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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EA-2018-0202

DIRECT TESTIMONY

OF

STEVEN M. WILLS

ON

BEHALF OF

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

St. Louis, Missouri
May, 2018

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DIRECT TESTIMONY

OF

STEVEN M. WILLS

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I. INTRODUCTION

Q. Please state your name and business address.

A. Steven M. Wills, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with Ameren Missouri?

A. I am the Director of Rates and Analysis.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Music degree from the University of Missouri-Columbia in 1996. I subsequently earned a Master of Music degree from Rice University in 1998, then a Master of Business Administration ("M.B.A.") degree with an emphasis in Economics from St. Louis University in 2002. While pursuing my M.B.A., I interned at Ameren Energy in the Pricing and Analysis Group. Following completion of my M.B.A. in May 2002, I was hired by Laclede Gas Company as a Senior Analyst in its Financial Services Department. In this role, I assisted the Manager of Financial Services in coordinating all financial aspects of rate cases, regulatory filings, rating agency studies and numerous other projects.

In June 2004, I joined Ameren Services as a Forecasting Specialist. In this role, I developed forecasting models and systems that supported the Ameren operating companies' involvement in the Midwest Independent Transmission System Operator, Inc.'s ("MISO")[1] Day 2 Energy Markets. In November 2005, I moved into the Corporate Analysis Department of Ameren Services, where I was responsible for performing load research activities, electric and gas sales forecasts, and assisting with weather normalization for rate cases. In January 2007, I accepted a role I briefly held with Ameren Energy Marketing Company as an Asset and Trading Optimization Specialist before returning to Ameren Services as a Senior Commercial Transactions Analyst in July 2007. I was subsequently promoted to the position of Manager, Quantitative Analytics, where I was responsible for overseeing load research, forecasting and weather normalization activities, as well as developing prices for structured wholesale transactions.

In April 2015, I accepted a position with Ameren Illinois as its Director, Rates and Analysis. In this role, I was responsible for the group that performed Class Cost of Service, revenue allocation and rate design activities for Ameren Illinois, and I maintained and administered that company's tariffs and riders. In December 2016, I accepted a position with the same title at Ameren Missouri.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your direct testimony in this proceeding?

A. My direct testimony in this proceeding concerns the Company's application for a Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM"

[1] Now known as the Midcontinent Independent System Operator, Inc.

or "rider"). I will describe the reason for requesting a RESRAM and its mechanics, discuss the appropriateness of its design, provide an illustration of its operation, support the minimum filing requirements for a RESRAM pursuant to the Missouri Public Service Commission's ("Commission") rule 4 CSR 240-20.100(6), and establish why there is good cause for the variances the Company has requested from certain provisions of that rule.

III. REASON FOR IMPLEMENTING A RESRAM

Q. Why is Ameren Missouri filing to implement a RESRAM at this time?

A. As outlined in the preferred resource plan reflected in the Company's most recent Integrated Resource Plan ("IRP") filing, made in September 2017, the Company will be adding at least 700 Megawatts ("MW") of new wind generation capacity in order to comply with Missouri's Renewable Energy Standard ("RES"). The RES requires Missouri electric utilities to generate or procure specific percentages of the energy needed to meet their retail load obligations from qualifying renewable resources. By 2021, the percentage of energy that must come from renewable sources reaches 15%, subject to a cap on the impact on retail rates of 1%. The analysis included in Ameren Missouri's 2017 IRP determined that adding at least 700 MWs of wind was necessary and appropriate to achieve compliance with the RES requirements, and also that it would not cause retail rates to exceed the statutory 1% cap. Consistent with that analysis and plan, the Company has filed for a Certificate of Convenience and Necessity ("CCN") to construct a wind farm that represents a significant portion of the minimum of 700 MW of planned wind generation additions. Company witnesses Ajay K. Arora and Matt Michels testify regarding the CCN request. The significant regulatory lag the Company would face as

this and additional wind generation is placed in service necessitates the implementation of a RESRAM.

Q. Does the RES require the Commission to allow electric utilities to recover RES Compliance Costs outside of a rate case, as would occur under the proposed RESRAM?

A. Yes, the RES required the Commission to promulgate rules to implement various components of the law, including a "[p]rovision for recovery outside the context of a regular rate case of prudently-incurred costs and the pass-through of benefits to customers of any savings achieved by an electrical corporation in meeting the requirements of this section." The Commission subsequently established rules for the creation and operation of RESRAMs under Commission rule 4 CSR 240-20.100(6). The Company's proposal complies with these rules, except as noted in the application accompanying this filing, which includes requests for variances from certain rule provisions. Good cause for those variance requests is further supported later in my testimony.

Q. How does the use of the RESRAM enable the Company to comply with the RES requirement?

A. The investment levels required in order to develop the 700 MW or more of compliance-related wind assets are substantial – likely over $1 billion. Under traditional ratemaking, the Company would permanently lose the RES Compliance Costs associated with this investment – return on the capital deployed, depreciation expense, incremental Operations and Maintenance expense ("O&M"), property taxes, etc. – during the period between when the asset goes into service until the completion of a general rate case that

included in-service wind assets within the true-up period. Based on typical rate case timelines and assuming a case were filed to minimize regulatory lag on the investment (an optimal filing might or might not be possible), this would result in the permanent loss of approximately five months of these costs, assuming the traditional interval between the rate case true-up cutoff date and the effective date of new rates (customers would also permanently lose benefits). The RESRAM contemplated by statute and the Commission's rule allows the avoidance of these losses by adjusting rates outside of a rate case to recover RES Compliance Costs net of RESRAM Benefits[2] that will also be passed back to customers. This resolves the conflict that would otherwise exist between the Company's obligations under the RES and its inherent interest in avoiding the financial detriment that would be created by investing such large sums of capital under traditional ratemaking practices.

IV. MINIMUM FILING REQUIREMENTS

Q. What are the items required for this filing by the Commission's rule, and where are these items located?

A. The rule has a substantial list of information required with the initial filing. Schedule SMW-D1 contains all of the information required by the rule.

V. DESIGN OF RESRAM

Q. Please provide a general description of how the mechanism would operate.

A. The rider will introduce a RESRAM line item on all retail customer bills that will add either a charge or a credit to customers' bills as a result of the incurrence of

[2] Capitalized terms or phrases used in my testimony, but not otherwise defined herein, have the meanings given to them in the rider filed concurrently with the filing of my testimony.

new RES Compliance Costs or pass-through of certain benefits of RES compliance, or as a result of changes to the level of those costs and benefits incurred relative to amounts reflected in existing base rates.

Q. Will RES Compliance Costs or RESRAM Benefits be captured by the RESRAM as of the initial rider effective date?

A. Yes. All RES Compliance Costs and RESRAM Benefits that are reflected in the rider will be used in the calculation of the RESRAM rate and tracking mechanism upon its effective date.

Q. How are sums currently being tracked in the RES tracker last approved in File No. ER-2016-0179 handled in the rider?

A. Those sums are being moved to the RESRAM because with the RESRAM, such tracking is no longer required. Therefore, the Company requests that the Commission authorize it to discontinue tracking under the existing mechanism simultaneously with the effective date of the rider's first Accumulation Period under the proposed RESRAM. The accumulated regulatory asset or liability which existed prior to the Commission's approval of this mechanism will be held and included in the Company's next rate case for recovery at that time.

Q. Please explain the specific design of the RESRAM.

A. The RESRAM rate charged to customers will be calculated according to a formula defined in the tariff sheets that implement the rider, as follows:

$$RESRAM_{Rate} = TRR_{Rate} + ROA, \text{ where:}$$

$$TRR_{Rate} = (ROUR + RRR + T + OA) / S_{RP,} \text{ and where:}$$

- ROUR is an over/under tracking mechanism,

- RRR is the revenue requirement associated with RES Compliance Costs and RESRAM Benefits that were not reflected in the revenue requirement used to establish current base rates,
- T is a true-up component,
- OA is a provision for ordered adjustments by the Commission,
- S_{RP} is the forecasted sales during the Recovery Period in which the rate will be in effect, and
- ROA is a provision to refund customers in the event the Commission orders a prudence disallowance of any RES Compliance Costs.

These and other components necessary to calculate the RESRAM rate are addressed in greater detail in the tariff sheets that reflect the rider that have been filed concurrently with the filing of my testimony. I will also discuss each of these provisions in more detail below.

Q. Please begin that discussion with the terms in the RESRAM rate calculation that provide the primary means of RES Compliance Cost recovery.

A. There are two primary components of the rider that provide for recovery of RES Compliance Costs.[3] First is the over/under tracking mechanism (ROUR from the rate formula described above). This over/under tracking mechanism will measure actual RES Compliance Costs incurred by the Company relative to the revenues that arise from the portion of current base rates that reflect the RES Compliance Costs included in the revenue requirement used to set those rates in the most recent general rate proceeding.

[3] References to RES Compliance Costs should always be taken to include RESRAM Benefits which will offset those costs, since those RESRAM Benefits will also be reflected in the rider.

The RES Compliance Costs considered will include the RES Compliance Costs that are currently tracked for inclusion in base rates in a future rate case as discussed above, plus the capital costs and associated income taxes, depreciation, O&M, and property taxes associated with all existing RES compliance assets. The RESRAM rider establishes a Base Factor ("BF") as a baseline, which is a cents/kilowatt-hour ("kWh") value that indicates the amount of the RES Compliance Costs just described that are reflected in the revenue requirement from the most recent general rate proceeding, per kWh of billing units established in that case. This BF will be multiplied by actual retail sales in each month to determine the RES Compliance Costs that have been covered by base rate revenues. That amount will be compared to actual RES Compliance Costs incurred to establish the over/under recovery applicable to that period. In this manner, over/under recoveries are tracked in discrete time periods called Accumulation Periods, and deferred to a regulatory asset or liability account as appropriate. The total amount of over- or under-recovery in an Accumulation Period is built into the RESRAM rate, which is designed to recover (or return to customers) the balance from that Accumulation Period over a pre-determined period of time, called a Recovery Period. This basic Accumulation Period/Recovery Period approach is similar in some respects to how the Company's Rider FAC ("FAC") is designed.

When new renewable generation, like the planned wind additions, goes into service, the associated costs, including a return on rate base, would immediately be included in the actual RES Compliance Costs calculated for the RESRAM over/under mechanism. Because these costs are not reflected in current rates since they did not exist when base rates were last set, the entirety of the costs of the wind additions would show

up as an under-recovery and would be eligible for recovery in a future Recovery Period as a part of the over/under tracking mechanism.

Q. Have you calculated an initial BF for the rider based on the RES Compliance Costs included in the Company's revenue requirement in File No. ER-2016-0179?

A. Yes. The initial BF for RES Compliance Costs was calculated by starting with the $16.5 million of expense that was identified as the level of RES expense included in the tracker baseline in File No. ER-2016-0179, and adding a return on and return of capital costs (including income taxes), O&M, and property taxes associated with the Company's current RES compliance assets – the Maryland Heights Energy Center (landfill gas), the O'Fallon Renewable Energy Center (solar) and the Ameren General Office Building solar arrays. The initial BF, which is the term in the rider that establishes the baseline amount of RES Compliance Costs that are reflected in current rates on a per kWh basis, will be $0.00086/kWh. This is based on:

- the $16.5 million of expenses included in the RES tracker baseline in rates from File No. ER-2016-0179, plus
- $3.9 million to reflect a pre-tax return on capital for the facilities listed previously, plus
- $2.7 million to reflect a return of capital through depreciation expense associated with the facilities listed previously, plus
- $0.5 million in property taxes associated with those facilities, plus
- $3.8 million in O&M associated with those facilities,

- with the sum of the foregoing five items to be divided by 31.8 billion kWh (the total retail sales included in the billing units listed in the approved Stipulation and Agreement in File No. ER-2016-0179).

Q. You stated above that there are two primary components of the rider that provide for recovery of RES Compliance Costs. The over/under tracking mechanism (ROUR) just discussed was the first. What is the second?

A. The second component built into the RESRAM rate to provide cost recovery associated with new RES compliance investments is the RES Revenue Requirement (factor RRR in the RESRAM rate formula above). This is, in essence, an interim rate component of the RESRAM that is required to allow recovery of new RES Compliance Costs/return of new RESRAM Benefits that cannot be reflected in base rates until the completion of a new rate case. The RES Revenue Requirement will be calculated by assessing the costs and benefits associated with new RES compliance assets placed into service prior to the end of the most recent RESRAM Accumulation Period.[4] The revenue requirement associated with these investments and activities will be reflected in the determination of the RESRAM rate for the coming Recovery Period, thereby providing for recovery outside of a rate case as required by the RES.

When factor RRR reflects a RES Revenue Requirement directly in the RESRAM rate, a new factor will be developed and added to the BF, to reflect the fact that these RES Compliance Costs are being recovered directly in a rate charged to all customers (the RESRAM rate itself), and no longer need to be tracked in the over/under mechanism. By adding this RESRAM Base Factor ("RBF") to the Base Factor that accounts for RES

[4] As provided for in the rider, the impact of expiring Production Tax Credits after 10 years would also be reflected.

Compliance Costs covered by base rate revenues prior to multiplying by actual sales in the Accumulation Period, all revenues available in that Accumulation Period to cover RES Compliance Costs will be reflected in the amount that is compared to actual RES Compliance Costs incurred in the determination of factor ROUR (the over/under tracking mechanism).

Q. Which RES Compliance Costs and benefits will, and which will not, be included in the determination of the RESRAM?

A. With one notable exception (that is the subject of a variance request as further discussed below), all RES Compliance Costs and all benefits arising from RES compliance will be reflected in the RESRAM.[5] RES Compliance Costs include the return on capital deployed for RES compliance investments including associated income taxes, depreciation expense, O&M, and property taxes. Benefits that flow through the RESRAM and offset the costs just described will include Production Tax Credits ("PTCs") earned through the operation of wind generation. The benefit that will not be reflected in the RESRAM is the incremental market revenues that will be earned from the sale of wind generator output (or the output of any other RES compliance generator) into wholesale energy markets. This will manifest itself as an increase in off-system sales (energy and capacity) to the extent the Company has more generation than load in a given hour that the renewable generation operates, or a reduction in purchased-power expense in the other hours. These benefits that come in the form of higher off-system sales revenues or avoided purchased-power costs resulting from the generation are already

[5] As discussed briefly later in my testimony, additional costs would be potentially excluded if they were subject to recovery under the provisions of legislation that is currently under consideration by the Missouri General Assembly.

reconciled to the amount reflected in base rates through the operation of the Company's Rider FAC. I will discuss later in my testimony one exception to the exclusion of this benefit from the RESRAM, which relates to the 95%/5% sharing that is applied to costs and revenues that flow through the FAC. But that issue aside, because the FAC mechanism exists, and by its definition encompasses the changes in off-system sales revenues and purchased-power costs, it is unnecessary to flow these changes through the RESRAM. It would be a significant and unnecessary complication of both mechanisms to carve those benefits out of the FAC in order to include them in the RESRAM. As a result, good cause exists to grant a variance from the RES rule's requirement that all benefits arising from RES compliance be reflected in the RESRAM.

Q. Please discuss the other items in the RESRAM rate formula, beginning with the true-up provision, factor T.

A. Factor T in the RESRAM rate formula is designed to simply true-up the revenues actually billed under the RESRAM to the level the rate was intended to collect. There is a very similar provision in the Company's existing FAC. In each Recovery Period, the total revenues billed under the RESRAM *excluding those that arise from factor RRR*, will be compared to the total costs (net of benefits) reflected in the RESRAM rate formula that developed the rate that was in effect during the Recovery Period, *also excluding those that arise from factor RRR*.

Q. Why is it necessary to exclude the RES Compliance Costs associated with the factor RRR from the true-up in factor T?

A. Recall that an RBF was developed to ensure that revenues under the RESRAM that were designed to directly cover new RES Compliance Costs on an interim

basis are reflected in the over/under determination. As such, the over/under already incorporates a true-up-like feature for these revenues. This should be easy to implement and transparent due to the existence of the RBF, which quantifies on a per kWh basis the RES Compliance Costs that are directly covered by RESRAM revenues on an interim basis until they are reflected in the revenue requirement underlying new base rates.

Q. Please provide an example of the true-up calculation.

A. A sample true-up calculation utilizing a series of illustrative assumptions for relevant inputs is shown in Table 1 below:

Table 1: RESRAM True-up (T) Calculation

Line	Description	Value (*$ in millions)*	Source
1	ROUR	$2.0	Illustrative Assumption
2	RRR	$30.0	Illustrative Assumption
3	T	$0.0	Illustrative Assumption
4	OA	$0.0	Illustrative Assumption
5	Sum of RESRAM Costs/Benefits	$32.0	Sum of lines 1-4
6	S_{RP} (MWh)	30,000,000	Illustrative Assumption
7	ROA	0	Illustrative Assumption
8	RESRAM Rate ($/kWh)	$0.00107	Line 5 / Line 6 * 1000
9	RESRAM Base Factor (RBF)	$0.00100	Line 2 / Line 6 * 1000
10	Planned Revenues excluding RRR	$2.0	Line 5 - Line2
12	S_{AP} (MWh)	28,500,000	Illustrative Assumption, 95% of S_{RP}
13	Total RESRAM Revenues	$30.4	Line 8 x Line 12 / 1000
14	RESRAM Revenues excluding RRR	$1.9	(Line 8 - Line 9) x Line 12 /1000
16	True-up (T) for future RESRAM filing	$0.1	Line 10 - Line 14

In Table 1, there is an assumption that the prior Accumulation Period used to establish the rate for an illustrative current Recovery Period resulted in an under-recovery (factor ROUR) of RES Compliance Costs of $2 million (line 1), and that a RES Revenue Requirement (RRR) was calculated as of the end of that Accumulation Period of $30 million (line 2). There were no True-ups (T) (line 3) or Ordered Adjustments (OA)

(line 4) associated with that Accumulation Period so the total costs (line 5) that the Recovery Period rate is being designed to cover are $32 million, the sum of factors ROUR and RRR. The forecasted sales in the Recovery Period at the time the rate is calculated are 30 million megawatt-hours ("MWh") (line 6), resulting in a RESRAM rate of $0.00107/kWh (line 8). The RBF is $0.00100/kWh, which is the $30 million RRR divided by the 30 million MWh in forecasted Recovery Period sales.

Assume that when the Recovery Period has occurred, experienced sales were 5% lower than the forecasted sales used to develop the RESRAM rate, or 28.5 million MWh. Applying the RESRAM rate of $0.00107/kWh to that total results in RESRAM revenues of $30.4 million, or $1.6 million less than the rate was designed to collect. Note that in the next Accumulation Period, factor ROUR (the over/under mechanism) will capture $1.5 million of the revenue shortfall associated with the RES Revenue Requirement when factor RBF ($0.00100/kWh) is multiplied by the 28.5 million MWh of sales in that Accumulation Period instead of the 30 million MWh that had been forecasted (i.e., (30 million MWh – 28.5 million MWh) x $0.00100/kWh x 1000 MWh/kWh = $1.5 million). The remaining $0.1 million of revenue shortfall is associated with the recovery of the prior Accumulation Period over/under amount. That $0.1 million shortfall in the revenues intended to be collected, which is not otherwise accounted for in the current over/under calculation, would be the value of the True-up, factor T, in the next RESRAM rate filing.

Q. Are there any variances associated with the True-Up provision requested by the Company?

A. Yes. While it is not entirely clear that this would require a variance, out of an abundance of caution, the Company is highlighting this issue. The RES rule requires a reconciliation of revenues billed versus those that the rate was designed to collect to occur at the end of each twelve month period. Because the Company is requesting flexibility in the length of Accumulation Periods and Recovery Periods, the Company also requests that such reconciliation of revenues occur on a schedule tied to the Recovery Periods designated in each filing. Recall that these will default to twelve months, so generally they will still occur at the times outlined in the rule. But the potential exists for Recovery Period, and therefore True-up, intervals that are not precisely twelve months.

Q. Please explain factor OA from the RESRAM rate formula.

A. OA stands for Ordered Adjustments, and simply provides a mechanism for the Commission to adjust the RESRAM rate for any calculation errors or rates that went into effect where the Commission later found the RESRAM rate should have been different under the terms of the approved rider. I will discuss this provision in more detail later, when addressing one of the variances the Company has requested.

Q. How will Ameren Missouri's RESRAM be compliant with the prudence review requirements of the rule?

A. The rule requires that a prudence review shall be conducted on a company's RESRAM; however, it does not specify how often these reviews are to be conducted. Per the rider being submitted by Ameren Missouri, these prudence reviews will be conducted no less frequently than every twenty-four (24) months. The prudence review of RES compliance investments not previously considered in a rate case will also

be subject to consideration in any general rate case filed by the Company. Once any particular RES Compliance Cost has been through a review in a rate proceeding, that same cost will no longer be subject to consideration in prudence reviews under the rider. During these reviews, if any costs are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of the Rider RESRAM, they shall be credited to customers through future adjustments to the RESRAM by the addition of the RESRAM Offset Adjustment Rate ("ROA"). The ROA is the total amount ordered to be reconciled by the Commission, divided by the Disallowance Period Energy ("DPE"), which consists of the estimated retail kWh sales in the first six months following the adjustment of rates to reflect the disallowance. The DPE ensures that the utility reconciles any costs or benefits disallowed by the Commission as a result of a prudence review in the first six months of the following Recovery Period to ensure timely pass-through to the customers, as required by 4 CSR 240-20.100(6)(A)11. These amounts will include monthly interest at the Company's monthly short-term borrowing rate.

Q. Is there a variance being sought regarding any rule provision as it pertains to the adjustment of rates for prudence disallowances?

A. Yes. The rule requires that rates be adjusted "immediately" upon the Commission's order of a disallowance, but the rule also requires that rates be adjusted only once per calendar year with an exception for re-setting the rate after a rate case. If the Commission's finding of a disallowance occurred in the context of a general rate proceeding, this would not cause a problem. But if the disallowance was ordered in a prudence review under the terms of the rider, the Company would not be able to comply with both the provision that requires an immediate return of the disallowed amount and

the provision that requires only one rate adjustment per calendar year. To reconcile this conflict inherent in the rule, the Company requests a variance from the one filing per calendar year provision in the event there is a disallowance that arises from a RESRAM prudence review. The conflict inherent in the existing rule is good cause for this variance.

Q. Are there any other features of the design of the RESRAM that are important to highlight at this time?

A. Yes. I will discuss two additional provisions, one of which requires a variance from the Commission's RESRAM rules, prior to providing an illustration of the expected operation of the RESRAM. The illustration will highlight the need for and value of these design elements. First, the Company is proposing flexibility in the frequency of filing RESRAM rate updates, and associated with that flexibility, variable length Accumulation Periods and Recovery Periods (this will be explained in additional detail in the illustration below). This is important because of the size of the investments that are expected to go into service and the importance of updating rates promptly upon the in-service dates of the wind assets.

Second, the Company is proposing a variance from the rule that requires a RESRAM rate to be reset to zero upon inclusion of the costs being recovered in a RESRAM into base rates. While setting the component of the rate that is collecting the ongoing revenue requirement associated with new RES Compliance Costs/RESRAM Benefits (RRR) on an interim basis to zero when those ongoing costs become subject to permanent base rate recovery is logical and necessary, RESRAM over/under balances that deal with reconciling historic cost/revenue imbalances that are not addressed in base rates should continue to be timely collected in the RESRAM. Setting the recovery of the

over/under reconciling rate to zero unnecessarily delays recovery or refund of potentially significant amounts and unnecessarily increases carrying costs. I will illustrate these issues below.

VI. ILLUSTRATION OF RESRAM OPERATION

Q. Please walk through the scenario of RES compliance investments that you will use to describe the operation of the RESRAM.

A. Recall that the Company's IRP calls for the addition of at least 700 MW of wind generation. Due to the time period during which PTCs are available, the Company's goal is to have this wind capacity in place by the end of 2020. For purposes of this illustration, I will assume that in total 750 MW are added in two discrete projects at different times in 2020. I further assume, for simplicity in illustrating the operation of the RESRAM, that no general rate proceeding is conducted during this sequence. While I use some generic assumptions about the timing, size, and cost of projects, my example is sufficient to work through the mechanics of the filings, rates, and other operations of the RESRAM. The specific numbers in my example, however, are just illustrative and will be replaced with project specific information when actual rate calculations and filings occur.

For this purpose, the first project for which RESRAM recovery would be sought is assumed to be a 400 MW wind facility that goes into service in June of 2020 at a cost of approximately $700 million. For the second project, I assume that 350 MW of wind goes into service in December 2020, at a cost of $650 million. The full assumptions I utilize for these projects in this example are summarized in Table 2 below:

Table 2: Illustrative Assumptions for Wind Projects Recovered Through RESRAM

($ in Millions)	**Wind #1**	**Wind #2**
Installed Capacity (MW)	400	350
Investment Amount	$700	$650
Pre-tax ROR	8%	8%
Annual Depreciation Expense	$35	$33
Property Tax Factor (Annual Expense as a % of Gross Investment)	2.0%	2.0%
O&M Factor (Annual Expense as a % of Gross Investment)	2.0%	2.0%
Annual PTC Benefit	$35	$31
Annual Revenue Requirement	$72.0	$69.4
Monthly Revenue Requirement[6]	$6.0	$5.8

Q. Please walk through how the RESRAM would operate to enable recovery of the costs associated with these investments, along with reconciling ongoing RES Compliance Costs versus those currently reflected in base rates.

A. To aid understanding, as I walk through the RESRAM's operation based on the assumptions outlined above, please refer to Schedule SMW-D2, which graphically shows the timing of the Accumulation Periods, RESRAM rate filings, and Recovery Periods through the fifth Accumulation Period, which I will narratively address below.

Assume the RESRAM takes effect January 1, 2019. The first Accumulation Period, during which actual RES costs will be reconciled with those recovered in base rates, is designated in the filed tariff to end in June of 2019, and so would cover the six months of January through June. For this purpose, I have generated a series of illustrative monthly RES cost variances that would be accumulated over the course of the period. For illustrative purposes, I have used random variances that are relatively small, as there are no major RES compliance investments planned to go into service during that timeframe

[6] Note that in practice, the depreciation and rate base effects of the new investment would be reflected using a half-month convention in the first month that the asset goes into service. As a simplifying assumption in this illustration, I have shown the full monthly revenue requirement in each month.

or any other factors currently identified that would be expected to produce major RES cost changes during that six month period. Assume that over that six month period, RES actual costs are about $400,000 lower than the amount reflected in base rates, resulting in an over recovery to be returned to customers through the next RESRAM rate adjustment.

Upon the conclusion of the first Accumulation Period that resulted in the $400,000 over recovery, the Company would prepare and file a rate adjustment by the end of August of 2019 designed to return that $400,000 to customers over the first Recovery Period.

Recall that with each filing, the Company will designate the length of the next Accumulation Period and Recovery Period, giving consideration to the timing of any expected significant RES compliance assets going into service. With the prospect of $700 million in wind generation investments going into service in June 2020, when it makes its late August 2019 filing, the Company would designate the next (the second) Accumulation Period to cover the default twelve-month timeframe (July 2019 through June 2020),[7] because the end of that period would coincide with the expected in-service date of the first major wind project. This will allow it to make its next RESRAM rate filing by the end of August 2020 so that it can reflect the addition of the new wind directly in the RESRAM rate at the earliest opportunity. Because each Recovery Period will always match the duration of the Accumulation Period designated in a RESRAM rate filing (twelve months for the August 2019 rate filing), the first Recovery Period, over which the $400,000 would be returned to customers, would be the billing months of January 2020 through December 2020. Please note that a Recovery Period will always

[7] The rider tariff sheets provide that each successive Accumulation Period begins on the first day after the last Accumulation Period ended.

start on the first day of the billing month that begins late in the sixth month following the end of an Accumulation Period (in order to allow time to prepare the rate filing and to allow Commission's Staff ("Staff") and interested parties to review the filing prior to a Commission order authorizing the rate – in this circumstance, the January billing month officially opens late in December 2019, the sixth month after the end of the Accumulation Period ending in June). As noted, the timing and duration of these events is depicted on Schedule SMW-D2. The RESRAM rate effective with the January billing month would be a per kWh credit of $400,000 divided over the projected Recovery Period 1 retail sales. Using a generic assumption of 2.6 billion kWh per month in retail sales,[8] the RESRAM rate for the twelve month Recovery Period 1 would be a credit of approximately $0.00001/kWh ($400,000 / (2.6 billion kWh/month x 12 months)).

Q. Please proceed to discuss Accumulation Period 2.

A. Accumulation Period 2, as discussed just above, was designated to cover the twelve months ending June 2020 in order to time the next rate adjustment as close as possible to the in-service date of the first wind project. Monthly variances in pre-existing RES Compliance Costs would continue to be accumulated over these months, but starting on June 1 when the first wind project goes into service, the actual RES Compliance Costs would suddenly increase by the $6 million monthly revenue requirement of the first wind project, resulting in a large under-recovery of RES costs in that month. The rate filed in late August would be designed to reflect two components: the ongoing $6 million monthly revenue requirement of the new wind farm (in factor RRR), and the under-recovery that was experienced in Accumulation Period 2 (as a result of the wind project

[8] This is based on the total billing units from the Stipulation and Agreement in File No. ER-2016-0179 divided evenly over 12 months for simplicity in this illustration.

going into service on June 1 in factor ROUR). Also, because a second wind project is expected in this illustration to go into service in December, when the Company makes its August 2020 RESRAM rate filing it would designate Accumulation Period 3 as spanning the six months ending in December 2020. This would result in the next RESRAM rate filing occurring in late February 2021 in order to incorporate the revenue requirement of the second wind project into the RESRAM rate as quickly as possible. The calculations of the rate applicable to Recovery Period 2 are illustrated in Table 3 below:

Table 3: Determination of Recovery Period 2 RESRAM Rate

Year	2019	2019	2019	2019	2019	2019	2020	2020	2020	2020	2020	2020
Month	7	8	9	10	11	12	1	2	3	4	5	6
Accumulation Period	2	2	2	2	2	2	2	2	2	2	2	2
AP RR "Wind #1" O/U	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$6.0
AP Monthly Pre-Existing O/U	$0.2	-$0.1	$0.0	-$0.1	-$0.1	$0.2	-$0.1	$0.1	-$0.2	$0.0	-$0.2	$0.1
Monthly Total O/U	$0.2	-$0.1	$0.0	-$0.1	-$0.1	$0.2	-$0.1	$0.1	-$0.2	$0.0	-$0.2	$6.1
AP TOTAL Cumulative O/U	$0.2	$0.0	$0.0	-$0.1	-$0.2	$0.0	-$0.1	$0.0	-$0.3	-$0.3	-$0.4	$5.7

All $ in millions

Line#		
1	Total Under-recovery in AP 2 (from above)	$5.7
2	Wind #1 Monthly Rev. Req. (from above)	$6.0
3	Months in Recovery Period 2	6
4	Wind #1 Recovery Period Rev. Req. (Line 2 x Line 3)	$36
5	Total RP Costs (Line1 + Line 4)	$42
6	Forecast Sales per Month of RP (GWh)	2,653
7	Recovery Period Forecasted Sales (Line 3 x Line 6)	15,919
8	Recovery Period 2 RESRAM Rate ($/kWh) (Line 5 / Line 7)	$0.00262

Q. Please walk through Table 3.

A. The upper portion of the table simply tracks the over/under recovery of RES costs in Accumulation Period 2. The 4th and 5th lines respectively in that table show

the monthly under-recoveries of the first wind project (note that there is only a non-zero entry in June, the month this project goes into service and costs begin to be incurred) and the rest of the pre-existing RES compliance investments and activities (these again are just randomly generated variances, since we do not yet know the nature of those future variances). The 6th line sums the over/under recoveries of the wind and the pre-existing RES costs in each month, and the 7th line accumulates those total monthly over/under recoveries for the Accumulation Period, resulting in a total under-recovery for Accumulation Period 2 of $5.7 million.

The lower portion of the table actually computes the RESRAM rate for the coming Recovery Period (Recovery Period 2) based on Accumulation Period 2. Line 1 carries the $5.7 million under-recovery down from the upper portion of the table, as the rate for Recovery Period 2 needs to reflect the recovery of these costs. Line 2 shows the estimated monthly revenue requirement of the wind project that now is in service, and should be recovered in the RESRAM rate on an ongoing basis (until sometime in the future when a rate case is completed that moves the cost of the wind into base rates). Line 3 simply shows the number of months of Recovery Period 2, which was designated to be 6 months. Line 4 multiplies the monthly revenue requirement of the wind by the number of months in Recovery Period 2 in order to determine the total cost of the wind that needs to be built into the rate. Line 5 sums the Accumulation Period 2 under-recovery and the Recovery Period 2 revenue requirement associated with the wind in order to come up with the total RES costs to be reflected in the RESRAM rate. Line 6

shows the assumed forecasted monthly Recovery Period 2 sales,[9] which is multiplied by the 6 months in Recovery Period 2 in Line 7 to come up with total billing units with which to develop the RESRAM Rate. Line 8 divides the total Recovery Period 2 RES costs in Line 5 by the billing units from Line 7 to compute the Recovery Period 2 RESRAM rate of $0.00262/kWh. This rate would be charged for all kWh of retail service provided by the Company during the billing months of January through June 2021.

Q. Please move on to discuss Accumulation Period 3.

A. Accumulation Period 3 covers the months of July through December 2020. Note that even though the revenue requirement associated with the first wind project is set to be incorporated into the RESRAM rate for Recovery Period 2, because of the time needed to file and gain approval of that rate, the rate from Recovery Period 1 is still in effect while Accumulation Period 3 takes place, which does not reflect the cost of the wind project. Therefore, the impact of the wind on RES costs still manifests itself as an under-recovery of the entire wind revenue requirement. Then in December, the second wind project goes into service, resulting in a new under-recovery in that month associated with the costs of that now in-service project. Table 4 below summarizes all of the activity in Accumulation Period 3 and calculates the rate applicable to Recovery Period 3. Note that, with no new expected major investments to be placed in service in 2021, Accumulation Period 4 returns to the default length of twelve months and therefore the Recovery Period 3 rate will be developed to be in effect for twelve months.

[9] Note that for simplicity in this illustration, the forecasted Recovery Period sales are assumed to be constant month to month. In practice, the Company's sales forecast, which reflects seasonality and other factors will be used to establish the forecasted Recovery Period sales.

Table 4: Determination of Recovery Period 3 RESRAM Rate

Year	2020	2020	2020	2020	2020	2020
Month	7	8	9	10	11	12
Accumulation Period	3	3	3	3	3	3
AP RR "Wind #1" O/U	$6.0	$6.0	$6.0	$6.0	$6.0	$6.0
AP RR "Wind #2" O/U	$0.0	$0.0	$0.0	$0.0	$0.0	$5.8
AP Monthly Pre-Existing O/U	-$0.1	-$0.1	-$0.1	$0.0	-$0.1	$0.0
Monthly Total O/U	$5.9	$5.9	$5.9	$6.0	$5.9	$11.8
AP TOTAL Cumulative O/U	$5.9	$11.8	$17.7	$23.7	$29.6	$41.4

All $ in millions

Line #		
1	Total Under-recovery in AP 3 (from above)	$41.4
2	Wind #1 Monthly Rev. Req. (from above)	$6.0
3	Wind #2 Monthly Rev. Req. (from above)	$5.8
4	Months in Recovery Period 3	12
5	Wind #1&2 Recovery Period Rev. Req. ((Line 2 + Line 3) x Line 4)	$141
6	Total RP Costs (Line1 + Line 5)	$183
7	Forecast Sales per Month of RP (GWh)	2,653
8	Recovery Period Forecasted Sales (Line 4 x Line 7)	31,837
9	Recovery Period 3 RESRAM Rate ($/kWh) (Line 6 / Line 8)	$0.00574

Q. Please explain Table 4.

A. Like the previous tables, the upper portion of this table simply tracks the over/under recovery of RES costs in the subject Accumulation Period (AP), this time Accumulation Period 3. There has been a line added to the upper table to show the second wind project going into service, so now the 4th through 6th lines respectively in that table show the monthly under-recoveries of the first wind project (note that the under-recovery of the first wind project's costs continues during Accumulation Period 3 while the rate for Recovery Period 2 is pending Commission approval), the second wind project (like the first wind project in Table 3, in this Accumulation Period the second wind project only shows costs for the last month, which is the month it goes into service),

and the rest of the pre-existing RES compliance investments and activities (randomly-generated variances). The 7th line sums the over/under recoveries of the costs of the wind projects and the pre-existing RES costs in each month, and the 8th line accumulates those total monthly over/under recoveries for Accumulation Period 3, resulting in a total under-recovery for Accumulation Period 3 of $41.4 million.

Also following the pattern of the previous tables, the lower portion of Table 4 actually computes the RESRAM rate for Accumulation Period 3. Line 1 carries the $41.4 million under-recovery down from the upper portion of the table, as the rate for Recovery Period 3 needs to reflect the recovery of these costs. Lines 2 and 3 respectively show the estimated monthly revenue requirement of the wind projects that now are in service, and should be recovered in the RESRAM rate on an ongoing basis (until sometime in the future when a rate case is completed that moves the cost of the wind into base rates). Line 4 simply shows the number of months of Recovery Period 3, which was designated to be 12 months. Line 5 multiplies the sum of the monthly revenue requirements of the two wind projects by the number of months in the Recovery Period in order to determine the total cost of the wind that needs to be built into the rate. Line 6 sums the Accumulation Period 3 under-recovery and the Recovery Period 3 revenue requirement associated with the wind in order to come up with the total RES costs to be reflected in the RESRAM rate. Line 7 shows the assumed forecasted monthly Recovery Period sales, which is multiplied by the 12 months in Recovery Period 3 in Line 8 to come up with total billing units with which to develop the RESRAM Rate. Line 9 divides the total Recovery Period RES costs in Line 6 by the billing units from Line 8 to compute the Recovery Period 3 RESRAM rate of $0.00574/kWh. This rate would be charged for all

kWh of retail service provided by the Company during the billing months of July 2021 through June 2022.

Q. Please describe the RESRAM rate development for Accumulation Period 4.

A. Accumulation Period 4 covers the months of January through December 2021. Note that in January 2021, Recovery Period 2 begins and the revenue requirement associated with the first wind project is incorporated directly into the RESRAM taking effect at that time. However, the second wind project will not be reflected in the RESRAM rate until Recovery Period 3 takes effect in July 2021. As such, the second wind revenue requirement still results in an under-recovery in the first six months of Accumulation Period 4. Table 5 below summarizes all of the activity in Accumulation Period 4 and calculates the rate applicable to Recovery Period 4. Note that again, with no new major investments expected to be placed in service in 2022, Accumulation Period 5 remains at the default length of twelve months and therefore the Recovery Period 4 rate will be developed to be in effect for twelve months.

Table 5: Determination of Recovery Period 4 RESRAM Rate

Year	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021
Month	1	2	3	4	5	6	7	8	9	10	11	12
Accumulation Period	4	4	4	4	4	4	4	4	4	4	4	4
AP RR "Wind #1" O/U	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
AP RR "Wind #2" O/U	$5.8	$5.8	$5.8	$5.8	$5.8	$5.8	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
AP Monthly Pre-Existing O/U	-$0.2	$0.1	$0.0	$0.2	$0.1	-$0.2	-$0.5	-$0.2	-$0.1	$0.1	$0.1	-$0.2
Monthly Total O/U	$5.6	$5.9	$5.8	$6.0	$5.9	$5.6	-$0.5	-$0.2	-$0.1	$0.1	$0.1	-$0.2
AP TOTAL Cumulative O/U	$5.6	$11.5	$17.3	$23.3	$29.1	$34.7	$34.2	$34.1	$34.0	$34.1	$34.2	$34.0

All $ in millions

Line #		
1	Total Under-recovery in AP 4 (from above)	$34.0
2	Wind #1 Monthly Rev. Req. (from prior AP)	$6.0
3	Wind #2 Monthly Rev. Req. (from above)	$5.8
4	Months in Recovery Period 4	12
5	Wind #1 Recovery Period Rev. Req. ((Line 2 + Line 3) x Line 4)	$141
6	Total RP Costs (Line1 + Line 5)	$175
7	Forecast Sales per Month of RP (GWh)	2,653
8	Recovery Period Forecasted Sales (Line 4 x Line 7)	31,837
9	Recovery Period 4 RESRAM Rate ($/kWh) (Line 6 / Line 8)	$0.00551

Q. Please explain Table 5.

A. Like the previous tables, the upper portion of this table simply tracks the over/under recovery of RES costs in the subject Accumulation Period, this time Accumulation Period 4. The 4th through 6th lines respectively in that table show the monthly under-recoveries of the first wind project (note that the under-recovery of the first wind project's costs are now zero because it is fully reflected in factor RRR upon commencement of Recovery Period 2 in January), the second wind project (this wind revenue requirement does not show up in the RESRAM rate until Recovery Period 3 begins in July and therefore is manifest as an under-recovery for the months of January – June), and the rest of the pre-existing RES compliance investments and activities

(randomly-generated variances). The 7th line sums the over/under recoveries of the costs of the wind projects and the pre-existing RES costs in each month, and the 8th line accumulates those total monthly over/under recoveries for the Accumulation Period, resulting in a total under-recovery for Accumulation Period 4 of $34 million.

Also following the pattern of the previous tables, the lower portion of Table 5 actually computes the RESRAM rate for Accumulation Period 4. Line 1 carries the $34 million under-recovery down from the upper portion of the table, as the rate for Recovery Period 4 needs to reflect the recovery of these costs. Lines 2 and 3 respectively show the estimated monthly revenue requirement of the wind projects that now are in service, and should be recovered in the RESRAM rate on an ongoing basis (until sometime in the future when a rate case is completed that moves the cost of the wind into base rates). Line 4 simply shows the number of months of the Recovery Period, which was designated to be 12 months. Line 5 multiplies the sum of the monthly revenue requirements of the two wind projects by the number of months in the Recovery Period in order to determine the total cost of the wind that needs to be built into the rate. Line 6 sums the Accumulation Period 4 under-recovery and the Recovery Period 4 revenue requirement associated with the wind in order to come up with the total RES costs to be reflected in the RESRAM rate. Line 7 shows the assumed forecasted monthly Recovery Period sales, which is multiplied by the 12 months in the Recovery Period in Line 8 to come up with total billing units with which to develop the RESRAM Rate. Line 9 divides the total Recovery Period RES costs in Line 6 by the billing units from Line 8 to compute the Recovery Period 4 RESRAM rate of $0.00551/kWh. This rate would be charged for

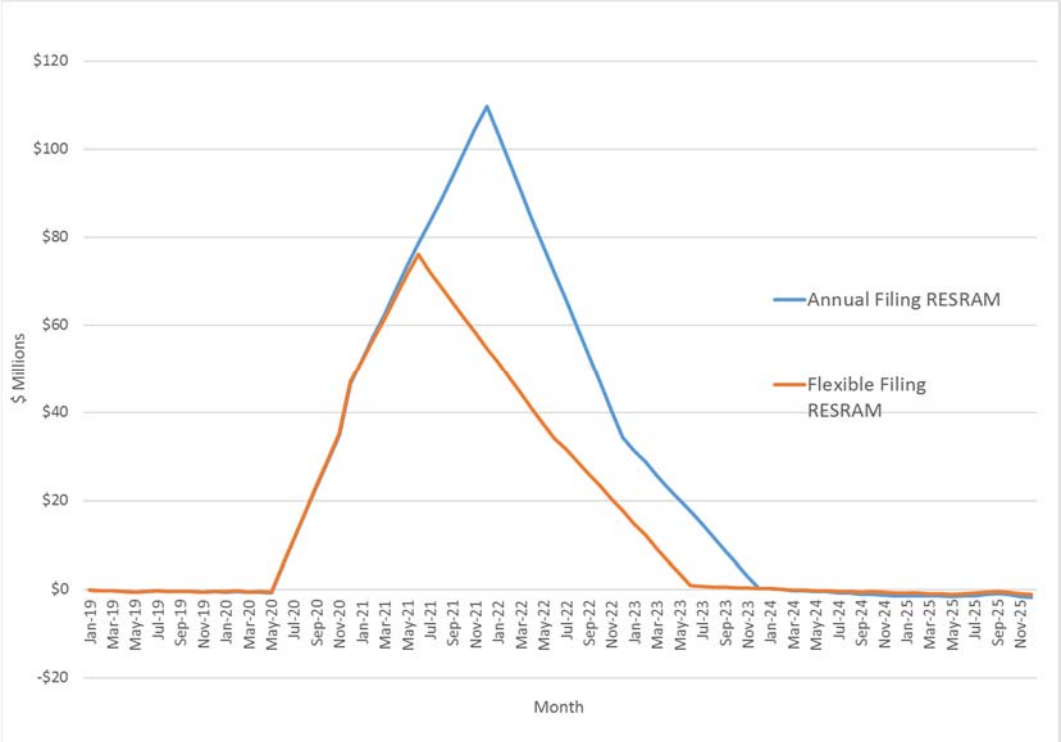
all kWh of retail service provided by the Company during the billing months of July 2022 through June 2023.

Q. At this point you have provided an illustration of the RESRAM operations needed to recover the costs during the transition of new wind projects into service. Can you please use this example to explain why the flexibility in designating the length and timing of Accumulation Periods and Recovery Periods is necessary?

A. In the previous discussions of Accumulation Periods 2 and 3, notice that the revenue requirement associated with new wind projects starts out being recovered as an under-recovery of actual RES costs for about the first seven months of the life of the asset, before being built directly into the RESRAM rate as essentially an interim form of base rate recovery. This phenomenon was limited to seven months for each new wind asset due to the flexibility of the timing of rate filings. However, if the RESRAM filing dates were based on a set annual schedule, these periods that result in the wind revenue requirement flowing into the over/under recovery mechanism would be substantially extended for at least one, and perhaps both, of the wind projects. This means that the over/under balance, which would be accounted for with a regulatory asset subject to recovery in a future RESRAM filing, would grow very large. The Commission's RESRAM rules require that over/under balances be credited with interest at the Company's short-term borrowing rate. Short-term interest makes sense for deferred recovery of costs that fluctuate to a fairly small degree and may swing up or down from time to time. However, short-term interest is not a suitable carrying cost for balances that could reach many tens of millions of dollars and be outstanding in a regulatory asset or

liability for relatively long periods. And regardless of the interest rate applied to outstanding balances, the goal of the RESRAM is to timely reflect RES Compliance Costs and RESRAM Benefits for new RES compliance investments. As a result, a tariff design, like the flexible Accumulation Period/Recovery Period methodology proposed by the Company, that allows a larger proportion of the RES costs to be recovered on a timely basis, should be preferred. Figure 1 below compares the size of the regulatory asset balance that would be expected over time based on the illustrative modeling of the RESRAM discussed above,[10] based on flexible filing dates as compared to that balance if we were constrained to using only scheduled annual filings.

Figure 1: RESRAM Cumulative Over/Under Regulatory Asset Balance



[10] This graph further assumes that a general rate case is not filed and that the RESRAM is the primary means of ongoing cost recovery. The timing of a general rate case that moves the wind costs into base rates would potentially impact the size of the regulatory asset over time.

Notice in Figure 1 that without flexibility in the filing periods, the regulatory asset (i.e., costs that have yet to be recovered and are deferred at short-term interest) approaches $110 million at its highest point and stays above $75 million for a full year. Even if the Company filed a general rate proceeding timed to move the wind assets into base rates as early as possible to mitigate the delay in recovery of some portion of these costs, the regulatory asset would still be smaller under the flexible filing schedule proposed by the Company than it would under a pre-determined annual schedule.

Q. Do the Commission's rules allow for this filing flexibility?

A. Yes. The Commission's rules indicate that a utility may file a RESRAM rate update up to once per "calendar year" but do not dictate when in each year that filing should occur. I explained the value of this feature because there are some additional complications in creating the flexibility, and I wanted to make sure the Commission understands the benefits that also come along with it.

Q. Please turn to a discussion of what happens in the RESRAM when a general rate proceeding is conducted that results in the inclusion of the costs of the new wind assets in the revenue requirement that is reflected in base rates.

A. When rates go into effect from a rate case that has a true-up cut-off date after the new wind assets are placed in service, the revenue requirement associated with them will become subject to base rate recovery. At the time those rates become effective, it is appropriate to remove the costs of the wind assets from the RES Revenue Requirement used to set the RESRAM rate and file a new RESRAM rate reflecting this change (i.e., to terminate the application of the interim rate factor in the RESRAM). Commensurate with its filing of compliance tariffs to implement the Report and Order in

the general rate case, the Company would also file a new RESRAM tariff sheet that would set the RES Revenue Requirement factor of the RESRAM rate to zero and recalculate the RESRAM rate using just the other components (Over/Under, True-Up, Ordered Adjustments).

Q. Do the Commission's rules speak to this process?

A. Yes. The Commission's rules allow an extra RESRAM rate filing within a calendar year in order to set the RESRAM rate to zero following the conclusion of a general rate case that provides base rate recovery of RES Compliance Costs previously reflected in the RESRAM. However, the rule indicates that the *full* RESRAM rate should be set to zero, and any existing over- or under-recovery balance should be deferred for inclusion in a future RESRAM rate filing. The Company is requesting a variance from this provision, such that the RESRAM rate is adjusted upon conclusion of a rate case to remove the RES Revenue Requirement that is being moved to base rates from the RESRAM rate, but the RESRAM rate continues to reflect recovery/return of any existing over/under recovery balance (and True-up or Ordered Adjustment).

Q. Why is this an appropriate variance?

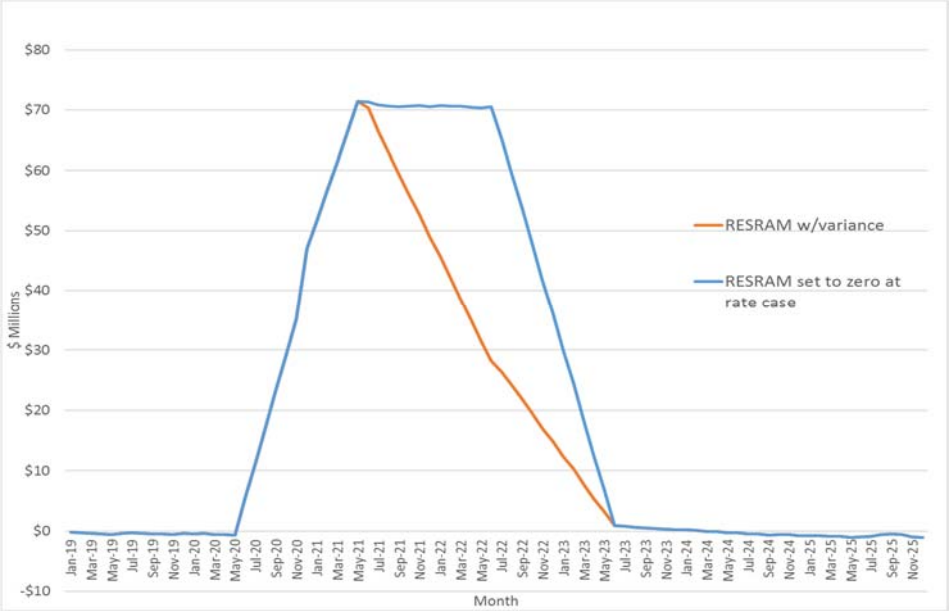
A. My understanding of the rationale for adjusting the RESRAM rate upon conclusion of a rate case is to avoid double-recovery of RES compliance costs through base rates and interim RESRAM rates, which would later have to be reversed through the over/under recovery mechanism. However, the portion of the RESRAM rate that is collecting/returning imbalances in cost recovery from prior periods is not impacted or addressed by the rate case outcome in any way. Consequently, setting that rate component to zero serves no purpose, but does unnecessarily delay the recovery or return

of potentially large sums of money. Similar to my previous discussion on the flexible filing timing proposed by the Company, literally following the rule as written would result in potentially large regulatory assets or regulatory liabilities that are only credited with short-term interest remaining outstanding for relatively long periods of time. Good cause exists to grant this variance so that these costs and benefits can be timely reflected in rates.

Q. Please use your previous illustrative example to quantify the potential impact of this issue.

A. Recall Figure 1 above, which showed the outstanding regulatory asset related to the RESRAM recovery of the wind investments. I will start from the same model that produced that figure, but overlay the assumption that the Company filed a rate case through which new base rates would take effect in June 2021 reflecting the wind revenue requirement. Figure 2 below shows an estimate of the regulatory asset balance that would exist if the full rate were set to zero at that time and compares it to a scenario where only the RES Revenue Requirement portion of the rate is set to zero at that time.

Figure 2: RESRAM Cumulative Over/Under Regulatory Asset Balance w/Rate Case Resetting Full RESRAM Rate to Zero



Note in Figure 2 how re-setting the full RESRAM rate to zero upon conclusion of a rate case just delays the recovery of the deferred balance in the regulatory asset that is associated with prior periods that are not addressed by the rate case. Recovery of this balance is delayed unnecessarily with no obvious benefit. In this scenario, over the 24 months following the implementation of rates from the rate case, the regulatory asset balance averages over $21 million higher than it would if the over/under recovery component of the rate were left in effect. In other circumstances there could be a similar delay in flowing through over-recoveries of costs to customers. I can see no valid regulatory objective that is served by delaying this recovery or return of over- or under-recoveries in this manner. Therefore, good cause exists to approve the variance.

Q. Are there any additional variances that the Company is requesting from Commission rules that you have not yet explained?

A. Yes. There are two more that I will discuss. First, the Commission's rule requires the RESRAM to be billed to customers as a percent markup of the energy charge on each customer's bill. The Company is requesting a variance from that provision in order to bill customers based on a flat rate per kWh of energy consumed.

Q. Why is this variance appropriate?

A. RES Compliance Costs are the quintessential energy-related cost. By this I mean that the cost incurred by the Company to comply with the RES standard is directly related to the amount of energy consumed by retail customers, regardless of the season, day of week, or time of day. The RES standard specifies the percent of retail energy sales that the Company must procure from renewable resources. As of 2021, for every incremental kWh a retail customer consumes, the amount of renewable energy required to be generated or procured by the Company increases by 0.15 kWh. In other words, each kWh has the same incremental effect in causing the incurrence of RES Compliance Costs. However, the energy charges paid by customers vary depending on the customer class, season, and other factors such as the total amount of usage of customers within the same class as a result of block rates. By applying the RESRAM as a percentage markup of an energy charge that varies across classes and usage levels, different kWhs would reflect differing amounts of RES Compliance Costs, despite having the same causative impact on incurrence of those costs. Table 6 below shows the range of base energy charges that could apply to different kWhs of retail customer usage, which would result in differing levels of RES Compliance Costs/RESRAM Benefits being allocated to different customers under the percentage markup of energy charges method:

Table 6: Energy Charges Applicable to Different Classes and Usage Types

Rate Class	Summer base/block 1	Summer block 2	Summer block 3	Non-summer block 1/base	Non-summer block 2	Non-summer block 3	Non-summer seasonal energy
1M	$0.1258	N/A	N/A	$0.0876	$0.0600	N/A	N/A
2M	$0.1120	N/A	N/A	$0.0836	N/A	N/A	$0.0482
3M	$0.1058	$0.0796	$0.0535	$0.0665	$0.0494	$0.0389	$0.0389
4M	$0.1023	$0.0770	$0.0516	$0.0644	$0.0478	$0.0374	$0.0374
11M	$0.0354	N/A	N/A	$0.0314	N/A	N/A	N/A

Note that a kWh of usage can result in an energy charge ranging anywhere from 3.14 cents per kWh up to 12.58 cents per kWh (ignoring even larger differences that arise for customers electing to participate in an optional Time-of-Use price). If a RESRAM rate adjustment were implemented as a percentage markup to the energy charge, and the adjustment calculated for a given Recovery Period resulted in a 1% RESRAM adjustment, some customers would pay over a tenth of a penny per kWh for Renewable Compliance Costs, while others would pay less than a third of that amount for the same service. It is worth noting that small use residential customers would pay the largest amount of RES Compliance Costs on a per kWh basis of any group of customers on the system. This outcome would not represent an equitable method of recovering a cost that arises equally from each kWh consumed. As a result, good cause exists to grant the requested variance.

Q. You mentioned that there were two additional variance requests to discuss. What is the second variance request you were referring to?

A. The rules of the Commission lay out the timelines associated with RESRAM rate filings, including the amount of time the Commission Staff has to make a recommendation on filings, and when the Commission must issue an order approving the

rates. The timeline for filings resulting in an increase of less than 2% allows Staff 60 days to review the filing and requires an order by the Commission not later than 120 days after the rates were filed. This timeline has been incorporated into the process the Company has developed for the operation of its RESRAM. However, in the event that an adjustment is 2% or more, the timeline reflected in the rule changes. Staff is allotted 75 days for a review, there are 15 days for a Company response, and then the Commission is afforded an additional *at least* 30 days to hold a hearing and issue an order. The use of *at least* in the rule leaves ambiguity in the ultimate deadline for a final order. As I discussed earlier when describing the flexible filing intervals and Accumulation/Recovery Periods requested by the Company, it is critical in designing the RESRAM rate to know *when* and *how long* the rate will be in effect in order to develop the appropriate billing units for the rate. An open-ended proceeding that creates ambiguity about when the rate would take effect would prevent calculating an accurate rate in any case where the Commission's order went beyond 30 days after the Company's response. In other words, it would be impossible to file a specific RESRAM rate when it is expected that the adjustment would produce an increase of 2% or more because the precise RESRAM rate would depend on the date the new RESRAM rate would take effect, which would be unknown if it was not a date certain (i.e., after 120 days). For this reason, the Company is requesting that RESRAM rates become effective by operation of law 120 days after filing, if the Commission has not ruled on the appropriateness of the rate. If the Commission later found the rate to not be in compliance with the rider, the Ordered Adjustment component of the rate formula would then be used to correct any differences that arose from the completion of the Commission's review of the rate, with

interest. This mechanism to reflect any necessary adjustments that may be identified creates a safeguard that ensures that no harm would arise from the implementation of rates within 120 days. As a result, good cause exists to grant this variance to allow rates to take effect by Commission order *or* operation of law within 120 days of each RESRAM rate filing.

Q. Earlier in your testimony you mentioned an issue with allowing the energy benefits from the new wind generation to flow through the FAC. Please describe that issue and the Company's proposed solution.

A. As I mentioned at that time, good cause exists to allow the energy benefits from RES compliance investments like the new wind generation to continue to be reconciled in the FAC. That mechanism is designed to handle the reconciliation of net energy-related costs and revenues. Using it maintains consistency with the treatment of all other generation of the Company, and maintains the application of the bidirectional 95%/5% sharing to changes in net energy costs that arise from the RES compliance generation, which many parties have advocated should apply to these types of costs and revenues in past rate cases. On an ongoing basis, application of the 95%/5% sharing makes sense for that reason and should not be expected to materially impact the long-term balance of cost and revenue recovery associated with the wind investments. However, when approximately 700 MW of wind generation, the output of which is not included in the baseline of net energy costs established in the FAC, comes online over a relatively short time period, the potential exists for the Company to realize a material amount of benefit from sharing 5% of the incremental off-system sales/reduced power purchases that appropriately should be counted as a RESRAM Benefit. It is not the

Company's intention to use the RESRAM to realize a benefit through the operation of the FAC sharing that realistically should be incorporated in the RESRAM for customers' benefit. As a result, the Company is proposing a solution to ensure that benefit is provided to customers.

Q. Please describe that solution.

A. The Company is proposing that for any new RES compliance generation with a nameplate capacity greater than 10 MW that comes online, 5% of the market value of the energy generated (and associated capacity sold) be credited to the RESRAM until such time that the generation is reflected in the determination of the FAC Base Factor through a general rate case. The calculation would simply take the metered output of the RES compliance asset and multiply it by the Locational Marginal Price ("LMP") applicable to the Commercial Pricing ("CP") node where that resource's energy is settled in the market each hour, accumulate those totals and apply the 5% sharing factor for inclusion as a RESRAM Benefit.[11] This would resolve the issue by capturing the significant benefit that is expected to be realized from the introduction of new generation sources in the form of increased off-system sales or reduced purchased power expense, without having to engage in a highly-complex process of trying to untangle all of the effects of the wind from the rest of the items in the FAC in a manner that unnecessarily complicates both the FAC and RESRAM.

Q. Legislation was just passed by the Missouri General Assembly that assuming it becomes law, as expected, would appear to require that a portion of the

[11] A similar calculation would be performed for capacity value – i.e., the amount of generation from the resource cleared in any capacity auction would be multiplied by the clearing price from that auction and included in the RESRAM as a benefit.

return and depreciation on renewable energy resources during the period of time between when the resource goes into service and when it is reflected in rates be deferred to a regulatory asset for later recovery in rate cases. If the proposed RESRAM covers all RES costs, how will the Company ensure there is no double-recovery?

A. We have filed the RESRAM to cover all RES Compliance Costs as contemplated by the RES and the Commission's RES rules. However, because double-recovery would be inappropriate, I agree that the tariff sheets that we filed in this case and that reflect the RESRAM must be modified to prevent a double recovery if such legislation becomes law. I believe the necessary modification is easily accomplished simply by modifying the definition of "RES Compliance Costs" to read as follows (modification shown as **bold/underline**):

> Charges or credits passed through this rider reflect Missouri Renewable Energy Standard (section 393.1030 *et. seq.*, RSMo.) ("RES") Compliance Costs, which consist of prudently incurred costs, both capital and expense, directly related to RES compliance **which are not reflected in a regulatory asset arising under Section 393.1400.2, RSMo.**, and also reflect the pass-through of benefits received as a result of RES compliance to the extent those benefits are not passed through to customers in the Fuel Adjustment Rate under Rider FAC ("RESRAM Benefits").

I would note that in addition to modifying the tariff in this way, arguably an additional variance from the Commission's RES rules' definition of "RES compliance costs" (4 CSR 240-20.100(1)(Q)) would also be required. Consequently, if the legislation becomes law, the Company also requests a variance from that definition to the extent needed to accommodate the above-shown tariff sheet modification.

Q. How will the Company effectuate the necessary tariff sheet change?

A. It will file a substitute tariff sheet in this docket reflecting the above-shown modification promptly after the legislation becomes law.

Q. Please summarize your testimony.

A. Consistent with the Company's 2017 IRP and RES Compliance Plan, the Company is making significant investments in the development of new renewable energy resources for the benefit of its customers and in compliance with state RES requirements. In order for the Company to timely recover the costs (and pass back benefits) of these investments as required by the RES, the Company has filed this application for a RESRAM. This RESRAM is consistent with both the legislation and Commission rules related to the RES standard, except as specifically outlined in variance requests discussed in the Company's application and direct testimony. Good cause exists to grant these variances.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Construct a Wind Generation Facility.	)))))	File No. EA-2018-0202

AFFIDAVIT OF STEVEN M. WILLS

STATE OF MISSOURI)
) **ss**
CITY OF ST. LOUIS)

Steven M. Wills, being first duly sworn on his oath, states:

1. My name is Steven M. Wills. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a Ameren Missouri as the Director of Rates & Analysis.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 42 pages and Schedule(s) SMW-D1 and SMW-D2, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Steven M. Wills
STEVEN M. WILLS

Subscribed and sworn to before me this 21st day of May, 2018.

Cathleen A Dehne
Notary Public

My commission expires: March 7, 2021

CATHLEEN A DEHNE
Notary Public – Notary Seal
St. Louis City – State of Missouri
Commission Number 17119727
My Commission Expires Mar 7, 2021

RESRAM MINIMUM FILING REQUIREMENTS [1]

(A) An example of the initial one-time notice to all potentially affected customers (4 CSR 240-20.100(6)(A)7.A.):

RENEWABLE ENERGY STANDARD
RATE ADJUSTMENT MECHANISM

Ameren Missouri filed for a Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM") with the Missouri Public Service Commission ("Commission"). The RESRAM charge will recover costs and return certain benefits associated with the state's Renewable Energy Standard, which was approved by voters in 2008 as Proposition C, which is codified as Section 393.1025 to.1030, RSMo. (the "RES"). The RES requires the increased production energy from renewable energy sources, such as wind, solar, biomass, and geothermal.

Beginning _____, the RESRAM will appear as a new line item on the bill, and a typical residential customer using ___ kWh of electricity will see an increase of approximately ____ per month.[2]

(B) An annual notice to affected customers each year that a RESRAM is in effect explaining the continuation of its RESRAM and RES compliance (4 CSR 240-20.100(6)(A)7.B.):

Renewable Energy Standard Rate Adjustment Mechanism: Your electric rate includes costs and certain benefits associated with complying with Renewable Energy Standard incurred by Ameren Missouri. For more information go to https://www.ameren.com/missouri/csc/new-bill.

(C) An example customer bill showing how the RESRAM will be described on affected customers' bills in accordance with (4 CSR 240-20.100(6)(A)7.C.):

Attachment A hereto contains two different examples of customer bills (one in the format used by Ameren Missouri for residential customers, and one in the billing format used by Ameren Missouri for its small general service customers) showing how the RESRAM will be described on customer bills.

(D) A description of all information posted on the utility's website regarding the RESRAM (4 CSR 240-20.100(6)(A)15.A.):

See Attachment B hereto.

[1] 4 CSR 240-20.100((6)(A) and (B).

[2] Because the initial RESRAM rate will be $0.00 upon initial approval of the tariff sheets reflecting the rider, the date and values in this form of notice are blank, but will be filled in with accurate information and provided to all customers no later than the first bill that includes a RESRAM charge.

(E) A description of all instructions provided to personnel at the utility's call center regarding how those personnel should respond to calls pertaining to the RESRAM (4 CSR 240-20.100(6)(A)15.B.):

See Attachment C hereto.

(F) A complete explanation of all the costs, both capital and expense, incurred for RES compliance that shall be considered for recovery under the proposed RESRAM and the specific account used for each cost item on the electric utility's books and records (4 CSR 240-20.100(6)(B)5.A.):

These costs[3] are generally described as follows, and further described in the table included as Attachment D[4] hereto:

- Renewable Energy Credit (REC) Costs – This will include costs associated with the procurement of RECs from renewable energy facilities. These costs are accumulated in inventory accounts and expensed based on the weighted-average cost during the year in which the RECs will be retired for compliance. Consistent with generally accepted accounting principles, internally generated RECs do not have an inventory value, and therefore, no related expense when the inventory is used. REC costs also include the fees associated with registering and retiring the RECs with the commission-designated common central third-party registry.

- Solar Rebate Program Costs – This will include costs associated with administering the Solar Rebate program, such as fees for the online customer application portal and related tracking applications and databases. Solar rebates paid will be excluded from these costs.

- Landfill-Gas Fuel Costs – This will include costs associated with procuring the landfill gas commodity for Company-owned landfill-gas facilities (currently, the Maryland Heights Renewable Energy Center).

- Renewable Energy Capital Costs – This will include costs associated with plant in service additions for renewable energy generation.

- Depreciation and Amortization Expense – This will include the loss of value of the plant in service additions for renewable energy generation due to use for utility operations.

[3] These cost categories can also include revenues, as provided for in the RESRAM, but are reflected in FERC accounts for costs and on a net basis reflect costs.
[4] Attachment D also lists certain offsetting revenues.

- Operations and Maintenance Costs – This will include materials and other expenses associated with preventing failure, restoring serviceability, or maintaining the life of renewable energy generation plant.

- Production Tax Credits – This will include benefits resulting from tax credits earned from electricity generated by qualified energy resources.

- REC Sales, if any – Proceeds from the sales of RECs[5] (as an offset to RES compliance costs).

- Sharing of Incremental Off-System Sales Margins/Lower Purchased Power Costs Arising from RES Compliance Generation – Under the terms of the Company's Fuel Adjustment Clause ("FAC"), revenues and costs included in the definitions of off-system sales and purchased power will be reflected in the FAC even if produced by generation used for RES compliance. As explained in the testimony to which these Minimum Filing Requirements are attached, Ameren Missouri will offset the RES compliance costs with 5% of incremental off-system sales revenue or reduced purchased power costs arising from renewable energy resources used for RES compliance until the effective date of rates in the Company's next electric general rate proceeding so that customers will receive 100% of the benefits of RES compliance.

(G) The state, federal, and local income or excise tax rates used in calculating the proposed RESRAM, and an explanation of the source of and the basis for using those tax rates (4 CSR 240-20.100(6)(B)5.B.):

- The tax rates used to set Factor BF in the rider are as follows: federal income tax rate of 35%, state tax rate of 6.25%, and local tax rate of 0.1101%. These tax rates underlie the rates set in the Company's last electric general rate proceeding, File No. ER-2016-0179.

- The tax rates that will be used (under current law) for future adjustments to the RESRAM Rate are as follows: federal income tax rate of 21%, state tax rate of 6.25%, and local tax rate of 0.1101%. These tax rates are provided for by governing statutes and ordinances in effect on the date hereof.

[5] Note that Ameren Missouri does not currently expect to sell RECs.

(H) The regulatory capital structure used in calculating the proposed RESRAM, and an explanation of the source of and the basis for using the capital structure (4 CSR 240-20.100(6)(B)5.C.)[6]:

Long Term Debt	47.128%
Short Term Debt	0.000%
Preferred Stock	1.057%
Common Equity	51.815%

These figures underlie Ameren Missouri's capital structure as reflected in the Company's true-up documentation (as of December 31, 2016) in File No. ER-2016-0179.

(I) The cost rates for debt and preferred stock used in calculating the proposed RESRAM, and an explanation of the source of and the basis for using those rates (4 CSR 240-20.100(6)(B)5.D.):

- The cost rate for debt is 5.426% and the cost rate for preferred stock is 4.180%.
- These figures are the cost rates reflected in the Company's true-up documentation (as of December 31, 2016) in File No. ER-2016-0179.

(J) The cost of common equity used in calculating the proposed RESRAM, and an explanation of the source of and the basis for that equity cost (4 CSR 240-20.100(6)(B)5.E.):

- The cost of common equity used is 9.53%.
- This is the rate being used for AFUDC post-the resolution of File No. ER-2016-0179.

(K) The depreciation rates used in calculating the proposed RESRAM, and an explanation of the source of and the basis for using those depreciation rates (4 CSR 240-20.100(6)(B)5.F.):

- The depreciation rates used by FERC account are listed below.

340	0.00%
341	2.48%

[6] This figure and the remaining figures below, which are required to determine the revenue requirement for Company-owned renewable energy resources, will be updated to values utilized in future Commission-approved revenue requirements used by Ameren Missouri to set base rates in future rate cases with those updated values used in subsequent RESRAM rate adjustments.

342	2.60%
344	1.93%
344-Landfill turbines	10.66%
344-Solar	5.12%
345	3.23%
346	7.88%
346.21	5.00%
346.22	6.67%
346.23	20.00%

- These are the last-Commission approved depreciation rates (from File No. ER-2014-0258) for these accounts.

(L) The rate base used in calculating the proposed RESRAM, including an updated depreciation reserve total incorporating the impact of all RES plant investments previously reflected in general rate proceedings or RESRAM application proceedings initiated following enactment of the RES rules (4 CSR 240-20.100(6)(B)5.G.):

- The net rate base is $36,761,263.

All components of this net rate base are reflected in the Company's true-up documentation (as of December 31, 2016) in File No. ER-2016-0179.

(M) The applicable customer class billing methodology used in calculating the proposed RESRAM, and an explanation of the source for using that methodology (4 CSR 240-20.100(6)(B)5.H.):

- Ameren Missouri is requesting a variance on this issue because the RES Compliance Costs are energy related. More detail describing this variance request is contained in the testimony to which this Schedule is attached.

(N) An explanation of how the proposed RESRAM is allocated among the affected customer classes, if applicable (4 CSR 240-20.100(6)(B)5.I.):

- N/A.

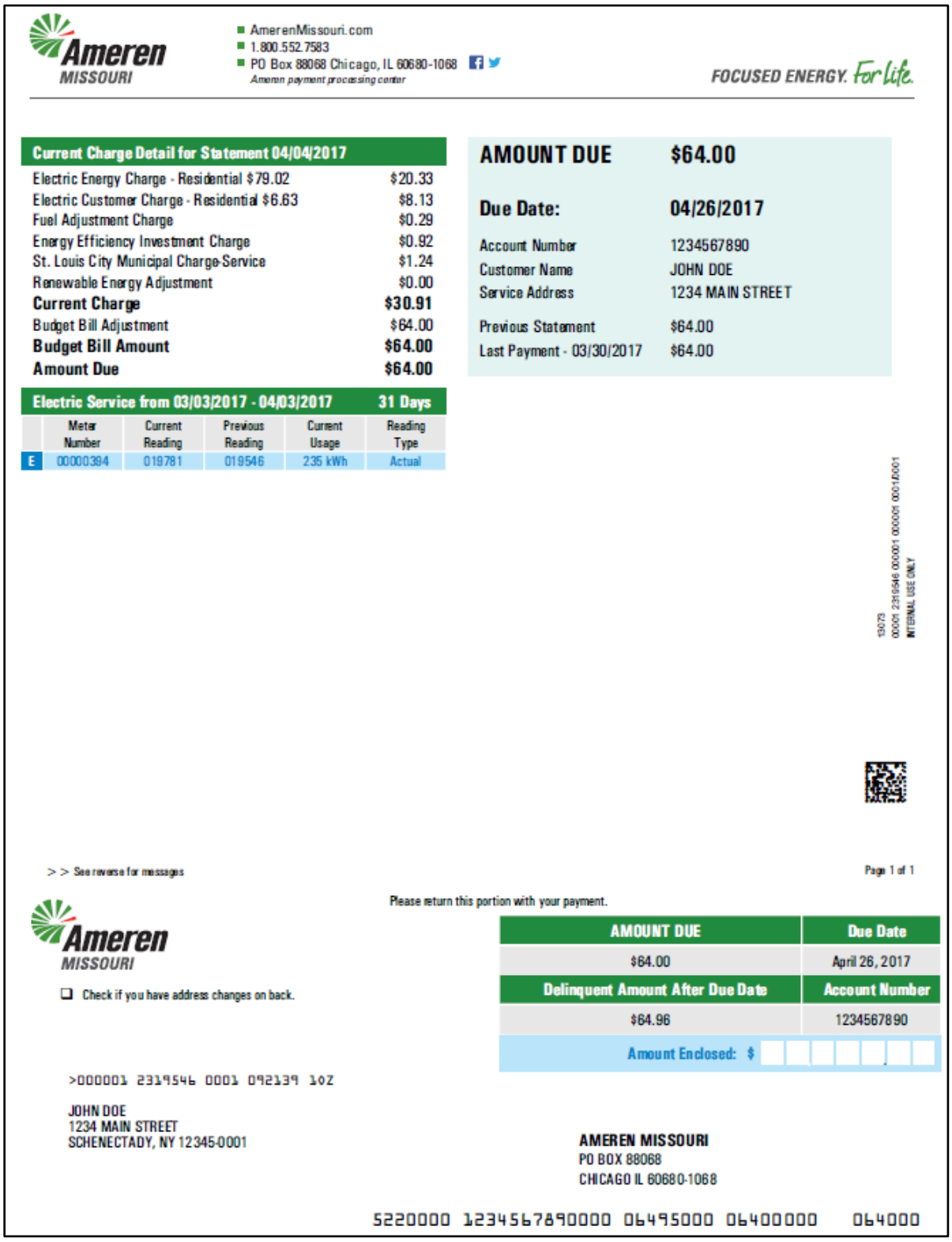
(O) For purchase of electrical energy from eligible renewable energy resources bundled with the associated RECs or for the purchase of unbundled RECs, the cost of the purchases, and an explanation of the source of the energy or RECs and the basis for making that specific purchase, including an explanation of the request for proposal (RFP) process, or the reason(s) for not using a RFP process, used to establish which entity provided the energy or RECs associated with the RESRAM (4 CSR 240-20.100(6)(B)5.J.):

- Ameren Missouri has a purchased power agreement (PPA) with the Pioneer Prairie Wind Farm (PPWF), which began in 2009 with a 15-year term, in which all of the energy and RECs produced by the facility are purchased by Ameren Missouri at $69/MWh. At inception of the contract, Ameren Missouri performed an allocation of the purchase price to energy and RECs under Generally Accepted Accounting Principles based on the average energy price per the forward energy curve at that time, resulting in $49 being allocated to energy and $20 to RECs.

- Ameren Missouri purchases solar RECs from its retail customer-generators through both standard offer contracts and a solar rebate program. The standard offer contracts purchase the customer-generated RECs at a fixed $/MWh and were either settled through a one-time lump sum payment or ongoing annual payments. These payments are included in the REC inventory costs noted above. The solar rebates paid are tracked and accumulated for recovery in general rate reviews; therefore the RECs associated with these facilities are assigned zero cost for recovery through the RESRAM.

Attachment A

Example Bills



Ameren MISSOURI

AmerenMissouri.com
1.800.552.7583
PO Box 88068 Chicago, IL 60680-1068
Ameren payment processing center

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Current Charge Detail for Statement 04/04/2017

Electric Energy Charge - Residential $79.02	$20.33
Electric Customer Charge - Residential $6.63	$8.13
Fuel Adjustment Charge	$0.29
Energy Efficiency Investment Charge	$0.92
St. Louis City Municipal Charge-Service	$1.24
Renewable Energy Adjustment	$0.00
Current Charge	**$30.91**
Budget Bill Adjustment	$64.00
Budget Bill Amount	**$64.00**
Amount Due	**$64.00**

Electric Service from 03/03/2017 - 04/03/2017 — 31 Days

	Meter Number	Current Reading	Previous Reading	Current Usage	Reading Type
E	00000394	019781	019546	235 kWh	Actual

AMOUNT DUE $64.00

Due Date: 04/26/2017

Account Number	1234567890
Customer Name	JOHN DOE
Service Address	1234 MAIN STREET
Previous Statement	$64.00
Last Payment - 03/30/2017	$64.00

13073
0001 2319546 00001 00001 0001A001
INTERNAL USE ONLY

>> See reverse for messages

Page 1 of 1

Please return this portion with your payment.

Ameren MISSOURI

☐ Check if you have address changes on back.

AMOUNT DUE	Due Date
$64.00	April 26, 2017
Delinquent Amount After Due Date	**Account Number**
$64.96	1234567890
Amount Enclosed: $	

>000001 2319546 0001 092139 10Z

JOHN DOE
1234 MAIN STREET
SCHENECTADY, NY 12345-0001

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680-1068

5220000 1234567890000 06495000 06400000 064000

Ameren MISSOURI

- AmerenMissouri.com
- 1.800.552.7583
- PO Box 88068 Chicago, IL 60680-1068
  Ameren payment processing center

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Account Messages

A late payment charge of 1.5% will be added for any unpaid balance on all accounts after the due date.

SPEEDPAY offers customers convenient payment options. You can pay your bill using MasterCard, VISA or American Express 24/7 - just call 1.866.268.3729. For recurring payments visit us at AmerenMissouri.com.

Direct Pay Makes Paying Bills Easier. To enroll, go to AmerenMissouri.com or call 1.800.552.7583 to request an enrollment form.

Pure Power lets your home or business support wind power and other forms of renewable energy in Missouri and the Midwest. Learn more at AmerenMissouri.com/purepower.

Your Budget Billing plan will settle with next month's bill. Any difference between your actual usage and the estimated amount billed will be reflected as 'Budget Bill Adjustment' on your next bill.

The Missouri Public Service Commission has approved a 4.5% overall increase in Ameren Missouri's electric rate levels that took effect on May 30, 2015. For information about these changes, please visit AmerenMissouri.com or contact customer service at 1.800.552.7583. Your electric service charges for this billing period are being prorated. Proration occurs when part of your bill is calculated on old rates and part of your bill is calculated on new rates.

Address Changes or Corrections

Name _____
Address _____
City, State, Zip _____
Phone Number _____

AmerenMissouri.com/WaysToPay

- **ONLINE** E-CHECK
- **PHONE** 866.268.3729
- **IN PERSON** FIND A PAY STATION AT AMERENMISSOURI.COM/PAYSTATION
- **ONLINE** CREDIT CARD
- **MAIL** STUB & CHECK

Ameren MISSOURI

- AmerenMissouri.com
- 1.877.426.3736
- PO Box 88068 Chicago, IL 60680-1068
  Ameren payment processing center

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Account Number 1000605115
Customer Name ALLEN MARKET LANE APARTMENTS
Service Address *1200 ALLEN MARKET LN
SAINT LOUIS, MO 63104

Current Detail for Statement 02/13/2018

Total Electric Charges	$1,791.48
Total Amount Due	**$1,791.48**

AMOUNT DUE	**$1,791.48**
Due Date	**03/07/2018**
Amount After Due Date	$1,818.35
Previous Statement	$1,828.19
Total Payments	$1,828.19

Payment Received. Thank You.

Electric Service Details — **Service from 01/11/2018 - 02/11/2018 (31 days)**

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
07836375	01/11 - 02/11	31	Total kWh	Actual	14296.0000	14158.0000	138.0000	160.0000	22080.0000
07836375	01/11 - 02/11	31	Peak kW	Actual	0.4460	0.0000	0.4460	160.0000	71.3600

Usage Summary

Total kWh	22080.0000	Winter Base kWh	11840.0000
Current Base kWh	11840.0000	Seasonal kWh	10240.0000

1373 0000 2317961 00001 00001 000V0001

» See next page for service details.

Keep this portion for your records.

Please return this portion with your payment.

Ameren MISSOURI

☐ Check if you have address changes on back.

Amount Due	Due Date
$1,791.48	March 07, 2018
Delinquent Amount After Due Date	**Account Number**
$1,818.35	1000605115

Amount Enclosed $ _____

>000001 2317961 0001 092139 10Z

ALLEN MARKET LANE APARTMENTS
PO BOX 4697
LOGAN, UT 843234697

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680-1068

00000000 1000605110500 0001791480000 0001791480

Electric Service Details (Continued)

Rate 2M Sm Gen Svc - 3Ph w/Dem

Threshold - Peak Demand

DESCRIPTION	USAGE	UNIT		RATE	CHARGE
Base Energy Charge	11,840.00	kWh	@	$0.08360000	$989.82
Seasonal Energy Charge	10,240.00	kWh	@	$0.04820000	$493.57
Customer Charge					$21.43
Fuel Adjustment Charge	22,080.00	kWh	@	$0.00027000	$5.96
Energy Efficiency Program Charge	22,080.00	kWh	@	$0.00010000	$2.21
Energy Efficiency Investment Charge	22,080.00	kWh	@	$0.00449900	$99.34
Renewable Energy Adjustment	22,080.00	kWh	@	$0.00000000	$0.00
				Total Service Amount	**$1,612.33**

DESCRIPTION	USAGE	UNIT		RATE	CHARGE
St. Louis City Municipal Charge - Service	$1,612.33		@	$0.11111000	$179.15
				Total Tax Related Charges	**$179.15**
				Total Electric Charges	**$1,791.48**

Payments Since Previous Statement

DATE RECEIVED	AMOUNT
January 18, 2018	$1,828.19

Account Messages

A late payment charge of 1.5% will be added for any unpaid balance on all accounts after the due date.

Address Changes or Corrections

Name _____
Address _____
City, State, Zip _____
Phone Number _____

AmerenMissouri.com/WaysToPay

ONLINE E-CHECK

ONLINE CREDIT CARD

PHONE 866.268.3729

MAIL STUB & CHECK

IN PERSON FIND A PAY STATION AT AMERENMISSOURI.COM/PAYSTATION

Attachment B

Website Content for RESRAM

(Will appear at https://www.ameren.com/missouri/csc/new-bill):

Ameren Missouri filed for a Renewable Energy Standard Rate Adjustment Mechanism (RESRAM) with the Missouri Public Service Commission (Commission). The RESRAM charge will recover approved costs associated with the state's Renewable Energy Standard which is a regulation that requires the increased production of energy from renewable energy sources, such as wind, solar, biomass, and geothermal.

The RESRAM is a way to account for the incremental cost incurred, net of benefits received, as a result of complying with the Renewable Energy Standard, over what is already included in base rates. Beginning [date first charge appears], the RESRAM amount will appear as a new line item on the bill.

The RESRAM reflects the costs and certain benefits associated with the Renewable Energy Standard. By using current figures, rather than an estimate, customers pay only for prudently incurred Renewable Energy Standard costs.

How does it work?

- The RESRAM on your bill is calculated by multiplying the RESRAM rate by the kilowatt hours (kWh) used during the month.
- The RESRAM rate is calculated by taking the incurred costs associated with the Renewable Energy Standard since the last rate request net of certain benefits.
- The Missouri Public Service Commission approved the RESRAM rate of [first approved $RESRAM_{Rate}$ for [first Recovery Period].
- Periodic filings are submitted to the Commission for review and approval each year to ensure that the correct amount is charged under the RESRAM.

Attachment C

Call Center Instructions for RESRAM

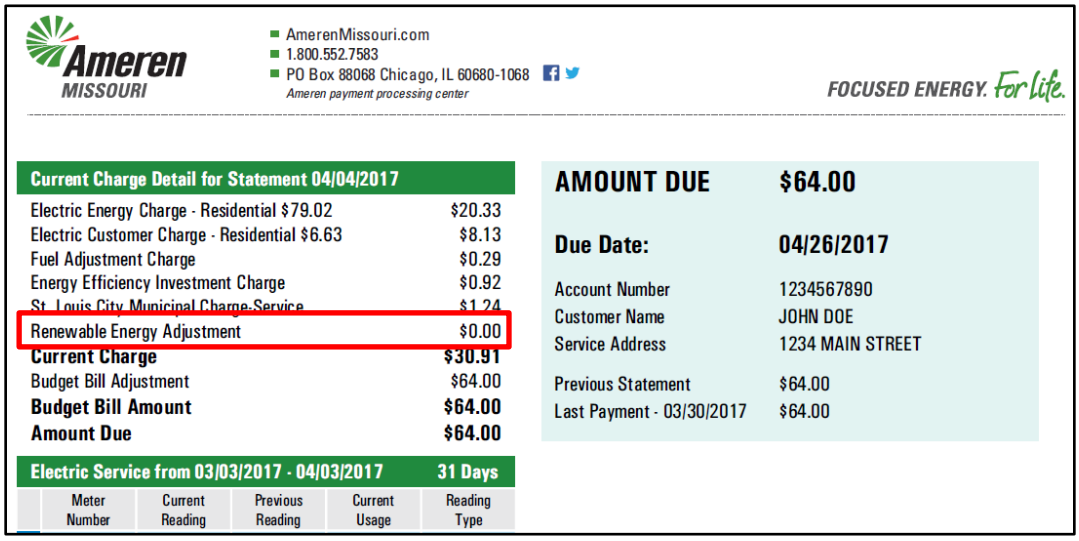
Renewable Energy Standard Rate Adjustment Mechanism (RESRAM)

What is the Renewable Energy Standard Rate Adjustment Mechanism charge?
This charge is designed to recover costs associated with Missouri's Renewable Energy Standard, which requires utility companies to generate a certain amount of energy from renewable sources such as wind, solar, biomass and geothermal.

Why is Ameren billing the customer for this charge?
Missouri's Renewable Energy Standard requires Ameren Missouri to supply a specified percentage of the energy it provides to its customers from renewable energy resources and provides for a separate charge to recover the costs of doing so.

How are the charges calculated?
The charge is calculated by multiplying the RESRAM rate by the number of kilowatt hours used each month.

When will the customer see the charge on their bill?
Customers will see the charge appear as a separate line item on the monthly energy statement beginning [date first charge appears].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1.800.552.7583
PO Box 88068 Chicago, IL 60680-1068
Ameren payment processing center

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Current Charge Detail for Statement 04/04/2017	
Electric Energy Charge - Residential $79.02	$20.33
Electric Customer Charge - Residential $6.63	$8.13
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Renewable Energy Adjustment	$0.00
Current Charge	**$30.91**
Budget Bill Adjustment	$64.00
Budget Bill Amount	**$64.00**
Amount Due	**$64.00**

AMOUNT DUE	$64.00
Due Date:	**04/26/2017**
Account Number	1234567890
Customer Name	JOHN DOE
Service Address	1234 MAIN STREET
Previous Statement	$64.00
Last Payment - 03/30/2017	$64.00

Electric Service from 03/03/2017 - 04/03/2017	31 Days			
Meter Number	Current Reading	Previous Reading	Current Usage	Reading Type

This information can be found in MAGGIE (Knowledge Management System) for future reference by entering the following key words in the search field: renewable, energy, standard, mechanism, rate, adjustment, or RESRAM.

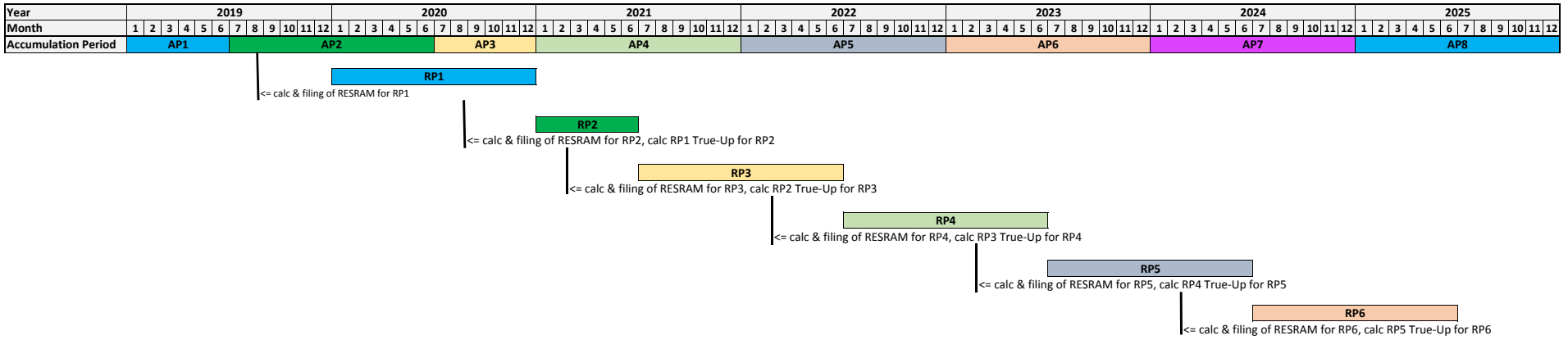
Attachment D

Major	Minor	Activity Code	Description
190	TBD		FERC account 190 represents Accumulated Deferred Income Taxes. This account will include the deferred tax impact of any Production Tax Credits (PTC) that are being carried forward.
303			FERC account 303 contains costs for intangible property necessary or valuable in the conduct of utility operations.
340			FERC Account 340 contains costs of land and land rights used in connection with other power generation.
341			FERC Account 341 contains costs of structures and improvements used in connection with other power generation.
342			FERC Account 342 contains costs of fuel handling and storage equipment used between the point of fuel delivery to the station and the intake pipe through which fuel is directly drawn to the engine, also the cost of gas producers and accessories devoted to the production of gas for use in prime movers driving main electric generators.
343			FERC Account 343 contains the cost installed of Diesel or other prime movers devoted to the generation of electric energy, together with their auxiliaries.
344			FERC Account 344 contains the cost installed of Diesel or other power driven main generators.
	001		Costs associated with solar power driven main generators.
	002		Costs associated with turbine engine driven main generators.
	TBD		Costs associated with wind power driven main generators.
345			FERC Account 345 contains the cost installed of auxiliary generating apparatus, conversion equipment, and equipment used primarily in connection with the control and switching of electric energy produced in other power generating stations, and the protection of electric circuits and equipment, except electric motors used to drive equipment included in other accounts. Such motors shall be included in the account in which the equipment with which it is associated is included.
346			FERC Account 346 contains the cost installed of miscellaneous equipment in and about the other power generating plant, devoted to general station use, and not properly includible in any of the foregoing other power production accounts.
	001		Costs associated with miscellaneous related to other power production.
	004		Costs associated with tools & shop equipment
	021		Costs associated with office furniture
	022		Costs associated with office equipment
	023		Costs associated with computers
348			FERC Account 348 contains the cost installed of energy storage equipment used to store energy for load managing purposes.
403			FERC Account 403 contains the amount of depreciation expense for all classes of depreciable electric plant in service except such depreciation expense as is chargeable to clearing accounts or to account 416, Costs and Expenses of Merchandising, Jobbing and Contract Work.
404			FERC Account 404 contains amortization charges applicable to amounts included in the electric plant accounts.
409	TBD		FERC Account 409 represents income tax expense. This account will be used to record the PTC impact on tax expense.
410	TBD		FERC Account 410 represents the provision for deferred income taxes. This account will be used to record the removal or utilization of deferred taxes for the PTC carryforward.
411	TBD		FERC Account 411 represents the provision for deferred income taxes. This account will be used to record the deferred taxes for the PTC carryforward.
456	REC		Revenues associated with the sale of RECs, as well as the fees to register and transfer the RECs.

546			FERC Account 546 contains the cost of labor and expenses incurred in the general supervision and direction of the operation of other power generating stations.
547	004	GCVC	Costs associated with landfill gas fuel for the Maryland Heights Renewable Energy Center.
548			FERC Account 548 contains the cost of labor, materials used and expenses incurred in operating prime movers, generators and electric equipment in other power generating stations, to the point where electricity leaves for conversion for transmission or distribution.
549			FERC Account 549 contains the cost of labor, materials used and expenses incurred in the operation of other power generating stations which are not specifically provided for or are not readily assignable to other generation expense accounts.
550			FERC Account 550 contains all rents of property of others used, occupied, or operated in connection with other power generation.
551			FERC Account 551 contains the cost of labor and expenses incurred in the general supervision and direction of the maintenance of other power generating stations.
552			FERC Account 552 contains the cost of labor, materials used and expenses incurred in maintenance of facilities used in other power generation, the book cost of which is includible in account 341, Structures and Improvements, and account 342, Fuel Holders, Producers and Accessories.
553			FERC Account 553 contains the cost of labor, materials used and expenses incurred in maintenance of plant, the book cost of which is includible in account 343, Prime Movers, account 344. Generators, and account 345, Accessory Electric Equipment.
554			FERC Account 554 contains the cost of labor, materials used and expenses incurred in maintenance of other power generation plant, the book cost of which is includible in account 346, Miscellaneous Power Plant Equipment.
557			FERC Account 557 contains other expenses incurred directly in connection with the purchase of electricity, which are not specifically provided for in other production expense accounts.
	0BM	REEA	Costs associated with the procurement of RECs from landfill-gas fueled facilities as well as the fees to register and retire the related RECs. This could also include payments made under the terms of the landfill-gas purchase agreement for the Maryland Heights Energy Center.
	BLH	REEA	Costs associated with the procurement of RECs from wind facilities as well as the fees to register and retire the related RECs.
	CSR	REEA	Costs associated with the procurement of RECs from customer-owned solar facilities as well as the fees to register and retire the related RECs.
	H20	REEA	Costs associated with the procurement of RECs from hydropowered facilities as well as the fees to register and retire the related RECs.
	PSR	REEA	Costs associated with the procurement of RECs from non-customer-owned solar facilities as well as the fees to register and retire the related RECs.
	SRP	REEA	Costs to administer the solar rebate program, such as fees for the online customer application portal and related tracking applications and databases. Note that these expenses do not include solar rebates paid.

Notes:	Business Division = MY is utilized for managerial reporting and identifies the costs related to the Maryland Heights Renewable Energy Center
	Business Division = OF is utilized for managerial reporting and identifies the costs related to the O'Fallon Renewable Energy Center
	Business Division = 5R is utilized for managerial reporting and identifies the costs related to the General Office Building solar generation
	Minor and/or Business Division = "TBD" will be utilized for managerial reporting and identifies the costs related to the Wind Renewable Energy Center(s) and any new renewable energy centers

	Consistent with generally accepted accounting principles, internally generated RECs do not have an inventory value, and therefore, no related expense when the inventory is used. These RECs would still incur an expense when registered and retired in order to meet the RES Compliance and Missouri Public Service Commission requirements.



SCHEDULE SMW-D2