



WORLD  
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ISSUE BRIEF

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# EMERGING GREEN TARIFFS IN U.S. REGULATED ELECTRICITY MARKETS

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## INTRODUCTION

Electricity customers—from residential to industrial—increasingly want their energy supply to be sourced from renewable energy. Renewable energy provides environmental benefits and reputational advantages, and it may offer opportunities to reduce their electricity bills and protect themselves against volatile fossil fuel-based power prices.

The [Corporate Renewable Energy Buyers' Principles](#) represent 69 million megawatt-hours (MWh) of renewable energy demand per year by 2020 (WRI and WWF 2016). Launched by WRI and WWF, total signatories have grown from a dozen companies to 77. As the Principles make clear (see Box 1), signatories expect renewable energy to provide more than environmental benefits (as demonstrated by the Renewable Energy Certificates [RECs])—they also want renewable electricity that is designed as a long-term, fixed-priced product.

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Utilities are weighing how to meet this evolving customer interest in renewable energy. In restructured states that provide easily accessible customer choice—13 states and the District of Columbia (Bonugli 2017)—customers can shop for electricity providers that offer fixed-price renewable energy options, including the environmental attributes (e.g., RECs). In the remaining states, which are traditional, regulated markets, options are more limited.

The simplest and most available option for customers in these states has typically been a utility “green pricing program.”<sup>1</sup> These programs offer RECs, often from local renewable energy projects, at an additional cost to standard utility electricity charges. The customer doesn’t have the opportunity to economically benefit from the fixed cost of the renewable energy project that created the RECs or protection against volatile fossil fuel prices.

Green tariffs, or riders, are an emerging option for customers in traditional, regulated markets. Offered by local utilities and approved by state public utility commissions (PUCs), these programs allow eligible customers to buy both the energy from a renewable energy project and the RECs. Since the first green tariff was proposed by NV Energy in 2013, 23 green tariffs in 17 states have been proposed or approved, with two denied by the PUC. Green tariffs cater to customers’ preference for a more direct financial connection to renewable energy projects, ideally within the same service territory or grid distribution area. Green tariffs can also offer greater economic value to customers than unbundled RECs alone.

Through green tariffs, traditional utilities may be able to offer renewable energy services as attractive as those that buyers are able to access in restructured states or through third-party financed “behind-the-meter” renewable energy services.

### BOX 1

## THE CORPORATE RENEWABLE ENERGY BUYERS’ PRINCIPLES

The [Corporate Renewable Energy Buyers’ Principles](#) establish the framework for what customers are seeking from electricity providers:

1. Greater choice in options to procure renewable energy
2. Cost competitiveness between traditional and renewable energy rates
3. Access to longer-term, fixed-price renewable energy
4. Access to projects that are new or help drive new projects in order to reduce energy emissions beyond business as usual
5. Increased access to third-party financing vehicles, as well as standardized and simplified processes, contracts, and financing for renewable energy projects
6. Opportunities to work with utilities and regulators to expand the choices for buying renewable energy

WRI’s [Technical Note](#) further explores these principles in detail (Bonugli 2017).

In some cases, green tariffs may also provide greater flexibility and lower transaction costs than alternatives, given utilities' expertise and decades of experience in integrating generation technologies, aggregating customer demand, and reliably delivering least-cost resources.<sup>2</sup>

This issue brief provides detailed information, organized in the following table, on the green tariff proposals and offerings for commercial and industrial (C&I) customers in regulated markets in the United States.

Figure 1 lists the states with pending or approved green tariffs to date.

The role of this issue brief and WRI's additional green tariff work is outlined in Box 3.

Green tariffs, or riders, are an emerging option for customers in traditional, regulated markets.

### Scope: Utility Green Tariff Offers

This issue brief only focuses on utility green tariff offerings.

As utilities work toward meeting C&I customer demand for renewable energy, several green tariff models have emerged. Green tariff programs have taken roughly three forms to date: a sleeved power purchase agreement (PPA), which grants access to individual physical PPAs through the utility; subscriber programs; and market-based rate programs, which allow for wholesale market participation through the utility. None of these green tariff forms requires the customer to pay the capital cost of the renewable energy facility. See the [Implementation Guide](#) for additional details on these emerging green tariff forms (Barua 2017).

The table excludes green pricing programs that rely on RECs but have no energy-pricing component; for example, where RECs are a premium charge on top of the full retail electricity rate. It also excludes utility programs that can be classified as community choice aggregation or community solar (see Box 2).

For additional information on utility renewable energy products that are not considered green tariffs, see the Technical Note (Bonugli 2017).

### Methodology

The criteria and characteristics highlighted in this table include customer costs, facility flexibility, contract time commitment, program size limits, procurement lead,<sup>4</sup> and risk management, among others. These are the characteristics that most often drive customers' purchasing decisions.

The data presented is compiled from expert partners' knowledge of existing and emerging green tariffs. WRI has also reviewed the public utility commission dockets as a primary resource, and verified the data with utilities and customers when applicable.

This table is regularly updated, but many utilities are moving forward quickly to offer new green tariffs. For complete and up-to-date details of each green tariff, see the appropriate docket or filing number listed in the table, or contact the offering utility and reference the interactive [U.S. Renewable Energy Map: A Guide for Corporate Buyers](#).

Green tariffs, or riders, are an emerging option for customers in traditional, regulated markets.

#### BOX 2

### COMPARING GREEN TARIFF SUBSCRIBER PROGRAMS AND COMMUNITY SOLAR

Subscriber programs tend to allow customers to subscribe to a portion of a large renewable energy project(s) while the utility holds the PPA. The utility aggregates these smaller customers to make a single, larger project more cost effective. Subscriber programs typically limit the ability to apply overgeneration to low-generation months, essentially serving as a credit to the customer.

Subscriber programs appear very similar to community solar,<sup>3</sup> loosely defined as tariffs where multiple customers are virtually net-metered against a limited share of a local renewable energy project. See the [Technical Note](#) for further detail on the distinction between these two utility products (Bonugli 2017).

## ABOUT THIS ISSUE BRIEF

The "Emerging Green Tariffs in U.S. Regulated Electricity Markets" issue brief provides detailed information on the green tariffs available in U.S. traditional, regulated electricity markets. The green tariff information captured in this issue brief serves as a primary source for the [U.S. Renewable Energy Map: A Guide for Corporate Buyers](#). This interactive map presents the renewable energy purchasing options offered to large-scale C&I

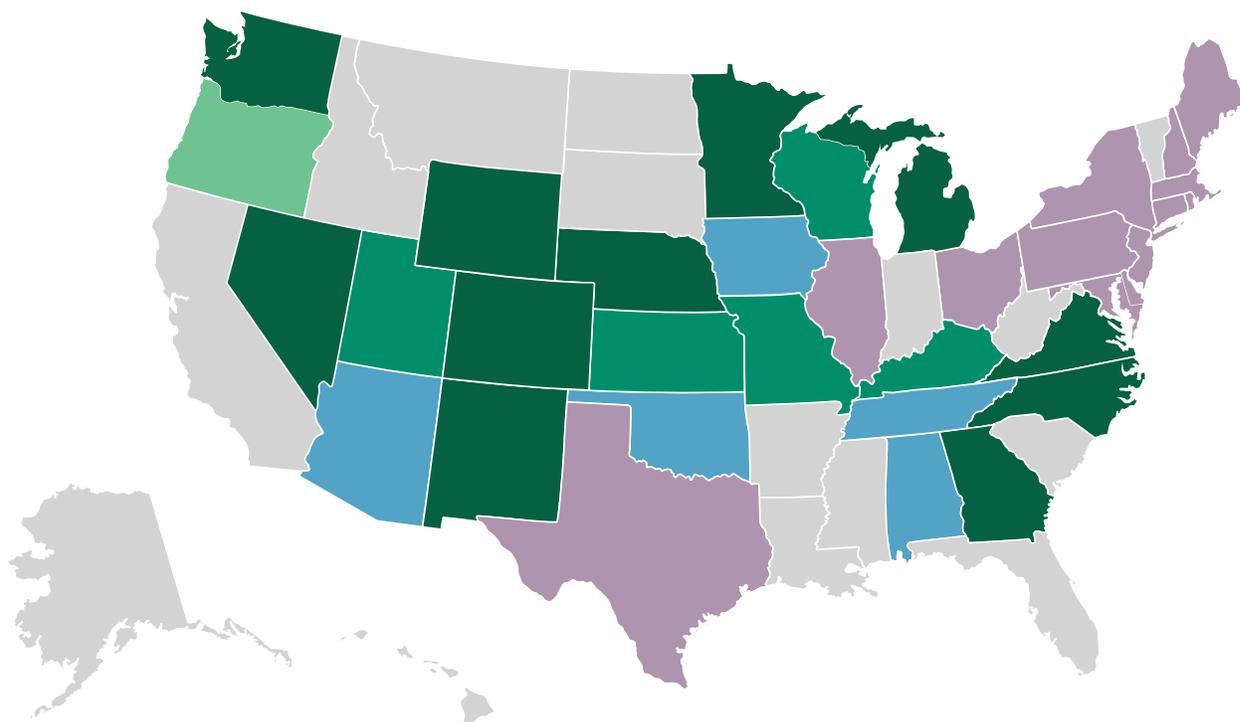
buyers by regulated electric utilities in each state across the United States.

The [Implementation Guide for Utilities: Designing Renewable Energy Products to Meet Large Energy Customer Needs](#) outlines the design consideration that utilities and regulators should address and establishes best practices for creating a successful green tariff.

Successful green tariffs refer to green tariff programs where renewable energy deals have been signed with C&I customers. These deals are captured in WRI's [Green Tariff Deals Chart](#).

The [Technical Note](#) describes the scope and analytical methodology for the renewable energy options identified in the U.S. Renewable Energy Map and the Green Tariff Deals Chart.

## STATES WITH GREEN TARIFF PROGRAMS, OCTOBER 2018



### Utility Renewable Energy (RE) Deals

- Green tariff(s) and executed RE deal(s) through tariff
- Green tariff(s) but no deal(s) through tariff to date
- Considering a green tariff (proposal with the PUC)
- One-on-one RE deal(s) between companies and utilities, but no green tariff to date
- Electric retail choice easily available
- No known direct large-scale RE access available

*Note:* In states with multiple green tariffs, the green coloring indicates the furthest a green tariff has been utilized. For example, in Virginia there are five green tariffs with differing statuses; however, only one green tariff has been used to execute a renewable energy deal. The interactive version of this map includes additional information on the various tariffs provided in each state and the deals executed under each. See WRI 2017.

*Source:* WRI 2017.

## STATES WITH GREEN TARIFF PROGRAMS, OCTOBER 2018 (CONTINUED)

Year Proposed or Approved	State	Utility	Green Tariff Program	Status
2013	■ Nevada	NV Energy	Green Energy Rider, Schedule NGR	Approved
	■ North Carolina	Duke Energy	Green Source Rider, Rider GS	Concluded
2015	■ Utah	Rocky Mountain Power (RMP)	Service from Renewable Energy Facilities, Schedule 32	Approved
2016	■ Colorado	Xcel Energy	Renewable*Connect	Approved
	■ New Mexico	Public Service Company of New Mexico (PNM)	Green Energy Rider, Rider No. 47	Approved
	■ Utah	RMP	Renewable Energy Purchases for Qualified Customers, Schedule 34	Approved
	■ Virginia	Dominion Energy	Schedule MBR	Approved
	■ Washington	Puget Sound Energy (PSE)	Long-Term Renewable Energy Purchase Rider, Schedule No. 139, branded as "Green Direct"	Approved
	■ Virginia	Appalachian Power Company (APCo)	Rider REO	Denied by the PUC
	■ Wyoming	Black Hills Energy	Large Power Contract Service	Approved
2017	■ Georgia	Georgia Power	Schedule CIR – 1	Approved
	■ Michigan	Consumers Energy Company	Voluntary Large Customer Renewable Energy Pilot Program	Approved
	■ Nebraska	Omaha Public Power District (OPPD)	Schedule No. 261 M – Large Power – High Voltage Transmission Level – Market Energy	Approved
	■ Virginia	Dominion Energy	Renewable Energy Supply Service, Schedule RG	Proposal with the PUC
	■ Wisconsin	Madison Gas and Electric (MGE)	Renewable Energy Rider	Approved
2018	■ Kansas	Westar Energy	Direct Renewable Participation Service	Approved
	■ Kentucky	Kentucky Power	Renewable Power Option Rider	Approved
	■ Minnesota	Xcel Energy	Renewable*Connect	Approved
	■ Missouri	Ameren Missouri	Renewable Choice Program	Approved
	■ North Carolina	Duke Energy	Green Source Advantage, Rider GSA	Proposal with the PUC
	■ Oregon	Portland General Electric	Green Future <sup>SM</sup> Impact, Schedule number pending	Proposal with the PUC
	■ Virginia	Dominion Energy	Schedule CRG	Denied by the PUC
	■ Virginia	Dominion Energy	Schedule RF	Approved

Source: WRI 2017.

## COLORADO — XCEL ENERGY

<b>TARIFF NAME</b>	Renewable*Connect, Schedule RC
<b>TARIFF TYPE</b>	Rider; Subscriber Product
<b>PILOT SIZE/PERIOD</b>	Capped at 50 MW.
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Xcel enters into a 20-year PPA with solar facilities.</p> <p>Second contract between Xcel and customer for solar subscription assigns RE capacity share and costs.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard retail rate applies plus Renewable*Connect charge and Renewable*Connect bill credit.</p> <p>Renewable*Connect charge, updated annually for new subscribers, consists of:</p> <ul style="list-style-type: none"> <li>• the RE resource as negotiated in the PPA;</li> <li>• the solar integration costs of intermittent solar generation;</li> <li>• program administration costs; and</li> <li>• a subscription risk adjustment fee.</li> </ul> <p>The 2018 Renewable*Connect charge (\$/kWh) varies per the term length:</p> <ul style="list-style-type: none"> <li>• Month-to-month contract = \$0.0440</li> <li>• 5-year term = \$0.04157 (rounding to \$0.042)</li> <li>• 10-year term = \$0.04077 (rounding to \$0.041)</li> </ul> <p>Renewable*Connect bill credit (kWh), \$0.04077, consists of an avoided energy credit, updated annually, and a fixed avoided capacity credit.</p> <p>The avoided energy credit (kWh), \$0.02308, is based on an approved qualifying facility energy component.</p> <p>The avoided capacity credit (kWh), \$0.01769, is based on the 2018 projection of a 50 MW solar resources over the 10 years following 2018.</p> <p>Fixed early termination fee for customers on a 5- or 10-year contract.</p>
<b>ADMINISTRATIVE FEE</b>	Included in customer cost structure on a per kWh charge.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customers lock-in contract price and contract term length at the time of subscription; the credit is updated annually and it is possible to see lower utility bills if the credit exceeds the charge.
<b>PROCUREMENT LEAD</b>	Xcel negotiates with the solar facility or facilities and enters a PPA; customers can choose not to subscribe to the offering but do not have any control over the PPA price.
<b>BUNDLED RECs MANAGEMENT</b>	Xcel will either retire RECs on behalf of the subscribing customer or transfer RECs to a Western Renewable Energy Generation Information System account.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	<p>The contract can be assigned to a new meter if:</p> <ul style="list-style-type: none"> <li>• new location is within Xcel's service territory; and</li> <li>• the subscription does not exceed 100% of customer's load at new location.</li> </ul> <p>If consumption during the first 12 months at the new meter is lower than the prior consumption, the contract will be readjusted to a participation level that matches the 12-month energy usage at the new meter; the customer will pay a pro-rated portion of the early termination fee.</p> <p>The original subscription term will continue to apply to the transferred subscription.</p>

## COLORADO — XCEL ENERGY

<b>CONTRACT TIME COMMITMENT</b>	Three options: month-to-month, 5 years, and 10 years; longer terms have lower prices.
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	<p>Customers are on rate schedules: R, RD, C, SG, SGL, PG, and TG.</p> <p>At the time of the customer's initial subscription, renewal, or transfer, the maximum participation level is the lower of:</p> <ul style="list-style-type: none"> <li>• 100% of their previous year's usage; or</li> <li>• 10% of the total capacity of Renewable*Connect.</li> </ul> <p>Corporate entities with multiple premises cannot subscribe to more than 40% of the total capacity of Renewable*Connect.</p> <p>Each corporate premise is limited to an allocation not to exceed 100% of that premise's energy consumption.</p> <p>During the first 8 weeks of the program, subscriptions are limited to residential and commercial class customers, then the program will be available to all retail customers.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Not explicit in the filing.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Customers can subscribe the portion of their consumption not already subscribed to other programs.
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	<p>Photovoltaic solar resource is 50 MW.</p> <p>Xcel has signed a PPA with a new 50 MW solar resource to have RE available as soon as possible.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>Unsubscribed RE Excess RE generated from the facility will be dispatched into the larger system though this will likely be at a lower price than Xcel pays for the PPA; the risk adjustment fee shifts some of this risk to the subscribing customers.</p> <p>Xcel retains the right to excess revenues limited to its prevailing weighted average cost of capital.</p> <p>If excess revenues collected exceed the weighted average cost of capital, customers will receive a credit back through the Renewable Energy Standard Adjustment.</p> <p>If the supplier fails to deliver, Xcel is not held liable.</p>
<b>PUC PROCESS</b>	Approved November 9, 2016.
<b>STATUS/RE DEALS SIGNED</b>	The first 50 MW tranche of solar is fully subscribed: ~10 MW serving residential customers and ~40 MW serving C&I customers.
<b>DOCKET INFORMATION</b>	16A-0055E

## GEORGIA — GEORGIA POWER

<b>TARIFF NAME</b>	Commercial and Industrial REDI Schedule CIR -1
<b>TARIFF TYPE</b>	Rider; Subscriber Product
<b>PILOT SIZE/PERIOD</b>	200 MW
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Customer enters into Customer Agreement with Georgia Power that outlines energy costs for RE resources, term length and other material terms.</p> <p>Georgia Power enters into 30-year PPA with RE generator, selected through the Renewable Energy Development Initiative (REDI) RFP process (CIR Portfolio).</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard general retail service applies, plus a CIR Portfolio Price minus an hourly credit.</p> <p>CIR Portfolio Price, on a fixed price per kWh basis:</p> <ul style="list-style-type: none"> <li>Levelized supply cost based on the portfolio of RE facilities</li> <li>Levelized additional sum of 8.5% of the net present value of the net benefits realized from the C&amp;I REDI Portfolio</li> <li>Administrative costs</li> </ul> <p>Credit, on an hourly basis: consists of pro-rata share of the hourly amount of RE production from REDI Portfolio.</p> <p>No early termination fee with 180-day notice.</p>
<b>ADMINISTRATIVE FEE</b>	<p>\$5,000 Notice of Intent application fee.</p> <p>Administrative fees: Initial Administrative Fee plus Ongoing Administrative Fee.</p> <p>Initial Administrative Fee: \$0.00005 per kWh applied over contract term.</p> <p>Ongoing Administrative Fee:</p> <ul style="list-style-type: none"> <li>Subscription level 50 MW or less: \$0.001 per kWh</li> <li>Subscription level 50 MW or greater: \$0.0005 per kWh</li> </ul>
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>Customers lock in contract price and contract term length at the time of subscription.</p> <p>Hourly credits are based on Georgia Power's hourly cost of incremental generation for each hour in which the CIR Portfolio produces energy.</p>
<b>PROCUREMENT LEAD</b>	Georgia Power procures and operates resources.
<b>BUNDLED RECS MANAGEMENT</b>	RECs are retired by Georgia Power on customer's behalf.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	No limitations defined in the filing; customer can work with utility to meet multiple facility requirements.
<b>CONTRACT TIME COMMITMENT</b>	10, 15, 20, 25 or 30 years.
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	<p>Existing customers with annual peak demand of 3 MW or greater.</p> <p>Subscription level cannot exceed 100% of preceding annual consumption per facility.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers may aggregate premises to reach the 3 MW participant threshold, so long as aggregated demand exceeds 3 MW and premises are under a common ownership or control.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Customers are allowed to participate in net metering.
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	RE resources are procured through the REDI RFP process.
<b>COMMERCIAL RISK MANAGEMENT</b>	No requirements listed in the filing.
<b>PUC PROCESS</b>	Approved August 1, 2017.
<b>STATUS/RE DEALS SIGNED</b>	Google, Johnson & Johnson, Target, and Walmart have utilized 1775 MW of solar under the tariff.
<b>DOCKET INFORMATION</b>	Docket 40161

<b>KANSAS – WESTAR ENERGY</b>	
<b>Tariff Name</b>	Direct Renewable Participation Service (DRPS)
<b>Tariff Type</b>	Tariff; Sleeved PPA
<b>Pilot Size/Period</b>	First tranche: 200 MW wind farm.
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Customer enters into a 20-year Participation Agreement for new wind energy secured and operated by Westar.</p> <p>The monthly amount subscribed will be a fixed kW amount in 500 kW increments up to 2,000 kW, and in 1,000 kW increments thereafter.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Customers pay a fixed Renewable Participation Charge rate—current charge under the approved Soldier Creek Wind Farm is 1.800¢ per kWh. The Renewable Participation Charge will replace the Retail Energy Cost Adjustment (RECA) Surcharge for the RE purchased.</p> <p>Any usage beyond the agreed amount under this service will be billed at the current authorized RECA rate.</p> <p>All charges, adjustments, and surcharges, except the RECA, will be billed at the standard rates applicable to the customer's rate class.</p> <p>At the end of each calendar year, any excess generation will be credited to the customer's bill at 80% of the Renewable Participation Charge rate. This credit is associated with excess energy produced by the customer's subscription that cannot offset customer usage. Customers with recurring excess generation will have their contracted amount reduced to better match their usage.</p>
<b>ADMINISTRATIVE FEE</b>	Administrative costs are included in the fixed price.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customers realize an immediate price reduction with the replacement of the RECA Charge(s).
<b>PROCUREMENT LEAD</b>	Westar Energy will negotiate with facility and include the final program price within the commission-approved tariff.
<b>BUNDLED RECS MANAGEMENT</b>	Certification of renewable energy associated with the purchased wind energy under this service will be delivered to the customer.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Customer may maintain participation in this program when relocating facilities or service within Westar Energy's territory.
<b>CONTRACT TIME COMMITMENT</b>	20 years.
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	Existing or new customers must have an average monthly peak demand of greater than 500 kW and be accepting service under any tariff subject to the RECA.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers may elect to aggregate accounts within the company's jurisdiction for qualification only, should available capacity allow for it.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Intent is not to limit net-metering customers; customers participating in net metering may subscribe with net load if qualified.
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	No limitations exist outside of Westar Energy's need to procure low-cost, renewable resources to supply subscribing customers with their desired energy product.
<b>COMMERCIAL RISK MANAGEMENT</b>	Not explicitly stated in filing.
<b>PUC PROCESS</b>	Approved July 10, 2018.
<b>STATUS/RE DEALS SIGNED</b>	Customer enrollment is ongoing.
<b>DOCKET INFORMATION</b>	Docket 18-WSEE-190-TAR

## KENTUCKY—KENTUCKY POWER

<b>TARIFF NAME</b>	Renewable Power Option Rider (RPO)
<b>TARIFF TYPE</b>	Rider; Sleeved PPA
<b>PILOT SIZE/PERIOD</b>	No limitations are defined in the filing.
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Participants choose the type of access to renewable energy:</p> <ul style="list-style-type: none"> <li>• Option A: Customers may purchase RECs at a premium price (Option A is not detailed in this table); or</li> <li>• Option B: Customers may contract with Kentucky Power to purchase energy and RECs from the renewable energy generator.</li> </ul> <p>Option B: Terms are determined by customer and Kentucky Power.</p> <p>Customer may terminate service with 30-day notice.</p>
<b>CUSTOMER COST STRUCTURE</b>	Option B: Charge determined by agreement between customer and Kentucky Power. Charge will reflect a combination of the firm service rates otherwise available to the customer and the cost of the renewable energy resource directly contracted for by the customer.
<b>ADMINISTRATIVE FEE</b>	Not explicitly stated in filing.
<b>VALUE OF RE PRICE CERTAINTY</b>	Provides customers and the company with more flexibility to meet customers' renewable power needs.
<b>PROCUREMENT LEAD</b>	The company will work collaboratively with the customer on Option B contracts.
<b>BUNDLED RECS MANAGEMENT</b>	REC management under Option B may vary by contract.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Not explicitly stated in filing.
<b>CONTRACT TIME COMMITMENT</b>	Not explicitly stated in filing.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Option B is available to customers taking metered service under the Company's I.G.S., and C.S.-LRP, or multiple L.G.S. tariff accounts with common ownership under a single parent company that can aggregate multiple accounts to exceed 1,000 kW peak demand.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Accounts can be aggregated for purposes of qualifying for Option B.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Proposed tariff RPO does not affect Kentucky's net metering statute.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	Not explicitly stated in filing.
<b>COMMERCIAL RISK MANAGEMENT</b>	Not explicitly stated in filing.
<b>PUC PROCESS</b>	Approved January 18, 2018.
<b>STATUS/RE DEALS SIGNED</b>	The tariff has not been used to date.
<b>DOCKET INFORMATION</b>	<a href="#">Docket 2017-00179</a>

## MICHIGAN—CONSUMERS ENERGY COMPANY

<b>TARIFF NAME</b>	Voluntary Large Customer Renewable Energy Pilot Program
<b>TARIFF TYPE</b>	Pilot Rider; Subscriber Product and/or Market-Based Rate
<b>PILOT SIZE/PERIOD</b>	Open to customer enrollment for three years based on first in, first served.
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Participants choose the amount of utility involvement:</p> <ul style="list-style-type: none"> <li>Option A: Consumers Energy Sponsored Renewable Energy.</li> <li>Option B: Customer Sponsored Renewable Energy.</li> </ul> <p>Option A: Customers elect a subscription level between 20% and 100% of their load, in 5% increments. Limited to 115,000 MWh annually, representing 35 MW.</p> <p>The early termination fee is negotiated, unless subscription level is adopted by another eligible customer.</p> <p>Option B: Grants customers more active participation in selecting the RE. Customers remain full service customers but can either build their own RE facility or obtain RE from a third party. Customer has two choices in doing so: Customer can elect the Market Index Provision for real-time pricing, or Consumers Energy can act as the administrator for the customer's renewable PPA under a separate energy management contract.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Option A, customer pays:</p> <ul style="list-style-type: none"> <li>standard full-service tariff rate;</li> <li>renewable energy subscription charge: \$0.045 per kWh of load intended to match the levelized cost of the RE (includes cost of construction, operation and maintenance, return on equity, financing, property taxes, insurance, and substation costs); and</li> <li>wind energy and capacity credit, monthly dollar-per-kWh amount, based on the value of the renewable energy and capacity settled in the MISO market. The credit varies with monthly energy usage and subscription level.</li> </ul> <p>Credits may be paid to customer via bill credit or direct payment, at Consumers Energys' discretion.</p> <p>Option B, customer pays:</p> <ul style="list-style-type: none"> <li>standard full service tariff rate (this includes all applicable power supply, delivery, transmission, and surcharges for electric load).</li> </ul> <p>Under Option A or B, if a customer subscribes 100% of their energy usage to the program and takes service under General Primary Demand Rate Schedule (Rate GPD), then the customer may elect the Market Index Provision.</p> <p>Market Index Provision: a real-time hourly pricing rate that allows customers to substitute the Real Time Locational Marginal Price (RT-LMP) at Consumers Energy's Zonal Load Node, plus a Market Settlement Fee of \$0.002 per kWh, for the Standard Rate power supply energy charges. Customers selecting the Market Index Provision shall be responsible for all embedded capacity and transmission charges included in the standard Full Service GPD Rate. Customers may select the Market Index Provision on an annual basis for each program year, after providing a 60-day advance notice.</p> <p>Option B customers electing the Market Index Provision are responsible for securing their own power purchase agreements and offering the energy from that resource into the MISO market for payment.</p>
<b>ADMINISTRATIVE FEE</b>	Only if the customer elects to have Consumers Energy administer the sale of their renewable energy into the MISO market under Option B.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customers who elect the Market Index Provision may reduce energy volatility by better aligning the cost of energy paid under the tariff with the value of the energy received as part of their RECs.

## MICHIGAN—CONSUMERS ENERGY COMPANY

<b>PROCUREMENT LEAD</b>	<p>Option A: Consumers Energy supplies the RE resource from a designated facility.</p> <p>Option B: Customers provide their own RE resource. Customers either build their own RE facility or enter into PPA with a third-party provider.</p>
<b>BUNDLED RECS MANAGEMENT</b>	<p>Option A: RECs are retired by Consumers Energy on customer's behalf or transferred to the customer at their request.</p> <p>Option B: REC management may vary by contract.</p>
<b>CUSTOMER FACILITY FLEXIBILITY</b>	RE facility can service multiple customers or customer meters.
<b>CONTRACT TIME COMMITMENT</b>	<p>Option A: Minimum of three years. Can renew their subscription in 3-year increments, up to a maximum of 20 years. Subscription charge will increase by 2% with each enrollment after first 3 years, limited to four reenrollments. No increase for reenrollment under a 20-year service agreement.</p> <p>Option B: Term of PPA negotiated between the customer and renewable energy developer.</p>
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	<p>Option A: Full service electric customers with an annual maximum demand of at least 1 MW.</p> <p>Option B: Full service electric customers, with new or expanding load not previously served by the company, without a minimum or maximum annual subscription level. Incremental load at 2,400 volts or higher is considered incremental. Maximum demand must be in excess of 3,000 kW with a minimum of a 70% load factor.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers may aggregate multiple facilities to reach the 1 MW participant threshold.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Customers are allowed to participate in net metering.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	<p>Option A: Utility-owned wind facility—limited to 115,000 MWh per year.</p> <p>Option B: RE must be generated from a 100% certified renewable energy source physically located within MISO. No minimum or maximum generation requirement.</p> <p>Renewable energy under Option A shall be provided from wind facilities placed into commercial operation after December 2017.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	Option A: In the instance of shortfall between energy generated and energy subscribed, participant may request Consumers Energy provide RECs as a cover.
<b>PUC PROCESS</b>	<p>Option A was provisionally approved August 23, 2017 and Option B was provisionally approved on October 10, 2018.</p> <p>Revisions to Option A—including an increase to the amount of RE available, subscription requirements, and contract term requirements—are also pending in U-18351.</p>
<b>STATUS/RE DEALS SIGNED</b>	Option A: General Motors and Switch have utilized the full 35 MW wind project available.
<b>DOCKET INFORMATION</b>	Case No. U-18393 and No. U-18351

## MINNESOTA — XCEL ENERGY

<b>TARIFF NAME</b>	Renewable*Connect
<b>TARIFF TYPE</b>	Pilot Tariff; Subscriber Product
<b>PILOT SIZE/PERIOD</b>	Blend of solar and wind resources to match system average on- and off- peak demand; up to 50 MW of wind and 25 MW of solar. Available for 10 years (concluding December 31, 2026).
<b>TARIFF/CONTRACT STRUCTURE</b>	Customer usage is settled monthly. The blend of resources assigned to pilot tranche will determine the fixed kWh price of the program which replaces the fuel clause charge. Customers can choose 100 kWh blocks or 100% of their annual load. Three contract lengths: month-to-month, 5 years, and 10 year, or for a designated single event.
<b>CUSTOMER COST STRUCTURE</b>	Stated kWh price for customers based on: <ul style="list-style-type: none"> <li>• resource cost;</li> <li>• capacity credit;</li> <li>• “neutrality adjustment”; and</li> <li>• administrative costs.</li> </ul> Resource cost for month-to-month and single event contract customers “reflects a 10 year partially levelized cost for the wind and solar resources,” and may be revised annually. Rates for 2017 and 2018 include: <ul style="list-style-type: none"> <li>• 2017: \$0.03555 (\$/kWh)</li> <li>• 2018: \$0.03577 (\$/kWh)</li> </ul> For 5- and 10-year contract customers, the resource cost is based on wind and solar PPAs or the actual delivered costs. The capacity credit for Renewable*Connect customers reflects the market-based value of the capacity of the renewable energy project in the regional market. The capacity credit is calculated as the product of the MISO accreditation percentage for solar and the annual cost of a combustion turbine, and is credited to the customer per kWh they purchase from the project. “Neutrality adjustment” (or “neutrality charge”) is an attempt to avoid cost shifting to non-participant customers; charge includes line and curtailment losses and the cost of integrating variable RE and stranded asset effects, among others; some new load is exempt from the “neutrality adjustment.” The standard neutrality charge for 2017 is \$0.00472 per kWh and for 2018, \$0.00477 per kWh. Administrative costs are lower for longer-term customers; “neutrality charge” is lower in years 6–10 for 10-year contract customers.
<b>ADMINISTRATIVE FEE</b>	Included in customer cost structure, charged on per kWh basis; range from ¢0.1-0.55/kWh depending on contract length and year.
<b>VALUE OF RE PRICE CERTAINTY</b>	Fuel clause charge is currently ~20% of customers’ bills; fuel clause charge is replaced with a fixed charge for each year of the program which results in an “initial premium” but provides “certainty about . . . future energy costs” as it does not fluctuate with fuel costs (i.e., there is potential savings if the fuel clause charge increases substantially).
<b>PROCUREMENT LEAD</b>	Xcel Energy solely procures the resource.

## MINNESOTA — XCEL ENERGY

<b>BUNDLED RECs MANAGEMENT</b>	RECs are retired by Xcel Energy on customers' behalf (above compliance requirements); RECs registered with M-RETS and Xcel Energy will pursue Green-e certification.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Switchable for customers moving within the service territory.
<b>CONTRACT TIME COMMITMENT</b>	Three options: month-to-month, 5 years, and 10 years; longer terms have lower prices.
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	Available to all residential, commercial, and industrial customers paying fuel clause charge.  New and existing load eligible to purchase up to 100% of their load.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Subscriptions are on a premise by premise basis and there are no size restrictions in the program; aggregation is not applicable.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Customers are allowed to participate in net metering and other programs; total energy from net metering, Renewable*Connect, and all other programs combined cannot exceed 100% of customer usage.
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	All resources are located in Minnesota.  Xcel Energy wind and solar resources that have recently been approved by the PUC; Odell Wind Farm and North Star Solar Project. Pilot includes facilities already approved in order to offer customers pilot as soon as possible.  Program expansion may include other suppliers or Xcel Energy-owned assets.
<b>COMMERCIAL RISK MANAGEMENT</b>	Month-to-month customers can terminate their contract at any time.  5- and 10-year contract customers are subject to an early termination penalty of \$10/MWh multiplied by the customer's last 12 months of usage; they are not allowed to move the same load to another "tranche" of Renewable*Connect resources.  Full cost of program is covered by customers; any unsubscribed energy from wind and solar resource recovers cost through the fuel clause charge to non-participant customers.
<b>PUC PROCESS</b>	Approved February 27, 2017.
<b>STATUS/ RE DEALS SIGNED</b>	The pilot tranche is fully subscribed. C&I customers include the State of Minnesota, City of Minneapolis, and the University of Minnesota.  Renewable*Connect Government was filed in late September 2016 as a supplement to this program and approved February 27, 2017. It mirrors Renewable*Connect and was designed for state or local government agencies. Customers enroll in capacity-based shares, rather than a fixed amount of energy per month. The full capacity of the first tranche, 3.3 MW, is allotted to the Minnesota Department of Administration.
<b>DOCKET INFORMATION</b>	Docket E002/M-15-985

**MISSOURI — AMEREN MISSOURI**

<b>TARIFF NAME</b>	Renewable Choice Program
<b>TARIFF TYPE</b>	Rider; Subscriber Product
<b>PILOT SIZE/PERIOD</b>	<p>One or more new wind project(s).</p> <p>Capped at 400 MW; additional capacity will be considered if the program becomes fully subscribed.</p> <p>Resource(s) will be contracted when a minimum aggregate RE service level of 50 MW has been reached.</p>
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Customer enters into RE Service Agreement with Ameren Missouri that includes a 15-year commitment (unless a different subscription term is established for a specific RE block) to a fixed-price renewable service offering.</p> <p>Customer may subscribe to RE Service for a portion of an RE Block in single percentage increments from 0 to 100% of the Customer's Annual Usage, at the customer's discretion based on their own goals and value considerations.</p> <p>Ameren Missouri will procure RE resources through either a PPA or third party build to transfer, with sale of asset for Ameren Missouri to own.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Customer is subject to charges associated with existing service, including the Fuel Adjustment Clause and Energy Efficiency Investment Charge, if applicable.</p> <p>Under the program, the customer is then subject to an additional charge or credit—the Customer Monthly RE Adjustment.</p> <p>Customer Monthly RE Adjustment: An adjustment that is calculated on a monthly basis. The adjustment represents the net financial settlement of each customer's subscribed portion of the wind resource in wholesale energy markets, plus the small administrative cost recovery component. If Ameren Missouri owns the wind asset, the adjustment will also include a risk premium of \$0.50/MWh.</p> <p>The adjustment will be based on the metered output of the wind resource(s) multiplied by the Customer's RE Allocation Factor or the percentage of energy that was produced by the customer's share of the wind resource, which is then multiplied by the difference between the RE Price and the Wholesale Market Price.</p> <p>The adjustment will appear on first monthly customer bill issued after the first month of operation of the wind generation and will continue monthly thereafter.</p> <p>The RE Price for each RE Block, in \$/MWh, consists of the RE Resource Price for a singular resource and the average RE Resources Prices for aggregated resources.</p> <p>The termination fee is calculated by looking at the average of the Customer Monthly RE Adjustments the customer experienced over the 12-month period prior to termination and multiplying that monthly average by the number of months remaining in the term of the agreement.</p>
<b>ADMINISTRATIVE FEE</b>	Administrative charge: \$0.05 – \$0.35 per MWh. Included in customer's monthly RE adjustment.
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>Customers lock in contract price at the time of subscription.</p> <p>With the adjustment, it is possible to see lower utility bills if the wholesale market price for that month exceeded the RE price.</p>
<b>PROCUREMENT LEAD</b>	Ameren Missouri negotiates with the wind developers and procures resources; customers can choose to subscribe at the offered fixed price.

## MISSOURI — AMEREN MISSOURI

<b>BUNDLED RECS MANAGEMENT</b>	<p>The RECs created by the generation of energy from the renewable resource will be retired by the Company in the North American Renewables Registry ("NARR") system on behalf of subscribing customers.</p> <p>RECs will not be used for any other purposes including for the Company's compliance with Renewable Energy Standard requirements.</p>
<b>CUSTOMER FACILITY FLEXIBILITY</b>	<p>Customers are permitted to transfer their subscription to new or different service accounts with Ameren Missouri if there is sufficient use to warrant subscription to the RE Service Level being transferred, or to other similar customers if interested parties can be identified.</p>
<b>CONTRACT TIME COMMITMENT</b>	<p>15-year term of subscription, unless a different subscription term is established for a specific RE block.</p>
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	<p>Two categories of participation:</p> <ul style="list-style-type: none"> <li>Any non-residential customer served under rate classifications 3(M)—Large General Service, 4(M)—Small Primary Service, or 11(M)—Large Primary Service that has at least 2.5 MW of demand, either at a single location or aggregated across a number of accounts.</li> <li>Any account of a governmental entity (i.e., county, city, town, or village) regardless of size.</li> </ul>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	<p>Aggregation of meters by a single non-Governmental Entity Customer is permitted to meet the 2.5 MW minimum.</p> <p>Aggregation between different Customers is not allowed, except as may be provided for with respect to Customers that are affiliates of each other in the applicable RE Service Agreement.</p>
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	<p>Intent is not to limit net metering customers; customers participating in net metering may subscribe with net load.</p>
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	<p>Limited to wind projects located within MISO, with a preference for those within Missouri.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>At the Company's discretion, Customers may be deemed ineligible for the Program if they have received a disconnection notice within twelve (12) months preceding their application.</p> <p>If RE service is oversubscribed in relation to the available RE block, the customers will be subscribed in order of execution of RE Service Agreement.</p>
<b>PUC PROCESS</b>	<p>Approved June 27, 2018.</p>
<b>STATUS/RE DEALS SIGNED</b>	<p>The program is open for enrollment now through December 31, 2018. Customers may make a non-binding commitment to enroll. Those submitting a non-binding commitment will be provided with a not-to-exceed RE price, which reflects the upper limit of the RE Resource Price.</p>
<b>DOCKET INFORMATION</b>	<p><a href="#">Docket ET-2018-0063</a></p>

## NEBRASKA — OMAHA PUBLIC POWER DISTRICT (OPPD)

<b>TARIFF NAME</b>	Schedule No. 261 M – Large Power – High Voltage Transmission Level – Market Energy
<b>TARIFF TYPE</b>	Tariff; Market-Based Rate
<b>PILOT SIZE/ PERIOD</b>	No limitations defined in the filing.
<b>TARIFF/ CONTRACT STRUCTURE</b>	<p>Schedule No. 261 M is an extension of Rate 261 that enables large-power, high-voltage-transmission-level customers access to renewable energy, by either contracting through the utility or independently, at a market-based rate.</p> <p>OPPD will work with the customer to meet individual requirements.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Monthly rate:</p> <ul style="list-style-type: none"> <li>• Service Charge: \$10,000;</li> <li>• Demand Charge: \$22.45 per kilowatt;</li> <li>• Energy Charge: kWh consumed in any given hour multiplied by the appropriate cost to purchase energy from the Southwest Power Pool (SPP) for that hour; and</li> <li>• Fuel and Purchased Power Adjustment (from Schedule No. 461).</li> </ul> <p>Minimum monthly bill applicable 18 months from initial service date:</p> <ul style="list-style-type: none"> <li>• \$495,000 for customers taking service at 161,000 volts; or</li> <li>• \$4,500,000 for customers taking service at 345,000 volts.</li> </ul> <p>Late payment charge: 4% of monthly rate.</p>
<b>ADMINISTRATIVE FEE</b>	The administration fee is built into the service charge.
<b>VALUE OF RE PRICE CERTAINTY</b>	By pricing the energy component of the customer bill at an hourly SPP market rate, this tariff can be combined with the generation from a renewable asset in order to partially or fully hedge the price risk typically associated with “contract for differences” tariffs and riders.
<b>PROCUREMENT LEAD</b>	<p>Customers are able to contract for their renewable energy independently or can work with OPPD to secure this energy on their behalf.</p> <p>Only if the customer decides to take service under OPPD’s rate rider 499 would OPPD be the signatory to the purchase power agreement.</p>
<b>BUNDLED RECs MANAGEMENT</b>	REC management is arranged with the developer.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	<p>RE resources can service multiple customers or meters; the District determines point(s) of delivery using information provided by customers regarding their requirements and determines metering points based on District requirements. Meters located away from the service point may affect charges.</p> <p>All transfers between sources must be performed as open transition transfers.</p> <p>Reconnection charge is equal to the minimum monthly charge for the preceding 12 months due to OPPD.</p>
<b>CONTRACT TIME COMMITMENT</b>	<p>Customers must remain on this tariff for a minimum of 12 consecutive months.</p> <p>If the customer relies on OPPD to be signatory to a renewable PPA under rate rider 499, that rate contract will be in effect for the duration of the PPA.</p>

## NEBRASKA — OMAHA PUBLIC POWER DISTRICT (OPPD)

<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	<p>Customer in OPPD's Service Area taking service at a nominal standard voltage of 161,000 volt or 345,000 volts and owns its electric substation for the delivery of the service.</p> <p>Minimum demand of 20,000 kW for service at 161,000 volts or a minimum of 200,000 kW for services at 345,000 volts each month.</p> <p>A ramp-up period of 18 months is allowed before the minimum usage requirement begins.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	<p>Customers' high voltage service must be measured by the District at a single metering; there is no aggregation of customer demand unless a customer takes emergency or special service in accordance with OPPD's Service Regulations.</p>
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	<p>Under this rate, net metering is not permissible.</p>
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	<p>No limitations. Customer is responsible for determining the technological and financial risks associated with renewable technology chosen. If customer chooses Schedule 499, OPPD will choose the lowest cost renewable option.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>All customers must be in good credit standing as determined by OPPD policy.</p> <p>District assumes no liability for customer owned or contracted facilities.</p>
<b>PUC PROCESS</b>	<p>Approved January 12, 2017.</p>
<b>STATUS/RE DEALS SIGNED</b>	<p>Facebook has utilized the tariff for a total of 310 MW: a 200 MW wind project in 2017 and a 110 MW wind project in 2018.</p>
<b>DOCKET INFORMATION</b>	<p><a href="#">January 12, 2017 Board Actions</a></p> <p><a href="#">OPPD Rate Manual</a></p>

## NEVADA — NV ENERGY

<b>TARIFF NAME</b>	<p>Green Energy Rider, Schedule NGR</p>
<b>TARIFF TYPE</b>	<p>Rider; Sleeved PPA</p>
<b>PILOT SIZE/ PERIOD</b>	<p>Capped at 250,000 MWh although NV Energy can choose not to count special contracts against the total.</p>
<b>TARIFF/ CONTRACT STRUCTURE</b>	<p>Two options for commercial customers:</p> <ul style="list-style-type: none"> <li>to contract directly with NV Energy for 50% or 100% of monthly electricity usage; or</li> <li>customer and NV Energy enter special contract for dedication of new or existing RE resources to the customer (this table focuses on option 2, which bundles energy and RECs).</li> </ul>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard "otherwise applicable rate schedules" apply plus the full cost of the specific facility on a kWh basis.</p> <p>The NGR Rider rate for small customers is the 12-month average cost of the utility RE resources less the base tariff energy rate and the standard temporary RE development charge (recalculated quarterly).</p> <p>Special contract customers negotiate a cost structure that ensures there is no cost shifting to other ratepayers. The agreement requires approval by the PUC.</p>
<b>ADMINISTRATIVE FEE</b>	<p>Cost recovery will be determined in the PUC review of the special contract.</p>

## NEVADA — NV ENERGY

<b>VALUE OF RE PRICE CERTAINTY</b>	<p>Unspecified in the filing whether the NGR rider can be negative for special contract customers and appear as a bill credit against the otherwise applicable rate schedules.</p> <p>Contracts to date have avoided an explicit credit in any billing period but have utilized long-term avoided cost projections as a credit against long-term solar PPA prices.</p> <p>Protection from fuel clause adjustments may also be included in negotiations to deliver more of the fixed-price value of RE.</p>
<b>PROCUREMENT LEAD</b>	In practice, procurement has been collaborative between the utility and customers.
<b>BUNDLED RECs MANAGEMENT</b>	<p>RECs will be retired against the RPS requirement for the customer's load first.</p> <p>RECs will then be retired for the incremental energy sold under the NGR beyond the RPS requirement.</p>
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Not defined in filing but designed primarily for large facilities rather than retail meters.
<b>CONTRACT TIME COMMITMENT</b>	Negotiated but not less than two years.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	<p>Northern Nevada: GS-2 meters or larger, demand between 50 and 500 kW or monthly usage larger than 10,000 kWh.</p> <p>Southern Nevada: LGS-1 meters and larger, monthly usage larger than 3,500 kWh.</p> <p>Customers can subscribe a portion or all of their energy consumption.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Not explicit in the filing but limitations are described by meter, so aggregation is unlikely.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	NV Energy is not prohibited from also accepting net-metered energy from customers.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	<p>The power can be owned or procured by NV Energy.</p> <p>No geographic limitations seem to be explicitly set.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>All contract risk falls on the customer.</p> <p>PUC must approve the contract demonstrating benefits to the customer, NV Energy, and non-participating customers.</p>
<b>PUC PROCESS</b>	<p>Approved September 9, 2013.</p> <p>NV Energy applied to extend the special contract option of the rider to Southern Nevada via docket 14-0631; the PUC approved November 13, 2014.</p>
<b>STATUS/ RE DEALS SIGNED</b>	<p>Apple has utilized the tariff for a total of 320 MW: 20 MW of solar in 2013 (Docket 13-07005), 50 MW of solar in 2015 (Docket 15-11025), 200 MW of solar in 2017 (Docket 17-02007), and 50 MW of solar in 2018 (Docket 17-11002).</p> <p>Switch has utilized the tariff for a total of 179 MW: 100 MW of solar in 2015 (Docket 15-08005) and 79 MW of solar in 2015 (Docket 15-11028).</p> <p>City of Las Vegas renewable energy agreement approved in Docket 15-11026.</p>
<b>DOCKET INFORMATION</b>	Docket 12-11023 (Northern Nevada) and 14-06031 (Southern Nevada)

## NEW MEXICO — PUBLIC SERVICE COMPANY OF NEW MEXICO (PNM)

<b>TARIFF NAME</b>	Green Energy Rider, Rider No. 47
<b>TARIFF TYPE</b>	Rider; Sleeved PPA
<b>PILOT SIZE/PERIOD</b>	Initial and additional renewable procurements require commission approval.
<b>TARIFF/CONTRACT STRUCTURE</b>	Customer enters into Special Service Contract with PNM, subject to approval by the New Mexico Public Regulation Commission.  Contract minimum demand is 10 MW of RE.  PNM makes necessary renewable procurement, which can be either owned or contracted through a PPA.
<b>CUSTOMER COST STRUCTURE</b>	Special Service Rate, No. 36B, applies plus Green Energy rate; this rate recovers customer cost, allocated transmission, and production costs along with any fuel costs.  Green energy rate consists of all costs associated with the initial RE procurements and the cost of any additional RE procurement.  Excess Energy Production Credit for the amount of RE produced in excess of the amount consumed in each hour of the billing period, based on the Palo Verde market price during these hours.  Early termination fee.
<b>ADMINISTRATIVE FEE</b>	None.
<b>VALUE OF RE PRICE CERTAINTY</b>	Not explicit in the filing.
<b>PROCUREMENT LEAD</b>	Customer and utility work collaboratively to identify appropriate RE resources.  Customer may initiate procurement of additional RE.
<b>BUNDLED RECs MANAGEMENT</b>	RECs are registered with Western Renewable Energy Generation Information System on customer's behalf.  If customer's usage exceeds energy supplied under the Initial Solar Facilities PPA (and any additional renewable energy procurement agreement), customer may elect to have PNM procure RECs equal to excess use from PNM at the cost to the customer.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Customer may not move between sites.
<b>CONTRACT TIME COMMITMENT</b>	Special Service Contract must have the same term as the customer's payment obligation for the RE procurements.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Only new customers that cause at least 10 MW of renewable resources to be acquired by PNM.  Customer must achieve a load factor of at least 75%.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Aggregation is not allowed.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	No limitations are defined in the filing.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	RE secured under Additional Renewable Energy Procurements open to PNM, PNMR, or other third parties.  RE must adhere to the requirements governed by the Federal Energy Regulatory Commission generation interconnection process.
<b>COMMERCIAL RISK MANAGEMENT</b>	Customer is liable for early termination payments on any remaining RE procurement obligations.  In the event of a delay or failure to deliver RE or RECs, PNM will offset the costs to supply RE from an alternative source and the equivalent RECs with proceeds from damages, credit support or other compensation from the supplier who failed to deliver.
<b>PUC PROCESS</b>	Approved August 17, 2016.
<b>STATUS/RE DEALS SIGNED</b>	Facebook has utilized the tariff for a total of 296 MW: 30 MW of solar in 2017 and 266 MW of solar and wind in 2018 under three additional contracts.
<b>DOCKET INFORMATION</b>	Docket 16-00191-UT

## NORTH CAROLINA — DUKE ENERGY

<b>TARIFF NAME</b>	Green Source Rider, Rider GS
<b>TARIFF TYPE</b>	Rider; Sleeved PPA
<b>PILOT SIZE/ PERIOD</b>	Capped at 1,000,000 MWh or three-year enrollment period, whichever occurs first and new applications will not be received after 12/31/16.
<b>TARIFF/ CONTRACT STRUCTURE</b>	<p>Customer makes request and commitment for a certain amount of RE.</p> <p>Duke will dedicate output from one of its facilities or procure RE through a PPA with an independent facility to try to match the source with a customer's annual demand, RECs and contract term.</p> <p>If supplier fails to deliver, Duke will attempt to find a replacement.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard general service tariff and all riders apply plus the total cost of the PPA and RECs (Rider GS) determined on an hourly basis.</p> <p>Customer receives bill credit for "all in" avoided capacity and energy costs for the RE produced over the month to offset the premium.</p> <p>Early termination fee is equal to the net present value of the remaining PPA cost.</p>
<b>ADMINISTRATIVE FEE</b>	<p>\$2,000 application fee.</p> <p>\$500 fee per month, plus 0.02 cents per kWh surcharge on RE purchased.</p>
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>No exemption from the fuel price surcharges or any other riders; however, the allocation of actual fuel costs to GS customers as a class will be reduced by the fuel-related component of the avoided energy credit and the balance of actual fuel costs allocated instead to non-GS customers.</p> <p>Bill credit for the avoided cost of the RE cannot exceed the actual cost of PPA and RECs.</p>
<b>PROCUREMENT LEAD</b>	Duke will negotiate with the facility, but customers have the right to review the offer and the estimated bill credit and not go forward.
<b>BUNDLED RECs MANAGEMENT</b>	Retired by Duke on behalf of the customer using NC-RETs.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Customers do not expect Duke to allow moving contracts between meters.
<b>CONTRACT TIME COMMITMENT</b>	Negotiated. 3–15 years.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	<p>DEC NC customers only—former Progress service territory is not eligible.</p> <p>Non-residential customers, OPT-V tariffs only (previously OPT-G, OPT-H, OPT-I).</p> <p>OPT-V: Optional power service, time of use with voltage differential.</p> <p>New loads of at least 1 MW since July 30, 2012.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers may aggregate multiple facilities for the contract and to reach the 1 MW floor.

## NORTH CAROLINA — DUKE ENERGY

### IMPACT ON NET METERING (ONSITE RESOURCES)

No limitations are defined in the filing.

### RE FACILITY LIMITATIONS/ ELIGIBILITY

Duke Carolina RE facility or an independent RE facility.

RE facilities operational on or after 2007.

Solar facility must be located within Duke Energy Carolinas jurisdiction, either DEC NC or DEC SC. Formerly Progress service territories are excluded.

### COMMERCIAL RISK MANAGEMENT

Customer must provide a letter of credit, surety bond or other form of security for payment of all costs (PPA, RECs, etc.).

All contract risk falls on customer.

### PUC PROCESS

Approved December 19, 2013.

### STATUS/ RE DEALS SIGNED

Google solar project in Rutherford County; 2 additional solar projects with an anonymous company; and 1 additional customer has entered into 4 renewable energy agreements on a confidential basis.

Although the 3-year pilot has concluded, existing customers may continue to utilize the Green Source Rider.

### DOCKET INFORMATION

Docket E-7, Sub 1043

## NORTH CAROLINA — DUKE ENERGY

<b>TARIFF NAME</b>	Green Source Advantage, Rider GSA
<b>TARIFF TYPE</b>	Rider; Sleeved PPA
<b>PILOT SIZE/PERIOD</b>	<p>New RE capped at 600 MW.</p> <p>5-year program.</p> <p>Portions of the program are initially reserved for a three-year period after program approval: 250 MW for the University of North Carolina and 100 MW for military customers.</p> <p>Unreserved capacity will be allocated between Duke Energy providers: 160 MW to Duke Energy Carolinas (DEC) and 90 MW to Duke Energy Progress (DEP).</p>
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Participants choose the extent of utility involvement:</p> <ul style="list-style-type: none"> <li>Standard offer: competitive bid process determines RE facilities (standard offer is not detailed in this table).</li> <li>Self-supply: customer identifies RE facility for Duke Energy to procure.</li> </ul> <p>Customer and Duke Energy enter into GSA Service Agreement outlining service terms.</p> <p>Self-supply: GSA Service Agreement includes customer and RE supplier terms and conditions of participation, including REC management requirements.</p> <p>Duke Energy enters second contract, the GSA PPA, with RE supplier. A bundled REC PPA will be signed with the standard offer and an unbundled PPA will be signed with the self-supply option.</p> <p>GSA PPA:</p> <ul style="list-style-type: none"> <li>Self-supply: RE supplier's proposal price minus REC transfer <ul style="list-style-type: none"> <li>20-year self-supply: CPRE (a competitive request for proposal procurement process of 2,660 MW new RE generation Duke will pursue under the standard offer) capacity weighted average price (\$/kWh) minus the GSA REC value.</li> <li>2-year or 5-year self-supply: is the lesser of Duke Energy's avoided cost or the negotiated GSA PPA, minus RECs, contract price.</li> </ul> </li> </ul>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard general retail service plus the GSA Product Charge and administrative costs, minus the GSA Bill Credit.</p> <p>Self-supply: product charge and bill credit will offset each other—net bill equals retail charge and administrative costs, in addition to separately negotiated REC agreement.</p> <p>GSA Product Charge: the energy produced by the RE facility multiplied by the cost outlined in the GSA Service Agreement.</p> <ul style="list-style-type: none"> <li>Self-supply: CPRE weighted average price (\$/kWh) minus the REC Value divided by 1,000 and then multiplied by unbundled energy (kWh).</li> </ul> <p>GSA Bill Credit: CPRE capacity weighted average price (\$/kWh) minus the GSA REC value. This cannot exceed the forecasted avoided cost rate.</p> <p>Early termination fee.</p>
<b>ADMINISTRATIVE FEE</b>	<p>\$2,000 application fee.</p> <p>\$375/month, plus \$50 per billed account.</p>

## NORTH CAROLINA — DUKE ENERGY

<b>VALUE OF RE PRICE CERTAINTY</b>	<p>Customers lock in contract price, credit, and contract term length at the time of subscription.</p> <p>The customer is shielded from increases to the standard energy charge, including power cost adjustments, etc.</p> <p>Self-supply: under a 20-year contract, the GSA REC value negotiated with the RE supplier could be lower than the CPRE prices—customer could achieve a lower utility bill.</p>
<b>PROCUREMENT LEAD</b>	<p>Self-supply: Customer negotiates with the RE supplier regarding pricing and selects RE facility.</p>
<b>BUNDLED RECS MANAGEMENT</b>	<p>Self-supply: Customer negotiates with the RE supplier for the RECs to be transferred directly to customer's North Carolina Renewable Energy Tracking System account by the RE supplier.</p>
<b>CUSTOMER FACILITY FLEXIBILITY</b>	<p>Self-supply: Multiple customers could negotiate with a single RE supplier and share a single RE facility of their choosing.</p>
<b>CONTRACT TIME COMMITMENT</b>	<p>Self-supply: Negotiated. 2, 5 or 20 years.</p>
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	<p>North Carolina military customers, University of North Carolina system customers, and large nonresidential customers.</p> <p>Large nonresidential customers must have:</p> <ul style="list-style-type: none"> <li>• Contract demand equal to or greater than 1 MW; or</li> <li>• Multiple service locations that, in aggregate, is equal to or greater than 5 MW.</li> </ul> <p>Annual capacity procured under the tariff cannot exceed 125% of customer's aggregate maximum annual peak demand of premise.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	<p>Customer may aggregate multiple locations to achieve the 5 MW participant threshold, so long as, each account is located in the same service territory as the RE facility.</p>
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	<p>There are no eligibility restrictions against customers who are currently net metering.</p>
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	<p>Facility must be located within Duke Energy's service territory (DEC or DEP), in either North Carolina or South Carolina, and in the same service territory as the customer's accounts.</p> <p>Self-supply: at a minimum, facility must have completed the System Impact Study under the North Carolina Interconnection Procedures ("NCIP") or the South Carolina Generator Interconnection Procedures ("SC GIP") to interconnect.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>The University of North Carolina and military customers are exempt from credit requirements.</p> <p>All other GSA customers must provide financial security as outlined in the GSA Service Agreement. Customer may be required to provide a credit letter.</p> <p>All contract risk falls on customer.</p>
<b>PUC PROCESS</b>	<p>Filed with North Carolina Utilities Commission on January 23, 2018.</p>
<b>STATUS/RE DEALS SIGNED</b>	<p>Tariff has not yet been approved by the commission.</p> <p>The initial enrollment window to apply to the reserved capacity is expected to open 60 to 90 days from program approval, which is anticipated before the end of the year. Enrollment for the remaining capacity will follow.</p>
<b>DOCKET INFORMATION</b>	<p>Docket <a href="#">E-2 Sub 1170</a> Duke Energy Carolinas  Docket <a href="#">E-7 Sub 1169</a> Duke Energy Progress</p>

## OREGON – PORTLAND GENERAL ELECTRIC (PGE)

<b>Tariff Name</b>	Green Future <sup>SM</sup> Impact, Schedule number pending
<b>Tariff Type</b>	Tariff; Subscriber Product
<b>Pilot Size/Period</b>	Current cap is 300 aMW (approximately 900 MW).
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Customer enters Subscriber Agreement with PGE to purchase a subscription share, up to the customer's yearly consumption, of a new renewable facility.</p> <p>For the first tranche, PGE will enter into a fixed price, 15–20-year PPA with a RE power producer following a competitive process. PGE may pursue ownership of a renewable resource in later tranches.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard "applicable cost of service schedule" applies, including all relevant riders, supplemental schedule, and regulatory adjustments.</p> <p>In addition, customer receives the following charges:</p> <ul style="list-style-type: none"> <li>• PPA cost or revenue requirement for each MWh contracted;</li> <li>• Administrative charge; and</li> <li>• Risk adjustment (applied when customer contract term is shorter than the PPA term).</li> </ul> <p>This risk adjustment is expressed as a percentage of the PPA price. Final adjustment cost will vary with PPA term, energy credit, capacity credit, and resubscription level. PGE currently estimates the risk premium on a 10-year contract to be between 1% and 5% of a 15-year PPA price.</p> <p>Customer receives a fixed credit (\$/MWh) for the incremental energy and capacity the resource brings to PGE's system. The credit values for energy and/or capacity will be determined at the time of PPA execution.</p> <p>Early termination charge.</p>
<b>ADMINISTRATIVE FEE</b>	<p>Administrative charge accounts for program costs, integration, shaping, firming, and other program expenses.</p> <p>Current estimated administrative cost is \$0.75.</p>
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>Long-term renewable energy price certainty over the term of the agreement.</p> <p>For initial offering, bill credit for the avoided cost of the RE cannot exceed the actual cost of PPA and RECs.</p>
<b>PROCUREMENT LEAD</b>	<p>For aggregated customers, PGE will procure the resource. Customers have the right to review pricing and the estimated bill credit prior to executing subscription agreement.</p> <p>Resources will be procured only with 90% customer subscription.</p>
<b>BUNDLED RECS MANAGEMENT</b>	RECs will be retired on behalf of subscribers.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Not explicit in the filing.
<b>CONTRACT TIME COMMITMENT</b>	5, 10, 15, or 20 years.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Nonresidential customers whose aggregate demand across all retail schedules exceeds 30kW.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers may aggregate multiple facilities and meters to reach the >30kW participant threshold.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Not applicable.

## OREGON – PORTLAND GENERAL ELECTRIC (PGE)

<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	New wind or solar resource located in Oregon or Washington.
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>If RE is insufficient to meet customer's contracted amount, PGE will contract for RECs and retire RECs from an alternative source.</p> <p>Risk premium will balance uncertainties related to differing contract lengths, specified generation resources, and individual performance obligation; designed to prevent non-subscribing customers from bearing any program costs.</p> <p>Risk adjustment will be eliminated if the subscription length matches the PPA length, or vice versa.</p>
<b>PUC PROCESS</b>	Filed with Oregon PUC on April 13, 2018.
<b>STATUS/RE DEALS SIGNED</b>	Tariff has not yet been approved by the commission.
<b>DOCKET INFORMATION</b>	Docket UM 1953

## UTAH – ROCKY MOUNTAIN POWER (RMP)

<b>TARIFF NAME</b>	Service from Renewable Energy Facilities, Schedule 32
<b>TARIFF TYPE</b>	Tariff; Sleeved PPA
<b>PILOT SIZE/ PERIOD</b>	<p>Capped at 300 MW total peak delivered to all customers.</p> <p>PUC can increase without returning to the legislature.</p>
<b>TARIFF/ CONTRACT STRUCTURE</b>	<p>RE facility is selected by the customer, not RMP.</p> <p>Two contracts:</p> <ul style="list-style-type: none"> <li>• between RMP and the customer; and</li> <li>• between RMP and the RE facility.</li> </ul> <p>Same pricing and duration for both contracts.</p> <p>RMP takes ownership of the electricity from RE facility.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>RE is charged at the price negotiated between the customer and the developer of the RE facility; distribution and delivery charges are priced at rates specific to this tariff. Daily demand charges apply to the renewable energy contract capacity.</p> <p>Supplemental energy and supplemental demand are priced at rates from the otherwise applicable tariff for the customer.</p> <p>Services are balanced at 15-minute intervals for every meter; excess generation in the 15-minute block cannot be credited to the customer or allocated to another meter.</p>
<b>ADMINISTRATIVE FEE</b>	Administrative charges of \$150 per month for each delivery point (meter) and \$110 per generator per month, irrespective of the number of delivery points.
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>New schedule that could theoretically deliver lower cost than standard retail rates.</p> <p>Reduced exposure to fuel price volatility to the degree that energy is procured from RE facility, subject to backfilling RE generation with supplemental and backup service.</p>

## UTAH — ROCKY MOUNTAIN POWER (RMP)

<b>PROCUREMENT LEAD</b>	Customers bring the PPA to RMP and lead on the PPA negotiations.
<b>BUNDLED RECs MANAGEMENT</b>	REC contracts are directly entered between RE facility and the customer.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	RE facility can service multiple customers or customer meters; a customer served by multiple RE facilities will pay a monthly fee for each facility.
<b>CONTRACT TIME COMMITMENT</b>	Negotiated. Identical for both contracts.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	<p>Only customers otherwise on Schedules 6, 8, or 9.</p> <p>Schedule 6: non-residential customers with a load less than 1,000 kW (distribution voltage).</p> <p>Schedule 8: load of 1,000 kW or more (distribution voltage).</p> <p>Schedule 9: high voltage customers.</p> <p>Customers must contract for 2 MW or more and cannot contract for more capacity in MW than their peak demand. This limitation, combined with the 15-minute matching of resource to demand, means the tariff likely limits the ability to reach a 100% renewable energy goal.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Aggregation of meters by a single customer is allowed to meet the 2 MW minimum, but fees and power produced/used in 15-minute usage blocks are by meter.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Net metering of electricity purchased from the facility by customers is not allowed.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	<p>Limited to facilities in Utah.</p> <p>Can be owned by the customer, the utility, a third party, or a combination.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	Customer must prove reasonable credit.
<b>PUC PROCESS</b>	<p>Approved March 20, 2015.</p> <p>Directing legislation, SB 12 was effective May 8, 2012.</p>
<b>STATUS/RE DEALS SIGNED</b>	RMP has introduced a Subscriber Solar Program (Schedule 73) in Docket 15-035-61 that Schedule 32 customers could access in order to simplify procurement.
<b>DOCKET INFORMATION</b>	Docket 14-035-T02, implementing SB 12

## UTAH — ROCKY MOUNTAIN POWER

<b>TARIFF NAME</b>	Renewable Energy Purchases for Qualified Customers, Schedule 34
<b>TARIFF TYPE</b>	Tariff; Sleeved PPA
<b>PILOT SIZE/PERIOD</b>	No cap on customers.
<b>TARIFF/CONTRACT STRUCTURE</b>	Customer enters into contract with Rocky Mountain Power; Rocky Mountain Power enters the PPA.
<b>CUSTOMER COST STRUCTURE</b>	<p>Two options:</p> <ul style="list-style-type: none"> <li>• Standard tariff rate +/- incremental charge. Incremental charge is equivalent to the difference between the RE cost and the avoided cost; or</li> <li>• Standard tariff rate +/- alternative methodology. Alternative methodology is set forth in contract.</li> </ul> <p>Commission approval required for either cost structure. Customer cost must meet the standard of being just and reasonable and in the public interest, with evaluation including consideration of use of system facilities and contributions to system fixed costs.</p> <p>Customer is responsible for all costs related to contract for remaining term with early termination.</p>
<b>ADMINISTRATIVE FEE</b>	<p>Proposed \$5,000 application fee.</p> <p>Standard administrative fee for metering and billing: \$110 per generation source, \$150 per delivery point, and \$50 per any additional delivery points.</p>
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>Negotiated PPA pricing provides long-term resource price certainty for customers.</p> <p>Protection from fuel clause adjustments and other rate disaggregation may also be included in negotiations for new customers to deliver more of the fixed price value of RE.</p>
<b>PROCUREMENT LEAD</b>	Customer and Rocky Mountain Power work together to identify RE resources.
<b>BUNDLED RECs MANAGEMENT</b>	RECs will be deposited into an account maintained by or on behalf of the Customer and will be retired.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Renewable resource is transferrable to another customer who takes service under the tariff.
<b>CONTRACT TIME COMMITMENT</b>	At a minimum, customer contract with RMP must match the length of time in the RE facility contract.
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	Only customers with an aggregate electric load of at least 5 MW based on peak annual demand.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	<p>Aggregation of meters by a single customer is allowed to meet the 5 MW minimum; aggregation is not allowed beyond this initial qualifier.</p> <p>One application fee will be assessed on a customer aggregating multiple points of delivery.</p> <p>RE facility can service multiple customers or customer meters; a customer served by multiple RE facilities will pay a monthly fee for each facility.</p>
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Not specified in the filing.

## UTAH — ROCKY MOUNTAIN POWER

<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	Can be owned by the utility, the customer, or a third party. RE resource must include bundled RECs.
<b>COMMERCIAL RISK MANAGEMENT</b>	Customer must prove reasonable credit.
<b>PUC PROCESS</b>	Approved August 18, 2016.
<b>STATUS/RE DEALS SIGNED</b>	Facebook has indicated that it will utilize 400 MW under the tariff.
<b>DOCKET INFORMATION</b>	Docket 16-035-T09

## VIRGINIA — APPALACHIAN POWER COMPANY (APCo)

<b>TARIFF NAME</b>	Rider REO
<b>TARIFF TYPE</b>	Tariff; Subscriber Product
<b>PILOT SIZE/ PERIOD</b>	Initial bundled RE resources, comprised of wind and hydro, have a combined capacity of 423 MW. Capacity increases to 553 MW when Bluff Point wind resource becomes operational in 2019. Additional RE resources, including solar, may be added in the future.
<b>TARIFF/ CONTRACT STRUCTURE</b>	APCo has entered into long-term PPAs with existing and new RE resources (Renewable PPAs). Future resources may also include owned resources (not limited to PPAs). Customers may elect to receive energy under the tariff with no contract required.
<b>CUSTOMER COST STRUCTURE</b>	Rider REO proposed initial cost is \$89.61/MWh. This is based on the weighted average cost of the Renewable PPAs. Rate is adjusted annually. Participants will also pay for all costs associated with the RE resources: <ul style="list-style-type: none"> <li>• the base transmission and distribution rates;</li> <li>• the transmission rate adjustment clause (T-RAC);</li> <li>• the energy efficiency rate adjustment clause (EE-RAC); and</li> <li>• the rate adjustment clause (RPS-RAC).</li> </ul>
<b>ADMINISTRATIVE FEE</b>	None.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customers are not responsible for fuel factor surcharge, generation rate adjustment clause (G-RAC), generation function base rate, or the demand response rate adjustment clause (DR-RAC).
<b>PROCUREMENT LEAD</b>	APCo solely procures the resource.
<b>BUNDLED RECs MANAGEMENT</b>	RECs are retained or retired on behalf of customer. RE sold under Rider REO will not be calculated toward RPS goals. Rider REO pricing includes the opportunity cost of retaining or retiring the RECs associated with the Renewable PPAs.

## VIRGINIA — APPALACHIAN POWER COMPANY (APCo)

<b>CUSTOMER FACILITY FLEXIBILITY</b>	Customers can elect the tariff for any eligible account.
<b>CONTRACT TIME COMMITMENT</b>	<p>Customers eligible for Rider REO may participate by notifying the Company. The initial term of service under Rider REO is no less than 12 months.</p> <p>After the initial term, customers may terminate service under Rider REO by notifying the Company with at least thirty days prior notice.</p>
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	Available for customers taking Standard Service from the Company under a metered rate schedule. This optional rider is not available to OAD customers.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Aggregation is not allowed.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Under this rate, net metering is not permissible.
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	<p>Rider REO bundles energy output from multiple existing RE resources. Consists of Summerville hydro-electric facility, and Camp Grove, Fowler Ridge, Beech Ridge, and Grand Ridge wind facilities. Bluff Point wind facility will begin in 2019.</p> <p>"Portfolio effect" ensures that RE is available at all hours of the day, in all seasons.</p>
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>Opportunity costs paid by Rider REO customers will be credited to the fuel factor. This is to avoid harming non-participating customers.</p> <p>Fuel factor rate credit consists of total Rider REO revenues, minus the revenue allocations and rate credits.</p> <p>Benefit of reduced fuel factor may increase with participation in Rider REO; however, Rider REO is not guaranteed to produce a credit.</p>
<b>PUC PROCESS</b>	Filed with Virginia PUC on April 28, 2016.
<b>STATUS/RE DEALS SIGNED</b>	Denied by the commission, stating that the APCo failed to establish that its proposed rate was just and reasonable.
<b>DOCKET INFORMATION</b>	<a href="#">Docket PUE-2016-00051</a>

## VIRGINIA — DOMINION ENERGY

<b>TARIFF NAME</b>	Schedule MBR
<b>TARIFF TYPE</b>	Tariff; Market-Based Rate
<b>PILOT SIZE/PERIOD</b>	<p>Capped at 200 MW.</p> <p>60 days after approval from commission, customers can enroll until November 1, 2019 or until cap is reached, whichever occurs first.</p> <p>Concludes on December 31, 2022.</p>
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>MBR is attractive to customers that are independently contracting with a renewable energy facility in the PJM region through a virtual PPA. Their renewable energy contract is exposed to the volatility of the PJM markets.</p> <p>Companion tariff to the standard Rate Schedule GS-3 or GS-4, with a market-based rate (MBR) reflecting the PJM Interconnection wholesale market prices.</p> <p>Minimum term of 3 years, with automatic renewals, on a year-to-year basis.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Rate Schedules reflect pricing in the PJM Interconnection wholesale market.</p> <p>Rate design components:</p> <ul style="list-style-type: none"> <li>• Generation Capacity Charge = all kW of generation demand @ generation demand billing rate per kW;</li> <li>• Generation Energy Charge = all kWh @ day-ahead of locational marginal price per kWh;</li> <li>• PJM Ancillary Service Charge; and</li> <li>• PJM Administrative Fee Charge.</li> </ul> <p>Margin charge for each kWh of total monthly energy consumption. Charge covers any differences between the MBR and the actual marginal PJM costs to serve participating customers (and provides some contribution to administrative and fixed costs for Dominion Energy).</p> <p>Depending on PJM pricing and usage levels, the net MBR charge—the variance between MBR charges and applicable Rate Schedule GS-3 of GS-4 charges—could result in either a credit or a charge.</p>
<b>ADMINISTRATIVE FEE</b>	Included in customer cost structure, charged on per kWh basis.
<b>VALUE OF RE PRICE CERTAINTY</b>	By linking their cost of electricity directly to the same market, customers can offset any high cost of power consumed from the market with the revenue from the high price their renewable energy earned in the market.
<b>PROCUREMENT LEAD</b>	Not applicable.
<b>BUNDLED RECs MANAGEMENT</b>	REC management is arranged with the developer. Likely, the customer retains and retires the RECs.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Not applicable.
<b>CONTRACT TIME COMMITMENT</b>	Minimum 3 years.

## VIRGINIA — DOMINION ENERGY

<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	<p>High load-factor commercial and industrial customers.</p> <p>Customers who would otherwise take service under GS-3 (non-residential secondary voltage customer) or GS-4 rate (non-residential transmission or primary voltage) schedules.</p> <p>Must also have:</p> <ul style="list-style-type: none"> <li>• A measured peak demand of 5 MW or more during at least 3 billing months in the current and previous 11 billing months;</li> <li>• Billing history with Dominion Energy for at least 12 consecutive billing months in the current and previous 11 billing months; and</li> <li>• An average monthly load factor of at least 85%.</li> </ul>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Tariff is applied to individual meters only.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Not applicable.
<b>RE FACILITY LIMITATIONS/ELIGIBILITY</b>	Not applicable, though contracts for RE facilities in the PJM market with similar locational marginal price profiles would be ideal to maximize the value of the MBR product.
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>Customer bears all risks associated with market volatility.</p> <p>Customer must sign an officer certification affidavit certifying that the customer understands the risks and potential rate volatility.</p>
<b>PUC PROCESS</b>	Approved September 23, 2016.
<b>STATUS/RE DEALS SIGNED</b>	Amazon Web Services has entered into multiple contracts using this structure.
<b>DOCKET INFORMATION</b>	Docket PUE-2015-00108

## VIRGINIA — DOMINION ENERGY

<b>TARIFF NAME</b>	Schedule CRG Six individual tariffs: <ul style="list-style-type: none"> <li>• GS-1: Small Generation Service</li> <li>• GS-2: Intermediate Generation Service</li> <li>• GS-3: Large General Service, Secondary Voltage</li> <li>• GS-4: Large General Service, Primary Voltage</li> <li>• 27: Outdoor Lighting Service, High Pressure Sodium Vapor</li> <li>• 28: Outdoor Lighting Service</li> </ul>
<b>TARIFF TYPE</b>	Tariff; Subscriber Product and/or Sleeved PPA
<b>PILOT SIZE/PERIOD</b>	Portfolio of resources, "CRG Portfolio," comprising new or existing facilities. Customer and utility work collaboratively to identify appropriate RE resources, while ensuring that electric service is provided on a continuous hourly basis.
<b>TARIFF/CONTRACT STRUCTURE</b>	Dominion executes PPA for RE resources in the PJM wholesale market; may take the form of a single PPA or a bundling of differing resources. Customer and utility work collaboratively to identify the type and location of the RE resource. Second contract entered into with the participating customer, "Requirements Contract." The Requirements Contract establishes an all-inclusive price for retail electric supply service based on the underlying wholesale renewable portfolio price that will be in lieu of the customer's generation billing under its standard tariff. This is a negotiated all-inclusive tariff rate.
<b>CUSTOMER COST STRUCTURE</b>	Billing differs with each individual tariff.  With each, the Continuous Renewable Generation Charge reflects the Requirements Contract. Price is a \$/kWh charge that represents the energy charge for that service and may include a \$/kW demand charge representing the capacity requirement.  If portfolio includes PPA, rate will be based on PPA costs + margin equal to Dominion's recently approved return on equity.  If portfolio includes Dominion-owned RE resources, a return on investment will be tied to recently approved return on equity.  Customer continues to be subject to distribution service charges and transmission demand or energy charges.
<b>ADMINISTRATIVE FEE</b>	Negotiated administrative fee paid in bill, which reflects the company's additional billing and contracting expenses.  \$2,000 non-refundable application fee.
<b>VALUE OF RE PRICE CERTAINTY</b>	Exempt from Dominion's existing or future fuel or generation riders.
<b>PROCUREMENT LEAD</b>	Dominion will work with the customer to acquire existing and/or new RE resources that can serve the customer's hourly energy load profile on a continuous basis.
<b>BUNDLED RECS MANAGEMENT</b>	RECs are retired by Dominion on customer's behalf.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	Not specified in the filing.
<b>CONTRACT TIME COMMITMENT</b>	Minimum of five (5) years, or longer as may be mutually agreed on by Dominion and the customer.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Existing non-residential customers with peak measured demands of 1,000 kW or more (whether at a single location or the aggregate of one or more customer locations).  New non-residential customers with an anticipated demand of 1,000 kW or more.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customer will be permitted to aggregate its own accounts or meters to meet the demand threshold as provided in the applicable rate schedule.

## VIRGINIA — DOMINION ENERGY

### IMPACT ON NET METERING (ONSITE RESOURCES)

Under this rate, net metering is not permissible.

### RE FACILITY LIMITATIONS/ ELIGIBILITY

RE resource may be located outside Dominion's service territory but must be within the PJM wholesale market geographic scope.

All RE resources must meet the definition of "renewable energy" under VA. Code § 56-576. Such sources currently include sunlight, wind, falling water, biomass, sustainable or otherwise (the definitions of which shall be liberally construed), energy from waste, landfill gas, municipal solid waste, wave motion, tides, and geothermal power. Renewable energy does not include energy derived from coal, oil, natural gas, or nuclear power.

### COMMERCIAL RISK MANAGEMENT

See the language in the Requirements Contract. Likely to be similar to Schedule RG.

### PUC PROCESS

Filed with Virginia PUC on May 9, 2017.

### STATUS/RE DEALS SIGNED

Denied by the commission, stating that Dominion failed to establish that Schedule CRG was just and reasonable.

### DOCKET INFORMATION

PUR-2017-00060

<b>VIRGINIA — DOMINION ENERGY</b>	
<b>TARIFF NAME</b>	Schedule RF
<b>TARIFF TYPE</b>	Rider; Integrated Resource
<b>PILOT SIZE/PERIOD</b>	Pilot program will be available for enrollment for a five-year period, but not limited in size.
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>Customer works with Dominion Energy to develop the construction of new RE project(s).</p> <p>Customer enters into a Renewable Facilities Agreement (RFA) with Dominion Energy outlining commitment to enhance the cost-effectiveness of one or more RE project(s) to be constructed and operated by Dominion Energy as a system resource, e.g. purchase the RECs from the project, contribute land acquisition, etc.</p> <p>Subsequently, customer and Dominion Energy will contract (under a Confirmation) for the pricing and additional terms and conditions of the exchange of RECs, up to 100% of the project's production.</p> <p>Customer must also enter into an Electric Service Agreement (ESA) for the same term.</p> <p>Late payment and early termination fees will be negotiated.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Schedule RF is a companion tariff to support the development of new renewable energy generation facilities.</p> <p>Schedule RF charge will appear as a new line item on existing monthly retail service bill. The price and term is negotiated and contracted for under the RFA and Confirmation.</p> <p>All other payment terms will be in accordance with the applicable Principal Tariff.</p> <p>Customer pays differential cost necessary for commission approval of the new RE resource, which will be rate based and benefits all utility customers.</p>
<b>ADMINISTRATIVE FEE</b>	None.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customer is on standard cost of service.
<b>PROCUREMENT LEAD</b>	Dominion Energy works collaboratively with the customer to identify appropriate RE project(s).
<b>BUNDLED RECS MANAGEMENT</b>	The customer retains all rights to RECs produced by the RE facilities constructed under Schedule RF.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	<p>Customers may identify one or more service accounts, so long as the account is in the same name as the qualifying account and are assigned to the customer's service location.</p> <p>The account must also:</p> <ul style="list-style-type: none"> <li>• Meet Schedule RF's eligibility requirements, e.g. billed on the applicable Principal Tariff;</li> <li>• Be identified in the applicable Confirmation; and</li> <li>• The load must be located within Dominion's service territory.</li> </ul>
<b>CONTRACT TIME COMMITMENT</b>	Term is negotiable.
<b>CUSTOMER LIMITATIONS/ELIGIBILITY</b>	<p>Existing or new customers taking service under one of the following Principal Tariffs: GS-1, GS-2, GS-2T, GS-3, GS-4, and Schedule 10.</p> <p>Customers must add new load of at least 30,000,000 kWh annually at one account or in total across multiple accounts.</p> <p>Not applicable for customers taking service under Rate Schedule MBR-GS-3 or MBR-GS-4.</p>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers may aggregate multiple facilities to reach the minimum load requirement.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Not applicable.

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## VIRGINIA — DOMINION ENERGY

### RE FACILITY LIMITATIONS/ ELIGIBILITY

New renewable energy project(s) will be proposed in accordance with Va. Code § 56-576.

### COMMERCIAL RISK MANAGEMENT

Parties will determine appropriate credit requirements.

### PUC PROCESS

Approved March 26, 2018.

### STATUS/RE DEALS SIGNED

Customers may enroll for a period of five years from the initial effective date of June 1, 2018.

Facebook has expressed a commitment to use Schedule RF for 240 MW of solar.

### DOCKET INFORMATION

Docket PUR-2017-00137

## VIRGINIA — DOMINION ENERGY

<b>TARIFF NAME</b>	Renewable Energy Supply Service, Schedule RG
<b>TARIFF TYPE</b>	Rider; Sleeved PPA
<b>PILOT SIZE/ PERIOD</b>	Capped at 50 customers.
<b>TARIFF/ CONTRACT STRUCTURE</b>	<p>Customer can request a specific RE facility/resource and RE purchase size, from either a third-party RE generator or Dominion-owned resource.</p> <p>Dominion negotiates and enters into a Renewable Generation PPA with the RE generator, noting the customer as a third-party beneficiary.</p> <p>Second contract between Dominion and the customer, Schedule RG Agreement, assigns costs and risks to the customer.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Standard general service tariff rates and riders apply plus the Net Schedule RG Settlement charge or credit.</p> <p>Net Schedule RG Settlement:</p> <ul style="list-style-type: none"> <li>• Schedule RG Charge;</li> <li>• Schedule RG Adjustment; and</li> <li>• Schedule RG Administrative Charge.</li> </ul> <p>RG Charge equals all applicable RE and REC costs as negotiated in the PPA.</p> <p>RG Adjustment reflects the market value of RE and equals the PJM settlement credits (e.g., energy credits, balancing, ancillary, etc.) from the PPA, if applicable, and/or Dominion RE resource.</p> <p>Net Schedule RG Settlement can be distributed among a single customer's multiple accounts.</p>
<b>ADMINISTRATIVE FEE</b>	<p>\$2,000 application fee.</p> <p>Schedule RG Administrative charge applies to each RE resource and may serve multiple accounts for the same customer. The charge is the greater of:</p> <ul style="list-style-type: none"> <li>• \$500 for each 30-day billing period; or</li> <li>• \$0.25 per MWh.</li> </ul>
<b>VALUE OF RE PRICE CERTAINTY</b>	It is possible to see lower utility bills if the Schedule RG Adjustment exceeds the Schedule RG Charge and Administrative Charge.
<b>PROCUREMENT LEAD</b>	Dominion negotiates with RE generator on behalf of the customer and/or will work with the customer to construct a Dominion-owned RE resource.
<b>BUNDLED RECs MANAGEMENT</b>	RECs are retired by Dominion Energy on the customer's behalf.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	One customer is limited to RE from one RE facility, per each respective RG Agreement.
<b>CONTRACT TIME COMMITMENT</b>	Matches the RE resource term in the RG Agreement.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Commercial and industrial customers currently taking service under: GS-1, GS-2, GS-2T, GS-3, GS-4, Schedule 10, 27 and 28 principal tariffs.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Not explicit in the filing.

## VIRGINIA — DOMINION ENERGY

### IMPACT ON NET METERING (ONSITE RESOURCES)

Customers with on-site resources are allowed to participate in net metering.

Schedule RG RE resources cannot be used for net metering purposes.

### RE FACILITY LIMITATIONS/ ELIGIBILITY

RE facilities within the PJM Interconnection.

Minimum capacity of 1 MW.

### COMMERCIAL RISK MANAGEMENT

All contract risk falls on the customer.

### PUC PROCESS

Filed with Virginia PUC on December 1, 2017.

### STATUS/ RE DEALS SIGNED

The pilot rider, under [Case PUE-2012-00142](#), was not used.

Three-month enrollment period will begin 60 days after approval and, at a minimum, once per year thereafter.

Enrollment may also occur outside the three-month period if the customer identifies an RE generator or requests that a Dominion-owned resource be constructed on behalf of the customer.

### DOCKET INFORMATION

Case [PUR-2017-00163](#)

## WASHINGTON – PUGET SOUND ENERGY (PSE)

<b>TARIFF NAME</b>	Long Term Renewable Energy Purchase Rider, Schedule No. 139, branded as “Green Direct”
<b>TARIFF TYPE</b>	Tariff; Subscriber Product
<b>PILOT SIZE/ PERIOD</b>	Under the first tranche, aggregate subscription is limited to a total load of 75 average MW (aMW). The first phase of this initial tranche is comprised of a wind resource (approximately 130 MW) and the second phase of a solar resource (approximately 120 MW).
<b>TARIFF/ CONTRACT STRUCTURE</b>	<p>Customer enters into Service Agreement with PSE that outlines energy costs for RE resources.</p> <p>Customer must contract for 100% of the load at all meters located at each service address they elect to enroll.</p> <p>PSE signs fixed-price, 10–20-year contract with RE generators.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Energy-related costs in standard schedule are replaced by the RE contract PSE signs plus expenses; other standard schedule elements and rates (e.g., demand charges) remain the same.</p> <p>Monthly rates include:</p> <ul style="list-style-type: none"> <li>• Energy Charge Credit: \$0.0470009 per kWh; and</li> <li>• Resource Option Energy Charge: \$0.048500 per kWh.</li> </ul> <p>Energy Charge Credit consists of energy-related power costs of the system portfolio. Adjusted per general rate case, power cost-only rate case, or other power cost adjustments.</p> <p>Resource Option Energy Charge consists of energy and RECs costs, losses and taxes, billing system updates, and annual reporting of RECs. This is a fixed cost, escalating at 2% per year, and outlined in the tariff.</p> <p>Fee for early exit to cover customer's commitment, less a credit for the market/avoided cost of power.</p>
<b>ADMINISTRATIVE FEE</b>	Captured in the cost of the service agreement.
<b>VALUE OF RE PRICE CERTAINTY</b>	<p>The customer is shielded from increases to the standard energy charge, including power cost adjustments, etc.</p> <p>The customer is not shielded from changes to monthly fees, demand charges, etc.</p> <p>If the RE price in the service agreement falls below the utility mix energy price, customer will pay the lower rate.</p>
<b>PROCUREMENT LEAD</b>	Customers can provide input regarding the RE resources and terms of the Service Agreement.
<b>BUNDLED RECs MANAGEMENT</b>	<p>Retired on behalf of the customer.</p> <p>The customer may also join Western Renewable Energy Generation Information System at their expense and the RECs will be transferred to be retired.</p>

## WASHINGTON – PUGET SOUND ENERGY (PSE)

<b>CUSTOMER FACILITY FLEXIBILITY</b>	Not explicit in the filing; expectation is the contract could move between meters in the service territory.
<b>CONTRACT TIME COMMITMENT</b>	Initial tranche phase 1: 10, 15, or 20 years.  Initial tranche phase 2: 10, 15, or 18 years.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Commercial, non-residential meters; includes most commercial customers taking electric service on Schedules: 24, 25, 26, 31, 40, 43, 46, and 49.  Customers must have a minimum aggregated load of 10,000,000 kWh per year, in PSE's service area; or be a municipal, county, state or federal institution.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers select which service addresses (one to all) to commit to the rider.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Not explicit in the filing.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	Resources can be provided by IPPs or be PSE-owned.  RE is delivered to PSE balancing authority area; no geographic limitation explicitly set.
<b>COMMERCIAL RISK MANAGEMENT</b>	If RE is insufficient, PSE will work with customer to source and retire RECs from an alternative source, with costs limited to that expected under Schedule 139.  If RE is inadequate, PSE may terminate the contract with customer, with no liability to customer or PSE.
<b>PUC PROCESS</b>	Approved September 28, 2016.
<b>STATUS/ RE DEALS SIGNED</b>	The first tranche is fully subscribed. Customers include Target, REI, Starbucks, Western Washington University, Sound Transit, King County, the Port of Seattle, and cities of Anacortes, Bellevue, Snoqualmie, and Mercer Island. Other counties not included.  Enrollment for the second tranche opened on August 31, 2018. This is expected to sell out quickly.
<b>DOCKET INFORMATION</b>	Docket UE-160977

**WISCONSIN — MADISON GAS & ELECTRIC (MGE)**

<b>TARIFF NAME</b>	Renewable Energy Rider
<b>TARIFF TYPE</b>	Rider; Sleeved PPA, and/or Subscriber Product
<b>PILOT SIZE/ PERIOD</b>	No limitations for new customers. Existing customers are capped at 25 MW, with the potential to increase this cap as necessary.
<b>TARIFF/ CONTRACT STRUCTURE</b>	Customer enters into a RER-1 service agreement dedicating the new or existing renewable resource, with power owned or procured by MGE.
<b>CUSTOMER COST STRUCTURE</b>	Customer's otherwise applicable rate schedule applies plus the Renewable Resource Rate, except fuel cost surcharges and credits.  Renewable Resource Rate: costs associated with the specific renewable energy resources, including any up-front contributions or administrative charges.  Late payment charge.  Early termination fee.
<b>ADMINISTRATIVE FEE</b>	Not explicit in filing.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customers have the ability to negotiate price and term at the time of subscription. Price certainty (e.g., fixed, fixed escalation, etc.) and hedge value can be included in contract terms, subject to the constraints of the source project(s) for the renewable energy.
<b>PROCUREMENT LEAD</b>	Customer can provide input regarding the RE resources and terms of the service agreement.
<b>BUNDLED RECs MANAGEMENT</b>	Customer can work with utility regarding REC management.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	No limitations defined in the filing.
<b>CONTRACT TIME COMMITMENT</b>	Negotiated term approved by the commission.
<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	Existing or new customers on rate schedules: Cg-4, Cg-2, Cg-6, Sp-3, and Cp-1.  Customer participation may be limited on bill payment and collection histories.
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Customers with multiple accounts may aggregate any, up to all, of their eligible accounts.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Not explicit in filing.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	No limitations defined in the filing; customer can work with utility to meet multiple facility requirements.
<b>COMMERCIAL RISK MANAGEMENT</b>	Customer must prove reasonable credit.  Any risk sharing must be approved as part of the PSCW contract approval.
<b>PUC PROCESS</b>	Approved July 25, 2017.
<b>STATUS/ RE DEALS SIGNED</b>	Dane County has expressed interest in utilizing the tariff.
<b>DOCKET INFORMATION</b>	Docket 3270-UR-121

## WYOMING — BLACK HILLS ENERGY

<b>TARIFF NAME</b>	Large Power Contract Service
<b>TARIFF TYPE</b>	Tariff; Sleeved PPA
<b>PILOT SIZE/PERIOD</b>	No limitations defined in the filing.
<b>TARIFF/CONTRACT STRUCTURE</b>	<p>The company, Black Hills Energy, negotiates and enters PPA with renewable energy generator, but Black Hills Energy will work with the customer to meet individual RE requirements and service terms.</p> <p>Second contract, a Confidential Large Power Service Agreement, between Black Hills Energy and customer assigns the rates, terms and conditions of the service.</p>
<b>CUSTOMER COST STRUCTURE</b>	<p>Monthly rate consists of the following:</p> <ul style="list-style-type: none"> <li>• Energy Charge (\$/kWh): energy procured or generated by the Black Hills on behalf of the customer billed on a monthly basis based on actual energy costs (including any necessary ancillary charges).</li> <li>• Transmission costs (\$): cost to use Black Hills Energy's transmission system and the costs allocated to customer for network service as defined in Service Agreement.</li> <li>• Microgrid Management Fee (\$/kW-mo): based on the Billing Capacity of the onsite generation equipment as defined in the Service Agreement. Starting number set in Docket 20003-146-ET-15, but negotiable.</li> </ul> <p>Billing Capacity is equal to the capacity of the onsite installed generating equipment. Energy service provided in this tariff will be limited to 85% of the Billing Capacity. The energy is limited to 85% of the Billing Capacity to provide for planning reserves for the customer. This provides for additional reliability for the customer if a unit doesn't start when it's called on.</p> <p>Customer is not subject to the Power Cost Adjustment nor the Demand Side Management Surcharge.</p> <p>Late payment charge.</p> <p>If Black Hills utilizes the customer backup generation, Black Hills will pay the customer a fee based on market pricing for capacity.</p>
<b>ADMINISTRATIVE FEE</b>	Administrative costs (\$/kW-mo) are based on the Billing Capacity of the onsite generation equipment as defined in the Service Agreement. Starting number set in Docket 20003-146-ET-15, but negotiable.
<b>VALUE OF RE PRICE CERTAINTY</b>	Customers have the option to lock in contract pricing and length once a counterparty is identified and a renewable energy project is built and producing energy. The customer is shielded from utility energy charges, including Power Cost Adjustments.
<b>PROCUREMENT LEAD</b>	Customer and utility work collaboratively to identify appropriate RE resources.
<b>BUNDLED RECS MANAGEMENT</b>	Black Hills Energy will retire RECs on behalf of the customer.
<b>CUSTOMER FACILITY FLEXIBILITY</b>	RE resources can service multiple customers or meters that are already taking service under this tariff.
<b>CONTRACT TIME COMMITMENT</b>	Customers must remain on this tariff for a minimum of 4 years.

## WYOMING — BLACK HILLS ENERGY

<b>CUSTOMER LIMITATIONS/ ELIGIBILITY</b>	<p>New customer load interconnected with Black Hills Energy's system, with an expected capacity requirement of 13,000 kW or greater.</p> <p>Customers must have backup generators onsite that are consistent with Black Hills Energy's standards. Customer must agree to allow Black Hills Energy dispatched customer-owned generation onsite for the purpose of providing backup service for customer's load and maintaining reliability.</p> <p>Customer must also meet one or more of the following conditions:</p> <ul style="list-style-type: none"> <li>• Customer accepts non-standard electric service for new load.</li> <li>• Customer has unique requirements for the new load.</li> <li>• Customer intends to acquire its electric service for new load from a source other than Black Hills Energy absent service under this tariff. This is demonstrated by having the ability to take service at another location and can be done on a case-by-case basis.</li> </ul>
<b>AGGREGATION OF CUSTOMER FACILITY DEMAND</b>	Facility Demand is measured by meter along with the Billing Capacity; therefore, aggregation is unlikely but not specifically addressed in the docket.
<b>IMPACT ON NET METERING (ONSITE RESOURCES)</b>	Net metering is not permitted under this tariff.
<b>RE FACILITY LIMITATIONS/ ELIGIBILITY</b>	No limitations are defined in the filing.
<b>COMMERCIAL RISK MANAGEMENT</b>	<p>Customer must prove reasonable credit.</p> <p>Customer bears all risks associated with market volatility.</p>
<b>PUC PROCESS</b>	Approved July 28, 2016.
<b>STATUS/RE DEALS SIGNED</b>	Microsoft utilized the Large Power Contract Service to partially supply its Cheyenne datacenter from existing wind projects.
<b>DOCKET INFORMATION</b>	Docket 20003-146-ET-15 (Record No. 14242)

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## ENDNOTES

1. For additional information on utility renewable energy programs, including green pricing programs, and bundled vs. unbundled RECs, see the United States Environmental Protection Agency's "Guide to Purchasing Green Power." [https://www.epa.gov/sites/production/files/2016-01/documents/purchasing\\_guide\\_for\\_web.pdf](https://www.epa.gov/sites/production/files/2016-01/documents/purchasing_guide_for_web.pdf).
2. For additional information on the rationale behind customers seeking green tariffs from utilities, see WRI's "Above and Beyond: Green Tariff Design for Traditional Utilities." <http://www.wri.org/sites/default/files/green-tariff-design-final.pdf>.
3. For additional information on community solar programs, see the U.S. Department of Energy's "Guide to Community Solar: Utility, Private, and Non-profit Project Development." <http://www.nrel.gov/docs/fy11osti/49930.pdf>.
4. The tariffs differ according to which party initiates the renewable energy project negotiations—the utility or the customer. "Procurement lead" identifies who leads the relationship with the developer.

## GLOSSARY OF TERMS

<b>C&amp;I</b>	Commercial and industrial customers.
<b>Demand Charge</b>	Daily or monthly charges paid by large electricity customers for their peak demand in kilowatts from the grid. This is a measure of the capacity they require from the grid in a time period.
<b>Fuel Clause Charge</b>	Or “fuel clause adjustment,” is the per kWh charge Xcel customers are billed to recover the cost of the generation resources required to supply all customers with electricity.
<b>GS</b>	General service.
<b>IOU</b>	Investor-owned utility.
<b>IPP</b>	Independent power producer; a company that generates and sells power.
<b>MISO</b>	Midcontinent Independent System Operator, the Independent System Operator (ISO) and Regional Transmission Organization (RTO) providing open-access transmission service and monitoring the high-voltage transmission system in the Midwest United States and Manitoba, Canada and a southern United States region which includes much of Arkansas, Mississippi, and Louisiana.
<b>Net Metering</b>	A billing mechanism that credits customers supplying surplus solar or other renewable energy power to the public grid.
<b>NGR Tariff/Rate</b>	Name given to NV Energy’s green tariff and rider rate.
<b>OARS</b>	“Otherwise applicable rate schedule” for customers served by NV Energy.
<b>OPT Tariff</b>	Duke “Optional Power Service, Time of Use” tariff structure.
<b>PJM</b>	Pennsylvania-New Jersey-Maryland Interconnection, regional transmission organization (RTO) that coordinates the wholesale electricity in parts of 13 Mid-Atlantic and Midwestern states and Washington, DC.
<b>PPA</b>	Power purchase agreement.
<b>PUC</b>	State public utility commission that regulates the electric utilities in a given state.
<b>PURPA</b>	The Public Utility Regulatory Policies Act is a federal law that requires utilities to purchase renewable energy produced by certain qualifying facilities (QFs), such as wind, solar, geothermal, and small hydroelectric resources. Avoided cost (the cost a utility avoids as a result of the QF) forms the basis for determining QF purchase pricing.
<b>RE</b>	Renewable energy.
<b>REC</b>	Renewable energy certificate attributed to renewable generation under state RPS requirements.
<b>REPSA</b>	Renewable Energy Purchase and Sales Agreement.
<b>Rider</b>	Additional rate applied to an electricity tariff.
<b>RMP</b>	Rocky Mountain Power.
<b>RPS</b>	Renewable Portfolio Standard; for example, state-law requirements as to the proportion of energy sold by a regulated utility that must come from specified types of RE generation.
<b>SB</b>	Senate bill.
<b>Sleeved PPA</b>	Customer negotiates directly with a renewable energy generator, then contracts through a utility.
<b>Subscriber Products</b>	Utility has procured renewable energy, then sells portions to customers.
<b>Tariff</b>	Electricity pricing, and price structure, charged to customers.
<b>Tranche</b>	A specific set of resources and customer terms offered.

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