

Avoided Cost Prices: A Guide

By the Renewable Energy Coalition

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Table of Contents

Executive Summary	3
A Short Background on PURPA and FERC’s Rules Regarding Avoided Costs	5
Regulation of Avoided Cost Prices - State Versus Federal	6
Definitions	7
Different Types of Prices	10
1. Fixed Prices and Variable Prices.....	10
2. Energy Prices and Capacity Prices.....	11
3. Renewable Prices and Non-Renewable Prices	11
4. Technology Based Prices.....	12
Utilities in states without Renewable Portfolio Standards generally do not offer Renewable Prices. They may, however, offer technology-based prices.	12
5. Standard and Negotiated Prices	12
Calculation of Avoided Cost Prices	14
1. Methodologies and Models.....	14
2. Cost Inputs for Energy and Capacity Prices	14
3. Adjustments to Avoided Cost Prices.....	14
4. Renewable Prices.....	15
5. Other Factors Influencing Contract Prices.....	15
a. Impact of Integrated Resource Plans.....	15
b. Impact of Requests for Proposals	16
c. Resource Sufficiency and Deficiency Periods	16
d. Contract Term	16
e. Value of Storage.....	17
f. Transmission and Distribution Losses.....	17
g. Other Broader Factors	18
i. Customer Changes	18
ii. Legislative Changes.....	18

iii.	Market Changes	18
	Timing and Basis of Avoided Cost Price Updates	19
	Most Frequently Asked Questions	20

Executive Summary

Since the Renewable Energy Coalition formed more than a decade ago, no topic has created as much confusion and consternation as avoided cost prices. Avoided cost prices are the bedrock of our members' existence as small independent power producers. These prices dictate any given generating project's potential revenue and profitability, and they are among the most important factors in whether a project can attract adequate financing, both for the initial development as well as ongoing operations. Unfortunately, avoided cost prices are often subject to significant litigation.

Most investor-owned electric utilities, as private businesses, view contracting with independent power producers as a less profitable investment than building and maintaining their generation resources. Some even view independent power producers as competitors whose interests are adverse to the utility. In the 1970s, Congress found that encouraging qualifying facility (or QF) development would, in turn, encourage alternative energy generation options and increase competition in the power markets. As a result, Congress passed the Public Utility Regulatory Policies Act of 1978, or PURPA, which *required* utilities to contract with QFs instead of investing in new utility generation resources. Thus, almost all small independent power production facilities owe their existence in no small part to PURPA.

PURPA requires utilities to pay QFs for energy and capacity at "avoided cost prices," better described as the costs a utility avoids by not building a generator itself. Carefully calculated avoided cost prices ensure that utility ratepayers pay no more for a generator built by a QF than they would for a generator built by a utility. This concept of ensuring that a utility's customers are held financially neutral or harmless (regardless of whether the power is utility or independently generated) is also known as "ratepayer neutrality." Still, because utilities continue to prefer building generators themselves, utilities are interested in ensuring that avoided cost prices do not fully compensate a QF for the value of the power provided to utility customers.

The purpose of this guide is to explain avoided cost pricing and many of the issues that arise in different proceedings. The Renewable Energy Coalition recognizes avoided cost pricing as essential to its members' existence and often engages in regulatory, court, and legislative proceedings to ensure that avoided costs are set appropriately. The goal is to help members understand the value their existing and new projects provide and how that value should be compensated. Our hope is that our members can use this guide to better understand the value that the Renewable Energy Coalition provides, as well as provide the members with more background that they can use if they want to become more involved in the Renewable Energy Coalition's decision making process. **We are here to obtain just and reasonable prices for your power sales, fair processes for entering into power sales and interconnection contracts, and appropriate contract terms and provisions. We welcome input from the members on how to best achieve those goals.**

This guide is organized in the following manner in that it:

- Provides a brief background on PURPA and its implementation by the Federal Energy Regulatory Commission (FERC).
- Describes how state regulatory commissions share responsibility for implementing PURPA.
- Describes some terms frequently used when discussing avoided cost pricing.
- Explains the different types of avoided cost prices and why they matter.
- Discusses some of the most significant factors that affect avoided cost prices.
- Addresses when and how avoided cost prices are established.

This guide intends to provide information relevant across many different states.

For more information on a specific state or utility's implementation of PURPA, please see Appendix One. Appendix One summarizes core pricing and contracting terms for investor-owned utilities in the states where the Renewable Energy Coalition operates. These terms include such items as the length of contract available, eligibility requirements for standard pricing and standard contracts, when standard pricing typically changes, and a description of each utility calculates non-standard pricing. These terms are subject to change, so Appendix One also provides hyperlinks to the utilities' (and where relevant, the state commissions') documents, which are also available on the Renewable Energy Coalition's website under "Avoided Cost Prices."

A Short Background on PURPA and FERC's Rules Regarding Avoided Costs

In 1978, Congress passed PURPA, which encouraged the development of small power production facilities owned by independent power producers. Congress had determined that utilities were reluctant to purchase power from small power producers. Part of the reason for the utilities' reluctance is economic. Utility shareholders receive a return on investment for power produced from utility-owned facilities, but except in narrow circumstances, they do not receive any return on investment for purchases from other entities, such as QFs. This results in the company having a bias towards building its own resources, thus it is generally known as the "utility build bias." Additionally, the utilities were reluctant to contract with several smaller plants as opposed to dealing directly with a select few larger plants. However, the concept of PURPA was to encourage renewable energy, cogeneration, and competition in the energy sector. Thus, encouraging competition via utility contracting with smaller energy producers is the cornerstone of PURPA.

Once PURPA was enacted, FERC promulgated rules requiring utilities to purchase QF power at a rate not exceeding the utility's "incremental cost...of alternative electric energy," meaning the rate that, but for the QF purchase, the utility would otherwise pay to purchase power from another source. This rate is called the "avoided cost" rate.

According to FERC's rules, the avoided cost rate must be both non-discriminatory to the QFs and just and reasonable to the consumers of the electric utility and the public interest. The federal regulations give QFs two options to sell power at avoided cost rates. First, the QF can sell as much energy as the QF chooses whenever it becomes available (referred to as an "as-available" sale). This as-available rate changes over time. Second, the QF can sell its energy at an "avoided cost" rate calculated when the QF and utility execute the power purchase agreement or at the time the utility is otherwise obligated to buy the power. Traditionally, this avoided cost rate has been fixed and unchanged over the life of the contract. The Renewable Energy Coalition members always attempt to sell their power at this fixed price set when they execute a power purchase agreement, including when they are renewing a power purchase agreement for an existing resource. Consequently, this is the rate that the Renewable Energy Coalition focuses its advocacy efforts on ensuring is fair, just, and reasonable.

Regulation of Avoided Cost Prices - State Versus Federal

The Renewable Energy Coalition is involved in both federal and state proceedings because each venue has a unique role in establishing PURPA rules and policies, including avoided cost rates. Similar to America's federalist system of governance set forth in the U.S. Constitution, the model for regulating PURPA policy relies on cooperative federalism. Under this cooperative federalism model, the federal PURPA statute and FERC established the rules and policies that required utilities to purchase power from independent power producers. Then, PURPA obligated each state regulatory authority to implement FERC's promulgated rules for each electric utility it has ratemaking authority over. In other words, PURPA requires states to implement these laws and policies under FERC's supervision.

State regulating entities comply with FERC's rules by issuing conforming state regulations, resolving any PURPA related disputes on a case-by-case basis, or by taking "any other action reasonably designed to give effect to FERC's rules." State public utility and public service commissions in the Pacific Northwest and Rocky Mountain West states have chosen to adopt their own rules, regulations, and policies to implement PURPA in regard to investor-owned utilities. Nonregulated electric utilities (consumer-owned utilities) are required to implement FERC's rules themselves.

FERC can enforce these requirements in federal court against any state authority or nonregulated utility, and QFs can petition FERC to initiate an enforcement action. If FERC declines to initiate an enforcement action, then the petitioner may bring an action in federal district court to compel the state regulatory authority to comply with the PURPA requirement at issue. The district court then determines the appropriate remedy. QFs can often directly appeal decisions made by their state regulatory commissions to state courts as well.

The Renewable Energy Coalition participates in federal and state administrative proceedings related to QF PURPA contracting and Avoided Cost methodology issues. Representatives of the Renewable Energy Coalition work hard to ensure that each commission decision affecting QFs is well-vetted and appropriately modeled to comply with PURPA and benefit QFs.

Definitions

Avoided Cost Prices – Under PURPA, avoided costs are the costs not incurred by the utility when it purchases power from a QF instead of spending more money on generating the power with new utility-owned resources. Avoided costs are generally segmented into energy prices and capacity prices.

The avoided costs paid to the QF depend on the quality and quantity of power delivered to the utility. They may be calculated to reflect things like stream flows, generating unit availability, loads, seasons, or other conditions.

Energy Prices – These prices are determined based on a market price forecast. Generally, the main prices include the cost of fuel. For example, the price a natural gas plant would pay to acquire the gas it needs to burn factors into calculating energy prices.

Capacity Prices – Capacity is the average output in kilowatts committed by a QF to an electric utility during a specific period. Capacity prices are the costs associated with that commitment to supply energy and ancillary services when needed. The costs are an allocated component of the fixed costs associated with providing the capability to deliver energy. A capacity payment can be made on a per kilowatt of the generating unit's installed capacity or included in the per kilowatt-hour payment for each electricity unit generated and sold to the utility. Idaho has a different policy on when existing and new QFs are eligible for capacity prices, but most states do not.

On-peak/Off-peak Prices – Energy is generally more expensive for a public utility to obtain during peak periods, which have historically occurred when most people are home and using their heating or cooling system, along with other home appliances and electronics. Each utility defines these peak periods, which signal to a QF when its energy will sell at a higher price. Utilities generally define their off-peak periods as anytime not on peak.

Resource Sufficiency Period – A time period in which a utility's existing generating resources are expected to be adequate to meet the demand on the system. Thus, the utility has enough or a "sufficient" amount of resources. The utilities argue that capacity prices are zero or very low during Resource Sufficiency Periods, which often results in avoided cost pricing during a Resource Sufficiency Period that is significantly lower than avoided cost pricing during a Resource Deficiency Period.

Resource Deficiency Period – A time period in which a utility's existing generating resources are expected to be inadequate to meet the demand on the system. The demarcation between sufficiency and deficiency has historically been the start date of the utility's next major resource acquisition in its integrated resource plan.

Firm Energy Prices – Firm energy is a specified quantity of energy committed by a QF to an electric utility. Firm prices are "fixed" and do not change over the life of the power purchase agreement. Firm Energy Prices combine allocated fixed costs and associated variable costs applicable to a displaced generating unit or to a purchase.

Nonfirm Energy Prices – Nonfirm energy is delivered by a QF to an electric utility on an “as available” basis. It can also be energy delivered by a QF in excess of its firm energy commitment. Nonfirm prices are variable and change over the life of the power purchase agreement. Pricing for nonfirm energy is determined by the incremental costs associated with the production or purchase of electric energy by the electric utility, including the cost of fuel and variable operation and maintenance expenses, or the cost of purchased energy.

Price Calculation Methodologies – Each utility has its own way of calculating avoided cost prices that must be approved by the state regulatory authority. For a breakdown of how each state calculates its avoided costs, see Appendix One.

Published or Standard Avoided Cost Prices – Utilities generally offer pre-determined avoided cost prices to QFs that fall under a specified size threshold. These pre-determined (and pre-approved by the state commission) prices are intended to reduce the negotiating burden on smaller QFs. Thus, these prices are not intended to be negotiated, and they should be effectively cut and pasted into a power purchase agreement. However, these prices can change significantly when the commission approves new prices. Thus, it is essential that QFs negotiating new contracts and eligible for standard prices understand when their utility is likely to file for a change to standard pricing, so that they can conclude negotiations prior to that filing and/or commission approval.

Renewable vs. Non-renewable Avoided Cost Prices – The price can be different depending on what type of generation facility the utility is planning to build and whether the QF is selling its renewable energy certificates (RECs) to the utility. The prices can also reflect avoided environmental compliance costs. In most states, there is no separate “renewable” and “non-renewable” avoided cost price. In states with separate prices, renewable prices are generally based on the costs of the utility’s next major planned renewable resource acquisition. This has historically been a wind generation facility but is now often a solar generation facility. In addition, some states with renewable prices set different renewable prices for different technology types, such as solar pricing based on the costs of avoiding a solar facility. To obtain the renewable price, a QF must sell its net output and its RECs. Non-renewable prices are based on the utility’s next major planned non-renewable resource acquisition. This was historically a coal facility and is now a gas fired generation facility.

Technology-Based Avoided Cost Prices – The price paid varies based on the specific generation technology and fuel output (baseload hydro, seasonal hydro, wind, solar, biomass, cogeneration, etc.).

Levelized Price Application – Avoided costs prices can vary in each year, or they can be levelized so that the prices in each year are equal, or at least more equal. An example of non-levelized prices would be prices changing each year from \$25 per kilowatt-hour in Year 1, \$30 per kilowatt-hour in Year 2, \$35 per kilowatt-hour in year 3, etc. An example of levelized prices would be \$30 per kilowatt-hour in Years 1 through 3. Levelization results in the QF project receiving energy rates in the early years of a QF contract that are higher than the actual avoided costs of energy,

and lower in the later contract years. Levelized rates improve the ability for projects to be financed but place the more risk of QFs' default on ratepayers. This is because if a QF defaults on their long-term QF contract before the full term of the contract, then they would have been overpaid in the early years and the utility cannot recoup those payments.

Index or Market Pricing – Market pricing is when the avoided cost price is based upon either a current market price or forecasted market price. The market price is based on either a utility or a third-party electricity price forecast computer model and/or an “index” based upon a published electricity index price for the relevant market region.

Different Types of Prices

There are different types of avoided cost prices. It is important to understand the different types of prices so that QFs can pursue the best pricing available for their operations.

A QF may be eligible to receive more than one type of price at the same time. For example, QFs may be paid both energy prices and capacity prices at the same time. Alternatively, a QF may need to decide in advance what type of price it wants to receive, such as a renewable price or a non-renewable price. Finally, a utility may not offer certain types of prices. In that instance, it may make sense for a QF to consider selling to a different utility that offers the best type(s) of prices for that QF.

1. Fixed Prices and Variable Prices

A utility will offer a contract with prices that are either fixed or variable. As the names suggest, fixed prices do not change after the contract is signed, but variable prices do. Note that a fixed price contract may include many different fixed prices. For instance, a fixed price contract may offer different fixed prices for each month of each year of the contract, different prices for peak and off-peak periods, or different prices for energy and capacity. Although the price paid changes each month, the prices themselves are all considered fixed because they do not change over the life of the contract. Fixed prices are generally set at the time of contract execution.

Variable prices most often vary with market prices. Market, indexed, and “as-available” prices are common types of variable price.

A contract can include both fixed prices and variable prices. For instance, a utility may offer fixed prices for the first fifteen years of a twenty-year contract and variable prices for the last five years. Similarly, a contract may have a fixed kilowatt-hour payment, which can change depending on the reliability of the electricity supplied and whether it can meet certain pre-determined factors. Some of those factors include being available on peak periods or whether the QF can deliver based on an estimate provided to the utility.

Having a variable price contract may be good if the future market price is high. However, it is impossible to know for sure whether future market prices will be higher or lower. This uncertainty can make it difficult to finance a project because most financiers assume that the potential profitability of a generator with a variable price contract is likely low.

A fixed price contract may ultimately provide less profitability than a variable price contract. However, once the contract is signed, a QF can know with almost complete certainty its profitability. Most financiers like certainty, so they are more likely to support a project with a fixed price contract, unless the QF is eligible for the “standard” prices approved by a regulatory commission. Standard prices may be fixed months earlier than contract execution.

2. Energy Prices and Capacity Prices

A QF is paid based on its “net output” and should be paid for all of the value that it provides to a utility’s system. Two commonly recognized valuable products that QFs provide to utilities are “energy” and “capacity,” and utilities value these two products differently.

The first product, energy, is what a QF generates at any given moment - the electrons. Utilities typically determine the value of energy by looking at the price to buy electrons from a market or looking at the price of fuel to generate electrons from another facility. If the utility is offering fixed prices (discussed above), a utility will estimate what the future market price or fuel price is likely to be.

The second product, capacity, is what a QF promises to generate in the future. That future could be in the next hour or next decade. A utility wants to know that it will have enough energy and capacity in the future because if it does not, it is at a high risk of future power outages. Utilities typically determine the value of capacity by determining the price of constructing a new generator, as a utility could obtain more capacity by building that generator. The capacity price will tend to be much lower if a utility recently constructed a new generator because the utility’s need for capacity is less at that time. Conversely, the capacity price will tend to be higher if a utility considers building a new generator but has not yet done so.

QFs are eligible to receive both energy prices and capacity prices.

3. Renewable Prices and Non-Renewable Prices

Besides energy or capacity, some utilities recognize renewable energy as a third valuable product that a QF can provide. These utilities typically are located in a state with a mandate called a Renewable Portfolio Standard. To comply with a Renewable Portfolio Standard, a utility must demonstrate that it obtained the mandated amount of renewable energy. This is done by having a certain number of Renewable Energy Credits (“RECs”). Generally, one REC represents one megawatt-hour of renewable energy.

A renewable energy QF may have the option to choose between receiving a Renewable Price or a Non-Renewable Price. Generally, but not always, a Renewable Price will tend to be higher than a Non-Renewable Price. Recall that the prices are different depending on what type of generation facility the utility is planning to build and whether the QF is selling RECs to the utility. Prices also reflect avoided environmental compliance costs. Some states require utilities to buy both the renewable energy and the REC at the same time (a “bundled” purchase). Other states allow the utilities to meet their renewable needs with RECs that are not bought at the same time as the power (an “unbundled” purchase); this has created a market for REC, separate from any market for energy. Selling RECs in a bundled sale to the utility has historically provided a better payoff than trying to sell the RECs in an open market.

4. Technology Based Prices

Utilities in states without Renewable Portfolio Standards generally do not offer Renewable Prices. They may, however, offer technology-based prices.

QFs might only be eligible for prices determined for their specific technology. Prices can vary depending on the “quality” of the QF’s power, including its reliability, dispatchability, ability to meet peak power needs, and other factors. Historically, prices have been determined based on the generation resource’s technology, with variable wind and solar generation receiving a lower price. For example, a solar QF might be eligible for solar pricing, but it would not be eligible for baseload pricing. Utilities determine different prices for different technologies because different technologies may offer more value than others.

Historically, utilities looked at some technologies as providing “baseload” power, which meant that it was available at almost any time. The utility could depend on that facility to generate power, even if the sun was not shining or the wind was not blowing. In contrast, variable technologies, like wind or solar, were considered “intermittent” resources. The distinction is most often reflected in different capacity values for different resources, but there can be other differences as well.

Some utilities recognize seasonal hydropower resources as providing “baseload” power because the water flow needed for seasonal hydropower tends to be more predictable than, for instance, the wind needed for wind power. In addition, seasonal hydro may be more or less valuable to the utility depending on whether the expected hydroelectric generation matches the utility’s seasonal peak load or seasonal electricity need.

It is important to know whether a utility offers a technology-based price for a QF’s specific technology. A QF may or may not have the option to select a technology-based price.

Prices do not exist for every technology. For instance, storage is a relatively new technology, and few, if any, utilities offer storage-specific pricing.

5. Standard and Negotiated Prices

QFs with a nameplate capacity below a certain threshold may be eligible for standard (or “published”) avoided cost pricing. The purpose of standard prices is to reduce the negotiating burden on smaller QFs. The size threshold varies by state and sometimes by utility.

Larger QFs are not eligible for standard pricing and must instead negotiate for the avoided cost pricing applicable to their specific project. State regulatory commissions generally approve standard pricing as well as the methodology by which utilities are allowed to determine negotiated pricing. Please see Appendix One for additional information on each utility’s methodology.

The utilities often argue that standard prices are too high and outdated because the pricing does not change until a commission approves new standard pricing. Commissions generally

agree with the utilities that standard pricing is less accurate than negotiated prices. However, standard prices are required by law, at least for QFs under 100 kW. Thus, instead of arguing about whether or not to offer standard pricing, disputes often focus on the eligibility threshold and when a QF is “too large” to be eligible for standard pricing. The Renewable Energy Coalition monitors, and routinely advocates against, utility applications to lower eligibility thresholds.

Calculation of Avoided Cost Prices

A major role of the Renewable Energy Coalition is to scrutinize how a utility calculates its avoided cost prices. This section discusses some of the most significant factors that affect how a utility calculates its avoided cost prices.

1. Methodologies and Models

There are several types of methodologies that utilities use to calculate avoided costs. The “proxy method” got its name because it uses the estimated costs of building or operating a hypothetical generator as a proxy for the utilities’ avoided costs. This method is preferable for many QFs because the utility must show its work, and the power producers can understand the formula easier. Recall that variable prices for energy are typically determined by looking at the current market price for energy or fuel; a specific fuel price may be selected because a utility’s chosen proxy generator requires that type of fuel to operate.

Another method frequently used, the modeling method, got its name because a utility develops a computer model for estimating costs based on the expected value of the QF operating on the utility’s system. This modeling method almost always produces lower prices for energy bought from QF, as the utility can sometimes manipulate its model to a point where it is more difficult for a power producer to understand the methodology used because the computer models are difficult to understand and require expensive consultants to verify their accuracy.

2. Cost Inputs for Energy and Capacity Prices

Because energy and capacity prices compensate for different valuable products, the prices themselves use different cost inputs. Energy prices usually reflect a current market price for energy or fuel. These market prices might be the only input to the energy prices a utility offers. Alternatively, a utility might adjust its energy prices to reflect other operations and maintenance expenses.

Capacity prices, in contrast, generally do not include any cost inputs for operations and maintenance. Instead, capacity prices are generally determined by the estimated capital costs of constructing a new generator. Some states pay for capacity based on the value of firm market purchases.

3. Adjustments to Avoided Cost Prices

Sometimes utilities adjust the avoided cost prices based on factors besides the methodology or cost inputs. Two common adjustments are integration costs and wheeling transmission costs.

Integration costs cover a utility’s expenses in “integrating” a resource. For example, a utility will need to perform some work to integrate an intermittent wind facility, because wind power changes affect the generation produced. Utilities need to balance their system at all times, so when the wind drops or picks up, the utilities have to change other resources on their system.

There can be costs associated with the changes to other resources and the simple administrative tasks involved.

Transmission costs are less common for QFs, as utilities generally cannot adjust avoided cost prices based on transmission costs unless a QF is located outside of the utility's system or is located in an area with more electricity generation than load, which is known as a "load pocket". In either case, a utility must acquire or use the transmission to wheel the QF's generation to a different area. In some cases, a utility may reduce avoided cost prices based on transmission costs the utility incurs.

Not all utilities make adjustments, and utilities may adjust avoided cost prices in different ways, even for the same item, like transmission costs.

4. Renewable Prices

In an earlier section, we discussed how some utilities offer renewable prices to reflect the value of a renewable energy generator providing a utility with Renewable Energy Credits that help the utility comply with a state mandated Renewable Portfolio Standard.

Recall that there are no separate "renewable" and "non-renewable" avoided cost price in most states. Where there are separate prices, renewable prices are generally based on the costs of the utility's next major renewable resource acquisition, such as a wind or solar generation facility, and non-renewable prices are based on the utility's next major non-renewable resource acquisition. In addition, some states set renewable prices based on the costs of the next acquisition of the same technology type (see Technology-Based Pricing in the prior section).

Because renewable and non-renewable resources often do not cost the same to build or acquire, the avoided costs generated from renewable and non-renewable resources are different as well, depending on the cost to obtain to the resource. Thus, renewable prices can be more or less than the non-renewable prices.

Additionally, for a QF to obtain the renewable price, a QF must sell its net output and its RECs.

5. Other Factors Influencing Contract Prices

There are many factors that can influence contract prices.

a. Impact of Integrated Resource Plans

In most states, the regulatory commission requires utilities to produce a long-term plan for how the utility will operate its system and provide adequate service to customers. This plan is often called an "Integrated Resource Plan" or an "IRP." States vary in how often they require utilities to produce IRPs and whether the state commission approves or acknowledges the IRP. (Approval and acknowledgment have different effects on utility operations, but the difference is not critical for understanding avoided cost prices and is therefore not discussed in this guide.)

A utility's IRP (once approved or acknowledged) has two significant impacts on avoided cost prices. First, the utility must include in the IRP its plans for future resource acquisitions or construction. These plans include specific dates, which are used later in setting fixed capacity prices. Second, in developing the IRP, a utility will update many cost inputs and assumptions about its operations that affect avoided cost prices. For example, a utility might decide to change its proxy plant as part of its IRP. Similarly, a utility might refine its model based on its IRP inputs. In addition, the price of steel or the value of tax credits might change.

The Renewable Energy Coalition monitors utility IRP filings and often engages in the commission proceedings because of the significant impacts on QFs and avoided cost pricing. Central items that the Renewable Energy Coalition monitors include: 1) the utility's demarcation of Resource Sufficiency Periods and Resource Deficiency Periods; 2) the reasonableness and accuracy of the inputs and assumptions for calculation of the prices; 3) whether the prices are consistent with the relevant commission's policies, rules and orders, and 4) utility modeling regarding QFs. How utilities treat QFs in their IRPs can be influential in determining when and whether QFs are paid for the capacity value they provide, so this is a core concern for the Renewable Energy Coalition.

b. Impact of Requests for Proposals

A utility can acquire capacity by building a resource or by buying one. A utility buys a resource after first issuing a Request for Proposals ("RFP"). A utility usually only builds a resource at the set time in the Integrated Resource Plan, but it is not uncommon for utilities to issue RFPs at unexpected times. If a utility issues an RFP and acquires a resource, then the utility will need less new capacity, and capacity prices will decrease. These prices from the RFP may also be used to set the avoided cost of energy or capacity prices. Utility acquisitions can be a trigger for reductions to standard pricing as well as negotiated pricing.

c. Resource Sufficiency and Deficiency Periods

The terms "resource sufficiency period" and "resource deficiency period" distinguish between when a utility expects to have adequate capacity and when a utility expects to need additional capacity. These time periods are often set in a utility's IRP, but they can change based on acquisitions through an RFP.

The utilities argue that capacity prices are zero or very low during resource sufficiency periods. The Renewable Energy Coalition's advocacy was instrumental in convincing the Idaho commission not to adopt the utilities' argument and instead to mandate capacity payments for existing QFs during resource sufficiency periods. The Renewable Energy Coalition continues to advocate for the same policy to be adopted in other states.

d. Contract Term

The contract term is the length in which a QF commits to sell its electricity to the utility. It generally limits the length of fixed price payments. When using fixed prices, the length of a contract can affect those prices. For example, if a utility expects to be in a resource sufficiency

period for the next ten years, then there may be no capacity payments for those ten years. Thus, a QF with a five-year contract might never receive a capacity price payment. Similarly, contract terms can have a substantial effect on levelization of pricing, when available. The negative impacts of short contract terms on QF pricing also negatively impacts a QF's ability to attract financing.

In addition, the length of a contract dictates how often a QF must approach the utility and negotiate a new contract. The smaller the contract term, the higher the negotiating burden on the QF.

Most states require utilities to offer contract terms of specific lengths to QFs. Utilities often argue for extremely short contract terms. Short contract terms make it more difficult for QFs to obtain financing, develop or maintain their facilities, or dedicate sufficient resources to the contract negotiation process to secure other important terms.

The Renewable Energy Coalition keeps a close watch on utility filings regarding contract term and routinely engages to advocate against the utilities' proposals to shorten contract terms. In some instances, the Renewable Energy Coalition has not only rebuffed the utilities' efforts but has also successfully convinced state commissions to adopt longer contract terms.

e. Value of Storage

Battery storage is a relatively new technology, and the added value of storage (battery or otherwise) is not yet accounted for in avoided cost prices. However, this is an evolving area and may change within the next few years.

Like wind and solar technologies, the costs of storage have fallen dramatically in the last few years. These cost changes are driving renewed interest in storage technology, particularly as utility systems change to incorporate more intermittent resources, like wind and solar. Stand-alone storage facilities may be eligible for "baseload" technology prices until storage-specific pricing is accounted for. In addition, solar QFs with storage facilities may see solar-plus-storage pricing options that are higher than solar-only, as the co-located resources more closely resemble a dispatchable baseload resource. However, these technological advancements have not yet been recognized in most utility or state commission policies regarding pricing. Currently, the value of storage does not have a substantial impact on avoided cost pricing, except when pricing is being negotiated *and* the utility's methodology recognizes the additional value(s) that storage provides.

The Renewable Energy Coalition monitors commission proceedings for opportunities to ensure QFs are adequately compensated for the full value they provide, including the value of any QF storage facility.

f. Transmission and Distribution Losses

As noted earlier, utilities may adjust avoided cost prices to reflect the need for acquiring transmission. Transmission and distribution can affect the total amount of power a utility will

pay for because there are technical inefficiencies associated with moving electricity. Utilities generally do not pay for the generation that does not reach the utility due to transmission or distribution losses.

g. Other Broader Factors

In addition to the above factors, numerous items that can influence utility operations and affect a utility's avoided cost prices.

i. Customer Changes

For instance, a utility's customers may start using significantly more or less power, and these load changes will affect a utility's need for both energy and capacity. For example, the electrification of transportation will likely drive significant load changes in the coming decade.

ii. Legislative Changes

Another major factor is legislative changes. States can adopt or amend their Renewable Portfolio Standards, which will affect a utility's need for renewable resources and thereby affect any Renewable Prices offered by a utility. Similarly, states or the federal government can adopt different environmental compliance requirements. Utilities might decide to retire an existing resource, like a coal plant, instead of investing in pollution control technologies. Any retirements should increase the utility's need for capacity and will increase capacity prices.

iii. Market Changes

Market conditions can affect avoided cost prices. Changes in the gas market can affect the availability and price of fuel. Many utilities use gas and gas plants as their chosen "proxy" fuel and generator, so any changes in gas prices will affect those utility's energy prices. A long-term market change could drive a utility to adopt a different proxy, which would likely significantly impact the utility's avoided cost prices.

Another market that can affect avoided cost prices is any local energy market. Recall that some utilities rely on market prices to set their avoided energy prices. If the market changes, those energy prices will change as well.

Although there is no organized energy market in the Pacific Northwest or Intermountain region, there is rising interest in forming or joining one. For this reason, it is important to know that the availability of an organized market can affect the application of PURPA. FERC has developed a presumption that QFs 5 megawatts and above in an area with an organized energy market have an adequate opportunity to sell their power and therefore do not need PURPA. Based on this presumption, FERC exempts utilities from offering PURPA contracts to QFs 5 megawatts and above in an area with an organized energy market. A QF may be able to rebut this presumption, but the QF would need to show, for example, that it does not have access to the market due to a lack of transmission.

Timing and Basis of Avoided Cost Price Updates

Utilities adopt their methodology, assumptions, and inputs for calculating avoided cost prices, but all three of these things can and do change. The important message for Renewable Energy Coalition members is that you should know when your avoided cost prices can or could change. This is because a project does not want to be negotiating or finalizing its contract, and then be surprised that prices have changed, and it is no longer eligible for the higher, older prices.

As a preliminary matter, it is important to understand that most regulatory commissions approve both a utility's methodology for calculating avoided cost prices and a utility's specific calculated prices. Small QFs are often eligible to receive the calculated prices reviewed and approved by the public utility commissions. These prices are known as "standard" avoided cost prices. Until the commission approves new standard prices, the utility must offer the old prices to eligible QFs. Utilities often complain that standard prices are too high and harm customers because the cost inputs have changed or are not precise enough to account for the value of the power and contract terms. For this reason, larger QFs are generally not eligible for standard prices. Larger QFs are still eligible to receive prices calculated based on the utility's methodology approved by the commission, but actual prices are calculated closer to contract execution.

The important point for this section is that utilities update standard avoided cost prices regularly, usually on an annual basis. Commissions also sometimes change prices after acknowledgment of a utility's Integrated Resource Plan or following the results of an RFP. Utilities may be able to petition their state commission to approve new prices at another time in an out-of-cycle update (i.e., a change that is not at the regularly scheduled time). The commission may approve changes to the utility's methodology when the commission approves new standard prices.

Some commissions will typically not approve significant changes in cost inputs, assumptions, or methodology unless the commission recently approved a new Integrated Resource Plan for the utility or a changed methodology in another proceeding. In that case, the commission often allows the utility to update its avoided cost prices with any changes that the commission approved in the IRP or other proceeding.

Non-IRP avoided cost updates generally change only a few items, such as changes to federal tax credits or updating inputs like gas prices.

Ultimately, however, the above is only guidance and is not controlling. The utility's commission will decide whether or not to approve changes in any given update, even if the changes are significant and not previously approved in an IRP proceeding.

For more on avoided cost updates, see Appendix One, which discusses state and utility-specific practices.

Most Frequently Asked Questions

Q: My utility bill just went up. Why are avoided cost prices going down?

A: Retail prices (what consumers pay) and avoided cost prices (what the utility pays) are set by a regulator in different proceedings. Retail rates are based on historic costs that allow the utility to recover all of its prudently incurred expenses, plus an opportunity to earn a return on its investment. In contrast, avoided cost prices are based on the forecast cost of new resource acquisitions. Retail rates should generally be higher because they include the costs of distribution, transmission and historic and forecast costs of new generation, while avoided cost prices are based only on the forecast costs of new generation. In addition, there are a lot of factors to both types of prices, but many of these factors do not overlap. While the two are interrelated, the effect from one on the other is often delayed or the reverse of what one might expect. For instance, a utility whose avoided cost prices are too low to finance QFs might not have adequate capacity to serve its customers, so it might buy costly power from a regional market, resulting in high retail prices. Before avoided cost pricing changes, this utility might then get approval to build its own new power plant, which could result in avoided cost prices decreasing even further. The Renewable Energy Coalition monitors avoided cost pricing proceedings to raise attention to these sorts of harmful circumstances and to remind (and, where necessary, educate) the commission about how utility ratepayers can be best served by small independent power producers, like QFs. The Renewable Energy Coalition does not participate in utility proceedings to set retail prices.

Q: Why doesn't the state regulator set avoided cost prices themselves?

A: Some state regulators, like those in Idaho, have their staff calculate avoided cost prices instead of reviewing the utility's filing. However, most regulators seem to view this as an unnecessary use of staff resources. The utilities also strongly oppose ceding control over their avoided cost prices.

Q: Why wouldn't the utility seek the best policies (accurate pricing, long contract terms, etc.) for its ratepayers?

A: Utilities seek what they view to be the best policies for their customers *and their investors*. What is good for investors is not always good for customers, which is why it is important that regulatory commissions exercise robust oversight of utility operations. Plus, utilities (and regulatory commissions!) are not perfectly informed, especially about non-utility resources like QFs. That is why it is so important that entities like the Renewable Energy Coalition educate the regulators (and utilities) on QFs and the values they can provide. Even QFs operating for decades are often not well known to the regulators or their staff.

APPENDIX ONE TO AVOIDED COST REPORT

This Appendix displays the main features of each utility's Avoided Cost calculation methods. The charts below are organized by state and then by utility.

Idaho: Avista, Idaho Power, and PacifiCorp

Montana: NorthWestern Energy

Oregon: Avista, PacifiCorp, and Portland General Electric

Utah: PacifiCorp

Washington: Avista, PacifiCorp, and Puget Sound Energy

Wyoming: PacifiCorp

Note: Since definitions and explanations of the content is intended to be addressed in the previous report section, the entries to these are brief bullet-point like responses.

Disclaimer: This information is not being provided as legal advice and should not be relied upon as a legal opinion.

APPENDIX ONE TO AVOIDED COST REPORT

Idaho	
Avista	
Regulatory Commission	Idaho Public Utilities Commission
State PURPA legislation	N/A
Applicable Tariff(s)	Schedule 62 Note that the Idaho Commission publishes avoided cost prices rather than having utilities report. The published prices can be found on the Commission’s website https://puc.idaho.gov/
Standard Avoided Cost Threshold	100 kW for wind and solar; 10 aMW for hydro and other resources. Energy storage resources would likely be subject to the 100 kW threshold, but the Idaho Commission has not made this determination for Avista yet.
Standard PPA Threshold	There is no standard PPA. PPAs are filed and approved by the IPUC on a case-by-case basis.
Contract term	2 years for wind or solar projects over 100 kW 20 years for wind or solar projects under 100 kW 20 years for all hydro and other resources Energy storage resources would likely be subject to the 2-year term if larger than 100 kW threshold, but the Idaho Commission has not made this determination for Avista yet.
Renewable Prices	No.
Technology Based Prices	Yes, there are separate prices for wind, solar, seasonal hydro, non-seasonal hydro, and “other” projects.
Levelization of Prices	Yes, Avista offers levelized and non-levelized price options.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard prices are calculated using a proxy method called the Surrogate Avoided Resource method. The proxy generator is a combined cycle combustion turbine gas plant. The Commission uses the mountain region gas price forecast as an input to the Surrogate Avoided Resource methodology. • Non-standard prices are calculated using an approach called the “IRP Method.” • Capacity payments are available to: (1) existing and operating QFs if they were receiving a capacity payment at the end of their last PPA; and (2) new QFs after the deficiency period begins. • There is an integration cost specifically for wind generation.
Timing of Updates	<ul style="list-style-type: none"> • Standard prices are updated annually by the IPUC Staff on June 1 or within 30 days of the release of the EIA’s Annual Energy Outlook, whichever is later. • The Commission requires utilities to update fuel price forecasts and load forecasts each year on October 15.

APPENDIX ONE TO AVOIDED COST REPORT

Idaho	
Idaho Power	
Regulatory Commission	Idaho Public Utilities Commission
State PURPA legislation	N/A
Applicable Tariff(s)	<p>Schedule 73</p> <p>Note that the Idaho Commission publishes avoided cost prices rather than having utilities report. The published prices can be found on the Commission’s website https://puc.idaho.gov/</p>
Standard Avoided Cost Threshold	100 kW for wind, solar, and energy storage; 10 aMW for hydro and other resource.
Standard PPA Threshold	There is no standard PPA. PPAs are filed and approved by the IPUC on a case-by-case basis.
Contract term	<p>2 years for wind, solar, or energy storage projects over 100 kW</p> <p>20 years for wind, solar, or energy storage projects under 100 kW</p> <p>20 years for all hydro and other resources</p>
Renewable Prices	No.
Technology Based Prices	Yes, there are separate prices for wind, solar, seasonal hydro, non-seasonal hydro, and “other” projects.
Levelization of Prices	Yes, Idaho Power offers levelized and non-levelized price options.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard prices are calculated using a proxy method called the Surrogate Avoided Resource method. The proxy generator is a combined cycle combustion turbine gas plant. The Commission uses the mountain region gas price forecast as an input to the Surrogate Avoided Resource methodology. • Non-standard prices are calculated using an approach called the “IRP Method.” • Capacity payments are available to: (1) existing and operating QFs if they were receiving a capacity payment at the end of their last PPA; and (2) new QFs after the deficiency period begins. • There is an integration cost specifically for wind and solar generation. • There is an adjustable price component specifically for natural gas fueled facilities.
Timing of Updates	<ul style="list-style-type: none"> • Standard prices are updated annually by the IPUC Staff on June 1 or within 30 days of the release of the EIA’s Annual Energy Outlook, whichever is later. • The Commission requires utilities to update fuel price forecasts and load forecasts each year on October 15.

APPENDIX ONE TO AVOIDED COST REPORT

Idaho	
PacifiCorp	
Regulatory Commission	Idaho Public Utilities Commission
State PURPA legislation	N/A
Applicable Tariff(s)	Rocky Mountain Power Schedule No. 38 Note that the Idaho Commission publishes avoided cost prices rather than having utilities report. The published prices can be found on the Commission’s website https://puc.idaho.gov/
Standard Avoided Cost Threshold	100 kW for wind and solar; 10 aMW for hydro and other resources. Energy storage resources would likely be subject to the 100 kW threshold, but the Idaho Commission has not made this determination for PacifiCorp yet.
Standard PPA Threshold	Although PacifiCorp has its own pro forma contract, the Idaho PUC has not adopted standard PPAs. PPAs are filed and approved by the IPUC on a case-by-case basis.
Contract term	2 years for wind or solar projects over 100 kW 20 years for wind or solar projects under 100 kW 20 years for all hydro and other resources Energy storage resources would likely be subject to the 2-year term if larger than 100 kW threshold, but the Idaho Commission has not made this determination for Avista yet.
Renewable Prices	No.
Technology Based Prices	Yes, there are separate prices for wind, solar seasonal hydro, non-seasonal hydro, and “other” projects.
Levelization of Prices	Yes, PacifiCorp offers levelized and non-levelized price options.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard prices are calculated using a proxy method called the Surrogate Avoided Resource method. The proxy generator is a combined cycle combustion turbine gas plant. The Commission uses the mountain region gas price forecast as an input to the Surrogate Avoided Resource methodology. • Non-standard prices are calculated using an approach called the “IRP Method.” • Capacity payments are available to: (1) existing and operating QFs if they were receiving a capacity payment at the end of their last PPA; and (2) new QFs after the deficiency period begins. • There is an integration cost specifically for wind and solar generation.
Timing of Updates	<ul style="list-style-type: none"> • Standard prices are updated annually by the IPUC Staff on June 1 or within 30 days of the release of the EIA’s Annual Energy Outlook, whichever is later. • The Commission requires utilities to update fuel price forecasts and load forecasts each year on October 15.

APPENDIX ONE TO AVOIDED COST REPORT

Montana	
NorthWestern Energy	
Regulatory Commission	Montana Public Service Commission
State PURPA legislation	MCA 69-3-601 to 69-3-604
Applicable Tariff(s)	<p>Schedule No. QF-1 QF Power Purchase Schedule No. QFLT-1 QF Long-term Power Purchase Schedule No. CR-1 Contingency Reserves</p> <p>Please note that NorthWestern Energy (“NWE”) has not consistently updated its schedules (above) with the most current standard prices. For the most recent information, remember to check the Avoided Cost webpage on the Renewable Energy Coalition’s website here.</p> <p>Please note that there was an ongoing proceeding, docket 2021.09.111, to update NWE’s QF tariff and policies at the time of publication.</p>
Standard Avoided Cost Threshold	3 MW
Standard PPA Threshold	N/A
Contract term	20 years
Renewable Prices	Unclear. The Commission recently issued an order allowing QFs to receive a carbon adder only if their forfeit their RECs, but the state legislature then passed a law that may prohibit this approach. NWE has filed to change this language in its tariff and instead allow QFs to separately contract to sell RECs.
Technology Based Prices	Yes, there are separate prices for solar, wind, and hydro/other resources.
Levelization of Prices	No
Standard price methodology/model	<ul style="list-style-type: none"> NWE’s avoided costs have historically been calculated using a proxy method.
Timing of Updates	<ul style="list-style-type: none"> NWE must file an update every February and whenever the utility’s supply portfolio has changed by more than 80 MW.

APPENDIX ONE TO AVOIDED COST REPORT

Oregon	
Idaho Power	
Regulatory Commission	Oregon Public Utility Commission
State PURPA legislation	ORS 758.505 – 758.555
Applicable Tariff(s)	Schedule 85 For additional information, see Oregon Docket No. UM 1730 .
Standard Avoided Cost Threshold	3 MW for Solar; 10 MW for all other resource types
Standard PPA Threshold	QFs up to 10 MW
Contract term	Up to 20 years from actual commercial operation date; with a right to 15 years of fixed prices from the same date.
Renewable Prices	No, the Oregon Commission does not currently require Idaho Power to offer Renewable pricing, because the utility has historically not been subject to Oregon’s Renewable Portfolio Standard. However, in their 2019 IRP, the utility noted it could need to meet a 5-percent requirement starting in 2025.
Technology Based Prices	Yes, there are separate prices for wind, solar, and “baseload” resources.
Levelization of Prices	No
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard prices are calculated based on a market price forecast during the utility’s sufficiency period and based on a proxy method during the utility’s deficiency period. The proxy generator is a combined cycle combustion turbine gas plant for non-renewable pricing and the next avoidable renewable resource for renewable prices (which has always been a wind resource). • Non-standard prices are calculated using the standard pricing methodology approved by the Idaho Public Utilities Commission (currently the “IRP Method”) with OPUC-approved modifications to certain inputs. • Capacity payments are available to new and existing QFs after the deficiency period begins. • Non-Firm Market Index Avoided Cost Prices are available to QFs that do not elect to provide firm power.
Timing of Updates	<ul style="list-style-type: none"> • Standard prices are updated annually around May 1st. • Standard prices are also often updated after the Commission acknowledges a utility’s latest IRP or IRP Update. • The Oregon Commission has approved many out-of-cycle updates over the past decade, which occur at irregular times.

APPENDIX ONE TO AVOIDED COST REPORT

Oregon	
PacifiCorp	
Regulatory Commission	Oregon Public Utility Commission
State PURPA legislation	ORS 758.505 – 758.555
Applicable Tariff(s)	<p>Standard Avoided Cost Rates Non-Standard Avoided Cost Rates</p> <p>Please note there was an ongoing proceeding, UM 1729, to update PacifiCorp’s standard avoided cost rates at the time of publication.</p>
Standard Avoided Cost Threshold	3 MW for Solar; 10 MW for all other resource type.
Standard PPA Threshold	QFs up to 10 MW.
Contract term	Up to 20 years from scheduled initial delivery date; with a right to 15 years of fixed prices from the same date.
Renewable Prices	Yes, the Commission requires the utility to offer both renewable and non-renewable rates. If QF is paid the renewable rate, the utility acquires the RECs commencing with the start of deficiency period, through the end of the contract.
Technology Based Prices	Yes, there are separate prices for “baseload”, wind, fixed solar, tracking solar, and “renewable baseload” resources.
Levelization of Prices	No
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard prices are calculated using a proxy method. The proxy generator for non-renewable prices is a combined cycle combustion turbine gas plant, and the proxy generator for renewable prices is the next avoidable renewable resource, which has always been a wind resource. • Non-standard non-renewable prices are based on PacifiCorp’s production cost model (called “GRID”) and a methodology called the Partial Displacement Differential Revenue Requirement method. • Non-standard renewable prices are calculated using the standard pricing methodology with modifications to certain inputs. • Sufficiency/deficiency demarcations are determined based on the utility’s next planned renewable or nonrenewable resource. • Capacity payments are available to new and existing QFs after the deficiency period begins. Non-Firm Market Index Avoided Cost Prices are available to QFs that do not elect to provide firm power. QFs taking this option will have contracts that do not include minimum delivery requirements, default damages for construction delay or, for under delivery or early termination, or default security for these purposes. Prices paid are 93 percent of a blending of ICE Day Ahead Power Price Report at market hubs for on-peak and off-peak firm index prices. The utility should provide the monthly blending matrix upon request.
Timing of Updates	<ul style="list-style-type: none"> • Standard prices are updated annually. • Standard prices are also often updated after the Commission acknowledges a utility’s latest IRP or IRP Update. • The Oregon Commission has approved many out-of-cycle updates over the past decade, which occur at irregular times.

APPENDIX ONE TO AVOIDED COST REPORT

Oregon	
Portland General Electric	
Regulatory Commission	Oregon Public Utility Commission
State PURPA legislation	ORS 758.505 – 758.555
Applicable Tariff(s)	Schedule 201 Schedule 202 For additional information, see Oregon Docket No. UM 1728 .
Standard Avoided Cost Threshold	3 MW for Solar; 10 MW for all other resource type.
Standard PPA Threshold	QFs up to 10 MW.
Contract term	Up to 20 years from scheduled commercial operation date; with a right to 15 years of fixed prices from the same date.
Renewable prices	Yes, the Commission requires the utility to offer both renewable and non-renewable rates. If QF is paid the renewable rate, the utility acquires the RECs commencing with the start of deficiency period, through the end of the contract.
Technology based prices	Yes, there are separate prices for “baseload”, wind, and solar resources.
Levelization of Prices	No
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard prices are calculated based on a market price forecast during the utility’s sufficiency period and based on a proxy method during the utility’s deficiency period. The proxy generator is a combined cycle combustion turbine gas plant for non-renewable pricing and the next avoidable renewable resource for renewable prices (which has always been a wind resource). • Non-standard prices are calculated using the standard pricing methodology with modifications to certain inputs. • Capacity payments are available to new and existing QFs after the deficiency period begins. • Non-Firm Market Index Avoided Cost Prices are available to QFs that do not elect to provide firm power.
Timing of Updates	<ul style="list-style-type: none"> • Standard prices are updated annually around May 1st. • Standard prices are also often updated after the Commission acknowledges a utility’s latest IRP or IRP Update. • The Oregon Commission has approved many out-of-cycle updates over the past decade, which occur at irregular times.

APPENDIX ONE TO AVOIDED COST REPORT

Utah	
PacifiCorp	
Regulatory Commission	Utah Public Service Commission
State PURPA legislation	N/A
Applicable Tariff(s)	Rocky Mountain Power Electric Service Schedule No. 37 Rocky Mountain Power Electric Service Schedule No. 38
Standard Avoided Cost Threshold	3 MW for small power production facilities; 1 MW for Cogeneration (25 MW Cumulative Cap for all utility purchases).
Standard PPA Threshold	Standard PPA for QFs at least 1 MW in size.
Contract term	15 years.
Renewable Prices	No.
Technology based Prices	Yes, there are prices for “baseload”, fixed solar, tracking solar, and wind facilities.
Levelization of Prices	Yes, PacifiCorp offers both levelized and non-levelized prices.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Both standard and non-standard prices for avoided energy are calculated using PacifiCorp’s production cost model (called “GRID”) and a methodology called the Partial Displacement Differential Revenue Requirement method. • Avoided capacity costs are based on the capital cost of the next deferrable “like” resource in the Company’s most recent IRP (i.e. wind defers the next wind resource, solar defers solar, etc.).
Timing of Updates	<ul style="list-style-type: none"> • PacifiCorp must file updates annually, either within 30 days of filing its IRP or by April 30th, whichever is earlier.

APPENDIX ONE TO AVOIDED COST REPORT

Washington	
Avista	
Regulatory Commission	Washington Utilities & Transportation Commission
State PURPA legislation	WAC 480-106
Applicable Tariff(s)	Schedule QF See also Avista’s Avoided Cost Rate Methodology for Power Purchases from Large QFs (WA Docket No. UE-200455).
Standard Avoided Cost Threshold	5 MW
Standard PPA Threshold	For QFs up to 5 MW.
Contract term	15 years from PPA execution date for new QFs; 10 years for existing QFs; term of “less than 5 years” for QFs that do not comply with greenhouse gas requirements.
Renewable prices	Sometimes. If the utility’s avoided resource is a renewable resource, then the QF must forfeit its RECs. Otherwise, QFs retain the RECs unless they are sold for additional compensation.
Technology Based Prices	Yes, there are separate prices for on-system wind, Montana wind, solar, solar plus 4 hour battery, hydro, and “other” resources.
Levelization of Prices	In part. Levelization is required for capacity payments in standard pricing.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard Pricing <ul style="list-style-type: none"> ○ QFs are paid for the value of energy in all years based on a forecast of market prices. ○ QFs are paid for the value of capacity based on either: 1) the projected fixed costs of the utility’s next planned acquisition in its IRP; or, 2) if there is a need for market purchases that are not yet executed, then the projected fixed costs of a simple-cycle combustion turbine. • Non-Standard Pricing <ul style="list-style-type: none"> ○ Avista’s non-standard pricing generally incorporates the energy and capacity values from its standard pricing, then makes additional modifications to reflect other variants. For more details, see the Commission-approved methodology.
Timing of Updates	<ul style="list-style-type: none"> • Washington utilities must file updates to standard pricing by November 1st every year. • Utilities may file out-of-cycle updates in addition to the annual filings, but the out-of-cycle update may not become effective until at least sixty days after filing.

APPENDIX ONE TO AVOIDED COST REPORT

Washington	
PacifiCorp	
Regulatory Commission	Washington Utilities & Transportation Commission
State PURPA legislation	WAC 480-106
Applicable Tariff(s)	Schedule QF See also PacifiCorp’s Avoided Cost Rate Methodology for Power Purchases from Large Qualified Facilities (WA Docket No. UE-200573)
Standard Avoided Cost Threshold	5 MW
Standard PPA Threshold	For QFs up to 5 MW.
Contract term	15 years from PPA execution date for new QFs; 10 years for existing QFs; term of “less than 5 years” for QFs that do not comply with greenhouse gas requirements.
Renewable prices	Sometimes. If the utility’s avoided resource is a renewable resource, then the QF must forfeit its RECs. Otherwise, QFs retain the RECs unless they are sold for additional compensation.
Technology Based Prices	Yes, there are separate prices for solar and wind QFs and “baseload” QFs that are not wind or solar QFs.
Levelization of Prices	In part. Levelization is required for capacity payments in standard pricing.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard Pricing <ul style="list-style-type: none"> ○ QFs are paid for the value of energy in all years based on a forecast of market prices. ○ QFs are paid for the value of capacity based on either: 1) the projected fixed costs of the utility’s next planned acquisition in its IRP; or, 2) if there is a need for market purchases that are not yet executed, then the projected fixed costs of a simple-cycle combustion turbine. • Non-Standard Pricing <ul style="list-style-type: none"> ○ PacifiCorp’s non-standard pricing generally incorporates the energy and capacity values from its standard pricing, then makes additional modifications to reflect other variants. For more details, see the Commission-approved methodology.
Timing of Updates	<ul style="list-style-type: none"> • Washington utilities must file updates to standard pricing by November 1st every year. • Utilities may file out-of-cycle updates in addition to the annual filings, but the out-of-cycle update may not become effective until at least sixty days after filing.

APPENDIX ONE TO AVOIDED COST REPORT

Washington	
Puget Sound Energy	
Regulatory Commission	Washington Utilities & Transportation Commission
State PURPA legislation	WAC 480-106
Applicable Tariff(s)	Schedule 91 Schedule 92 See also Puget Sound Energy’s Avoided Cost Rate Methodology for Power Purchases from Large Qualified Facilities (WA Docket No. UE-191062)
Standard Avoided Cost Threshold	5 MW
Standard PPA Threshold	For QFs up to 5 MW.
Contract term	15 years from PPA execution date for new QFs; 10 years for existing QFs; 5 years for QFs that do not comply with greenhouse gas requirements.
Renewable Prices	Sometimes. If the utility’s avoided resource is a renewable resource, then the QF must forfeit its RECs. Otherwise, QFs retain the RECs unless they are sold for additional compensation.
Technology Based Prices	Yes, there are separate prices for solar and wind QFs and “baseload” QFs that are not wind or solar QFs.
Levelization of Prices	In part. Levelization is required for capacity payments in standard pricing.
Avoided Cost Methodology	<ul style="list-style-type: none"> • Standard Pricing <ul style="list-style-type: none"> ○ QFs are paid for the value of energy in all years based on a forecast of market prices. ○ QFs are paid for the value of capacity based on either: 1) the projected fixed costs of the utility’s next planned acquisition in its IRP; or, 2) if there is a need for market purchases that are not yet executed, then the projected fixed costs of a simple-cycle combustion turbine. • Non-Standard Pricing <ul style="list-style-type: none"> ○ Puget Sound Energy’s non-standard pricing generally incorporates the energy and capacity values from its standard pricing, then makes additional modifications to reflect other variants. For more details, see the Commission-approved methodology.
Timing of Updates	<ul style="list-style-type: none"> • Washington utilities must file updates to standard pricing by November 1st every year. • Utilities may file out-of-cycle updates in addition to the annual filings, but the out-of-cycle update may not become effective until at least sixty days after filing.

APPENDIX ONE TO AVOIDED COST REPORT

Wyoming	
PacifiCorp	
Regulatory Commission	Wyoming Public Service Commission
State PURPA legislation	N/A
Applicable Tariff(s)	Rocky Mountain Power Schedule No. 37 Rocky Mountain Power Schedule No. 38
Standard Avoided Cost Threshold	10 MW for QFs with over 70% capacity factor. For QFs with 70% capacity factor or less: 5 MW for hydro and 1 MW for all others.
Standard PPA Threshold	N/A. Although PacifiCorp has its own pro forma contract, the Wyoming Public Service Commission has not adopted standard PPAs.
Contract term	15 years for most resources; 20 years for small hydro eligible for standard pricing.
Renewable Prices	<ul style="list-style-type: none"> No, PacifiCorp receives Green Tags without any additional payment when it buys power from a QF resource. In the event a QF contract ends or is terminated, the Green Tags revert to the QF project until the developer sells or transfers the Green Tags to another purchaser.
Technology based prices	Yes, there are prices for “baseload”, fixed solar, tracking solar, and wind facilities.
Levelization of Prices	No
Avoided Cost Methodology	<ul style="list-style-type: none"> Both standard and non-standard prices are based on PacifiCorp’s Partial Displacement Differential Revenue Requirement methodology. The methodology uses cost data for the next deferrable “like” resource in the Company’s most recent IRP (i.e. wind defers the next wind resource, solar defers solar, etc.). However, if the next renewable resource is more than two years away, then renewable QFs may obtain pricing based on the next deferrable resource on a capacity-equivalent basis, regardless of resource type.
Timing of Updates	<ul style="list-style-type: none"> Wyoming utilities must file system cost data from which avoided costs may be derived not less than every two years or as otherwise ordered. For standard pricing, PacifiCorp must file an update at least annually. In addition, PacifiCorp will file to update standard pricing within 30 days of acquiring 10 MWs in aggregate, and until the new pricing is approved, the non-standard pricing methodology applies to all QFs over 100 kW in size.