

DEPARTMENT OF PUBLIC SERVICE REGULATION  
BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MONTANA

IN THE MATTER OF NorthWestern Energy's  
Application for Interim and Final Approval of  
Revised Tariff No. QF-1, Qualifying Facility  
Power Purchase

REGULATORY DIVISION

Docket No. D2016.5.39

**VOTE SOLAR AND MONTANA ENVIRONMENTAL INFORMATION CENTER  
MOTION FOR RECONSIDERATION OF ORDER NO. 7500c**

## CONTENTS

I.	RECONSIDERATION IS WARRANTED BECAUSE THE COMMISSION UNLAWFULLY AND UNREASONABLY REDUCED CONTRACT LENGTHS .....	1
A.	The Commission’s Decision Violates PURPA and Montana Law’s Requirement that Long-Term Contracts Enable QF Financing .....	1
B.	The Commission’s Five-Year Rate Adjustment is Discriminatory to QFs .....	10
C.	The Commission Unlawfully Adopted a Far-Reaching Policy Restricting QF Contract Lengths Without Sufficient Notice to Interested Parties .....	10
II.	THE COMMISSION’S DETERMINATION OF TOTAL AVOIDED COSTS WAS UNLAWFUL AND UNREASONABLE .....	14
A.	The Commission Misapplied the “Proxy” Method for Determining Total Avoided Costs Given NorthWestern’s Significant Capacity Deficit.....	14
B.	The Commission Failed to Compensate QFs for Avoided Carbon Costs .....	18
C.	The Commission Failed to Apply its “Symmetry” Policy to NorthWestern’s Proxy Resource Acquisition.....	21
III.	THE COMMISSION’S DETERMINATION OF SOLAR CAPACITY VALUE WAS UNLAWFUL AND UNREASONABLE .....	21
A.	The Commission Grossly Underestimated Solar Capacity Value By Ignoring Solar Output During the Great Majority of NorthWestern’s On-Peak Hours .....	22
B.	The Commission Unreasonably Disregarded Evidence of Solar Capacity Values in Other Jurisdictions .....	25
C.	The Commission Failed to Consider Evidence of Regional Peak Loads .....	28
D.	The Commission Unreasonably Ignored the Aggregate Capacity Value of QF Resources .....	29
	<b>CONCLUSION .....</b>	<b>30</b>

Vote Solar and Montana Environmental Information Center (collectively “Vote Solar”) respectfully seek reconsideration of Commission Order No. 7500c (“Order”) on NorthWestern Energy’s Application for Interim and Final Approval of Revised Tariff No. QF-1, Qualifying Facility Power Purchase. Reconsideration is appropriate because the Order is “unlawful, unjust or unreasonable.” Mont. Admin. R. 38.2.4806(1).

The Commission’s Order is flawed in three key respects. First, the Commission’s decision to drastically reduce contract lengths to just ten years with a five year rate adjustment is unlawful and unreasonable. Second, the Commission’s total avoided cost calculation misapplied the proxy method, significantly undervaluing the costs avoided by solar energy. And third, the Commission applied an unlawful, unjust and unlawful capacity value to solar. Accordingly, the Commission should grant Vote Solar’s request for reconsideration.

In addition, Vote Solar supports the Motion for Reconsideration filed this same day by FLS Energy, Inc. and Cypress Creek Renewables.

**I. RECONSIDERATION IS WARRANTED BECAUSE THE COMMISSION UNLAWFULLY AND UNREASONABLY REDUCED CONTRACT LENGTHS**

**A. The Commission’s Decision Violates PURPA and Montana Law’s Requirement that Long-Term Contracts Enable QF Financing**

The Commission’s Order violates PURPA and Montana law requiring long-term contracts to encourage QF development and to enable QFs to obtain financing for their projects. Under PURPA and Montana law, this Commission must “encourage” QF development in establishing avoided costs. 16 U.S.C. § 824a–3(a); see Small Power Production and Cogeneration Facilities; Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978, Order No. 69, 45 Fed. Reg. 12,214, 12,218, 12,222 (Feb. 25, 1980) [hereinafter Order No. 69]; Mont. Code Ann. § 69-3-604. As part of this responsibility, the Commission must encourage long-term contracts to “enhance the economic feasibility” of QFs.

Mont. Code Ann. § 69-3-604(2); see also Order No. 69, 45 Fed. Reg. at 12,218 (“[I]n order to be able to evaluate the financial feasibility of a cogeneration or small power production facility, an investor needs to be able to estimate, with reasonable certainty, the expected return on a potential investment before construction of a facility.”); id. at 12,224 (addressing need for “certainty of rates for purchases from a qualifying facility which enters into a commitment to deliver energy or capacity to a utility”). Although Order No. 7500c recognizes this mandate, see ¶¶ 99-100, 105, 110, the Commission shortened maximum contract lengths from 25 to just ten years, with a mandatory rate adjustment after five years. While the mandatory rate adjustment effectively reduces the contract length even further, to just five years, neither a five-year nor a ten-year contract term is sufficient to encourage QF development or enable QFs to obtain financing for their projects, in violation of PURPA and Montana law.

The Commission based its decision on four factors, none of which demonstrate that a five- or even ten-year contract length is sufficient to encourage QF development and to enable QFs to obtain financing. See Order No. 7500c ¶ 110.

First, the Commission relied on testimony from the Montana Consumer Counsel (“MCC”) about the risk to ratepayers from forecasting error in long-term contracts, which the Commission found “very persuasive.” Id. ¶¶ 108. As an initial matter, this testimony is not a reasonable basis for the Commission’s decision when, just a year ago, the Commission determined that MCC’s similar testimony in support of a shorter contract length did not provide a “fully developed record” on which to justify reducing QF contract lengths from 35 years to five to ten years. Order No. 7450a ¶ 45, Docket No. D2015.7.59 (Aug. 5, 2016); see also Additional Issue Testimony of Jaime Stamatson on behalf of MCC at 4-5, Docket No. D2015.7.59 (Mar. 25, 2016) (“Long-term QF contracts create excessive risk for consumers who are the ones who

ultimately pay for them”). Given that “MCC has consistently advocated for shortening the maximum contract length offered in standard rates” based on alleged risk to consumers, Ex. MCC-2 (Prefiled Additional Issue Testimony of Jaime Stamatson), at 5, it is not clear why this testimony now provides a sufficient basis for the Commission’s decision when it was previously inadequate. Moreover, nothing in MCC’s testimony indicates that a five- or ten-year contract would be sufficient to encourage QF development. Indeed, MCC’s expert testified that he “d[id not] really know exactly how [shorter contract lengths] either stimulated or stagnated QF development.” Hr’g Tr. 294:20-21 (Testimony of Jaime Stamatson).

Further, the Commission’s concern about forecast risk is not a reasonable basis for its decision when it ignores the potential benefits of locking in lower prices over a long-term contract. See Hr’g Tr. 177:25-178:17 (Testimony of Tom Beach) (discussing gas price market volatility and “value” of “having at least a portion of your portfolio being fixed price contracts because those hedge against [that] kind of volatility.”); Hr’g Tr. 179:9-11 (Testimony of Tom Beach) (“Renewables provide a very good hedge against volatility in the future in natural gas prices.”). This is particularly true when, as the Commission acknowledges, near-term market forecast prices are low relative to previous forecasts. Order No. 7500c ¶ 107; see also Hr’g Tr. 249:12-250:7 (Testimony of Robert Schiffman) (noting the current low price of natural gas); Hr’g Tr. 262:3-5 (Schiffman Testimony) (testifying that natural gas prices are projected to increase). Moreover, by focusing on the potential detriments to ratepayers, this Commission assumes that costs of power production will decline in the future. See Order No. 7500c ¶ 108 (“The Commission finds the testimony of the MCC very persuasive that extended contract lengths are excessively risky for utility ratepayers and are subject to substantial forecasting error”). However, given the volatility of fuel costs, the utility’s power production costs could be

significantly higher in the future, indicating that locking in current low prices for 20 to 25 years would benefit ratepayers. Accordingly, as Mr. Beach testified, long-term QF contracts do not present greater risk to ratepayers than shorter-term contracts and can in fact insulate ratepayers from market volatility and higher future prices. See Ex. VS-3 (Prefiled Additional Issue Testimony of Thomas Beach), at 10-14. MCC's claims of forecast risk thus do not provide a sufficient basis for changing contract lengths in this proceeding.

Second, the Commission's reliance on testimony from NorthWestern and "other parties in this docket," Order No. 7500c ¶ 110, is also insufficient to establish that five- or ten-year contracts are sufficient to encourage QF development. With respect to NorthWestern, which advocated for a ten-year contract length, the utility provided no evidence on contract financing other than Mr. LaFave's speculation that "the landscape for project financing is changing" and his belief that QF developers do not have a "vested right to rely upon project finance."<sup>1</sup> See Ex. NWE-9 (LaFave Additional Issues), at 5-6; see also NWE Response to Data Request PSC-48b; Order No. 7500c ¶ 94 (summarizing NorthWestern's testimony). NorthWestern does not provide any evidence on how a ten-year maximum contract will affect QF developers' access to project financing. NorthWestern's testimony also does not support adjusting the rate after five years when Mr. LaFave testified that he did not know "exactly how financial institutions would look through that particular renewal. If they did give some value to that second half, assuming it's a 1-year contract with a 10-year option for renewal at some future rate, I guess I don't know for

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<sup>1</sup> Mr. LaFave's contention is inconsistent with Order No. 69. See Order Setting Avoided Cost Input Parameters, at 19-20, N.C. Utils. Comm'n, Dkt. No. E-100 Sub-140 (Dec. 31, 2014) ("The FERC has made clear that its intention in Order No. 69 was to enable a QF to establish a fixed contract price for its energy and capacity at the outset of its obligation because fixed prices were necessary for an investor to be able to estimate with reasonable certainty the expected return on potential investment, and therefore its financial feasibility, before beginning the construction of a facility."); see also Order No. 69, 45 Fed. Reg. at 12,218.

sure how financial institutions would look at that.” Hr’g Tr. 146:4-9. At best, NorthWestern’s testimony suggests that it is unclear how financial institutions would respond to the shortened contract length adopted by this Commission. Such uncertainty does not satisfy this Commission’s obligation to encourage QF development and provide a contract term that can allow a QF to obtain financing.

With respect to “other parties in this docket,” those parties include Vote Solar and FLS/Cypress Creek which both testified that such short contract lengths would discourage QF development by limiting or precluding financing for QF projects. See Ex. VS-3 (Prefiled Additional Issues Testimony of Thomas Beach), at 3 (“Generally, the development of renewable QFs has only occurred when states have provided access to long-term contracts with terms of 15-30 years and fixed prices for all or a substantial portion of the contract terms, such that renewable QFs can secure long-term financing for the capital costs of their projects”); Ex. FLS-1 (Prefiled Additional Issues Testimony of Patrick McConnell), at 4 (explaining that contracts of “at least 15 years, and in most cases 20 years” are needed to secure financing); Hr’g Tr. 194:21-23 (Testimony of Tom Beach) (“I think it’s pretty clear that, from the experience in many states, that you need contracts of 15 years or longer to get significant solar development.”); Tr. 250:11-17 (Testimony of Robert Schiffman) (“[T]he shorter the contract, it’s going to be more difficult for the QFs to achieve financing. That’s just a reality because basically the lenders require some revenue stream, and certainly you’ll never have a revenue stream”). Because this testimony demonstrates that shortening contracts will discourage QF development and QF financing, it cannot be a reasonable basis for the Commission’s decision that contracts of five to ten years will encourage QF development and financing. Indeed, based on the evidence in the record, Commission staff recommended a contract length of 15 to 20 years to both encourage QF

development and minimize forecast risk. Memorandum from M. Dalton, et al. to the Public Service Commission re: Docket 2016.5.39, NorthWestern Energy's Application for Approval of Avoided Cost Tariff Schedule QF-1, at 20-21 (June 16, 2017).

Third, the Commission relied on the "definition of long term in the Commission's rules." Order No. 7500c ¶ 110. However, there is no indication that the Commission's definition of "long term" for a utility's electricity supply resource planning and procurement, Mont. Admin R. 38.5.8202(7), (8); id. 38.5.8201, carries the same meaning as "long term" as used by the Montana Legislature in establishing that "[l]ong-term contracts" for QFs "be encouraged in order to enhance the economic feasibility" of QF projects, Mont. Code Ann. § 69-3-604(2). Rather, the Montana Legislature's recent rejection of proposed legislation to reduce contract length from 25 to 20 years and to eliminate the statutory requirement for enhancing economic feasibility reinforces that this Commission's decision is inconsistent with the Legislature's use of "long-term." See SB 102, Reg. Sess. (Mont. 2017) (legislation died in standing committee).<sup>2</sup> Moreover, even if the Commission's rules could inform the Legislature's use of "long term," the Commission's rules define "long term" as "a time period at least as long as a utility's electricity supply resource planning horizon." Order No. 7500c ¶ 105 (quoting Mont. Admin R. § 38.5.8202(8)). Because NorthWestern's 2015 Electricity Supply Resource Procurement Plan "identifies needs over a 20-year planning horizon," NorthWestern, 2015 Electricity Supply Resource Procurement Plan ("RPP"), at 1-6 (Mar. 31, 2016), the evidence in the record

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<sup>2</sup> See also Letter from Representative Laurie Bishop et al. to Chairman Johnson (July 20, 2017) (stating that the Commission's decision "appear[s] to run counter to the Legislature's intent as expressed through its rejection of a less-drastring reduction in qualifying facility contract durations during the 2017 Legislative Session.").

demonstrates that even under the Commission’s own rules, the appropriate definition of long-term to be applied here is at least 20 years.<sup>3</sup>

In addition, even if it were true that “‘long-term’ is minimally understood as 10 years,” Order No. 7500c ¶ 105, that would not establish that a ten-year contract length is sufficient to “enhance the economic feasibility” of QF projects as required by Montana law. Mont. Code Ann. § 69-3-604(2). The Commission’s Order fails to show that ten-year contracts would meet this statutory requirement of economic feasibility. Moreover, the Commission’s decision effectively establishes only a five-year contract, because that is the length for which a QF developer will know whether the economics of their power sale are feasible. Thus, the Commission’s decision violates even this purported ten-year minimum for long-term contracts.

Fourth, the Commission relied on its “review of permissible contract lengths in other states,” particularly in North Carolina and Idaho, to support its decision. Order No. 7500c ¶ 110, see also id. ¶¶ 101-04, 106. As an initial matter, the decisions of other utilities commissions are not binding on this Commission and do not provide evidence of what is necessary in Montana to encourage the economic feasibility of a QF project. In any event, the decisions of the North Carolina and Idaho commissions do not support this Commission’s decision. Although the Commission’s discussion focuses on North Carolina’s decision not to extend the maximum contract length to 20 years, the Commission glosses over that the North Carolina Commission, in the same decision, determined that eliminating a 15-year contract would not achieve the appropriate balancing of encouraging QFs and avoiding risks of long-term contracts on consumers. In the Matter of Biennial Determination of Avoided Cost Rates for Electric Utility

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<sup>3</sup> The Commission rules define planning horizon as “the longer of: (a) the longest remaining contract term in a utility’s electricity supply resource portfolio; (b) the period of the longest lived electricity supply resource being considered for acquisition; or (c) ten years.” Mont. Admin R. 38.5.8202(8).

Purchase from Qualifying Facilities – 2014, Docket E-100, SUB 140, Order Setting Avoided Cost Input Parameters, 21-22 (N.C. Pub. Util. Comm’n Dec. 31, 2014); see also Ex. VS-3 (Beach Additional Issues), at 6. Accordingly, to the extent the North Carolina decision is instructive, it counsels in favor of a maximum contract length of at least 15 years with no re-pricing at shorter intervals.

With respect to Idaho, as Mr. Beach testified, the decision to limit certain contracts to two years is an inappropriate model, and in any event, distinguishable. First, Mr. Beach demonstrated that QF development was virtually non-existent in Idaho when contract lengths were shorter than 20 years (1996-2001), Ex. VS-3 (Beach Additional Issues), at 4, so Idaho’s decision in 2015 to reduce contract lengths to two years cannot serve as justification for Montana’s decision, which must “enhance the economic feasibility” of QF development, Mont. Code Ann. § 69-3-604(2). Further, the circumstances in Idaho differ significantly from those in Montana. At the time the Idaho commission adopted this decision, Idaho Power already had signed 461 MW of new, 20-year solar QF contracts, which satisfied Idaho Power’s near-term need for capacity to become resource sufficient. Ex. VS-3 (Beach Additional Issues), at 8-9. Here, by contrast, NorthWestern faces an immediate and substantial need for capacity to become resource sufficient and has only signed 26 MW of small solar PPAs, doing very little to satisfy its own capacity needs or PURPA’s intent to encourage renewable QF development. Id. at 9; see also Order on Reconsideration, In the Matter of Idaho Power Company’s Petition to Modify Terms and Conditions of PURPA Purchase Agreements, at 7, 17, Case No. IPC-E-15-01, Order 33419 (Nov. 5, 2015) (stating that 20-year contracts were unnecessary when utilities had no need for additional capacity) [hereinafter Idaho Reconsideration Order]. In addition, Idaho allows QFs to enter a series of two-year contracts with capacity payments based on the resource

deficiency year of when the QF signs its first contract, ensuring that QFs will receive capacity payments even if the resource deficiency year is always more than two years in the future. Ex. VS-3 (Beach Additional Issues), at 8; Idaho Reconsideration Order, at 8-9 (explaining that capacity deficiency may be established at the time the initial contract is signed). The Commission's order here provides no such assurance. Idaho also allows for QFs to seek longer contracts on a case-by-case basis, Idaho Reconsideration Order, at 16, which is not provided for in this Commission's Order, see Order No. 7500c ¶¶ 110, 134; see also Order No. 7535a ¶ 115, Order No. 7535a ¶ 130, Docket No. D2016.12.103 (July 21, 2017) (applying 10-year contract length to 80-MW QF, MTSUN). Moreover, even if the Idaho decision could be said to comply with PURPA, and it cannot, there is no evidence that this decision would comply with Montana's statute favoring long-term contracts. See Mont. Code. Ann. § 69-3-604(2).

By focusing on just Idaho and North Carolina, the Commission also ignores that several other states have maintained contract lengths of at least 15 years. See Ex. VS-3 (Beach Additional Issue) at 7-8 (discussing contract length in Utah and Oregon). Just last year, Wyoming declined to shorten its contract length from 20 to 3 years, recognizing the “chilling effect on QF development” that can take hold when contract lengths are too short. Memorandum Op., Findings of Fact, Decision & Order, In the Matter of the Application of Rocky Mtn. Power for Modification of Contract Term of PURPA Power Purchase Agreements with Qualifying Facilities, Dkt. No. 20000-481-EA-15 ¶¶ 25, 61, 2016 WL 3483204, at \*4, 13 (June 23, 2016); see also Ex. VS-3 (Beach Additional Issue), at 4 (Fig. 1) (showing absence of QF contracts when Idaho had five-year contracts). In adopting a ten-year contract with a five-year adjustment, this Commission has brought that “chilling effect” to Montana.

**B. The Commission’s Five-Year Rate Adjustment is Discriminatory to QFs**

In addition to discouraging QF projects, the Commission’s Order discriminates against QFs by applying a five-year rate adjustment to QFs but not applying the same adjustment term to NorthWestern. Non-discriminatory treatment of QF and non-QF resources is the essence of PURPA. See 18 C.F.R. § 292.304(a)(1)(ii) (rates must “[n]ot discriminate against [QFs]”). Acknowledging this requirement, the Commission’s Order claims to provide for “symmetrical treatment of QFs and non-QFs” with respect to the term of assured cost recovery, in order not to discriminate against QFs in violation of PURPA. Order No. 7500c ¶¶ 111-14. The Commission’s Order also pronounced that, for all new utility-resource acquisitions, “[t]he Commission will not initially authorize NorthWestern rate revenue for more than ten years . . . Instead, at the end of the ten-year period the Commission may provide for subsequent rate revenue based on a consideration of the value of the asset to customers and not necessarily based on the costs of the resource.” Id. ¶ 114 (emphasis added). However, this is not symmetrical with the adopted treatment of QFs, which are required to have their contract re-priced after just five years to the then-current QF-1 rates. Order 7500c, ¶¶ 110, 134. In other words, QF power will be re-priced to “the value of the asset to customers” after just five years, not ten. If the Commission truly intends to be non-discriminatory with respect to the treatment of QFs and utilities, it must revise the Order to limit rate recovery to the value of an asset that is re-determined every five years, not ten.

**C. The Commission Unlawfully Adopted a Far-Reaching Policy Restricting QF Contract Lengths Without Sufficient Notice to Interested Parties**

In addition to violating federal and state legal requirements for long-term contracts that enable QFs to obtain financing, this Commission’s Order violated state procedural safeguards by

adopting a far-reaching policy without affording interested parties a reasonable opportunity to participate in the Commission's decision.

1. Background

As the Commission noted in its Order, Order No. 7500c NorthWestern's application for approval of a new Schedule QF-1 tariff and the Notice of Application and Intervention Deadline did not propose any reduction in contract lengths. See generally NorthWestern's Application for Approval of Avoided Cost Tariff, Schedule QF-1 (May 3, 2016) [hereafter, "Application"]; see Notice of Application & Intervention Deadline (May 13, 2016). As a result, interested persons were not on notice that contract lengths would be an issue in this docket until the Commission requested additional issue testimony on this subject. See Notice of Additional Issues (Oct. 26, 2016). Indeed, the issue of contract length was not identified in this proceeding until more than four months after the deadline to intervene, see Notice of Application & Intervention Deadline, at 1 (May 13, 2016) (setting intervention deadline for June 10, 2016), at which time any persons seeking late intervention would be required to satisfy the higher bar to show good cause for late intervention, see Mont. Admin. R. 38.2.2403.

The Commission held a work session in this matter on June 22, 2017. Order No. 7500c ¶ 13. At that work session, the Commission voted to reduce contract length to ten-year terms with a mandatory rate adjustment after five years. Id. A week later, on June 29, 2017, the Commission held a work session on the petition of MTSUN's 80 MW nameplate capacity solar project located near Billings and also adopted a ten-year contract term for QFs. Order No. 7535a ¶¶ 20, 115, Docket No. D2016.12.103 (July 21, 2017) ("[T]he Commission finds that a 10-year contract length is sufficient to encourage QF development under PURPA and Montana law." (citing Order 7500c)).

2. The Commission Failed to Provide Proper Notice for Its New Standard

The procedural history of this case and the MTSUN proceeding indicate that this Commission has adopted a new policy of applying ten-year contract lengths to QFs. See supra Part I.B.1. In doing so, this Commission has effectively adopted a new rule or policy without providing interested parties notice and the opportunity to submit evidence on appropriate contract lengths as required by state law ensuring due process to interested parties.

The Montana Constitution guarantees the right of the public to be afforded a “reasonable opportunity for citizen participation in the operation of the agencies prior to the final decision.” Mont. Const. Art. II, § 8. Similarly, this Commission’s procedural rules provide for intervention in proceedings before the Commission of “[a]ny person interested in and directly affected by the subject matter of any hearing or investigation pending before the commission.” Mont. Admin. R. § 38.2.2401(1). Although this Commission has broad authority with respect to “supervision, regulation, and control of ... public utilities,” Mont. Code Ann. § 69-3-102, and may—upon proper notice and procedure—adopt rules or standards governing QF contracts, see id. § 2-4-302 (MAPA rulemaking notice requirements), it was improper for this Commission to address contract length in this proceeding without proper notice to interested parties.

Not only is this action inconsistent with state law, it is also inconsistent with this Commission’s prior practice in addressing changes to its implementation of PURPA. Just two year ago, following the last rate proceeding, this Commission initiated a docket “to gather information, conduct roundtable discussions, and review its implementation of PURPA,” including contract length of standard rate contracts. Order 7338b ¶ 28, Docket No. D2014.1.5 (Apr. 14, 2015). In September 2015, this Commission issued a Notice of Inquiry and Opportunity to Comment inviting “interested parties to submit written comments” addressing this Commission’s PURPA implementation, including contract length. Notice of Inquiry and

Opportunity to Comment, Docket No. N2015.9.74 (Sept. 24, 2015). In response, several QFs, non-profit groups, the State Water Projects Bureau Montana of the Department of Natural Resources and Conservation, the Montana Business Assistance Connection, MCC, and NorthWestern submitted comments. Of those QFs that submitted comments, most advocated for contract lengths of 20 to 25 years. See e.g., Initial Comments of LEO Wind, LLC, at 7-11, Docket No. N2015.9.74 (Oct. 23, 2015) (advocating for 20 to 25 year contracts); Comments of LEO Wind LLC, Montana Marginal Energy, Inc. Juhl Energy Inc., Lindsay Wind, LLC, Everpower Wind Holdings, LLC, and Hydrodynamics, Inc., at 7, Docket No. N2015.9.74 (Dec. 24, 2015) (advocating for retaining 25-year contract length), Comments of Boulder Hydro, at 1, Docket No. N2015.9.74 (Nov. 6, 2015) (advocating for long-term contracts and symmetrical treatment); Comments of Crazy Mountain Wind, LLC, and WINData, LLC, at 8-10 (Oct. 23, 2015); Comments of Cypress Creek Renewables, at 4 (Nov. 16, 2015) (advocating for 20-25 years and stating 15 years is the absolute minimum); see also Renewable Northwest’s Closing Comments, at 1-4, Docket No. N2015.9.74 (July 12, 2016) (advocating for retaining 25-year contract length). The Montana Business Assistance Connection also submitted comments highlighting that “some quantity of established solar farms in Montana is helpful when [MBAC] market[s] our state to new industry.” MBAC Comments, Docket No. 2015.9.74 (June 6, 2016). Yet, because most of these QFs were not parties to the QF-1 docket and had no reason to believe contract lengths were at issue based on the Commission’s notice of the opportunity to intervene in NorthWestern’s application, these interested parties were deprived of the opportunity to weigh in on this Commission’s decision to shorten contract length.<sup>4</sup> Indeed, the one party that sought to intervene in this proceeding after the Commission’s work session adopted the shortened contract

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<sup>4</sup> To the extent the Commission felt that it lacked information on contract length, it could have taken administrative notice of these comments.

length—a QF that submitted comments on contract length in this prior proceeding—was denied the opportunity to do so. See Order No. 7500c ¶ 14 (discussing WINData, LLC’s late application for general intervention).

Given the lack of adequate notice on the contract length issue, interested persons that are likely to be affected by this Commission’s new policy of a ten-year contract length with a five-year rate adjustment for certain QFs were effectively precluded from submitting testimony or otherwise participating in this proceeding in violation of state law and the Commission’s procedural rules. Accordingly, this Commission should reconsider its decision on contract length.

## **II. THE COMMISSION’S DETERMINATION OF TOTAL AVOIDED COSTS WAS UNLAWFUL AND UNREASONABLE**

### **A. The Commission Misapplied the “Proxy” Method for Determining Total Avoided Costs Given NorthWestern’s Significant Capacity Deficit**

The Commission unreasonably based total avoided costs on a capacity resource addition in 2025, when the evidence demonstrates capacity needs in 2019. In so doing, the Commission’s Order unlawfully fails to compensate QFs for their capacity contribution to NWE’s capacity-deficient system.

PURPA requires that QFs be compensated for both the energy and capacity costs which they allow the purchasing utility to avoid. 18 C.F.R. § 292.304(b), (e). To estimate total avoided costs, the Commission adopted a “market-CCCT proxy method.” Order 7500c ¶ 29. Properly applied, such a “blended-market method” assumes energy costs to be the variable costs of a proxy for the utility’s next-planned generation unit in its resource procurement plan (the “proxy unit”), and capacity costs are set at the estimated fixed costs of that proxy unit. See Ex. VS-7 (Edison Electric Institute, PURPA: Making the Sequel Better than the Original 9-10 (Dec.

2006)). This method assumes that the QF allows the utility to delay its next planned generating unit, and estimates avoided costs based on the projected capacity and energy costs of the proxy unit, Ex. VS-1 (Beach Direct), at 11. The costs of short-term market purchases are used to establish avoided costs in the years before the proxy unit is expected to enter service. Id. The Commission claimed to have applied this approach, which it previously used to establish standard rates in Order 7199d, with one change. Order 7500c, ¶ 29. Rather than using the costs of the proxy resource to establish avoided costs in all hours after the capacity resource addition as previously done, the Commission will continue to use market prices in light-load hours after the addition. Id. ¶¶ 28-29.

Vote Solar advocated for the use of the proxy method, which is both more transparent than the “peaker” method proposed by NorthWestern, and—as previously applied by the Commission—more closely tied to NorthWestern’s RPP, which the Montana Supreme Court has affirmed forms the basis for calculating avoided costs, see Whitehall Wind, LLC v. Mont. Pub. Serv. Comm’n, 2010 MT 2, ¶ 21, 355 Mont. 15, 19, 223 P.3d 907, 910. However, in applying the proxy method in this docket, the Commission improperly failed to base avoided costs on the timing of the next planned resource additions in NWE’s resource procurement plan, which are three internal combustion engine (“ICE”) units to begin service in 2019. See Ex. NWE-16 (JBB Rebuttal), at 16; Ex. NWE-4 (JBB Direct), at 9. The Commission claimed that doing so “inappropriately treats the ICE unit, which is identified in NorthWestern’s 2015 Plan as a future acquisition to provide flexible capacity, as a baseload capacity and energy resources.” Order 7500c, ¶ 28. Thus, the Commission concluded that the higher costs of the ICE, as compared with a CCCT, should not form the basis for determining costs avoided through QF development. Id.

Even if it was reasonable for the Commission to establish avoided costs based on a CCCT, rather than an ICE, it was unreasonable and unlawful for the Commission to assume that NorthWestern can defer capacity additions to 2025 when its RPP calls for new capacity resources in 2019. The Commission's application of the proxy method in Order 7500c diverges from its past practice of paying QFs for capacity based on the cost of the proxy unit beginning in the first year of NorthWestern's capacity need. The Commission used the proxy method in October 2011. Order 7108e ¶ 68, Docket No. D2010.7.77, (Oct. 19, 2011). Order 7108e used market prices up until the utility's first year of adding capacity, 2015, then used the full costs of a CCCT, allocated between energy and capacity, for the subsequent years. *Id.* The Commission retained this approach in reviewing the standard tariff for QFs the following year. Order No. 7199d ¶ 18, Docket No. D2012.1.3 (Dec. 7, 2012).

The Commission's Order failed to address the timing of NorthWestern's capacity needs. However, in its order issued on the same day in the MT Sun proceeding, the Commission expressly declined to base avoided costs on the acquisition of a CCCT in 2019 because it claimed that doing so would "untether[] the avoided cost calculation from NorthWestern's 2015 Plan and is not reasonable." Order 7535a ¶ 49, Docket No. D2016.12.103 (July 21, 2017). In fact, the opposite is true.

NorthWestern's 2015 RPP highlighted that its need for additional capacity is dire and immediate. In fact, the RPP's top-line conclusion was that "NorthWestern cannot continue to rely upon the market or other utilities to meet such a large percentage of NorthWestern's capacity requirements." RPP, at 12-1. "NorthWestern has a physical resource adequacy of -28% for 2016, which is equivalent to being 338 MW short." RPP, at 12-2 (emphases added). NorthWestern explained that the reason that the RPP does not call for resources to "fill this gap

in a single year” is because doing so would “creat[e] an impossible build-out schedule.” Id. Accordingly, NorthWestern constrained its resource-planning model “[t]o create a more realistic and manageable schedule” for acquiring resources over a ten-year period. Under this schedule, the most immediate capacity additions to NorthWestern’s portfolio are three 18-MW ICE units in 2019, which in addition to providing needed capacity, provide flexible generation. Id. at 12-8. NorthWestern’s next planned addition is a 348-MW CCCT in 2025, id.; but even with this significant contribution, NorthWestern projects that it will have generating capacity sufficient only “to achieve an intermediate requirement of 82% of expected peak load in 2025,” id. at 12-4.

“By any standard measure of resource adequacy in the utility industry, [NorthWestern] needs to add generation capacity in order to provide adequate resources to meet its customers’ long-term needs.” Ex. VS-1 (Beach Direct), at 8. In light of NorthWestern’s immediate need, it was unreasonable for the Commission to defer payments to QFs for any capacity contribution before 2025. Although the specific capacity value of solar is a matter in dispute, see infra Part III, all parties concede that solar QFs will contribute at least some capacity value to meet NorthWestern’s peak loads. The unreasonableness of the Order in delaying the start of capacity payments based on the proxy CCCT unit until 2025 can be seen by considering how the flawed logic of the Commission’s Order would have impacted QF-1 rates if NorthWestern’s resource plan did not add a CCCT until 2028, outside of the ten-year 2018-2027 period. In that event, the approach adopted in the order would not have used a proxy CCCT unit at all in setting QF-1 rates, thus denying any capacity payments to solar QFs, even though such QFs clearly will allow NorthWestern to avoid capacity costs starting no later than 2019.

Further, three-MW solar projects offer significant advantages to NorthWestern’s capacity-deficient system, because they can be installed much more quickly than traditional

utility capacity. Ex. VS-1 (Beach Direct), at 16. PURPA regulations explicitly require that avoided cost rates for QFs account for “the smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities.” 18 C.F.R.

§ 292.304(e)(2)(vii). For a utility such as NorthWestern that is capacity deficient, “QF development can match more closely the utility’s future load growth and future capacity needs, with fewer shortages or surpluses of capacity.” Ex. VS-1 (Beach Direct), at 16.

The Commission’s failure to compensate QFs for their capacity contribution based on the costs of the proxy CCCT unit in the years 2019 through 2024 when NorthWestern has documented a significant need for capacity is unreasonable and unlawful, and Vote Solar urges the Commission’s reconsideration.

**B. The Commission Failed to Compensate QFs for Avoided Carbon Costs**

The Commission’s decision unlawfully and unreasonably excludes the costs associated with carbon dioxide emissions from its estimate of avoided costs. Order No. 7500c, ¶¶ 75-77, 132. As the Commission properly found in Order 75805b, avoided carbon costs are not a separate commodity like renewable energy certificates (“RECs”) but are a component of the avoided energy costs for a carbon-free resource under a non-discriminatory implementation of PURPA. Order 7505b ¶¶ 54, 58-59, Docket No. D2016.7.56 (Jan 5, 2017). Accordingly, while “[t]he conveyance of environmental attributes could be dealt with separately, and cumulatively, outside of this rate-setting process[,] ... that would not obviate the need to forecast, in a non-discriminatory way, the price for energy.” *Id.* ¶ 59 (citing 18 C.F.R. § 292.304(a)(1)(ii), (d)(2)). By failing to include avoided carbon costs, the Commission’s decision does not reflect NorthWestern’s full avoided costs.

The Commission’s decision to omit avoided carbon costs was based on speculation, not evidence. NorthWestern has consistently included such costs in its avoided cost estimates, including for this docket. Even at the hearing in this case, NorthWestern supported a delay in the onset of carbon pricing from 2022 to 2025, but did not advocate for eliminating it entirely. See Hr’g Tr. 58:12-61:1. As support for its decision, the Commission referenced its “assessment that the political forces that once indicated environmental regulatory action at the federal level was likely in the reasonably foreseeable future has diminished and, accordingly, the likelihood of carbon emissions regulation has decreased.” Order No. 7500c ¶ 77. The Commission did not make any determination, however, that likelihood of carbon costs over the next ten years has been extinguished and there would be no support in the record for such an assessment. To the contrary, NorthWestern’s 2015 RPP includes a range of forecasts regarding future carbon prices, which incorporate the uncertainties around potential federal policy shifts and future regulatory actions. See RPP, Ch.6. As the RPP states:

NorthWestern does not know the future costs of carbon emissions, as they will be largely dependent on what regulatory measures might be imposed as a means of controlling them. However, carbon cost estimates can be formulated from a diverse range of analytically supported opinions that are found in other utility resource plans, government proposals, and academic literature. The best approach to estimating the effects of carbon risks is to evaluate current and potential resource portfolios over a range of plausible futures to determine which resource portfolio(s) achieve a balance of acceptable cost and risk.

Id. at 6-1. Nearly all of the “plausible futures” identified include at least some price for carbon beginning no later than 2022. See id. at 6-4. The Commission erred in rejecting the analytical approaches discussed in NorthWestern’s RPP, which already account for political uncertainty, in favor of unfounded “anticipation” of the effects on carbon regulation under the new presidential administration. Order No. 7500c ¶ 76.

Moreover, the Commission’s decision is unlawfully discriminatory against QFs. 16 U.S.C. § 824a-3(b)(2) (rates “shall not discriminate against ... qualifying small power producers”); see also Order 7505b ¶ 40, Docket No. 2016.7.56 (Jan. 5, 2017) (“A just and reasonable rate is one that leaves customers economically indifferent to purchasing [QF] power compared to NorthWestern’s least-cost alternative plan for purchasing energy and capacity or building new generating resources.”); S. Cal. Edison, San Diego Gas & Elec., 71 FERC ¶ 61,269, at 62,080 (1995) (setting QF rates at a utility’s full avoided costs “make[s] ratepayers indifferent as to whether the utility used more traditional sources of power or the newly encouraged alternatives”). It is not enough for the Commission to exclude carbon costs in future utility resource acquisitions, Order No. 7500c ¶ 78, when NorthWestern ratepayers are currently paying for the significant cost of NorthWestern’s hydro resources, for which NorthWestern gained this Commission’s approval based in part on NorthWestern’s “conservative” projection carbon prices of \$21/tonne beginning in 2021, escalating at 5% per year. See In re NorthWestern Energy’s Acquisition of Hydroelectric Generating Facilities, Order 7323k ¶¶ 83, 89-90, Docket No. D2013.12.85, (Sep. 26, 2014). NorthWestern benefitted from the assumptions of future carbon costs in conjunction with its prior acquisition of zero-carbon hydro facilities; it now would be unduly discriminatory for zero-carbon QFs not to receive a comparable benefit.<sup>5</sup> Accordingly, the Commission’s new methodology serves only to benefit utility resource acquisitions, and discriminates against carbon-free QF energy.

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<sup>5</sup> Further, because NorthWestern’s 2015 RPP identified plans to acquire only carbon-intensive fossil resources in the foreseeable future, RPP, at 1-5, the failure to properly credit clean-energy resources for their avoided carbon costs disadvantages only QFs, not NorthWestern.

**C. The Commission Failed to Apply its “Symmetry” Policy to NorthWestern’s Proxy Resource Acquisition**

The Commission’s calculation of total avoided costs also is flawed because it failed to apply contract-term constraints to NorthWestern’s future acquisition of the proxy resource, and thereby failed to implement the “symmetrical treatment” of QF and non-QF resources it purported to adopt. Order No. 7500c, ¶ 114. Specifically, the Commission estimated avoided costs using the 25-year levelized capital and fixed costs of building and operating a CCCT, *id.* ¶¶ 27, 29, thus assuming that the utility would be able to recover the costs of this new CCCT over a 25-year period through traditional rate base treatment. While the Order does not state how costs to ratepayers for new resources will be established during the first ten years of cost recovery, it is clear that to the extent NorthWestern needs assurance of its ability to recover its full costs, it must increase the amount recovered in the initial five or ten-year period.<sup>6</sup> In that event, costs to ratepayers for a new CCCT will be significantly greater than assumed in the Commission’s avoided cost analysis. Accordingly, the Commission’s reliance on 25-year levelized costs for utility-owned resources, with traditional rate base recovery, to set QF-1 rates was unreasonable in light of the Commission’s new policy, fails to accurately reflect full avoided costs, and must be reconsidered.

**III. THE COMMISSION’S DETERMINATION OF SOLAR CAPACITY VALUE WAS UNLAWFUL AND UNREASONABLE**

The 6.1% capacity value for solar QFs adopted by the Commission is an extreme and unsupportable outlier in the region. Order No. 7500c ¶ 67. The Commission’s decision is

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<sup>6</sup> As discussed *supra*, Part I.B, non-discriminatory application of the Commission’s rate-recovery policy requires the Commission to reconsider rates for utility-owned resources after five years, not ten. But regardless of whether avoided costs are based on a five-year or a ten-year cost-recovery period for utility-owned resources, the difference from the 25-year levelized costs assumed by the Commission would likely be substantial.

unreasonable because it fails to recognize the significant capacity contribution of solar resources during the majority of NorthWestern's on-peak hours, disregards solar capacity values used by other utilities, ignores evidence of the peak loads within NorthWestern's balancing area, and does not acknowledge the aggregate capacity value of wind and solar QFs to NorthWestern's system. The Commission should reconsider its decision, correct these errors, and ensure that solar QFs are compensated for NorthWestern's full avoided capacity costs.

**A. The Commission Grossly Underestimated Solar Capacity Value By Ignoring Solar Output During the Great Majority of NorthWestern's On-Peak Hours**

The Commission's adoption of a 6.1% capacity value for solar resources lacks evidentiary support and contradicts the Commission's practice of compensating solar resources based on their capacity contribution over NorthWestern's on-peak period.

NorthWestern's "on-peak" period is defined both in NorthWestern's QF-1 Tariff as "the Heavy Load hours," or the weekday and Saturday hours between 7:00 am and 10:00 pm, "for the months of January, February, July, August, and December." See NWE Application for Approval of Avoided Cost Tariff Schedule QF-1, Appx. 1 & 2 (May 2016). These on-peak hours amount to approximately 2,038 hours per year. Ex. NWE-4 (Bushnell Direct), at JBB-10. This Commission consistently has found it appropriate to compensate QFs for their capacity contribution during all of these hours. See Order 6973d ¶ 134, Docket No. D2008.12.146 (May 16, 2010) ("The capacity rate [in the QF-1 Tariff], stated on a \$/KWh basis, will be paid during heavy load hours in the five peak months proposed by NWE: December, January, February, July and August."); Order 7199d ¶ 55, Docket No. 2012.1.3 (Dec. 7, 2012), (establishing on-peak capacity rate). In the Crazy Mountain Wind proceeding, the Commission explained that the QF-1 Tariff includes "a capacity rate that applies only to peak hours in order to more accurately align QF payments with the capacity products provided." Order 7505b ¶ 87, Docket No. D2016.7.56

(Jan. 5, 2017). Compensating QFs for capacity during “heavy-load hours in NorthWestern’s on-peak months of January, February, July, August, and December” properly apportions capacity payments “to the on-peak hours when capacity is most needed.” *Id.* ¶ 89 (emphasis added).

While continuing to require capacity payments for QF output during all on-peak hours, the Commission’s methodology for calculating the amount of those payments incongruously ignores the contribution of solar QFs during the vast majority of on-peak hours. To establish capacity payments, the Commission purports to rely on the methodology established by the Southwest Power Pool (“SPP”) for determining compliance with planning reserve margins. Order No. 7500c ¶ 67. While the SPP method can be a useful tool to measure a resources capacity value for a variety of purposes, in addition to demonstrating reserve-margin compliance, it must be applied appropriately to satisfy PURPA’s requirement to fully compensate QFs for their contribution to NorthWestern’s overall system capacity. Mont. Admin. R. 38.5.1901(2)(a) (avoided costs are energy and capacity); 18 C.F.R. § 292.303(a) (requiring compensation to QF for both energy and capacity); see VS-1 (Beach Direct), at 23-24 (discussing appropriate application of SPP methodology in this docket).

As urged by NorthWestern, the Commission applied the SPP methodology to an overly restricted number of hours that fails to adequately compensate QFs for valuable capacity. The SPP Planning Criteria explain that solar and wind capacity contributions are calculated “on a monthly basis” by identifying the facility’s output in the top 3% of load hours in each month that is exceeded in 60% of the hours. Ex. NWE-16 (JBB Rebuttal), at Ex. JBB-5 ¶ 7. Once monthly contribution is determined, the output may be customized: “[a] seasonal or annual net capability may be determined by selecting the appropriate monthly MW values corresponding to the Load Serving Entity’s peak load month of the season of interest[.]” *Id.* ¶ 7(d) (emphasis added).

Rather than identify the capacity contribution for each month in NorthWestern's on-peak period to accurately reflect the value of solar resources to NorthWestern's system, the Commission made the unreasonable decision to assign solar a capacity contribution of zero for four of the five months in NorthWestern's on-peak period, tying solar's capacity value to its output in a single, peak load month. Order 7500c, ¶ 63. When the SPP method is applied in this way, the resulting capacity value is just 6.1% of nameplate, because the peak load month is a winter month (in which solar resources are given zero capacity credit) in six out of ten years that comprised the Commission's data set. Id., ¶ 67.

Not only is the Commission's constrained application of the SPP exceedance criteria to a single peak load month inconsistent with the Commission's ongoing practice of requiring capacity payments for QF production during all five "on-peak" months, it is irreconcilable with NorthWestern's capacity needs. According to NorthWestern's RPP, "NorthWestern's current resource portfolio consists of 1,084 MW of generation capacity." RPP, at 8-2. This generation capacity is inadequate to meet NorthWestern's peak summer demand in every year since 2011, see Ex. NWE-16 (JBB Rebuttal), at JBB-5, let alone future, higher forecasts of summer loads. NorthWestern's highest load hours increasingly occur in the summer, not the winter. See Ex. VS-1 (Beach Direct), at 25 (Fig. 3). Moreover, NorthWestern's 2015 Resource Procurement Plan projects that this summer-peaking trend will continue, with greater average annual growth in summer peak demand than in winter peak demand. See RPP, at 2-2. Thus, NorthWestern's capacity needs are not limited to a single winter month; NorthWestern requires significant additional capacity in the summer as well as the winter to meet its current and future loads. If both PURPA and the SPP method are to be followed correctly, the capacity contribution of solar QFs must be calculated on a monthly basis over all five of NorthWestern's on-peak months.

Properly applied to all peak-load months over which capacity payments are made, the SPP methodology demonstrates that solar QFs avoid significant capacity costs in NorthWestern’s two peak summer months of July and August. As shown in the table below, solar QFs have an average capacity contribution of 36% over the five months included in NorthWestern’s on-peak period. This calculation determines the average capacity contribution from solar QFs on NorthWestern’s system using the SPP calculator correctly applied on a monthly basis, as specified in the SPP Planning Criteria.

Month	Cell in SPP Calculator	Capacity Credit (MW) (60% exceedance / top 3% of load hours)
January	I17	0.0
February	I18	0.0
July	I23	2.4
August	I24	2.3
December	I28	0.0
Average		0.94
Average as % of 2.612 MW nameplate		36% = 0.94/2.612

(Data summarized from Ex. NWE-16 (JBB Rebuttal), at Ex. JBB-6).

QFs must be paid those avoided capacity costs, or they will not be compensated for full avoided costs as required by Montana law and PURPA. Mont. Admin. R. 38.5.1901(2)(a); 18 C.F.R. § 292.303(a).

**B. The Commission Unreasonably Disregarded Evidence of Solar Capacity Values in Other Jurisdictions**

The Commission’s adoption of a 6.1% capacity value is significantly out-of-step with the capacity values used by neighboring utilities, which are all in the range of 28% to 51%. VS-1 (Beach Direct), at 9. The Commission unreasonably disregarded this evidence on the erroneous grounds that they “are insufficiently supported by record evidence regarding the rationale, theory, or methodologies that underlie them.” Order 7500c ¶ 59. To the contrary, Vote Solar

expert Tom Beach documented the predominance of assessing solar capacity contribution based on their average capacity factor over a designated set of on-peak hours. See VS-1 (Beach Direct), at 22 (citing report of the North American Electric Reliability Council (“NERC”)). Moreover, system operators assess solar’s capacity contribution over a broad set of on-peak hours, not just the top 3% of hours in a single peak load month (i.e. about 22 hours per year). See VS-1 (Beach Direct), at 23 (citing the California system operator’s use of a 70% exceedance value over 1,825 peak hours each year). These regional results are corroborated by Mr. Beach’s application of this general approach to NorthWestern, which yielded a 38% average capacity factor for Montana solar resources over all hours in NorthWestern’s on-peak period, and a 51% capacity factor when the analysis is focused solely on the top 10% of NorthWestern’s on-peak hours.

Although NorthWestern attempted to dismiss the solar capacity values for other utilities on grounds that those utilities experience peak loads in the summer, Ex. NWE-16 (Bushnell Rebuttal), at JBB-4, NorthWestern conceded in its RPP that its “loads exhibit dual-peaks, meaning that maximum annual peak demand has occurred in both winter and summer.” RPP, at 2-1; see also supra, Part III.A. NorthWestern’s peak-hour loads have occurred during the summer months in six of the past 14 years. Ex. NWE-16 (Bushnell Rebuttal), at JBB-5 (Table 1). While NorthWestern’s historical absolute peak loads have occurred during relatively few hours in the winter, since 2012, about 70% of the top 10% of on-peak hours have occurred during the summer. Ex. VS-1 (Beach Direct), at 25 (Fig. 3). In 2014 and 2015, approximately 70% of the top 10% of on-peak hours occurred in the summer months. Id. Thus, while NorthWestern’s system experiences occasional, short-term spikes in demand in the winter months, the more sustained periods of high demand are experienced in the summer. See Hr’g Tr.

190:15–191:12 (Beach Testimony). The Commission therefore should reject, on reconsideration, any attempt to distinguish solar capacity values from neighboring utilities on grounds that they experience summer peaks, while NorthWestern is winter-peaking. Without any legitimate justification to dismiss these solar capacity values, the Commission’s failure to consider them was unreasonable.

The Commission also ignores evidence of solar capacity value from the Northwest Power and Conservation Council’s (“NPCC”) Seventh Northwest Conservation and Electric Power Plan (“Seventh Power Plan”). The Commission has repeatedly cited NPCC capacity values to support its prior determinations. See Order No. 6973d ¶ 146, Docket D2008.12.146 (May 6, 2010); Order No. 7199d ¶ 52, Docket D2012.1.3 (Dec. 7, 2012); Order No. 7505b ¶ 100, Docket D2016.7.56 (Jan. 5, 2017). Most recently, the Commission relied on a weighted average of the Seventh Power Plan’s “Associated System Capacity Contribution” for regional wind resources. Order No. 7505b ¶ 100, Docket No. D2016.7.56 (Jan. 5, 2017) (citing Ch. 11, pp. 23-25).<sup>7</sup> The Seventh Power Plan assigns an annual average capacity value for Solar PV of 57.5%. Ex. VS-6 (Seventh Power Plan, Ch. 11), at 11-25, Table 11-8. The weighted average capacity value based on three winter months and two summer months—reflective of NorthWestern’s on-peak period—is 48%. See id.; see also infra fn.7. Yet, in contradiction with its prior reliance on NPCC capacity values, the Commission did not even consider such evidence in this docket before adopting a capacity contribution for solar QFs that is a small fraction of the NPCC value.

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<sup>7</sup> The Commission appears to have relied on an approximate weighted average of 0.03 for three winter months (Q1) and 0.11 for two summer months (Q3). See Order No. 7505b ¶ 100, Docket No. D2016.7.56 (Jan. 5, 2017).

### **C. The Commission Failed to Consider Evidence of Regional Peak Loads**

The Commission properly acknowledged that regional peak-load hours, rather than solely NorthWestern's peak load, should form the basis for capacity contribution estimates. Order No. 7500c, ¶ 64. However, the Commission adopted a solar capacity value for QFs based on NorthWestern's absolute winter-peak load, while ignoring available evidence of regional demand. Vote Solar agrees that NorthWestern's avoided capacity costs are most accurately determined based on loads and capacity needs throughout NorthWestern's balancing area. The Commission more fully explained the rationale for relying on regional, rather than system-specific, peak load in critiquing NorthWestern's 2015 RPP:

NorthWestern identified capacity shortages on a region-wide basis by 2021 as the problem, but a utility-specific measure of capacity need as the yardstick for the solution. This is incongruous. NorthWestern's peak load is not coincident with the region's peak load or the interconnection's peak load. There will be times when resources owned by other utilities are not being used to serve other utilities' peaks, at the time when NorthWestern's retail load does peak. The same situation is true in reverse. NorthWestern's resource adequacy should be measured by its retail load's position relative to the region's or interconnection's peak demand, while taking into consideration import limitations. Measuring resource adequacy needs otherwise will systematically overstate the utility's needs, and it could lead to a substantial overbuild if not corrected.

Montana Public Service Commission Comments in Response to NorthWestern Energy's 2015 Electricity Supply Procurement Plan ¶ 24, Docket No. N2015.11.91 (Feb. 2, 2017). For these reasons, it is unreasonable—and inconsistent with the Commission's stated preference to evaluate capacity needs based on "the region's or interconnection's peak demand"—to ignore such evidence. Id.

Contrary to the Commission's assertion in the Order that such evidence was lacking in this docket, NorthWestern's provided evidence of peak demand in its balancing area—

representing a broader capacity pool—in response to Vote Solar’s data requests. See NWE Resp. to Vote Solar Data Request VS-011(d). This evidence demonstrates that the peak-hour demand in NorthWestern’s balancing area occurs in the summer. Ex. VS-1 (Beach Direct), at 24-25 (“The utility’s peak-hour retail customer demand is higher in the winter, but its peak-hour transmission system demand in its balancing area is higher in the summer.”). The Commission unreasonably disregarded this evidence, which, if properly used, would have demonstrated a significantly higher capacity contribution of solar resources over the narrow set of peak load hours the Commission evaluated. The Commission also ignored the importance of high-demand hours close to the annual peak, including that, in the last four years, about 70% of the top 10% of load hours have occurred in the summer. Id.

The Commission’s myopic focus on system-specific winter peak demand to discount the capacity value of solar resources is unreasonable in light of evidence of demand throughout a broader capacity pool that the Commission acknowledged was relevant.

**D. The Commission Unreasonably Ignored the Aggregate Capacity Value of QF Resources**

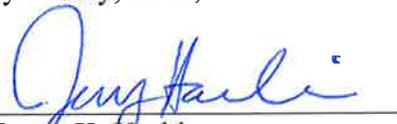
PURPA requires that estimates of avoided costs consider “individual and aggregate value of energy and capacity from qualifying facilities on the electric utility’s system.” 18 C.F.R. § 292.304(e)(2)(vi); see also Order No. 7199d ¶ 53, Docket No. D2012.1.3 (Dec. 7, 2012) (citing 18 C.F.R. § 292.304(e)(2)(vi)). Nonetheless, the Commission evaluated the capacity value of each type of QF resource independently, never crediting the significant synergies associated with combining Montana’s winter-peaking wind resource and summer-peaking solar resource. See Ex. VS-1 (Beach Direct), at 10 (Fig. 1). As Mr. Beach explained, “Montana already has significant wind resources, and they peak in the winter. The solar resources peak in the summer, and they’re real synergies. ... And combined the two resources are even more valuable than if

you assess them individually.” Hr’g Tr. 182:13-20. By isolating its analyses of wind and solar resources and assigning capacity value only for a very small number of peak-load hours predominantly in the winter, NorthWestern under-compensates each type of resource even while it reaps the combined capacity benefits of the two. The means for the Commission to reflect the aggregate value of both types of resources would be to assess their capacity value over a broad set of on-peak hours, including both the winter and summer peak months on NorthWestern’s system, following the well-established practices of other regional utilities and system operators (including SPP). The Commission’s failure to evaluate the “aggregate value” of wind and solar QFs was unreasonable and violated PURPA.

### CONCLUSION

For the foregoing reasons, Vote Solar and Montana Environmental Information Center respectfully request that their motion for reconsideration of Order No. 7500c be granted.

Respectfully submitted on this 31st day of July, 2017,



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*On behalf of Intervenors Vote Solar and  
Montana Environmental Information Center*

## CERTIFICATE OF SERVICE

I hereby certify that on the 31st day of July, 2017, I served the foregoing by first-class mail, postage prepaid, and electronic mail on the following:

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