Exhibit No.:
Issue: Demand Response Resource Participation in Wholesale Markets
Witness: Kimberly H. Winslow
Type of Exhibit: Supplemental Direct Testimony
Sponsoring Party: KCP&L Greater Missouri Operations Company
Case No.: ER-2018-0146
Date Testimony Prepared: June 19, 2018

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2018-0146

SUPPLEMENTAL DIRECT TESTIMONY

OF

KIMBERLY H. WINSLOW

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
June 2018

Q: Please state your name and business address.

A: My name is Kimberly H. Winslow. My business address is 1200 Main Street, Kansas City, Missouri 64105.

Q: Are you the same Kimberly H. Winslow who pre-filed Direct Testimony in this matter on behalf of KCP&L Greater Missouri Operations Company ("GMO")?

A: Yes.

Q: What is the purpose of your testimony?

A: The purpose of my Supplemental Direct Testimony is to respond, in part, to the Commission's Order Granting Motion for Supplemental Direct Testimony in Furtherance of Staff's Report on Distributed Energy Resources.

SECTION 1: <u>Description of Past and Current Efforts on DER and Grid Management</u>

Q: What is the purpose of this portion of your testimony?

A: The purpose of this section of my testimony is to describe some of Kansas City Power & Light Company ("KCP&L") and KCP&L Greater Missouri Operations Company ("GMO") (collectively, "Company") past and current initiatives related to Distributed Energy Resources ("DER"), including Demand Response ("DR"), and the integration of DER into the Company's distribution grid.

Q: Please provide a summary of the Company's involvement in Distribution Grid Management and Distributed Energy Resources.

A: The Company has a long history of being a progressive industry leader in many areas of distribution grid management, including such efforts as:

- GMO's Strategic Distribution Automation ("DA") Initiative in the 1990's that was focused on improving grid operations and reliability and deployed several industry leading grid automation technologies (Automated Meter Reading, Geographic Information System, and Outage Management System) that formed the basis for much of the Company's existing grid information and operations systems
- Customer Energy Efficiency ("EE") and DR programs implemented under the Company's Comprehensive Energy Plan ("CEP") and the Missouri Energy Efficiency Investment Act ("MEEIA");
- A focus on sustainability and renewable energy with solar rebates, construction of Company-owned solar and the introduction of the Company's Solar Subscription Pilot Rider ("SSPR") tariff in this proceeding.
- Industry leadership and partnership with Electric Power Research Institute ("EPRI") and U.S. Department of Energy ("DOE") on the SmartGrid Demonstration Project demonstrated and tested the viability of many SmartGrid technologies and their ability to integrate several forms of DER into distribution grid operations.
- Deployment of the Company's Clean Charge Network, the first large scale deployment of public electric vehicle ("EV") charging stations by a public utility that are integrated with the grid operations and could participate in load curtailment events.

Q: Please provide some background on the Company's Demand-Side Management programs.

A: The Company has a history of implementing Demand-Side Management ("DSM") programs, beginning most significantly in 2005 with the CEP. At that time, this portfolio of programs represented a significant commitment on the part of GMO to promote EE and DR to ensure that all classes of customers had programs in which they could participate. This commitment to DSM by a Missouri utility was unprecedented at the time. The Company remained committed to these programs even after the five-year conclusion of the CEP. Then, through the MEEIA, the Company's DSM program offerings continued to expand and mature with the Company expecting over 160 MW of DR program capacity across the Company's service territories for the summer of 2018. The Company's 2018 DR assets include approximately 44,000 paging thermostats, 6,400 Wi-Fi thermostats, 35,000 smart thermostats, and 70 MW of commercial load curtailment (Demand Response Incentive) program. GMO has pioneered programs with several thermostat technologies and partnered with multiple commercial and industrial customer types to bring DR solutions that benefit the customer, the electric grid and the Company.

Q: What types of thermostat programs has the Company pioneered?

A: GMO launched Missouri's first thermostat program in 2005 with Honeywell and in 2015 the Company began partnering with Nest on its 'Rush Hour Rewards', to install 35,000 internet enabled two-way thermostats. GMO delivered more than 8,000 of the smart thermostats in 2016, more than doubling its first-year goal. The Company has received multiple awards over the last 24 months from industry organizations for its thermostat

program, including the 'Thought Leader' award from the Peak Load Management Alliance and Distributech's 2018 Demand Response Project of the Year.

Q Please describe the Company's load curtailment programs.

A: The Company's Demand Response Incentive ("DRI") program in the current MEEIA program cycle is a commercial and industrial focused load curtailment program. Versions of this program have existed over the last 20+ years at GMO and continue to provide value to the customer, the utility and the region. Load reduction from the DRI program is typically accomplished through a manual process by the customer, such as shutting down a large motor, running generators, or shifting load to an alternate time.

The Company also evaluated a pilot, referred to as the Automated Demand-Side Management ("ADSM") program, to test commercial and industrial customers' preferences to use automated responses to accomplish peak time load curtailment. The ADSM technology platform was a pilot program that the Company undertook that is unique in that it enables the Company to partner with multiple customers to aggregate their load curtailment capability and dispatch it as a virtual power plant or ("VPP") for system capacity or as a DER for targeted distribution grid load relief. ADSM was recently approved by Commission as an expanded offering within the DRI tariff for customers who have commercial load that best fits the program, such as HVAC and lighting.

Q: Does GMO have any new DSM initiatives underway?

A: Yes. As a part of our current MEEIA Cycle 2 research and pilot efforts, the Company is implementing a Distributed Energy Resource Management System ("DERMS") that will manage the portfolio of existing and future DR and DER programs and technologies. In

Staff's Report on Distributed Energy Resources, Staff highlighted DERMS as one of the Distributed Resource Management family of technologies that enable DERs to integrate into the operation of the distribution system by providing visibility and control over the DER resources.[1] In the initial Company implementation, the DERMS will centralize the management of all existing and future DR programs into one software solution while automating manual processes and providing a single view of the DR capacity available for improved dispatch at any given time.

Q: Please elaborate on the role of the DERMS as it relates DER.

A: The Company began developing its existing portfolio of DR resources in 2005 with the Energy Optimizer air conditioner thermostat cycling program. In the succeeding years the Company's DR programs have continued to evolve to accommodate changing technology, customer preferences and improve program effectiveness. Today, the Company's DR resources are implemented across multiple DR vendor technology platforms and are managed via several disparate systems and significant manual processes.

The DERMS will centralize the management of all existing and future demand response programs into one software solution while automating manual processes and provide a single view of the DR capacity available for improved dispatch at any given time. The DERMS will be integrated with the Company's Customer Information System ("CIS"), Meter Data Management ("MDM") and other enterprise systems and third-party DR technology platforms to streamline program enrollment processes, enhance program operations and expand program event execution and reporting capabilities.

[1] Staff Report on Distributed Energy Resources, Missouri Public Service Commission, EW-2017-0245, April 5, 2018, pg. 29.

The DERMS is a key technology platform required to manage the growing DR program portfolio and meet the increasing importance of DR in the DSM component of the Company's Integrated Resource Plan ("IRP"). The DERMS will allow the Company to more effectively manage our legacy thermostat programs, significantly grow the current DR programs, and implement new MEEIA Cycle 3 DR programs that will appeal to a wider variety of residential and commercial customers. As envisioned for the future, the DERMS may also be utilized to manage DERs such as electric vehicles; distributed renewable generation and battery storage systems to increase grid efficiency and reduce operating costs; facilitate coordination with wholesale markets and provide future pricing signals; and improve customer satisfaction through service reliability and choice.

Q: Has the Company had prior experience with implementing a DERMS?

A: Yes. With a grant from the DOE, GMO's 5-year (2010-2015) SmartGrid Demonstration Project ("SGDP") implemented a complete end-to-end smart grid in a regionally unique, controlled "laboratory" environment. The SGDP incorporated numerous deployments of emerging smart grid and DER technologies that were conceptually organized in into several project domains; SmartMetering, SmartEnd-Use, SmartDistribution, SmartSubstation, and SmartGeneration

The SmartGeneration projects implemented a next generation DERMS and demonstrated an architecture that can provide balancing of renewable and variable DER with controllable DR as it becomes integrated in the utility grid. The DERMS was used to manage several types of DER including PCT and HAN DR load curtailment programs, a 1.0-MWh grid connected battery energy storage system, and ten (10) EV charging

stations. Additional SmartGeneration subprojects implemented and studied the impacts and benefits of 176 kW of grid connected distributed roof-top solar generation installations and three (3) premise battery energy storage systems.

The SGDP demonstrated that the reliability, efficiency, and flexibility of the distribution grid can be improved through the implementation of enhanced monitoring and control functions using emerging systems, technologies, and resources that interoperate over a secure communications network. The Company gained valuable knowledge and experience with the implementation experience with the implementation of the DERMS and significant insights into the implementation and performance of emerging DER technologies, as well as insights into the operational, consumer, environmental, and societal benefits that can be achieved.

Q: Does the Company utilize any tools to manage net metering applications?

A: The Company uses a software tool called VisionDSM. This software has been instrumental in the Company's project management for each net metering application that is submitted to the Company, along with serving as a repository for information pertaining to each installation long after the net metering interconnection has been completed. This information includes the system's design, capacity, location, technological specifications and rebate information (if provided at the time of installation). VisionDSM also ties into the Company's CC&B CIS system, allowing it to exchange customer information which ensures ongoing accuracy. Future enhancements are planned that include roll-out of an external customer facing portal that will provide a one-stop location for customers and contractors to submit applications, project documents, communicate with the Company and track project progress.

Q: Are there additional Company initiatives related to renewables and DER?

A: Yes. The Company has a few related initiatives filed in this proceeding that support our continued efforts to be responsive to customer feedback and provide additional customer options and control in renewables and DER that will be integrated into our customer offerings.

- Proposed Standby Service Tariff – Allows customers to have back-up electric service from the utility while providing a portion of their energy from their own generation. These sources may be willing to also be called on and interact with the grid by putting more generation back on the grid.
- Proposed Renewable Energy Rider - Allows large customers to offset their energy usage with a new renewable energy resource that is procured to fit the demand of the subscribers who participate. The tariff is structured similarly to a 'contract of differences,' where energy will be sold into the Southwest Power Pool marketplace and the utility will be kept whole at the agreed to subscription price ($/MWh) for energy generated by the farm. The cost or credit associated with the marketplace transaction will be passed through to the subscribers.
- Proposed Solar Subscription Pilot Rider- All customer classes will be eligible to subscribe to a portion of a proposed solar array that is sized to offset up to 50% of their annual energy usage. Energy generated by the array and associated with their subscription, will be deducted from their standard energy billing component and billed as separate line item at the price per kWh outlined in the Solar Subscription tariff.

- Proposed Clean Charge Network Rate - This rate will apply to all energy provided to charge EVs at the Company's public Clean Charge Network EV charging stations. The Clean Charge Network EV platform provides DR capabilities by reducing the EV charging level during a DR event. DERMS will be configured to automate EV charge station response to Company DR events.
- Proposed Pilot DSM Rates – the three pilot DSM rates (Residential Time of Use, Residential Demand Service and Residential Demand Service plus Time of Use) provide customers additional rate plan choices and an opportunity for them to save on their electric bill by reducing their level of consumption or shifting their time of consumption from on-peak usage periods to off-peak usage periods.

SECTION 2: <u>Implementing a MEEIA Program to allow DR resources to participate in the SPP wholesale market</u>

Q: What is the purpose of this portion of your testimony?

A: The purpose of this section of the testimony is to provide an overview of the Indiana utility tariffs that implement the 'Indiana Model' and propose an option of how a Company program could be implemented as a MEEIA program to also allow utility managed DR resources in Missouri to participate in the wholesale market.

Q: Have you reviewed the retail utility tariffs approved by the IRUC to allow DR participation in the MISO and PJM markets using the 'Indiana Model'?

A: Yes, Company staff have reviewed the following tariffs of the MISO market participant utilities; Duke Energy-Indiana ("Duke"), Indianapolis Power & Light ("IPL"), Northern Indiana Public Service Company ("NIPSCO"), Vectren Energy Delivery of Indiana ("Vectren") and PJM market participant Indiana Michigan Power Company ("I&M").

- Duke – Market Based Demand Response (MBDR) Rider - – Rider No. 22[2]
- IPL – Market Based Demand Response Rider – Rider No. 23[3]
- NIPSCO – Demand Response Resource Type 1 (DRR 1) – Energy Only – Rider 781[4]
- Vectron – MISO Demand Response Rider – Rider DR[5]
- I&M – Demand Response Service – Economic – Rider D.R.S.2[6]
- I&M – Demand Response Service – Ancillary – Rider D.R.S.3[7]

Q: Did this review identify any similar characteristics common to many of the Indiana Market Based Demand Response ("MBDR") tariffs?

A: Yes, there were many similar characteristics across the MBDR tariffs pertaining to DRR") participation in the energy and ancillary service markets. These include:

1. Market Services – Both MISO and PJM markets provide for participation in ancillary and real-time markets, but the majority of the utility tariffs only provide for participation in the day-ahead energy markets. Only the I&M tariffs included participation in PJM real-time and ancillary service markets.
2. Availability – All MBDR tariffs reviewed are available to individual retail commercial customers and to approved Aggregators of Retail Customers ("ARC"). Most tariffs also allow an ARC to be a customer with multiple premises. In most cases, ARCs must meet the requirements of the RTO/ISO and

[2] Standard Contract Rider No. 22 – Duke Energy Market Based Demand Response (MBDR) Rider, Duke Energy, LLC, January 1,2016. Available at: https://www.duke-energy.com/_/media/pdfs/for-your-home/rates/electric-in/de-in-rider-22.pdf?la=en

[3] Standard Contract Rider No. 23 – Market Based Demand Response Rider, Indianapolis Power & Light Co., March 31, 2016. Available at: https://www.iplpower.com/Our_Company/Regulatory/Rates/Contract_Riders/Rider_No__23/r_No__23/

[4] Rider 781 – Demand Response Resource Type (DRR 1) – Energy Only, Northern Indiana Public Service Co., September 29,2016. Available at: Rider 781 – Demand Response Resource Type (DRR 1) – Energy Only, Northern Indiana Public Service Co., September 29,2016. Available at:

[5] Tariff for Electric Service I.U.R.C. No. E-13, Vectren Energy Delivery of Indiana, Inc., May 3, 2011, sheet DR. Available at: https://www.vectren.com/assets/downloads/rates/in-south-electric-tariff.pdf

[6] Schedule of Tariffs and Terms and Conditions Governing Sale of Electricity in the State of Indiana, Indiana Michigan Power Company, February 13, 2013, sheet 30. Available at: https://www.indianamichiganpower.com/global/utilities/lib/docs/ratesandtariffs/Indiana/IM_IN_TB_16_03-29-2018.pdf

[7] Ibid, sheet 31

the retail utility. The I&M tariff also provides for a customer to designate a Curtailment Service Provider (or Energy Services Manager) to facilitate all or some of the market transactions on the customer's behalf.

3. Minimum Load Reduction – Most of the Indiana MBDRs required a minimum curtailable load of 1 MW per enrolled resource, but there were two significant outliers. I&M has a 100 kW minimum and NIPSCO has a 5 MW minimum. ARCs may aggregate smaller loads to meet these minimums, but all aggregated resources must be registered together as a single resource.

4. Participation in Retail DR Programs – Several of the Indiana utilities offer their own retail load curtailment and DR programs. To avoid a single DRR from receiving duplicate credits simultaneously under two programs, each tariff addresses the extent to which customers enrolled in MBDR tariff may, or may not, participate in the retail programs.

5. Financial Terms –A $1,000 resource registration fee was commonly charged to cover the administrative costs associated with registering the DRR in the market. All of the MBDRs require the customer or ARC to pay the cost of any additional telemetry or metering required. Settlement payments for market participation are calculated by at the Locational Market Price ("LMP") at which the DRR is registered and paid to the Utility. The utility credits the customer/ARC account with the market settlement payment less the retail rate for the energy not consumed by the customer and an administrative fee, typically 5-10%.

Q: Do you believe that a MBDR program similar to the Indiana utility tariffs reviewed could be advantageous for any Company customers?

A: Possibly. Some commercial customers may find additional value in being able to participate in the SPP energy market, especially those that have some form of cyclical manufacturing process, flexible generation or storage capacity. With the SPP market participation limited to the energy market, we propose to implement an Indiana style MBDR program as an extension of the Company's traditional DRI program where the utility aggregates DR, either through itself or through a third party, to work with customers with DR resources wanting to participate in the wholesale market.

Q: Are there any aspects from Indiana's experience that could be incorporated into a Company program?

A: Yes, Indiana's example of offering a program registered through the utility for individual customers with DR capabilities to have the market access would be a positive for our customers. An MBDR program with the Company as the Market Participant will provide market participation opportunities for various customer types. An MBDR program should allow the following participation models:

- Individual commercial customer as DRR
- Individual customers as DRR with energy service manager acting on their behalf
- Aggregation of a single customer with multiple premises into a single DRR

Q: Has the Company developed an MBDR program to enable access to the wholesale market for its customers with DR resources?

A: Based on our review and analysis of the Indiana utility tariffs, the Company has begun a detailed analysis and determination of the MBDR program requirements for SPP market

participation. The Company has drafted an example MBDR program description with this conceptual design for discussion and review purposes. The Company believes the MEEIA construct is the best place to implement a MBDR program component. The inclusion of MBDR is included within a 'concept' program description for a business demand response program is attached as **Schedule KHW-1**.

Q: When does the Company plan to introduce include MBDR for its customers?

A: While still in concept phase, the Company intends to include MBDR and associated tariffs, as applicable, as a proposed component of its Business DR program in its upcoming MEEIA Cycle 3 filing.

Q: Why is the Company proposing to implement the MBDR program in MEEIA Cycle 3?

A: Incorporating the MBDR into MEEIA DSM programs allows for the integration with other DR resources (DRI and ADSM) so the Company can bring a suite of offerings to the customer with who might have different load management preferences and desire different value streams for their efforts. Additionally, a customer with familiarity with the Company's DR programs will more likely to be able to take the next smaller step to being a market-based demand response customer. Also, by integrating and therefore coordinating MEEIA programs like DRI and MBDR, the Company can restrict the potential for possible double counting by customers wanting to participate in both programs at the same time.

Q: How does the Company propose recovery for this program?

A: As the expected inclusion of the MBDR program in a MEEIA Cycle 3 filing, the Company will propose recovery in the Demand Side Investment Mechanism ("DSIM") rider like other MEEIA DSM programs.

Q: Has the Company developed an estimate of the MBDR program costs would be recovered through the DSIM rider?

A: The program cost estimate is being developed and a budget will be submitted as part of the MEEIA Cycle 3 filing.

Q: Does this conclude your testimony?

A: Yes

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2018-0146

AFFIDAVIT OF KIMBERLY H. WINSLOW

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

Kimberly H. Winslow, being first duly sworn on her oath, states:

1. My name is Kimberly H. Winslow. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director, Energy Solutions.

2. Attached hereto and made a part hereof for all purposes is my Supplemental Direct Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of fourteen (14) pages, having been prepared in written form for introduction into evidence in the above-captioned dockets.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Kimberly H. Winslow

Subscribed and sworn before me this 19th day of June 2018.

Notary Public

My commission expires: 4/26/2021

ANTHONY R WESTENKIRCHNER
Notary Public, Notary Seal
State of Missouri
Platte County
Commission # 17279952
My Commission Expires April 26, 2021

DRAFT CONCEPT PROGRAM DESCRIPTION

BUSINESS DEMAND SIDE MANAGEMENT

Business Demand Response Program

BUSINESS DEMAND RESPONSE PROGRAM

The Business Demand Response (Program) is designed to reduce Participant load during peak periods to help defer future generation and grid capacity additions and provide for improvements in energy supply.

The Program is available to Customers that qualify for Business Demand-Side Management Programs that can show economic and technical feasibility for measurable and verifiable load curtailment and meet provisions of the applicable Program. The Participant's Contract Curtailment Amount must be available during the Curtailment Season and within designated Curtailment Hours excluding Holidays. Individual Program methods defined below may have varying Curtailment Seasons and Curtailment Hours. A Participant or a Participant's Representative may enroll in the Program directly with KCP&L or KCP&L-Program Administrator.

The Company reserves the right to limit the total curtailable load available under this Program. This Program is not available to any Customer load served under a Company Interruptible Rate or a Curtailable Demand Rider.

The Business Demand Response Program may be executed in either of three methods:

1. Demand Response Incentive (DRI)
2. Demand Response Incentive with Market Based Demand Response (MBDR)
3. Automated Demand Side Management (ADSM)

The following description provides an overview of Option #2 specific to Market Based Demand Response (MBDR). Additional Program participation criteria and requirements are further detailed in the MBDR Contract.

MARKET BASED DEMAND RESPONSE (MBDR)

MBDR offers qualified DRI Participants an additional opportunity to reduce their electric costs through participation with KCP&L in the wholesale Southwest Power Pool (SPP) energy market by providing load reduction during high price periods in the market and declared emergency events. Participation in this MBDR authorizes KCP&L to offer the Customer's Curtailment Amount in the SPP Integrated Marketplace and to compensate Participants based on any SPP settlement payments.

MBDR Availability

MBDR is available to DRI Participants whose DR Resources are compliant with the SPP Tariff and SPP Marketplace Protocol requirements and can provide sustainable load reduction during a Curtailment Event. The Participant's DR Resources will be registered in the SPP Day Ahead Energy Market as either Bulk Demand Response Resources or Dispatchable Demand Response Resources. The technical and operational requirements each DR Resource type are outlined in the MBDR Contract and the SPP Marketplace Protocol, as it may change from time-to-time.

Curtailment Season

The MBDR Curtailment Season will be annually from January 1 through December 31.

Contract Curtailment Amount

The Participant's MBDR Contract will specify the agreed upon Contract Curtailment Amount and shall be the same Curtailment Amount for each month of the contract. Under no circumstances shall the Contract Curtailment Amount be less than (amount to be determined) MW and not more than the Participant's DRI Contract Curtailment Amount. The Curtailment Amount is calculated as the difference between the Participant's HCLP and the Participant actual average load during each hour of a DR event.

Aggregation of DRI Curtailment Amounts

For the purposes of the MBDR, and at the Company's option, a Participant with service at multiple premise locations may request that the DRI Curtailment Amounts from some or all of the Participant premises be aggregated to achieve the minimum MBDR Contract Curtailment Amount. Availability of Participant premise aggregation is further subject to the technical feasibility of the installation of required Company metering and communication equipment.

Metering and Communication Requirements

Participants must have Company installed metering capable of providing the interval load metering and telemetry required by SPP on each participating service point. The Participant shall be responsible for the incremental cost of any additional Company metering, communications or control equipment required beyond that which is normally provided.

Daily Market Participation

A MBDR Participant shall have the option of market participation on any particular day except for days on which the Company has scheduled a potential DRI Curtailment Event. Participant Curtailable Amounts will be included in the daily Offers by the Company to SPP unless Participant specifies that it does not wish to participate on a particular day. Upon enrollment, Participant will establish a default Offer for their Contract Curtailment Amount that will remain valid until updated or declared unavailable by the Participant.

Participant Load Reduction Obligation

The Company will notify Participant of all Offers accepted by SPP. Participant shall be responsible for acting upon a cleared offer and is obligated to reduce load in accordance with the SPP instructions. Deviations in Curtailment Amounts above or below the dispatch instruction amount may result in charges as described in the MBDR contract. Any such charges will be assessed to the Participant.

Participant Compensation

Based upon Participant's performance related to SPP-cleared offers, SPP will calculate settlement payment for each market operating day. The value of the settlement payment (credit or debit) will take into consideration the Participant's specified offer parameters, SPP cleared offers and dispatch instructions, the actual DR Load Curtailment Amount, and the Locational Marginal Price associated with the Participants DR Resource. Failure to provide the committed level of load reduction will result in charges consistent with the provisions in the applicable SPP Market Protocol manual. The Company will remit to Participant the net proceeds (SPP settlement payments less administrative fees and charges) as a credit (or charge) on the Customer's monthly bill. Depending on the Customer's billing cycle and when credits or debits are issued within the month, posting of the credits or debits to the Customer's bill may be delayed.

Participant Participation Fees

Participants shall be assessed the following program fees and charges as specified in the Participant's MBDR Contract

- DR Resource Market Registration Fee – a one -time fee to cover the administrative cost of registering the DRR with the SPP and determining the viability of the Participant's DR Load Curtailment Amount.
- DR Resource Registration Modification Fee – A per occurrence fee, to cover the administrative cost of changing the DRR registration with SPP and determining the viability of the Participant's new DR Load Curtailment Amount.
- Monthly Meter Service Charge - a Monthly Meter Service Charge, per meter, to offset the ongoing program administration costs, including increased meter data reporting frequency, telemetry, communications, meter data aggregation, and HCLP determination.
- Market Settlement Fees - The marginal forgone retail rate (MFRR) plus a percentage of the net SPP market settlements to offset ongoing program transaction costs including communicating SPP dispatch instructions, processing and tracking settlements and other transaction related costs.

The Company shall bill Participant the following administrative fees and charges.

Program Participation Fees and Charges	Frequency	Amount
Metering, Communication, and Other Direct Costs	Per Occurrence	At Cost
DR Resource Market Registration Fee	One Time per Resource	tbd
DR Resource Market Registration Modification Fee	Per Occurrence	tbd
Monthly Meter Service Charge	Per Meter	tbd
Market Settlement Fees	Bids Cleared by SPP	MFRR plus x%

DEFINITIONS

Aggregation - Is the process of combining of multiple DR Curtailment Amounts into a single Curtailment Amount.

Curtailment Amount - Is difference between the Participant's HCLP and the actual Participant load during each hour of a Curtailment event.

Curtailment Event - is when the Company instructs Participants to curtail load for a defined period of time.

Customer Representative – A Customer Representative is an entity that the Customer has designated to facilitate all or some of the customer offers, notifications and transactions under this program

Demand Response (DR) - is the ability for a Participant to engage DR Resources and reduce its Load when so instructed.

DR Resource (DRR) - is a controllable load, including behind the meter generation and/or storage, that can reduce the Customer's withdrawal of energy from the electric grid.

Hourly Customer Load Profile (HCLP) - is for an hourly estimate of the Participant's electric consumption amount absent load curtailment for a DR event.

Incentive – Any consideration provided by KCP&L directly or through the Program Administrator, including in the form of cash, bill credit, payment to third party, or public education programs, which encourages the adoption of customer behaviors or measures.

Marginal Forgone Retail Rate (MFRR) - The amount forgone by the Company for the energy not consumed by the Customer at the full marginal retail rate.

Participant – The end-use Customer or Customer Representative.

Program Administrator – The entity selected by KCP&L to provide program design, promotion, administration, implementation, and delivery of services.

Program Partner – A service provider that KCP&L or the Program Administrator has approved to provide specific program services through execution of a KCP&L approved service agreement.