

# REPORT

## U.S. ELECTRICITY MARKETS: UTILITY GREEN TARIFF UPDATE

DECEMBER 2020



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# ABOUT THIS PUBLICATION

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**WORLD RESOURCES INSTITUTE'S WORK ON GREEN TARIFFS BECAME AN INITIATIVE OF THE Clean Energy Buyers Association (CEBA) IN 2019.**

The U.S. Electricity Markets: Utility Green Tariff Update provides detailed information on the green tariff programs available in the United States. While many buyers are currently already procuring renewable electricity through utility programs, the availability and evolution of green tariff programs has been harder to keep up with. The Utility Green Tariff Update addresses this by:

- **recording the growth of green tariff options available in the market since the first programs were introduced in 2013 and tracking the total number of MWs of renewable energy that have been brought onto the grid as a result of their availability; and**
- **providing descriptions and details of green tariff programs available by state, and by utility, for large energy customers who might be interested in procuring renewable energy sources through these mechanisms.**





**INTENDED AUDIENCE** This publication is primarily designed for customers seeking to purchase large-scale energy, including corporations, local governments, higher education and others, and electric utilities that may be designing and/or evaluating their own green tariff offer. However, the information is designed to be used by anyone that is interested in looking into components of green tariff programs across the country.



**HOW TO USE THIS PUBLICATION** New readers can become acquainted with green tariff foundational knowledge, the scope of the content included in this publication, and key updates and trends by exploring the next section: **Key Information**. The details of each green tariff program available, including tariff name, program design, size, customer limitations/eligibility, status of renewable energy deals signed, and docket information, are subsequently listed by state and utility.

For those familiar with the publication, the Key Information section provides some high-level trends in green tariff program design and use. It also includes a new **Green Tariff Updates** section, which identifies new programs added to the publication since November 2019, and significant changes to green tariffs programs previously included.

Additional information on this publication can be found in the **Publication Methodology** section.

# KEY INFORMATION

## GREEN TARIFF OVERVIEW

**In the United States today, 39 green tariffs have been approved or are pending approval in 21 states** (see Figure 1).

Green tariffs were originally developed in 2013 to meet growing customer interest in cost-competitive renewable energy with a fixed or predictable price, and have since emerged as a key utility solution that has expanded rapidly in recent years.

Typically offered by local electric utilities and approved by state public utility commissions (PUCs), green tariffs allow a class of eligible customers to buy both the energy from a large-scale renewable energy project and the associated Renewable Energy Certificates (RECs) through an independent tariff or as a rider on their current electricity bill. Green Tariff programs ideally utilize new renewable energy projects located within the same service territory or grid distribution area. The key to green tariff design is structuring the cost component to meet energy customer preferences for a more direct financial connection to their consumption of renewable energy.

Over the past seven years, green tariffs have continued to evolve to meet growing interest in renewable energy and address varying customer preferences. Green tariffs were originally designed for large-scale energy customers, specifically commercial and industrial (C&I) customers bringing new load to a service territory. Increasingly, however, green tariff programs are being designed to accommodate a more diverse set of large energy

customers, including universities, municipal loads, and existing C&I customers with disaggregated loads.

As utilities have worked to meet customer demand for renewable energy, several green tariff models have emerged. Green tariff programs have taken roughly three forms to date:

1. A sleeved power purchase agreement (PPA), which grants access to individual physical PPAs through the utility;
2. Subscriber programs, which allow multiple customers to subscribe to a portion of a large renewable energy project(s), though the utility holds the PPA; and
3. Market-based rate programs, which allow for wholesale market participation via the utility (see Box 1 for additional details).

None of these green tariff forms require the customer to pay the capital cost of the renewable energy facility. **See the Implementation Guide for Utilities: Designing Renewable Energy Products to Meet Large Energy Customer Needs** for additional details on emerging green tariff forms, in addition to utility and regulator design considerations and best practices for creating a successful green tariff (Barua 2017).

### Box 1. Exploring “Market-Based Rate” Green Tariff Programs

For the purposes of this publication, green tariff programs are categorized as a “market-based rate” program when:

- The program is offered in a utility service territory where there is an overlapping wholesale energy market;<sup>1</sup>
- The program enables the customer to access renewable resources in the wholesale market, such as directly contracting with the developer or leading in the resource selection; and
- The cost of participating in the green tariff program in some way reflects the pricing of that wholesale energy market, typically as the basis or some component of the charge and credit structure.

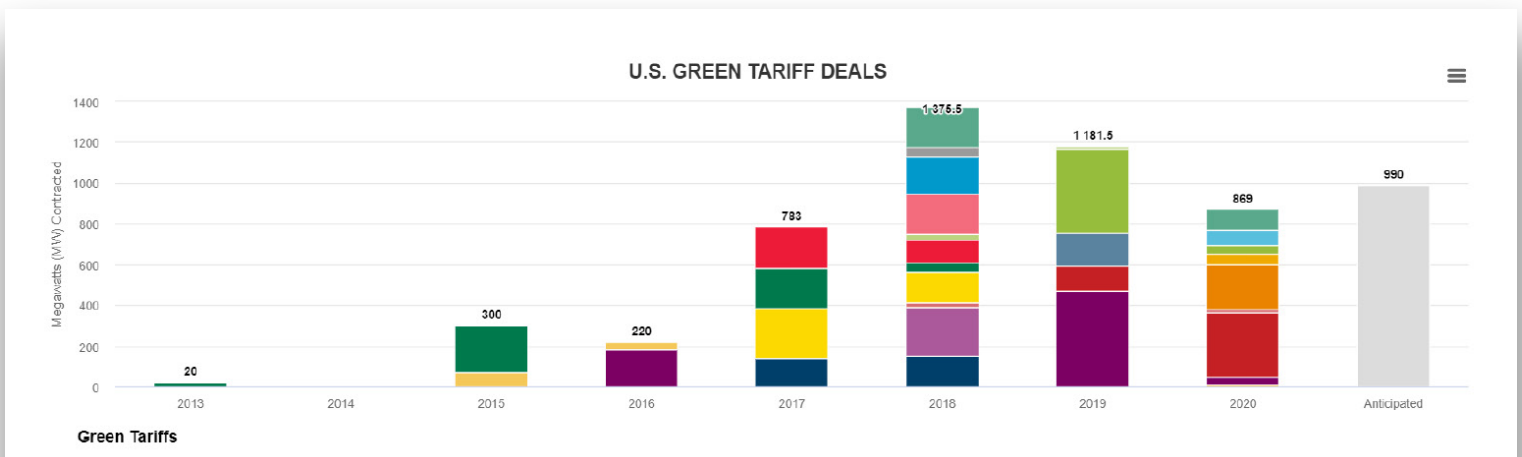
Although there are only some market-based rate programs, there are many green tariff programs where the cost of participating includes a competitive market value of some sort. These programs are offered in areas with existing wholesale markets and in some cases, where no wholesale markets exist. The market value offered in these green tariffs vary by program but have ranged from a charge or credit that reflects overlapping wholesale market rates or nearby energy hub prices, variable hourly or day ahead values or prices, or the difference between contracted prices and wholesale market prices.

Today, most green tariff programs utilize either the sleeved PPA or subscriber form, with the subscriber form emerging as a slightly more popular approach, with its flexibility to accommodate multiple, diverse subscribers with shorter and/or flexible contract lengths.

The requirements of green tariff programs have also evolved. Today, only four programs cater to new load alone, which means that existing customers can participate in most programs. For existing customers (specifically municipal customers),

programs are also increasingly providing carve outs or have otherwise made exceptions to demand requirements.

As of December 2020, 19 green tariff programs have been utilized to bring 4,729 megawatts (MW) of new renewable energy onto the electric grid. Successful green tariffs, in which customers have committed to purchase renewable energy through the program, are captured in the **Green Tariff Deals Chart**.



# KEY INFORMATION

## GREEN TARIFF UPDATES SINCE NOVEMBER 2019

Since the last update of this publication in November 2019, the following programs have been developed or revised:

### **Six utility green tariff programs, including one program offered across two states, have been added to this update:**

- Alliant Energy's "Renewable Energy Partners" program (approved January 17, 2020) is structured to resemble a Virtual Purchase Power Agreement or an offset to the customer's monthly fuel costs. The program has a cap of 150 MW and is open for customers to enroll.
- Black Hills Energy's "Renewable Ready Service" program is available in both South Dakota (approved November 27, 2019) and Wyoming (approved June 1, 2020). In contrast to the Large Power Contract Service, which serves customers with backup generators and new load, the Renewable Ready Service program allows customers with an aggregate usage of 300,000 kWh or more per year, as well as governmental accounts, to subscribe to portions of a wind project comprising 20 MW in South Dakota and ~30 MW in Wyoming. Both programs are currently open for customers to enroll.
- East Kentucky Power Cooperative's five-year pilot "Renewable Energy Program" in Kentucky was approved March 25, 2020. Under Option B of this program, customers can access new renewable

energy resources contracted and delivered through the utility at an increased cost, with an avoided cost and capacity credit when applicable. This program is currently open for customers to enroll and concludes December 31, 2024.

- Kentucky Utilities Company's "Green Tariff" program in Virginia was approved April 6, 2020. Similar to Louisville Gas & Electric (LG&E KU)'s offer in Kentucky, under Option 3, customers can enter into a Renewable Power Agreement for a 10-25 MW resource. This program is currently open for existing customers to enroll.
- Salt River Project's "Sustainable Energy Offer" in Arizona was approved in phases during 2018 and 2019. The program allowed over 30 customers to access 300 MW of new solar at a fixed cost per their subscription level with a monthly billing adjustment that is equivalent to their traditional brown power rate.

### **Four green tariff programs received final regulatory approval:**

- In Virginia, Dominion Energy's Schedule MBR, Large General Service Market-Based Rate was approved January 14, 2020. The current resource is capped at 200 MW and enrollment will close when this cap is reached or on November 1, 2022.
- In Georgia, Georgia Power's Customer Renewable Supply Procurement (CRSP) program was approved March 12, 2020. Additional details on

the program cost structure are now included. To enroll in the program, the first notice of interest (NOI) was due in July for new load customers and on December 4, 2020 for existing customers. The second NOI period will open in Q2 of 2021.

- In New Mexico, Public Service Company of New Mexico's Solar Direct for Governmental and Large Commercial Customers, Rider No. 50 was approved March 25, 2020. The program is already fully subscribed.
- In Kentucky, Duke Energy's Green Source Advantage, Rider GSA, was approved April 27, 2020 for new or existing non-residential customers with minimum annual peak demand of 1 MW or aggregate demand of 5 MW. This program is currently open for new or existing nonresidential customers to enroll.

### **Several programs received noteworthy updates:**

- Evergy has two green tariff programs in Kansas to serve their central and metro territories, Direct Renewable Participation Service (DRPS) (referred to as "Renewables Direct") and "Renewable Energy Rider (RER)." The two programs are very similar and are therefore captured as one entry in this publication. However, there are minor differences in subscription amounts, contract time commitments, customer eligibility, etc.
- Consumers Energy Company's Large Customer Renewable Energy Pilot Program (LC-REP)

in Michigan received approval to expand the program size available to customers – under option A, 400,000 MWh (up from 155,000 MW) are now available.

- DTE Energy's Rider 19 in Michigan, which features 455 MW of renewables, has been fully subscribed by 14 customers. Given this success, DTE Energy is pursuing program expansions, additional contracts, and modifications to the program to help facilitate more customer use.
- This publication now includes a section on utility programs that are not restricted to renewable energy, but that allow customers to select their energy supply, which could include renewable energy and the associated RECs, and hence function like a green tariff. These are featured in a separate section of the publication below. In this category, we have included Dominion Energy's Schedule MBR and Schedule MBR Large General Service Market-Based Rate. One new program has also been included – NV Energy's Large Customer Market Price Energy (LCMPE). This offer was approved May 7, 2020 and allows customers to select their resource, including a renewable energy resource, as a market purchase or from utility generation.
- Also, although not included in this release of the green tariff update, there are community solar programs that are beginning to emerge, which meet many of the criteria that large energy customers are looking for in subscriber programs.

Box 2 highlights two programs that fall into this category.

### **Box 2. Evolving Utility Offered Subscriber Products**

01

**In Florida, two utilities, Florida Power & Light Company (FPL)** and Duke Energy, have developed community solar programs that allow customers – C&I, residential and low-income – to subscribe in 1 kW increments up to 100% of their energy use from new local solar resources and receive the associated RECs. Customers pay a subscription charge, based on the cost of developing the resources, and receive a credit, based on the systems savings or an estimated economic value of the resources to either FPL or Duke Energy's systems (e.g. reduced fuel, purchased power and carbon emission costs), on their existing electricity bill. There are no participation demand requirements, customers are not tied to a long-term contract and can end or reduce their subscription at any time without penalty.

02

**FPL's program, SolarTogether (Tariff STR)**, was approved on March 20, 2020 and provides access to 1,490 MW of new solar, comprised of 20 facilities each sized at 74.5 MM. 75 percent of this program is reserved for C&I customers and 25 percent for residential customers, 10 percent of which is reserved for low-income customers. The subscription charge is fixed at \$6.67/kW monthly and the credit begins at \$0.03 kWh. For low-income participants, the subscription charge is fixed at \$5.57 and will not exceed the subscription credit in any month, which is fixed at \$6.27. As forecasted, FPL anticipates customers will receive a bill reduction within 3-5 years and break-even by year 7. At the launch of the program, the C&I reserved tranche was fully subscribed.

03

**Duke Energy's Clean Energy Connection (CEC)** was submitted for approval on June 30, 2020 and is anticipated to offer 750 MWs of new solar, comprised of 10 facilities each sized at 74.9 MW, in 2022. 487 MW is reserved for C&I customers, 75 MW for local governments, 161 MW for residential and small businesses, and 26 MW for low-income customers. The subscription charge is fixed \$8.35/kW monthly and the credit begins at \$0.04/kWh, which is anticipated to increase by 1.5% every year. Duke Energy also expects customers will receive a bill reduction by year 5 and will break even by year 7. For low income customers, the credit is fixed at \$9.03/kW monthly and will receive an immediate bill savings.

These programs are very similar to subscriber-style green tariff programs in the access to energy and the associated RECs offered to customers, the size of the overall program and lack of project caps – which is much larger than typical community solar programs – and a cost component that has a direct financial connection to a customer’s consumption of renewable energy. Unlike other subscriber-style green tariff programs, the requirements to participate and end participation are more like community solar programs, the cost and some of the benefits are rate based, and the programs pool several small-scale resources, procured in phases over time, to reach the overall utility-scale program sizes.



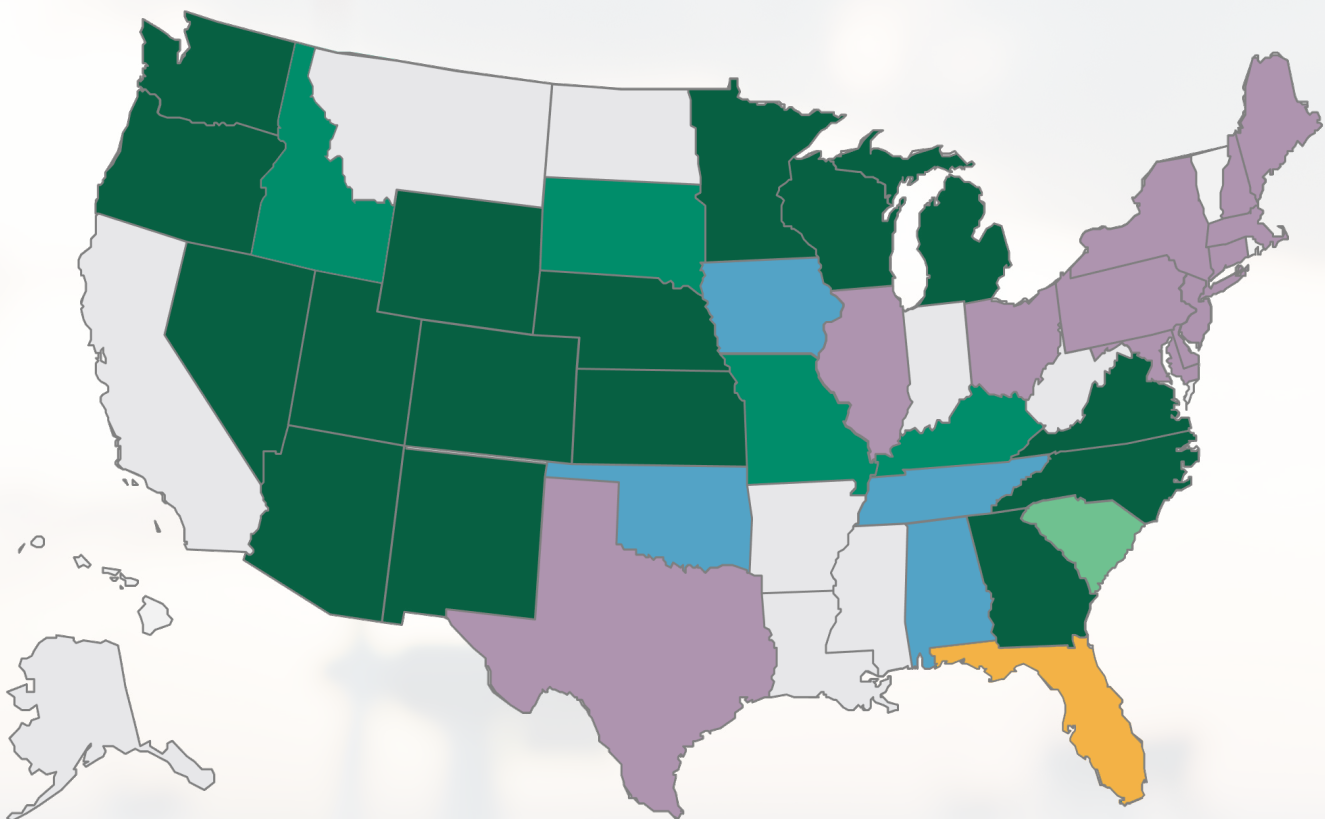
# KEY INFORMATION

## PUBLICATION METHODOLOGY





The U.S. Electricity Markets:

Utility Green Tariff Update publication provides detailed information on utility green tariff programs available in the U.S., some of which are captured in the interactive

**Map of US Green Tariffs and Utility Renewable Energy Solutions.**



### Utility Renewable Energy (RE) Deals

- |   |  |   |  |
|---|--|---|--|
|  | Green tariff(s) and executed RE deal(s) through tariff |  | Special contracts between customers and utilities, but no green tariff to date |
|  | Green tariff(s) but no deal(s) through tariff to date  |  | Electric retail choice easily available  |
|  | Considering a green tariff (proposal with the PUC)     |  | No known direct large-scale RE access available                                |
|   |  |  | Community solar that functions like green tariff                               |



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

**This publication** excludes green pricing programs.<sup>2</sup> Green pricing programs typically offer renewable energy at an additional cost to standard utility electricity charges and have traditionally been designed for residential and small commercial customers. In these programs, the customer does not have the opportunity to economically benefit from the fixed cost of the renewable energy project or protection against volatile fossil fuel prices. This publication also excludes utility programs that can be classified as community choice aggregation or community solar (see Box 2). However, as noted in Box 2, there is an emerging evolution of community solar programs that offer the same benefits as subscriber-based green tariff programs and expand the size and range of eligible customers,

so we will start to include those programs in more detail in future versions of this publication.

The green tariff criteria and characteristics highlighted in this publication 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 utility and expert partner knowledge of existing and emerging green tariffs. The public utility commission dockets have also been reviewed as a primary resource and verified with utilities and customers whenever possible.

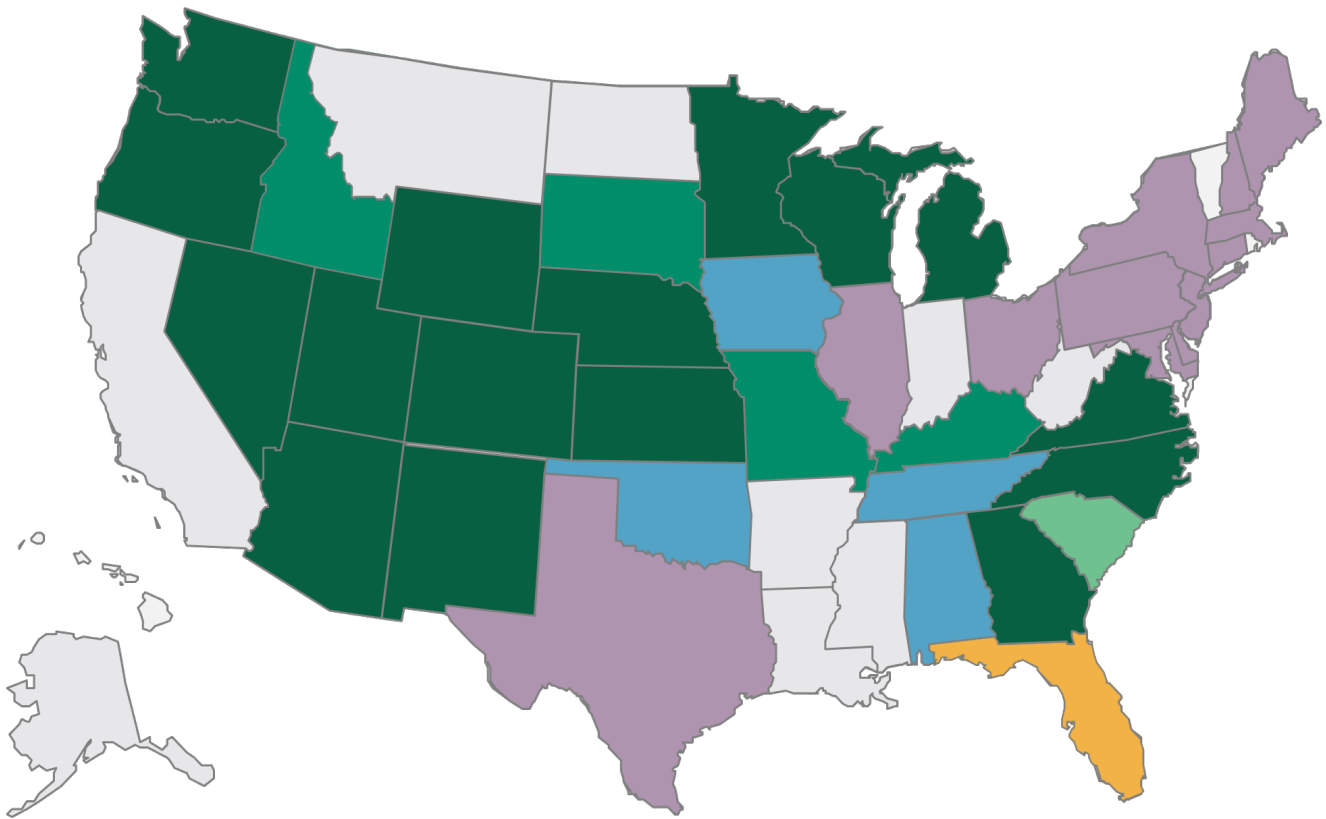
# KEY INFORMATION

## SUMMARY OF GREEN TARIFF PROGRAMS

YEAR PROPOSED OR APPROVED	STATE	UTILITY	GREEN TARIFF PROGRAM	STATUS
<b>2013</b>	Nevada	NV Energy	Green Energy Rider, Schedule NGR	Approved
	North Carolina	Duke Energy	Green Source Rider, Rider GS	
<b>2015</b>	Utah	Rocky Mountain Power (RMP)	Service from Renewable Energy Facilities, Schedule 32	Approved
<b>2016</b>	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	Replaced
	Washington	Puget Sound Energy (PSE)	Long Term Renewable Energy Purchase Rider, Schedule No. 139, branded as "Green Direct"	Approved
	Wyoming	Black Hills Energy	Large Power Contract Service	Approved
	<b>2017</b>	Georgia	Georgia Power	Commercial and Industrial REDI Schedule
Nebraska		Omaha Public Power District (OPPD)	Schedule No. 261 M – Large Power – High Voltage Transmission Level – Market Energy	Approved
Wisconsin		Madison Gas and Electric (MGE)	Renewable Energy Rider	Approved
<b>2018</b>	Kansas	Evergy Companies	Renewables Direct	Approved
	Kentucky	Kentucky Power	Renewable Power Option Rider	Approved
	Michigan	Consumers Energy Company	Voluntary Large Customer Renewable Energy Pilot Program	Approved
	Missouri	Ameren Missouri	Renewable Choice Program	Approved
	Missouri	Evergy Companies	Renewables Direct	Approved
	South Carolina	Duke Energy	Green Source Advantage, Rider GSA	Proposal with the PUC
	Virginia	Dominion Energy	Schedule RF	No Longer Available

YEAR PROPOSED OR APPROVED	STATE	UTILITY	GREEN TARIFF PROGRAM	STATUS
	Virginia	Dominion Energy	Renewable Energy Supply Service, Schedule RG	Approved
	Wisconsin	Wisconsin Electric Power Company	Dedicated Renewable Energy Resource (DRER)	Approved
	Wisconsin	Xcel Energy	Renewable*Connect	Approved
<b>2019</b>	Arizona	Salt River Project	Sustainable Energy Services Pilot Rider	Approved
	Georgia	Georgia Power	Customer Renewable Supply Procurement (CRSP)	Approved
	Kentucky	LG&E-KU	Standard Rate Rider Green Tariff	Approved
	Michigan	DTE Energy	Large Customer Voluntary Green Pricing Program (LCVGP), Rider 19	Approved
	Minnesota	Xcel Energy	Renewable*Connect	Approved
	North Carolina	Duke Energy	Green Source Advantage, GSA	Approved
	Oregon	Portland General Electric	Green Future Impact	Approved
	South Dakota	Black Hills Energy	Renewable Ready Service	Approved
<b>2020</b>	Iowa	Alliant Energy	Rider REPP - Renewable Energy Partners Program	Approved
	Kentucky	Duke Energy	Green Source Advantage, GSA	Approved
	Kentucky	East Kentucky Power Cooperative (EKPC)	Renewable Energy Program	Approved
	Nevada	NV Energy	Large Customer Market Price Energy	Approved
	New Mexico	Public Service Company of New Mexico (PNM)	Solar Direct, Rider No. 50	Approved
	Virginia	Dominion Energy	Rate Schedule MBR, Large General Service Market-Based Rate	Approved
	Virginia	Kentucky Utilities	Green Tariff	Approved
	Wyoming	Black Hills Energy	Renewable Ready Service	Approved

**Figure 1. States with Green Tariff Programs, December 2020**



**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)
- Special contracts between customers and utilities, but no green tariff to date
- Electric retail choice easily available
- No known direct large-scale RE access available
- Community solar that functions like green tariff



# STATE & UTILITIES WITH GREEN TARIFF PROGRAMS

## UTILITY GREEN TARIFF PROGRAMS

Arizona – Salt River Project (SRP)	
Tariff Name	Sustainable Energy Services Pilot Rider
Tariff Type	Subscriber Product
Pilot Size/Period	First tranche: 300 MW.
Tariff/Contract Structure	<p>SRP enters into a PPA with RE generator(s).</p> <p>Customer enters into an agreement with SRP. Additional terms and conditions may apply per the customer contract.</p> <p>SRP selects participation percentage based on customers’ individual energy load profile.</p>
Customer Cost Structure	<p>Standard service rate applies, alongside a monthly billing adjustment.</p> <p>Monthly billing adjustment consists of fixed price per metered kWh subscription charge and a comparable fuel-based credit.</p>
Administrative Fee	None.
Value of RE Price Certainty	Customers lock-in contract price and contract term length at the time of subscription; customer is able to effectively replace traditional power costs for the cost of their renewable use.
Procurement Lead	SRP leads procurement.
Bundled RECs Management	SRP retires RECs on behalf of customers through REGIS.
Customer Facility Flexibility	The original subscription term will continue to apply to customer’s remaining accounts.

Contract Time Commitment	5, 10, or 15 years.
Customer Limitations/Eligibility	Customers currently served under E-13, E-14, E-15, E-21, E-22, E-23, E-26, E-27, E-29, E-32, E-36, E-47, E-48, E-61, E-63, E-65, E-66 or E-67, with a minimum aggregate load of 40 million kWh annually.
Aggregation of Customer Facility Demand	Aggregation is permitted across customer accounts to meet the minimum load demand to participate.
Impact on Net Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	New renewable energy located within SRP local transmission.
Commercial Risk Management	Not applicable.
PUC Process	SRP board approved over several phases in 2018 and 2019.
Status/RE Deals Signed	The first 300 MW tranche of solar is fully subscribed. Customers include: Albertsons Companies, Apple, Arizona State University, Boeing, CenturyLink, Chandler Unified School District, Circle K Stores, City of Chandler, City of Mesa, City of Phoenix, City of Tempe, CMC Steel Arizona, Cox Communications, CyrusOne, Digital Realty Trust, Dignity Health, Freeport-McMoRan, General Dynamics Mission Systems, Gilbert Public Schools, Intel, Matheson Tri-Gas, Mesa Public Schools, PepsiCo, Resolution Copper Mining, Salt River Pima-Maricopa Indian Community, Target Corporation, Town of Gilbert, United Dairymen of Arizona, Verizon Communications, Walmart and Wells Fargo Bank.
Docket Information	<a href="#">2019 Standard Electric Price Plans</a>

Colorado – Xcel Energy	
Tariff Name	Renewable*Connect, Schedule RC
Tariff Type	Rider; Subscriber Product
Pilot Size/Period	Capped at 50 MW.
Tariff/Contract Structure	Xcel enters into a 20-year PPA with solar facilities.  Second contract between Xcel and customer for solar subscription assigns RE capacity share and costs.
Customer Cost Structure	<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 2019 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), \$0.03700 in 2019, 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>
Administrative Fee	Included in customer cost structure on a per kWh charge.

Value of RE Price Certainty	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.
Procurement Lead	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.
Bundled RECs Management	Xcel will either retire RECs on behalf of the subscribing customer or transfer RECs to a Western Renewable Energy Generation Information System account.
Customer Facility Flexibility	<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>
Contract Time Commitment	Three options: month-to-month, 5 years, and 10 years; longer terms have lower prices.
Customer Limitations/Eligibility	<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>
Aggregation of Customer Facility Demand	Not explicit in the filing.

Impact on Net Metering (Onsite Resources)	Customers can subscribe the portion of their consumption not already subscribed to other programs.
RE Facility Limitations/Eligibility	Photovoltaic solar resource is 50 MW. Xcel has signed a PPA with a new 50 MW solar resource to have RE available as soon as possible.
Commercial Risk Management	Unsubscribed 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.  Xcel retains the right to excess revenues limited to its prevailing weighted average cost of capital.  If excess revenues collected exceed the weighted average cost of capital, customers will receive a credit back through the Renewable Energy Standard Adjustment.  If the supplier fails to deliver, Xcel is not held liable.
PUC Process	Approved November 9, 2016.
Status/RE Deals Signed	The first 50 MW tranche of solar is fully subscribed: ~10 MW serving residential customers and ~40 MW serving commercial and industrial (C&I) customers.
Docket Information	16A-0055E

<b>Georgia – Georgia Power</b>	
Tariff Name	Commercial and Industrial REDI Schedule CIR -1
Tariff Type	Rider; Subscriber Product (with a market value)
Pilot Size/Period	200 MW

Tariff/Contract Structure	<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>
Customer Cost Structure	<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>
Administrative Fee	<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>
Value of RE Price Certainty	<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>
Procurement Lead	<p>Georgia Power procures and operates resources.</p>
Bundled RECs Management	<p>RECs are retired by Georgia Power on customer’s behalf.</p>

Customer Facility Flexibility	No limitations defined in the filing; customer can work with utility to meet multiple facility requirements.
Contract Time Commitment	10, 15, 20, 25 or 30 years.
Customer Limitations/Eligibility	Existing customers with annual peak demand of 3 MW or greater. Subscription level cannot exceed 100% of preceding annual consumption per facility.
Aggregation of Customer Facility Demand	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.
Impact on Net Metering (Onsite Resources)	Customers are allowed to participate in net metering.
RE Facility Limitations/Eligibility	RE resources are procured through the REDI RFP process.
Commercial Risk Management	No requirements listed in the filing.
PUC Process	Approved August 1, 2017.
Status/RE Deals Signed	The program is fully subscribed – totaling 177.5 MW. Customers include Google, Johnson & Johnson, Target, and Walmart.

Docket Information	Docket 40161
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<b>Georgia – Georgia Power</b>	
Tariff Name	Customer Renewable Supply Procurement (CRSP)
Tariff Type	Rider; Subscriber Product (with a market value)
Pilot Size/Period	1,000 MW–600 MW available for existing customers and up to 400 MW for new or existing customers with new load additions.
Tariff/Contract Structure	Customer enters into Customer Agreement with Georgia Power that outlines subscription level, term length, and other program specifics.  Georgia Power enters into 10 to 30-year PPA with RE generator(s).
Customer Cost Structure	Standard general retail service applies, plus the CRSP program charge minus an hourly credit.  Program charge is equal to the CRSP Portfolio Price per the customers monthly pro rata share.  CRSP Portfolio Price, on a fixed price per kWh basis: <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 CRSP Portfolio</li> <li>• Administrative costs</li> </ul> Credit, on an hourly basis: consists of pro rata share of the hourly amount of RE production from CRSP Portfolio.
Admin Fee	\$5,000 Notice of Intent (NOI) one-time application fee.  Ongoing Administrative Fee: \$0.00025 per kWh.
Value of RE Price Certainty	Customers lock in contract price, subscription amount and contract term length at the time of subscription; the hourly credit represents Georgia Power’s hourly operating costs of incremental generation and will vary on an hourly basis. It is possible to see lower utility bills if the hourly credit exceeds the program amount charge.

Procurement Lead	1,000 MW of RE resources (CRSP Portfolio) to be procured through power purchase agreements by Georgia Power.
Bundled RECs Management	RECs are retired by Georgia Power on customer's behalf.
Customer Facility Flexibility	
Contract Time Commitment	Minimum 10 years. Can request up to 30 years in 5-year increments.
Customer Limitations/Eligibility	Existing customers with annual peak demand of 3 MW or greater.  New or existing customers with new load additions of 15 MW or greater.  Subscription level cannot exceed 100% of preceding annual consumption per facility.
Aggregation of Customer Facility Demand	Customers may aggregate premises to reach the 3 MW or 15 MW participant threshold, so long as aggregated demand exceeds 3 MW or 15 MW and premises are under a common ownership or control.
Impact on Net Metering (Onsite Resources)	None.
RE Facility Limitations/Eligibility	New RE resources greater than 3 MW.
Commercial Risk Management	Not applicable.

PUC Process	Approved March, 12, 2020.
Status/RE Deals Signed	<p>Two NOI periods will be held for customers to submit a NOI identifying their proposed subscription level in MW, contract term length, and other requirements related to their interest in the program. The first NOI period opened April 22, 2020 and will close on July 31, 2020 for new load customers and December 4, 2020 for existing customers. The second NOI period will open in Q2 of 2021.</p> <p>Two RFP processes will be utilized for the procurement of the facilities. The first RFP is expected to be issued in 2020, seeking resources in service 2022 – 2023; the RFP will seek 300 MW for existing customers and up to 400 MW for new or existing customers with new load additions. The second RFP is expected to be issued in 2021, seeking resources in service 2023 – 2024; the RFP will seek 300 MW for existing customers and any remaining portion of the 400 MW not fully subscribed in the first NOI for new or existing customers with new load additions. Any unsubscribed MW from the new load portion of the program following the second NOI will be made available to existing customers.</p>
Docket Information	Docket 42958

<b>Iowa – Alliant Energy (operating as Interstate Power &amp; Light (IPL))</b>	
Tariff Name	Rider REP – Renewable Energy Partners
Tariff Type	Rider; Market-based rate
Pilot Size/Period	150 MW
Tariff/Contract Structure	Customer pays an incremental charge on their monthly bill for the cost of the dedicated renewable resource and will receive monthly bill credits (energy and capacity) and all RECs generated by the facility. Tariff can be structured to resemble a Virtual Purchase Power Agreement or an offset to the customer’s monthly fuel costs.

	<p>Contract with Alliant Energy includes details about the dedicated renewable resource (project description, equipment type, location and cost size and projected energy production; percentage of anticipated consumption coincident with energy production; and project timeline)</p> <p>Contract term lengths are flexible as several other key terms. Final contract must be approved by the Iowa Utilities Board.</p>
Customer Cost Structure	<p>Standard service rate applies, with a bill credit for renewable energy generated for the customer by the dedicated resource, and any other charges as defined in the contract.</p> <p>Bill credit determined based on Energy Credit Value applied to energy generated by the dedicated renewable resource or the customer's actual energy consumption, whichever is smaller, for each 60-minute interval in the billing period.</p> <p>Energy Credit Value is based on the settled market value of the produced energy less any MISO charges established for a MISO pricing node, but in no case shall an hourly Energy Credit value be less than zero. Pricing node to be determined and included in the contract. Capacity valuation may be negotiated on a project-specific basis.</p> <p>Energy purchases under this rider are exempt from fuel cost surcharges and credits.</p>
Administrative Fee	<p>All costs to Alliant Energy for administering the project, including MISO market functions and reporting requirements, are included in the contract price to customers.</p>
Value of RE Price Certainty	<p>It may be possible to structure this tariff to provide customers with a fuel offset to help provide greater cost certainty.</p>
Procurement Lead	<p>Alliant Energy leads the procurement of the renewable energy resource.</p>
Bundled RECs Management	<p>RECs retired on behalf of customers.</p>

Customer Facility Flexibility	Customers can maintain participation in the REPP when relocating facilities or service within Alliant Energy’s electric service territories.
Contract Time Commitment	Negotiable
Customer Limitations/Eligibility	Open to any Non-residential, General Service and Large General Service Customer.
Aggregation of Customer Facility Demand	Aggregation is permitted under a single contract across customer accounts to a maximum number of accounts as determined on a case-by-case basis. All accounts must be under the same tax ID.
Impact on Net Metering (Onsite Resources)	None (net metering is not allowed)
RE Facility Limitations/Eligibility	Rider can be used for both wind and solar. The size of the renewable resource investment must not be above load with Alliant Energy.
Commercial Risk Management	Alliant Energy will pass through the costs and associated market risks of the new renewable resource to the customer.
PUC Process	Approved January 2020
Status/RE Deals Signed	None signed to date
Docket Information	IPL: RPU-2019-0001

<b>Kansas – Evergy (Kansas Central and Kansas Metro)</b>	
Tariff Name	KS Central: Direct Renewable Participation Service (DRPS), referred to as “Renewables Direct”

	KS Metro: Renewable Energy Rider, Schedule RER, referred to as “Renewables Direct”
Tariff Type	Tariff; Subscriber Product
Pilot Size/Period	KS Central: First tranche: 200 MW wind farm (Soldier Creek). Second tranche: 123 MW from three wind farms (25 MW additional capacity from Soldier Creek and new capacity from Ponderosa and Cimarron Bend III, 78 and 20 MW respectively).  KS Metro: No limitations defined in the filing.
Tariff/Contract Structure	All charges, adjustments, and surcharges, except the Retail Energy Cost Adjustment (RECA) for KS Central customers or the Energy Cost Adjustment (ECA) for KS Metro customers, will be billed at the standard rates applicable to the customer’s rate class.  KS Central customers enter into a 20-year Participation Agreement per the resource for new wind energy secured and operated by Evergy. KS Metro customers enter into a 5, 10, 15 or 20-year Participation Agreement.  The monthly amount subscribed will be a fixed kW amount: <ul style="list-style-type: none"> <li>• KS Central: in 500 kW increments up to 2,000 kW, and in 1,000 kW increments thereafter,</li> <li>• KS Metro: in 200 kW increments up to 1,000 kW, and in 500 kW increments thereafter.</li> </ul>
Customer Cost Structure	Customers pay a fixed Renewable Participation Charge rate. For KS Central, the current charge under the approved Soldier Creek Wind Farm is 1.800¢ per kWh. For KS Metro, the charge will be made available shortly. The Renewable Participation Charge will replace the RECA or ECA surcharge for the RE purchased.  Any usage beyond the agreed amount under this service will be billed at the current authorized RECA or ECA rate.  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.  KS Metro: If service is not transferred, customers are liable for an early termination fee equal to the average use for the preceding 12 months times the number of months remaining.

Administrative Fee	Administrative costs are included in the fixed price.
Value of RE Price Certainty	Customers realize an immediate price reduction with the replacement of the RECA or ECA Charge(s).
Procurement Lead	Evergy will negotiate with facility and include the final program price within the commission-approved tariff.
Bundled RECs Management	Certification of renewable energy associated with the purchased renewable energy under this service will be delivered to the customer.
Customer Facility Flexibility	Customer may maintain participation in this program when relocating facilities or service within Evergy's territory.
Contract Time Commitment	KS Central: 20 years. KS Metro: 5, 10, 15 and 20 years. Customers subscribing to more than 20% of the renewable resource will be required to commit to a minimum term of 10 years.
Customer Limitations/Eligibility	KS Central: 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. KS Metro: Existing distribution customers must have an average monthly peak demand of greater than 200 kW and be accepting service under any tariff subject to the ECA.
Aggregation of Customer Facility Demand	Customers may elect to aggregate accounts within the company's jurisdiction for qualification only, should available capacity allow for it.
Impact on Net Metering (Onsite Resources)	KS Central: Intent is not to limit net-metering customers; customers participating in net metering may subscribe with net load if qualified. KS Metro: Customers receiving Unmetered, Lighting, Net Metering, or Time-of-Use service are ineligible.

RE Facility Limitations/Eligibility	No limitations exist outside of Westar Energy’s need to procure low-cost, renewable resources to supply subscribing customers with their desired energy product.
Commercial Risk Management	Not explicitly stated in filing.
PUC Process	KS Central: Approved July 10, 2018. KS Metro: Approved December 20, 2018.
Status/RE Deals Signed	KS Central: The first 200 MW tranche of wind is fully subscribed. Customers include Ardent Mills, Bunge Milling, Cargill, Cox Communications, Evcon, Landoll Corp, Textron Aviation, Benedictine College, Kansas State University, University of Kansas, Washburn University, Sedgwick County Zoo, Sisters of Charity, Veterans Affairs Medical Centers, and municipalities.  KS Metro:
Docket Information	Docket 18-WSEE-190-TAR  Docket 20-EKCE-532-TAR

<b>Kentucky – East Kentucky Power Cooperative (EKPC)</b>	
Tariff Name	Renewable Energy Program, Rate H
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	Five-year pilot. Concludes December 31, 2024.
Tariff/Contract Structure	Participants choose the type of access to renewable energy: <ul style="list-style-type: none"> <li>• Option A – RECs: Customers may purchase RECs at a premium price (Option A is not detailed in this publication); and</li> <li>• Option B – Customers may contract with their local electric distribution cooperative and its wholesale power provider, EKPC, to purchase energy and RECs from the renewable energy generator.</li> </ul>

	<p>Option B: Customer enters into contract with their local electric distribution cooperative and its wholesale power provider, EKPC. EKPC enters into contract with RE developer or develops the RE resource(s) themselves.</p> <p>Contract must be for 1 MW at a minimum and is capped at Customers average annual consumption over previous three years (estimated as needed for new customers).</p>
Customer Cost Structure	<p>Option B: Customer pays standard wholesale power rate, with an increased cost for the contracted and delivered RE for each participating agreement, and receives a total avoided cost and capacity credit when applicable.</p> <p>Customer total credit equals the avoided cost of the base fuel and the fuel adjustment clause per MWh of RE delivered and capacity credits plus the avoided cost of the variable environmental surcharge equal to the delivered renewable energy monthly for each participating agreement.</p> <p>The credit will be limited to the lesser of the total credit or the PJM Localized Marginal Cost.</p>
Administrative Fee	<p>An administrative Fee, if any, would be included in the RE price per the contract.</p>
Value of RE Price Certainty	<p>Contracts for RE resources to offset the Customer’s power purchases can be locked-in a contract for up to 15 years.</p>
Procurement Lead	<p>Customer selects RE resource type. EKPC selects RE resource(s) and negotiates with the RE facility.</p>
Bundled RECs Management	<p>REC are retired by EKPC on the customer’s behalf.</p>
Customer Facility Flexibility	<p>Customers with multiple locations in the EKPC system may bundle those locations under 1 contract. The contract negotiations will determine RE resource(s) servicing the contract. The contract can be amended if the customer changes locations.</p>

Contract Time Commitment	5-15 years.
Customer Limitations/Eligibility	Must be a Customer of an electric distribution cooperative served by EKPC.
Aggregation of Customer Facility Demand	Customers may aggregate multiple accounts and facilities. All accounts and facilities subject to the contract may be served by any electric distribution cooperative served by EKPC.
Impact on Net Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	Solar, wind, hydro, landfill methane gas or biomass.
Commercial Risk Management	A Parent Company Guarantee, Letter of Credit or other credit worthiness is required.
PUC Process	Approved March 25, 2020.
Status/RE Deals Signed	To enroll, contact your local electric distribution cooperative in the EKPC system to begin contract discussions.  Diageo Americas Supply, Inc. has expressed interest in the program.
Docket Information	Docket No. 2019-00378

<b>Kentucky – Kentucky Power</b>	
Tariff Name	Renewable Power Option (RPO) Rider
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	No limitations are defined in the filing.
Tariff/Contract Structure	<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 publication).</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>
Customer Cost Structure	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.
Administrative Fee	Not explicitly stated in filing.
Value of RE Price Certainty	Provides customers and the company with more flexibility to meet customers' renewable power needs.
Procurement Lead	The company will work collaboratively with the customer on Option B contracts.
Bundled RECs Management	REC management under Option B may vary by contract.
Customer Facility Flexibility	Not explicitly stated in filing.

Contract Time Commitment	Not explicitly stated in filing.
Customer Limitations/Eligibility	Option B is available to customers taking metered service under the Company's I.G.S., and C.S.-I.RP, 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.
Aggregation of Customer Facility Demand	Accounts can be aggregated for purposes of qualifying for Option B.
Impact on Net Metering (Onsite Resources)	Proposed tariff RPO does not affect Kentucky's net metering statute.
RE Facility Limitations/Eligibility	Not explicitly stated in filing.
Commercial Risk Management	Not explicitly stated in filing.
PUC Process	Approved January 18, 2018.
Status/RE Deals Signed	The tariff has not been used to date.
Docket Information	Docket 2017-00179

<b>Kentucky – Louisville Gas and Electric Company and Kentucky Utilities Company (LG&amp;E – KU)</b>	
Tariff Name	Standard Rate Rider Green Tariff
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	No limitations are defined in the filing.
Tariff/Contract Structure	<p>Participants choose the type of access to renewable energy:</p> <ul style="list-style-type: none"> <li>• Option 1 – RECs: Customers may purchase RECs at a premium price through the Green Energy Program (Option 1 is not detailed in this publication)</li> <li>• Option 2 – Business Solar: Customers may contract with LG&amp;E – KU to develop and own a solar array, with the energy produced assigned to the customer (Option 2 is not detailed in this publication)</li> <li>• Option 3 – Renewable Power Agreement (RPA): Customers may contract with LG&amp;E – KU to purchase energy and RECs</li> </ul> <p>Option 3 – RPA: Customer enters into contract with LG&amp;E – KU. LG&amp;E – KU enters into contract with RE developer.</p> <p>RPA must be for 10 MW at a minimum and is capped at 300 MW system-wide.</p>
Customer Cost Structure	Option 3 – RPA: Customer pays standard firm service rate, plus applicable riders and adjustment clauses, in addition to the charges and energy credits set in the written agreement. Program costs will reflect the renewable energy resource and include transmission costs to deliver the energy.
Administrative Fee	Not applicable.
Value of RE Price Certainty	Provides customers and the company with more flexibility to meet customers’ renewable power needs.
Procurement Lead	LG&E-KU negotiates with the RE facility.

Bundled RECs Management	Option 3 – RPA: RECs are transferred to the customer.
Customer Facility Flexibility	Not explicitly stated in filing.
Contract Time Commitment	Equivalent to the generation purchase agreement. Minimum 5 years.
Customer Limitations/Eligibility	Option 3 – RPA: Customers must be taking service under standard rate schedules TODS, TODP, and RTS, and have a minimum monthly billing load of 10 MVA (or MW as is appropriate).  Customers must not have any pre-existing payment obligations.
Aggregation of Customer Facility Demand	Not explicitly stated in filing.
Impact on Net Metering (Onsite Resources)	Not explicitly stated in filing.
RE Facility Limitations/Eligibility	RE resource must be located in Kentucky, Indiana, Tennessee, Ohio, West Virginia, Virginia, Missouri, or Illinois, and must be delivered to the Company’s transmission system.  The RE resource must be developed on or after approval of the program.
Commercial Risk Management	Not explicitly stated in filing.
PUC Process	Approved April 30, 2019.

Status/RE Deals Signed	Customer may participate by making a request to LG&E-KU's Account Representative, Call Center, Business Office, or through LG&E-KU's website enrollment form.
Docket Information	Docket 2018-00029 (LG&E) and 2018-00294 (KU)

<b>Kentucky – Duke Energy</b>	
Tariff Name	Green Source Advantage, Rider GSA
Tariff Type	Rider; Market-Based Rate
Pilot Size/Period	No limitations defined in the filing.
Tariff/Contract Structure	<p>Customer and Duke Energy enter into GSA Service Agreement outlining service terms and the rates and charges for the contract term per the GSA Program. The customer is responsible for paying the GSA Product Charge which is included on the utility bill and passed onto the facility owner and in return, the customer receives the GSA Bill Credit.</p> <p>Duke Energy Kentucky enters into a PPA with RE Supplier for the delivery of energy and capacity.</p>
Customer Cost Structure	<p>Standard general retail service plus the GSA Product Charge and admin costs, minus the GSA Bill Credit.</p> <p>GSA Product Charge: the negotiated PPA price (\$/kWh) multiplied by the energy produced by the GSA facility during the billing period.</p> <p>GSA Bill Credit: sum of all PJM credits and charges received by the GSA facility.</p> <p>Late payment charge of 5% of net monthly bill applied if payment is not received within 21 days of the mailing date of the bill.</p> <p>Early termination fee.</p>

Admin Fee	<p>\$2,000 application fee. Refundable only if there is insufficient capacity available.</p> <p>\$375/month per bill.</p>
Value of RE Price Certainty	Customer locks in contract price, credit option, and contract term length at the time of subscription.
Procurement Lead	Customer may request that Duke Energy identify and propose a facility or the customer may identify and propose to Duke Energy a GSA facility developed by the RE Supplier.
Bundled RECs Management	RECs will be transferred directly to customer from the RE Supplier. Terms of the transfer will be negotiated by the Customer with the RE Supplier.
Customer Facility Flexibility	Not explicit in the filing.
Contract Time Commitment	Maximum 20 years.
Customer Limitations/Eligibility	<p>New or existing nonresidential customers receiving concurrent service on another rate schedule, excluding service under outdoor lighting schedules, with</p> <ul style="list-style-type: none"> <li>• minimum annual peak demand of 1 MW; or</li> <li>• multiple service locations that, in aggregate, are 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 at service location(s).</p>
Aggregation of Customer Facility Demand	Customer may aggregate multiple locations to achieve the participant threshold, so long as each account is located in the same service territory as the RE facility.
Impact on Net Metering (Onsite Resources)	There are no eligibility restrictions for customers who are currently net-metering.

RE Facility Limitations/Eligibility	New GSA facility(ies) must be located within PJM, and all renewable energy supply must be dedicated to the customer and sold into PJM.
Commercial Risk Management	Duke Energy is not liable for RE supply or associated delivery of RECs.
PUC Process	Approved April 27, 2020.
Status/RE Deals Signed	Customer must submit an application during the program enrollment period identifying the annual amount of renewable capacity to be developed on behalf of customer and contract term.
Docket Information	Docket 2019-00271

<b>Michigan – Consumers Energy Company</b>	
Tariff Name	Large Customer Renewable Energy Pilot Program (LC-REP)
Tariff Type	Pilot Rider; Subscriber Product and/or Market-Based Rate
Pilot Size/Period	Open to customer enrollment for three years based on first in, first served. Concludes October 18, 2022.
Tariff/Contract Structure	<p>Participants choose the amount of utility involvement:</p> <ul style="list-style-type: none"> <li>• Option A: Consumers Energy Provided Renewable Energy</li> <li>• Option B: Customer Provided, External PPA, Renewable Energy</li> </ul> <p>Option A: Customers elect a subscription level between 20% and 100% of their load, in 5% increments. Limited to 400,000 MWh annually.</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. In addition, Customer can either elect the Market Index Provision for real-time pricing in place of their full-service rate if the PPA resource is equivalent to match 85% of customer usage, and/or Consumers Energy can act as the administrator for the customer’s renewable PPA under a separate energy management contract.</p>
<p>Customer Cost Structure</p>	<p>Option A, customer pays:</p> <ul style="list-style-type: none"> <li>• standard full-service tariff rate;</li> <li>• renewable energy subscription charge: flat fee, based on the levelized cost of service of the designated renewable energy facilities (the fee will be prorated if future resources are added to the program with a lower rate); and</li> <li>• energy and capacity credit, monthly dollar per-kWh amount, based on the value of the renewable energy and capacity settled in the Midcontinent Independent System Operator (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 Energy’s discretion.</p> <p>Option B, customer pays:</p> <ul style="list-style-type: none"> <li>• Either the standard full-service tariff rate (this includes all applicable power supply, delivery, transmission, and surcharges for electric load) or the Market Index Provision in place of the standard full-service rate (optional); and</li> <li>• Administrative Charge (optional).</li> </ul> <p>Under Option A or B, if customers subscribe a minimum of 85% of their energy usage in the previous 12-month period, to the program and take service under General Primary Demand Rate Schedule (Rate GPD), then the customers 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 capacity and non-capacity Power Supply 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</p>

	<p>offering the energy from that resource into the MISO market for payment.</p> <p>Early termination fee.</p>
Administrative Fee	<p>Only if the customer elects to have Consumers Energy administer the sale of their renewable energy into the MISO market under Option B.</p>
Value of RE Price Certainty	<p>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 participation.</p>
Procurement Lead	<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>
Bundled RECs Management	<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>
Customer Facility Flexibility	<p>RE facility can service multiple customers or customer meters.</p>
Contract Time Commitment	<p>Option A: 3, 10, 15 or 20 years. Subscription charge will increase by 2% with each enrollment after the initial or subsequent 3-year service agreement term ends, limited to four 3-year reenrollments.</p> <p>Option B: Term of PPA negotiated between the customer and renewable energy developer.</p>
Customer Limitations/Eligibility	<p>Option A: Full service electric customers with an annual maximum demand of at least 150 kW.</p> <p>Option B: Full service electric customers, with new or expanding Primary Voltage load not previously served by the company, without a minimum or maximum annual subscription level. New Primary Voltage load at 2,400 volts or higher is considered incremental. Aggregated maximum demand must be in excess of 1 MW with a minimum of a 70% load factor.</p>

Aggregation of Customer Facility Demand	Customers may aggregate their accounts or meters to reach the minimum aggregation participant threshold of at least 1 MW.
Impact on Net Metering (Onsite Resources)	Customers are allowed to participate in net metering.
RE Facility Limitations/Eligibility	<p>Option A: Utility-owned wind or solar facility—limited to 400,000 MWh per year.</p> <p>Option B: Wind or solar facility must be generated from a 100% certified renewable energy source physically located within MISO. No minimum or maximum generation requirement.</p> <p>Wind or solar facilities under Option A and B must be in commercial operation after December 2017.</p>
Commercial Risk Management	Option A: In the instance of shortfall between energy generated and energy subscribed, participant may request Consumers Energy provide RECs as a cover.
PUC Process	<p>Option A was provisionally approved August 23, 2017 and approved and expanded to 155,000 MWh on October 5, 2018. Option B was approved on October 5, 2018.</p> <p>Revisions to Options A and B, including an expansion to 400,000 MWh and type of RE available , were filed in docket U-18351 and approved September 24, 2020.</p>
Status/RE Deals Signed	<p>Enrollment is open from June 1 through September 30 each year.</p> <p>Option A: General Motors has utilized 44 MW of wind in 2019 and 2020.</p>
Docket Information	Case No. U - 18393, No. U-18351 and U-20649.

**Michigan – DTE Energy**

Tariff Name	Large Customer Voluntary Green Pricing Program (LC-VGP), Rider 19, referred to as “MIGreenPower”
Tariff Type	Pilot Rider; Subscriber Product (with a market value)
Pilot Size/Period	First tranche: 455 MW.
Tariff/Contract Structure	<p>Customer enters into an agreement with DTE Energy.</p> <p>DTE will enter into a PPA with RE power producer following a competitive bid process.</p> <p>Customers can subscribe, at a minimum, 20% of monthly energy use for each enrolled account and up to 100% of total energy use, in 5% increments. After the initial year, customers may increase their subscription level annually for the remainder of their agreement based on availability.</p>
Customer Cost Structure	<p>Standard general service rate applies, including all surcharges and credits, plus a monthly subscription charge, minus an energy and capacity credit.</p> <p>Subscription Charge: flat fee (kWh) based on the levelized costs of service for resource. If new assets are contracted at a lower rate, the rate for the newer, lower-costs assets will be averaged for all subscribers. If future assets are contracted at a higher cost, the rate of the new assets will apply only to new subscribers.</p> <p>Energy Credit: monthly credit based on the weighted average Real Time Locational Marginal Price for the resource.</p> <p>Capacity Credit: monthly credit based on annual MISO capacity auction pricing.</p> <p>Customers receiving at least 50% of their average monthly energy will be exempt from paying the Company’s renewable energy surcharge.</p> <p>Early termination fee.</p>
Administrative Fee	Not applicable.
Value of RE Price Certainty	Customers lock in contract price and contract term length at the time of subscription; the program cost can be adjusted down if the cost of future assets is lower.

Procurement Lead	DTE Energy leads the procurement and procures and operates resources when applicable.
Bundled RECs Management	RECs are transferred to registered participants in the Michigan Renewable Energy Certification System or retired on behalf of customer.  RECs will not be calculated toward RPS requirements.
Customer Facility Flexibility	RE resources can service multiple customers or customer meters.  Customer are permitted to transfer their level of subscription to another eligible customer. The early termination fee would then be waived.
Contract Time Commitment	5, 10, or 20 years.
Customer Limitations/Eligibility	Full-service customers with an aggregate annual maximum demand of at least 1 MW.
Aggregation of Customer Facility Demand	Customers may aggregate multiple facilities to reach the maximum demand requirement.
Impact on Net Metering (Onsite Resources)	Intent is not to limit the distribution generation tariff.
RE Facility Limitations/Eligibility	Facilities must be in the state of Michigan.
Commercial Risk Management	Not explicitly stated in filing.

PUC Process	Approved January 18, 2019.
Status/RE Deals Signed	<p>The first tranche of 455 MW of wind is fully subscribed by 14 customers, including Ford Motor Company, General Motors, the University of Michigan, the Detroit Zoo, and several others.</p> <p>An expansion of 420 MW is pending approval. Several additional customers have expressed interest in this additional capacity, including an additional 200 MW subscription by General Motors.</p> <p>DTE has also requested to expand the program beyond a pilot and is seeking modifications including flexible billing options through the introduction of single unit block pricing, a new basis for evaluating the cost of new projects, new contract lengths and additional definitions around termination fees.</p>
Docket Information	Case No. U-20343

<b>Minnesota – Xcel Energy</b>	
Tariff Name	Renewable*Connect
Tariff Type	Rider; Subscriber Product (with a market value)
Pilot Size/Period	<p>Blend of solar and wind resources to match system average on- and off-peak demand.</p> <p>Pilot Renewable*Connect: 50 MW of existing wind and 25 MW of existing solar. Pilot consisted of facilities already approved in order to offer customer participation as soon as possible.</p> <p>Renewable*Connect: 70 MW of existing wind and 30 MW of new solar for the Month-to-Month offer, and up to 200 MW, approximately 150 MW of new wind and 50 MW of new solar, for the Long Term offer.</p>
Tariff/Contract Structure	Renewable*Connect includes two offers: Ongoing Month-to-Month and Long Term, including Standard Usage and a High Off-Peak Usage option for qualifying customers.

	<p>The Month-to-Month option will include pilot Month-to-Month Renewable*Connect customers and existing WindSource customers.</p> <p>Under both offers, customers can choose 100 kWh blocks or 100% of their annual load.</p>
Customer Cost Structure	<p>Customer usage is settled monthly.</p> <p>The blend of resources assigned to pilot tranche will determine the fixed kWh price of the program that replaces the fuel clause charge.</p> <p>Stated kWh price for customers based on</p> <ul style="list-style-type: none"> <li>• resource cost;</li> <li>• capacity credit;</li> <li>• “neutrality adjustment”; and</li> <li>• marketing and administrative costs.</li> </ul> <p>The Month-to-Month resource cost reflects a 10-year partially levelized cost for the wind and solar resources, which may be revised annually. The Long Term resource cost is based on wind and solar PPAs or the actual delivered costs, the combination of which will differ between Standard Usage and High Off-Peak Usage customers. High Off-Peak Usage customers will receive a higher portion of wind, which will likely be a lower cost.</p> <p>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. It is credited to customers per kWh they purchase from the project.</p> <p>“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, among others. The Month-to-Month standard neutrality charge may be updated annually. The Long Term neutrality charge is subject to change upon Commission order and will vary for the Standard Usage and High Off-Peak Usage customers.</p>
Admin Fee	<p>Included in customer cost structure, charged on per kWh basis.</p> <p>Administrative costs are lower for longer-term customers and range from €0.1-0.55/kWh depending on contract length and year.</p>
Value of RE Price Certainty	<p>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).</p>

Procurement Lead	Xcel Energy solely procures the resource.
Bundled RECs Management	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.
Customer Facility Flexibility	Switchable for customers moving within the service territory.
Contract Time Commitment	Long Term: maximum 10 years.
Customer Limitations/Eligibility	<p>Month-to-Month: New and existing residential, commercial, and industrial customers paying fuel clause charge.</p> <p>Long Term: New and existing C&amp;I and municipal customers, as well as regional government authorities paying fuel clause charge. Customers with at least 62.5% off-peak usage for a specified premise may participate in the High Off-Peak Usage option. All other customers will utilize the Standard Usage option.</p> <p>Total energy from Renewable*Connect, participation in other RE programs and net metering combined cannot exceed 100% of customer usage.</p>
Aggregation of Customer Facility Demand	Subscriptions are on a premise-by-premise basis and there are no size restrictions in the program, aggregation is not applicable.
Impact on Net Metering (Onsite Resources)	Customers are allowed to participate in net metering.
RE Facility Limitations/Eligibility	All resources are located in Minnesota.
Commercial Risk Management	<p>Month-to-month customers can terminate their contract at any time.</p> <p>Long Term 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.</p> <p>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.</p>
PUC Process	Approved August 12, 2019.
Status/RE Deals Signed	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

	<p>the first tranche, 3.3 MW, is allotted to the Minnesota Department of Administration.</p> <p>The pilot Renewable Connect tranche—50 MW of existing solar and wind—is fully subscribed. Customers include the State of Minnesota, City of Minneapolis, and the University of Minnesota.</p> <p>The transition between the pilot and finalized Renewable*Connect is expected to occur between 2019 and 2021. During this transition, Long Term customers can utilize a short-term bridge option, where additional RECs will be purchased from MISO.</p> <p>For enrollment in the Long Term offer, customers who entered into a 5- or 10-year contract under the Renewable*Connect pilot program will have priority. Remaining customers should submit a letter of interest to Xcel Energy.</p>
Docket Information	Docket E002/M-15-985 (Pilot) and Docket E002/M-19-33

<b>Missouri – Ameren Missouri</b>	
Tariff Name	Renewable Choice Program
Tariff Type	Rider; Subscriber Product (with a market value)
Pilot Size/Period	<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>
Tariff/Contract Structure	<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>

Customer Cost Structure	<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>
Administrative Fee	<p>Administrative charge: \$0.05 – \$0.35 per MWh.</p> <p>Included in customer's monthly RE adjustment.</p>
Value of RE Price Certainty	<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>
Procurement Lead	<p>Ameren Missouri negotiates with the wind developers and procures resources; customers can choose to subscribe at the offered fixed price.</p>

<p>Bundled RECs Management</p>	<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>
<p>Customer Facility Flexibility</p>	<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>
<p>Contract Time Commitment</p>	<p>15-year term of subscription, unless a different subscription term is established for a specific RE block.</p>
<p>Customer Limitations/Eligibility</p>	<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>
<p>Aggregation of Customer Facility Demand</p>	<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>
<p>Impact on Net Metering (Onsite Resources)</p>	<p>Intent is not to limit net metering customers; customers participating in net metering may subscribe with net load.</p>
<p>RE Facility Limitations/Eligibility</p>	<p>Limited to wind projects located within MISO, with a preference for those within Missouri.</p>

Commercial Risk Management	<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>
PUC Process	Approved June 27, 2018.
Status/RE Deals Signed	Enrollment closed on December 31, 2018 and Ameren received full nonbinding interest from customers.
Docket Information	Docket ET-2018-0063

<b>Missouri– Evergy (Westar Energy and KCP&amp;L)</b>	
Tariff Name	Renewable Energy Rider, Schedule RER—referred to as “Renewables Direct”
Tariff Type	Rider; Subscriber Product (with a market value)
Pilot Size/Period	Minimum 100 MW and maximum 200 MW.
Tariff/Contract Structure	<p>Customer enters into a Participation Agreement with Evergy.</p> <p>Customer may subscribe in single percentage increments, up to 100% of the customer’s annual usage.</p>
Customer Cost Structure	<p>Standard service rate applies plus a Renewable Adjustment (RA) charge or credit.</p> <p>The RA is based upon the sale of the metered output of the renewable resource(s) into the wholesale market and is determined by: <math>(RMO \times SS) \times (SC - FMP)</math>.</p> <p>RMO (MWh): metered output from the renewable resource at the market node.</p>

	<p>Subscription Share (SS): determined at enrollment and reflects the proportion of the resource subscribed to, taking into consideration the annual capacity of the resource.</p> <p>Subscription Charge (SC) (\$/MWH): determined at enrollment and consists of the delivered price per MWh of the renewable resource plus the administration charge.</p> <p>Final Market Price (FMP) (\$/MWH): all market revenues and charges from selling into the wholesale market, divided by the actual metered hourly production for the calendar month.</p> <p>Customer must pay early termination fee, unless another eligible customer assumes the obligation for the renewables resource prior to termination date.</p>
Administrative Fee	<p>20-year Participation Agreement: \$0.10 per MWh (RMO).</p> <p>All other Participant Agreements: \$0.30 per MWh (RMO).</p>
Value of RE Price Certainty	It is possible for customers to receive a lower cost than their standard rate.
Procurement Lead	<p>Evergy leads procurement.</p> <p>Resource Procurement Periods will occur twice per calendar year, at a minimum, to meet renewal needs or the needs of Participation Agreements on the waiting list.</p>
Bundled RECs Management	RECs will be transferred to the customer annually or at the customer's request. Otherwise, they will be retired on behalf of the customer.
Customer Facility Flexibility	Participants who move to another location within the Company's Missouri service territory may request transfer of their subscription, provided the total kWh of the subscribed amount is less than the new location's average annual historical usage (actual or Company estimated). If the existing subscription level exceeds the allowed usage amount at the new location, the subscription will be adjusted down accordingly.
Contract Time Commitment	<p>5, 10, 15, or 20 years.</p> <p>Customers subscribing to more than 20% of the resource will be required to commit to a minimum term of 10 years.</p>

Customer Limitations/Eligibility	<p>Non-Residential Customers currently receiving permanent electric service on Schedule SGS, MGS, LGS, LPS, SGA, MGA, LGA, or PGA, with an annual average monthly peak demand greater than 200 kW.</p> <p>Customer accounts that participate in unmetered, lighting, net metering, or time-of-use service are not eligible for service under the RER tariff</p>
Aggregation of Customer Facility Demand	<p>At Evergy’s sole approval, aggregation is permitted for</p> <ul style="list-style-type: none"> <li>• customers that have an aggregate electric load of at least 2.5 MW based upon peak annual demand and an average of 200 kW per account; or</li> <li>• governmental or municipal customers.</li> </ul>
Impact on Net Metering (Onsite Resources)	<p>Under this rate, net metering is not permissible.</p>
RE Facility Limitations/Eligibility	<p>Facilities will be new and located within SPP. Wind and solar facilities are top of considerations.</p>
Commercial Risk Management	<p>Customer bears all risks associated with market volatility.</p>
PUC Process	<p>Approved November 26, 2018.</p>
Status/RE Deals Signed	<p>The program is open for enrollment now.</p>
Docket Information	<p>Docket ER-2018-0145</p> <p>Docket ER-2018-0146</p>

<b>Nebraska – Omaha Public Power District (OPPD)</b>	
Tariff Name	Schedule No. 261 M – Large Power – High Voltage Transmission Level – Market Energy
Tariff Type	Tariff; Market-Based Rate
Pilot Size/Period	No limitations defined in the filing.
Tariff/Contract Structure	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.  OPPD will work with the customer to meet individual requirements.
Customer Cost Structure	Monthly rate: <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> Minimum monthly bill applicable 18 months from initial service date: <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> Late payment charge: 4% of Monthly Rate.
Administrative Fee	The administration fee is built into the service charge.
Value of RE Price Certainty	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.
Procurement Lead	Customers are able to contract for their renewable energy independently or can work with OPPD to secure this energy on their behalf.  Only if the customer decides to take service under OPPD’s rate rider 499 would OPPD be the signatory to the purchase power agreement.

Bundled RECs Management	REC management is arranged with the developer.
Customer Facility Flexibility	<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>
Contract Time Commitment	<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>
Customer Limitations/Eligibility	<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>
Aggregation of Customer Facility Demand	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.
Impact on Net Metering (Onsite Resources)	Under this rate, net metering is not permissible.
RE Facility Limitations/Eligibility	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.

Commercial Risk Management	All customers must be in good credit standing as determined by OPPD policy.  District assumes no liability for customer owned or contracted facilities.
PUC Process	Approved January 12, 2017.
Status/RE Deals Signed	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.
Docket Information	January 12, 2017 Board Actions  OPPD Rate Manual

<b>Nevada – NV Energy</b>	
Tariff Name	Green Energy Rider, Schedule NGR
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	Capped at 250,000 MWh although NV Energy can choose not to count special contracts against the total.
Tariff/Contract Structure	Two options for commercial customers: <ul style="list-style-type: none"> <li>to contract directly with NV Energy for 50% or 100% of monthly electricity usage (this option is not detailed in this publication); 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>

Customer Cost Structure	<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>
Administrative Fee	<p>Cost recovery will be determined in the PUC review of the special contract.</p>
Value of RE Price Certainty	<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>
Procurement Lead	<p>In practice, procurement has been collaborative between the utility and customers.</p>
Bundled RECs Management	<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>
Customer Facility Flexibility	<p>Not defined in filing but designed primarily for large facilities rather than retail meters.</p>
Contract Time Commitment	<p>Negotiated but not less than two years.</p>

Customer Limitations/Eligibility	<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 monthly energy consumption.</p>
Aggregation of Customer Facility Demand	Not explicit in the filing but limitations are described by meter, so aggregation is unlikely.
Impact on Net Metering (Onsite Resources)	NV Energy is not prohibited from also accepting net-metered energy from customers.
RE Facility Limitations/Eligibility	<p>The power can be owned or procured by NV Energy.</p> <p>No geographic limitations seem to be explicitly set.</p>
Commercial Risk Management	<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>
PUC Process	<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>
Status/RE Deal Signed	<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>
Docket Information	Docket 12-11023 (Northern Nevada) and 14-06031 (Southern Nevada)

**New Mexico – Public Service Company of New Mexico (PNM)**

Tariff Name	Green Energy Rider, Rider No. 47
Tariff Type	Rider; Sleeved PPA (with a market value)
Pilot Size/Period	Initial and additional renewable procurements require commission approval.
Tariff/Contract Structure	<p>Customer enters into Special Service Contract with PNM, subject to approval by the New Mexico Public Regulation Commission.</p> <p>Contract minimum demand is 10 MW of RE.</p> <p>PNM makes necessary renewable procurement, which can be either owned or contracted through a PPA.</p>
Customer Cost Structure	<p>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.</p> <p>Green energy rate consists of all costs associated with the initial RE procurements and the cost of any additional RE procurement.</p> <p>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.</p> <p>Early termination fee.</p>
Administrative Fee	None.
Value of RE Price Certainty	Not explicit in the filing.
Procurement Lead	<p>Customer and utility work collaboratively to identify appropriate RE resources.</p> <p>Customer may initiate procurement of additional RE.</p>
Bundled RECs Management	<p>RECs are registered with Western Renewable Energy Generation Information System on customer's behalf.</p> <p>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.</p>

Customer Facility Flexibility	Customer may not move between sites.
Contract Time Commitment	Special Service Contract must have the same term as the customer's payment obligation for the RE procurements.
Customer Limitations/Eligibility	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%.
Aggregation of Customer Facility Demand	Aggregation is not allowed.
Impact on Net Metering (Onsite Resources)	No limitations are defined in the filing.
RE Facility Limitations/Eligibility	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.
Commercial Risk Management	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.
PUC Process	Approved August 17, 2016.
Status/RE Deals Signed	Facebook has utilized the tariff for a total of 396 MW: 30 MW of solar and 216 MW of wind in 2017, and 150 MW of solar in 2018 under three additional contracts.
Docket Information	Docket 16-00191-UT

<b>New Mexico – Public Service Company of New Mexico (PNM)</b>	
Tariff Name	Voluntary Solar Renewable Energy Program—Solar Direct for Governmental and Large Commercial Customers, Rider No. 50
Tariff Type	Rider; Subscriber Product
Pilot Size/Period	50 MW (30 MW reserved for governmental customers).
Tariff/Contract Structure	<p>Voluntary Renewable Energy Program supplies customers with solar energy beyond that what is required for RPS compliance.</p> <p>Customer and PNM enters into a Service Agreement, which establishes the subscription period, the rate, early termination fee and other relevant terms and conditions related to the Voluntary Renewable Energy Program.</p> <p>PNM makes necessary renewable procurement, which can be either owned or contracted through a PPA.</p>
Customer Cost Structure	<p>Standard applicable rates and riders apply, plus the Contract Rider Rate plus/minus charges and credits related to the production and allocation of RE.</p> <p>Contract Rider Rate will be \$0.0217300/kWh over the term of the Service Agreement.</p> <p>Monthly charges and credits include the following:</p> <ul style="list-style-type: none"> <li>• Monthly Solar Production Charge</li> <li>• Monthly Administrative Charge</li> <li>• Monthly WREGIS Fee to retire RECs</li> <li>• Fuel and Purchased Power Credit</li> <li>• Non-Fuel Variable Cost Credit as approved in the last general rate case</li> <li>• Renewable Portfolio Standard Cost Credit</li> </ul> <p>Early termination fee. This ensures that the non-participating customers will not subsidize the program.</p>
Administrative Fee	Administrative charge: \$0.0553758 (\$/kW-month).

Value of RE Price Certainty	Customers can lock in portion of their usage at a fixed price for 15 years.
Procurement Lead	Customer and utility work collaboratively to identify appropriate RE resources.
Bundled RECs Management	RECS are retired or transferred to customer's Western Renewable Energy Generation Information System account on customer's behalf.
Customer Facility Flexibility	Customers are permitted, with PNM's approval, to transfer all or a portion of their subscription.
Contract Time Commitment	15-year minimum.
Customer Limitations/Eligibility	Governmental customers receiving service from PNM, and customers receiving retail rate from PNM on schedules 3B, 3C, 3D, 3E, 4B, 5B, 15B, 30B, and 35B with a monthly average Aggregated Billable Demand of at least 2,500 kW.  Customer's subscription may not exceed 60% of the capacity of the solar facility.
Aggregation of Customer Facility Demand	Customers may aggregate to reach the 2,500 kW requirement.
Impact on Net Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	Solar facility or facilities that are procured in addition to RPS requirements.
Commercial Risk Management	Customer assumes the risk associated with production and future fuel prices.
PUC Process	Approved March 25, 2020.

Status/RE Deals Signed	The first tranche of 50 MW of solar is fully subscribed. Customers include: City of Albuquerque, Bernalillo County, City of Deming, Deming Public Schools, Grant County, Santa Fe County, Town of Silver City, Walmart, and Western New Mexico University.
Docket Information	Docket 19-00158-UT

North Carolina – Duke Energy	
Tariff Name	Green Source Rider, Rider GS
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	Capped at 1,000,000 MWh and new applications will not be received after 12/31/16.
Tariff/Contract Structure	Customer makes request and commitment for a certain amount of RE.  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.  If supplier fails to deliver, Duke will attempt to find a replacement.
Customer Cost Structure	Standard general service tariff and all riders apply plus the total cost of the PPA and RECs (Rider GS) determined on an hourly basis.  Customer receives bill credit for “all in” avoided capacity and energy costs for the RE produced over the month to offset the premium.  Early termination fee is equal to the net present value of the remaining PPA cost.
Administrative Fee	\$2,000 application fee.  \$500 fee per month, plus 0.02 cents per kWh surcharge on RE purchased.
Value of RE Price Certainty	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.

	Bill credit for the avoided cost of the RE cannot exceed the actual cost of PPA and RECs.
Procurement Lead	Duke will negotiate with the facility, but customers have the right to review the offer and the estimated bill credit and not go forward.
Bundled RECs Management	Retired by Duke on behalf of the customer using NC-RETs.
Customer Facility Flexibility	Customers do not expect Duke to allow moving contracts between meters.
Contract Time Commitment	Negotiated. 3–15 years.
Customer Limitations/Eligibility	DEC NC customers only—former Progress service territory is not eligible.  Non-residential customers, OPT-V tariffs only (previous OPT-G, OPT-H OPT-I).  OPT-V: Optional power service, time of use with voltage differential.  New loads of at least 1 MW since July 30, 2012.
Aggregation of Customer Facility Demand	Customers may aggregate multiple facilities for the contract and to reach the 1MW floor.
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 (DEC) 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	<p>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.</p> <p>Although the 3-year pilot has concluded, existing customers may continue to utilize the Green Source Rider.</p>
Docket Information	Docket E-7, Sub 1043

<b>North Carolina – Duke Energy</b>	
Tariff Name	Green Source Advantage, GSA
Tariff Type	Rider; Sleeved PPA (with a market value)
Pilot Size/Period	<p>New RE capped at 600 MW.</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 (UNC) and 100 MW for military customers.</p> <p>The remaining 250 MW is available to all other eligible customers on a first-come, first-serve basis.</p> <p>Any reserved capacity not subscribed to by UNC and military customers will be made available for subscription by any eligible GSA Customer.</p> <p>5-year program.</p>
Tariff/Contract Structure	Customer, Duke Energy, and RE Supplier where applicable enter into GSA Service Agreement outlining service terms and the negotiated rates and charges for the contract term per the GSA Program. The customer is responsible for paying the GSA Product Charge to the facility owner and, in return, the customer receives the GSA Bill Credit.

	Duke Energy will enter into a second contract, the GSA PPA, with RE supplier for the delivery of energy and capacity. The GSA PPA price will be equal to the bill credit selected by the customer.
Customer Cost Structure	<p>Standard general retail service plus the GSA Product Charge and admin costs, minus the GSA Bill Credit.</p> <p>GSA Product Charge: the energy produced by the RE facility multiplied by the cost outlined in the GSA Service Agreement.</p> <p>GSA Bill Credit: customer can choose either the avoided cost bill credit or the hourly rate bill credit.</p> <p>Avoided cost bill credit or “Administratively Established Avoided Cost Bill Credit” is equal to the fixed levelized avoided energy and capacity rate as approved by the Commission.</p> <p>Duke Energy Carolinas (DEC) Hourly rate bill credit or “Hourly Marginal Avoided Cost Bill Credit” is applicable to each hour and varies with the service territory:</p> <ul style="list-style-type: none"> <li>• DEC hourly rate bill: Hourly Energy Charge, equal to the expected marginal production cost and other related costs, plus the Rationing Charge, equal to the marginal capacity cost during hours with generation constraint</li> <li>• Duke Energy Progress (DEP) hourly rate bill: Marginal Energy Cost (kW/hr), including marginal fuel and variable operating and maintenance expenses, plus the Tiered Capacity Charge (kW/hr)</li> </ul> <p>The hourly rate cannot be lower than zero.</p> <p>Early termination fee.</p>
Admin Fee	<p>\$2,000 application fee. Refundable only if there is insufficient capacity available.</p> <p>\$375/month, plus \$50 per billed account.</p>
Value of RE Price Certainty	<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>
Procurement Lead	Customer shall identify and propose to Duke Energy a GSA facility developed by the RE Supplier, a third-party developer or a Duke Energy affiliate.

Bundled RECs Management	RECs will be transferred directly to customer from the RE Supplier per the GSA Service Agreement. Terms of the transfer will be negotiated by the Customer with the RE Supplier.
Customer Facility Flexibility	Multiple customers could negotiate with a single RE supplier and share a single RE facility of their choosing.
Contract Time Commitment	Avoided cost bill credit: 2, 5, 10, 15 or 20 years. Hourly rate bill: Maximum 20 years.
Customer Limitations/Eligibility	North Carolina military customers, University of North Carolina system customers, and large nonresidential customers.  Large nonresidential customers receiving concurrent service from DEC or DEP must have <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, are equal to or greater than 5 MW.</li> </ul> Annual capacity developed or procured under the tariff cannot exceed 125% of customer’s aggregate maximum annual peak demand at service location(s).
Aggregation of Customer Facility Demand	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.
Impact on Net Metering (Onsite Resources)	There are no eligibility restrictions against customers who are currently net metering.
RE Facility Limitations/Eligibility	GSA 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.  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.

Commercial Risk Management	All contract risk falls on customer.
PUC Process	Approved August 5, 2019.
Status/RE Deals Signed	Four customers have subscribed to 219 MW of solar.  For the remaining 31 MW, GSA is open for enrollment. Customer must submit an application during the program enrollment period. The application must identify the annual amount of RE to be developed or procured on behalf of the Customer, the RE Supplier, contract term, and the bill credit option. Along with the application, customer must submit a standard-form term sheet identifying the GSA facility, facility owner, and the negotiated price.
Docket Information	Docket E-2 Sub 1170 Duke Energy Carolinas Docket E-7 Sub 1169 Duke Energy Progress

<b>Oregon – Portland General Electric (PGE)</b>	
Tariff Name	Green Energy Affinity Rider (GEAR), Schedule 55, branded as “Green Future Impact”
Tariff Type	Rider; Subscriber Product and/or Sleeved PPA
Pilot Size/Period	First tranche: 300 MW cap. 160 MW under the PGE Supply Option and 140 MW under the Customer Supply Option.  Second tranche: 200 MW of additional capacity pending regulatory approval.

<p>Tariff/Contract Structure</p>	<p>Participants choose the extent of utility involvement:</p> <ul style="list-style-type: none"> <li>• PGE Supply Option: competitive bid process determines RE facilities</li> <li>• Customer Supply Option: customer identifies RE facility for PGE to procure</li> </ul> <p>For both, 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>PGE or customer under the Customer Supply Option may enter into a PPA with a RE power producer.</p>
<p>Customer Cost Structure</p>	<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 for each MWh contracted</li> <li>• Administrative charge</li> <li>• Risk adjustment (if applicable – applied when customer contract term is shorter than the PPA term)</li> <li>• Credit for energy value and capacity value (\$/MWh)</li> </ul> <p>This risk adjustment is expressed as a percentage of the PPA price. 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>PGE Supply Option: The credit values for energy and/or capacity will be determined at the time of PPA execution, fixed over the length of the contract. The credit cannot exceed the cost of the PPA.</p> <p>Customer Supply Option: customer may choose to develop either a fixed credit mirroring the PGE Supply Option credit or a floating credit, subject to Commission approval.</p> <p>Early termination charge.</p>
<p>Administrative Fee</p>	<p>Administrative charge accounts for program costs and other program expenses.</p> <p>Current estimated administrative cost is \$1.00/MWh.</p>
<p>Value of Price Certainty</p>	<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.</p>

Procurement Lead	<p>PGE Supply Option: PGE will procure the resource. Customers have the right to review pricing prior to executing subscription agreement.</p> <p>Customer Supply Option: PGE and customer collaboratively source RE resource(s), subject to PGE’s minimum PPA standards, and PGE retains final approval over any PPA terms and conditions.</p> <p>Resources will be procured only with 90% customer subscription.</p>
Bundled RECs Management	RECs will be retired on behalf of subscribing customers.
Customer Facility Flexibility	Not explicit in the filing.
Contract Time Commitment	5–20 years.
Customer Limitations/Eligibility	<p>PGE Supply Option: nonresidential customers whose aggregate demand across all retail schedules exceeds 30kW.</p> <p>Customer Supply Option: customers with an average load greater than a10 MW.</p>
Aggregation of Customer Facility Demand	Customers may aggregate multiple facilities and meters to reach the >30kW participant threshold.
Impact on Net Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	PGE Supply Option: New wind or solar resource located in Oregon.

Commercial Risk Management	<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.</p> <p>Risk adjustment will be eliminated if the subscription length matches the PPA length.</p>
PUC Process	<p>PGE Supply Option and Customer Supply Option: Approved March 5, 2019.</p> <p>Second tranche decision anticipated: 12/15/2020.</p>
Status/RE Deals Signed	<p>The PGE Supply Option of 160 MW is fully subscribed. Customers include Adobe, Comcast, Daimler Trucks North America, Digital Realty, Oregon Health &amp; Science University, Portland Community College, Portland State University, the cities of Beaverton, Hillsboro, Lake Oswego, Milwaukie, Portland, Salem, West Linn, and Wilsonville, and the counties of Multnomah and Washington.</p> <p>A customer has expressed interest in the remaining 140 MW under the Customer Supply Option.</p>
Docket Information	Docket UM 1953

<b>South Carolina – Duke Energy</b>	
Tariff Name	Green Source Advantage, GSA
Tariff Type	Rider; Sleeved PPA (with a market value)
Pilot Size/Period	New RE capped at 150 MW: 113 MW in Duke Energy Carolinas (DEC) and 37 MW in Duke Energy Progress (DEP).
Tariff/Contract Structure	Customer, Duke Energy, and RE Supplier enter into GSA Service Agreement outlining service terms and the negotiated rates and charges for the contract term per the GSA Program. The customer is responsible for paying the GSA Product Charge, which is included on

	<p>the utility bill and passed onto the facility owner. In return, the customer receives the GSA Bill Credit.</p> <p>Duke Energy enters second contract, the GSA PPA, with RE supplier for the delivery of energy and capacity. The GSA PPA price will be equal to the bill credit selected by the customer.</p>
Customer Cost Structure	<p>Standard general retail service plus the GSA Product Charge and administrative costs, minus the GSA Bill Credit.</p> <p>GSA Product Charge: the energy produced by the GSA facility in the prior billing month multiplied by the cost outlined in the GSA Service Agreement.</p> <p>GSA Bill Credit: customer can choose either the avoided cost bill credit or the hourly rate bill credit.</p> <p>Avoided cost bill credit or “Administratively Established Avoided Cost Bill Credit” is equal to the fixed levelized avoided energy and capacity rate as approved by the Commission.</p> <p>DEC Hourly rate bill credit or “Hourly Marginal Avoided Cost Bill Credit” is applicable to each hour and varies with the service territory:</p> <ul style="list-style-type: none"> <li>• DEC hourly rate bill: Hourly Energy Charge, equal to the expected marginal production cost and other related costs, plus the Rationing Charge, equal to the marginal capacity cost during hours with generation constraint</li> <li>• DEP hourly rate bill: Marginal Energy Cost (kW/hr), including marginal fuel and variable operating and maintenance expenses, plus the Tiered Capacity Charge (kW/hr)</li> </ul> <p>The hourly rate cannot be lower than zero.</p>
Admin Fee	<p>\$2,000 application fee. Refundable only if there is insufficient capacity available.</p> <p>\$375/month, plus \$50 per billed account.</p>
Value of RE Price Certainty	<p>Customers lock in contract price, credit option, and contract term length at the time of subscription.</p>
Procurement Lead	<p>Customer shall identify and propose to Duke Energy a GSA facility developed by the RE Supplier, either a third-party developer or a Duke Energy affiliate.</p>

Bundled RECs Management	RECs will be transferred directly to customer from the RE Supplier. Terms of the transfer will be negotiated by the Customer with the RE Supplier.
Customer Facility Flexibility	Multiple customers could negotiate with a single RE supplier and share a single RE facility of their choosing.
Contract Time Commitment	Maximum 20 years.
Customer Limitations/Eligibility	<p>New or existing nonresidential customers receiving concurrent service from DEC or DEP must have</p> <ul style="list-style-type: none"> <li>• minimum annual peak demand of 1 MW; or</li> <li>• multiple service locations that, in aggregate, are equal to or greater than 1 MW.</li> </ul> <p>Annual capacity procured under the tariff cannot exceed 125% of customer’s aggregate maximum annual peak demand at service location(s).</p>
Aggregation of Customer Facility Demand	Customer may aggregate multiple locations to achieve the 1 MW participant threshold, so long as each account is located in the same service territory as the RE facility.
Impact on Net Metering (Onsite Resources)	There are no eligibility restrictions for customers who are currently net metering.
RE Facility Limitations/Eligibility	<p>GSA 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>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>
Commercial Risk Management	No requirements listed in the filing.

PUC Process	Filed with South Carolina Public Service Commission on October 10, 2018.
Status/RE Deals Signed	<p>Customer must submit an application during the program enrollment period. The application must identify the annual amount of RE to be procured on behalf of the Customer, the RE Supplier, contract term, and the bill credit option.</p> <p>Along with the application, customer must submit a standard-form term sheet identifying the GSA facility, facility owner and the negotiated price.</p> <p>The enrollment period will open upon Commission approval and remain open for a period of 18 months, or when the maximum available capacity is exhausted, whichever occurs first.</p>
Docket Information	Docket 2018-320-E

<b>South Dakota – Black Hills Energy</b>	
Tariff Name	Renewable Ready Service
Tariff Type	New tariff; Subscriber Product
Pilot Size/Period	20 MW
Tariff/Contract Structure	<p>Black Hills Energy enters into a PPA with RE generator(s).</p> <p>Customer enters into a Renewable Ready Subscriber Agreement with Black Hills Energy.</p>
Customer Cost Structure	<p>Standard retail rate applies plus Renewable Ready Charge and Credit.</p> <p>Renewable Ready Charge equals Renewable Ready Charge Rate x monthly energy subscription (kWh). The Charge Rate varies per the term:</p> <ul style="list-style-type: none"> <li>• Five-year to nine-year subscriptions: \$0.028 per kWh</li> <li>• Ten-year to fourteen-year subscriptions: \$0.026 per kWh</li> <li>• Fifteen-year to twenty-five-year subscriptions: \$0.024 per kWh</li> </ul>

	<p>Renewable Ready Credit equals the Renewable Ready Credit Rate x monthly energy subscription (kWh). The Credit Rate will be determined annually and is based on the Fuel and Purchased Power costs plus the Fuel and Purchased Power Adjustment.</p> <p>Late payment charge of 1.5% of unpaid balance is applied if payment is not received within 21 days from the date of the bill.</p> <p>Early Termination Fees will apply if the subscriber leaves Black Hills Energy service territory or usage falls below 90% of the subscription.</p>
Administrative Fee	\$500 application fee.
Value of RE Price Certainty	Not explicitly stated in filing.
Procurement Lead	Not explicitly stated in filing.
Bundled RECs Management	Company will retire renewable energy credits associated with the subscriber’s share of the Renewable Ready Energy on behalf of the subscriber or the Company will transfer the renewable energy credits to the subscriber.
Customer Facility Flexibility	Subscribers with multiple service locations have the option to transfer the Renewable Ready Service from one service location to another, subject to a transfer fee of \$250.
Contract Time Commitment	<p>Minimum 5 years. Maximum of twenty-five years plus any one-year renewal terms.</p> <p>Contract will automatically renew for successive one-year terms at the expiration of the subscriber's current term, unless the agreement is terminated.</p>
Customer Limitations/Eligibility	Customers with an aggregate usage of 300,000 kWh or more per year and governmental accounts.
Aggregation of Customer Facility Demand	Not explicitly stated in filing

Impact on Net Metering (Onsite Resources)	Not explicitly stated in filing.
RE Facility Limitations/Eligibility	Corriedale wind project.
Commercial Risk Management	Not explicitly stated in filing.
PUC Process	Approved November 27, 2019.
Status/RE Deals Signed	Renewable Ready Subscriptions shall be offered for a four week period (“initial Subscription Period”) following approval of this tariff. If customers subscribe to more renewable energy than is available, subscriptions will be limited to a pro-rate share of the forecasted annual Renewable Ready Energy with preference given to the longest term contracts.
Docket Information	Docket No. EL18-060

<b>Utah – Rocky Mountain Power (RMP)</b>	
Tariff Name	Service from Renewable Energy Facilities, Schedule 32
Tariff Type	Tariff; Sleeved PPA
Pilot Size/Period	Capped at 300 MW total peak delivered to all customers. PUC can increase without returning to the legislature.
Tariff/Contract Structure	RE facility is selected by the customer, not RMP. Two contracts:

	<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>
Customer Cost Structure	<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>
Administrative Fee	Administrative charges of \$150 per month for each delivery point (meter) and \$110 per generator per month, irrespective of the number of delivery points.
Value of RE Price Certainty	<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>
Procurement Lead	Customers bring the PPA to RMP and lead on the PPA negotiations.
Bundled RECs Management	REC contracts directly entered between RE facility and the customer.
Customer Facility Flexibility	RE facility can service multiple customers or customer meters; a customer served by multiple RE facilities will pay a monthly fee for each facility.
Contract Time Commitment	Negotiated. Identical for both contracts.
Customer Limitations/Eligibility	<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,</p>

	combined with the 15-minute matching of resource to demand, means the tariff likely limits the ability to reach a 100% renewable energy goal.
Aggregation of Customer Facility Demand	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.
Impact on Net Metering (Onsite Resources)	Net metering of electricity purchased from the facility by customers is not allowed.
RE Facility Limitations/Eligibility	Facility(ies) in Utah or outside the state if it's a baseload resource connected to the RMP system.  Can be owned by the customer, the utility, a third party, or a combination.
Commercial Risk Management	Customer must prove reasonable credit.
PUC Process	Approved March 20, 2015.  Directing legislation, SB 12 was effective May 8, 2012.
Status/RE Deals Signed	The University of Utah has utilized the tariff in 2018 for a new 20 MW geothermal project located in Nevada and in 2020 for a new 20 MW solar project in Utah.  Several additional customers have expressed interest in utilizing the tariff.
Docket Information	Docket 14-035-T02, implementing SB 12

<b>Utah – Rocky Mountain Power (RMP)</b>	
Tariff Name	Renewable Energy Purchases for Qualified Customers, Schedule 34
Tariff Type	Tariff; Sleeved PPA
Pilot Size/Period	No cap on customers.
Tariff/Contract Structure	Customer enters into contract with Rocky Mountain Power; Rocky Mountain Power enters the PPA.

Customer Cost Structure	<p>Two options are</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>
Administrative Fee	<p>\$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>
Value of RE Price Certainty	<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>
Procurement Lead	<p>Customer and Rocky Mountain Power work together to identify RE resources.</p>
Bundled RECs Management	<p>RECs will be deposited into an account maintained by or on behalf of the Customer and will be retired.</p>
Customer Facility Flexibility	<p>Renewable resource is transferrable to another customer who takes service under the tariff.</p>
Contract Time Commitment	<p>At a minimum, customer contract with RMP must match the length of time in the RE facility contract.</p>
Customer Limitations/Eligibility	<p>Only customers with an aggregate electric load of at least 5 MW based on peak annual demand.</p>

Aggregation of Customer Facility Demand	<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>
Impact on Net Metering (Onsite Resources)	Not specified in the filing.
RE Facility Limitations/Eligibility	<p>Can be owned by the utility, the customer, or a third party.</p> <p>RE resource must include bundled RECs.</p>
Commercial Risk Management	Customer must prove reasonable credit.
PUC Process	Approved August 18, 2016.
Status/RE Deals Signed	<p>Facebook has utilized the tariff for 357 MW of solar in 2019 and 2020.</p> <p>Salt Lake City, Park City, Summit County, Utah Valley University, Vail Resorts and Deer Valley Resort have utilized the tariff in 2020 for 80 MW of solar collectively.</p>
Docket Information	Docket 16-035-T09

<b>Virginia – Dominion Energy</b>	
Tariff Name	Schedule RF (NOTE: tariff is no longer available with passage of Virginia Clean Economy Act (VCEA) of 2020)

Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	Pilot program will be available for enrollment for a five-year period, but not limited in size.
Tariff/Contract Structure	<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>
Customer Cost Structure	<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. Customer has the option of a fixed or escalating contract price.</p> <p>All other payment terms will be in accordance with the applicable Principal Tariff.</p> <p>Customer pays an incremental cost for the renewable attributes making the RE resource more cost effective for all and improving the likelihood of commission approval of the new RE resource. The cost of the facility will be rate based and benefits all utility customers with energy and capacity.</p>
Administrative Fee	None.

Value of RE Price Certainty	Customer negotiates incremental cost of program participation.
Procurement Lead	Dominion Energy works collaboratively with the customer to identify appropriate RE project(s).
Bundled RECs Management	The customer retains all rights to RECs produced by the RE facilities constructed under Schedule RF.
Customer Facility Flexibility	<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> <p>Customer, with approval, may assign or delegate the RFA and Confirmation to an affiliate, subsidiary or tenant.</p>
Contract Time Commitment	Term is negotiable.
Customer Limitations/Eligibility	<p>Existing or new customers taking service under one of the following Principal Tariffs: GS-1, GS-2, GS-2T, GS-3, GS-4, Schedule 10, MBR-GS-3, and MBR-GS-4.</p> <p>Customers must purchase a minimum of 2 MW of Environmental Attributes (or RECs) annually from one or more projects.</p>
Aggregation of Customer Facility Demand	Customers may aggregate multiple facilities to reach the minimum load requirement of 2 MW.
Impact on Net Metering (Onsite Resources)	Not applicable.

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	Facebook has utilized the tariff for 240 MW of solar.  This tariff is no longer available due to compliance with the Virginia Clean Economy Act (VCEA) of 2020. The VCEA introduced a mandatory RPS that requires utilities to secure renewables that encompass energy, capacity and RECs. Under Schedule RF, the energy and capacity components are for the benefit of all customers while the RECs are assigned to one customer. Given that this one customer retains only RECs, the RF contract will not count towards the mandatory RPS.
Docket Information	Docket PUR-2017-00137

<b>Virginia – Dominion Energy</b>	
Tariff Name	Renewable Energy Supply Service, Schedule RG
Tariff Type	Rider; Sleeved PPA (with a market value)
Pilot Size/Period	Capped at 50 customers.  The program will conclude after three years if there is no customer participation.
Tariff/Contract Structure	Customer can request a specific RE facility/resource and RE purchase size, from either a third-party RE generator or Dominion-owned resource

	<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>
Customer Cost Structure	<p>Standard general service tariff rates and riders apply plus the Net Schedule RG Settlement charge or credit.</p> <p>Net Schedule RG Settlement includes</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>
Administrative Fee	<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>
Value of RE Price Certainty	<p>It is possible to see lower utility bills if the Schedule RG Adjustment exceeds the Schedule RG Charge and Administrative Charge.</p>
Procurement Lead	<p>Dominion negotiates with RE generator on behalf of the customer and/or will work with the customer to construct a Dominion-owned RE resource.</p>
Bundled RECs Management	<p>RECs are retired by Dominion Energy on the customer's behalf.</p>
Customer Facility Flexibility	<p>One customer is limited to RE from one RE facility, per each respective RG Agreement.</p>

Contract Time Commitment	Matches the RE resource term in the RG Agreement.
Customer Limitations/Eligibility	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.
Aggregation of Customer Facility Demand	Not explicit in the filing.
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	Approved November 6, 2018.
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 a RE generator or requests that a Dominion-owned resource be constructed on behalf of the customer.
Docket Information	Case PUR-2017-00163

<b>Virginia – Kentucky Utilities Company (KU)</b>	
Tariff Name	Green Tariff
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	No limitations are defined in the filing.

<p>Tariff/Contract Structure</p>	<p>Participants choose the type of access to renewable energy:</p> <ul style="list-style-type: none"> <li>• Option 1 – RECs: Customers may purchase RECs at a premium price through the Green Energy Program (Option 1 is not detailed in this publication)</li> <li>• Option 2 – Business Solar: Customers may contract with LG&amp;E – KU to develop and own a solar array, with the energy produced assigned to the customer (Option 2 is not detailed in this publication)</li> <li>• Option 3 – Renewable Power Agreement (RPA): Customers may contract with KU to purchase energy and RECs</li> </ul> <p>Option 3 – RPA: Customer enters into contract with KU. KU enters into contract with RE developer.</p> <p>RPA must be for 10 MW at a minimum and is capped at 25 MW system-wide.</p>
<p>Customer Cost Structure</p>	<p>Option 3 – RPA: Customer pays standard firm service rate, plus applicable riders and adjustment clauses, in addition to the charges and energy credits set in the written agreement. Program costs will reflect the renewable energy resource and include transmission costs to deliver the energy.</p>
<p>Administrative Fee</p>	<p>Not applicable.</p>
<p>Value of RE Price Certainty</p>	<p>Provides customers and the company with more flexibility to meet customers’ renewable power needs.</p>
<p>Procurement Lead</p>	<p>KU negotiates with the RE facility.</p>
<p>Bundled RECs Management</p>	<p>Option 3 – RPA: RECs are transferred to the customer.</p>
<p>Customer Facility Flexibility</p>	<p>Not explicitly stated in filing.</p>

Contract Time Commitment	Equivalent to the generation purchase agreement. Minimum 5 years.
Customer Limitations/Eligibility	Option 3 – RPA: Customers must be taking service under standard rate schedules TODP and RTS, and have a minimum monthly billing load of 10 MVA (or MW as is appropriate).  Customers must not have any pre-existing payment obligations.
Aggregation of Customer Facility Demand	Not explicitly stated in filing.
Impact on Net Metering (Onsite Resources)	Not explicitly stated in filing.
RE Facility Limitations/Eligibility	RE resource must be located in Kentucky, Indiana, Tennessee, Ohio, West Virginia, Virginia, Missouri, or Illinois, and must be delivered to the Company’s transmission system.  The RE resource must be developed on or after approval of the program.
Commercial Risk Management	Not explicitly stated in filing.
PUC Process	Approved April 6, 2020.
Status/RE Deals Signed	Customer may participate by making a request to LG&E-KU’s Account Representative, Call Center, Business Office, or through LG&E-KU’s website enrollment form.
Docket Information	Docket PUR-2019-00060

<b>Washington – Puget Sound Energy (PSE)</b>	
Tariff Name	Long Term Renewable Energy Purchase Rider, Schedule No. 139, branded as “Green Direct”
Tariff Type	Tariff; Subscriber Product
Pilot Size/Period	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 137 MW) and the second phase of a solar resource (approximately 150 MW).
Tariff/Contract Structure	Customer enters into Service Agreement with PSE that outlines energy costs for RE resources.  Customer must contract for 100% of the load at all meters located at each service address they elect to enroll.  PSE signs fixed-price, 10–20-year contract with RE generators.
Customer Cost Structure	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.  Monthly rates include: <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> 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.  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.  Fee for early exit to cover customer’s commitment, less a credit for the market/avoided cost of power.
Administrative Fee	Captured in the cost of the service agreement.
Value of RE Price Certainty	The customer is shielded from increases to the standard energy charge, including power cost adjustments, etc.  The customer is not shielded from changes to monthly fees, demand charges, etc.

	If the RE price in the service agreement falls below the utility mix energy price, customer will pay the lower rate.
Procurement Lead	Customers can provide input regarding the RE resources and terms of the Service Agreement.
Bundled RECs Management	Retired on behalf of the customer.  The customer may also join Western Renewable Energy Generation Information System at their expense and the RECs will be transferred to be retired.
Customer Facility Flexibility	Not explicit in the filing; expectation is the contract could move between meters in the service territory.
Contract Time Commitment	Initial tranche phase 1: 10, 15, or 20 years.  Initial tranche phase 2: 10, 15, or 18 years.
Customer Limitations/Eligibility	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.
Aggregation of Customer Facility Demand	Customers select which service addresses (one to all) to commit to the rider.
Impact on Net Metering (Onsite Resources)	Not explicit in the filing.
RE Facility Limitations/Eligibility	Resources can be provided by IPPs or be PSE-owned.  RE is delivered to PSE balancing authority area; no geographic limitation explicitly set.

Commercial Risk Management	<p>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.</p> <p>If RE is inadequate, PSE may terminate the contract with customer, with no liability to customer or PSE.</p>
PUC Process	Approved September 28, 2016.
Status/RE Deals Signed	<p>The first tranche of 137 MW is fully subscribed. Customers include Target, REI, Starbucks, Western Washington University, Sound Transit, King County, the Port of Seattle, the State of Washington, Western Washington University, Whatcom County, and cities of Anacortes, Bellevue, Bellingham, Issaquah, Lacey, Mercer Island, Olympia, Snoqualmie, Tumwater, Langley, and Kirkland. Other customers not included.</p> <p>The second tranche of 150 MW is fully subscribed. Customers include Capitol Campus Amazon, Kaiser Permanente, Providence St. Joseph Health, T-Mobile, Walmart, the Department of Transportation, Ecology, Health, Labor &amp; Industries, Social &amp; Health Services, Washington State Patrol, Bellevue College, Issaquah School District, Port of Bellingham, University of WA Bothell, Sound Transit (additional load), Bellevue Utilities, and the cities of Kent, Issaquah (additional load), and Redmond.</p>
Docket Information	Docket UE-160977

<b>Wisconsin – Madison Gas &amp; Electric (MGE)</b>	
Tariff Name	Renewable Energy Rider
Tariff Type	Rider; Sleeved PPA
Pilot Size/Period	No limitations for new customers. Existing customers are capped at 50 MW, with the potential to increase this cap as necessary.
Tariff/Contract Structure	Customer enters into a RER-1 service agreement dedicating the new or existing renewable resource, with power owned or procured by MGE.

Customer Cost Structure	<p>Customer’s otherwise applicable rate schedule applies plus the Renewable Resource Rate, except fuel cost surcharges and credits.</p> <p>Renewable Resource Rate: costs associated with the specific renewable energy resources, including any up-front contributions or administrative charges.</p> <p>Late payment charge.</p> <p>Early termination fee.</p>
Administrative Fee	Not explicit in filing.
Value of RE Price Certainty	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.
Procurement Lead	Customer can provide input regarding the RE resources and terms of the service agreement.
Bundled RECs Management	Customer can work with utility regarding REC management.
Customer Facility Flexibility	No limitations defined in the filing.
Contract Time Commitment	Negotiated term approved by commission.
Customer Limitations/Eligibility	<p>Existing or new customers on rate schedules: Cg-4, Cg-2, Cg-6, Sp-3, and Cp-1.</p> <p>Customer participation may be limited on bill payment and collection histories.</p>
Aggregation of Customer Facility Demand	Customers with multiple accounts may aggregate any, up to all, of their eligible accounts.

Impact on Net Metering (Onsite Resources)	Not explicit in filing.
RE Facility Limitations/Eligibility	No limitations defined in the filing; customer can work with utility to meet multiple facility requirements.
Commercial Risk Management	Customer must prove reasonable credit. Any risk sharing must be approved as part of the PSCW contract approval.
PUC Process	Approved July 25, 2017.
Status/RE Deals Signed	The City of Middleton and the Middleton-Cross Plains Area School District have utilized the rider for 1.5 MW of solar in 2019. Dane County Regional Airport has utilized the tariff for ~ 9 MW of solar in 2020. Several other customers have also expressed interest.
Docket Information	Docket 3270 -TE-102

<b>Wisconsin – Wisconsin Electric Power Company (WEPCO), We Energies</b>	
Tariff Name	Dedicated Renewable Energy Resource (DRER)
Tariff Type	Pilot tariff; Sleeved PPA (with a market value)
Pilot Size/Period	No cap on customers.

<p>Tariff/Contract Structure</p>	<p>Customer and WEPCO enter into a DRER service agreement identifying the RE resource, including relevant details and MISO pricing node, and associated cost.</p> <p>DRER service agreement is subject to approval by the Public Service Commission of Wisconsin.</p>
<p>Customer Cost Structure</p>	<p>Standard “otherwise-applicable rate schedule(s),” including relevant service rates, adjustments, and credits apply, plus the cost outlined in the DRER service agreement.</p> <p>In addition, customer receives the following credits:</p> <ul style="list-style-type: none"> <li>• Monthly energy generation credit equal to the Energy Credit Value, based on the settled MISO market value of the RE, applied to the lesser of energy generation or actual consumption</li> <li>• Monthly capacity credit equal to 1/12 of the resource’s annual amount, as accredited by MISO</li> </ul> <p>Late payment of 1% per month, applied to outstanding charges.</p> <p>Termination fees will be negotiated.</p>
<p>Administrative Fee</p>	<p>None.</p>
<p>Value of RE Price Certainty</p>	<p>Not explicitly stated in filing.</p>
<p>Procurement Lead</p>	<p>Not explicitly stated in filing.</p>
<p>Bundled RECs Management</p>	<p>The customer will be assigned all RECs.</p>
<p>Customer Facility Flexibility</p>	<p>Not explicitly stated in filing.</p>

Contract Time Commitment	Term is negotiable.
Customer Limitations/Eligibility	Customers currently taking service under the general secondary, general primary or lighting rate schedules.  Existing customer participation is limited to 150 MWac of existing load. No limits placed on new customer demand.
Aggregation of Customer Facility Demand	Individual customers (as defined by a tax ID number or a single unit of government) may enter into a service agreement up to their aggregated load; however, under no circumstances will multiple customers be allowed to aggregate eligible accounts under a single service agreement.
Impact on Net Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	New, Wisconsin-based renewable energy resource owned by WEPCO and connected to either the American Transmission Company transmission system or the Company's distribution system.
Commercial Risk Management	Parties will determine appropriate credit requirements in the DRER service agreement.
PUC Process	Approved December 12, 2018.
Status/RE Deals Signed	Customer enrollment is ongoing.
Docket Information	Docket 6630-TE-102

Wisconsin – Xcel Energy	
Tariff Name	Renewable*Connect
Tariff Type	Rider; Subscriber Product (with a market value)
Pilot Size/Period	128 GWh Additional renewable procurements require commission approval.
Tariff/Contract Structure	Customers can choose 100 kWh blocks or 100% of their annual load.  Two contract lengths: month-to-month or 5 years, or for a designated single event.  5-year contract: Customer will sign a Customer Agreement confirming program details and terms.
Customer Cost Structure	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.  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>• marketing and administrative costs.</li> </ul> The resource cost for month-to-month and single-event customers is based on production costs and will be updated. For 5-year customers, the resource cost is fixed for the contract term. For 2019, the resource cost is <ul style="list-style-type: none"> <li>• month-to-month or single event: \$0.04344 (\$/kWh); or</li> <li>• 5-year: \$0.03994 (\$/kWh).</li> </ul> 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 and will be updated annually. The capacity credit for 2019 is \$0.03396.  “Neutrality adjustment” 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 other costs. For 2019, the neutrality adjustment is \$0.0327 per kWh.

	<p>Marketing and administrative costs are lower for 5-year customers. For 2019, the marketing and administrative cost is</p> <ul style="list-style-type: none"> <li>• month-to-month or single event: \$0.0550 (\$/kWh); or</li> <li>• 5-year: \$0.0200 (\$/kWh).</li> </ul>
Admin Fee	Included in customer cost structure, charged on per kWh basis.
Value of RE Price Certainty	Fuel clause charge is currently ~20% of the customer’s 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).
Procurement Lead	Xcel Energy solely procures the resource.
Bundled RECs Management	RECs are retired by Xcel Energy on the customer’s behalf (above compliance requirements); RECs registered with M-RETS and Xcel Energy will pursue Green-e certification.
Customer Facility Flexibility	Switchable for customers moving within the service territory.
Contract Time Commitment	Two options: month-to-month or 5 years; longer term has lower prices.
Customer Limitations/Eligibility	<p>Available to all residential, commercial, and industrial customers paying fuel clause charge. Except customers participating in Windsource, Schedule VRE-1.</p> <p>Customers with new or existing load are eligible to purchase up to 100% of their load.</p> <p>Total energy from Renewable*Connect, participation in other RE programs, and net metering combined cannot exceed 100% of customer usage.</p>
Aggregation of Customer Facility Demand	Subscriptions are on a premise-by-premise basis and there are no size restrictions in the program, aggregation is not applicable.
Impact on Net Metering (Onsite Resources)	Customers are allowed to participate in net metering.
RE Facility Limitations/Eligibility	<p>Resources must be within Xcel’s NSPW and NPS system; resources may be located outside of Wisconsin.</p> <p>Xcel Energy wind and solar resources that have recently been approved by the PUC; Odell Wind Farm and North Star, Marshall and Aurora Solar Project. Pilot includes facilities already approved in order to offer customers pilot as soon as possible.</p> <p>Program expansion may include other suppliers or Xcel Energy-owned assets.</p>

Commercial Risk Management	<p>Month-to-month customers can terminate their contract at any time.</p> <p>5-year contract customers are subject to an early termination penalty of \$10/MWh multiplied by the customer's last 12 months of usage.</p> <p>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.</p>
PUC Process	Approved December 27, 2018.
Status/RE Deals Signed	<p>Enrollment opened March 2019.</p> <p>As of October 2019 sixty C&amp;I customers have utilized the program to access existing wind and solar.</p>
Docket Information	Docket 4220-TE-102

<b>Wyoming – Black Hills Energy</b>	
Tariff Name	Large Power Contract Service
Tariff Type	Tariff; Sleeved PPA
Pilot Size/Period	No limitations defined in the filing.
Tariff/Contract Structure	<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>
Customer Cost Structure	<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> </ul>

	<ul style="list-style-type: none"> <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>
Administrative Fee	Administrative costs (\$/kW-mo) is 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.
Value of RE Price Certainty	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.
Procurement Lead	Customer and utility work collaboratively to identify appropriate RE resources.
Bundled RECs Management	Black Hills Energy will retire RECs on behalf of the customer.
Customer Facility Flexibility	RE resources can service multiple customers or meters that are already taking service under this tariff.
Contract Time Commitment	Customers must remain on this tariff for a minimum of 4 years.

<p>Customer Limitations/Eligibility</p>	<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>
<p>Aggregation of Customer Facility Demand</p>	<p>Facility Demand is measured by meter along with the Billing Capacity; therefore, aggregation is unlikely but not specifically addressed in the docket.</p>
<p>Impact on Net Metering (Onsite Resources)</p>	<p>Net metering is not permitted under this tariff.</p>
<p>RE Facility Limitations/Eligibility</p>	<p>No limitations are defined in the filing.</p>
<p>Commercial Risk Management</p>	<p>Customer must prove reasonable credit.</p> <p>Customer bears all risks associated with market volatility.</p>
<p>PUC Process</p>	<p>Approved July 28, 2016.</p>
<p>Status/RE Deals Signed</p>	<p>Microsoft utilized the Large Power Contract Service to partially supply its Cheyenne datacenter from existing wind projects.</p>

Docket Information	Docket 20003-146-ET-15 (Record No. 14242)
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<b>Wyoming – Black Hills Energy</b>	
Tariff Name	Renewable Ready Service
Tariff Type	Tariff; Subscriber Product
Pilot Size/Period	32.5 MW
Tariff/Contract Structure	Black Hills Energy enters into a PPA with RE generator(s). Customer enters into a Renewable Ready Subscriber Agreement with Black Hills Energy.
Customer Cost Structure	<p>Standard retail rate applies plus Renewable Ready Charge and Credit.</p> <p>Renewable Ready Charge equals Renewable Ready Charge Rate x monthly energy subscription (kWh). The Charge Rate varies per the term:</p> <ul style="list-style-type: none"> <li>• Five-year to nine-year subscriptions: \$0.028 per kWh</li> <li>• Ten-year to fourteen-year subscriptions: \$0.026 per kWh</li> <li>• Fifteen-year to twenty-five-year subscriptions: \$0.024 per kWh</li> </ul> <p>Renewable Ready Credit equals the Renewable Ready Credit Rate x monthly energy subscription (kWh). The Credit Rate will be determined annually and is based on the Fuel and Purchased Power costs plus the Fuel and Purchased Power Adjustment.</p> <p>Late payment charge of 1.5% of unpaid balance is applied if payment is not received within 21 days from the date of the bill.</p> <p>Early Termination Fees will apply if the subscriber leaves Black Hills Energy service territory or usage falls below 90% of the subscription.</p>
Administrative Fee	\$500 application fee.

Value of RE Price Certainty	Not explicitly stated in filing.
Procurement Lead	Not explicitly stated in filing.
Bundled RECs Management	Company will retire renewable energy credits associated with the subscriber's share of the Renewable Ready Energy on behalf of the subscriber or the Company will transfer the renewable energy credits to the subscriber.
Customer Facility Flexibility	Subscribers with multiple service locations have the option to transfer the Renewable Ready Service from one service location to another, subject to a transfer fee of \$250.
Contract Time Commitment	Minimum 5 years. Maximum of twenty-five years plus any one-year renewal terms.  Contract will automatically renew for successive one-year terms at the expiration of the subscriber's current term, unless the agreement is terminated.
Customer Limitations/Eligibility	Customers with an aggregate usage of 300,000 kWh or more per year and governmental accounts.
Aggregation of Customer Facility Demand	Not explicitly stated in filing
Impact on Net Metering (Onsite Resources)	Not explicitly stated in filing.
RE Facility Limitations/Eligibility	Corriedale wind project.

Commercial Risk Management	Not explicitly stated in filing.
PUC Process	Approved June 1, 2020.
Status/RE Deals Signed	Renewable Ready Subscriptions shall be offered for a four week period (“initial Subscription Period”) following approval of this tariff. If customers subscribe to more renewable energy than is available, subscriptions will be limited to a pro-rate share of the forecasted annual Renewable Ready Energy with preference given to the longest term contracts.
Docket Information	Docket No. 15337 & EL18-060



# UTILITY PROGRAMS THAT ALLOW CUSTOMER CHOICE

Green tariff programs are in part defined by the fact that they enable the customer to access renewable energy and the associated RECs. The following programs allow customers to select their energy supply, including renewable energy projects and the associated RECs. However, as the programs are structured, there is no requirement that the resources selected be renewables.

<b>Nevada – NV Energy</b>	
Tariff Name	Large Customer Market Price Energy (LCMPE)
Tariff Type	Tariff; Sleeved PPA (with a market value)
Pilot Size/Period	No limitations are defined in the filing.

<p>Tariff/Contract Structure</p>	<p>Customer enters into an Energy Supply Agreement with NV Energy, which must be approved by the Commission.</p> <p>Customer may choose where the energy is sourced from, which influences the associated energy charge:</p> <ul style="list-style-type: none"> <li>• Market on behalf of the customer; or</li> <li>• NV Energy's generation and purchased power.</li> </ul>
<p>Customer Cost Structure</p>	<p>Standard Base Tariff General Rate applies including all applicable charges (e.g. demand, facilities, basic service charge, Universal Energy Charge, Franchise Fees, Taxes and Mill Assessment, public program costs) minus the cost of generation capacity and energy supply, plus an energy charge as specified in the Energy Supply Contract between NV Energy and the customer.</p> <p>Customers will be exempt from the Net-BTRE, equal to the base tariff energy rate minus the cost of out-of-the-money long-term RE contracts, and deferred energy accounting adjustment rates/charges.</p>
<p>Administrative Fee</p>	<p>Included in the Energy Supply Agreement.</p>
<p>Value of RE Price Certainty</p>	<p>Not explicitly stated in filing.</p>
<p>Procurement Lead</p>	<p>Not explicitly stated in filing.</p>
<p>Bundled RECs Management</p>	<p>NV Energy will retire or transfer to the customer to retire portfolio energy credits, in compliance with RPS requirements.</p> <p>NV Energy shall retain the difference between the amount of portfolio energy credits procured pursuant to the Energy Supply Agreement and the RPS, unless otherwise specified.</p>
<p>Customer Facility Flexibility</p>	<p>Not explicitly stated in filing.</p>
<p>Contract Time Commitment</p>	<p>Negotiated.</p>

Customer Limitations/Eligibility	<p>Non-residential service customers with an average annual hourly load of 10 MW or more.</p> <p>Customer cannot be a fully bundled retail customer, nor approved by the Commission to purchase renewable energy capacity and ancillary services from a provider or new electric resource under NRS Chapter 704B.</p>
Aggregation of Customer Facility Demand	Aggregation is not allowed.
Impact on Net Metering (Onsite Resources)	Not explicitly stated in filing.
RE Facility Limitations/Eligibility	Solar, biomass, geothermal, waterpower and wind sourced from either the market on behalf of the customer or from NV Energy’s generation and purchased power.
Commercial Risk Management	Not explicitly stated in filing.
PUC Process	Approved May 7, 2020.
Status/RE Deals Signed	Google has applied for an Energy Supply Agreement to serve its Henderson Data Center.
Docket Information	Docket No. 19-12016

**Virginia – Dominion Energy**

Tariff Name	Schedule MBR (this has been replaced by Schedule MBR, Large General Service Market-Based Rate)
Tariff Type	Tariff; Market-Based Rate
Pilot Size/Period	<p>60 days after approval from commission, customers can enroll until November 1, 2019 or until cap is reached, whichever occurs first.</p> <p>Replaced with Schedule MBR, Large General Service Market-Based Rate.</p>
Tariff/Contract Structure	<p>Companion tariff to the standard Rate Schedule GS-3 or GS-4, with a MBR reflecting the PJM Interconnection wholesale market prices.</p> <p>MBR by itself is not a contract for RE. However, can be combined with customer efforts of independently contracting with a renewable energy facility in the PJM region through a virtual PPA.</p>
Customer Cost Structure	<p>Rate Schedules reflect pricing in the PJM Interconnection wholesale market.</p> <p>Rate design components: Distribution Service Charges, MBR Charges, and Electricity Supply Service Charges.</p> <p>MBR Charges include the following:</p> <ul style="list-style-type: none"> <li>• Generation Demand (or Capacity) Charge = all kW of generation demand at generation demand billing rate per kW</li> <li>• Generation Energy Charge = all kWh at day-ahead of locational marginal price per kWh</li> <li>• PJM Ancillary Service Charge</li> <li>• PJM Administrative Fee Charge</li> <li>• Margin 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>

Administrative Fee	Included in customer cost structure, charged on per kWh basis.
Value of RE Price Certainty	By linking customer’s electric service price directly to their wholesale market participation, customers can offset any high cost of power consumed from the PJM market, which is exposed to market volatility, with the revenue from the high price their renewable energy earned in the market. This acts as a natural hedge and reduces risk.
Procurement Lead	Not applicable.
Bundled RECs Management	REC management is arranged with the developer. Likely, the customer retains and retires the RECs.
Customer Facility Flexibility	Not applicable.
Contract Time Commitment	Minimum 3 years with automatic renewals, on a year-to-year basis.
Customer Limitations/Eligibility	<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>Customers 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>• a 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>
Aggregation of Customer Facility Demand	Tariff is applied to individual meters only.
Impact on Net Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	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.

Commercial Risk Management	<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>
PUC Process	Approved September 23, 2016.
Status/RE Deals Signed	<p>Closed to new customers; replaced by Schedule MBR, Large General Service Market-Based Rate.</p> <p>Three customers, including Amazon Web Services and Microsoft, have utilized the tariff to purchase ~ 650 MW of their load at market rates.</p>
Docket Information	Docket PUE-2015-00108

<b>Virginia – Dominion Energy</b>	
Tariff Name	Schedule MBR, Large General Service Market-Based Rate
Tariff Type	<p>Pilot tariff; Market-Based Rate</p> <p>Replaced Schedule MBR. This tariff is designed to improve Schedule MBR by increasing the availability of the program, aligning the Generation Demand and transmission service charges with the PJM method, and lowering the Margin Charge.</p>
Pilot Size/Period	<p>Customer entrance is capped at 200 MW; once this has been reached, new customers cannot utilize the tariff.</p> <p>Concludes on January 1, 2026.</p>

<p>Tariff/Contract Structure</p>	<p>MBR by itself is not a contract for RE. However, can be combined with customer efforts of independently contracting with a renewable energy facility in the PJM region through a virtual PPA.</p> <p>Customer and Dominion Energy enter into Agreement for Electric Service, of which Schedule MBR is a part.</p> <p>Schedule MBR is a 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 throughout the life of the tariff or until December 31, 2025.</p>
<p>Customer Cost Structure</p>	<p>Rate Schedules reflect pricing in the PJM wholesale market.</p> <p>Rate design components: Distribution Service Charges and Electricity Supply Service Charge, including MBR Generation Charges.</p> <p>MBR Generation Charges include</p> <ul style="list-style-type: none"> <li>• Generation Demand (or 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;</li> <li>• PJM Administrative Fee Charge; and</li> <li>• Margin Charge per each kWh of total monthly energy consumption.</li> </ul> <p>Generation Demand is based on customer's five coincident peaks average.</p> <p>Margin 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). Margin charge for customers with load factors of 85% or greater equals \$ 0.85.</p>
<p>Admin Fee</p>	<p>Included in customer cost structure, charged on per kWh basis.</p>

Value of RE Price Certainty	By linking customer’s electric service price directly to their wholesale market participation, customers can offset any high cost of power consumed from the PJM market, which is exposed to market volatility, with the revenue from the high price their renewable energy earned in the market. This acts as a natural hedge and reduces risk.
Procurement Lead	Not applicable.
Bundled RECs Management	REC management is arranged with the developer.
Customer Facility Flexibility	Not applicable.
Contract Time Commitment	Minimum 3 years. Automatic 1-year renewals throughout the life of the tariff.
Customer Limitations/Eligibility	Nonresidential customer with a measured peak demand of 5 MW or more within the current or previous 11 billing months. This must be achieved only once.  Customer must have proper metering and related communication equipment.
Aggregation of Customer Facility Demand	Tariff is applied to individual meters only.
Impact on Net-Metering (Onsite Resources)	Not applicable.
RE Facility Limitations/Eligibility	Not applicable.
Commercial Risk Management	Customer bears all risks associated with market volatility.  Customer must sign an officer certification affidavit certifying that the customer understands the risks and potential rate volatility.
PUC Process	Approved January 14, 2020.

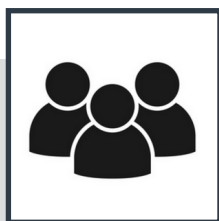
Status/RE Deals Signed	Four customers, including Microsoft, have utilized the tariff to purchase ~40 MW of their load at market rates. Two additional customers have expressed interest.  Enrollment will close January 1, 2026 or when the enrollment cap is reached.
Docket Information	Docket PUR-2018-00192

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## ABOUT WRI

World Resources Institute is a global research organization that turns big ideas into action at the nexus

of environment, economic opportunity, and human well-being.

# ENDNOTES

1. For additional information on wholesale energy markets, see the Federal Energy Regulatory Commission's "Energy Primer, A Handbook for Energy Market Basics."
2. 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."
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."
4. The tariffs differ in which party initiates the renewable energy project negotiations—the utility or the customer. Procurement lead identifies who leads the relationship with the developer.



## REFERENCES

**Barua, P. 2017.** "Implementation Guide for Utilities: Designing Renewable Energy Products to Meet Large Energy Customer Needs." Working Paper. Washington, DC: World Resources Institute. <http://www.wri.org/publication/implementation-guide-green-tariffs>.

**Bonugli, Celina. 2017.** "U.S. Renewable Energy Map: A Guide for Corporate Buyers." Technical Note. Washington, DC: World Resources Institute. <http://www.wri.org/publication/technical-note-us-renewable-energy-map>.

**WRI (World Resources Institute). 2017.** "U.S. Renewable Energy Map: A Guide for Corporate Buyers," April. <http://www.wri.org/resources/maps/us-re-corporate-buyers-map>.

**WRI and WWF (World Wildlife Fund). 2016.** Corporate Renewable Energy Buyers' Principles: Increasing Access to Renewable Energy. Washington, DC: WRI and WWF. [http://buyersprinciples.org/wp-content/uploads/Corporate\\_RE\\_buyers\\_guide-Jan242017.pdf](http://buyersprinciples.org/wp-content/uploads/Corporate_RE_buyers_guide-Jan242017.pdf).

# GLOSSARY OF TERMS

**C&I** Commercial and industrial customers.

**DEC** Duke Energy Carolinas

**DEP** Duke Energy Progress

**Demand Charge** 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.

**Fuel Clause Charge** 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.

**GS** General service.

**IOU** Investor-owned utility.

**IPP** Independent power producer, a company that generates and sells power.

**MISO** 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.

**Net Metering** A billing mechanism that credits customers supplying surplus solar or other renewable energy power to the public grid.

**NGR** tariff/rate Name given to NV Energy’s green tariff and rider rate.

**OARS** Otherwise applicable rate schedule for customers served by NV Energy.

**OPT** tariff Duke “Optional Power Service, Time of Use” tariff structure.

**PJM** 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.

**PPA** Power purchase agreement.

**PUC** State public utility commission which regulates the electric utilities in a given state.

**PURPA** 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.

**RE** Renewable energy.

**REC** Renewable energy certificate attributed to renewable generation under state RPS requirements.

**REPSA** Renewable Energy Purchase and Sales Agreement.

**Rider** Additional rate applied to an electricity tariff.


**RMP** Rocky Mountain Power.

**RPS** 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.

**SB** Senate bill.

**Sleeved PPA** Customer negotiates directly with a renewable energy generator, then contracts through a utility.

**Subscriber Products** Utility has procured renewable energy, then sells portions to customers.

A man and a woman in business attire are reviewing documents in an office setting. The man, wearing glasses and a suit, is pointing at a document. The woman, also wearing glasses and a blazer, is smiling and looking at the document. They are both holding papers and appear to be in a collaborative work environment.

**Tariff** Electricity pricing, and price structure, charged to customers.

**Tranche** A tranche refers to a specific set of resources and customer terms offered.

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