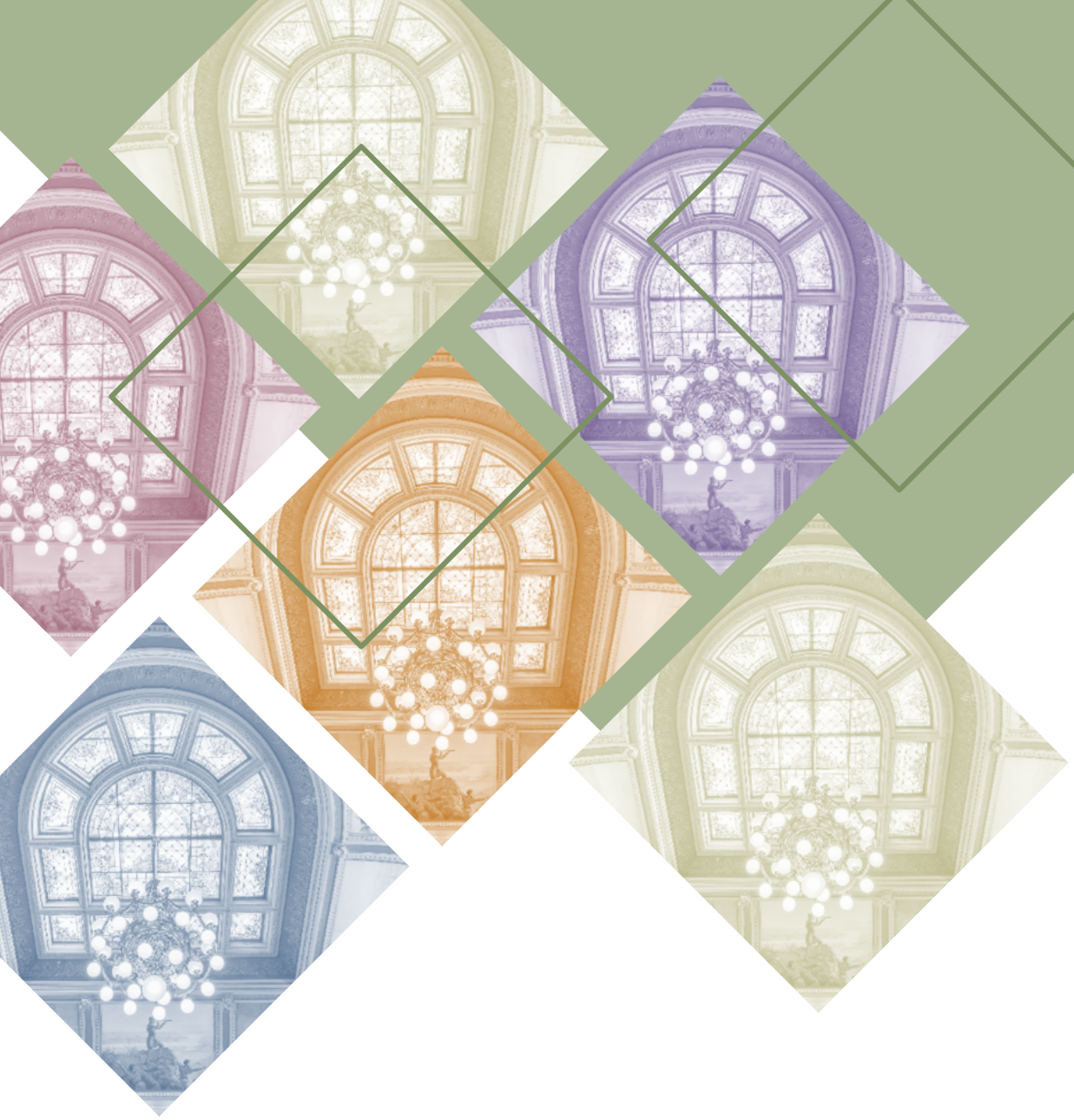

QUALIFYING FACILITIES IN MONTANA: A SNAPSHOT OF QF CONTRACTS AND POLICY

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QUALIFYING FACILITIES IN MONTANA

INTRODUCTION

For the last 35 years, utilities and regulators in Montana have struggled with a federal law intended to, in part, decrease dependence on fossil fuels, encourage efficiency, and encourage wholesale competition – the Public Utility Regulatory Policies Act (PURPA). PURPA is among the most complex energy policies on the books, with regulatory and policy decisions by Congress, federal regulators, the Montana Legislature, and the Montana Public Service Commission (PSC) altering the PURPA landscape.

At the Energy and Telecommunications Interim Committee (ETIC) July 2017 meeting, members requested information about qualifying facilities (QFs) in Montana, QF contract lengths, and related information on QF tariffs and rates. This information summarizes changes in QF tariffs in Montana, provides a snapshot of implementation in Montana, and offers information on PURPA implementation in other states.

In addition, committee members requested specific information on NorthWestern Energy's QF contracts. The PSC compiled the information on contract periods/lengths, as well as other information for NorthWestern, which is attached. In that compilation, the price information for a number of the older QFs reflects the amount NorthWestern actually pays the QFs. The amount ratepayers are responsible for is somewhat less, in total. The difference is due to prior settlements related to NorthWestern's acquisition of the utility from Montana Power Company, and the final resolution of stranded costs under deregulation.

BACKGROUND

In 1978, Congress enacted a National Energy Act, which included PURPA. PURPA, 16 U.S.C. 824a-3, establishes requirements for the purchase and sale of electric power between qualifying small power production facilities (QFs) and electric utilities under the regulation of the PSC.

PURPA furthers three fundamental goals: conserve electricity, increase utility efficiency, and achieve equitable rates for consumers.

In 1981, the Montana Legislature enacted QF laws, referred to as "mini-PURPA" and codified in Title 69, chapter 3, part 6. Montana law authorizes QFs to contract for the sale of electricity to regulated public utilities. Federal law requires all state-regulated utilities to purchase QF power offered by qualifying cogeneration and small power production facilities either at a freely negotiated rate or at a rate set by the Montana PSC. In Montana, there are close to 40 QFs with the collective capacity to produce on average about 160 megawatts of electricity annually.

PURPA furthers three fundamental goals: conserve electricity, increase utility efficiency, and achieve equitable rates for consumers.[1] To achieve these goals, PURPA establishes a special class of power generators known as QFs. PURPA also establishes a market for electricity generated by QFs that are not owned by utilities, including cogeneration and small power production facilities. Cogeneration facilities create electric power and useful thermal energy such as steam. Small power production facilities produce electricity using biomass, waste, water, geothermal, wind, or other renewable resource as primary fuel sources. Small power production facilities also must have a power

[1] https://www.ferc.gov/industries/electric/gen-info/qual-fac/what-is.asp

production capacity that together with any other facilities located at the same site is not greater than 80 megawatts.[2] PURPA achieves its purpose by requiring electric utilities to purchase energy and capacity from QFs at the utilities' avoided costs.[3]

The Federal Energy Regulatory Commission (FERC) develops rules to implement PURPA. Rates paid by a utility must equal avoided costs, and must be just and reasonable, in the public interest, and nondiscriminatory. FERC expressly forbids non-price factors in PURPA decisions and expressly forbids cost-of-service pricing. Rates reflecting a utility's full avoided cost meet PURPA's intent, according to FERC. PSC rules mirror that requirement. Montana law has allowed the commission to set rates using avoided cost, using the cost of production for the QF plus a just and reasonable return, or any other method that would promote the development of QFs. The 2011 Legislature simplified that further, as discussed below.

Montana's utility regulatory authority, the Montana PSC, implements PURPA using FERC rules. In Montana, if a QF and a utility are not able to agree to a contract, including price and duration, either entity can petition the PSC to set the contract terms. In accordance with state law, the PSC must set the rates based on a utility's avoided costs over the term of the contract. Montana law also authorizes the commission to adopt rules "defining the criteria for qualifying small power production facilities, their cost-effectiveness, and other standards."[4] In the early 80s, the PSC completed three investigations in an effort to set rules around QF rate setting in Montana.

Classes of QFs in Montana	Average Contract	Type	Average/Highest/Lowest Rate $/MWh
Thermal (2)	35 Years	Tier II*	$86.80/$90.15/$83.44
Hydro (13)	24 Years	Tier II, QF-1, QF-1(REC)*	$78.02**/$104.24/$37.45
Wind (15***)	23 Years	QF-1, QF-1(REC)*	$58.41**/$90.87/$37.63
Solar (6)	25 Years	QF-1, QF-1 (REC)*	$92.73**/$92.73/$92.73

* Tier II QFs predate electric deregulation and the cost recovery for those QFs is split between a portion included in NorthWestern's electricity supply cost tracker rate and a portion recovered in a PSC-set, non-bypassable competitive transition charge (CTC). Today, the grandfathered choice customers pay the portion in the CTC, but not the portion in the electricity supply cost tracker rate. The other QFs postdate deregulation, but some predate reregulation in 2007. They generally reflect contracts entered pursuant to NorthWestern's QF-1 tariff, however, several are negotiated contracts. The REC designation indicates that NorthWestern obtained the renewable energy credits from the project, which it uses to comply with renewable standards.
** The averages only include 12 hydro projects and 11 wind projects. Boulder Hydro's rate is an "index" rate based on an index price on the Mid-C or prevailing market. Four wind projects also have an index rate not included in the average. The average also is based on the High Load rate. Some QF rates include both a Heavy Load Hour tariff and Light Load Hour tariff. The average hydro rate using a Light Load rate would be $61.33/MWh. The average wind rate using a Light Load rate would remain $58.41, and the average solar rate using a Light Load rate would be $53.14.
*** Two Dot Wind (Montana Marginal Energy), Agnew Ranch, and Two Dot Wind (Mission Creek) are not included.

As opposed to rate setting, other states explored competitive bidding methods for QFs. "In the context of PURPA implementation, competitive bidding offered several perceived benefits compared to rates set administratively by state regulatory authorities. First, competitive bidding methods impose QF-on-QF competition (and competition among all non-utility and utility resource options), which makes it more likely that a utility will select the least cost option for meeting future electricity demand compared to administratively determined 'first-in-the-door' standard rates. Second, bidding methods are flexible and can respond quickly to changing market conditions, whereas adjusting administratively determined rates requires extensive and prolonged regulatory processes. Third, bidding methods allow better matching of utility capacity additions and

[2] 69-3-601, MCA.
[3] 38.5.1901, Administrative Rules of Montana.
[4] 69-3-604, MCA.

capacity needs, compared to administratively determined rates — observed instances of QF oversubscription and excessive rates are linked to the inflexibility of administratively determined rates and the decline in a utility's avoided costs that accompanies incremental capacity additions."[5] However, FERC has not adopted rules incorporating competitive bidding into the QF process.

Tumultuous Times

In 1992, Congress amended PURPA through adoption of the 1992 Energy Policy Act. The Act established integrated resource planning standards. The PSC responded by adopting integrated least-cost resource planning rules to encourage Montana's regulated utilities to "meet their customers' needs for adequate, reliable and efficient energy services at the lowest total cost." The rules encouraged competitive bidding for new resources. The 1993 Legislature also responded to the changes by adopting The Montana Integrated Least-Cost Resource Planning and Acquisition Act. The law, codified in Title 69, chapter 3, part 12, requires utilities to plan for and meet the requirements of its customers "in the most cost-effective manner consistent with the public utility's obligation to serve."

In addition to adopting rules for resource planning, the PSC also changed its QF rules, establishing a 3-megawatt threshold for a long-term standard rate. Essentially, QFs larger than 3 megawatts had to be selected in a utility's all-source competitive bidding process to obtain a long-term contract. This bidding process was to be conducted according to the integrated resource planning required by Montana law. "The amended rule required utilities to purchase energy and capacity from QFs larger than 3 megawatts at standard or negotiated short-term rates during periods when the utility was not soliciting long-term resources. An all-source solicitation requests proposals from QFs, other non-utility independent power producers, publicly- and investor-owned utilities, power marketing agencies, and international suppliers, which compete against utility resources identified in the integrated resource planning process."[6]

The 2003 Legislature also passed and approved legislation that repeals Montana's "mini-PURPA" – contingent upon the federal government repealing PURPA.

The Montana Legislature in 1997 passed the Electric Utility Industry Restructuring and Customer Choice Act – which was a fundamental policy shift for the state from regulating the price of electricity supply to allowing competitive markets to set the price of electricity supply. One of the driving forces behind the restructuring was a 1996 decision by FERC to deregulate electricity supply markets at the wholesale level. Wholesale transactions involve the sale of electricity from large suppliers (i.e., power producers) to large electricity buyers and sellers (utilities, power marketers, etc.). With deregulation, the Montana Power Company requested the PSC suspend its existing long-term standard QF rate schedule and replace them with a new rate schedule that provided standard rates only for the period before July 2002. The PSC approved the new "QF-1 rate schedule" but directed the Montana Power Company to extend the availability of standard rates.

By 2002, NorthWestern Energy assumed the Montana Power Company's default electricity supplier obligations. The PSC updated its integrated resource planning rules to respond to deregulation. However, competitive bidding remained the PSC's preferred method for acquiring new electrical generation resources.

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[5] "Economic Impacts Of Proposed Amendments to the Montana Department of Public Service Regulation's Qualifying Facility Rules", ARM § 38.5.1902, Prepared by the Montana Public Service Commission, August 2013.
[6] Ibid.

The 2003 Legislature also passed and approved legislation that repeals Montana's "mini-PURPA" – contingent upon the federal government repealing PURPA. The contingency remains the law.[7]

Capacity and Competitive Solicitations

In 2007, the Montana Legislature amended portions of the Electric Utility Industry Restructuring and Customer Choice Act. The "reregulation" bill, as it was often called, allows NorthWestern Energy to acquire electric power plants to supply rate-regulated power to its Montana customers. The Act curtailed customer choice, eliminating the ability of retail customers with a monthly demand of less than 5,000 kilowatts to migrate to other electricity suppliers if those customers were receiving electricity from a public utility prior to October 2007. Once again, the PSC amended its QF rules to respond to the change. "In late 2007 the Commission amended its QF rules to increase the long-term standard rate eligibility threshold from 3 megawatts to 10 megawatts, finding that small QFs up to 10 megawatts need a simplified mechanism for obtaining long-term contracts to sell electricity and face barriers to effectively participating in competitive solicitations."[8] With that rule change, NorthWestern Energy acquired 90 megawatts of new wind generation capacity, 50 megawatts acquired at long-term standard QF rates and the other 40 megawatts through competitive bidding.

With a return to regulation, alterations to and controversy around QF rules and regulations, however, continue.

In 2008, the Montana PSC revisited QFs, at the request of NorthWestern Energy, and set additional resource-specific avoided cost rates for QFs up to 10 megawatts. With the change, Montana offered different options for avoided costs. There were several rate options for non-wind resources and three rate options for wind. The multi-option approach was intended to extend opportunities to QFs. The wind-based avoided cost rate, for example, required the QF to convey any associated RECs to the utility.[9] QFs larger than 10 megawatts still competed with other resources and could receive a long-term contract through an all-source competitive bid selection. Pending selection in a competitive solicitation, all QFs were entitled to sell power under a short-term avoided cost tariff or short-term contract. The rule also included a 50 megawatt installed capacity limit for wind QFs. Each rate option reflected a different method for estimating avoided costs and, accordingly, required QFs to face the same set of risks and uncertainties facing NorthWestern Energy and its ratepayers in terms of long-term resource planning and acquisition decisions.[10]

The 2011 Legislature changed aspects of the regulation of QFs by enacting legislation limiting the ability of certain QFs to petition the PSC to set project-specific rates if the PSC approved a standard rate schedule and extending the time within which

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[7] Chapter 284, Laws of 2003.
[8] "Economic Impacts Of Proposed Amendments to the Montana Department of Public Service Regulation's Qualifying Facility Rules", ARM § 38.5.1902, Prepared by the Montana Public Service Commission, August 2013.
[9] Montana Public Service Commission, D2008.12.146, Order No. 6973d (2010).
[10] Ibid.

the PSC is required to render a decision. Legislation passed and approved in 2011 also required the PSC to set rates for qualifying small facilities more strictly using avoided costs over the term of a contract.

In October 2011, the PSC again changed the tariff. With the change, NorthWestern Energy was to offer two rate options, with each option having various subparts. The commission also eliminated one rate option.[11] The PSC in 2012 also eliminated the 50 megawatt installed capacity limit for wind QFs. However, in April 2013, the PSC granted a stay of that order pending an appeal of the PSC decision. The PSC ultimately removed the stay in October 2015.

In 2013, the PSC also noticed a change in QF rules – dropping the 10-megawatt standard rate threshold to 100 kilowatts. The 2013-2014 Energy and Telecommunications Interim Committee (ETIC) unanimously objected to the PSC's proposal to go from 10 megawatts to 100 kilowatts. Other entities also raised concerns with the rule proposal. A group of 15 legislators requested the PSC prepare a statement of the economic impact of the proposed rule. The PSC responded by developing an economic impact statement and adopting a 3-megawatt limit for standard rates. The PSC issued its 3-megawatt decision in a NorthWestern Energy QF rate proceeding, not the rulemaking pertaining to standard rate eligibility. In addition, the $66 rate, which is currently in the spotlight, was an annual average for solar projects -- other resource types had different annual average rates.

The companies stated that no QF in Montana had ever won a competitive solicitation above the 10-megawatt threshold.

Commissioner Travis Kavulla raised concerns at that time about the economic impact statement prepared by the commission and the focus of the discussion on project size. He focused on the issue of competitive solicitations in general as it relates to QFs. "This proposed rule is predicated on the notion that competitive solicitations are a superior method to arrive at true market prices than an administratively established standard rate. This is true, but it comes with a significant caveat. In order for the objective of market access for QFs to really mean anything, it should not be enough merely to invoke the words 'competitive solicitation'; rather, that solicitation process must be credible, transparent, and even-handed to all comers. There is still much work to be done in Montana in this respect."[12] In November 2013, the ETIC hosted a roundtable discussion about Montana's planning and procurement processes.[13] Changes to the rules and laws around competitive solicitations, however, did not result.

Also in 2013, several companies that owned QFs in Montana filed a petition for enforcement and declaratory order with FERC against the Montana PSC for its alleged inconsistent implementation of PURPA. The QFs claimed that the PSC rule allowing QFs larger than 10 megawatts to receive a long-term contract only through competitive solicitation, while allowing QFs smaller than 10 megawatts to sell power at avoided cost rates through standard rate agreements was unreasonable. They also argued that the 50-megawatt installed capacity limit on wind QFs 10 megawatts or smaller eliminated those QFs ability to obtain a long-term avoided cost rate. The companies also noted that no QF in Montana had ever won a competitive solicitation above the 10-megawatt threshold.

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[11] Montana Public Service Commission, D2010.7.77, Order No. 7108(e)(2011).
[12] Commissioner Travis Kavulla, correspondence to ETIC dated Aug. 27, 2013.
[13] http://leg.mt.gov/content/Committees/Interim/2013-2014/Energy-and-Telecommunications/Meetings/October-2013/Procurement.pdf

In a 2014 order, FERC declared that the Montana rule requiring QFs to win a competitive solicitation in order to be eligible to sell their output under long-term contracts violated PURPA. However, FERC declined to exercise its enforcement authority under PURPA and did not initiate an enforcement action against the Montana PSC. FERC also found that the PSC's rule requiring QFs to participate in a competitive bidding process in order to be paid for capacity failed to adequately compensate QFs.[14]

In December 2015, the PSC repealed its rule requiring that larger QFs be selected in a competitive solicitation to obtain a long-term contract. Nevertheless, consternation over QFs has not ended. It instead has only heated up –with a focus on solar, as opposed to wind in the last couple of years, and the need for the PSC to administratively determine rates for large QF projects.

Solar QF Quandary

By the spring of 2015, NorthWestern Energy reported that they had 43 active requests from solar QF projects to interconnect to the utility. The total capacity of these projects was almost 130 megawatts.[15] The company petitioned the PSC to revisit the QF tariff again. With dropping solar costs, the contract terms penciled out for a growing number of solar projects. NorthWestern Energy requested the PSC begin the process of revising the QF avoided-cost rates, asserting that the average rate of $66 per megawatt-hour available to solar QFs established in 2013 was out-of-date.

Shortly after the original filing, NorthWestern filed an emergency motion and asked the PSC for a complete suspension of QF rates for solar projects greater than 100 kilowatts. "Based on the currently calculated avoided cost for solar projects, the existing solar QF-I power purchase agreements will impose nearly $24 million of extra expense on NorthWestern's customers. The 75 megawatts of projects awaiting execution of power purchase agreements will impose an additional $128 million of extra expense. The remaining 80 megawatts of projects in the interconnection queue would impose nearly $137 million additional extra expense. Given recent activity by QF developers, NorthWestern expects that additional projects will be presented during the pendency of this docket leading to even greater cost for our customers. Therefore, it is imperative that the Commission take steps to prevent some of this harm to customers by granting the emergency suspension."[16]

The commission granted NorthWestern's emergency motion and suspended the availability of standard rates for solar projects larger than 100 kilowatts pending completion of the rate proceeding. However, the PSC exempted from the suspension those projects that had unilaterally signed a power purchase agreement with NorthWestern and executed an interconnection agreement by June 2016.[17]

Solar developers filed a petition with FERC in October 2016 arguing that the PSC again was not properly implementing PURPA. FERC found that requiring interconnection agreements to be in place was problematic, sending the issue back to the PSC again.[18] In November 2016, FERC also dismissed a complaint filed by the Vote Solar Initiative and the Montana Environmental Information Center against the PSC alleging that the commission violated PURPA by suspending NorthWestern Energy's obligation to adhere to a standard rate for solar QFs with a nameplate capacity between 100 kilowatts and 3 megawatts.[19]

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[14] 146 FERC 61, 193, United States of America Federal Energy Regulatory Commission, March 20, 2014.
[15] Docket D2016.5.39, Prefiled Direct Testimony of John Hines, p. 7.
[16] Montana Public Service Commission, D2016.5.39.
[17] Montana Public Service Commission, D2016.5.39, Order No. 7500.
[18] 157 FERC 61, 211, FLS Energy, Inc.
[19] 157 FERC 61,080, Vote Solar Initiative and Montana Environmental Information Center v. PSC.

In June 2017, the PSC voted to cap the length of long-term electricity supply arrangements under the QF-1 Tariff to a maximum of 10 years. "The Commission finds that shortening of the contract is not intended to inhibit a QF's ability to recover its investment, but functions as a means to ensure avoided costs remain just and reasonable and in the public interest and maintains a more accurate reflection of the actual costs avoided by the utility over the long-term." The Commission also voted to refresh contracted rates at 5 years to reflect the QF-1 standard rates existing at that time. The QF-1 standard rates are typically updated biannually in order to reflect the most recent market information.[20] The decision has met with much controversy. The ETIC in July requested the commission revisit its decision based on concerns about the revised tariff. Various other stakeholders petitioned the PSC, requesting reconsideration. The PSC is expected to act on the requests for reconsideration by the end of September.

Contracts in Other Western States

Western states implement QF contracts using the following common methods to determine avoided costs.

Differential Revenue Requirement Method

This method subtracts the system's revenue requirement without the QF from the system revenue requirement with the QF, assuming that the addition of the QF or QFs will reduce the utility's revenue requirement. The method also assumes that the utility is subject to rate base regulation for generation facilities.[21] States employing this method include Oregon, Utah and Wyoming.

Competitive Bidding

Competitive bidding programs allow utilities to issue an RFP specifying the type of capacity needed and selection criteria. Successful bidders receive capacity contracts; unsuccessful QF bidders may sell energy at avoided energy cost levels as required by PURPA, but do not receive capacity payments.[22] Colorado and Washington employ the competitive bidding process for QF contracts.

Nevada and Arizona

Nevada and Arizona set rates for QFs on a non-firm or "as available" basis. In Nevada, avoided cost is calculated for each hour and is defined as the lesser of the highest hourly system incremental generation cost or the hourly time-differentiated rates that QFs with capacities of more than 100 kW must use.[23] In Arizona, avoided cost is determined using time-of-use rates based on standard rates that may be adjusted during tariff revisions.[24]

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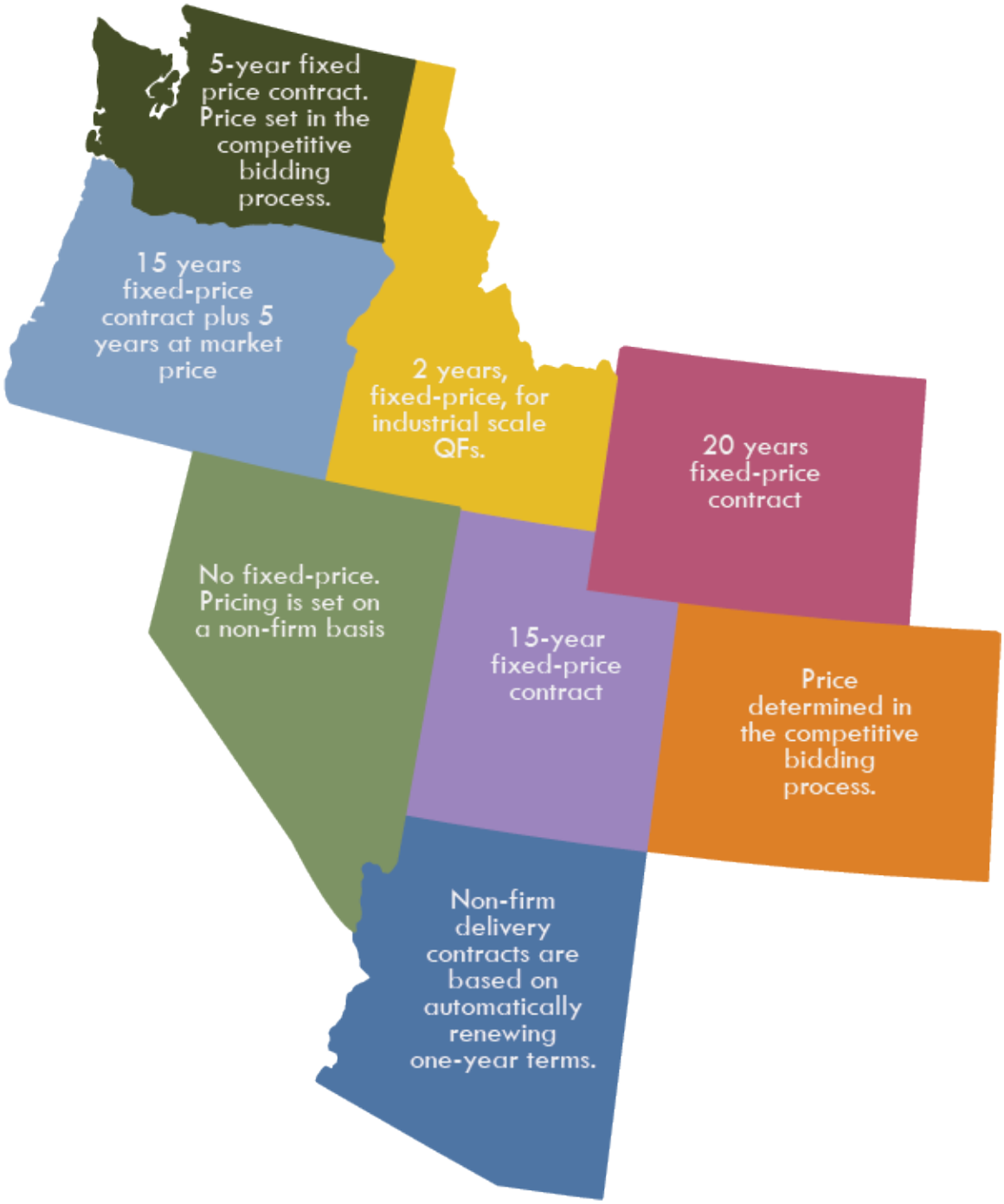
[20] Montana Public Service Commission, D2016.5.39, Order No. 7500c.
[21] Burns, Robert E., and Kenneth Rose. PURPA Title II Compliance Manual. March 2014.
[22] Ibid.
[23] Nevada Tariff No. 1-B, Schedule QF, Nevada Energy, a Pacific Power Company
[24] Arizona Corporation Commission, Docket No. E-01345A-12-0482

Contract Lengths

Contract lengths vary across western states.. The map below illustrates the length of QF contracts in western states.



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