C. Cir. 1984); *La. Pub. Serv. Comm'n v. FERC*, 522 F.3d 378, 391 (D.C. Cir. 2008).

[10] *Emera Me. v. FERC*, 854 F.3d 9, 21 (D.C. Cir. 2017).

[11] *La. Pub. Serv. Comm'n v. FERC*, 10 F.4th 839 (D.C. Cir. 2021).

the Commission summarily concludes that any form of compensation for the provision of reactive power within the standard power factor range is unjust and unreasonable and, by implication, the only just and reasonable rate for reactive power is no rate at all.

The Commission reaches the remarkable conclusion that resources should be compelled to provide a critical reliability service without compensation based on its finding that generation resources incur no or only *de minimis* costs associated with providing reactive power within the standard power factor range and, in any event, the primary beneficiaries of reactive power service are the generators themselves. The Commission does not deny that generation resources incur costs when providing reactive power within the standard power factor range or that transmission customers receive benefits from the reactive power that resources provide. Nevertheless, the Commission claims that generators simply should recover any costs that they incur through the sales of other products, such as energy and capacity, and that transmission customers should have no obligation to make any contribution to the fixed or variable costs of providing the reactive power service that they receive.

Order No. 904 is unlawful and should be reversed on rehearing. The Commission's theory that resources incur no or only *de minimis* costs in connection with providing reactive power within the standard power factor range is unsupported and conflicts with record evidence showing that the costs of reactive service are both real and material. While the Commission claims that the only material costs incurred in connection with reactive power are "joint costs" that support the provision of both reactive and real power, the Commission's assertion ignores record evidence demonstrating that generation resources incur distinct fixed and variable costs associated with providing reactive power within the standard power factor range. Even if the Commission were correct that any costs associated with reactive power are "joint costs," the Commission has not

demonstrated that is a rational basis for not allocating such costs and declaring all existing reactive power rates unjust and unreasonable. To the contrary, shifting these costs from transmission customers to customers purchasing other products is inconsistent with Commission precedent, cost causation requirements, and the FPA.

Order No. 904 also fails to demonstrate that requiring generation resources to provide service without compensation appropriately balances consumer and investor interests. The Commission claims that resources can recover any costs that they may incur through the sale of other products. But FERC's assumption that generators can recover such costs through other means is speculative and ignores contrary record evidence. Even if such opportunities may exist in theory, the Commission has failed to demonstrate that passing these costs onto customers buying other products and services from a generator and allowing transmission customers to take reactive power service for free is just, reasonable, and consistent with cost causation principles.

The significance of Order No. 904 cannot be overstated. Order No. 904 will deprive generation resources of approximately $700 million in annual reactive power compensation.[12] And it will do so in regions that are already facing decreasing reserve margins brought on by early generation retirements and a lack of new resource entry. Order No. 904 is arbitrary, capricious, unsupported by substantial evidence, not the product of reasoned decision-making, an abuse of discretion, contrary to the FPA and U.S. Constitution, and should be reversed on rehearing for the reasons set forth below.

[12] This amount includes the sum of reactive revenue requirements in PJM Interconnection, L.L.C. ("PJM"), ISO New England Inc. ("ISO-NE"), New York Independent System Operator, Inc. ("NYISO"), and Midcontinent Independent System Operator, Inc. ("MISO") markets. Order No. 904 at P 24, n.59. *Midcontinent Indep. Sys. Operator, Inc.*, 182 FERC ¶ 61,033 (2023) (Comm'r Danly, dissenting at P 4) (indicating that there were $220 million in annual reactive power revenue requirements in 2022). FERC approved a proposal by transmission owners in MISO to eliminate reactive power compensation. *Id.* FERC's decision has been appealed and remains pending before the U.S. Court of Appeals for the D.C. Circuit. *See Capital Power Corp., et al. v. FERC* (D.C. Cir. Nos. 23-1134, 23-1135, 23-1136, 23-1231, 23-1233, 23-1234).

A. Order No. 904 Violates The FPA And The Constitution

1. The Commission Does Not Have Authority To Compel Utilities To Provide Service Without Compensation

One of Order No. 904's primary justifications for eliminating compensation for reactive power within the standard power factor range is that providing reactive power is an "obligation" of the generation facility and consistent with "good utility practice."[13] But the provision of reactive power within the deadband is not merely an "obligation" or a matter of "good utility practice" as the Commission alleges.[14] Reactive power is a distinct FERC-jurisdictional ancillary service. In Order No. 888, the Commission identified "reactive supply and voltage control from generation sources" as one of six distinct ancillary services that transmission providers must supply to their transmission customers.[15] Transmission providers, in turn, rely on the reactive power sold by generation resources to meet their service obligations.[16] Without the reactive power capability of generation resources, transmission providers would be unable to meet their obligations, which would "be disastrous from a reliability perspective."[17]

The Commission does not have statutory authority to compel utilities to provide service without compensation. The right of a public utility to charge for the services that it provides is

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[13] Order No. 904 at P 89.

[14] *Id.* at P 20.

[15] *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Servs. by Pub. Utils.; Recovery of Stranded Costs by Pub. Utils. & Transmitting Utils.*, Order No. 888, 75 FERC ¶ 61,080, at 31,703, *clarified*, 76 FERC ¶ 61,009 (1996) ("Order No. 888"), *modified*, Order No. 888-A, 78 FERC ¶ 61,220, *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in part & remanded in part sub nom. Transmission Access Pol' Study Grp. v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002). *See also Third-Party Provision of Reactive Supply and Voltage Control and Regulation and Frequency Response Services*, Docket No. AD14-7-000, FERC Staff Report: Payment for Reactive Power at 16 (Apr. 22, 2014), *available at*: https://www.ferc.gov/sites/default/files/2020-05/04-11-14-reactive-power.pdf ("Staff Report") ("[M]ost dynamic reactive power, which is crucial to transmission system reliability, is provided by generators").

[16] *Third-Party Provision of Ancillary Service*, 144 FERC ¶ 61,056, at P 13 (2013) (recognizing that "Reactive Supply and Voltage Control service" is an ancillary service provided by generation resources to transmission providers to allow them to meet their service obligations).

[17] *Principles for Efficient & Reliable Reactive Power Supply & Consumption*, Docket No. AD05-1-000,

reflected in the statutory scheme established by the FPA and a foundational principle of utility regulation.[18] Under Section 205, public utilities have the right to impose a rate or charge for the services that they provide subject only to the requirement that these rates be just and reasonable.[19] While the Commission has authority under Section 206 to require a utility to modify its rates upon a demonstration that an existing rate is unjust and unreasonable, the Commission's authority is limited to determining the "just and reasonable rate [or] charge . . . to be *thereafter observed and in force*."[20] Neither Section 205 nor Section 206 of the FPA empower the Commission to compel a utility to provide service without assessing a charge for the service that it provides. In fact, the limited provisions of the FPA that grant the Commission express authority to compel a utility to provide service grant the utility the right to collect a rate that permits the "recovery by such utility of all the costs incurred in connection with" the service provided.[21] Compelling a utility to provide service without compensation is fundamentally inconsistent with the FPA.[22]

Indeed, the courts have recognized that the FPA provides utilities the right to charge a rate in connection with the services that they provide. "Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service

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Invitation from FERC Chairman to Interested Stakeholders, Industry Participants, Regulators, et al. to Examine the Report on Reactive Power Supply for the Nation's Bulk Power System at 1 (Feb. 4, 2005) (noting that "in the August 2003 blackout, reactive power supplies in Northeast Ohio were exhausted but the need for reactive power continued to rise with peak load. This situation, along with the loss of several critical bulk power supply system facilities and a lack of situational awareness resulted in a sequence of cascading line and generator interruptions that left over 50,000,000 citizens without power in the United States and Canada.").

[18] *See, e.g., Smyth v. Ames*, 169 U.S. 466, 515 (1898) ("Under the pretext of regulating fares and freights, the State cannot require a railroad corporation to carry persons or property without reward; neither can it do that which in law amounts to a taking of private property for public use").

[19] 16 U.S.C. § 824d.

[20] 16 U.S.C. § 824e (emphasis added).

[21] 16 U.S.C. § 824k ("An order under section 824j of this title shall require the transmission utility subject to the order to provide wholesale transmission services at rates, charges, terms, and conditions which permit the recovery by such utility of all the costs incurred in connection with the transmission services and necessary associated services.").

[22] 16 U.S.C. § 824d; *Ameren Servs. Co. v. FERC*, 880 F.3d 571, 581 (2018); *Jersey Cent. Power Light Co. v. FERC*, 810 F.2d 1168, 1178 (D.C. Cir. 1987).

are unjust, unreasonable, and confiscatory[.]"[23] Thus, the courts have emphasized that there is a "zone of reasonableness . . . bounded at one end by the investor interest against confiscation and at the other by the consumer interest against exorbitant rates."[24]

Despite these statutory requirements, Order No. 904 will compel resources across the country to provide a service without the ability to collect a rate for the service they provide. While the Commission attempts to avoid the implications of its holding by claiming that it is not modifying the rates charged by resources for the reactive power service they provide,[25] the effect of the Commission's ruling is clear: resources will no longer be permitted to charge a rate for providing reactive power capability within the deadband. For resources with existing reactive power rate schedules, Order No. 904 will prevent them from collecting rates that have been approved by the Commission as just and reasonable, and new generation resources will be deprived of their ability to seek compensation for the critical reliability services that they provide.

In support of its conclusion that generators need not be compensated for a service they are obligated to provide, the Commission also cites to a prior order in which it observed that "if a generator is to sell (and be able to deliver) its power to a customer, reactive power is essential to the transaction."[26] The Commission's citation appears to imply that generators generate reactive power simply so they can deliver their real power to the grid consistent with good utility practice. But notably absent from the Commission's observation is any indication that generators need to provide reactive power *within the standard power factor range* to transmit their real power to the

[23] *Bluefield Water Works & Improvements Co. v. Public Serv. Comm'n*, 262 U.S. 679, 690 (1923).

[24] *Jersey Central Power & Light Co. v. FERC,* 810 F.2d 1168, 1177 (D.C. Cir. 1987) (quoting *FPC v. Hope Natural Gas Co.,* 320 U.S. 591 (1944)).

[25] Order No. 904 at P 61 ("The final rule is not adjusting, overturning, or reducing to zero any generating facility's rate for reactive power within the standard power factor range. The final rule addresses only the justness and reasonableness of transmission rates chargeable to transmission customers under Schedule 2[.]").

[26] *Id.* at P 52, n.138 (citing *Sw. Power Pool, Inc.*, 119 FERC ¶ 61,199, at P 28 (2007)).

grid. The reason for this is simple: generators providing reactive power within the standard power factor range are providing reactive power above and beyond their own needs for the benefit of the transmission system.[27] If the sole benefit of providing reactive power within the standard power factor range were so that generators could deliver their real power to the grid, the Commission would not need to impose an obligation on generators to provide reactive power at all.[28]

Characterizing reactive power as an "obligation" is not a legally valid basis for denying compensation. Utility regulation is premised on the idea that those that have an obligation to serve or otherwise dedicate their property to support service for the public benefit should have the ability to charge for the services that they provide.[29] And, in practice, public utilities are subject to many "obligations" for which they are nevertheless compensated. Indeed, courts have recognized that the FPA prohibits FERC from compelling public utilities to provide a service while simultaneously

[27] *See, e.g., Dynegy Midwest Generation, Inc.,* Opinion No. 498, 121 FERC ¶ 61,025, at P 82 (2007) ("[W]e reject Illinois Power's argument that generators instead of transmission customers should be assigned the cost responsibility for the extra amount of reactive power needed to get the required amount of reactive power to the transmission system. As we stated in Opinion No. 440, 'we find merit in AEP's assertion that a generating plant must be capable of producing reactive power in excess of that which ultimately reaches the transmission system in order to have enough reactive power remaining to provide adequate voltage support on the transmission system' which is used by transmission customers. This extra reactive power represents a cost to the generator of providing reactive power to the transmission system for the benefit of transmission customers. Without such extra reactive power, transmission customers would not be able to use the transmission system. Thus, the cost associated with this extra reactive power is properly collected from transmission customers.").

[28] The Commission also cites to its order accepting a PJM proposal to require that all generating facilities greater than 100 MWs install and pay for pay for upgraded telecommunication equipment (specifically, phasor measurement units ("PMUs")) because they are "integral to improved communication and to the reliability of the system and, as such, benefit[] both the system and the generators." *PJM Interconnection, L.L.C.*, 145 FERC ¶ 61,280, at P 17 (2013) ("*PJM*"). But *PJM* does not support the Commission's contention that obligating a public utility to provide a service means that the public utility need not be compensated for such service. To begin with, in *PJM* the Commission did not require generators to provide a distinct service free of charge. In fact, the Commission did not require generators to provide any service; it only required generators to install PMUs as part of their generation facilities. And while the PMUs were for the benefit of both the generator and the system, the costs associated with the PMUs were allocated by "limit[ing] the cost to interconnection customers to the cost of the PMUs themselves," while PJM "provide[s] the communication link between the PMUs and PJM, which are expected to constitute the bulk of ongoing PMU-related costs." *PJM* at P 17. Order No. 904 explicitly rejects the FPA's requirement that the costs associated with reactive power production—a distinct service—be allocated. Order No. 904 at P 90.

[29] *See, e.g., PPL Energyplus, LLC v. Hanna,* 977 F.Supp. 2d 372, 383 (D.N.J. 2013) (recognizing that utilities were given an assurance of a reasonable rate of return in return for fulfilling their obligation to serve).

denying them the ability to recover their costs, plus a reasonable return.[30]

For example, transmission owning utilities have an obligation to make their facilities available to provide transmission service to themselves, to their affiliates, and third parties on a not unduly discriminatory basis.[31] Yet, the mere fact that these utilities have an obligation to provide service to their customers does not mean that FERC can deny these utilities the ability to charge for the service that they provide. Indeed, such confiscatory ratemaking is specifically what the FPA prohibits.

The Commission finds that compensation for reactive power is unnecessary because the same equipment is used by resources to supply energy and reactive power. But even if a resource is able to produce energy and reactive power using the same equipment, that does not provide a basis for requiring a utility to provide service to one set of customers for free. Public utilities regularly will use a single asset to provide multiple services. For instance, transmission-owning utilities will make investments in their transmission network to ensure that they are able to deliver energy from their resources to serve their native load obligations—typically in the form of "network service"—and will then use these same assets to provide network service or point-to-point transmission service to third parties. The fact that the transmission owner is using a single asset to provide multiple services—each of which it has an obligation to provide—does not mean that the utility is then required to provide one type of service (*e.g.*, point-to-point) service for free. Instead, all customers taking service over, and enjoying the benefits of, these facilities are required to pay rates reflecting the costs of the facilities at issue.

Public utilities owning generation resources should not be provided with any less favorable

[30] *See, e.g.*, *Ameren Servs. Co. v. FERC*, 880 F.3d 571, 580-582 (D.C. Cir. 2018).

[31] *See New York v. FERC*, 535 U.S. 1, 11 (2002) (explaining that Order No. 888 required all public utilities to provide service under tariff "applicable equally to itself and to others").

treatment. Public utilities make investments in constructing their resources. These resources, in turn, are used to provide multiple services, including energy, capacity, reactive power, and numerous other ancillary services, and the public utility seeks to recover their investment, plus a reasonable rate of return, by charging for their services at a market rate (where FERC policy permits sales at market-based rates), or at a cost-based rate (where market-based rate sales are prohibited). Prohibiting a subset of public utilities (*i.e.*, generation owners) from charging for a discrete ancillary service on the basis that the service involves joint costs is inconsistent with the requirement that utilities be permitted to collect rates for the services that they provide and is unduly discriminatory.[32]

Order No. 904 also is inconsistent with constitutional requirements. The Takings Clause of the Fifth Amendment protects personal property against appropriation without compensation, including electricity[33] and its "byproducts."[34] As commenters in this proceeding explained,[35] forcing generators to supply an identifiable portion of the reactive power they generate, without any compensation, falls squarely within the kinds of takings prohibited by the Takings Clause.[36]

Additionally, the coerced nature of generators' "obligation" to provide reactive power free of charge creates separate Due Process concerns. Courts have recognized that such concerns "arise

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[32] 16 U.S.C. § 824d; *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923); *FPC v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944).

[33] *See e*.g., *Powerex Corp. v. Dep't of Revenue*, 357 Or. 40, 66 (2015) ("[W]e conclude that electricity is tangible personal property for the purposes of" Oregon tax law); *In re Erving Indus., Inc*., 432 B.R. 354, 370 (Bankr. D. Mass. 2010) (concluding that "electricity constitutes a good within the meaning of the UCC" and U.S. Bankruptcy Code).

[34] *See, e.g., Gadsden Indus. Park, LLC v. United States*, 956 F.3d 1362, 1364 & n.8 (Fed. Cir. 2020) (finding, for the purposes of a Fifth Amendment takings claim, that a steel manufacturer had a "cognizable property interest" in a "byproduct" of the steel manufacturing process).

[35] *See Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of National Grid Renewables Development, LLC and Vistra Corp. and Dynegy Marketing and Trade, LLC at 26 (May 28, 2024) ("Generation Developers Comments").

[36] *Horne v. Dept. of Ag*., 576 U.S. 350, 359, 367 (2015). *Cf. FPC v. Hope Natural Gas Co*., 320 U.S. 591, 603 (1944); *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 690 (1923).

when the strong arm of the law is invoked to compel parties engaged in a legitimate business, and business which cannot be abandoned at will, to so reduce their charges for service as to make the carrying on of that business result in a continued loss."[37] The Commission's reliance on generators' "obligation" to provide reactive power as a basis for relieving transmission providers of their obligation to pay generators for reactive power service and, in turn, to reduce transmission rates[38] directly implicates the Due Process rights of generators. The Commission's failure to meaningfully address the constitutional challenges raised by commenters is arbitrary, capricious and contrary to law.[39]

2. Order No. 904 Violates Cost Causation Requirements

The cost causation principle—which flows from the just and reasonable standard—mandates that rates be "based on the costs of providing service to the utility's customers, plus a fair return on equity."[40] FERC cannot "choose not to allocate costs to 'those who *cause* the costs to be incurred and reap the resulting benefits.'"[41] To the contrary "[p]roperly designed rates should produce revenues from each class of customers which match, as closely as practicable, the costs to serve each class or individual customer."[42] Indeed, failing to allocate costs to the services that they support is inconsistent with one of the primary purposes of the cost causation principle:

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[37] *Reagan v. Farmer's Loan & Tr. Co.*, 154 U.S. 362, 409-10 (1984); *F.C.C. v. Fla. Power Corp.*, 480 U.S. 245, 253 (1987).

[38] Order No. 904 at PP 49-51.

[39] *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) (quoting *Canadian Ass'n of Petroleum Producers v. FERC*, 254 F.3d 289, 299 (D.C. Cir. 2001) (stating that "[a]n agency's 'failure to respond meaningfully' to objections raised by a party renders its decision arbitrary and capricious"); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.*, 463 U.S. 29 (1983).

[40] *Sithe/Independence Power Partners, L.P. v. FERC*, 285 F.3d 1, 5 (D.C. Cir. 2002) (quoting *Alabama Elec. Cooperative, Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982)).

[41] *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 362 (5th Cir. 2023) (quoting *Nat'l Ass'n of Reg. Util. Comm'rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007)). *See also, Jersey Central Power Light Co. v. FERC*, 810 F.2d 1168, 1178 (D.C. Cir. 1987).

[42] *Alabama Elec. Cooperative, Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982).

protecting against "'[f]ree ridership,' where 'an entity is not required to pay for a benefit it receives.'"[43]

The Commission's proposal to insulate transmission customers from contributing to the costs incurred in connection with providing reactive power within the standard power factor range violates cost causation requirements. Under Order No. 904, transmission providers will continue to rely on generation resources to meet their obligations to provide reactive power service to transmission customers and these transmission customers will continue to enjoy the benefit of this reactive service—but without any obligation to pay for the costs that these resources incur in connection with this critical reliability service. At the same time, customers purchasing other services from a generation resource, including energy and capacity, will be required to pay these costs, effectively subsidizing the reactive service provided to transmission customers.

Although the Commission is not required to allocate costs with exacting precision, the FPA prohibits FERC from approving a rate scheme that requires one set of customers to subsidize the provision of service to others.[44] Indeed, courts have held that the Commission may not excuse itself from applying the FPA's cost causation principle to address its other policy priorities. Rather "[n]o amount of emphasizing other competing interests permits FERC to sacrifice the foundational principle of cost-causation by refusing to allocate costs 'to those who cause the costs to be incurred and who reap the resulting benefits.'"[45]

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[43] *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 358 (5th Cir. 2023) (quoting *Transmission Plan. and Cost Allocation by Transmission Owning and Operating Pub. Utils.*, Order No. 1000, 136 FERC ¶ 61,051 (2011), *order on reh'g,* Order No. 1000-A, 139 FERC ¶ 61,132, at P 573 (2012), *order on reh'g & clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014)).

[44] *Id.* at 363 ("[T]o ensure that rates are 'just', the [cost causation] principle prevents 'subsidization by ensuring that costs and benefits correspond to each other.") (internal quotation omitted); *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264 (D.C. Cir. 2014) ("[T]he cost causation principle itself manifests a kind of equity.").

[45] *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 363 (5th Cir. 2023) (citing *Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007)).

The Commission does not deny that reactive power within the standard power factor range is used to provide reactive power service to transmission customers and that transmission customers receive significant reliability benefits from this service.[46] Yet it denies "that eliminating compensation for reactive power within the standard power factor range would insulate transmission providers and customers from paying for any costs associated with the services they are receiving."[47] But the Commission cannot have it both ways. If reactive power provided within the deadband provides a critical reliability service to transmission providers and their customers, they should—consistent with the cost causation principle—pay for that service.[48]

While multiple parties pointed out that the Commission's proposal to mandate that reactive power service be provided for free was inconsistent with cost causation principles and FERC's statutory obligations, the Commission fails to provide a reasoned response to these concerns. The Commission states that it disagrees that insulating transmission customers from paying for the costs of reactive power and requiring purchasers of energy and capacity to bear these costs is inconsistent with cost causation because "reactive power within the standard power factor range enables generating facilities to reliably deliver real power to the transmission system (*i.e.*, make real power sales)."[49] According to the Commission, these "costs are 'caused' by the operating requirements of the generating facilities to deliver real power, not by the separate need of the transmission customers."[50]

The Commission's determination is not supported by substantial evidence and

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[46] *See, e.g.*, Order No. 904 at P 55 (noting that FERC does not "dispute that the provision of reactive power within the standard power factor range provides reliability benefits.").

[47] *Id.* at P 149.

[48] *Consol. Edison Co. of N.Y., Inc. v. FERC*, 45 F.4th 265, 271 (D.C. Cir. 2022) (citing *Pub. Serv. Elec. & Gas Co. v. FERC*, 989 F.3d 10, 13 (D.C. Cir. 2021) ("The costs assessed against a party must bear some resemblance to the burdens imposed or benefits drawn by that party.").

[49] Order No. 904 at P 149.

[50] *Id.*

mischaracterizes the nature of reactive power service. It is important to recognize that the majority of reactive power compensation that resources receive is for the *capability* to provide reactive power within the standard power factor range rather than the production of reactive power during a given interval.[51] Ultimately, resources are compensated for their capability to adjust the ratio of reactive power and real power produced in response to instructions issued by the transmission provider to allow it to balance its system.[52] Even if the Commission were correct that reactive power were necessary to inject electricity onto the grid, there is no evidence that the capability to adjust a resource's reactive power within the standard power factor range is necessary for the generator to inject electricity onto the grid. In fact, the record in this proceeding shows that a resource's decision to comply with a transmission provider's directive to provide reactive power at a given power factor may result in a reduction in the amount of real power produced by the facility.[53]

The Commission's reasoning also is inconsistent with prior Commission precedent acknowledging that reactive power produced on the generator's side of the point of interconnection supports the provision of service to transmission customers. For example, the Commission has

[51] *Calpine Oneta Power, L.P.*, 116 FERC ¶ 61,282, at P 28 (2006), *order on reh'g*, 119 FERC ¶ 61,177 (2007) ("[T]he Commission has held that a generator is 'used and useful' if the generator is capable of providing reactive power . . . The fact that the reactive power which a generator is capable of producing is not used at some particular given time does not render the generator's filed rates based on reactive power capability unjust or unreasonable.").

[52] *Reactive Power Requirements for Non-Synchronous Generation*, Order No 827, 155 FERC ¶ 61,277, at P 1 (2016) ("Under this Final Rule, newly interconnecting non-synchronous generators . . . will be required to provide dynamic reactive power within the range of 0.95 leading to 0.95 lagging at the high-side of the generator substation."); *Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023, 184 FERC ¶ 61,054, App. D, § 9.6.1.2 (2023) ("Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging . . . This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability . . . or fixed and switched capacitors, or a combination of the two"), *order on reh'g*, Order No. 2023-A, 186 FERC ¶ 61,199 (2024); *Id.*, App. D, § 9.6.2 (providing transmission provider authority to require "Interconnection Customer to operate the Large [Generating] Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1").

[53] *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of the Indicated Trade Associations at 10 (May 28, 2024) ("Indicated Trade Associations Comments").

rejected arguments that a generator should bear the costs of reactive power lost between the generation unit and its point of interconnection on the basis that even this reactive power is needed to provide transmission service:

> we reject Illinois Power's argument that generators instead of transmission customers should be assigned the cost responsibility for the extra amount of reactive power needed to get the required amount of reactive power to the transmission system. As we stated in Opinion No. 440, "we find merit in AEP's assertion that a generating plant must be capable of producing reactive power in excess of that which ultimately reaches the transmission system in order to have enough reactive power remaining to provide adequate voltage support on the transmission system" which is used by transmission customers. This extra reactive power represents a cost to the generator of providing reactive power to the transmission system for the benefit of transmission customers. Without such extra reactive power, transmission customers would not be able to use the transmission system. Thus, the cost associated with this extra reactive power is properly collected from transmission customers.[54]

While Order No. 904 attempts to characterize generation resources themselves as the cause and primary beneficiary of reactive power, the Commission's position cannot be reconciled with prior precedent recognizing the importance of reactive power provided within the standard power factor range to providing transmission service to transmission customers. The Commission's failure to acknowledge or explain its departure from prior precedent is arbitrary and capricious.[55]

The Commission also asserts that eliminating reactive power within the standard power factor range does not violate cost causation principles because "real and reactive power are provided as joint products, with joint costs, and are produced using the same equipment."[56] But even if certain costs incurred by a generator support both real and reactive power, that does not excuse the Commission from ensuring that those costs are allocated in a manner consistent with

[54] *Dynegy Midwest Generation, Inc.*, 121 FERC ¶ 61,025, at P 82 (2007).

[55] *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC*, 71 F.3d 897, 901 (D.C. Cir. 1995)) ("It is textbook administrative law that an agency must 'provide[] a reasoned explanation for departing from precedent or treating similar situations differently.'").

[56] Order No. 904 at P 148.

cost causation requirements. To the contrary, the Commission's longstanding policy has been that costs incurred in connection with multiple services must be allocated among the services at issue consistent with cost causation requirements.[57] FERC's failure to justify its departure from this precedent or identify any precedent supporting the conclusion that the Commission does not have an obligation to allocate costs consistent with cost causation principles merely because the costs at issue support multiple services or functions is arbitrary and capricious.[58]

The Commission also ignores evidence demonstrating that certain resources incur incremental fixed costs in connection with reactive power produced within the standard power factor range. As further discussed below, the record in this case shows that non-synchronous resources are required to invest in distinct equipment to allow them to provide reactive power within the standard power factor range.[59] The Commission fails to provide an articulable and plausible reason for concluding that generation resources should be prohibited from recovering these incremental costs from transmission customers or why it is just and reasonable to pass them on to customers purchasing energy and capacity.[60]

Likewise, the Commission fails to demonstrate that requiring customers purchasing energy

[57] *See, e.g., Entergy Servs.*, 143 FERC ¶ 61,120, at P 14 (2013) ("Commission policy requires the use of general allocators such as labor ratios or plant ratios to functionalize and allocate costs that cannot be directly assigned to a particular function[.]"); *Ameren Ill. Co.*, 185 FERC ¶ 61,124, at P 24 (2023) ("indirect costs that are administrative and general in nature are not assigned by function because such costs support multiple or all utility functions and, therefore, are includable in the appropriate A&G accounts and subsequently allocated in rates to transmission"); *Black Hills Colo. Elec., LLC*, 182 FERC ¶ 61,162, at P 31 (2023) ("Commission precedent already requires the use of general allocators such as labor ratios or plant ratios to functionalize and allocate costs that cannot be directly assigned to a particular function."); *Kern River Gas Transmission Co.*, 117 FERC ¶ 61,077, at P 290 (2006) (stating that "the Commission's general policy is that direct costs should always be directly assigned and that indirect costs should be allocated by formula" and that "[t]his policy is consistent with the concept that costs should follow cost causation").

[58] *Williston Basin Interstate Pipeline Co. v. FERC*, 358 F.3d 45, 48 (D.C. Cir. 2004) (requiring the Commission to make a "reasoned decision based upon substantial evidence in the record."); *Belmont Mun. Light Dep't v. FERC*, 38 F.4th 173, 187 (D.C. Cir. 2022) (stating that FERC cannot "depart from a prior policy *sub silentio*").

[59] *See infra* I.C.1.a.

[60] *Mo. Pub. Serv. Comm'n v. FERC*, 234 F.3d 36, 41 (2000) ("We have repeatedly required the Commission to 'fully articulate the basis for its decision.'").

and capacity to pay for the variable costs incurred when providing reactive power is consistent with cost causation principles or otherwise just and reasonable. For instance, the Commission has recognized that providing reactive power within the standard power factor range increases the variable cost of producing energy by increasing fuel consumption.[61] In other words, a generation resource's compliance with a transmission provider's directive to provide reactive power within the standard power factor range can increase the cost of producing energy. While the Commission attempts to dismiss these costs as *de minimis*, Commission precedent confirms that these costs can be significant, ranging into the hundreds of thousands of dollars a year.[62] The Commission's finding that customers that purchase energy or capacity should pay higher costs to cover variable costs incurred in connection with providing a distinct service to other customers is inconsistent with cost causation principles.

The Commission's suggestion that variable costs should be shifted to purchasers of energy or capacity is particularly absurd when applied to opportunity costs incurred by a generator in connection with the production of reactive power. Resources incur opportunity costs associated with a reduction in real power when operating at certain power factors.[63] If a resource incurs opportunity costs due to complying with a directive to operate at a given power factor, cost causation principles dictate that the customers benefitting from the reactive power that is produced—*i.e.*, transmission customers—rather than future purchasers of energy or capacity should bear these costs. Directing resources to increase the price at which they sell energy and capacity to compensate for the costs that they incur in connection with providing reactive power

[61] *Wabash Valley Power Ass'n*, 154 FERC ¶ 61,245, at P 27 (2016).

[62] *Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280, at P 37 (2008) (approving heating loss component of $182,364 per year); *Duke Energy Fayette, LLC*, 104 FERC ¶ 61,090 (2003) (approving heating loss component of $436,680 annually).

[63] *See, e.g.*, Indicated Trade Associations Comments at 10.

service is precisely the type of cross-subsidization prohibited by the FPA and the cost-causation principle.[64]

The Commission says that it disagrees with assertions that transmission customers "are the sole beneficiaries and cost-causers" of reactive power within the standard power factor range.[65] But a customer need not be the sole beneficiary or cost-causer of a service for it to be allocated costs of that service. Indeed, the entire purpose of the cost causation principle is to ensure that costs are equitably allocated to all customers that contribute to the need for, or benefit from, a particular service or asset.[66] Even if the Commission were correct that transmission customers are not the sole beneficiaries or cost causers, the fact that a customer enjoys only part of the benefits of a facility does not mean that FERC is excused from its duty to ensure that the customer bears a portion of the costs that are roughly commensurate with the benefits received.[67]

Thus, even if the Commission were able to meet its burden in this case to demonstrate that existing rates are unjust and unreasonable—which it has not—the Commission has a statutory obligation to determine how the costs of resources can be allocated accurately among reactive power service and the other services that they provide. For example, if the Commission were to demonstrate that the *AEP* methodology is leading to unjust and unreasonable rates, the cost causation principle requires that the Commission establish a just and reasonable cost allocation

[64] *Electricity Consumers Resource Council v. FERC*, 747 F.2d 1511 (D.C. Cir. 1984) (remanding approval of rate design that required one set of customers to pay costs of serving other customers).

[65] Order No. 904 at P 149.

[66] *See, e.g., United Distribution Co. v. FERC*, 88 F.3d 1105, 1188-89 (D.C. Cir. 1996) ("'Cost causation' correlates costs with those customers for whom a service is rendered or a cost is incurred."). *See also Ill. Commerce Comm'n v. FERC*, 756 F.3d 556, 564 (7th Cir. 2014) (stating that costs must be allocated roughly commensurate with the costs caused or benefits received).

[67] *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 363 (5th Cir. 2023) ("[T]o ensure that rates are 'just', the [cost causation] principle prevents 'subsidization by ensuring that costs and benefits correspond to each other.") (internal quotation omitted); *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264 (D.C. Cir. 2014) ("[T]he cost causation principle itself manifests a kind of equity.").

methodology that ensures that transmission customers bear an equitable allocation of the costs incurred in connection with providing reactive power and that any costs shifted to other customers are justified by the costs caused and benefits received by such customers. The Commission cannot simply throw up its hands, declare any effort to allocate costs "arbitrary," and mandate that reactive power service be provided without any obligation on the part of transmission customers to bear a portion of the costs incurred in connection with this service. Its decision to do so in Order No. 904 is arbitrary, capricious, and contrary to law.[68]

3. FERC Erred In Finding That Commenters' Statutory And Constitutional Challenges Are Impermissible Collateral Attacks

Rather than meaningfully responding to the statutory and constitutional challenges raised by commenters, FERC declares that these challenges are impermissible collateral attacks on the Commission's determination in Order No. 2003 that generators are not entitled to compensation for reactive power within the standard power factor range except as necessary to comply with the Commission's comparability policy.[69] The Commission's reliance on the collateral attack doctrine is misplaced and contrary to law.

Even if Order No. 2003's requirement that generators provide reactive power within the standard power factor range could be read as a determination that resources are categorically precluded from receiving reactive power compensation, there are multiple exceptions to the collateral attack doctrine that preclude the Commission from exercising it here.

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[68] *Id.*; *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158, 1165 (D.C. Cir. 1998) ("As we have said before, it most emphatically remains the duty of this court to ensure that an agency engage the arguments raised before it—that it conduct a process of reasoned decision making"); *Tarpon Transmission Co. v. FERC*, 860 F.2d 439, 444 (D.C. Cir. 1998) (finding that the Commission failed to engage in reasoned decision-making because it responded in "purely conclusory terms"); *Belmont Mun. Light Dep't v. FERC*, 38 F.4th 173, 187 (D.C. Cir. 2022) (stating that FERC cannot "depart from a prior policy *sub silentio*"); *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record . . . ."); *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024).

[69] Order No. 904 at PP 56, 101.

First, courts have made clear that a prior order of the Commission may be challenged on substantive grounds where—as here—the challenge goes to the Commission's statutory or constitutional authority.[70] Otherwise, an unlawful or unconstitutional order could persist in perpetuity, harming even those entities that did not exist when the order was promulgated. In response to the Notice of Proposed Rulemaking,[71] commenters argued that the Commission's assertion that generators are obligated to provide reactive power free of charge violates the FPA, including the requirement that the Commission ensure that all public utilities are afforded an opportunity to recover their costs plus a reasonable return on their investment, and the U.S. Constitution.[72] Given the nature of these challenges, the Commission's assertion that "commenters' arguments that the obligation to provide reactive power within the standard power factor range is unconstitutional are impermissible collateral attacks on our prior determinations," is mistaken.[73]

Relatedly, courts have found that an earlier agency order may be challenged if a subsequent agency action "raises the question of whether an earlier action was lawful."[74] In Order No. 2003, there was no discussion of whether requiring resources to provide a critical reliability service free of charge was lawful. Instead, the exceedingly brief discussion of the obligation of generators to provide reactive power within the standard power factor range focused on whether such policy

[70] *Sacramento Mun. Util. Dist. v. FERC*, 428 F.3d 294, 299 (D.C. Cir. 2005); *see also Graceba Total Communications, Inc. v. F.C.C.*, 115 F.3d 1038, 1041 (D.C. Cir. 1997) (permitting petitioner to raise a "constitutional claim" despite it being filed beyond the statutory time limit).

[71] *Compensation for Reactive Power Within the Standard Power Factor Range*, 186 FERC ¶ 61,203 (2024) ("NOPR").

[72] Generation Developers Comments at 26-28.

[73] Order No. 904 at P 56.

[74] *Pub. Citizen v. Nuclear Regulatory Comm'n*, 901 F.2d 147, 151–52 (D.C. Cir. 1990) ("[T]o the extent that an agency's action necessarily raises the question of whether an earlier action was lawful, review of the earlier action for lawfulness is not time-barred.") (citations omitted).

was unduly discriminatory if transmission providers nevertheless pay their generation affiliates.[75] Commenters' challenges in this case squarely raise the question that was not addressed in Order No. 2003: whether requiring generators to provide reactive power without compensation violates the FPA and the Constitution.[76]

Second, under the "reopener doctrine," courts have explained that a prior agency order may be "reopened" if an agency has "(1) proposed to make some change in its rules or policies, (2) called for comments only on new or changed provisions, but at the same time, (3) explained the unchanged, republished portions, and (4) responded to at least one comment aimed at the previously decided issue."[77] Each of these criteria have been met in Order No. 904 and effectively "reopen" the Commission's determination in Order No. 2003 that generators must provide reactive power within the standard power factor range free of charge. In Order No. 904, the Commission has (1) changed the obligation of transmission providers to pay generators for reactive power within the deadband,[78] (2) invited comments on this change,[79] (3) asserted that it is not changing the obligation of generators to provide reactive power within the deadband,[80] and (4) responded to

[75] *Standardization of Generator Interconnection Agreements and Procedures,* Order No. 2003, 104 FERC ¶ 61,103 (2003) ("Order No. 2003"), *order on reh'g*, Order No. 2003-A, 106 FERC ¶ 61,220, at P 416 (2004) ("Order No. 2003-A"), *order on reh'g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2005), *order on reh'g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff'd sub nom. National Ass'n of Regulatory Comm'rs v. FERC,* 475 F.3d 1277 (D.C. Cir. 2007) ("We agree with Calpine that if the Transmission Provider pays its own or its affiliated generators for reactive power within the established range, it must also pay the Interconnection Customer.").

[76] *See* Generation Developers Comments at 26-28.

[77] *Pub. Citizen v. Nuclear Regulatory Comm'n*, 901 F.2d 147, 150 (D.C. Cir. 1990). *See also, Ass'n of Am. Railroads v. I.C.C.*, 846 F.2d 1465, 1473 (D.C. Cir. 1988) (applying the reopener doctrine where the agency stated its intentions to "harmonize" divergent approaches to similar regulatory problems and thus suggested "that the search for harmony might lead to a rethinking of old positions"); *Ohio v. U.S. E.P.A.*, 838 F.2d 1325, 1328-29 (D.C. Cir. 1988) (applying the reopener doctrine where agency "explained the unchanged but republished portion of the regulation . . . in general policy terms" and "responded to at least one comment directed at the [prior] rules"); *Edison Elec. Inst. v. U.S. E.P.A.*, 996 F.2d 326, 332 (D.C. Cir. 1993) (applying the reopener doctrine where agency "solicit[ed] comments on the existing . . . regulations and advance[ed] a possible alternative approach in the proposed . . . rule").

[78] Order No. 904 at P 1.

[79] NOPR at P 76.

[80] Order No. 904 at PP 56, 101.

commenters arguments regarding the obligation that generators provide reactive power within the deadband.[81] Order No. 904 satisfies the criteria to "reopen" FERC's determination that generators must provide reactive power within the deadband free of charge.

Third, courts have recognized that the doctrine of collateral attack will only preclude a challenge if "a reasonable firm in [petitioners'] position would have perceived a very substantial risk that the [order] meant what the Commission now says it meant."[82] Generators—many of which did not even exist in 2003—could not have perceived that Order No. 2003 would be interpreted as establishing a policy that compelling generation resources to provide reactive power for no compensation is just and reasonable in all circumstances. Order No. 2003 allowed transmission providers to compensate generators for providing reactive power and, in fact, expressly required that generators be compensated for reactive power produced within the deadband if transmission providers compensated their own resources.[83] And in the decades since Order No. 2003 generators have in fact been compensated for the reactive power they provide. Generators were *not* on "notice" that their obligation to provide reactive power would be used to deprive them of the right to receive compensation for this critical reliability service or to deprive them of the benefit of previously-approved reactive power rates. Indeed, a challenge to the order at a time when they still received compensation may have been considered premature or unripe.

Fourth, courts will not deem a challenge to an order a collateral attack when the order—like Order No. 904—is actually a new policy.[84] Unlike Order No. 2003 that *allowed* transmission providers to pay generators for their reactive power produced within the deadband, Order No. 904

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[81] *Id*.

[82] *Dynegy Midwest Generation, Inc. v. FERC*, 633 F.3d 1122, 1127 (D.C. Cir. 2011) (citing *Southern Company Services, Inc. v. FERC*, 416 F.3d 39, 45 (D.C. Cir. 2005)).

[83] Order No. 2003-A at P 416.

[84] Order No. 904 at PP 56, 101.

categorically *prohibits* transmission providers from paying for reactive power. The Commission's attempt to characterize objections to FERC's new policy prohibiting resources from receiving reactive power compensation as objections to a past determination that resources are obligated to provide reactive power is thus unfounded.

Finally, even if Order No. 2003 stands for the proposition that "*as a general matter*, a generator should not be compensated for providing reactive power within a specified range,"[85] that does not insulate the Commission from complying with its burden under Section 206 of the FPA to demonstrate that existing rates are unjust and unreasonable and that its proposed alternative rate is just and reasonable. As Commissioner Danly observed in his dissent in the order approving the elimination of reactive power compensation in MISO, Order No. 2003 did not go so far as to conclude "that a reactive power compensation rate of zero within the standard power factor range is always just and reasonable."[86] And it certainly did not go so far as to address whether it is just and reasonable to eliminate reactive power rates after they already have been approved by the Commission. The Commission cannot escape its statutory obligation to demonstrate that existing rates are unjust and unreasonable and that its proposed alternative rate is just and reasonable based on the specific facts and circumstances at issue here.[87]

B. The Commission's Conclusion That Existing Rates That Permit The Recovery Of The Fixed Costs Of Reactive Power Are Unjust And Unreasonable Is Arbitrary, Capricious, And Contrary To Law

1. The Commission's Conclusion That Existing Rates Are Unjust And Unreasonable Because They Are Based On An Allocation Of Joint Costs Rather Than Incremental Costs Constitutes Legal Error

At its core, Order No. 904 is premised on a fundamental legal error: that any reactive power

[85] *Dynegy Midwest Generation, Inc. v. FERC*, 633 F.3d 1122, 1125 (D.C. Cir. 2011) (emphasis added).

[86] *Midcontinent Indep. Sys. Operator, Inc.*, 182 FERC ¶ 61,033 (2023) (Comm'r Danly, dissenting at P 5).

[87] 16 U.S.C. § 824e; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024).

rate that is calculated on a basis other than the incremental costs of reactive power capability is unjust and unreasonable. This legal error pervades the Commission's reasoning throughout Order No. 904. Indeed, the Commission's primary justification for requiring the elimination of reactive power compensation is that generating facilities "incur no incremental investment, or fixed costs . . . over and above those needed to provide real power" in connection with their capability to provide reactive power within the standard power factor range.[88] The Commission does not deny that generators incur fixed costs in connection with establishing their reactive power capability, but summarily concludes that any reactive power rates are unjust and unreasonable because "no additional equipment is required to provide reactive power" and any fixed costs that are incurred are "joint costs."[89]

The problem with the Commission's reasoning is that it has no authority to impose its preferred alternative rate—incremental pricing—unless it demonstrates that existing reactive power rates are unjust and unreasonable. The mere fact that FERC would prefer a rate other than those on file with the Commission is not sufficient to meet its burden under Section 206.[90] This reflects that there is not a single just and reasonable rate, but a zone of reasonableness bounded "at one end by the investor interest against confiscation and at the other by the consumer interest against exorbitant rates."[91] And "Section 206 requires FERC to demonstrate that the existing rates are 'entirely outside the zone of reasonableness' before FERC imposes a new rate without the

[88] Order No. 904 at P 51.

[89] *Id*.

[90] *Emera Maine v. FERC*, 854 F.3d 9, 21 (D.C. Cir. 2017) (finding that FERC is not permitted to assume that "all [rates] other than the one FERC identifies as the utility's just and reasonable [rate] are *per se* unlawful in a section 206 proceeding" because "the zone of reasonableness creates a broad range of potentially lawful [rates] rather than a single just and reasonable [rate]").

[91] *Jersey Cent. Power & Light Co. v. FERC*, 810 F.2d 1168, 1176 (D.C. Cir. 1986); *Me. Pub. Utils. Comm'n v. FERC*, 520 F.3d 464, 471 (D.C. Cir. 2008).

consent of the utility[.]"[92] "In other words, a finding that an existing rate is unjust and unreasonable is the 'condition precedent' to FERC's exercise of its section 206 authority to change the rate."[93]

The Commission has failed to meet its burden in this case. For an order that eliminates at least $700 million in compensation annually, it is remarkably devoid of any discussion of the specific rates that it proposes to modify. The Commission makes no effort to evaluate existing reactive power rates or explain how it has concluded that these rates are now outside the zone of just and reasonable rates. Instead, the Commission summarily concludes that existing rates are unjust and unreasonable because reactive power costs generators "little or nothing to provide"[94] and that existing rates lack a sufficient "economic basis."[95] But this is both incorrect and misleading.

There can be little question that a portion of the fixed costs incurred by a generation resource support the ability of the generator to provide reactive power within the standard power factor range. The Commission has approved hundreds of cost-based reactive power rates calculated based on the *AEP* methodology because they would permit the resources at issue to recover "the portion of plant investment attributable to reactive power production."[96] The Commission's assertion that there are no or *de minimis* costs associated with the provision of reactive power ultimately assumes the conclusion that it is seeking to prove: reactive power should

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[92] *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 114, n.2 (D.C. Cir. 2017) (quoting *City of Winnfield v. FERC*, 744 F.2d 871, 875 (D.C. Cir. 1984)).

[93] *Emera Maine v. FERC*, 854 F.3d 9, 25 (D.C. Cir. 2017).

[94] Order No. 904 at P 50.

[95] *Id*.

[96] *Virginia Elec. & Power Co.*, 114 FERC ¶ 61,318, at P 3 (2006) (stating that the *AEP* methodology computes "the portion of plant investment attributable to reactive power production"). *See, e.g., Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280, at P 11 (2008) ("The *AEP* methodology calculates just and reasonable capability-based reactive power rates that recover the fixed costs associated with providing reactive power service.").

be priced on an incremental basis and, thus, any rates that deviate from this approach are inherently unjust and unreasonable. Such conclusory reasoning is insufficient to support action under Section 206 and falls short of the reasoned decision-making required of the Commission.[97]

The Commission's reasoning is particularly problematic as it ignores material differences among the frameworks that are used to compensate for reactive power within the standard power factor range. Order No. 904 rejects the requests of ISO-NE and NYISO that they be permitted to retain the existing rate structures that they use to compensate for reactive capability on the basis that the rates appropriately compensate resources for providing a critical reliability service.[98] The Commission rejects these requests, without any discussion of the specific rates at issue or its previous findings that such rates were necessary to "reliably operate [their] system,"[99] based on little more than its finding that generators do not incur incremental costs associated with reactive power. The Commission ignores, however, that the flat rate structures that have been adopted by ISO-NE and NYISO are not based on the allocation of the costs of any specific generation resource, but have been established to provide resources with an incentive to make the investments necessary to ensure reliability and to comply with dispatches provided by the transmission

[97] *Tarpon Transmission Co. v. FERC*, 860 F.2d 439, 444 (D.C. Cir. 1998) (finding that the Commission failed to engage in reasoned decision-making because it responded in "purely conclusory terms"); *New England Power Generators Ass'n, Inc. v. FERC*, 881 F.3d 202, 211 (D.C. Cir. 2018) (FERC cannot satisfy its mandate by relying on "conclusory statements that dismissed [a party's] concerns without providing reasoned analysis"); *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158, 1165 (D.C. Cir. 1998) ("As we have said before, it most emphatically remains the duty of this court to ensure that an agency engage the arguments raised before it—that it conduct a process of reasoned decision making").

[98] *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Notice of Proposed Rulemaking Comments of the New York Independent System Operator, Inc. at 3 (May 28, 2024) ("NYISO Comments") ("The NYISO understands there to be a cost associated with purchasing, maintaining, and operating equipment to provide reactive power support. The cost of reactive power support in the NYCA is directly attributable to the service being provided and the reliability benefits of that service."); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of ISO New England at 9 (May 28, 2024) ("ISO-NE Comments") (stating that compensation is "for valuable VAR capability and is based on regular testing of VAR capability").

[99] *Me. Pub. Util. Comm'n v. ISO New England Inc.*, 126 FERC ¶ 61,090, at P 42 (2009).

provider.[100] The Commission's failure to acknowledge or meaningfully consider these differences is arbitrary, capricious, and contrary to law.[101]

2. The Commission's Finding That Allocating Fixed Costs Is Arbitrary Is Unsupported, Not The Product Of Reasoned Decision-Making, And Contrary To Law

The Commission attempts to avoid the burden imposed on it by Section 206 by declaring any attempt to allocate joint costs is "inherently arbitrary."[102] But the fact that existing reactive rates in certain markets are based on an allocation of fixed costs between real and reactive power does not mean that these rates are inherently arbitrary or otherwise unjust and unreasonable. To the contrary, the Commission has a long history of allocating jointly incurred costs to different classes of customers that benefit from them.

The "problem" of joint costs is not unique to reactive power compensation. In practice, public utilities regularly make investments that support multiple services or segments of their business. Aside from the hundreds of cases in which the Commission has found the allocation of real and reactive power costs using the *AEP* methodology to be just and reasonable,[103] the Commission has approved the allocation of joint costs in many other contexts before.[104] In fact,

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[100] ISO-NE Comments at 6, 9; NYISO Comments at 4, 7-11.

[101] *PSEG Energy Res. & Trade LLC v. FERC*, 360 F.3d 200, 203 (D.C. Cir. 2004) (quoting *E. Tex. Elec. Coop., Inc. v. FERC*, 331 F.3d 131, 136 (D.C. Cir. 2003)) (noting that the Commission must provide a "coherent and adequate explanation" for its decisions); *PSEG Energy Res. & Trade LLC v. FERC*, 665 F.3d 203, 208 (D.C. Cir. 2011) ("Among other things, '[a]n agency's "failure to respond meaningfully" to objections raised by a party renders its decision arbitrary and capricious.'"); *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record . . . .").

[102] Order No. 904 at P 90.

[103] *See, e.g., Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280, at P 11 (2008) ("The *AEP* methodology calculates just and reasonable capability-based reactive power rates that recover the fixed costs associated with providing reactive power service."). *See also Bluegrass Generation Company, L.L.C.*, 118 FERC ¶ 61,214 (2007), *order on reh'g*, 121 FERC ¶ 61,018, at P 12 (2007) (stating that "the *AEP* methodology is a just and reasonable manner of calculating a reactive power revenue requirement").

[104] *See, e.g., Entergy Servs.*, 143 FERC ¶ 61,120, at P 14 (2013) ("Commission policy requires the use of general allocators such as labor ratios or plant ratios to functionalize and allocate costs that cannot be directly assigned

the Commission's policy has been that costs that cannot be directly assigned to a particular service or function must be allocated among the relevant services and functions in order to ensure that rates are consistent with cost causation requirements.[105] And the Commission has allocated costs among customers even where the "[a]llocation of joint project costs is a difficult and inexact science."[106]

The Commission has not provided any evidence to support the conclusion that the *AEP* methodology is resulting in rates that do not reasonably reflect the portion of the fixed costs attributable to the capability to provide reactive power within the standard power factor range. To the contrary, there is ample record evidence supporting the conclusion that reactive power rates are based on the costs of the generation resources providing reactive power service. In PJM and other regions where generation resources are compensated based on unit-specific rate schedules, public utilities must provide detailed information about their costs and the technical capabilities of their resources, including testing data demonstrating the capability of the unit to provide reactive power.[107] And the resulting rates typically are approved through proceedings that involve FERC trial staff, the transmission provider, the market monitor, and other interested parties—each of which has an incentive to scrutinize the cost data and testing data provided by generators. In other

to a particular function[.]"); *Ameren Ill. Co.*, 185 FERC ¶ 61,124, at P 24 (2023) ("indirect costs that are administrative and general in nature are not assigned by function because such costs support multiple or all utility functions and, therefore, are includable in the appropriate A&G accounts and subsequently allocated in rates to transmission"); *Black Hills Colo. Elec., LLC*, 182 FERC ¶ 61,162, at P 31 (2023) ("Commission precedent already requires the use of general allocators such as labor ratios or plant ratios to functionalize and allocate costs that cannot be directly assigned to a particular function.").

[105] *See, e.g., Kern River Gas Transmission Co.*, 117 FERC ¶ 61,077, at P 290 (2006) (stating that "the Commission's general policy is that direct costs should always be directly assigned and that indirect costs should be allocated by formula" and that "[t]his policy is consistent with the concept that costs should follow cost causation").

[106] *Pub. Serv. Co. of N.H.*, 61 FERC ¶ 61,256, at 61,936 (1992).

[107] *See, e.g., Wabash Valley Power Ass'n*, 154 FERC ¶ 61,245, at P 29 (2016) ("[R]eactive power revenue requirement filings must include cost information for all equipment used to produce reactive power, including for turbogenerators, generators, exciters, and step-up transformers. Moreover, to support the reactive power allocator used in the *AEP* methodology, reactive power revenue requirement filings must include reactive power test reports.").

words, the process used to establish reactive power revenue requirements ensures that reactive rates reasonably reflect the costs of providing this service. The Commission has not demonstrated otherwise.

While the Commission may now prefer that reactive power costs be calculated based on an incremental cost basis, that does not render the allocation of fixed reactive power costs inherently unjust and unreasonable or arbitrary. Indeed, the Commission has explained that the *AEP* methodology is "not simply a matter of administrative convenience . . . but the result of the Commission's deliberate determination that the *AEP* methodology is a just and reasonable manner of calculating a reactive revenue requirement."[108] If the Commission wishes to modify existing reactive power rates, then it has the burden to demonstrate that existing reactive power rates are outside the range of reasonableness rather than simply asserting that these rates do not align with its preferred calculation methodology. And the Commission's categorical determination that any allocation of joint costs is inherently arbitrary is not supported by substantial evidence and represents an unexplained departure from prior precedent.[109]

The Commission cites a number of cases and law review articles to support its view that the allocation of joint costs is an arbitrary exercise.[110] But while the authorities cited by the Commission recognize practical difficulties that can arise when allocating joint costs, none of them suggest that the appropriate response is to categorically prohibit rate recovery or to pretend that

[108] *Bluegrass Generation Co.*, 121 FERC ¶ 61,018, at P 12 (2007).

[109] *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004) ("FERC must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record."); *New Eng. Power Generators Ass'n v. FERC*, 881 F.3d 202, 210-211 (D.C. Cir. 2018) (quoting *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (explaining that the Commission may not "depart from [its] prior policy *sub silentio* or simply disregard rules that are still on the books.").

[110] Order No. 904 at P 90, n.268 (citing *In re Permian Basin Area Rate Cases*, 390 U.S. 747, 784 (1968); Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 Stan. L. Rev. 548, 595 (1969); *A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc.*, 881 F.2d 1396, 1400 (7th Cir. 1989)).

joint costs only support a single service or should be allocated to a single customer class. For example, the Supreme Court in the *Permian Basin Area Rate Cases* accepted the Federal Power Commission's decision to not allocate the costs of casinghead and residue gas in setting the max natural gas production rate for the Permian basin.[111] But the Court did so while recognizing that the "costs of gas-well gas must also be apportioned," and that the max rate for the Permian basin would instead be set by the cost apportioned gas-well gas since "the cost of casinghead and residue gas could not be higher, and, if exploration and development costs are realistically discounted, must surely be lower than the costs of flowing gas-well gas."[112] As a result, all costs associated with the production of casinghead and residue gas would be recoverable under the higher max rate established by cost-allocated gas-well gas.

The other authorities cited by the Commission merely identify the prospect of allocating joint costs as one of the many practical difficulties of ratemaking; but they do not suggest that joint cost allocation should be abandoned because of the challenges it presents.[113] Indeed, courts have held that the Commission may not excuse itself from applying the FPA's cost causation principle to address its other policy priorities. Rather "[n]o amount of emphasizing other competing interests permits FERC to sacrifice the foundational principle of cost-causation by refusing to

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[111] *In re Permian Basin Area Rate Cases*, 390 U.S. 747, 803-04 (1968).

[112] *Id.* at 804.

[113] *A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc*., 881 F.2d 1396, 1400 (7th Cir. 1989) ("Measuring costs creates additional problems. Are advertising and research costs expensed or capitalized? How does one allocate the cost of activities that have joint products? *Agencies engaged in ratemaking struggle with these problems for years, even decades, without producing clear answers*. If we could measure costs, what would be the right benchmark? Short-run variable cost? Long-run variable cost? Average total cost? Any of these (and there are more measures) might be best in a given case, depending on the strategy the aggressor has selected and the length of time it will take to succeed.") (emphasis added); Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 Stan. L. Rev. 548, 595 (1969) ("Many close questions of judgment arise in deciding which assets should be included in the rate base; in valuing those assets; in determining depreciation allowances; and in separating costs between regulated and nonregulated services and between different regulatory jurisdictions (some of which may be very lax). Moreover, where services involve joint or common costs a rational allocation is impossible even in theory. How much of the cost of a telephone handset is assignable to local and how much to interstate telephone service?").

allocate costs 'to those who cause the costs to be incurred and who reap the resulting benefits.'"[114] While courts have acknowledged that the Commission may be entitled to some leeway when feasibility concerns arise in allocating cost,[115] neither courts nor the Commission have found that costs cannot be recovered merely because they are incurred in connection with providing multiple services. And the Commission's conclusion to the contrary is arbitrary and capricious.[116]

3. The Commission's Conclusion That Existing Reactive Rates Impose Costs Disproportionate To The Benefits Received Or Are Otherwise Excessive Is Unsupported And Inconsistent With Commission Precedent

The Commission attempts to demonstrate that existing reactive power rates are excessive by claiming that such charges "are without a sufficient economic basis" and that they "do not result in transmission customers receiving commensurate reliability benefits."[117] But the Commission fails to provide any evidence supporting its *ipse dixit*. At the same time, there is overwhelming support—both in the record in this case and in Commission precedent—that the investments that generation resources make in their reactive power capability are critical for reliability and confer significant benefits on transmission customers. Transmission customers benefit from the fact that reactive power allows for efficient and cost-effective transfers of power across the bulk power system resulting in more competitive energy and capacity market outcomes and a lower cost solution to serving load and ensuring resource adequacy during system peak conditions.

Both Commission precedent and record evidence confirm that reactive power provided

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[114] *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 363 (5th Cir. 2023) (citing *Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007)).

[115] *See Sithe/Independence Power Partners, L.P. v. FERC*, 285 F.3d 1, 5 (D.C. Cir. 2002) (citing *Tejas Power Corp. v. FERC*, 908 F.2d 998, 1005 (D.C. Cir. 1990)).

[116] *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co*., 463 U.S. 29 (1983).

[117] Order No. 904 at P 50.

within the deadband provides an essential reliability benefit to transmission providers and their customers. The Commission has long recognized that reactive power is a distinct service "integrally related to the reliable operation of the transmission system"[118] which provides a benefit separate and apart from transporting the real power produced by generators to the grid. The Commission has, for example, explained that because "transmission customer actions do not eliminate entirely the need for generator-supplied reactive power … [t]he transmission provider must provide at least some reactive power from generation sources."[119] When the Commission adopted the *AEP* methodology it found that "a generating plant must be capable of producing reactive power *in excess* of that which ultimately reaches the transmission system in order to have enough reactive power remaining to provide adequate voltage support on the transmission system."[120]

The evidence introduced in this proceeding—from the Commission's own Staff Report—also unequivocally shows that reactive power provided by generators within the deadband is crucial to transmission system reliability:

> Most static reactive power comes from capacitors, which are transmission equipment with costs recovered through transmission rates. In contrast, most dynamic reactive power, which is crucial to transmission system reliability, is provided by generators, sometimes without a cost recovery mechanism, *i.e.*, at a rate of zero. This results in a system where transmission customers pay for the less valuable service through transmission rates for static reactive power but do not always pay for the more valuable service of generator dynamic reactive power capability available to respond to contingencies.[121]

The North American Electric Reliability Corporation has also observed that "[g]enerators are the

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[118] Order No. 888 at 31,706.

[119] *Id*.

[120] *Am. Elec. Power Serv. Corp*., Opinion No. 440, 88 FERC ¶ 61,141, at 61,457 (1999), *order on reh'g*, 92 FERC ¶ 61,001 (2000) (emphasis added).

[121] Staff Report at 16.

most prevalent Reactive Power resources and play an integral role in maintaining voltage stability on the [bulk power system]."[122] Even in Order No. 904, the Commission cannot avoid the conclusion that "the provision of reactive power within the standard power factor range provides reliability benefits," which necessarily extend beyond the benefit a generator receives from transmitting its power to the grid.[123]

Numerous parties to this proceeding have provided evidence supporting the conclusion that the fixed investments made by generation resources confer significant benefits on transmission customers. For example, both ISO-NE and NYISO requested that the Commission not require them to eliminate reactive power compensation because the costs imposed on customers for reactive power is commensurate with the reliability benefits received from this critical reliability service.[124] The Southwest Power Pool, Inc. ("SPP") Market Monitoring Unit—which operates in a region that currently does not compensate for reactive power within the standard power factor range—noted that "[r]eactive power has not only costs, but more importantly, value to the market and transmission operations" and recommended that "[r]esources . . . be properly compensated to cover any fixed or incremental variable costs for producing reactive power."[125]

But perhaps the best evidence of the reliability benefits that reactive power produced within the standard power factor range provides is the fact that Commission has not proposed to abandon the requirement that generators provide reactive power. If the sole benefit of reactive power

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[122] North American Electric Reliability Corp., Reactive Power Planning Guideline at 9 (Dec. 2016), *available at*: https://www.nerc.com/comm/RSTC_Reliability_Guidelines/Reliability%20Guideline%20-%20Reactive%20Power%20Planning.pdf.

[123] Order No. 904 at P 55.

[124] ISO-NE Comments at 2 (stating that "the overall cost of reactive supply and voltage support ('VAR') Service in New England is relatively low, and VAR Service provides significant reliability benefits to the New England Transmission System"); NYISO Comments at 3 ("The cost of reactive power support in the NYCA is directly attributable to the service being provided and the reliability benefits of that service.").

[125] *Reactive Power Capability Compensation*, Docket No. RM22-2-000, Comments of the Market Monitoring Unit of the Southwest Power Pool on Notice of Inquiry at 3 (Jan. 31, 2022) ("SPP MMU Comments").

produced within the deadband were to transmit a generator's real power to the grid—as the Commission suggests—then the Commission would not need to require interconnection customers to provide reactive power within the deadband. Interconnection customers would provide reactive power as necessary simply to get their real power on the grid. Of course, the Commission has not and could not eliminate the requirement that generators provide reactive power within the deadband because the reliability of the grid depends on it.

The Commission nevertheless asserts that reactive power produced within the standard power factor range is necessary solely for a generator to transmit its power to the grid.[126] The Commission provides no support for this assertion other than that its statement that it "has always been a physical reality of the transmission system, even for wind generating facilities that were exempted from providing reactive service within the standard power factor range prior to Order No. 827."[127] The Commission further elaborates that wind projects that were incapable of producing reactive power within the standard power factor range "had to rely on dynamic reactive power service supplied by other generating facilities and equipment on the transmission system capable of providing reactive support to allow their real power to reliably flow onto the transmission system."[128]

But even a cursory review of the Commission's precedent reveals that the Commission's unsupported assertion is incorrect. As explained above,[129] there is no evidence that resources need to have the ability to produce or absorb reactive power at the full range of power factors within the standard power factor range to deliver their electricity to the grid and, in fact, doing so may reduce

[126] Order No. 904 at P 102.

[127] *Id*. at P 102, n.305.

[128] *Id*.

[129] *See supra* §§ I.A.1 & I.A.2.

the total amount of energy that they can produce during a given interval. The capability of generators to provide reactive power within the standard power factor range supports transmission service; indeed, the Commission has observed that without the reactive power provided by generators "transmission customers would not be able to use the transmission system."[130] In fact, when PJM sought Commission approval to remove the exemption for wind generators providing reactive power within the deadband in advance of Order No. 827, it did so because its transmission system needed additional resources to produce reactive power above and beyond their ability to transmit their power to the grid in light of the retirement of synchronous resources.[131] In short, the requirement that generators produce reactive power within the standard power factor range is demonstrably—and likely primarily—for the benefit of the transmission system and transmission customers, rather than for transmitting generators' power to the grid.

While there is ample evidence supporting the conclusion that the investments that generators make in their reactive power capability provide significant benefits to, and supports service to, transmission customers, the Commission does not identify any record evidence supporting the conclusion that transmission customers are bearing disproportionate costs due to reactive power compensation or that reactive power compensation is excessive.

The Commission states that reactive power compensation may "result in undue

[130] *Dynegy Midwest Generation, Inc.*, 121 FERC ¶ 61,025, at P 82 (2007).

[131] *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,097, at P 7 (2015) ("PJM argues that the increasing number of non-synchronous interconnection requests, combined with anticipated resource retirements, necessitates the availability of reactive power on a presumptive basis to ensure the safety and reliability of the transmission system as a whole. PJM asserts that this increase in non-synchronous resources, level of upcoming legacy retirements, and comprehensive policies and economics favoring non-synchronous resources were not considered by the Commission when it issued Order No. 661."). *See also Cal. Indep. Sys. Operator Corp.*, 132 FERC ¶ 61,196, at P 49 (2010) (rejecting California Independent System Operator Corporation's ("CAISO") proposal to remove exemption for non-synchronous resources despite CAISO's explanation that it needed non-synchronous resources to produce reactive power since "the displacement of conventional, synchronous generation by asynchronous variable energy resources may leave the CAISO controlled grid with an inadequate source of reactive power, which could also reduce the voltage regulation capability on the CAISO controlled grid to unacceptable levels.").

compensation and other market distortions."[132] As commenters pointed out, however, many regions already are struggling to maintain reliability in the face of the retirement of generation resources as a result of economic factors.[133] The Commission dismisses this evidence on the basis that these statements confuse compensation for reactive power with general cost recovery for generating facilities and that the Commission has concluded that generating companies incur no fixed costs and at most *de minimis* variable costs.[134] But this is merely another variation on the Commission's claim that any rates that do not align with its preferred methodology are unjust and unreasonable; it says nothing about whether existing rates are within the range of just and reasonable rates. The Commission's conclusory reasoning is no substitute for substantial evidence and does not constitute reasoned decision-making.[135]

The Commission also cites to a statement by the PJM market monitor that the current rules create an incentive to maximize the allocation of capital costs to reactive power rates.[136] The Commission's reliance on the market monitor's statement is misplaced. As an initial matter, the market monitor does not substantiate its claim. And even if the PJM market monitor were correct, any risk that resources will "inflate" their reactive power compensation is mitigated by the fact

[132] Order No. 904 at P 89.

[133] *See, e.g.*, *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Copenhagen Infrastructure Partners, et al., at 60-61 (May 28, 2024) ("Reactive Service Providers Comments").

[134] Order No. 904 at P 107.

[135] As pointed out in comments on the NOPR, the *AEP* methodology has been applied to calculate the reactive power rates of utilities providing both cost-based and market-based rates since its inception. Generation Developers Comments at 8, n.16. At the time that the *AEP* methodology was first applied to calculate the reactive power rates of American Electric Power Service Corporation, the company already had been granted authority to make sales at market-based rates. *Am. Elec. Power Serv. Corp*., 81 FERC ¶ 61,129 (1997). And almost immediately after this methodology was established, it was applied to determine the reactive power rates of independent power producers participating in competitive markets. *See WPS Westwood Generation, LLC*, 101 FERC ¶ 61,290, at P 14 (2002). The Commission's attempt to characterize the *AEP* methodology as relic of the days before market-based wholesale power rates existed is simply incorrect and unsupported.

[136] Order No. 904 at P 107, n.316 (citing *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of the Independent Market Monitor for PJM at 4 (May 28, 2024)).

that a resource can only charge for reactive power compensation if its rate is determined to be just and reasonable and approved by FERC. Additionally, the PJM market monitor's criticism is specific to markets that compensate resources for reactive power service based on unit-specific reactive power rates and has no application to the compensation frameworks in NYISO and ISO-NE, both of which compensate for reactive power based on a flat rate that is not tied to the costs of specific generation resources.

The Commission claims that the "need for reform is particularly acute given that 'transmission rates have been rising in recent years and costs are only expected to increase in the near term to accommodate projected future transmission system needs.'"[137] But even if transmission rates are on the rise, the Commission has not provided any evidence showing that these increases are due to reactive power compensation within the deadband or even that transmission rates have increased beyond a just and reasonable level. Indeed, the evidence in this proceeding supports the conclusion that reactive power payments represent a small portion of the costs borne by load in wholesale markets.[138]

The Commission states that there is evidence supporting the conclusion that "reactive-power related transmission charges are not tied to geographic need and result in excess reactive power capability that is not required for interconnection and does not provide transmission customers with commensurate reliability benefits."[139] Notably, the Commission provides no

[137] *Id.* at P 50.

[138] *See id*. at P 42 (noting that reactive power payments in ISO-NE constitute only 0.25% of the total energy, ancillary services, and capacity market costs). Information from other markets confirms that reactive power represents a small portion of the costs imposed on transmission customers. For example, in PJM reactive power rates from generation resources have remained within the range of $0.47/MWh to $0.50/MWh between 2020 and 2024 year-to-date. Yet, over the same time period, transmission costs have increased from $11.03/MWh to $14.56/MWh, a 41% increase. *See* PJM Interconnection, L.L.C., Market Operations Report, Appendix, posted for the November 19, 2024 Members Committee Webinar (Nov. 12, 2024), *available at*: https://www.pjm.com/-/media/committees-groups/committees/mc/2024/20241119-web/item-05a---2---market-operations-report-appendix.ashx.

[139] Order No. 904 at P 55.

evidence to back up its claim. The Commission cites comments submitted by several parties that argue that the existing compensation structure could create an incentive for generators to build reactive power capability in locations where reactive power is not needed, but none of these comments provide any evidence to support the conclusion that existing reactive power frameworks are creating such incentives or that there is a surplus of reactive power. They also ignore that "[n]o generator would dispatch a plant solely on the basis of revenues from reactive voltage service."[140] In fact, earlier this year, FERC approved a reliability must-run agreement to ensure the continued operation of a generation unit because its retirement would lead to "severe voltage drop" and "could lead to a widespread voltage collapse in Baltimore, Maryland and the immediately surrounding areas."[141] Presumably, if there were such an abundance of reactive power capability, the retention of such units would be unnecessary.

The Commission also fails to provide a rational explanation for departing from prior precedent rejecting requests that reactive power compensation be premised on a needs test.[142] As the Commission has explained, "the fact that the reactive power that a generator is capable of producing is not used at some particular given time does not render the generator's filed rates based on reactive power capability unjust or unreasonable . . . and that a generator is 'used and useful' if it is capable of providing reactive power."[143] The Commission's declaration that transmission customers are paying for reactive power that is not needed to support the reliability of the grid is

[140] *Calpine Oneta Power, L.P.*, 113 FERC ¶ 63,015, at P 81 (2005), *order on initial decision*, 116 FERC ¶ 61,282 (2006), *order on reh'g*, 119 FERC ¶ 61,177 (2007).

[141] *Brandon Shores LLC*, Docket No. ER24-1790-000, RMR Arrangement – Continuing Operations Rate Schedule, Transmittal Letter at 7 (Apr. 18, 2024). *See also H.A. Wagner, LLC, et al.*, 187 FERC ¶ 61,176 (2024); *Brandon Shores LLC*, Docket No. ER24-1790-000, RMR Arrangement – Continuing Operations Rate Schedule, Transmittal Letter at 7 (Apr. 18, 2024).

[142] *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC*, 71 F.3d 897, 901 (D.C. Cir. 1995)) ("It is textbook administrative law that an agency must 'provide[] a reasoned explanation for departing from precedent or treating similar situations differently.'").

[143] *See, e.g., Columbia Energy, LLC*, 124 FERC ¶ 61,189, at P 29 (2008).

unsupported and represents an unexplained departure from prior precedent.

In order for FERC to conclude that existing reactive power rates are resulting in customers bearing a disproportionate share of benefits, the Commission must demonstrate that it has an "articulable and plausible reason" to believe that the costs imposed on customers are disproportionate to the benefits received.[144] But in order to come to this conclusion, the Commission must compare the costs assessed to transmission customers "to the benefits imposed or benefits drawn" by these parties.[145] And while the Commission makes passing reference to the total costs of reactive power compensation, the Commission does not make any effort to identify these costs much less compare them to the total benefits derived by these parties. Its failure to do so is arbitrary, capricious, and contrary to law.[146]

4. The Commission's Reliance On The Obligation To Provide Reactive Power Is Misplaced

The Commission attempts to avoid its obligation to assess the costs and benefits associated with reactive power production by claiming that the provision of reactive power within the standard power factor range is, in the first instance, an obligation of the generator consistent with good utility practice.[147] According to the Commission, any payment for reactive power compensation within the standard power factor range results in customers being "required to pay for a service that generators already are required to provide[.]"[148] The Commission further adds that "any payment for reactive power capability within the standard power factor range must yield

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[144] *Ill. Commerce Comm'n v. FERC*, 576 F.3d 470, 477 (7th Cir. 2009).

[145] *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004).

[146] *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983) (agency must "consider[] the relevant factors and articulate[] a rational connection between the facts found and the choice made" (citations omitted)); *Mo. Pub. Serv. Comm'n v. FERC*, 234 F.3d 36, 41 (D.C. Cir. 2000) (quoting *Columbia Gas Transmission Corp. v. FERC*, 628 F.2d 578, 593 (D.C. Cir. 1979)) ("We have repeatedly required the Commission to 'fully articulate the basis for its decision.'").

[147] Order No. 904 at P 89.

[148] *Id*. at P 49.

some roughly commensurate incremental benefit above and beyond that which would accrue absent payment."[149]

The Commission cannot avoid its obligation to assess the relative costs and benefits of reactive power by simply declaring that generation resources have an obligation to provide reactive power within the standard power factor range. As discussed above, reactive power is not merely an obligation, it is a distinct ancillary service that has been recognized as essential for reliability.[150] Even if the Commission has mandated that resources provide this service, that does not rationally lead to the conclusion that requiring transmission customers to contribute to the costs of the assets used to provide them with service is unjust and unreasonable.

In effect, the Commission's rationale for denying reactive power compensation is that transmission customers will continue to enjoy the benefits of this service regardless of whether compensation is provided or not. But that is not a lawful basis for insulating these customers from costs or concluding that existing reactive power rates are unjust and unreasonable. The cost causation principle requires that the costs of an asset or service be allocated to those using or benefitting from the asset or service at issue.[151] And the fact that certain customers could "free ride" by enjoying the benefits of a service without paying its costs is not a lawful basis for prohibiting utilities from providing the service that they provide.[152] To the contrary, it is precisely the type of ratemaking that the FPA and the cost causation principle prohibit.

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[149] *Id*. at P 54.

[150] *See supra* § I.A.1.

[151] *Consol. Edison Co. of N.Y., Inc. v. FERC*, 45 F.4th 265, 271 (D.C. Cir. 2022) (citing *Pub. Serv. Elec. & Gas Co. v. FERC*, 989 F.3d 10, 13 (D.C. Cir. 2021)) ("The costs assessed against a party must bear some resemblance to the burdens imposed or benefits drawn by that party.").

[152] *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264, 267 (D.C. Cir. 2014) (quoting *Nat'l Ass'n of Regulatory Util Comm'rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007)) (stating that the "cost causation principle generally calls for giving the same treatment" to all customers that cause "the incurrence of the costs[] whether by adding or merely continuing their usage"). *See also El Paso Elec. Co. v. FERC*, 76 F.4th 352, 358 (5th Cir. 2023).

The Commission's conclusion that compensating generators for reactive power capability does not provide a benefit "above and beyond" what they would otherwise receive also ignores contrary record evidence and prior Commission precedent. The record shows that not all generation resources have an obligation to provide reactive power within the standard power factor range.[153] Additionally, both ISO-NE and NYISO argued that the Commission should permit them to retain their existing approach to compensating for reactive power on the basis that they were necessary to provide resources with incentives to invest in and maintain the reactive power capabilities that these market operators rely upon to maintain reliability.[154] In fact, NYISO updated its reactive power compensation framework in 2016 in response to a substantial increase in the need for leading reactive power support and suppliers responded by "providing the leading reactive power when necessary to maintain reliability."[155] And the Commission previously has recognized that the flat rate framework adopted in ISO-NE provides appropriate financial incentives for resources to invest in the reactive capability that ISO-NE relies upon to reliably operate its system.[156] The Commission's conclusion that customers are not receiving benefits "above and beyond" those that they would receive if compensation is eliminated is unsupported, not the product of reasoned decision-making, and arbitrary and capricious.[157]

The Commission fails to identify any precedent supporting the conclusion that the fact that

[153] ISO-NE Comments at 9 ("[I]n New England, not all generators are obligated to provide reactive power service within the standard power factor range").

[154] *Id*.; NYISO Comments at 7-8.

[155] NYISO Comments at 4-5.

[156] *Me. Pub. Util. Comm'n v. ISO New England Inc.*, 126 FERC ¶ 61,090, at P 42 (2009).

[157] *City of Centralia v. FERC*, 213 F.3d 742, 749 (D.C. Cir. 2000) (granting petition for review where "[n]ot only is there no substantial evidence to support FERC's order, there *is* substantial evidence to support the opposite position endorsed by [the petitioners]"); *Cal. State Water Res. Control Bd. v. FERC*, 43 F.4th 920, 930 (9th Cir. 2022); *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it].").

a public utility is obligated to provide a service means that charging for that service is unjust and unreasonable. This is unsurprising. A primary purpose of the FPA is to ensure that public utilities that make investments in the facilities necessary to provide service to the public are permitted to recover their prudently incurred costs, plus a reasonable return, subject to the requirement that the rates for service be just and reasonable.[158] In fact, courts have recognized that FERC cannot compel public utilities to act as "non-profits" by denying them the ability to recover their costs, plus a reasonable return, on the services that they provide even where the utility has an obligation to provide the service at issue.[159]

In short, even if generation resources have an obligation to provide reactive power service, that does not mean that existing reactive power rates are necessarily unjust and unreasonable or relieve the Commission of its obligation to "match costs with benefits."[160] Existing reactive power rates have been calculated in a manner that ensures that customers make a contribution to the fixed costs incurred to establish resources' reactive power capability. If the Commission believes that this methodology has resulted in customers paying rates that are disproportionate to the benefits received, then it must articulate a reasonable basis for that conclusion supported by substantial record evidence. The Commission's attempt to assume away the benefits of this service on the basis that providing reactive power is an obligation is the type of "head-in-the-sand approach to cost allocation" that the courts have cautioned FERC against.[161] And the Commission's finding that customers do not derive benefits that are commensurate with the rates imposed based on the

[158] *See, e.g., Transmission Access Policy Study Group v. FERC*, 225 F.3d 667, 700 (D.C. Cir. 2000) (discussing "'regulatory compact' under which utility shareholders accepted lower rates of return on their investment in exchange for the certainty of regulated rates and resulting ability to recover prudently incurred costs").

[159] *See, e.g., Ameren Servs. Co. v. FERC*, 880 F.3d 571, 580-582 (D.C. Cir. 2018).

[160] *Midwest Indep. Transmission Sys. Operator, Inc.*, 133 FERC ¶ 61,221, at P 221 (2010).

[161] *LSP Transmission Holdings II, LLC v. FERC*, 45 F.4th 979, 997 (D.C. Cir. 2022); *Old Dominion Electric Coop. v. FERC*, 898 F.3d 1254 (D.C. Cir. 2018).

obligation to serve is inconsistent with the FPA and arbitrary, capricious, and contrary to law.[162]

C. The Commission's Finding That There Are No Incremental Costs Associated With Providing Reactive Power Within The Standard Power Factor Range Is Arbitrary And Capricious

The Commission's conclusion that generators incur no fixed or only *de minimis* incremental costs associated with providing reactive power ignores record evidence. At a minimum, the record in this proceeding demonstrates that non-synchronous generation resources incur distinct, incremental costs to ensure that they are able to provide reactive power within the standard power factor range. Additionally, the record in this proceeding demonstrates that all generation resources incur significant variable costs in connection with providing reactive power capability. Even if the Commission had demonstrated that rates premised on an allocation of joint costs is unjust and unreasonable—which it has not—the Commission has not demonstrated that rates that permit resources to recover the incremental costs of reactive power are unjust and unreasonable or that denying recovery of such costs as the Commission proposes is just and reasonable.

1. The Commission's Finding That Non-Synchronous Resources Incur No Fixed Costs Associated With Reactive Power Is Arbitrary And Capricious

Numerous commenters provided evidence affirmatively demonstrating that non-synchronous resources have incurred distinct fixed costs associated with the capability to provide reactive power within the standard power factor range.[163] For example, commenters pointed to a

[162] 16 U.S.C. § 824d; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

[163] Generation Developers Comments at 15; Indicated Trade Associations Comments at 9-12; *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Eagle Creek Reactive Generators at 3-4 (May 28, 2024); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Glenvale, LLC at 9-10 (May 28, 2024); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Middle River Power, LLC at 2-3 (May 28, 2024).

2014 report by FERC staff providing a detailed assessment of the costs of reactive power production that estimated that the capital costs associated with reactive power equipment represented up to 4% of the capital costs of a wind resource and up to 20% of the capital costs of a solar resource[164]—figures that were broadly consistent with estimates provided by transmission providers in other proceedings.[165] Notably, the Commission's Staff Report acknowledged that both wind and solar resources incur incremental costs in order to provide reactive power capability, with the precise investment required varying from resource-to-resource.[166] Other commenters provided similar evidence demonstrating that non-synchronous resources incur incremental costs associated with providing reactive power capability within the standard power factor range.[167]

Indeed, prior to Order No. 827 in 2016,[168] FERC only permitted transmission providers to subject non-synchronous resources to reactive power requirements on a case-by-case basis when needed for reliability in recognition of the fact that the "costs to design and build a wind generator that could provide reactive power were high and could have created an obstacle to the development of wind generation."[169] And the Commission's approval of interconnection agreements imposing an obligation to provide reactive power on non-synchronous resources prior to Order No. 827 shows that certain resources were, in fact, required to incur such costs in order to meet reliability

[164] Generation Developers Comments at 15 (citing Staff Report at 16).

[165] *Id*. (citing *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,097, at P 7 (2015) (estimating that the reactive power costs of non-synchronous resource constitute about approximately 10% of project's total costs)).

[166] Staff Report at 4 (observing that "adding reactive capability [to certain wind resources] requires additional equipment"); *id.* at 5 (stating that wind resources required to incur costs in connection with right sizing converter to provide reactive power capability); *id.* App. 2 at 3 (noting solar resources incur incremental cost associated with "up-sizing" inverter rating to meet reactive power requirements).

[167] *See* Indicated Trade Associations Comments, Att. A, Aff. of Sherman Knight at P 11 ("[A] solar-powered plant can only produce real power and reactive simultaneously by installing larger sized or more inverter capacity or by adding supplemental capacitor banks").

[168] *Reactive Power Requirements for Non-Synchronous Generation*, Order No. 827, 155 FERC ¶ 61,277 (2016) ("Order No. 827"), *order on reh'g & clarification*, 167 FERC ¶ 61,003 (2016).

[169] Order No. 827 at P 4.

needs.[170] Additionally, even when approving an extension of the requirement to provide reactive power within the standard power factor range to non-synchronous resources in Order No. 827, the Commission did not deny that such resources incurred costs associated with their reactive power capability. Instead, the Commission found that requiring resources to incur the costs of establishing reactive power capability was appropriate given the "benefits to the transmission system of having another source of reactive power."[171]

The Commission minimizes the significance of this evidence by claiming that commenters failed to provide evidence of costs and equipment beyond those necessary for real power production.[172] Setting aside the fact that this turns the burden of proof on its head, this is a mischaracterization of the record in this proceeding. Commenters provided evidence demonstrating that non-synchronous resources can be, and have been, built to produce real power without the capability to provide reactive power within the standard power factor range[173] and that these resources are required to incur incremental fixed costs to ensure that they produce reactive power within the standard power factor range.[174] In fact, even the terms of the Commission's *pro*

[170] *See, e.g.*, *PJM Interconnection, L.L.C.*, Docket No. ER07-441-000, Letter Order (Mar. 8, 2007) (accepting interconnection agreement for Allegheny Ridge Wind Farm); *PJM Interconnection, L.L.C.*, Docket No. ER07-441-000, Transmittal Letter at 3 (Jan. 17, 2007) (noting that Allegheny Ridge Wind Farm had been required to install static VAR compensator to provide reactive power for the reliability of the grid); *id.*, Att. A, App. 2 § 54.7.1.1 (stating that wind facilities would have obligation to maintain power delivery at a power factor between 0.95 leading and 0.95 lagging if required for the safety and reliability of the transmission system); *Allegheny Ridge Wind Farm, LLC*, Docket No. ER19-229-000, Transmittal Letter at 3 (Oct. 31, 2018) (seeking recovery for investment in reactive power capability); *Allegheny Ridge Wind Farm, LLC*, Docket No. ER19-229-005, Offer of Settlement and Settlement Agreement (Jan. 25, 2021) (establishing annual reactive revenue rate of $368,214.44); *Allegheny Ridge Wind Farm, LLC*, 175 FERC ¶ 61,054 (2021) (approving settlement).

[171] Order No. 827 at P 4.

[172] Order No. 904 at P 91.

[173] *Interconnection for Wind Energy*, Order No. 661, 111 FERC ¶ 61,353, at P 39 (2005) ("Order No. 661"), *order on reh'g*, Order No. 661-A, 113 FERC ¶ 61,254 (2005) (acknowledging that wind plants could operate without installing external devices needed to provide reactive power).

[174] Indicated Trade Associations Comments, Att. A, Aff. of Sherman Knight at 11 (explaining that increase in installed capacity of solar resources associated with providing reactive power within the standard power factor range can "add hundreds of thousands of dollars of incremental costs" to a facility); Staff Report at 4 (observing that "adding reactive capability [to certain wind resources] requires additional equipment"); *id.* at 5 (stating that wind

forma large generator interconnection agreement recognize that non-synchronous resources make investments in distinct equipment to provide reactive power within the standard power factor range.[175]

The Commission fails to offer a reasoned response to this evidence. For instance, the Commission rejects the commenters' reliance on FERC's Staff Report detailing the incremental costs associated with providing reactive power within the standard power factor range by stating that the Commission previously has determined that "even newer wind turbines use inverters that allow generating facilities to produce and control reactive power without costly additional equipment."[176] But even if new wind resources use inverters, that is not a rational basis for concluding that these resources do not incur incremental costs or that providing compensation for reactive power within the standard power factor range is unjust and unreasonable. To the contrary, there is evidence in the record demonstrating that even newer non-synchronous resources incur significant incremental costs to ensure that they are capable of providing reactive power within the standard power factor range.[177]

The Commission also fails to articulate a rational connection between its finding that the costs of establishing the capability to provide reactive power within the standard power factor

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resources required to incur costs in connection with right sizing converter to provide reactive power capability); *id.* at 5, App. 2 at 3 (noting solar resources incur incremental cost associated with "up-sizing" inverter rating to meet reactive power requirements). *See also PJM Interconnection, L.L.C.*, Docket No. ER07-441-000, Transmittal Letter at 3 (Jan. 17, 2007) (requiring wind farm to install reactive power capability to meet system needs).

[175] *See Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023, 184 FERC ¶ 61,054, App. D § 9.6.1.2 (2023), *order on reh'g*, Order No. 2023-A, 186 FERC ¶ 61,199 (2024) (acknowledging that asynchronous resources meet obligation to provide reactive power within the standard power factor range through "power electronics designed to supply this level of reactive power capability . . . or fixed and switched capacitors, or a combination of the two.").

[176] Order No. 904 at P 93.

[177] Indicated Trade Associations Comments, Att. A, Aff. of Sherman Knight at P 11 (explaining that increase in installed capacity of solar resources associated with providing reactive power within the standard power factor range can "add hundreds of thousands of dollars of incremental costs" to a facility); Staff Report, App. 2 at 3 (noting solar resources incur incremental cost associated with "up-sizing" inverter rating to meet reactive power requirements).

range have declined over time and its conclusion that existing reactive power rates are unjust and unreasonable or that requiring service without compensation is just and reasonable. Even if the costs of establishing reactive power capability have decreased, that is not a rational basis for concluding that allowing newer resources to recover the costs that they incur is unjust and unreasonable. And the fact that "newer" resources may incur fewer costs to establish reactive power capability is not a rational basis for concluding that allowing older resources to recover the costs that they incurred is unjust and unreasonable. Likewise, even if costs have declined over time, it does not logically follow that it is just and reasonable to prevent resources from recovering these costs from transmission customers by mandating that service be provided for free. Such illogical and conclusory reasoning is the antithesis of reasoned decision-making.[178]

2. The Commission's Finding That Resources Incur Only *De Minimis* Variable Costs Is Arbitrary, Capricious, And Contrary To Law

The Commission previously has recognized that there are variable costs associated with the production of reactive power within the standard factor range. For instance, in prior cases, the Commission has found that "the production of reactive power may increase the variable cost of producing energy by increasing fuel consumption, even within the required power factor range."[179] Thus, the Commission has approved proposals by generation resources to recover "added incremental fuel and variable costs . . . of producing reactive power in the form of heating losses."[180]

The Commission also has approved proposals to allow generation resources to recover

[178] *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158, 1165 (D.C. Cir. 1998) ("As we have said before, it most emphatically remains the duty of this court to ensure that an agency engage the arguments raised before it—that it conduct a process of reasoned decision-making"); *FPL Energy Marcus Hook, L.P. v. FERC*, 430 F.3d 441, 449 (D.C. Cir. 2018) (quoting *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1303-04 (D.C. Cir. 1992)) ("[W]e can only uphold the Commission's interpretation if we can 'discern a reasoned path' to the decision.").

[179] *Wabash Valley Power Ass'n*, 154 FERC ¶ 61,245, at P 27 (2016).

[180] *Id*.

opportunity costs and other variable costs that they incur in connection with providing reactive power. For instance, Schedule 2 of ISO-NE's tariff compensates generation resources for three types of variable costs that are incurred in connection with the production of reactive power: (1) variable lost opportunity costs reflecting the value of a resource's lost opportunity in the wholesale markets when a resource that otherwise would be economically dispatched is directed to reduce its real power output; (2) the variable cost of energy consumed by the resource solely to provide reactive power; and (3) the cost of energy produced reflecting the difference between the locational marginal price and a resource's offer price for each hour the resource provides reactive power when the locational marginal price is lower than the offer price.[181] NYISO similarly compensates generation resources for lost opportunity costs that are incurred when they reduce their energy output in order to provide voltage support.[182]

The Commission does not deny that generation resources incur variable costs when producing reactive power, such as "fuel, maintenance, and potentially other costs."[183] Instead, the Commission claims that generators incur "at most *de minimis* costs over and above those needed to provide real power."[184] While the Commission acknowledges that a generating facility will "incur some amount of incremental fuel costs," the Commission points to precedent that it claims shows that the Commission "generally considers these costs *de minimis* within the standard power factor range."[185] Since the variable costs of providing reactive power are *de minimis* according to the Commission, the Commission concludes that "charging transmission customers for the provision of reactive power within the standard power factor range results in unjust and

[181] ISO-NE Comments at 3-4.

[182] NYISO Comments at 3, n.6.

[183] Order No. 904 at P 90.

[184] *Id*. at P 51.

[185] *Id*. at P 51, n.135.

unreasonable rates."[186]

The Commission's reasoning overlooks that commenters provided evidence demonstrating that their resources incur distinct variable costs associated with the production of reactive power within the standard power factor range. For example, the Indicated Trade Associations Comments detailed the significant impact that producing or absorbing reactive power within the standard power factor range has on the output of the CPV Fairview facility located within the PJM market:

> Another way to look at the MW/MVAR tradeoff is that the developer could achieve a higher real power capability at the same cost if it were not required to provide reactive power. This tradeoff can be observed, in part, by examining a generator's reactive capability curve or "D-curve . . . A D-curve shows a unit's real power capability to be highest at a power factor of 1.00, when it is not producing or absorbing VARs, and to decrease in a non-linear way as the leading and lagging power factors are reduced.
>
> . . .
>
> As illustrated by [the D-curve for the CPV Fairview facility], at an ambient temperature of 40 C, the unit has a maximum real power capability of 437.6 MW at a power factor of 1.00. The real power capability drops to approximately 415 MW and 425 MW at power factors of 0.95 lagging and 0.95 leading respectively.[187]

These types of opportunity costs cannot be dismissed as merely the cost of producing real power, since the reduction in real power production results directly from the generator complying with directives to provide reactive power within the standard power factor range. Other commenters provided similar evidence supporting the conclusion that resources incur significant variable costs when producing reactive power within the standard power factor range.[188]

Nor can these costs be dismissed as *de minimis*. During periods where a generator is

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[186] *Id*. at P 51.

[187] Indicated Trade Associations Comments, Att. A, Aff. of Sherman Knight at PP 12-13.

[188] Reactive Service Providers Comments, Att. A, Aff. of Dennis W. Bethel, P.E. at P 95 (noting that generation resources incur incremental power losses when providing reactive power within the deadband); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of the PSEG Companies, Exh. No. PSEG-1, Testimony of Dr. Paul A. Dumais at 19 (explaining that variable costs include "generator fuel costs, operating expenses and the opportunity costs from not generating real power").

required to forgo the production of real power to comply with the directives of the transmission provider, the generator will incur opportunity costs equal to the real-time price for each MWh reduction experienced by the generator. Because the market price of energy fluctuates based on system conditions, generator costs, and other factors, the costs of energy can be thousands of dollars per MWh during tight system conditions. For instance, the Market Monitoring Unit of SPP submitted comments in this proceeding noting that generators that were required to forgo real power production during a February 2021 extreme weather event would have incurred opportunity costs in excess of $3,000/MWh.[189]

Notably, the costs resulting from the reduction in real power production are not limited to foregoing energy sales during real-time. For example, the Indicated Trade Associations Comments pointed out that the reduction in real power production resulting from the production of reactive power within the standard power factor range reduces the amount of capacity that generation resources can sell into the capacity market. In the case of the CPV Fairview facility, the estimated loss in capacity revenues over a 20-year period based on average prices for the MAAC Locational Deliverability Area ("LDA") for the 2020/2021 through the 2024/2025 delivery year amounted to approximately $27.7 million.[190] This estimate was calculated prior to the capacity auction for the 2025/2026 delivery year when prices in the MAAC LDA increased to $269.20/MW-day—which represented a 500% increase over the immediately preceding year.[191]

The Commission does not acknowledge or respond to any of the evidence provided by

[189] SPP MMU Comments at 3-4 ("[M]arket based opportunity costs can vary significantly. For instance, during the February 2021 extreme weather event, SPP's real-time market prices exceeded $3,000/MWh because of scarcity of real-time power. During this or similar scarcity periods, resources that needed to be backed off to provide reactive power could experience significant lost opportunity costs.").

[190] Indicated Trade Associations Comments, Att. A, Aff. of Sherman Knight at PP 12-13.

[191] *See* PJM Interconnection, L.L.C., 2025/2026 Base Residual Auction Report at 5 (July 30, 2024), *available at*: https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2025-2026/2025-2026-base-residual-auction-report.ashx.

commenters. In fact, the only variable costs specifically discussed by the Commission are heating losses, and the Commission's discussion is limited to noting that in *Panda Stonewall* the heating loss component approved for the generator at issue was $10,018 per year.[192] Putting aside that the Commission offers no rational basis for concluding that the heating loss component in *Panda Stonewall* should be considered to be *de minimis*, the Commission ignores that the heating loss components approved in other cases have been significantly higher than the component at issue in *Panda Stonewall*.[193] Even if the heating loss component approved in *Panda Stonewall* was *de minimis* as the Commission alleges, that does not provide a reasoned basis for concluding that the heating losses incurred by all generation resources when producing reactive power within the standard power factor range are *de minimis* or that allowing these resources to recover these costs is unjust and unreasonable.[194]

Finally, even if the variable costs of providing reactive power were small as the Commission alleges, the Commission fails to provide a reasoned explanation as to how that supports the conclusion that existing rates are unjust and unreasonable or that denying compensation is appropriate. If opportunity costs and other variable costs are recovered through existing reactive power rates only infrequently, that hardly supports the conclusion that existing reactive power rates are unjust and unreasonable. And the ability to recover opportunity costs and other variable costs plays an important role in ensuring that "a market participant [is] no worse off financially for following the ISO's dispatch instructions[.]"[195] The Commission's decision is not

[192] Order No. 904 at P 51 (citing *Panda Stonewall, LLC*, 176 FERC ¶ 61,072, at P 6, n.9 (2021)).

[193] *See also Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280, at P 37 (2008) (approving heating loss component of $182,364 per year); *Duke Energy Fayette, LLC*, 104 FERC ¶ 61,090, at P 16 (2003) (approving heating loss component of $436,680 annually).

[194] *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record.").

[195] ISO-NE Comments at 4, n.5.

supported by substantial evidence, is not the product of reasoned decision-making, and is arbitrary and capricious.[196]

3. The Commission's Decision To Ignore Record Evidence Based On Unsupported Findings In Previous Cases Is Arbitrary And Capricious

Rather than considering and responding to the evidence before it, the Commission instead points to prior precedent purportedly finding that there are no or *de minimis* costs associated with reactive power capability within the standard power factor range.[197] The Commission's rote reliance on its prior precedent falls short of the reasoned decision-making required of the Commission.[198] Commenters provided evidence in this proceeding demonstrating that there are costs associated with providing reactive power within the standard power factor range. Whatever the Commission's past decisions purportedly say about the costs of providing reactive power, the Commission has an obligation to meaningfully respond to the record evidence in *this* proceeding. The Commission cannot avoid its obligation to consider and respond to evidence by reiterating the determinations made in other dockets and ignoring the evidence before it.[199]

Other than its citations to prior orders purportedly finding that reactive power can be provided at no or *de minimis* costs, the Commission offers little to support its determination that providing compensation for reactive power within the standard power factor range is unjust and

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[196] *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983).

[197] *See, e.g.*, Order No. 904 at P 90 ("[W]e continue to find, based on the record and past precedent, that variable costs of providing reactive power within the standard power factor range are at most *de minimis*."); *id*. at P 93 (noting that Commission previously found that the "provision of reactive power requires no or at most *de minimis* variable costs beyond the costs of producing real power").

[198] *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983) (agency must "consider[] the relevant factors and articulate[] a rational connection between the facts found and the choice made") (citations omitted).

[199] *See, e.g., New England Power Generators Ass'n, Inc. v. FERC*, 881 F.3d 202, 211 (D.C. Cir. 2018) (FERC cannot satisfy its obligations by relying on "conclusory statements that dismissed [a party's concerns] without providing reasoned analysis"); *Port of Seattle v. FERC*, 499 F.3d 1016, 1035 (9th Cir. 2007) (citing *Universal Camera Corp. v. Nat'l Labor Relations Bd.*, 340 U.S. 474, 488 (1951)) ("[A]n agency must account for evidence in the record that may dispute the agency's findings.").

unreasonable. The Commission's reliance on its findings in prior proceedings is particularly misplaced here because none of the cases cited by the Commission provide evidence of the costs of providing reactive power within the standard power factor range. As multiple parties pointed out in their comments, the orders cited by the Commission consist of little more than unsupported statements by the Commission and largely predate the emergence of non-synchronous generation resources.[200] The Commission states that it disagrees with commenters that "decades of Commission precedent are irrelevant for purposes of supporting our findings here."[201] But an unsupported assertion by the Commission in a prior case does not become evidence merely because it has aged. And the substantial evidence standard requires more from the Commission than "papering over" the lack of evidence in this proceeding by pointing to similarly unsupported assertions in another.[202]

The Commission cites its decision approving the proposal by transmission owners in MISO to eliminate reactive power as demonstrating that its prior findings apply equally to non-synchronous resources.[203] Putting aside that the Commission's orders are seriously flawed (and pending appeal in the D.C. Circuit), the Commission's orders improperly shifted the burden in that proceeding and reached the conclusion that generation resources incur no distinct costs associated with their reactive power production based on a lack of evidence produced by protesters. The Commission did not find—and could not have found based on the record—that the MISO transmission owners had produced evidence demonstrating that non-synchronous resources incur

[200] *See, e.g.,* Indicated Trade Associations Comments at 8 (discussing *Bonneville Power Admin. v. Puget Sound Energy, Inc.*, 120 FERC ¶ 61,211 (2007), *order denying reh'g and granting clarification,* 125 FERC ¶ 61,273 (2008) ("*BPA*"); *Az. Pub. Serv. Co.*, 94 FERC ¶ 61,027 (2001) ("*APS*")); Generation Developers Comments at 15-16 (discussing *BPA*, *APS*, and *Midcontinent Indep. Sys. Operator, Inc.*, 184 FERC ¶ 61,022, at P 30 (2023)).

[201] Order No. 904 at P 95.

[202] *Cal. Pub. Util. Comm'n v. FERC*, 20 F.4th 795, 799 (D.C. Cir. 2021).

[203] Order No. 904 at P 95 (citing *Midcontinent Indep. Sys. Operator, Inc*., 182 FERC ¶ 61,033 (2023), *order on reh'g*, 182 FERC ¶ 62,180 (2023)).

no distinct costs associated with their provision of reactive power within the deadband.[204] In this FPA Section 206 proceeding it is incumbent upon the Commission to provide affirmative evidence supporting its conclusions—something the Commission has utterly failed to do.[205]

The Commission also cites its order approving the elimination of reactive power compensation for generators interconnected to the Public Service Company of New Mexico transmission system as evidence that non-synchronous resources incur no or only *de minimis* costs for reactive power.[206] But the Commission's decision to permit elimination of reactive power in that case was based solely on the Commission's comparability principle rather than a determination about the costs of providing reactive power.[207]

The Commission also relies on its acceptance of an Order No. 2003 compliance filing that proposed to not compensate generators for reactive power within the deadband.[208] But the Commission's order far predates the emergence of non-synchronous resources and makes no findings relevant to their reactive power cost profile. The order also concludes that it is only when reactive power is a "'no cost' service within reactive design limitations, may [it] therefore, be provided without compensation."[209] Thus, if anything, the Commission's order suggests that if a resource incurs costs for providing reactive power, it should be compensated. The Commission's reliance on this precedent is arbitrary and capricious and not the product of reasoned decision-

[204] *See, e.g.*, *Midcontinent Indep. Sys. Operator, Inc*., 182 FERC ¶ 61,033 (2023), *order on reh'g*, 182 FERC ¶ 62,180, at P 30 (2023)).

[205] 16 U.S.C. § 824e; *Winfield v. FERC*, 744 F.2d 871, 874 (D.C. Cir. 1984).

[206] Order No. 904 at P 95, n.287 (citing *Pub. Serv. Comm'n of N.M.*, 178 FERC ¶ 61,088, at PP 29-31 (2022)).

[207] *Pub. Serv. Comm'n of N.M.*, 178 FERC ¶ 61,088, at PP 29-31 (2022).

[208] Order No. 904 at P 93, n.283 (citing *Mich. Elec. Transmission Co.*, 97 FERC ¶ 61,817 (2001) ("Reactive power provided, not as an ancillary service, but rather as a 'no cost' service within reactive design limitations, may therefore, be provided without compensation.").

[209] *Mich. Elec. Transmission Co.*, 97 FERC ¶ 61,817, at 61,852-53 (2001).

making.[210]

D. The Commission Fails To Demonstrate That Requiring Resources To Provide Reactive Power Within The Standard Power Factor Range Without Compensation Is Just And Reasonable

1. The Commission Has Failed To Demonstrate That Requiring Generation Resources To Provide Reactive Power At No Cost Appropriately Balances Investor and Customer Interests

When establishing rates, the Commission has a responsibility to undertake a "reasonable balancing . . . of the investor interest in maintaining financial integrity and access to capital markets and the consumer interest in being charged non-exploitative rates."[211] In order to be just and reasonable, a rate must be "reasonably . . . expected to maintain financial integrity, attract necessary capital, and fairly compensate investors for the risks that they have assumed, and yet provide appropriate protection to the relevant public interests[.]"[212] The Commission "cannot deny a utility a reasonable return on its investment"[213] and "[r]ates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable, and confiscatory."[214]

Order No. 904 makes no attempt to strike this balance.[215] There is little question that Order No. 904 will adversely affect resources providing reactive power service. At a minimum, Order No. 904 will result in existing generators losing approximately $700 million in annual reactive

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[210] *Cal. Pub. Util. Comm'n v. FERC*, 20 F.4th 795, 799 (D.C. Cir. 2021);.*Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.,* 462 U.S. 87, 105 (1983).

[211] *Jersey Cent. Power & Light Co. v. FERC*, 810 F.2d 1168, 1176 (D.C. Cir. 1986) (discussing *FPC v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944)); *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1501 (D.C. Cir. 1984) (rate orders that fall within a "zone of reasonableness," where rates are neither "less than compensatory" "nor excessive" are "just and reasonable").

[212] *Permian Basin Area Rate Cases*, 390 U.S. 747, 792 (1968).

[213] *Pub. Sys. v. FERC*, 709 F.2d 73, 80 (D.C. Cir. 1983).

[214] *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 690 (1923).

[215] *Env't Def. Fund v. FERC*, 2 F.4th 953, 960 (D.C. Cir. 2021) (vacating and remanding FERC order for "ignor[ing] record evidence . . . and fail[ing] to seriously and thoroughly conduct the interest-balancing . . .").

power revenues. It also will strip new generation resources of the ability to seek to recover the costs of their investment in reactive power capability and prevent resources from recovering the variable costs that they incur in connection with producing reactive power. Despite commenters raising significant concerns that eliminating reactive power compensation would prevent resources from recovering their costs, the Commission's only reply is to state that the "final rule does not prevent a generating facility from seeking to recover any of their appropriate fixed and variable costs through other revenue streams."[216]

Putting aside that the Commission's reasoning violates cost causation principles as described above, there is no evidence that resources will be able to recover these costs through their sales of other products, including energy or capacity. To the contrary, there is ample record evidence demonstrating that resources seeking to recover these costs through their sales of other products will be unable to do so due to a combination of factors, including existing market rules that prevent resources from passing through the costs of reactive power in their energy and capacity market offers, the failure of energy and capacity markets to compensate for the reliability value of reactive power, the inability to restructure existing supply agreements, and other factors.[217] The lack of evidence supporting the Commission's assertion has led individual commissioners to express skepticism about the idea that resources will be able to recover their reactive power costs through other means.[218]

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[216] Order No. 904 at P 141.

[217] ISO-NE Comments at 11-13; NYISO Comments at 8-11; Generation Developers Comments at 17-22; Indicated Trade Associations Comments at 12-15; *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, The New England Power Generators Association, Inc.'s Reply Comments in Support of ISO New England Inc.'s Comments at 4-6 (June 26, 2024).

[218] *Midcontinent Indep. Sys. Operator, Inc.*, 182 FERC ¶ 61,033 (2023) (Comm'r Danly, dissenting at P 4) (explaining that "Parties have taken [reactive power revenues] into account in their financings, bilateral contracting, power purchase agreements, and other arrangements. The elimination of reactive power rates as of December 1, 2022, may have a significant enough effect on these existing arrangements to render the MISO TOs' proposed zero rate unjust and unreasonable. On this record, we simply cannot know."); (Comm'r Clements, concurring at P 3, n.3)

Indeed, Order No. 904 concedes that existing market rules prevent resources from recovering such costs through their sales of energy and capacity and provides ISO-NE, NYISO, and PJM with the *option* to revise their rules to account for the elimination of reactive power compensation. Yet, Order No. 904 does not require these transmission providers to make any specific changes. Nor is the Commission's directive to eliminate reactive power compensation conditioned on the adoption or efficacy of such rules. In effect, the Commission acknowledges that existing market rules will prevent resources from recovering their reactive power costs through the sale of other products but elects to eliminate reactive power compensation anyway based on speculation about voluntary future rule changes that may or may not ultimately materialize.

The Commission also fails to meaningfully respond to arguments that any market rule changes that are adopted will be insufficient to permit resources to recover their costs and lead to market distortions.[219] Because there is no relationship between the capacity value assigned to a generation resource and its reactive power capability, there is no basis to assume that capacity market participation will result in cost recovery for a resource's reactive capability.[220] Additionally, since the portion of a resource's installed capacity that can be offered into the capacity market differs based on resource class, resources' ability to recover their reactive power costs through the capacity market may vary widely. In short, even if capacity market rule changes are implemented—which, to be clear, Order No. 904 does not require—there is not substantial evidence supporting the conclusion that these revisions will be sufficient to allow resources to recover their costs. Rather than ensuring that resources are able to recover the costs, the likely

(noting that the record was "mixed about how realistic those paths are to recapturing lost revenue in the short term").

[219] *PSEG Energy Res. & Trade LLC v. FERC*, 665 F.3d 203, 208 (D.C. Cir. 2011) ("Among other things, '[a]n agency's "failure to respond meaningfully" to objections raised by a party renders its decision arbitrary and capricious.'").

[220] Generation Developers Comments at 19-20 (citing *Reactive Power Capability Compensation*, Docket No. RM22-2-000, Comments of Vistra at 13-20 (Feb. 22, 2022)).

result of changes to capacity market rules will be arbitrary and unduly discriminatory differences in the competitive position of, and compensation received by, different resource classes.[221]

The Commission states that it disagrees with claims that its proposal will prevent resources from recovering their costs because experience in "CAISO, SPP, MISO, and certain non-RTO regions" shows that "generating facilities in these regions have been able to recover their fixed and variable costs through other means."[222] But other than asserting that resources in these regions are able to recover their costs, the Commission provides little evidence to back up this claim. The Commission cites the comments of several parties that it claims show that generators in regions that do not compensate for reactive power are recovering their costs.[223] Yet, none of these comments provide any evidence about the opportunities that exist in these other markets to recover costs; they merely recite the Commission's own claims from the NOPR to the extent that they discuss cost recovery in these markets at all.[224] The Commission's own unsupported assertions repeated by commenters do not constitute the sort of substantial evidence necessary for reasoned decision-making.[225]

The Commission also cites a statement by CAISO that it has not seen any evidence "that resources cannot comply with reactive power dispatch instructions because they have insufficient

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[221] *Id*. at 16-20. *See also Dynegy Midwest Generation, Inc. v. FERC*, 633 F.3d 1122, 1127 (D.C. Cir. 2011).

[222] Order No. 904 at P 142.

[223] *See id*. at P 142, n.415.

[224] *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of American Electric Power Service Corporation at 4-6 (May 28, 2024); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Joint Consumer Advocates at 7-8 (May 28, 2024); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Old Dominion Electric Cooperative, Northern Virginia Electric Cooperative, Inc., and Dominion Energy Services, Inc. at 15-18 (May 28, 2024); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of the Public Utilities Commission of Ohio's Office of the Federal Energy Advocate at 5 (May 28, 2024); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Initial Comments of the MISO Transmission Owners at 15-17 (May 28, 2024).

[225] *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record"); *Sea Robin Pipeline Co v. FERC*, 795 F.2d 182, 189 (D.C. Cir. 1986).

funds for the equipment to meet the reactive power dispatch."[226] But the fact that resources are complying with their dispatch instructions merely shows that resources have incurred the costs necessary to provide reactive power within the standard power factor range. It says decidedly little about whether these resources are recovering the costs of these investments.

The Commission also ignores record evidence that paints a much different picture of the state of these markets. For instance, commenters provided evidence showing that the combination of energy, ancillary services, and capacity revenues in these markets have persistently been below the level necessary to permit resources to recover their costs.[227] And the limited information that has been introduced about the SPP market indicates that its existing "reactive power compensation approach does not allow generation resources to fully recover costs of providing reactive power."[228] The Commission fails to acknowledge or respond to this evidence.[229]

The Commission states that it is not concerned about the ability of generation resources participating only in the energy markets to recover their costs because "no commenter has demonstrated why these joint costs could not be recovered via energy sales."[230] But it is the Commission's burden—not commenters'—to demonstrate that eliminating reactive power compensation will not imperil the ability of resources to recover their costs. It is also unclear what evidence other than generator bankruptcies the Commission would expect commenters to

[226] Order No. 904 at P 142.

[227] Generation Developers Comments at 21 (citing CAISO 2022 Annual Report on Market Issues & Performance at 15 (July 11, 2023), *available at*: http://www.caiso.com/market/Pages/MarketMonitoring/AnnualQuarterlyReports/Default.aspx ("CAISO 2022 Annual Report") (stating that net revenues have fallen short of the annualized fixed costs of a new gas-fired resource in most years)); Indicated Trade Associations Comments at 20 (citing the CAISO 2022 Annual Report).

[228] SPP MMU Comments at 1-2.

[229] *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) (stating that agency's failure to respond meaningfully to arguments in record is arbitrary and capricious).

[230] Order No. 904 at P 143. *But see* Generation Developers Comments at 34 (explaining that "energy markets typically do not allow for recovery of capital costs.").

provide to demonstrate that generators are not recovering their reactive power costs.[231] And the Commission fails to explain why it is confident that resources will be able to recover these costs through the energy markets when the Commission has consistently recognized that energy prices in wholesale markets are not high enough to allow resources to recover their fixed costs.[232]

The Commission also dismisses arguments that resources will be unable to recover these costs through their power purchase agreements ("PPA") on the basis that the "record lacks any concrete evidence showing whether, and to what extent, generating facilities factored reactive power revenues into their PPAs."[233] To the contrary, parties provided evidence confirming that resources have relied on the availability of reactive power compensation in negotiating their PPAs and financing arrangements, and that eliminating reactive power compensation has the potential to lower investor returns, increase the cost of financing, and render projects uneconomic.[234] Indeed, it defies basic economic logic to assume that resources would not account for such revenue streams in structuring their long-term power purchase agreements.[235]

The Commission attempts to minimize the disruption that Order No. 904 will cause by claiming that resources could not have reasonably relied on the availability of reactive power

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[231] *Jersey Cent. Power & Light Co. v FERC*, 810 F.2d 1168, 1180 (D.C. Cir. 1986) (explaining that "*Hope Natural Gas* talks not of an interest in avoiding bankruptcy, but an interest in maintaining access to capital markets, the ability to pay dividends, and general financial integrity.").

[232] *Indep. Power Producers of New York, Inc. v. New York Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,118 (2020) (Comm'r Glick, concurring at P 4) (noting that the purpose of capacity markets "is to provide the 'missing money' that resources need to remain viable, but are unable to earn by providing energy and ancillary services due to various limitations in the markets for these services").

[233] Order No. 904 at P 145.

[234] *See, e.g.*, Indicated Trade Associations Comments, Att. B, Aff. of Michael Borgatti at 7 ("I am aware of instances where access to reactive revenues was a factor in determining [PPA] prices between generators and off-takers. In some cases, generation resource developers and owners were willing to consider negotiating lower PPA prices based on their view of wholesale revenues, including reactive service payments, over a project's estimated useful life.").

[235] *GameFly, Inc. v. Postal Regul. Comm'n*, 704 F.3d 145, 148 (D.C. Cir. 2013) (citing *Am. Fed'n of Gov't Emps. v. FLRA*, 470 F.3d 375, 380 (D.C. Cir. 2006)) ("Certainly, if the result reached is illogical on its own terms, the Authority's order is arbitrary and capricious.").

compensation. But PJM, ISO-NE, and NYISO each have been compensating resources for the provision of reactive power within the standard power factor range for close to two decades; it would be unreasonable to expect resources in these markets not to make economic decisions based on the availability of reactive power and other revenue streams.[236] Order No. 904's failure to meaningfully consider the disruption that the Commission's order will cause to existing contracts is inconsistent with the FPA[237] and arbitrary and capricious.[238]

FERC's speculation about the potential cost recovery opportunities that may exist in theory cannot overcome record evidence showing that those opportunities do not exist in practice.[239] Even if the Commission had authority to compel utilities to provide service without compensation, the Commission must have a reasonable basis for concluding that doing so will not undermine their ability to recover their costs plus a reasonable rate of return.[240] The Commission's determination that resources can recover these costs through sales of other products is unsupported, not the product of reasoned decision-making, and contrary to law.[241]

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[236] *Dept. of Homeland Sec. v. Regents of the Univ of Cal.*, 591 U.S. 1, 30 (2020) (quoting *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117 (2016)) ("When an agency changes course . . . it must 'be cognizant that longstanding policies may have engendered serious reliance interests that must be taken into account.'").

[237] *Morgan Stanley Capital Group Inc. v. Pub. Util. Dist. No. 1*, 554 U.S. 527, 551 (2008) (recognizing the FPA is founded upon the "stabilizing force of contracts").

[238] *Dept. of Homeland Sec. v. Regents of the Univ of Cal.*, 591 U.S. 1, 30 (2020) ("When an agency changes course . . . it must 'be cognizant that longstanding policies may have engendered serious reliance interests that must be taken into account.'") (quoting *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117 (2016)).

[239] *Electricity Consumers Resource Council v. FERC*, 747 F.2d 1511, 1514 (D.C. Cir. 1984) (stating that "mere reliance on an economic theory cannot substitute for substantial record evidence and the articulation of a rational basis for [the Commission's] decision").

[240] The Commission asserts that requiring resources to recover their reactive power costs through sales of energy and/or capacity may incentivize efficiency. Order No. 904 at P 141. But other than asserting this as a fact, the Commission fails to provide any evidence or explanation that reasonably supports that Order No. 904 will incentivize efficiency. In addition to being unsupported, the notion that Order No. 904 will incentivize efficiency by encouraging resources to incorporate reactive power costs into their sales of other products when neither energy nor capacity markets are intended to value or compensate for reactive power capability is simply not credible.

[241] *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004) ("FERC must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record.") (quotations and citation omitted); *New England Power Generators Ass'n, Inc. v. FERC*, 881 F.3d 202, 211 (D.C. Cir. 2015) (finding error where "FERC failed to respond to the substantial arguments put forward by Petitioners and failed to square its decision with past precedent").

2. The Commission Erred In Failing To Meaningfully Consider Reliance Interests

Order No. 904 will deprive generators of hundreds of millions of dollars in annual reactive power compensation that they have relied on for decades in financing their projects and structuring their offtake arrangements. As the evidence in this proceeding demonstrates, stripping generation resources of compensation for reactive power is not only unjust and unreasonable, it also "has the potential to disrupt business and investment decisions."[242] While the Commission's primary error in this proceeding is its decision to declare without any evidence that all reactive power compensation is unjust and unreasonable and impose a unilateral replacement rate that is inconsistent with the requirements of the FPA, the Commission also errs in failing to consider the significant reliance interests of generators and to provide a meaningful transition mechanism for resources that will ensure they are able to recover their reactive power costs.[243]

Although the Commission is permitted to change its policies, it "must be cognizant that longstanding policies may have 'engendered serious reliance interests that must be taken into account'"[244] and "'assess whether there were reliance interests' in the prior rule, determine whether those interests '[are] significant,' and weigh them 'against competing policy concerns.'"[245] Order No. 904 does not meet this standard. Instead, the Commission summarily dismisses the reliance interests of generators based on its assertion that the record lacks "any evidence" that generators have entered into offtake arrangements that take into account reactive revenue requirements.[246] Moreover, even if there were such evidence, the Commission says it would not matter since

[242] NOPR at P 49.

[243] *Dep't of Homeland Sec. v. Regents of the Univ. of Cal.*, 140 S. Ct. 1891, 1913 (2020).

[244] *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 212 (2016).

[245] *Solar Energy Indus. Ass'n. v. FERC*, 80 F.4th 956, 980 (D.C. Cir. 2023) (quoting *DHS v. Regents of Univ. of Cal.*, 140 S. Ct. 1891, 1914 (2020)).

[246] Order No. 904 at P 226.

"developers and generating facilities have been on notice since at least 2003 that the Commission regards reactive power compensation within the standard power factor range as non-compensable."[247]

Both of the Commission's rationales for not providing a meaningful transition mechanism are misplaced. First, there is ample record evidence that generators entered into offtake arrangements—not to mention financing structures that the Commission does not address—in reliance on the ability to recover their reactive power costs through reactive power revenue requirements on file with the Commission.[248] Second, while generators may have been on notice that the reactive power rates the Commission had accepted as just and reasonable could be challenged under FPA Section 206, they were not on notice that the Commission would assert it has legal authority to unilaterally wipe out all reactive revenue requirements without any showing that such rates were themselves unjust and unreasonable. The Commission's dismissal of the significant reliance interests of generators is arbitrary, capricious, contrary to law, and not the product of reasoned decision-making.[249]

The Commission also erred in declining to provide legacy treatment to resources with existing reactive power rate schedules. Resources with existing reactive power rates have made

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[247] *Id*.

[248] *See, e.g.*, Indicated Trade Associations Comments at 29 ("PPAs and other bilateral arrangements have been negotiated and entered into taking such compensation into account. It would therefore upend expectations and be highly disruptive for the Commission to now eliminate reactive power compensation within the deadband."); *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of EDP Renewables North America LLC at 2 (May 28, 2023) ("For EDPR, like many companies with reactive power rates on file, the revenues collected from reactive power compensation are included in a number of different financial calculations to determine long-term revenue needs for the company. As an example, reactive power compensation is financially modeled for the entire 20 year life of the facility. These calculated revenues are considered as a price reduction to the overall rates negotiated within power purchase agreements ('PPAs') with buyers of the output of the facility. Because these long-term PPAs include an offset for the reactive power compensation, EDPR will undercollect its revenues under these PPAs for the remaining life of the agreements if the reactive power compensation is eliminated.").

[249] *Dep't of Homeland Sec. v. Regents of the Univ. of Cal*., 140 S. Ct. 1891, 1913 (2020); *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 212 (2016).

investment decisions and commitments based on the availability of reactive power compensation that cannot be undone to reflect the Commission's determination in this proceeding. As commenters pointed out, the Commission repeatedly has found it just and reasonable to afford legacy treatment to utilities that have made investment decision based on prior rules.[250] Order No. 904 acknowledges that FERC has provided legacy treatment in the past, but rejects requests to do so here on the basis that prior cases did not involve situations where the existing rate had been found to be unjust and unreasonable and, thus, granting legacy status would be unduly discriminatory.[251]

The Commission's reasoning is not only conclusory, but it is simply wrong. In fact, even a cursory review of the precedent cited by commenters shows that legacy treatment has been extended even in situations where the prior rule had been determined to be unjust and unreasonable.[252] Additionally, the Commission determines that providing legacy treatment would be unduly discriminatory without meaningfully considering whether resources with existing rate schedules are similarly situated to new entrants or prior Commission precedent recognizing that reliance interests are an appropriate basis for disparate treatment.[253] The Commission's failure to provide a meaningful response to requests that the Commission provide legacy treatment to

[250] *See, e.g.*, Indicated Trade Association Comments at 30, n.110; *Compensation for Reactive Power Within the Standard Power Factor Range*, Docket No. RM22-2-000, Comments of Middle River Power LLC at 7 (May 28, 2024); Reactive Service Providers Comments at 68-75.

[251] Order No. 904 at P 227.

[252] *See, e.g.*, *PJM Interconnection, L.L.C.*, 110 FERC ¶ 61,053, at P 61 (2005), *order on reh'g*, 112 FERC ¶ 61,031 (2005) ("[The Commission finds that the exemption for post-1996 units from the offer capping rules is unjust and unreasonable under Section 206 of the Federal Power Act and that the just and reasonable practice under section 206 is to terminate the exemption, with provisions to grandfather units for which construction commenced in reliance on the exemption.").

[253] *PJM Interconnection, L.L.C.*, 112 FERC ¶ 61,031, at P 74 (2005) ("Nor is there undue discrimination . . . Only those units with reasonable reliance interests are eligible for grandfathered treatment.").

resources with existing rate schedules is arbitrary, capricious, and contrary to law.[254]

E. Order No. 904 Violates The FPA Section 205 Filing Rights Of Generators And the Filed Rate Doctrine

FPA Section 205 provides a public utility with the unilateral right to file with FERC to establish the rates, terms, and conditions for the jurisdictional services it provides.[255] Section 205 also provides public utilities the right to change their established rates, terms, and conditions at any time upon 60 days' notice.[256] Section 205 "is intended for the benefit of the utility – *i.e.*, as a means of enabling it to increase its rates within what has been called the 'zone of reasonableness.'"[257]

FERC can review initial rates and rate changes "under section 205 and suspend them for a period of five months, but it can reject them only if it finds that the changes proposed by the public utility are not 'just and reasonable.'"[258] But FERC may not "prohibit public utilities from filing changes in the first instance."[259] Rather the right of public utilities to establish and change the rates, terms, and conditions for the service public utilities provide is a "statutory right[] given to them by Congress."[260] Order No. 904 violates the statutory rights of generators by categorically prohibiting them from making a filing under FPA Section 205 to establish rates, terms, and

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[254] *See, e.g., Southwestern Elec. Power Co. v. FERC*, 810 F.2d 289, 290 (D.C. Cir. 1987) (vacating FERC order where FERC's explanation derived from prior practice was "insufficiently clear and coherent"); *PPL Wallingford Energy v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) ("An agency's failure to respond meaningfully to objections raised by a party renders its decision arbitrary and capricious."); *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC*, 71 F.3d 897, 901 (D.C. Cir. 1995)) ("'It is textbook administrative law that an agency must 'provide[] a reasoned explanation for departing from precedent or treating similar situations differently.'").

[255] 16 U.S.C. § 824d; *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002) ("Section 205 of the Federal Power Act gives a utility the right to file rates and terms for services rendered with its assets.").

[256] 16 U.S.C. § 824d(d); *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002).

[257] *Winfield v. FERC*, 744 F.2d 871, 875 (D.C. Cir. 1984).

[258] *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002).

[259] *Id*. at 10.

[260] *Id*. at 9.

conditions of reactive power service.

The Commission repeatedly asserts that it "is not depriving generating facilities of their filing rights."[261] The Commission explains that Order No. 904 does not actually adjust, overturn, or reduce any generating facility's rate for reactive power.[262] Rather the Commission says that Order No. 904 addresses "only the justness and reasonableness of transmission rates chargeable to transmission customers under Schedule 2."[263] While the Commission acknowledges that "this does result in generating facilities, affiliated and non-affiliated, no longer being entitled to compensation for the provision of reactive power within the standard power factor range," it says that it has found that "such an outcome does not undermine the generating facilities' FPA section 205 filing rights."[264]

FERC's logic is nothing more than empty formalism. Under Order No. 904 generators will be unilaterally precluded from making a filing with the Commission to establish a reactive power rate. This is not merely theoretical. Rather, after the Commission granted the MISO transmission owners request to eliminate reactive power compensation in MISO, the Commission rejected a Section 205 filing by a generator attempting to establish a reactive power revenue requirement as a result of the elimination of reactive power compensation in MISO.[265] Notably, the Commission did not find that the reactive rate was unjust and unreasonable; it simply asserted that it was "moot" and refused to evaluate it under FPA Section 205.[266] Order No. 904 will extend this treatment to

[261] Order No. 904 at P 61; *See also id*. at P 141, n.407 ("We emphasize that our findings in this final rule do not affect any party's filing rights under section 205 of the FPA, including the right of generating facilities to seek cost recovery for the provision of reactive power outside the standard power factor range.").

[262] *Id*. at P 61.

[263] *Id*.

[264] *Id*.

[265] *Goose Creek Wind, LLC*, 182 FERC ¶ 61,111, at P 17 (2023).

[266] *Id*. The protesting transmission owner in *Goose Creek Wind, LLC* highlighted the hollowness of the Commission's claim that prohibiting generators from establishing reactive power revenue requirements does not affect

all markets and preclude resources from making a Section 205 filing to recover their reactive power costs. [267]

While FERC says that it has found that a scheme that unilaterally prohibits resources from filing to recover their reactive power costs "does not undermine the generating facilities' FPA section 205 filing rights,"[268] the Commission's points to no court precedent upholding such a formalistic interpretation of the FPA's requirements.[269] Indeed, one of the Commission's decisions that it relies on to support its finding is currently being challenged in the D.C. Circuit Court of Appeals for, among other things, the Commission's abrogation of generator's FPA Section 205 rights.[270] The fact that the Commission has previously found that it can limit a public utility's FPA Section 205 rights does not alter the fact that it is a "creature of statue" that has no authority to deny generators their unilateral right to make filings under FPA Section 205 to

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their FPA Section 205 rights in arguing that "there will be no mechanism through which Goose Creek can receive compensation for reactive power capability within the standard deadband when the Facility is finally operational. Thus, there is no reason for the Commission to adjudicate Goose Creek's proposed revenue requirement – instead, the Commission should reject the filing in its entirety." *Goose Creek Wind, LLC*, Docket No. ER23-494-000, Protest of Ameren Illinois Co. at 3 (Dec. 14, 2022).

[267] The Commission similarly dismisses arguments that certain existing reactive power rate schedules are not entitled to the *Mobile-Sierra* presumption on the grounds that "reactive power-related transmission rates are not individually negotiated contract rates, but rather transmission owner tariff-based rates of general applicability." Order No. 904 at P 59. The Commission's focus on a transmission providers schedule 2 misses the point. Order No. 904 effectively nullifies the reactive power rate schedules of generators some of which the Commission has expressly found are entitled to the *Mobile-Sierra* presumption. *See, e.g., Va. Elec. & Power Co.*, 162 FERC ¶ 61,029, at P 19 (2018) (approving reactive rate settlement with *Mobile-Sierra* presumption and explaining that "the D.C. Circuit determined that the Commission is legally authorized to impose a more rigorous application of the statutory 'just and reasonable' standard of review on future changes to agreements that fall within the second [generally applicable rate] category described above.") (citing *New. Eng. Power Generators Ass'n v. FERC*, 707 F.3d 364, 370-71 (D.C. Cir. 2013)). As described further below, FERC's decision to nullify rates that FERC has found are entitled to the *Mobile-Sierra* protection without making the particularized findings required under that doctrine constitutes legal error. *See, e.g., Shell Energy N. Am. (US), L.P. v. FERC*, 107 F.4th 981, 991-92 (D.C. Cir. 2024).

[268] Order No. 904 at P 61.

[269] *Id*. at P 61, n.158.

[270] *Capital Power Corp., et al. v. FERC*, Br. of Petitioners at 25 (D.C. Cir. Nos. 23-1134, 23-1135, 23-1136, 23-1231, 23-1233, 23-1234) (explaining that "[p]ractically speaking, Transmission Owners' Section 205 filing reduced to 'zero' (from $220 million) the amount they paid MISO for reactive power.").

establish a reactive power rate.[271]

The Commission also cites its determination that PJM's Schedule 2 determines whether a generator is eligible to provide reactive power compensation rather than the terms of its interconnection service agreement ("ISA") for the proposition that the ISA does "not establish an independent right outside the context of Schedule 2 to reactive power compensation."[272] The Commission's reliance on this case to support its assertion that Order No. 904 does not violate generators' filing rights, however, demonstrates the Commission's fundamental misunderstanding of generators rights under the FPA. Generators do not need an agreement to confer upon them the right to file under FPA Section 205. The FPA expressly provides them that right.[273]

In a footnote, the Commission also advances a novel legal theory that a public utility may only be compensated under a rate schedule filed with and accepted by the Commission if a customer formally agrees to pay such rate.[274] The Commission appears to imply that transmission providers can decide to agree not to pay for reactive power by "revis[ing] their Schedule 2's to eliminate compensation for the provision of reactive power" and thereby eliminate the ability of generators to file for reactive power rates under FPA Section 205. The Commission's theory is as bizarre as it is wrong. In regulated industry, like the energy industry, a public utility files a generally applicable rate for the service it will provide and, if the Commission approves it, customers pay that rate if they are taking service. The public utility does not need to enter into

[271] *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 8 (D.C. Cir. 2002) (citing *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001)).

[272] Order No. 904 at P 61, n.158 (citing *Whitetail Solar 3, LLC, et al.*, Opinion No. 583, 184 FERC ¶ 61,145, at P 45 (2023)).

[273] 16 U.S.C. § 824d; *Atlantic City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2005) (stating that "Section 205 of the [FPA] gives a utility the right to file rates and terms for services rendered with its assets").

[274] Order No. 904 at P 61, n.158 ("A tariff rate is an offer to sell service at the stated rate; it does not establish an obligation on any party to pay that rate. In order to constitute an obligation, a party must sign a *pro forma* or other service agreement.") (citations omitted).

agreements with each customer to collect its rate. Indeed, as FERC previously explained to the D.C. Circuit, even if a transmission owner revised its tariff to eliminate its obligation to pay for reactive power, it would nevertheless "have to continue to pay generators pursuant to the generators' [existing] revenue requirements until those revenue requirements were successfully challenged under Federal Power Act section 206."[275]

The Commission's conclusion that customers can simply stop paying rates that are on file with the Commission also violates the Filed Rate Doctrine. Under the Filed Rate Doctrine, the Commission is bound to enforce, and customers must pay, the rates that have been filed with and approved by the Commission.[276] Yet, the effect of Order No. 904 is that generation resources with unit-specific reactive power rates will be prohibited from collecting these FERC-approved rates. Transmission providers will continue to provide reactive power service to their transmission customers and will rely on the reactive capability of these generation resource to meet their service obligations, but will simply not pay the reactive power rates filed with and approved by the Commission. Such a result is fundamentally inconsistent with the Filed Rate Doctrine, cannot be squared with the requirements of the FPA, and is thus arbitrary, capricious, and contrary to law.[277]

F. Order No. 904 Is Unduly Discriminatory And Contrary To Law

The Commission has an obligation under Section 206 of the FPA to demonstrate that its proposed alternative rate is not unduly discriminatory or preferential.[278] One of the primary objectives of the requirement that rates not be unduly discriminatory or preferential is to promote

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[275] *Dynegy Midwest Generation, Inc. et al. v. FERC*, Br. of Respondent (D.C. Cir. Nos. 09-1306, 09-1308) 2010 WL 4569087, at *43 (Oct. 7, 2010).

[276] *See Louisville & N.R. Co. v. Maxwell*, 237 U.S. 94, 95 (1915) (both utility and customers must abide by filed rate, which represents the "only lawful charge"); *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1223, 1230-31 (D.C. Cir. 2018) (finding that Commission is bound by the filed rate).

[277] *Id.*; *Okla. Gas & Elec. v. FERC*, 11 F.4th 821, 829 (D.C. Cir. 2021).

[278] *Winfield v. FERC*, 744 F.2d 871, 874 (D.C. Cir. 1984); *La. Pub. Serv. Comm'n v. FERC*, 522 F.3d 378, 391 (D.C. Cir. 2008).

competition for the benefit of customers by prohibiting incumbent utilities from favoring their own and affiliated resources. Indeed, the "history of Part II of the FPA indicates an overriding policy of maintaining competition to the maximum extent possible consistent with the public interest."[279] Courts have thus charged the Commission with "a responsibility to consider . . . the anticompetitive effects of regulated aspects of interstate utility operations in exercising its authority under the Federal Power Act."[280]

Order No. 904 fails to live up to the FPA's requirement that the Commission adopt an alternative rate that is not unduly discriminatory or preferential. By prohibiting transmission providers from charging transmission customers for the costs associated with reactive power, the Commission has placed a burden on independent generators to provide a critical reliability service without them having any meaningful opportunity to recover the costs of that service. At the same time, generation affiliated with incumbent utilities will almost certainly be permitted to recover their reactive power costs through their retail rates. The Commission has established a framework that will ensure that resources affiliated with incumbent utilities will be at a competitive advantage relative to independent power producers.

The Commission's response to the commenters' concerns about the unduly discriminatory framework that Order No. 904 establishes is to first assert that commenters have not demonstrated that affiliated generation will be able to recover their reactive power costs through retail rates.[281] But in this FPA Section 206 proceeding the burden is not on commenters to show that a

[279] *Otter Tail Power Co. v. United States*, 410 U.S. 366, 374 (1972).

[280] *Gulf States Util. Co. v. FERC*, 411 U.S. 747, 763 (1973).

[281] Order No. 904 at P 151.

replacement rate is unduly discriminatory. Rather the burden is on the Commission to demonstrate that its alternative rate is not unduly discriminatory.[282]

The Commission also asserts that "merchant generators are no differently situated" than affiliated generation and merchant generators "equally, may be able to recover the costs for reactive power within the deadband in other ways—such as through higher power sales rates of their own."[283] The Commission's assertion that generators remain on a level playing field to recover their reactive power costs belies reality. The "opportunity" the Commission claims is available to independent generators to recover their reactive power costs involves passing those costs on to customers that receive no direct benefit from such costs. Incumbent utilities, in contrast, will be able to recover the costs of their investment through their state or local regulator subject only to the requirement that the costs be prudently incurred. Although the Commission might view the opportunities that independent and affiliated generators have to recover their costs as facially equal, the effect of Order No. 904 is to inherently favor generation affiliated with incumbent utilities.[284]

The Commission also dismisses arguments that Order No. 904 discriminates against independent generators by denying them recovery for their reactive power costs while transmission owners are able to recover the costs they incur to provide reactive power through their transmission rates.[285] The Commission's only response to the discriminatory treatment Order No. 904 affords

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[282] *Gulf South Pipeline Co., LP v. FERC*, 955 F.3d 1001, 1012 (D.C. Cir. 2020) (quoting *ANR Storage Co. v. FERC*, 904 F.3d 1020, 1025 (D.C. Cir. 2018)) ("'FERC's statutory duty . . . to provide some reasonable justification for any adverse treatment relative to similarly situated competitors.'"); *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014).

[283] Order No. 904 at P 151 (citing *BPA*, 120 FERC ¶ 61,211, at P 21 (2008)).

[284] *See, e.g., Xcel Energy Servs. v. FERC*, 41 F.4th 548, 559-60 (D.C. Cir. 2022) (noting that although a rate "looks like a non-discriminatory proposal on the surface," if it "inherently favors" incumbent utilities and their affiliates it is unduly discriminatory).

[285] Order No. 904 at P 150.

generators is to explain that it has "long held that reactive power supply from transmission facilities is distinct from reactive power supply from generating facilities."[286] But this is a non-answer. Reactive power is a critical reliability service whether it is being provided as a transmission service or as an ancillary service. Independent generators and transmission owners are similarly situated in that they both make capital investments to allow them to provide reactive power to support transmission service. Yet, only independent generators will be unable to recover their investment from transmission customers enjoying the benefits of the reactive power that they provide. To comply with the prohibition on undue discrimination, the Commission must be able to articulate "specific factual differences" that justify affording less favorable treatment to independent generators. The Commission's conclusory assertion that reactive supply from generators and transmission facilities is distinct falls far short of this standard.[287] The Commission's summary dismissal of arguments that its replacement rate is unduly discriminatory and unsupported assertion that Order No. 904 maintains a level playing is arbitrary, capricious, and contrary to law.[288]

G. The Commission's Finding That Order No. 904 Will Not Negatively Impact Reliability Is Not Supported By Substantial Evidence And Arbitrary And Capricious

The Commission has a statutory obligation to ensure reliable service at rates, terms, and conditions that are just and reasonable.[289] In Order No. 904, the Commission asserts that

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[286] *Id*.

[287] *See, e.g., Consol. Edison Co. of N.Y., Inc.*, 45 F.4th 265, 282 (D.C. Cir. 2022).

[288] *PSEG Energy Res. & Trade LLC v. FERC*, 665 F.3d 203, 208 (D.C. Cir. 2011) (quoting *Canadian Ass'n of Petroleum Producers v. FERC*, 254 F.3d 289, 299 (D.C. Cir. 2001)) ("Among other things, '[a]n agency's "failure to respond meaningfully" to objections raised by a party renders its decision arbitrary and capricious.'").

[289] 16 U.S.C. § 824d. *See, e.g., Gainesville Utils. Dep't v. Fla. Power Corp.*, 402 U.S. 515, 529 (1971) (acknowledging that the Commission has "responsibility to the public to assure reliable efficient electric service"); *Wholesale Competition in Regions with Organized Elec. Mkts*., Order No. 719, 125 FERC ¶ 61,071, at P 1 (2008) (recognizing that the Commission has a "statutory mandate to ensure supplies of electric energy at just, reasonable

prohibiting transmission providers from paying for reactive power within the standard power factor range will "not negatively impact reliability."[290] In making this determination the Commission relies almost entirely on its assertion that regions without reactive power compensation have not experienced negative reliability impacts while dismissing record evidence in this proceeding—including from multiple transmission providers—demonstrating that Order No. 904 will negatively impact reliability and disregarding basic economic theory.[291] The Commission's determination is arbitrary, capricious, and unsupported by substantial evidence.[292]

In response to the NOPR, both ISO-NE and NYISO explained that the NOPR could "jeopardize reliability"[293] and place their "Transmission System[s] at risk of exposure to a number of reliability risks and increased market inefficiencies."[294] The Commission, however, dismisses the reliability challenges that Order No. 904 poses to their systems as "allud[ing] generally to reliability benefits from reactive power compensation over the full range of a generating facility's capability to provide reactive power," and thus not relevant to the provision of reactive power within the standard power factor range.[295] But the Commission's characterization of the concerns of ISO-NE and NYISO is incomplete.

ISO-NE explained that it compensates resources for their reactive power compensation based on regular testing of resources reactive supply and voltage support capability.[296] The

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and not unduly discriminatory or preferential rates"); *Md. Pub. Serv. Comm'n v. PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,274, at P 18 (2009) ("We cannot find that a replacement rate that may jeopardize PJM's ability to provide reliable service is just and reasonable.").

[290] Order No. 904 at P 165.

[291] *Id*. at PP 165-66.

[292] *TransCanada Power Mktg. Ltd. v. FERC*, 811 F.3d 1, 12 (D.C. Cir. 2015) ("It is well established that the Commission must 'respond meaningfully to the arguments raised before it.'") (quoting *Public Serv. Comm'n v. FERC*, 397 F.3d 1004, 1008 (D.C. Cir. 2005)).

[293] NYISO Comments at 11.

[294] ISO-NE Comments at 6.

[295] Order No. 904 at P 167.

[296] ISO-NE Comments at 9.

compensation provided to resources for this capability does not distinguish between reactive power that a generator is obligated to provide and reactive power that is provided beyond its requirements because the "entire capability has the same value to the New England Transmission System and, accordingly, it should be similarly compensated."[297] In accepting this rate structure, the Commission explained that it "provides an appropriate financial inducement for qualified resources to invest in additional dynamic VAR capability, *which ISO-NE currently relies on to reliably operate the system*."[298] The Commission has not explained why eliminating a rate structure that it acknowledged allows ISO-NE to operate its system reliably will not imperil reliability as the evidence provided by ISO-NE indicates it will.[299]

Relatedly, NYISO increases the compensation it provides to resources for their reactive power capability as a resource's reactive power capability increases both within and outside the standard power factor range.[300] By compensating resources based on their incremental reactive power capability across the power factor range it "encourages Resources to accurately determine their total reactive power capability and to maintain the equipment necessary to provide the service, all of which supports reliable bulk power system operations."[301] Order No. 904 removes the ability of NYISO to provide this incremental incentive. As a result, NYISO generators will be incentivized to make only the minimum required investment in reactive power capability. Fixed investments to provide greater reactive capability for event-specific, reactive power compensation opportunities are unlikely to occur in NYISO under Order No. 904, potentially "jeopardize[ing]

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[297] *Id*.

[298] *Me. Pub. Util. Comm'n v. ISO New England Inc*., 126 FERC ¶ 61,090, at P 42 (2009) (emphasis added).

[299] *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 17 (D.C. Cir. 2014) (quoting *Entergy Servs., Inc. v. FERC*, 319 F.3d 536, 541 (D.C. Cir. 2003)) ("[T]he Commission cannot depart from those rulings without 'provid[ing] a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored.'").

[300] NYISO Comments at 7-8.

[301] *Id*. at 8.

reliable electric service to consumers in New York."[302]

ISO-NE also notes that it currently pays generators that do not have an obligation to provide reactive power for providing reactive power within the standard power factor range.[303] Under Order No. 904, however, ISO-NE will be unable to compensate these legacy resources for the valuable reactive power they provide and thus these resources will have no incentive to provide reactive power going forward. Yet the Commission provides no response as to why Order No. 904's prohibition on these resources receiving reactive power compensation within the standard power factor range will not negatively impact reliability in ISO-NE.[304]

Aside from the specific reliability concerns raised by ISO-NE and NYISO, Order No. 904 fails to acknowledge that basic economic theory dictates that depriving generation resources of compensation for a critical reliability service they provide will negatively impact reliability. As the Market Monitoring Unit of SPP stated in this proceeding, the "market will not get what it does not properly measure, value, or compensate."[305] When reactive power is not properly valued and compensated, it will cease being provided at the level needed to ensure reliability.

Moreover, when generators are categorically prohibited from recovering the costs of a service they are required to provide, they will have to bear the costs of providing that service themselves. These unrecovered costs will make generators less profitable and, in turn, make it less likely that investors will want to invest in generation resources and the reliability services and capacity they provide.[306] And while requiring generators to forgo cost recovery for this critical

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[302] *Id*. at 11.

[303] ISO-NE Comments at 9.

[304] *PSEG Energy Res. & Trade LLC v. FERC*, 360 F.3d 200, 203 (D.C. Cir. 2004) (quoting *E. Tex. Elec. Coop., Inc. v. FERC*, 331 F.3d 131, 136 (D.C. Cir. 2003)) (noting that the Commission must provide a "coherent and adequate explanation" for its decisions).

[305] SPP MMU Comments at 1.

[306] *Ameren Servs. Co. v. FERC*, 880 F.3d 571, 581 (D.C. Cir. 2018) ("FERC must explain how investors

reliability service may not have yet resulted in a reliability crises or capacity shortfall, Order No. 904 makes both events more likely. At a time when many regions are already facing emerging capacity shortfalls brought on by the increased pace of existing resource retirements and a lack of new resource entry,[307] Order No. 904 will undoubtedly make it even more difficult to maintain a reliable grid going forward.

H. The Commission's Erred In Eliminating Reactive Power Compensation Based On Generic Findings

While the courts have found that FERC may rely on generic findings in the rulemaking context, the Commission's authority to do so is not unlimited. The Commission may not, for instance, "enact an industry-wide solution for a problem that exists only in isolated pockets."[308] And the Commission cannot use generic findings to avoid its obligation to make a decision that is supported by "substantial record evidence" and to articulate "a rational basis for [its] decision."[309] The record in this case simply is insufficient for the Commission to make a generic determination

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could be expected to underwrite the prospect of potentially large non-profit appendages with no compensatory incremental return.").

[307] *See, e.g.*, PJM, Energy Transition in PJM: Resource Retirements, Replacements & Risks at 2 (Feb. 24, 2023), *available at*: https://insidelines.pjm.com/pjm-details-resource-retirements-replacements-and-risks/ (noting that "40 GW of existing generation are at risk of retirement by 2030" and projections show that "the current pace of new [generation] entry would be insufficient to keep up with expected retirements and demand growth by 2030."); MISO System Planning Committee of the Board of Directors, Long Term Resource Adequacy at 6-8 (Sept. 12, 2023), *available at*: https://cdn.misoenergy.org/20230912%20System%20Planning%20Committee%20of%20the%20BOD%20Item%2005%20Long%20Term%20Resource%20Adequacy630148.pdf (projecting a capacity shortfall in the MISO region of as large as 8.9 GWs by 2028/2029 Planning Year).

[308] *Associated Gas Distrib. v. FERC*, 824 F.2d 981, 1019 (D.C. Cir. 1987); *Pub. Util. Comm'n v. FERC*, 462 F.3d 1027 (9th Cir. 2006) (quoting *Interstate Natural Gas Ass'n of Am. v. FERC*, 285 F.3d 18, 37 (D.C. Cir. 2002) ("Proportionality between the identified problem and the remedy is key").

[309] *Electricity Consumers Resource Council v. FERC*, 747 F.2d 1511, 1514 (D.C. Cir. 1984).

that all reactive power rates are unjust and unreasonable or that eliminating reactive power compensation is just and reasonable.

In PJM and other regions that compensate for reactive power within the standard power factor range based on unit-specific reactive power rates, these rates have been calculated, and approved by the Commission, to allow the resource to recover the costs of providing reactive power, plus a reasonable rate of return. Yet, in this case, the Commission summarily concludes all of these reactive power rates are unjust and unreasonable without any evaluation of the specific rates at issue or any demonstration that the rates are resulting in a return for the utility providing service that is outside the range of reasonableness. Instead, the Commission simply assumes that these rates—which are presumptively just and reasonable under the FPA—are unjust and unreasonable because they do not align with the Commission's preference for rates premised on incremental cost pricing.

The defects in the Commission's decision are readily apparent when comparing the approach taken in Order No. 904 with the approach taken in other proceedings where FERC is called upon to evaluate whether cost-of-service rates are unjust and unreasonable within the context of a Section 206 proceeding. For example, when evaluating a challenge to the return on equity collected by utilities as part of their transmission rates, the Commission requires the proponent of a rate change to establish a zone of reasonableness using detailed financial information and models, information about the returns attained by other utilities of comparable risk, and other information.[310] Order No. 904, in contrast, does not make any attempt to examine the rates at issue, establish what a range of just and reasonable rates may be, provide evidence that

[310] *See, e.g., Association of Business Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, 189 FERC ¶ 61,036 (2024).

existing reactive power rates are leading to unreasonable returns or excessive costs, or any other meaningful analysis. The Commission assumes away the need for such an analysis by declaring any rates that deviate from its preferred outcome to be unjust and unreasonable. The Commission's decision to declare existing reactive power rates to be unjust and unreasonable in a vacuum without any consideration of the specific rates themselves is arbitrary, capricious, an abuse of discretion, and contrary to law.[311]

The approach taken in Order No. 904 is particularly problematic given that the record in this proceeding and Commission precedent confirm that the costs incurred in connection with providing reactive power within the standard power factor range vary considerably from resource-to-resource. The record and Commission precedent support the conclusion that certain resources have incurred incremental fixed costs associated with reactive power within the standard power factor range and that resources more generally incur material variable costs in connection with providing reactive power within the standard power factor range.[312] Even if the Commission believes that resources should only be permitted to recover the incremental costs of reactive power

[311] *PSEG Energy Res. & Trade LLC v. FERC*, 360 F.3d 200, 203 (D.C. Cir. 2004) (quoting *E. Tex. Elec. Coop., Inc. v. FERC*, 331 F.3d 131, 136 (D.C. Cir. 2003)) (noting that the Commission must provide a "coherent and adequate explanation" for its decisions); *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983).

[312] *See, e.g.*, Generation Developers Comments at 13-17 (discussing precedent recognizing that non-synchronous resources incur distinct reactive power costs); Indicated Trade Association Comments, Att. A, Aff. of Sherman Knight at PP 12-13 (discussing opportunity costs); *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,097, at P 7 (2015) (estimating that the reactive power costs of non-synchronous resource constitute about approximately 10% of project's total costs); *PJM Interconnection, L.L.C.*, Docket No. ER07-441-000, Letter Order (Mar. 8, 2007) (accepting interconnection agreement for Allegheny Ridge Wind Farm); *PJM Interconnection, L.L.C.*, Docket No. ER07-441-000, Transmittal Letter at 3 (Jan. 17, 2007) (noting that Allegheny Ridge Wind Farm had been required to install static VAR compensator to provide reactive power for the reliability of the grid); *id.*, Att. A, App. 2 § 54.7.1.1 (stating that wind facilities would have obligation to maintain power delivery at a power factor between 0.95 leading and 0.95 lagging if required for the safety and reliability of the transmission system); *Allegheny Ridge Wind Farm, LLC*, Docket No. ER19-229-000, Transmittal Letter at 3 (Oct. 31, 2018) (seeking recovery for investment in reactive power capability); *Allegheny Ridge Wind Farm, LLC*, Docket No. ER19-229-005, Offer of Settlement and Settlement Agreement (Jan. 25, 2021) (establishing annual reactive revenue rate of $368,214.44); *Allegheny Ridge Wind Farm, LLC*, 175 FERC ¶ 61,054 (2021) (approving settlement). *See also Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280, at P 37 (2008) (approving heating loss); *Duke Energy Fayette, LLC*, 104 FERC ¶ 61,090, at P 16 (2003) (approving heating loss component).

within the standard power factor range, that does not lead inexorably to the conclusion that existing reactive power rates are unjust and unreasonable or that eliminating compensation is just and reasonable.

The Commission's decision to rely on generic findings also ignores that the Commission cannot abrogate rates that are subject to the *Mobile-Sierra* doctrine absent "a particularized finding that a given contract seriously harms the public interest."[313] Order No. 904 effectively nullifies the reactive power rate schedules of generators some of which the Commission has expressly found are entitled to the *Mobile-Sierra* presumption.[314] The Commission's decision to do so based on generic findings and without the "particularized" analysis required is arbitrary, capricious, and contrary to law.

The Commission's reliance on generic findings also results in FERC ignoring material differences between markets and compensation frameworks. Unlike other regions, ISO-NE and NYISO use flat rate structures that are not tied to the costs of any particular generation resource. Yet, the Commission offers the same criticism of these frameworks that it repeats throughout its order: resources incur no or only *de minimis* costs, resources have an obligation to provide reactive power, and no compensation is due.[315] But in repeating this same logic—which appears borne of FERC's frustration with the approach taken in other markets—the Commission glosses over the fact that NYISO and ISO-NE both provided evidence that their compensation frameworks are not premised on the costs of a specific generation resource, certain resources within these markets do not have the obligation to provide reactive power,[316] their reactive power rates do not impose

[313] *See, e.g., Shell Energy N. Am. (US), L.P. v. FERC*, 107 F.4th 981, 991-92 (D.C. Cir. 2024).

[314] *See, e.g., Va. Elec. & Power Co.*, 162 FERC ¶ 61,029, at P 19 (2018).

[315] Order No. 904 at PP 52-53.

[316] In a footnote, the Commission acknowledges ISO-NE's statement that certain generation resources do not have an obligation to provide reactive power and that ISO-NE has relied on its existing compensation framework to

material costs on customers, and that the continued existence of these rates play an important role in maintaining reliability.[317] The Commission's failure to grapple with these distinctions renders Order No. 904 arbitrary and capricious.[318]

The Commission also ignores that the characteristics of wholesale markets differ considerably across the country. These differences include:

- Whether the region relies on organized markets, bilateral markets, or a combination of the two for sales of energy, capacity, and ancillary services;
- Differences in market designs (*e.g.*, reliance on capacity markets v. bilateral contracting for resource adequacy);
- Whether the region historically has compensated for reactive power within the standard power factor range and the basis for that compensation;
- Whether market prices are sufficient to support continued operation of generation resources needed for reliability or new investment; and
- Whether the market has sufficient capacity to meet existing reliability needs and sufficient reliability challenges.

Indeed, this is precisely why the Commission typically allows transmission providers to adopt policies that accommodate for regional differences, even in the rulemaking context.[319] Order No. 904, however, evinces an unwillingness to consider these types of differences in favor of adopting

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secure the capability of these resources to meet reliability needs. Order No. 904 at P 54, n.142. The Commission responds by stating that generating facilities can pursue claims that they have an independent contractual right to reactive power compensation. *Id.* But the Commission misses the point. ISO-NE did not argue that these resources have an independent contractual right to reactive power, but that they do not have any obligation to provide reactive power and may not continue to provide this service absent compensation. The Commission's failure to offer a meaningful response to ISO-NE's concerns is arbitrary and capricious. *PSEG Energy Res. & Trade LLC v. FERC,* 665 F.3d 203, 208 (D.C. Cir. 2011) ("Among other things, '[a]n agency's "failure to respond meaningfully" to objections raised by a party renders its decision arbitrary and capricious.'").

[317] *See generally* NYISO Comments; ISO-NE Comments.

[318] *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it].").

[319] *See, e.g., Building for the Future Through Electric Regional Transmission Planning and Cost Allocation*, Order No. 1920, 187 FERC ¶ 61,068, at P 237 (2024) (recognizing "transmission providers' need for sufficient flexibility to implement Long-Term Regional Transmission Planning [reforms] in their transmission planning regions to reflect regional differences, such as different market structures").

a national policy that all compensation for reactive power within the standard power factor range is unjust and unreasonable and that resources must be compelled to provide this service for free.

Finally, there is simply no proportionality between the harm that the Commission identifies—excessive rates—and its proposed remedy—the complete elimination of any form of compensation for reactive power within the standard power factor range. Even if the Commission were to demonstrate that existing rates premised on the *AEP* methodology are unjust and unreasonable, the Commission's statutory obligations require the Commission to take steps to improve the methodology or establish a just and reasonable alternative compensation framework rather than jumping immediately to the conclusion that all reactive power rates should be eliminated.

In short, the Commission lacks an adequate foundation in this proceeding to make generic findings that all existing reactive power rates are unjust and unreasonable or that its proposed alternative is just and reasonable. The Commission's conclusion to the contrary is arbitrary and capricious, not the product of reasoned decision-making, and contrary to the Commission's statutory obligations.[320]

II. STATEMENTS OF ISSUES AND SPECIFICATIONS OF ERRORS

Pursuant to Rule 713(c) of the Commission's Rules of Practice and Procedure,[321] the Generation Developers provide below the following issues and specify the following errors found in the Commission's Order No. 904:

1. The Commission's determination that generation resources should be required to provide reactive power service without compensation is arbitrary and capricious and contrary to law. The Commission has no authority to compel a public utility to provide

[320] 16 U.S.C. § 824e; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co.,* 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it].").

[321] 18 C.F.R. § 385.703(c).

service without an opportunity to recover the associated costs plus a reasonable return on its investment. Order No. 904 violates the FPA and the U.S. Constitution by requiring generation resources to provide reactive power service without a meaningful opportunity to recover their costs associated with that service. Order No. 904 is thus arbitrary and capricious and contrary to law. 16 U.S.C. § 824e; U.S. CONST. AMEND. V; *Jersey Cent. Power Light Co. v. FERC*, 810 F.2d 1168, 1178 (D.C. Cir. 1987); *Pub. Sys. v. FERC*, 709 F.2d 73, 80 (D.C. Cir. 1983) (citing *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923)); *FPC v. Hope Natural Gas Co*., 320 U.S. 591, 603 (1944); *Horne v. Dept. of Ag*., 576 U.S. 350, 359, 367 (2015); *Reagan v. Farmer's Loan & Tr. Co.*, 154 U.S. 362, 409-10 (1984); *F.C.C. v. Fla. Power Corp.*, 480 U.S. 245, 253 (1987).

2. The Commission erred in compelling public utilities to provide reactive power service without the ability to assess a charge for that service. The FPA grants public utilities the right to collect a rate for the services that they provide. 16 U.S.C § 824d; *Smyth v. Ames*, 169 U.S. 466 (1898). Order No. 904 prevents generators from collecting a rate—including rates previously approved by the Commission as just and reasonable—for the reactive power service they provide. The Commission's prohibition on generators collecting a rate for their reactive power service is arbitrary and capricious and contrary to law. 16 U.S.C § 824d; *Jersey Central Power & Light Co. v. FERC*, 810 F.2d 1168, 1177 (D.C. Cir. 1987); *FPC v. Hope Natural Gas Co*., 320 U.S. 591, 603 (1944); *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).

3. The Commission erred in finding that generators were not entitled to reactive power compensation because they are obligated to provide reactive power. Reactive power is a distinct ancillary service and the fact that the Commission may have imposed an obligation on utilities to provide this service is not a legitimate basis for denying compensation. *Ameren Servs. Co. v. FERC*, 880 F.3d 571, 580-582 (D.C. Cir. 2018); Order No. 888 at 31,703. Utilities regularly are permitted to recover the costs of services that they are obligated to provide. By prohibiting generation resources from receiving reactive power compensation, Order No. 904 deprives generation resources of the opportunity to recover their reactive power costs plus a reasonable return. Order No. 904 is thus arbitrary and capricious and contrary to law. *Jersey Central Power & Light Co. v. FERC*, 810 F.2d 1168, 1177 (D.C. Cir. 1987) (quoting *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944)); *PPL Energyplus, LLC v. Hanna*, 977 F.Supp. 2d 372, 383 (D.N.J. 2013).

4. The Commission erred in finding that generators provide reactive power solely so that they can deliver their real power to the transmission system. The Commission's finding is unsupported by any evidence and contrary to record evidence and Commission precedent demonstrating that reactive power provided by generators provides a benefit to the transmission system above and beyond transmitting their real power to the grid—as the Commission has previously acknowledged. The Commission's finding to the contrary is arbitrary, capricious, not the product of reasoned decision-making, and represents an unexplained and unsupported departure from its prior precedent. *Dynegy Midwest Generation, Inc.*, Opinion No. 498, 121 FERC ¶ 61,025 at P 82 (2007) ("This

extra reactive power represents a cost to the generator of providing reactive power to the transmission system for the benefit of transmission customers."); *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record . . . ." (citations omitted)); *New Eng. Power Generators Ass'n v. FERC,* 881 F.3d 202, 210-211 (D.C. Cir. 2018) (quoting *FCC v. Fox Television Stations, Inc.,* 556 U.S. 502, 515 (2009)) (finding that the Commission may not "depart from [its] prior policy *sub silentio* or simply disregard rules that are still on the books."); *West Deptford Energy, LLC v. FERC,* 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC,* 71 F.3d 897, 901(D.C. Cir. 1995)).

5. The Commission erred in finding that generators are not entitled to reactive power compensation because the same equipment they use to produce reactive power can also be used to produce real power. Public utilities frequently use the same equipment to provide multiple services without having to provide one or more of the services they provide for free. It is Commission policy that where multiple services are provided the Commission must allocate the joint costs incurred amongst the customers benefiting from the separate services. *Entergy Servs.*, 143 FERC ¶ 61,120, at P 14 (2013); *Ameren Ill. Co.*, 185 FERC ¶ 61,124, at P 24 (2023); *Black Hills Colo. Elec., LLC*, 182 FERC ¶ 61,162, at P 31 (2023); *Kern River Gas Transmission Co.*, 117 FERC ¶ 61,077, at P 290 (2006). The Commission's finding that generators are not entitled to reactive power compensation because the equipment used to produce reactive power may be shared with real power is thus arbitrary and capricious, not the product of reasoned decision-making, and contrary to law. *New Eng. Power Generators Ass'n v. FERC,* 881 F.3d 202, 210-211 (D.C. Cir. 2018) (quoting *FCC v. Fox Television Stations, Inc.,* 556 U.S. 502, 515 (2009) (finding that the Commission may not "depart from [its] prior policy *sub silentio* or simply disregard rules that are still on the books."); *West Deptford Energy, LLC v. FERC,* 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC,* 71 F.3d 897, 901(D.C. Cir. 1995)); *Env't Def. Fund v. FERC,* 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co.,* 463 U.S. 29, 43 (1983)); *Cal. State Water Res. Control Bd. v. FERC*, 43 F.4th 920, 930 (9th Cir. 2022); *City of Centralia v. FERC*, 213 F.3d 742, 749 (D.C. Cir. 2000); *Sea Robin Pipeline Co v. FERC,* 795 F.2d 182, 189 (D.C. Cir. 1986).

6. The Commission erred in adopting a proposal that is inconsistent with the cost causation principle. The FPA requires that the Commission ensure that costs are allocated to customers in a manner that is roughly commensurate with benefits. *Sithe/Independence Power Partners, L.P. v. FERC,* 285 F.3d 1, 5 (D.C. Cir. 2002) (quoting *Alabama Elec. Cooperative, Inc. v. FERC,* 684 F.2d 20 (1982)). Order No. 904 is inconsistent with the FPA because it requires energy and capacity market customers to subsidize the cost of providing reactive power for the benefit of transmission customers who will pay nothing for a critical reliability service that is used to provide them with transmission service. Order No. 904 is thus arbitrary and capricious and contrary to law. *Consol. Edison Co. of N.Y., Inc. v. FERC*, 45 F.4th 265, 271 (D.C. Cir. 2022) (citing *Pub. Serv. Elec. & Gas Co. v. FERC*, 989 F.3d 10, 13 (D.C. Cir. 2021) ("The costs assessed against a party must bear some resemblance to

the burdens imposed or benefits drawn by that party."); *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 362 (5th Cir. 2023) (quoting *Nat'l Ass'n of Reg. Util. Comm'rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007)); *Jersey Central Power Light Co. v. FERC*, 810 F.2d 1168, 1178 (D.C. Cir. 1987); *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264 (D.C. Cir. 2014); *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.,* 463 U.S. 29 (1983).

7. The Commission erred in refusing to allocate the costs of FERC-jurisdictional services. The FPA requires the Commission allocate the costs associated with providing a service to the public to the customers that benefit from the service provided. Despite the distinct benefit that reactive power provides to transmission customers, the Commission decided not to allocate transmission customers any costs because reactive power involves "joint costs" and such allocation may be viewed as "inherently arbitrary." The Commission's refusal to carry out its FPA-imposed obligations is arbitrary and capricious and contrary to law. 16 U.S.C. § 824d; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158, 1165 (D.C. Cir. 1998) ("As we have said before, it most emphatically remains the duty of this court to ensure that an agency engage the arguments raised before it—that it conduct a process of reasoned decision making"); *Tarpon Transmission Co. v. FERC*, 860 F.2d 439, 444 (D.C. Cir. 1998) (finding that the Commission failed to engage in reasoned decision-making because it responded in "purely conclusory terms").

8. The Commission's finding that the costs of reactive power service are "caused" by generation resources is not supported by substantial evidence and represents an unexplained and unsupported departure from precedent. The Commission has long recognized that generators should be compensated for their reactive power capability and the critical role it plays in the reliability of the transmission system and providing transmission service. *Calpine Oneta Power, L.P.*, 116 FERC ¶ 61,282 at P 28 (2006), *order on reh'g*, 119 FERC ¶ 61,177 (2007). The Commission has also acknowledged reactive power provides a distinct benefit to the transmission system that is separate and apart from the requirement that generators produce reactive power to transmit their real power to the system. *Dynegy Midwest Generation, Inc.*, Opinion No. 498, 121 FERC ¶ 61,025 at P 82 (2007) ("This extra reactive power represents a cost to the generator of providing reactive power to the transmission system for the benefit of transmission customers."). As a result, transmission customers "cause" costs associated with, and benefit from, the provision of reactive power service. The Commission's conclusion to the contrary is arbitrary and capricious, unsupported by substantial evidence, and represents an unexplained departure from precedent. *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004); *Am. Bankers Ass'n v. Nat'l Credit Union Admin*., 934 F.3d 649, 669 (D.C. Cir. 2019); *Williston Basin Interstate Pipeline Co. v. FERC*, 358 F.3d 45, 48 (D.C. Cir. 2004) (requiring the Commission to make a "reasoned decision based upon substantial evidence in the record."); *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC*, 71 F.3d 897, 901 (D.C. Cir. 1995)) ("It is textbook

administrative law that an agency must 'provide[] a reasoned explanation for departing from precedent or treating similar situations differently.'").

9. The Commission's determination that its proposal is consistent with cost causation requirements ignores record evidence and precedent demonstrating that resources incur both incremental fixed costs and variable costs in connection with reactive power. Commenters provided record evidence and pointed to prior precedent of the Commission indicating that certain generation resources have incremental fixed and variable costs associated with the production of reactive power within the standard power factor. The Commission fails to provide a reasoned basis for determining that it is just, reasonable, and consistent with cost causation to insulate transmission customers from these costs. *See, e.g., Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280 at P 37 (2008); *Duke Energy Fayette, LLC*, 104 FERC ¶ 61,090 (2003). The Commission's characterization of these costs as *de minimis* is arbitrary and capricious, unsupported by substantial evidence, not the product of reasoned decision-making, and represents an unexplained departure from precedent. *Cal. Pub. Utils. Comm'n v. FERC*, 20 F.4th 795, 800 (D.C. Cir. 2021) (stating that the Commission's orders will be upheld under the arbitrary and capricious standard only "if they are supported by substantial evidence"); *City of Centralia v. FERC*, 213 F.3d 742, 749 (D.C. Cir. 2000); *Sea Robin Pipeline Co v. FERC*, 795 F.2d 182, 189 (D.C. Cir. 1986); *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.*, 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it]."); *N.C. Utils. Comm'n v. FERC*, 42 F.3d 659, 666 (D.C. Cir. 1994); *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) (stating that agency's failure to respond meaningfully to arguments in record is arbitrary and capricious).

10. The Commission erred in dismissing challenges to its proposal as foreclosed by Order No. 2003 and the Commission's comparability policy. The collateral attack doctrine includes multiple exceptions that apply to commenters' statutory and constitutional challenges to Order No. 904 and preclude the application of the doctrine in this proceeding. The Commission's assertion of the collateral attack doctrine also fails to acknowledge that the policy it is adopting in Order No. 904 is a departure from its Order No. 2003 comparability policy. The Commission also applies an interpretation of Order No. 2003 to commenters' challenges that is unsupported by court precedent. *Dynegy Midwest Generation, Inc. v. FERC*, 633 F.3d 1122, 1125 (D.C. Cir. 2011). The Commission's reliance on the collateral attack doctrine to preclude challenges to its proposal to eliminate all reactive power compensation is arbitrary and capricious, contrary to law, and not the product of reasoned decision-making. *Pub. Citizen v. Nuclear Regulatory Comm'n*, 901 F.2d 147, 150 (D.C. Cir. 1990); *Ass'n of Am. Railroads v. I.C.C.*, 846 F.2d 1465, 1473 (D.C. Cir. 1988); *Ohio v. U.S. E.P.A.*, 838 F.2d 1325, 1328-29 (D.C. Cir. 1988); *Edison Elec. Inst. v. U.S. E.P.A.*, 996 F.2d 326, 332 (D.C. Cir. 1993); *Cent. Hudson Gas & Elec. Corp. v. FERC*, 783 F.3d 92, 103 (2nd Cir. 2015); *Montana v. Clark*, 749 F.2d 740, 744, n.8 (D.C. Cir. 1984); *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158, 1165 (D.C. Cir. 1998); *PSEG Energy Res.*

& Trade LLC v. FERC, 665 F.3d 203, 208 (D.C. Cir. 2011) ("Among other things, '[a]n agency's "failure to respond meaningfully" to objections raised by a party renders its decision arbitrary and capricious.'").

11. The Commission erred in failing to meaningfully respond to commenters' statutory and constitutional challenges to Order No. 904's requirement that they provide a critical reliability service without an opportunity to recover the costs of providing such service. Instead the Commission dismisses these arguments as foreclosed by Order No. 2003 and the Commission's comparability policy. The Commission's failure to meaningfully address the statutory and constitutional challenges to Order No. 904 is arbitrary and capricious, not the product of reasoned decision-making, contrary to law, and an abuse of discretion. *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) (quoting *Canadian Ass'n of Petroleum Producers v. FERC*, 254 F.3d 289, 299 (D.C. Cir. 2001) ("An agency's 'failure to respond meaningfully' to objections raised by a party renders its decision arbitrary and capricious"); *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983) (agency must "consider[] the relevant factors and articulate[] a rational connection between the facts found and the choice made" (citations omitted)); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co*., 463 U.S. 29 (1983).

12. The Commission erred in directing the modification of existing reactive power rates without any demonstration that these rates are unjust, unreasonable, or unduly discriminatory or preferential. Section 206 of the FPA requires that the Commission first establish that an existing rate is unjust, unreasonable, or unduly discriminatory or preferential before it may impose its preferred alternative rate. 16 U.S.C. § 824e. In this case, however, the Commission does not demonstrate that existing rates are unjust and unreasonable. Instead, the Commission commits legal error in assuming that any reactive power rate that is calculated on a basis other than its preferred alternative—incremental costs—is unjust and unreasonable. *Emera Maine v. FERC*, 854 F.3d 9, 21 (D.C. Cir. 2017) (finding that FERC is not permitted to assume that all rates other than one identified by FERC is unjust and unreasonable). The Commission's determination that existing rates are unjust and unreasonable is unsupported, not the product of reasoned decision-making, and contrary to law. *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004) ("FERC must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record.") (quotations and citation omitted); *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record . . . ." (citations omitted)); *Env't Def. Fund v. FERC*, 2 F.4th 953, 960 (D.C. Cir. 2021) (vacating and remanding FERC order for "ignor[ing] record evidence."); 16 U.S.C. § 824e; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.*, 463 U.S. 29 (1983).

13. The Commission erred in concluding that any rate that allows generators to recover reactive power costs other than their incremental costs is unjust and unreasonable. The Commission concludes that because generators incur no or only *de minimis* incremental

costs associated with the production of reactive power within the standard power factor range that any reactive power rate other than zero dollars is unjust and unreasonable. The Commission provides no support for its position that rates premised on the allocation of joint costs are inherently arbitrary, unjust, or unreasonable. The Commission's conclusion is arbitrary and capricious, unsupported by substantial evidence, and contrary to law. *Sithe/Independence Power Partners, L.P. v. FERC,* 285 F.3d 1, 5 (D.C. Cir. 2002); *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 362 (5th Cir. 2023); *Env't Def. Fund v. FERC,* 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co.,* 463 U.S. 29, 43 (1983)); *Mo. Pub. Serv. Comm'n v. FERC,* 234 F.3d 36, 41 (D.C. Cir. 2000) (quoting *Columbia Gas Transmission Corp. v. FERC,* 628 F.2d 578, 593 (D.C. Cir. 1979); *Loper Bright Enters. v. Raimondo,* 144 S. Ct. 2244, 2265 (2024); *Gulf South Pipeline Co., LP v. FERC,* 955 F.3d 1001, 1012 (D.C. Cir. 2020) (quoting *ANR Storage Co. v. FERC,* 904 F.3d 1020, 1025 (D.C. Cir. 2018)). The Commission's decision ignores record evidence of the real and material costs generators incur to provide reactive power and its findings to the contrary are unsupported and not the product of reasoned decision-making. The Commission also ignores that not all reactive power rates are based on the allocation of a generator's fixed costs and its prior findings that such rates are nevertheless just and reasonable and necessary for transmission providers to operate their transmission systems reliably. The Commission's finding is not supported by substantial evidence, not the product of reasoned decision-making, and arbitrary and capricious. *N. States Power Co. v. FERC,* 30 F.3d 177, 180 (D.C. Cir. 1994); *Cal. State Water Res. Control Bd. v. FERC,* 43 F.4th 920, 930 (9th Cir. 2022); *City of Centralia v. FERC,* 213 F.3d 742, 749 (D.C. Cir. 2000); *Sea Robin Pipeline Co v. FERC,* 795 F.2d 182, 189 (D.C. Cir. 1986); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.,* 463 U.S. 29 (1983).

14. The Commission erred in finding that resources do not incur fixed costs associated with reactive power within the standard factor range and that the allocation of joint costs is "inherently arbitrary" and excuse it from its FPA obligation to allocate costs in a just and reasonable manner. The FPA requires that the Commission allocate the costs of providing service to the customers that benefit from, or cause, those costs. *Sithe/Independence Power Partners, L.P. v. FERC,* 285 F.3d 1, 5 (D.C. Cir. 2002); *El Paso Elec. Co. v. FERC*, 76 F.4th 352, 362 (5th Cir. 2023). The Commission has allocated the costs associated with the provision of real and reactive power for decades. The Commission provides no evidence supporting its conclusion that the allocation of joint costs is "inherently arbitrary." Nor does the Commission provide support for its conclusion that it need not allocate joint costs to the customers that benefit from the service associated with such costs. The Commission's finding is arbitrary and capricious, contrary to law, and not supported by substantial evidence. *Pac. Gas & Elec. Co. v. FERC,* 373 F.3d 1315, 1319 (D.C. Cir. 2004); *Env't Def. Fund v. FERC,* 2 F.4th 953, 960 (D.C. Cir. 2021); *Loper Bright Enters. v. Raimondo,* 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.,* 463 U.S. 29, 43, 57 (1983).

15. The Commission erred in finding that existing reactive power rates impose costs that are disproportionate to the benefits received, or costs caused, by transmission customers. The Commission provides no evidence to support its conclusion that transmission customers are not receiving reliability benefits commensurate with the cost of providing reactive power within the standard power factor range and ignores record evidence and Commission precedent confirming the distinct reliability benefit provided to the transmission system and transmission customers from resources' capability to provide reactive power within the standard power factor range. The Commission's assertion that transmission customers only should be allocated the costs of reactive power capability if they receive a benefit "above and beyond" what they would receive absent payment is contrary to law, unsupported, ignores record evidence, and is arbitrary and capricious. The Commission's conclusion that transmission customers receive no benefit that is independent of the reactive power produced by generators to transmit their real power to the grid is arbitrary and capricious, not the product of reasoned decision-making, unsupported by substantial evidence, and an unexplained departure from precedent. Order No. 888 at 31,706; Staff Report at 16; *Am. Elec. Power Serv. Corp*., Opinion No. 440, 88 FERC ¶ 61,141, at 61,457 (1999), *order on reh'g*, 92 FERC ¶ 61,001 (2000); *Dynegy Midwest Generation, Inc.*, 121 FERC ¶ 61,025 at P 82 (2007); *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994); *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.,* 463 U.S. 29, 43, 57 (1983) (quoting *Greater Boston Television Corp. v. FCC,* 444 F.2d 841, 852 (D.C. Cir. 1971)) ("an agency changing its course must supply a reasoned analysis…."); *N.C. Utils. Comm'n v. FERC*, 42 F.3d 659, 666 (D.C. Cir. 1994).

16. The Commission's determination that reactive power compensation is resulting in excessive rates or compensation is unsupported, not the product of reasoned decision-making, and contrary to law. The Commission asserts that erred in finding that existing reactive power rates are unjust and unreasonable because transmission rates are rising generally and that reactive power compensation does not take into account geographic need. The Commission provides no support for its assertion that because transmission rates are generally rising, reactive power rates must be unjust and unreasonable. Nor does the Commission respond to record evidence demonstrating that reactive power rates are a small portion of transmission rates that have been relatively stable when compared to transmission rates. The Commission also provides no evidence to support its finding that reactive compensation is being provided to generators in regions where there is no need for reactive power other than speculation by commenters that such compensation could be occurring. The Commission's reasoning is inconsistent with prior Commission precedent rejecting requests to make reactive power compensation contingent on a "needs test" and recognizing that resources continue to have a need for reactive power. The Commission's finding that existing reactive power rates are unjust and unreasonable because transmission rates are rising generally and speculation about generators being compensated in regions without a need for reactive power is unsupported by substantial evidence, not the product of reasoned decision-making, and contrary to law. *Constellation Mystic Power, LLC v. FERC*, 45 F.4th 1028, 1042 (D.C. Cir. 2022) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co*., 463

U.S. 29, 43 (1983)) (the Commission must "demonstrate that its decision is supported by substantial evidence in the record and 'articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'") (internal citation omitted); *FPL Energy Marcus Hook, L.P. v. FERC*, 430 F.3d 441, 449 (D.C. Cir. 2018) (quoting *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1303-04 (D.C. Cir. 1992)) ("[W]e can only uphold the Commission's interpretation if we can 'discern a reasoned path' to the decision."); *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co*., 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it]."); *Mo. Pub. Serv. Comm'n v. FERC*, 234 F.3d 36, 41 (2000) (quoting *Columbia Gas Transmission Corp. v. FERC*, 628 F.2d 578, 593 (D.C. Cir. 1979) ("We have repeatedly required the Commission to 'fully articulate the basis for its decision.'"); *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004) ("FERC must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record") (quotations and citation omitted).

17. The Commission erred in concluding that generators incur no fixed or only *de minimis* incremental costs associated with providing reactive power within the standard power factor range despite record evidence to the contrary. Commenters provided record evidence demonstrating that generation resources incur distinct, incremental costs to ensure that they are able to provide reactive power within the standard power factor range. The Commission provides no reasonable basis for dismissing this evidence. The Commission's conclusion is not supported by substantial evidence, arbitrary and capricious, and not the product of reasoned decision-making. *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158, 1165 (D.C. Cir. 1998) ("As we have said before, it most emphatically remains the duty of this court to ensure that an agency engage the arguments raised before it—that it conduct a process of reasoned decision-making"); *Constellation Mystic Power, LLC v. FERC*, 45 F.4th 1028, 1042 (D.C. Cir. 2022) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)) (the Commission must "demonstrate that its decision is supported by substantial evidence in the record and 'articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'") (internal citation omitted); *FPL Energy Marcus Hook, L.P. v. FERC*, 430 F.3d 441, 449 (D.C. Cir. 2018); *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021); *Mo. Pub. Serv. Comm'n v. FERC*, 234 F.3d 36, 41 (2000) (quoting *Columbia Gas Transmission Corp. v. FERC*, 628 F.2d 578, 593 (D.C. Cir. 1979).

18. The Commission erred in finding that generation resources incur only *de minimis* variable costs in providing reactive power within the standard power factor range and failing to respond to arguments and record evidence demonstrating generation resources incur significant costs in providing reactive power within the standard power factor range. Commenters provided evidence in this proceeding that the variable costs associated with the provision of reactive power within the standard power factor range can be significant. The Commission does not acknowledge or respond to this evidence. The Commission's failure to respond to the evidence and arguments of commenters

that generators in fact incur significant variable costs associated with the production of reactive power within the standard power factor range is arbitrary and capricious and not the product of reasoned decision-making. *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) (stating that agency's failure to respond meaningfully to arguments in record is arbitrary and capricious); *GameFly, Inc. v. Postal Regul. Comm'n*, 704 F.3d 145, 148 (D.C. Cir. 2013); *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983) (agency must "consider[] the relevant factors and articulate[] a rational connection between the facts found and the choice made" (citations omitted)).

19. The Commission erred in dismissing contrary record evidence and instead relying on inapplicable prior precedent to conclude that reactive power can be provided within the deadband at no or *de minimis* cost. None of the prior proceedings the Commission relies on to support its conclusion provide evidence of the costs that generators incur to provide reactive power within the standard power factor range while there is substantial record evidence in this proceeding that generators in fact incur real and material costs associated with providing reactive power within the standard power factor range. The Commission's conclusion is thus not supported by substantial evidence, arbitrary and capricious, and not the product of reasoned decision-making. *Cal. Pub. Util. Comm'n v. FERC*, 20 F.4th 795, 799 (D.C. Cir. 2021) (explaining that the "application of precedent is warranted only if 'the factual composition of the case to which the principle is being applied bear[s] something more than a modicum of similarity to the case from which the principle derives.'") (citations omitted); *N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) ("The Commission must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record . . . ." (citations omitted)); *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983); *American Clean Power Ass'n v. FERC*, 54 F.4th 722, 728 (D.C. Cir. 2022) (reversing order in which "FERC acted arbitrarily and capriciously by failing to meaningfully respond to Petitioner's arguments"); *Gulf States Util. Co. v. FERC*, 411 U.S. 747, 763 (1973); *Fla. Power & Light Co. v. FERC*, 617 F.2d 809, 817 (D.C. Cir. 1980); *New England Power Generators Ass'n, Inc. v. FERC*, 881 F.3d 202, 211 (D.C. Cir. 2015) (finding error where "FERC failed to respond to the substantial arguments put forward by Petitioners and failed to square its decision with past precedent"); *TransCanada Power Mktg. Ltd. v. FERC*, 811 F.3d 1, 12 (D.C. Cir. 2015).

20. The Commission failed to demonstrate that eliminating compensation for reactive power capability within the deadband is just and reasonable. The Commission has an obligation to strike a balance between customer and investor interests. This includes an obligation to ensure that any rate approved or established by the Commission is consistent with the need for the utility to earn a return sufficient to maintain its financial integrity and attract capital. In Order No. 904 the Commission dismissed objections that it had not shown that removing approximately $700 million in annual revenue requirements and replacing them with a zero dollar rate was just and reasonable because it said that generators could always recover their reactive power costs through other means. The Commission provides little evidence that generators will be able to recover

their reactive power costs through other means and fails to meaningfully consider substantial record evidence and arguments demonstrating that generators will in fact be unable to recover their reactive power costs through the sale of other services. The Commission's proposed replacement rate—no compensation—is contrary to law, not supported by substantial evidence, arbitrary and capricious, and not the product of reasoned decision-making. *FPL Energy Marcus Hook, L.P. v. FERC*, 430 F.3d 441, 449 (D.C. Cir. 2018) (quoting *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1303-04 (D.C. Cir. 1992)); *Env't Def. Fund v. FERC*, 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co*., 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it]."); *Jersey Cent. Power & Light Co. v. FERC*, 810 F.2d 1168, 1176 (D.C. Cir. 1986) (discussing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944)); *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486,1501 (D.C. Cir. 1984).

21. The Commission erred in failing to meaningfully consider the reliance interest of generation resources. Order No. 904 will eliminate approximately $700 million in annual reactive power revenue requirements of generators. Commenters provided substantial evidence demonstrating that generators had relied on reactive power revenue in financing their projects and entering into offtake arrangements. The Commission incorrectly asserts that commenters have not produced "any evidence" demonstrating their reliance interests and summarily concludes that generators nevertheless should have been on notice that their reactive power compensation could be eliminated. The Commission's summary dismissal of generators' demonstrated reliance interest in reactive power compensation is arbitrary, capricious, and contrary to law. *Dep't of Homeland Sec. v. Regents of the Univ. of Cal*., 140 S. Ct. 1891, 1913 (2020); *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 212 (2016); *Pac. Gas & Elec. Co. v. FERC*, 373 F.3d 1315, 1319 (D.C. Cir. 2004).

22. The Commission erred in failing to grandfather or provide legacy treatment to resources that reasonably relied on reactive power compensation prior to Order No. 904. The Commission dismissed requests that generation resources receive legacy treatment and failed to meaningfully respond to arguments that such treatment was appropriate based on generators' demonstrated reliance interests and Commission precedent granting such treatment in similar circumstances. The Commission's conclusory dismissal of requests for grandfathering or legacy treatment are arbitrary and capricious, not the product of reasoned decision-making, and an abuse of discretion. *Southwestern Elec. Power Co. v. FERC*, 810 F.2d 289, 290 (D.C. Cir. 1987) (vacating FERC order where FERC's explanation from prior practice was "insufficiently clear and coherent"); *PPL Wallingford Energy v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005) ("An agency's failure to respond meaningfully to objections raised by a party renders its decision arbitrary and capricious."); *West Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014) (quoting *ANR Pipeline Co v. FERC*, 71 F.3d 897, 901 (D.C. Cir. 1995)) ("'It is textbook administrative law that an agency

must 'provide[] a reasoned explanation for departing from precedent or treating similar situations differently.'").

23. Order No. 904 violates the Section 205 rights of public utilities. Under FPA Section 205 FERC may not prohibit public utilities from filing initial rates and rate changes to recover the costs of jurisdictional service. 16 U.S.C. § 824d. Order No. 904 effectively precludes generators from making FPA Section 205 filings to establish a rate allowing it to recover the costs of reactive power within the standard power factor range from customers. The Commission's determination is arbitrary, capricious, and contrary to law. *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 9 (D.C. Cir. 2002) ("Section 205 of the Federal Power Act gives a utility the right to file rates and terms for services rendered with its assets."); *Winfield v. FERC*, 744 F.2d 871, 875 (D.C. Cir. 1984); *Goose Creek Wind, LLC*, 182 FERC ¶ 61,111, at P 17 (2023); *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.*, 463 U.S. 29 (1983).

24. The Commission erred in adopting a proposal that violates the Filed Rate Doctrine. Under Order No. 904, hundreds of generators will be prohibited from collecting the reactive power rates filed with and approved by the Commission as just and reasonable. Prohibiting generators from collecting their filed rates violates the Filed Rate Doctrine and is contrary to law and arbitrary and capricious. 16 U.S.C. § 824d; *Louisville & N.R. Co. v. Maxwell*, 237 U.S. 94, 95 (1915); *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1223, 1230-31 (D.C. Cir. 2018); *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Insur. Co.*, 463 U.S. 29 (1983).

25. The Commission erred in adopting a proposal that unduly discriminates against independent generation resources and in failing to adequately consider the competitive implications of its policy. Order No. 904 prohibits generators from recovering the cost of providing reactive power within the deadband through transmission rates. The only option independent generators have to recover their reactive power costs is from energy or capacity market customers—something that the Commission has not demonstrated is feasible much less consistent with the cost causation principle. Generation resources that are affiliated with incumbent utilities, however, will be able to recover their reactive power associated costs through retail rates. Order No. 904 provides a distinct market advantage to generation resources affiliated with incumbent utilities and unduly discriminates against independent generators. The Commission's adoption of an unduly discriminatory and preferential proposal is arbitrary, capricious, and contrary to law. 16 U.S.C. § 824d; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Gulf South Pipeline Co., LP v. FERC*, 955 F.3d 1001, 1012 (D.C. Cir. 2020) (quoting *ANR Storage Co. v. FERC*, 904 F.3d 1020, 1025 (D.C. Cir. 2018)) ("'FERC's statutory duty . . . to provide some reasonable justification for any adverse treatment relative to similarly situated competitors.'"); *Alabama Elec. Co-op., Inc. v. FERC*, 684 F.2d 20 (D.C. Cir. 1982); *Xcel Energy Servs. v. FERC*, 41 F.4th 548, 559 (D.C. Cir. 2022); *Cal. Pub. Util. Comm'n v. FERC*, 29 F.4th 454, 458 (9th Cir. 2022); *New Eng. Power Generators Ass'n v. FERC,* 881 F.3d 202, 210-211 (D.C. Cir.

2018); *City of Bethany v. FERC*, 727 F.2d 1131 (D.C. Cir. 1984); *Motor Vehicle Mfrs Ass'n v. State Farm Mut. Auto. Ins. Co.,* 463 U.S. 29, 43 (1983).

26. The Commission erred in adopting a proposal that unduly discriminates against generation resources by prohibiting them from recovering their costs while allowing transmission owners to recover their investments in reactive power capability. The Commission dismisses arguments that Order No. 904 is unduly discriminatory on the basis that reactive power provided by transmission facilities is distinct from reactive power provided by generators. The Commission's conclusory reasoning does not constitute a meaningful response to the argument raised and is contrary to law, arbitrary and capricious, and not the product of reasoned decision-making. 16 U.S.C. § 824d; *Loper Bright Enters. v. Raimondo,* 144 S. Ct. 2244, 2265 (2024); *Gulf South Pipeline Co., LP v. FERC*, 955 F.3d 1001, 1012 (D.C. Cir. 2020) (quoting *ANR Storage Co. v. FERC*, 904 F.3d 1020, 1025 (D.C. Cir. 2018)); *Cal. Pub. Util. Comm'n v. FERC*, 29 F.4th 454, 458 (9th Cir. 2022); *Xcel Energy Servs. v. FERC*, 41 F.4th 548, 561 (D.C. Cir. 2022); *New Eng. Power Generators Ass'n v. FERC,* 881 F.3d 202, 210-211 (D.C. Cir. 2018); *Gulf South Pipeline Co., LP v. FERC*, 955 F.3d 1001, 1012 (D.C. Cir. 2020) (quoting *ANR Storage Co. v. FERC*, 904 F.3d 1020, 1025 (D.C. Cir. 2018)); *City of Bethany v. FERC*, 727 F.2d 1131, 1140 (D.C. Cir. 1984); *Gulf States Util. Co. v. FERC*, 411 U.S. 747, 763 (1973); *Fla. Power & Light Co. v. FERC*, 617 F.2d 809, 817 (D.C. Cir. 1980); *PSEG Energy Res. & Trade LLC v. FERC*, 360 F.3d 200, 203 (D.C. Cir. 2004) (quoting *E. Tex. Elec. Coop., Inc. v. FERC*, 331 F.3d 131, 136 (D.C. Cir. 2003)) (noting that the Commission must provide a "coherent and adequate explanation" for its decisions); *Tarpon Transmission Co. v. FERC*, 860 F.2d 439, 444 (D.C. Cir. 1998); *City of Centralia v. FERC*, 213 F.3d 742, 749 (D.C. Cir. 2000); *Sea Robin Pipeline Co v. FERC*, 795 F.2d 182, 188 (D.C. Cir. 1986).

27. The Commission erred in concluding that eliminating compensation for a critical reliability service will not impact reliability. The Commission dismisses record evidence provided by transmission providers, a market monitor, and generators that eliminating reactive power compensation will negatively impact reliability and instead relies solely on the absence of reliability impacts in other markets. The Commission's summary dismissal of record evidence demonstrating Order No. 904 will have negative reliability impacts is not the product of reasoned decision-making, arbitrary and capricious, and contrary to law. *Gainesville Utils. Dep't v. Fla. Power Corp.*, 402 U.S. 515, 529 (1971) (acknowledging that the Commission has "responsibility to the public to assure reliable efficient electric service"); *Env't Def. Fund v. FERC*, 2 F.4th 953, 960 (D.C. Cir. 2021) (vacating and remanding FERC order for "ignor[ing] record evidence . . . and fail[ing] to seriously and thoroughly conduct the interest balancing . . ."); *Tarpon Transmission Co. v. FERC*, 860 F.2d 439, 444 (D.C. Cir. 1998); *City of Centralia v. FERC*, 213 F.3d 742, 749 (D.C. Cir. 2000); *Sea Robin Pipeline Co v. FERC*, 795 F.2d 182, 188 (D.C. Cir. 1986) (stating that conclusory assertions cannot satisfy the requirement of substantial evidence).

28. The Commission's reliance on generic findings to conclude that reactive power rates are unjust and unreasonable and that eliminating compensation is just and reasonable

is arbitrary, capricious, and an abuse of discretion. The record in this case is insufficient to support the Commission's determination. The Commission fails to make any effort to meaningfully evaluate existing rates. And the Commission's attempt to rely on generic determinations ignores record evidence and precedent demonstrating that the costs of reactive power vary from resource to resource. The Commission also commits legal error in abrogating rates that the Commission has found are entitled to *Mobile-Sierra* protection absent the particularized findings required. The Commission's analysis also ignores critical differences among how transmission providers compensate for reactive power as well as regional characteristics and differences. And the remedy directed by the Commission—the elimination of reactive power compensation—is not proportional to the harms alleged by the Commission. The Commission's decision to nevertheless adopt a categorical rule based on its unsupported generic findings is arbitrary and capricious, not the product of reasoned decision-making, and contrary to law. 16 U.S.C. § 824e; *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2265 (2024); *Env't Def. Fund v. FERC,* 2 F.4th 953, 967-68 (D.C. Cir. 2021) (quoting *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)) (noting that FERC's decision should be set aside if it "offer[s] an explanation for its decision that runs counter to the evidence before [it].") *Shell Energy N. Am. (US), LP v. FERC*, 107 F.4th 981, 991-92 (D.C. Cir. 2024).

III. CONCLUSION

For the foregoing reasons, the Indicated Generation Parties respectfully request that the Commission grant rehearing.

Respectfully submitted,

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Dated: November 18, 2024

CERTIFICATE OF SERVICE

I hereby certify that I have caused the foregoing document to be served upon the individuals designated on the Commission's official service list for this proceeding.

Dated at Washington, D.C., this 18th day of November, 2024.

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