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Solar, Electric/Steam Allocation, Line loss Study,
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Witness: Tim M. Rush
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Case No.: ER-2016-0156
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2016-0156

REBUTTAL TESTIMONY

OF

TIM M. RUSH

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

**Kansas City, Missouri
August 2016**

FILED

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Service Commission*

REBUTTAL TESTIMONY

OF

TIM M. RUSH

Case No. ER-2016-0156

1 **Q: Please state your name and business address.**

2 A: My name is Tim M. Rush. My business address is 1200 Main Street, Kansas City,
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L”) as Director,
6 Regulatory Affairs.

7 **Q: On whose behalf are you testifying?**

8 A: I am testifying on behalf of KCP&L Greater Missouri Operations Company (“GMO” or
9 the “Company”).

10 **Q: Are you the same Tim M. Rush who filed Direct Testimony in this proceeding?**

11 A: Yes, I am.

12 **Q: What is the purpose of your rebuttal testimony?**

13 A: The purpose of my Rebuttal Testimony is to address a number of issues presented by the
14 Staff of the Missouri Public Service Commission (“Staff”) and the Office of the Public
15 Counsel (“OPC”). Those issues include:

- 16 1) Energy Efficiency Adjustment to annualized and normalized sales levels;
17 2) The Fuel Adjustment Clause rider (“FAC”) – responding to Staff and OPC;
18 3) Greenwood Solar Project – responding to Staff;
19 4) The Electric/Steam Allocations - responding to Staff;

- 1 5) The Line Loss Study – responding to Staff;
- 2 6) Critical Infrastructure Protection and Cyber-Security—responding to Staff;
- 3 7) Economic Relief Pilot Program – responding to Staff;
- 4 8) FERC Assessment – responding to Staff;
- 5 9) RESRAM Prudence – responding to Staff.

6 **1.) Energy Efficiency Adjustment**

7 **Q: What are the issues that you are addressing with Energy Efficiency?**

8 A: The Company made an adjustment in its direct filing in this case to reflect the energy
9 efficiency (e.g. MEEIA Cycle 1 and 2 programs) impact on normalized and annualized
10 sales. The Staff has not made a similar adjustment in this case to reflect the impact of the
11 MEEIA programs in its direct filing. Therefore, my testimony will address the need for
12 this adjustment and address the Staff's failure to include in the Staff's revenue
13 requirement the appropriate energy efficiency adjustments of test year monthly kWh
14 sales and peak loads found in Schedule ARB-2.

15 **Q: What is the basis for the Company's energy efficiency adjustments of test year**
16 **monthly kWh sales and peak loads?**

17 A: As referenced in the direct testimony of Company witness Al Bass, the Company's
18 energy efficiency adjustments of test year monthly kWh sales and peak loads was
19 included based on the Non-Unanimous Stipulation And Agreement Resolving MEEIA
20 Filings (filed on November 23, 2015) approved by the Commission in Case No. EO-
21 2015-0241 ("MEEIA 2 Stipulation"). The MEEIA 2 Stipulation provides that "Upon
22 filing a rate case, the cumulative, annualized, normalized kWh and kW savings will be
23 included in the unit sales and sales revenues used in setting rates as of an appropriate time

1 (most likely two months prior to the true-up date) where actual results are known prior to
2 the true-up period, to reflect energy and demand savings in the billing determinants and
3 sales revenues used in setting the revenue requirements and tariffed rates in the case.”
4 (MEEIA 2 Stipulation, p. 13)(Schedule TMR-10)

5 **Q: What energy and demand savings are to be included in the adjustments?**

6 A: The MEEIA 2 Stipulation provides that “annual kWh energy savings from the first month
7 of the test period through the month ending where actual results are available (most likely
8 two months prior to the true-up date) by customer class from all active MEEIA programs,
9 excluding Home Energy Reports will be included in the adjustment.” (MEEIA 2
10 Stipulation, p. 14)(Schedule TMR-10)

11 **Q: What MEEIA programs were active in the period from the first month of the test
12 period through the month ending where actual results are available?**

13 A: GMO had 12 active MEEIA Cycle 1 programs which generated energy and demand
14 savings for customers throughout the test period and which continued through December
15 31, 2015. In addition, pursuant to the MEEIA 2 Stipulation the Company was authorized
16 to extend C&I Custom Rebate program for projects that were approved under Cycle 1
17 through June 30, 2016. This program generated significant additional customer energy
18 and demand savings during the period between January 1, 2016 and June 30, 2016.
19 Lastly, the Company’s MEEIA Cycle 2 programs were approved effective April 1, 2016
20 and generated energy and demand savings for customers through June 30, 2016.

1 Q: Why is the energy efficiency annualization adjustment to test period kWh sales
2 needed?

3 A: The purpose of a test period and true-up period is to set a basis for determination of the
4 rates which is close to the dates rates would go into effect in a rate case. Adjustments to
5 the test period and true-up period are made to reflect known and measurable changes that
6 help develop rates which will be representative of conditions prevailing when they go
7 into effect sometime after the true-up period. When addressing the unit sales and
8 demand levels, adjustments are made to reflect normal weather, customer annualizations
9 (e.g. establish customer levels at a time closer to when rates go into effect) and
10 adjustments for known and measurable changes from the test period, such as customer
11 usage changes not reflected in the weather normalization process. This can include
12 anything from specific customers whose usage has specifically increased or decreased
13 from the test period to where a new customer was added and the respective changes in
14 load, to an adjustment for energy efficiency. This is where the adjustment for energy
15 efficiency should be addressed as set out in the Stipulation and Agreement for Cycle 2
16 MEEIA.

17 Test period kWh sales only reflect a partial year effect of energy savings installed
18 during the test period and does not reflect any effect of energy savings after the test
19 period through the true-up period. For example, an energy efficiency measure installed
20 January 1, 2015 would have reduced billed kWh sales in January through June 2015, but
21 July through December 2014 kWh sales would not reflect the effect of reduced energy
22 resulting from the installation of this measure. This adjustment is to reflect the full year
23 effect of energy efficiency savings occurring through the true-up date.

1 **Q: Why do you believe that test period kWh sales adjustments to reflect MEEIA Cycle**
2 **1 energy and demand savings need to be included?**

3 A: The language used in the MEEIA 2 Stipulation, “all active MEEIA programs”, was
4 purposefully broad to include MEEIA Cycle 1 and Cycle 2 programs. Nowhere in the
5 stipulation did it exclude Cycle 1 or specify Cycle 2 as the only programs to be reflected
6 in the adjustment. The Stipulation specified all MEEIA programs, excluding Home
7 Energy Reports, to be included in the computation for this rate case adjustment. The
8 Stipulation addresses both Cycle 1 and Cycle 2 in numerous places throughout the
9 agreement. The Company’s intention to file a GMO case in 2016 using a test period
10 prior to the commencement of MEEIA Cycle 2 was known to all parties at the time the
11 MEEIA 2 Stipulation was drafted. Additionally, if these savings are not reflected, the
12 kWh sales upon which current rates are to be set will be significantly over-stated causing
13 the Company to be further hindered from earning its authorized return.

14 **Q: Will the inclusion of MEEIA Cycle 1 energy and demand savings result in “double**
15 **dipping” between the MEEIA Cycle 1 TD-NSB recovery through the MEEIA**
16 **Demand Side Investment Mechanism (DSIM) and the base rates established in this**
17 **case?**

18 A: No.

19 **Q: Why?**

20 A: I prepared a pro forma analysis of the Company’s TD-NSB by month over the period of
21 MEEIA Cycle 1 beginning January 2013 through June 30, 2016. This analysis was
22 calculated under the terms of the MEEIA Cycle 1 Stipulation, rather than an estimated
23 impact on Company revenues using the Throughput Disincentive (TD) methodology

1 adopted in the MEEIA Cycle 2 Stipulation. The analysis assumed an annualization
2 adjustment of energy savings beginning in first month of the test period through the
3 month ending where actual results are available, or June 30, 2016. The total TD-NSB
4 over that period was \$15,443,441 as compared to an estimated impact on Company
5 revenues using the MEEIA Cycle 2 TD methodology of \$17,721,427, or a deficit of
6 \$2,277,986. (Schedule TMR-11)

7 **Q: Would you explain how TD-NSB was determined in your analysis?**

8 A: The first thing to understand is how the 13.55% TD-NSB Shared Percentage was
9 determined in connection with the Company's MEEIA Cycle 1 Stipulation and
10 Agreement. Lost margins were projected based on projected energy savings targets and
11 assumed margin rates for residential and non-residential customers and projected timing
12 of future rate cases at 18-month intervals. The present value of these projected lost
13 margins were divided by the projected net benefits from energy savings. Net benefits
14 were estimated as the present value of estimated avoided capacity and energy costs
15 resulting from these project energy savings over a deemed 15 year measure life for such
16 savings less the present value of program costs budgets. This 13.55% TD-NSB Shared
17 Percentage was then multiplied times the computed net benefits based on actual energy
18 savings less discounted actual program costs.

19 **Q: How was the estimated impact on Company revenues using the MEEIA Cycle 2 TD**
20 **methodology determined?**

21 A: The estimated impact of actual energy savings kWh sales by customer class by month
22 was computed based on projected load shape percentage for each energy efficiency
23 program for each month. The load shape percentage is the expected normalized savings

1 expected from each specific program (essentially it is weather normalized). These
2 estimated kWh sales by customer class by month were multiplied by margin rates for
3 each customer class by month. This estimate is based on the Company's proposed
4 adjustment including MEEIA Cycle 1 energy savings through June 30, 2016.

5 **Q: Did you estimate the impact of Staff's exclusion of MEEIA Cycle 1 energy savings**
6 **from this annualization adjustment?**

7 **A:** Yes, I estimated additional lost revenues of approximately \$6.5 million.

8 2.) Fuel Adjustment Clause

9 **Q: Staff witness Barnes recommends on page 179 of Staff's Report modifications to the**
10 **Fuel Adjustment Clause ("FAC"). This includes the recommendation that the only**
11 **transmission costs that should be included in GMO's FAC are those that GMO**
12 **incurs for purchased power and off-system sales ("OSS") excluding any and all**
13 **transmission costs related to GMO's Crossroads Generating plant. Staff witness**
14 **Lyons also discusses on page 150 of Staff's Report that all costs associated with**
15 **MISO RTO administrative fees for point-to-point transmission were eliminated**
16 **based on the Commission's Orders in both Case No. ER-2010-0356 and Case No.**
17 **ER-2012-0175. The Commissions Orders in both cases prohibited GMO from any**
18 **recovery of transmission costs for Crossroads. Since the Commission has previously**
19 **prohibited GMO from any recovery of transmission costs, an adjustment was made**
20 **to eliminate the MISO transmission administrative fee. Do you agree with these**
21 **recommendations?**

22 **A:** GMO does not agree increased transmission costs resulting from Entergy Arkansas
23 integration into MISO should be excluded. In the Company's direct case, the Company

1 proposed that all costs for the transmission of electricity by others (with the exception of
2 certain transmission costs related to the Crossroads generating station that have
3 previously been disallowed by the Commission), be included in the FAC. These costs
4 represent the transportation of electricity, are largely outside the control of the Company,
5 and are volatile. While the cost of electric transmission for Crossroads is higher than it
6 would be if the plant were located in the GMO area, these additional costs were included
7 in the evaluation of the facility which determined that Crossroads was the lowest cost
8 plan for GMO. In addition, the cost of transmission needs to be considered in the context
9 of the total costs to provide service from the facility. The cost of firm gas transportation
10 to the Crossroads generation facility is significantly less than it would have been had the
11 facility been located in GMO territory, if firm gas transportation would be available at all.
12 It would not be reasonable for GMO's retail customers to enjoy the benefits of lower firm
13 gas transportation costs at the Crossroads location, while at the same time avoiding the
14 cost of firm electric transmission that allows GMO to use the less expensive gas. For
15 further discussion of Crossroads refer to Company witness Burton Crawford's rebuttal
16 testimony.

17 **Q: Do you believe that the exclusion of Crossroads transmission costs in excess of what**
18 **the Commission excluded in the last case is appropriate?**

19 **A:** No. While the Company has accepted the fact that the Commission has excluded a
20 substantial portion of both plant and transmission costs in the last rate case, the Company
21 does not believe that it is reasonable, nor appropriate to continue to increase the level of
22 exclusions from recovery and yet require the Company to maintain the facility to serve its
23 customers. The increased costs are due to Entergy's entrance into MISO and are the

1 result of MISO's FERC-approved tariff rate for transmission service. The same also
2 happened for The Empire District Electric Company's Plum Point plant, where Plum
3 Point is now located in MISO as the result of Entergy membership with MISO. GMO is
4 not aware of any disallowance from these costs in the recently approved Empire case for
5 Plum Point. In fact, it is GMO's belief that Empire has been allowed all transmission
6 costs attributable to the Plum Point plant since the plant was placed into rates.

7 **Q: Staff recommends GMO suspend all of its hedging activities. Do you agree?**

8 A: No. Staff has been opposed to hedging activities being included within the scope of the
9 FAC for some time. In Case No. EO-2011-0390 Staff recommended that costs associated
10 with cross-hedging not be allowed to flow through GMO's FAC. The Commission
11 rejected the Staff's position. Instead, the Commission allowed costs associated with
12 cross-hedging to remain in GMO's FAC.

13 **Q: Please explain the reasons that GMO hedges fuel and purchase power.**

14 A: As discussed in detail in the rebuttal testimony of GMO witness Ed Blunk, GMO hedges
15 fuel and purchased power to manage market price risk for its customers. When prices are
16 rising, the hedge program will reduce costs by producing offsetting gains, thereby
17 mitigating the effect of rising prices. On the other hand, when prices are falling, the
18 hedge program will produce offsetting costs, thereby mitigating the benefit of falling
19 prices. As discussed in greater detail by GMO witness Blunk, while the financial side of
20 the hedge in this scenario generates a loss (cost), the physical transaction is executed at a
21 lower cost than expected at the time the hedge was entered (benefit), with the (cost) and
22 (benefit) offsetting each other when both the financial transaction and the physical
23 transaction are evaluated together. The purpose of the program is to reduce volatility and

1 risk. This reduction in volatility and risk is only beneficial to the customer under certain
2 circumstances – like car and homeowners insurance.

3 **Q: Did you review the testimony of OPC witness Lena Mantle regarding modifications**
4 **to the FAC?**

5 A: Yes.

6 **Q: Did Ms. Mantle recommend the continuation of GMO's FAC?**

7 A: Yes, but with significant restrictions and shrinking of the costs to be flowed through
8 GMO's FAC.

9 **Q: What recommendation has Ms. Mantle made?**

10 A: Ms. Mantle has recommended that only the following cost be included in the FAC:

11 Delivered fuel commodity costs including, inventory adjustments to the commodities,
12 adjustments to cost due to quality of the commodity and taxes on fuel commodities;

13 The cost of transporting the commodity to the generation plants; and

14 The cost of power purchased to meet its native load.

15 Off system sales revenues and net insurance recoveries, subrogation recoveries and
16 settlement proceeds related to costs and revenues included in the FAC would be netted
17 against the above costs.

18 **Q: Do you agree with this limited listing of items to be included in the FAC?**

19 A: I agree that all of the costs net of revenues listed should be included in the FAC, but I
20 disagree with Ms. Mantle's exclusion of other fuel and fuel related costs that have
21 historically been included in the FAC.

1 **Q: Why has Ms. Mantle recommended these changes?**

2 A: According to her direct testimony in this case there are a number of reasons. They
3 include:

4 a.) GMO has included costs that are not consistent with the Code of State regulations
5 regarding the FAC;

6 b.) GMO has not provided adequate information to determine whether or not the costs
7 proposed to be included are actually fuel and purchased power costs;

8 c.) the Company does not provide a complete explanation of the costs to be included in
9 the FAC;

10 d.) certain costs such as coal freeze and dust treatment, residuals, additives, emission
11 allowances;

12 e.) renewable energy credits revenues are not fuel and purchased power costs;

13 f.) the number and types of costs and revenues in GMO's proposed FAC make the FAC
14 unnecessarily complicated and impossible for the Commission;

15 g.) the other parties and even GMO witnesses to know what GMO is proposing to be
16 included in the FAC;

17 h.) costs and revenues that flow through the FAC should be limited to make it easier for
18 Staff, OPC and Other Parties to review FAC filings;

19 i.) there have been discrepancies in past true-up and prudence reviews caused by the
20 level of detail included in the Company's FAC..

21 **Q: How do you reply to all of these claims?**

22 A: First, I want to state that KCP&L, AmerenUE and The Empire District Electric Company
23 FAC's tariffs are generally identical to the current GMO FAC. Second, I will say that

1 GMO follows the Code of Federal regulation when accounting for the costs and revenues
2 associated with running its business. The Federal Energy Regulatory Commission
3 (“FERC”) has developed a uniform system of accounts that is required to be used by all
4 public utilities. Certain types of costs are to be recorded on the books and records in
5 certain FERC accounts. The use of the FERC accounts associated with fuel, purchased
6 power and off system sales are uniform, required and generally understood across public
7 utilities across the country. Every cost and revenue must be categorized by the Company
8 according to this federal code. The Company has annual external audits of its books and
9 records as well as FERC audits regarding how costs are classified. In addition to internal
10 analysis based upon the Uniform System of Accounts, for new or different costs the
11 Company often will check with the other public utilities in the state to inquire as to how
12 they are planning to record those costs.

13 Since the beginning of the Missouri Fuel Adjustment Clause the costs directly
14 associated with Commodity such as freeze and dust treatment have been included in the
15 FAC without question. It is not possible to burn coal, the commodity, without the fuel
16 adders/additives which are necessary, particularly with the many of the environmental
17 improvements made at the plants. Start-up fuels are necessary to start the plant in order
18 to produce electricity. Within the definition for account 555 entitled Purchased Power, it
19 lists spinning reserve costs as costs that should be recorded in account 555.

20 The original FAC tariffs were very concise, they listed the fuel and purchased
21 power accounts and only identified the costs that were to be excluded from the FAC.
22 Changes began to be made as Staff requested that all of the FAC tariffs in the state be as
23 similar as possible, particularly in form. This consistency allowed for an easier review by

1 the MPSC audit staff. The Company complied with this change. Also in subsequent rate
2 cases when the FAC is revisited each time, OPC began to insist that all costs be explicitly
3 listed on the tariff. Therefore, with each rate case since the first, the length, complexity
4 and detail of each FAC tariff sheet has increased dramatically.

5 Ms. Mantle states that the FAC should only include costs or revenues that
6 KCP&L is currently incurring or receiving. She proposes that the FAC should not include
7 costs or revenues that the Company is not currently receiving and that have not been
8 documented as expected to be incurred, with the exception to include unknown and
9 unidentified insurance recoveries, subrogation recoveries and settlement proceeds related
10 to costs and revenues.

11 Excluding appropriate fuel and purchased power costs from the FAC would
12 increase the potential for imprudence, potential for errors and disagreements.

13 **Q: Do you agree with all of the exclusions and modifications listed above and**
14 **recommended by Ms. Mantle?**

15 **A:** No. I believe that her recommendations are beyond the FAC rules and the legislation
16 intent when the legislature enacted the FAC. The purpose of the FAC is to allow
17 recovery of the fuel, purchased power and transportation costs of the Company.

18 **Q: Ms. Mantle notes a recent FAC prudence audit where the Company inadvertently**
19 **flowed disallowed costs through its FAC and the Commission Staff did not identify**
20 **the issue in the prudence audit. The issue was identified during the audit associated**
21 **with this current rate case. Does this indicate as Ms. Mantle states that the GMO**
22 **FAC is too complicated for effective review by the Commission Staff and other**
23 **parties?**

1 A: No. The Crossroads error was not because of the complexity of GMOs FAC, it was
2 because of changes happening outside of GMO's control which resulted in the error.
3 Once the error was discovered, the Company set in place the steps to correct for that
4 error. No process can eliminate all possibility for error. I believe that adding restrictions
5 and requiring the Company to pull out certain costs from the accounts naturally included
6 in the FAC causes confusion, complexity, and increased potential for error.

7 **Q: Ms. Mantle states that by reducing the number and types of costs and revenues**
8 **included in GMO's FAC would reduce the likelihood that errors would occur again.**
9 **Do you agreed with this statement?**

10 A: No, reducing the number and types of costs and revenues included in the GMO FAC
11 defeats the purpose of the FAC to begin with. It causes the company to lose the
12 opportunity to use the mechanism effectively to recover fuel, purchased power and
13 transportation costs.

14 **Q: Ms. Mantle is also trying to remove the costs and revenues associated with doing**
15 **business within SPPs integrated market. Do you agree with this position?**

16 A: Absolutely not, such a decision would significantly hinder the Company in a way that no
17 other utility in the state has been forced to do. Ms. Mantle makes a point when she says
18 that many of these SPP IM cost types were not even dreamed of when the rule was
19 written is correct, however the environment in which we do business has changee, the the
20 Company has been able to adapt to those changes. The SPP IM charge types, both
21 revenue and expense have been investigated and identified in accordance with a thorough
22 study of the uniform system of accounts. Their inclusion in the FAC is both appropriate
23 and reasonable.

1 **Q: Ms. Mantle asks if her recommendations would increase the risk that GMO faces**
2 **with respect to FAC costs and she replies that yes it would but only with respect to**
3 **non-fuel and purchased power costs now included in GMO's FAC. Do you agree**
4 **with this assessment?**

5 **A:** No. Ms. Mantle clearly misunderstands how an electric company is required to account
6 for its costs and revenues. The costs and revenues that GMO currently includes in its
7 FAC are appropriately considered to be fuel, purchased power, net of off-system sales
8 revenues. Additionally, GMO's current FAC is quite similar to the fuel clauses of the
9 other electric utilities in Missouri.

10 **Q: Is Ms. Mantle correct in her interpretation of the true-up case, EO-2009-0431**
11 **regarding whether or not off-system sales revenues were to flow through the FAC?**

12 **A:** No, she is not correct. It was not a misunderstanding. The Company pulled together
13 facts from the ER-2007-0004 case which showed definitively that off-system sales were
14 not a part of the FAC as approved in that case. Staff withdrew its proposed adjustment
15 and agreed with the Company's proposed true up.¹

16 **Q: Ms. Mantle also discusses Case No. EO-2011-0390 where Staff disagreed with the**
17 **Company's cross hedging policy for purchased power as an indicator that few costs**
18 **allowed would be a better way to proceed. Do you agree with this assessment?**

19 **A:** No. That case was taken to hearing and the Staff's claims were denied by the
20 Commission.

21 **Q: Should the Company reduce the number of cost types it uses to distinguish costs in**
22 **its accounting system so that the FAC can be less complex and easier to review?**

¹ See *Order Approving Annual Fuel Adjustment Clause True-up*, EO-2009-0431, July 29, 2009.

1 A: No. The goal should not be to reduce the number of cost types that are included in the
2 FAC. The company uses many different distinctions in order to manage its business.
3 Reducing cost types for simplicity sake will not benefit anyone. The purpose behind the
4 detail is to allow the Company to better manage its business.

5 **Q: Ms. Mantle states on page 6 of her direct testimony that the benefits to OPC's**
6 **recommended FAC would increase the transparency of GMO's FAC by enabling**
7 **the Commission, its Staff, GMO, and other interested parties to know exactly what**
8 **is included in GMO's FAC. Further, she also indicates that OPC's**
9 **recommendations will result in a simplification of prudency reviews. How do you**
10 **respond to these claims?**

11 A: The MPSC Staff auditors who have the task of monitoring, analyzing and auditing fuel
12 adjustment clauses in Missouri have not raised any concerns with their ability to audit the
13 past GMO tariff filings. To my knowledge, Staff has never indicated a lack of
14 transparency in the design or operation of the GMO FAC. Further, with the exception of
15 OPC, no other party has indicated an issue related to the task of monitoring, analyzing,
16 and auditing the FAC costs. Picking and choosing which fuel and purchased power costs
17 should be excluded versus included in the FAC needlessly complicates the process of
18 preparing and reviewing the FAC. As a result, the Commission should reject these
19 claims by Ms. Mantle.

20 **Q: What other recommendations did Ms. Mantle make?**

21 A: Ms. Mantle recommended several other changes, which include the following:
22 A. Modify the current 95/5 incentive mechanism to include a 90/10 incentive
23 mechanism.

- 1 B. Exclude all transmission costs.
- 2 C. Exclude FERC fees and SPP Schedule 1a and 12 fees.
- 3 D. Exclude coal freeze and dust treatment, residuals, additives, emission allowances and
4 renewable energy credit revenues.

5 **Q: Do you agree with Ms. Mantle's item A where she recommends changing the FAC**
6 **to a 90/10 sharing mechanism?**

7 A: No. The vast majority of FACs in place for electric utilities in this part of the country
8 reconcile recovery at the 100% level. GMO competes for capital with these companies
9 and the Company would be further disadvantaged if its FAC limits recovery through the
10 FAC to 90%. Under Ms. Mantle's proposal customers would not see the benefit of a
11 100% reconciliation in a declining cost market. It is also important to remember that fuel
12 costs are volatile. Because fuel costs are not controlled by the Company, it is only fair
13 that customers should enjoy 100% of the benefits of fuel cost reductions and that the
14 Company should recover 100% of fuel cost increases.

15 **Q: Do you agree with Ms. Mantle's items B & C regarding her recommendation to**
16 **exclude transmission costs and FERC fees and SPP Schedule 1a and 12 fees?**

17 A: No. GMO disagrees with the exclusion of all transmission costs, FERC Fees and SPP
18 Schedule 1a & 12 fees. As an RTO, SPP is a transmission provider currently
19 administering transmission service over portions of Arkansas, Kansas, Louisiana,
20 Missouri, Nebraska, New Mexico, Oklahoma and Texas. The Company is a member of,
21 and has transferred control of its transmission facilities to, SPP. With the exception of
22 certain grandfathered agreements, transmission service over the Company's transmission
23 facilities is provided pursuant to the SPP Open Access Transmission Tariff ("OATT").

1 SPP exercises functional control over all of the Company's transmission assets, and
2 offers point-to-point and network integration transmission services and generator
3 interconnections on the Company's transmission system pursuant to the OATT. The SPP
4 is a not-for-profit entity that must remain revenue neutral; its costs must be recovered
5 from its users (transmission customers). Consequently, the Company pays SPP for its
6 services, including an administration charge for performing the aforementioned RTO
7 functions on its behalf. These costs are rising, are out of the Company's control and are
8 necessary to transport electricity for the benefit of its customers. Further, the Company
9 should be allowed recovery of the FERC Fees. These fees are essential fees placed on
10 the Company by FERC and assessed through our participation in SPP. .

11 **Q: Do you agree with Ms. Mantle's item D?**

12 A: No. Exclusion of coal freeze and dust treatment, residuals, additives, emission
13 allowances and renewable energy credit revenues, all costs net of revenues that are
14 associated with fuel and purchased power used to provide electricity as indicated in the
15 Code of State Regulations, is not appropriate. The Company believes that these costs
16 should be flowed through the FAC. If, as Ms. Mantle asserts, the costs do not fluctuate,
17 then the base costs and actual costs will be the same and there will be no impact to the
18 customer. The costs, however, have been shown to be similar to other costs that are
19 included in the FAC. These costs should, therefore, be included in the proposed FAC.

20 **Q: Did Ms. Mantle make any other assertions regarding the FAC?**

21 A: Yes, Ms. Mantle claimed that the costs and revenues included in TMR-1 are not
22 consistent with the exemplar tariff sheets at TMR-4 and that GMO's definitions of costs
23 and revenues in its direct filing are not complete explanations as required by Commission

1 rule. Ms. Mantle also indicates that GMO is requesting costs included in the FAC even
2 though it hasn't incurred those costs in the last three years. Further, she recommends the
3 Commission find GMO's Crossroads Generating Facility an imprudent resource for
4 GMO and remove Crossroads from GMO's revenue requirement.

5 **Q: Do you agree with the modifications proposed by Ms. Mantle?**

6 A: No. Ms. Mantle makes two statements regarding GMO's definition of costs and
7 revenues. She indicates the definitions are inconsistent between the TMR-1 schedule and
8 TMR-4 exemplar tariff sheets and also states that the definitions used are incomplete
9 explanations as required by the Code of State Regulations. Schedule TMR-1 and TMR-4
10 exemplar tariff sheets contain the same types and definition of costs. The difference
11 between the two schedules is that TMR-1 includes the associated resource code with the
12 general ledger account number. The types and definitions of costs and revenues are the
13 same. Resource codes are part of the Company's managerial accounting system. They
14 can and do change to meet the then prevailing needs of the Company. Requiring that
15 resource codes be specified in a Company's tariff will not improve the information
16 provided to support FAC calculations. Instead it will interfere with the Company's
17 efforts to manage the costs reflected in those accounts. Ms. Mantle's statement that the
18 definition of costs and revenues are incomplete as required by the Code of State
19 Regulations is incorrect. The level of detail that Ms. Mantle expresses interest in imposes
20 a burdensome requirement on the utility that is in fact not required by the Code of State
21 Regulations. Certain types of costs are included in certain FERC accounts based upon
22 the FERC Uniform System of Accounts. The company chooses to break those FERC
23 accounts down further for its own management purposes. The level of detail provided in

1 the proposed FAC tariff is substantially the same as that included in the recently
2 approved KCP&L tariff in Case No. ER-2014-0370. Ms. Mantle also recommends costs
3 included in the FAC that haven't been incurred for the last 3 years should not be
4 included. The Company argues that the exclusion of any type of cost that fits within the
5 types of costs includable in an FAC as indicated by the Code of State Regulation should
6 be includable whether or not they have ever been used by the Company. Finally, the
7 Company disagrees with Ms. Mantle's recommendation that the Commission find
8 Crossroads an imprudent resource for GMO and remove from GMO's revenue
9 requirement. Refer to the rebuttal testimony of Burton Crawford.

10 **Q: Does the FAC help both customers and Company?**

11 A: Yes. The FAC is a balanced recovery mechanism which provides the Company with
12 recovery of the majority of its fuel and purchased power costs and transmission costs net
13 of off system sales and transmission revenues above a base amount that is included in
14 base rates, but also provides customers assurance that GMO is not over-recovering net
15 fuel and purchased power costs. The FAC is needed to help address volatile and
16 uncertain net fuel and purchased power costs, and to ensure the Company has an
17 opportunity to earn a fair return in order to generally preserve the financial health of the
18 Company. The net fuel and purchased power and transmission costs for GMO represent
19 approximately 30% of the overall costs of serving customers.

20 **Q: Do you believe that the absence of an FAC would be harmful to the Company
21 and/or the Customer?**

22 A: Yes. Without the proposed FAC, under increasing costs scenarios, the Company would
23 not have a reasonable opportunity to earn the rate of return authorized in this case.

1 Conversely, if net fuel and purchased power and transmission costs turn out to be lower
2 after the setting of base rates, then the presence of an FAC will protect customers from
3 paying higher prices than the Company's actual experience. For example, the current
4 FAC is actually a credit back to customers because the FAC is below the base. This
5 serves as GMO's explanation, compliant with Commission rule 4 CSR 240-3.161(3)(E),
6 of how the FAC proposed by GMO is designed to provide GMO with a sufficient
7 opportunity to earn a fair return on equity.

8 3.) Greenwood Solar Project

9 **Q: Would you provide the status of the Greenwood Solar project?**

10 **A:** Yes. The project is now complete and has been placed in service as of June 20, 2016. I
11 am attaching the In-Service Testing Report as Schedule TMR-12.

12 **Q: What has Staff recommended be done with the Greenwood Solar project.**

13 **A:** Staff recommends an allocation methodology for the Greenwood solar project which
14 allocates cost and any related revenues based on an energy allocator using 2015 MWh's
15 for both KCPL and GMO. Additionally, if the Commission does not approve
16 consolidating MPS and L&P rates in this case, Staff further supports an allocation
17 between those two rate jurisdictions. Staff's basis for this allocation comes from the
18 Commission Report and Order in File No. EA-2015-0256 and the fact that the
19 Greenwood Solar Project is being built to gain experience owning, operating, and
20 maintaining a utility scale solar facility with KCP&L employees gaining the experience.
21 While Staff's recommendation for the Greenwood Solar Project is based on an energy
22 allocator, Staff stated that it is open to discussion for alternative allocation methodologies
23 from other parties in this case.

1 Q The Company in a data response to Staff indicated it had no allocation method for
2 the Greenwood Solar facility. Do you still support that position?

3 A: Yes. The benefits to KCP&L from the investment in the solar project at GMO do not
4 warrant an allocation of any costs of the facility, whether direct or indirect, to KCP&L
5 because not a single electron produced by the Greenwood Solar facility will ever reach
6 the KCP&L system. The Greenwood Solar facility is interconnected to GMO's
7 distribution system and as such all energy from the system is produced for the benefit and
8 use of GMO's customers. As a corporation with multiple operating utilities, many
9 projects, both generation and distribution, are often done at one utility subsidiary and
10 may result in benefits of an intangible nature to the other. One of the benefits identified
11 during the acquisition of GMO by Great Plains Energy was the expertise that GMO had
12 in maintenance of its natural gas plants. That expertise was shared with KCP&L.
13 Likewise, KCP&L had substantial expertise in maintenance of its coal fleet and that was
14 then shared with GMO, without compensation through allocation of costs. KCP&L was
15 one of the first utilities in the nation to implement an automated meter reading system
16 many years ago. Both KCP&L and GMO are now in the process of deploying next
17 generation automated metering (AMI) and GMO is receiving the benefit of KCP&L's
18 expertise, without any transfer of costs to GMO for that knowledge. The Company
19 believes it is not appropriate to transfer any of the costs of the Greenwood Solar facility
20 to KCP&L.

1 **Q: If the Commission required GMO to transfer some dollar amount to KCP&L, have**
2 **you given any thought as to how much might be appropriate and how it could be**
3 **done?**

4 **A:** Yes. I would reiterate that the Company is opposed to any allocation and want to make it
5 clear that the energy-based allocator proposed by Staff which would allocate more than
6 65% of the plant and expenses associated with the Greenwood Solar facility away from
7 GMO to be paid by KCP&L customers is clearly unjustified and inappropriate.
8 However, the Company understands that this pilot project was built and operated to gain
9 experience with a utility scale solar project. One possible allocation methodology for the
10 solar facility could be based on an allocation between an alternative renewable energy
11 source capital costs versus the cost of the solar facility, with the difference between the
12 two allocated equally between KCP&L and GMO. If you looked at wind versus the solar
13 project, the difference in capital would be roughly \$2 million for the same size system.
14 This would result in roughly \$1 million in capital cost allocated to KCP&L. Because of
15 all the other impacts on the investment such as specific tax benefits, REC's, the energy
16 from the facility, and operating costs which would remain with GMO, using a plant
17 investment allocation is not practical. As such, if the Commission Ordered the Company
18 to make an allocation, I would recommend an allocation of no more than \$100,000 to
19 KCP&L in expenses to be reflected in KCP&L cost of service and future ratemaking.

20 **Q: How did you develop your amount to be transferred if the Commission deems it**
21 **necessary to allocate a portion of the cost to KCP&L?**

22 **A:** In determining the amount to be allocated, I considered the capital cost of the difference
23 between a wind project and the solar installation. It is somewhat of a back of the envelop

1 determination, in that several factors are unknown. If you consider an overall weighted
2 average cost of capital, depreciation, taxes, tax benefits, REC values, etc. to approximate
3 about 10%, then the overall project difference would be 10% times \$2 million
4 (\$200,000). Fifty percent of that would be assigned to KCP&L, or \$100,000. Note that
5 10% is an estimate where I tried to recognize the tax consequences of the investment, and
6 the value of the REC's that GMO would enjoy.

7 4.) Steam Allocation Methodology

8 **Q: What has Staff proposed regarding the allocation method for the Lake Road Plant**
9 **allocations between Electric and Industrial Steam operations?**

10 **A:** Because of the recent change with the 4/6 unit, Staff is recommending that the
11 Commission utilize the allocation factors filed in the direct testimony of Company
12 witness John P. Weisensee in Case No. ER-2012-0175, found on Schedule JPW-6
13 (SJLP). Any changes to the values of the allocation factors or their methods of
14 calculation should be deferred to future electric and steam rate cases to allow for the
15 effects of the operational changes at the Lake Road Plant to be more fully understood and
16 documented. Essentially, the Staff is recommending a freeze on the allocation factors
17 themselves. Staff also recommends that GMO perform a study to reanalyze all of the
18 electric/steam allocation factors in a manner similar to that done to create the allocation
19 procedures in Case No. EO-94-36. Staff indicates that the study should be completed
20 prior to the submission of any future changes in the methods used to calculate
21 electric/steam allocation factors. Staff suggests that with the uncertainty surrounding the
22 potential impacts from the changes at Lake Road 4/6 and the lack of evidence of any

1 other significant changes in the use of the 900 lb. steam system, it is not appropriate to
2 make changes to the Lake Road electric/steam allocation factors at this time.

3 **Q: How does the Company respond?**

4 A: The Company has performed a detailed analysis and has recommended a change in
5 allocation method based on its analysis as presented in my direct testimony. Numerous
6 meetings were held with the employees at the Lake Road plant and others who
7 understand the operations of both the steam and electric operations and who helped in
8 developing the proposed allocation method. The Company believes that a thorough
9 evaluation has been made and that it is appropriate to implement the revised allocations
10 in this case.

11 What I have proposed is a plant allocation methodology based on plant
12 capabilities and the demands of the steam customers as explained in both my direct and
13 as part of the cost of service filing in the case. The remaining allocations are essentially
14 unchanged. For example, the administrative and general (“A&G”) and operations and
15 maintenance (“O&M”) allocation factors used to allocate expenses between electric retail
16 and industrial steam services are unchanged, but the allocations simply use the new
17 demand allocation factors created by the whole plant allocation methodology.

18 **Q: Would you describe your background in leading the steam/electric allocation study
19 for the Company?**

20 A: Yes. Prior to my employment with KCP&L, I was employed by St. Joseph Light &
21 Power Company (“Light & Power”) for nearly 25 years. Light & Power is where the
22 steam business is located. As I addressed in my Direct Testimony, I was the responsible
23 for the regulatory department at Light & Power for nearly 20 years. In my role, I was

1 very involved in the allocations methodology used for the electric, natural gas and steam
2 businesses in setting rates. Light & Power had a natural gas business and the allocation
3 process allocated overheads between the three utility jurisdictions. I served as a
4 Company witness in electric, steam and natural gas cases where allocations were an
5 issue. I was also responsible for the customer contact with steam customers and regularly
6 met with customers on issues. In my role with KCP&L, I am responsible for overseeing
7 rate cases, class cost of service and rate design for both KCP&L and GMO in Missouri. I
8 have been involved with the steam operations since the acquisition of Aquila in
9 overseeing the steam rate cases and steam/electric allocations.

10 5.) The Line Loss Study

11 **Q: What is the issue that Staff has addressed regarding Line Losses?**

12 **A:** The Company provided to Staff its line loss study that was completed in October 2014. It
13 was completed at the same time that the line loss study for Kansas City Power & Light
14 Company's line loss study was completed and used in establishing KCP&L's FAC.
15 Staff's concern with the study is outlined in its report and supported by Alan Bax where
16 the report states: "While this loss study meets the requirement stated in 4 CSR 240-
17 20.090(9) that GMO supply a current loss study in conjunction with its request to
18 continue its FAC in the current rate case, the resulting loss factors calculated for GMO's
19 individual MPS and L&P rate districts are questionable, as compared to results of
20 previous loss studies. Moreover, while this loss study contained a separate analysis of
21 losses for both GMO's MPS and L&P rate districts, an analysis considering the
22 combination of the two rate districts, (a consolidated GMO system), was not included."
23 (Staff Report—Revenue Requirements, p. 108)

1 **Q: How do you respond to the Staff report?**

2 A: The Company has provided to Staff responses to data requests to answer Staff questions
3 and concerns about the line loss study. The Company has also provided a supplemental
4 spreadsheet to the line loss study which showed how the combined line losses were
5 developed for a consolidated basis. The Company believes that the proposed
6 methodology for the combined line losses to be used for the FAC as well as in the rate
7 design proposal is appropriate, however, the Company will continue to work with Mr.
8 Bax in an effort to resolve any issues that still may exist with the line loss study.

9 **6.) Critical Infrastructure Protection and Cyber-Security**

10 **Q: What has Staff proposed regarding the Critical Infrastructure Protection and**
11 **Cyber-Security costs?**

12 A: Staff has taken a traditional approach and annualized these costs based on 2015
13 information. The Company had requested that these costs be projected based on 2016-
14 2017 budgets to reflect the expected rapidly increasing costs throughout that time period.
15 The Company went further to state that if costs did not materialize as expected, the
16 Company would refund the difference between the amount in rates and the actual
17 expenditures, but if actual costs were greater than that amount, then the Company would
18 absorb the difference as a loss. In essence, an asymmetrical tracker designed for the
19 protection of customers.

20 **Q: Do you agree with the Staff proposal?**

21 A: No. Staff is ignoring the facts and circumstances surrounding the Company requests.
22 As we have explained in previous cases, CIPS/Cybersecurity costs are rapidly rising and
23 volatile as they are resultant from evolving and changing rules and standards, and are a

1 major contributor to the Company's inability to earn its authorized rate of return. The
2 Company is requesting that the Commission recognize the nature of this cost, and use a
3 forecasted amount (subject to refund) to capture the increasing cost nature of this
4 expense. Costs are increasing and the Company has developed a well identified plan to
5 address the changing requirements imposed on the Company. It is appropriate for the
6 Commission to allow recovery of its costs, while Customers are protected in the event
7 that the costs are less than those reflected in the Company's proposal.

8 7.) Economic Relief Pilot Program

9 **Q: What has Staff proposed regarding ERPP for GMO?**

10 **A:** Staff is supportive of the Company's program and made the following recommendations.

- 11 1.) Staff is supportive of continuing the ERPP program.
- 12 2.) Staff recommends the approval of the funding level increase by GMO's proposed
13 total program fund amount from \$630,000 annually to \$788,019 annually,
14 continuing with the current program funding terms of 50% ratepayer funded and
15 50% shareholder funded.
- 16 3.) Staff recommends allowing the Company to increase the monthly credit up from
17 \$50 to up to \$65 and increasing the FPL from 185% to 200%. Staff supports the
18 increase in the annual ratepayer funding from \$315,000 to \$394,010 and agrees
19 with annual shareholder funding increase from \$315,000 to \$394,010 for a total
20 annual program funding of \$788,019. Staff recommends an evaluation of the
21 program be performed with a sampling of survey participants higher than 10% of
22 active participants and the inclusion of prior participants so as to get a better
23 objective evaluation.

1 4.) Staff supports the change to the tariff to reflect that any excess of actual program
2 expenses would be made available for future ERPP expenditures

3 **Q: Do you agree with the Staff proposal?**

4 **A:** Yes. The Company will accept the Staff proposals on this issue.

5 **8.) FERC Assessment for MISO**

6 **Q: What has Staff proposed regarding the FERC Assessment for GMO from MISO?**

7 **A:** Staff has taken the position that the assessment from FERC for MISO should be
8 disallowed because it pertains to Crossroads and since the Staff has recommended
9 disallowance of the transmission costs for Crossroads, they believed that the assessment
10 should also be disallowed.

11 **Q: How do you respond?**

12 **A:** GMO is assessed a regulatory fee from FERC based on the usage of transmission of
13 electric energy. When Entergy joined MISO, transmission services provided to GMO
14 that were once administered by Entergy were transferred and are now being provided by
15 MISO. As a result, the allocation of FERC fees from MISO is now being charged to
16 GMO for the transmission services. The Company should be allowed recovery of these
17 FERC fees. This situation is no different than The Empire District Electric Company's
18 ("Empire") recovery of MISO fees in connection with its ownership of the Plum Point
19 power plant, which is located in MISO. In Empire's recent rate case, there was no
20 recommendation to disallow the FERC fees as a result of Entergy joining MISO. As
21 presented in the direct testimonies of Scott Heidtbrink, John Carlson and Burton
22 Crawford and the rebuttal testimony of Burton Crawford, changes have occurred with
23 Crossroads and the transmission costs associated with Crossroads which merit partial

1 recovery of transmission charges. The MISO fees are one of those changes that have
2 resulted from Entergy's membership into MISO and should be included in the
3 Company's costs of providing service.

4 9.) RESRAM Prudence

5 **Q: What has Staff proposed regarding the RESRAM for GMO?**

6 A: The Staff has proposed a disallowance of \$2.6 million to the RESRAM balance account.
7 This is because through the process in handling the GMO solar rebates to customers, the
8 Company exceeded the Stipulated Agreement of \$50 million in solar rebates to customers
9 by \$2.6 million.

10 **Q: Do you agree with Staff's proposed adjustment?**

11 A: No. As described in the rebuttal testimony of Kristen Riggins, the Company believes that
12 while it did exceed the \$50 million amount in the Stipulation and Agreement in Case No.
13 ET-2014-0059, the Company was prudent in managing the solar rebate process, given the
14 timing and push by the rules and regulations to process the solar rebate program.

15 **Q: Does that conclude your testimony?**

16 A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations)
Company's Request for Authority to Implement) Case No. ER-2016-0156
A General Rate Increase for Electric Service)

AFFIDAVIT OF TIM M. RUSH

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

Tim M. Rush, being first duly sworn on his oath, states:

1. My name is Tim M. Rush. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director, Regulatory Affairs.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of thirty (30) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

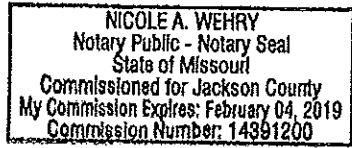
3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Tim M. Rush
Tim M. Rush

Subscribed and sworn before me this 15th day of August, 2016.

Nicole A. Wehry
Notary Public

My commission expires: Feb. 4 2019



**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Kansas City Power & Light)
Company's Notice of Intent to File an)
Application for Authority to Establish a Demand-) File No. EO-2015-0240
Side Programs Investment Mechanism)

In the Matter of KCP&L Greater Missouri Operations)
Company's Notice of Intent to File an)
Application for Authority to Establish a Demand-) File No. EO-2015-0241
Side Programs Investment Mechanism)

**NON-UNANIMOUS STIPULATION AND AGREEMENT RESOLVING
MEEIA FILINGS**

COME NOW Missouri Public Service Commission Staff ("Staff"), Kansas City Power & Light Company ("KCP&L"), KCP&L Greater Missouri Operations Company ("GMO") (hereafter KCP&L and GMO are referred to collectively as the "Company"), the Office of the Public Counsel, National Housing Trust, West Side Housing Organization, Natural Resources Defense Council, Earth Island Institute d/b/a Renew Missouri, Missouri Department of Economic Development – Division of Energy and United for Missouri, Inc. (together, the "Signatories") and present this Non-Unanimous¹ Stipulation and Agreement ("Stipulation") to the Missouri Public Service Commission ("Commission") for the Commission's approval, and in support thereof respectfully state as follows:

I. BACKGROUND

1. On August 28, 2015, KCP&L filed in Case No. EO-2015-0240 and GMO filed in Case No. EO-2015-0241 separate applications ("Application") under the Missouri Energy Efficiency Investment Act ("MEEIA") and the Commission's MEEIA rules, along with their separate reports with appendices (HC and NP), requesting Commission approval of demand-side

¹ Without taking any position regarding the propriety of its terms, Missouri Industrial Energy Consumers have indicated they will not oppose this Stipulation.

programs and technical resource manual (“TRM”)² and for authority to establish a demand-side programs investment mechanism (“DSIM”).

II. SPECIFIC TERMS AND CONDITIONS

2. Complete Settlement of Case. As a result of extensive settlement discussions among all of the Signatories, the Signatories have agreed upon the terms³ and conditions set forth below in full and final resolution of all issues in this case. This Stipulation is solely the result of compromise in the settlement process and does not serve as precedent beyond this Stipulation.

3. Approval of Plan. The Signatories agree for purposes of this Stipulation, the Commission should grant approval for KCP&L and GMO (“KCP&L/GMO”) to each implement demand-side programs (“MEEIA Programs”) and the DSIM described in this Stipulation (the “Plan”). While there is disagreement among the Signatories on how the Plan’s costs and benefits should be determined, the Signatories agree that the Plan is expected to provide benefits to all customers, including customers who do not participate in programs. While there is disagreement among the Signatories on the necessity of retrospective evaluation, measurement and verification (“EM&V”), under the specific circumstances of this Stipulation, the Signatories agree that the DSIM reasonably relies on retrospective EM&V when determining actual throughput disincentive and earnings opportunity amounts. Under the specific circumstances of the Stipulation, the Signatories agree that earnings opportunity (“EO”) amounts as set forth in Appendix B are reasonably related to the impact that the MEEIA Programs are expected to have upon supply-side resource needs.

² TRM attached as Appendix I.

³ Unless specifically defined herein, the terms used in the Stipulation are defined in the Commission’s rules, 4 CSR 240-20.093(1) and 4 CSR 240-20.094(1).

4. MEEIA Programs and MEEIA Programs' Cost.

a. The MEEIA Programs are:

(i) Non-Residential/Business Programs: Business Energy Efficiency Rebate-Custom; Business Energy Efficiency Rebate-Standard; Strategic Energy Management; Block Bidding; Online Business Energy Audit; Small Business Direct Install; Business Programmable Thermostat; Demand Response Incentive;

(ii) Residential Programs: Income-Eligible Weatherization (this is a GMO-only program and will be available only for 2016); Home Lighting Rebate; Home Appliance Recycling Rebate; Income-Eligible Home Energy Report (this is a KCP&L program only); Home Energy Report; Online Home Energy Audit; Whole House Efficiency; Income-Eligible Multi-Family; Residential Programmable Thermostat; and

(iii) A research and pilot program also has been included consistent with the KCP&L/GMO applications filed on August 28, 2015 at page 51 (KCP&L) and page 56 (GMO).

b. The Company agrees to make its best effort to begin implementation of the MEEIA Programs on January 1, 2016, or on the effective date of the tariff sheets for the MEEIA Programs, if the effective date is other than January 1, 2016. The Plan period will conclude 36 months following initial implementation of the Plan. The KCP&L Plan includes a total budget of \$50,436,843 for its MEEIA Programs. The GMO Plan includes a total budget of \$52,640,451 for its MEEIA Programs. The budgets and annual energy and demand savings targets for each MEEIA Program are found in Appendix A.

c. KCP&L/GMO's Demand Response Incentive program customer incentive budget is based on customer incentive levels for any new or renewal contracts. The incentive levels for the program are contained in HC Appendix C. KCP&L/GMO will re-evaluate initial customer

incentive payments with the ability to adjust the incentive payments during the Plan period. New or renewal contracts will have a maximum term of three years. The tariff sheet for the Demand Response Incentive program shall be modified as included in Appendix D.

d. No CFLs will be included in the Home Lighting Rebate Program. The Home Lighting Rebate Program will only include LEDs. KCP&L/GMO agree not to provide more than 120,000 CFL bulbs per company in 2016, 100,000 CFL bulbs per company in 2017 and 80,000 CFL bulbs per company in 2018 to food banks or similar outlets, which shall be evaluated as part of the Income-Eligible Multi-family program.

e. The Signatories agree that the Company shall promote the Missouri Home Energy Certification program in conjunction with its energy efficiency programs, and will promote it on the Company's website. The promotions shall be designed to highlight the program's ability to increase the marketability of homes that have been improved through energy efficiency investments. Any and all assertions of increased marketability shall comport with any and all other applicable laws.

f. The Signatories agree that Combined Heat and Power ("CHP") can qualify under the business custom program. Consistent with KCP&L/GMO's applications, CHP projects will be reviewed and approved on a case-by-case basis and approval is based upon available program funding. Approval of CHP projects is solely at KCP&L/GMO's discretion.

5. Special Provisions for Income-Eligible Multi-Family ("IEMF").

a. KCP&L/GMO will provide owners of multi-family buildings with a single point of contact ("Coordinator") for in-unit and common area/building system measures (regardless of whether the impact is to a residential or commercial customer). The Coordinator's duties will include:

(i) Determining eligibility and ensuring eligible customers are aware of the available incentives from all utilities.

(ii) Assisting in the application process for KCP&L/GMO residential and business improvements.

(iii) Providing a seamless point of contact for navigating the various incentive offers provided by the Company.

(iv) Maintaining a relationship with the existing business trade ally network and providing information and guidance to assist the incentive applicant with the bid process for installation work.

(v) Understanding and maintaining a network of assistance agencies and making referrals for financing and repairs, seeking to remove barriers to participation.

(vi) Providing case studies and education, and working with business development teams to ensure proper outreach is occurring.

(vii) Creating marketing materials to provide an easy to understand process for participation.

(viii) Engaging with other utilities where synergies in marketing and delivery of programs can be gained.

(ix) Maintaining working relationships with and providing outreach and education to stakeholders such as lenders, Missouri agencies, and other identified parties.

b. For the purposes of this program, a building's eligibility will be determined by the income qualification of the tenant occupants, who must meet one of the following requirements for eligibility:

(i) Reside in federally-subsidized housing units and fall within that program's income guidelines. State Low-Income Housing Tax Credit buildings will be eligible only to the extent allowed under state law.

(ii) Reside in non-subsidized housing with an income at 200% of poverty level or below. Where a property has a combination of qualifying tenants and non-qualifying tenants, at least 51% of the tenants must be eligible to receive incentives for the entire building to qualify. For IEMF properties with less than 51% qualifying tenants, the owner/manager will be required to verify installation of comparable qualified energy efficiency measures at their own expense in all non-qualifying units, then the program may upgrade the whole building, common areas and all of the eligible units with qualified energy efficiency measures.

c. Multi-family buildings (as defined to be including three or more units) with service under the KCP&L/GMO Service Classification of Residential or Non-Residential (excluding lighting classifications) will be eligible to participate in this program as long as the buildings meet the eligibility requirements above.

d. The program will provide a custom rebate option for comprehensive retrofits and measures to IEMF property owners for IEMF whole building and non-lighting common area measures, as well as for in-unit measures not otherwise covered as direct-install measures under KCP&L/GMO's IEMF program. The following measures are indicative of what will be available for the whole building and common areas: heating, ventilation and air conditioning; domestic hot water; motors; envelope improvements; controls and EMS; and pump/fan/piping/duct improvements. Common area lighting retrofits will be included as prescriptive measures. Custom incentives provided to income-eligible multifamily buildings will be provided at a \$0.02 per kWh premium over Business Custom incentives.

e. Level 1 energy audits with information on savings, estimated cost, and typical payback range and aggregated whole-building electricity usage data will be offered to qualifying buildings at no cost. The Company shall develop a list of recommended measures that will provide savings for the building and provide information on available prescriptive and performance-based (e.g. business custom) incentives. Restrictions on the frequency of aggregated whole-building electricity usage data reports may be established by KCP&L/GMO. The cost to KCP&L/GMO to provide aggregated whole-building electricity usage data is considered a program cost. It is understood that the aggregated whole-building electricity usage data made available to owners (or their authorized agents) shall not provide data identifiable to any specific KCP&L/GMO customer in the building.

6. Identification of Additional Energy Savings.

a. KCP&L/GMO is performing a potential study which is expected to be completed during 2017. As a separate initiative, KCP&L/GMO agree to a collaborative process with Signatories, to address new, unserved, or underserved customer markets and identify cost-effective energy and demand savings strategies (a possible additional 200 GWh of savings) that could be considered for implementation for program years 2017 and 2018 if all customers within the customer class realize a benefit. The possible additional 200 GWh is neither a floor nor a cap. Although there may be disagreement among the Signatories to the Stipulation about whether or how easily additional savings could be achieved, the Signatories agree to work together to identify strategies to maximize savings in a cost effective manner and to determine the feasibility of implementing additional programs or savings. Cost effective strategies to be assessed will include, but are not limited to: expanding upstream programs to include additional lighting, HVAC and consumer electronics; using whole building benchmarking as a tool to

prioritize existing buildings over 50,000 square feet for delivery of a streamlined bundle of energy efficiency services (including retro-commissioning); refining target markets so as to reduce the potential for free riders; evaluating and re-evaluating incentive payment levels with a view to modifying them if appropriate; evaluating charging participants for program services at just and reasonable rates to be approved by the Commission; evaluating earnings opportunity in relationship to participant payments; using a single point of contact to increase participation rates and reduce customer acquisition costs; working with large employers in the service territory to market energy efficiency services to their employees; assistance with whole building deep energy savings for new construction and existing buildings; whole home approaches for new and existing homes, and co-delivery with gas utilities. The Signatories also agree to consider low-income approaches not already addressed in the multifamily program, which need not pass a cost effectiveness test, but should be implemented in a prudent manner. The Signatories agree to have these discussions between the fourth and sixth month after the effective date of the tariff sheets implementing MEEIA Cycle 2. The Signatories agree that the Company will develop and file in both dockets a report summarizing the collaborative discussions described above. The cost to the Company of the collaborative process and associated report will be recovered through the DSIM as part of the budget for Research & Pilot program.

b. The Company must seek and receive Commission approval prior to adding any new programs identified in the collaborative process. If Commission-approved new programs are added in years 2017 and 2018, the Company may seek Commission approval to have the targets for the utility cap and the total cap as referenced in Appendix B of the EO matrix scale proportionately to the increase in annual energy and demand savings targets. Any programs that are added will be added in accordance with the Commission's rule 4 CSR 240-20.094(4).

7. Energy and Demand Savings. The Plan has the following planned energy and demand savings:

36 Month Plan Period	Planned Energy Savings (kWh)	Planned Demand Savings (kW)
GMO	184,549,652	105,855
KCP&L	198,097,872	66,328

The energy and demand savings targets for each of the individual MEEIA Programs are included in Appendix A and in the program tariff sheets attached as Appendix D.

The total resource cost test (“TRC”) for the portfolio of MEEIA Programs is 1.68 and 1.81 for KCP&L and GMO, respectively. The TRCs and other cost effectiveness ratios for individual MEEIA Programs are included in Appendix E.

8. Evaluation Measurement and Verification (“EM&V”).

a. KCP&L and GMO agree to perform an annual EM&V process and impact evaluations, which will include both an ex-post gross and a net to gross (“NTG”) evaluation. NTG ratio equals 1 minus Free Ridership Rate plus Participant Spillover Rate plus Non-Participant Spillover Rate. Net Savings equals NTG Ratio times ex post gross savings. The EM&V plan and guidelines are attached in Appendix F.

(i) Annual ex-post gross by measure will be used to adjust the TRM annual kWh/kW. Throughput Disincentive (“TD”) will utilize the updated TRM on a prospective basis.

(ii) Program Plan Years 1 and 2 EM&V NTG will be utilized for planning purposes for Cycle 3 to the extent available.

(iii) The final EM&V in the program period will include a Cycle 2 NTG as determined by the Evaluator, reviewed by the Commission’s Auditor, and approved by the Commission.

b. KCP&L and GMO agree to provide stakeholders the EM&V evaluator request for proposal for review and comment prior to release.

c. KCP&L and GMO agree to increase the budget up to a 6% level of the Commission-approved⁴ program costs budget for the EM&V. This increase has been reflected in Appendix A.

9. DSIM. The Signatories agree to the DSIM described in this Stipulation and attached as tariff sheets in Appendix D. To the extent this Section 9 differs from tariff sheets, the tariff sheets govern.

a. The DSIM addresses recovery of KCP&L/GMO's MEEIA Programs' costs, KCP&L/GMO's TD that is intended to recover lost margin revenues, and any earned EO Award. The Company will begin recovery through a DSIM Rider beginning at the implementation of the Plan billing or as soon as practical thereafter. See Appendix G for an example of the TD calculation and the EO adjustments for TD. Program costs and TD will be recovered contemporaneously. Program costs and TD will begin recovery upon approval by the Commission and will continue until all program costs and TD are recovered.

Program Costs: The Plan includes MEEIA Programs cost of \$50,436,843 and \$52,640,451, respectively for KCP&L and GMO, which are based on the planned budgets for the MEEIA Programs to be delivered over the 36-month period following effective date of the tariff sheets. If Commission-approved new programs are added in years 2017 and 2018, program costs will also be included.

Throughput Disincentive: The kWh savings will be reflected in the TD by multiplying the kWh savings for each program for the respective month times the incremental rate for the respective class⁵. A NTG initial factor of 0.85 will be used for contemporaneous TD recovery. Annual kWh savings per measure will be updated prospectively in KCP&L/GMO's TRM no

⁴ The Signatories expressly acknowledge that the provisions of 4 CSR 240-20.094(4) govern the process to be used in the event MEEIA cycle 2 program costs exceed budgeted levels of 20% or more.

⁵ The loadshapes for the programs are attached as Appendix J.

later than 24 months after the commencement of the Plan based on EM&V ex-post gross adjustments determined for Year 1.

Earnings Opportunity Award:

a. KCP&L and GMO will perform a full EM&V including an ex post gross adjustment and NTG determination for EO with no NTG floor and no NTG cap. For purposes of the EO, the kWh and kW savings measurements will be determined through the annual EM&V including NTG with no floor or cap on the NTG factor, based on actual measures installed in that year annualized unless otherwise described in the EO matrix (Appendix B). The EO awarded will be adjusted as follows:

(i) **TD Ex Post Gross Adjustment** – At the end of the three-year cycle, the annual ex-post gross measures for each program determined through the annual EM&V will be used to recalculate the TD as described above for each of the annual evaluation periods. The difference between the recalculated TD using ex-post gross measures and the TD using the deemed numbers, whether an increase or a decrease will be adjusted in the EO by applying carrying costs at the AFUDC rate compounded semi-annually.

(ii) **TD NTG Adjustment** – At the end of the three-year cycle, if the portfolio EM&V NTG is greater or less than the initial factor of 0.85, the difference between TD at 0.85 NTG and the TD calculated using the EM&V NTG, subject to a NTG cap of 1.00 and a floor of 0.80, will be recovered through the EO, including carrying costs at the AFUDC rate compounded semi-annually.

b. The Signatories agree that the EO cannot go below zero. The EO target at 100% is \$7,429,296 million for KCP&L and \$10,383,855 for GMO. For KCP&L, the EO (before adjustments reflecting TD EM&V including NTG) cannot go above \$10,495,620. For GMO, the

EO (before adjustments reflecting TD EM&V including NTG) cannot go above \$14,290,195. For KCP&L, the EO (including adjustments reflecting TD EM&V including NTG) cannot go above \$15,500,000. For GMO, the EO (including adjustments reflecting TD EM&V including NTG) cannot go above \$20,000,000. The caps are based on the current program levels. If Commission-approved new programs are added in years 2017 and 2018, the Company may seek Commission approval to have the targets for the cap of the EO scale proportionately to the increase in savings targets.

(i) **Allocation of Program Costs, TD and EO:** In general, MEEIA programs are designated as either Residential or Non-Residential (Business) and will be recovered by Residential or Non-Residential customer classes, respectively. Commission-approved Program costs, TD and EO relating to the IEMF Program, Income-Eligible Weatherization Program and Income-Eligible Home Energy Report Program will be allocated 50/50 to Residential and Non-Residential customer classes for recovery. The Research costs will be allocated appropriately to the customer classes. The Pilot program costs will be assigned appropriately to the customer classes to which the Pilot program is offered.

(ii) **Recovery Mechanism:** It is the intent of the Signatories that KCP&L and GMO ultimately shall bill customers for an amount as close as reasonably practicable to the actual MEEIA Programs' costs incurred, the TD, and any earned EO Award as provided for herein.

The initial DSIM Rider illustrative tariff sheets are attached as Appendix D and reflect the recovery of Commission-approved MEEIA Program costs, TD and EO Award, including interest. The rate to be charged to residential and non-residential classes initially will be determined by including the estimated initial six month Program costs and the TD plus the unrecovered balances from Cycle 1 MEEIA programs for KCP&L and one-fourth of the

unrecovered balances from GMO (GMO unrecovered balances from Cycle 1 will be recovered over a 24 month period) as set out in the tariff sheets in Appendix D.

(iii) **Separate Item on the Bill:** Charges from the MEEIA Plan shall be reflected as “DSIM Charge” on a separate line item on customers’ bills.

10. Annualizations. Upon filing a rate case, the cumulative, annualized, normalized kWh and kW savings will be included in the unit sales and sales revenues used in setting rates as of an appropriate time (most likely two months prior to the true-up date) where actual results are known prior to the true-up period, to reflect energy and demand savings in the billing determinants and sales revenues used in setting the revenue requirements and tariffed rates in the case. Upon the adjustment for kWh and kW savings in a rate case, the collection of TD will be re-based.

a. Test period weather normalized kWh usage for each customer class by billing month will be adjusted by⁶:

(i) Adding back the monthly kWh energy savings by customer class incurred during the test period from all active MEEIA programs, excluding Home Energy Reports and Income-Eligible Home Energy Reports programs which have a one year measure life, determined using the same methodology as described in Tariff Sheet 49K and 49L (KCP&L) and in Tariff Sheet 138.4 and 138.5 (GMO) except that calendar month load shape percentages by program by month will be converted to reflect billing month load shape percentages by program by computing a weighted average of the current and succeeding month percentages.

⁶ Step 1. Begin with Weather Normalized kWh per class provided by Company. Step 2. Compute Monthly Savings kWh (MS) per program in the same manner as used for TD calculation. Step 3. Weather Normalized kWh before application of Energy Efficiency (EE) adjustment. Step 4. Cumulative Annual Savings kWh (CAS) per program computed in the same manner as TD calculation as of Rebase Date. Step 5. Monthly Load Shape percentage per program converted to billing month equivalent by using a weighted average calendar month Load Shape percentage based on billing cycle information of the rate case. Step 6. Monthly EE Rebase Adjustment. Step 7. Weather Normalized kWh rebased for EE.

b. The Adjusted test period sales from above will be annualized for customers and additionally be adjusted further by:

(i) Subtracting the cumulative annual kWh energy savings from the first month of the test period through the month ending where actual results are available (most likely two months prior to the true-up date) by customer class from all active MEEIA programs, excluding Home Energy Reports and Income-Eligible Home Energy Reports, determined using the same methodology as described in Tariff Sheet 49K and 49L (KCP&L) and in Tariff Sheet 138.4 and 138.5 (GMO) except that calendar month load shape percentages by program by month are converted to reflect billing month load shape percentages by program by computing a weighted average of the current and succeeding month percentages.

c. Test period kW demand for each customer class will be adjusted by⁷:

(i) Adding back the monthly kW demand savings by customer class incurred during the test period from all active MEEIA programs, excluding Home Energy Reports, Income-Eligible Home Energy Reports and Demand Response Incentive programs, determined using the same methodology as described for kWh savings in Tariff Sheet 49K and 49L (KCP&L) and in Tariff Sheet 138.4 and 138.5 (GMO) and then:

(ii) Subtracting the cumulative annual kW demand savings from the first month of the test period through the month ending where actual results are available (most likely two months prior to the true-up date) by customer class from all active MEEIA programs, excluding Home Energy Reports, Income-Eligible Home Energy Reports and Demand Response Incentive

⁷ Step 1. Begin with kW demand per class provided by Company. Step 2. Compute Monthly kW demand per program in the same manner as used for TD calculation. Step 3. kW demand before application of Energy Efficiency (EE) adjustment. Step 4. Cumulative Annual kW demand per program computed in the same manner as TD calculation as of Rebase Date. Step 5. Monthly Load Shape percentage per program converted to billing month equivalent by using a weighted average calendar month Load Shape percentage based on billing cycle information of the rate case. Step 6. Monthly EE Rebase Adjustment. Step 7. kW demand rebased for EE.

programs, determined using the same methodology as described for kWh savings in Tariff Sheet 49K and 49L (KCP&L) and in Tariff Sheet 138.4 and 138.5 (GMO).

11. KCP&L/GMO shall each file a general rate case at some point before the end of year 5 of the Cycle 2 period to address the TD through the rebasing of revenues used to establish base rates, and if KCP&L/GMO fails to do so, the accrual and collection of the TD terminates beginning in year 6 of the Cycle 2 period. The Signatories agree that the filing of a rate case by each company utilizing an update or true-up period that ends between 30 months and 60 months after the effective date of the tariffs implementing MEEIA Cycle 2 satisfies this requirement.⁸

12. Transition Between MEEIA Cycles.

a. The last day to submit an application for the Cycle 1 C&I Custom Rebate program is December 15, 2015. The last day for approval of an application for the Cycle 1 C&I Custom Rebate program is January 31, 2016. The last day for completion of customer projects and submission of complete paperwork by customers is June 30, 2016. The final payment by KCP&L/GMO of rebates for all Cycle 1 projects is July 31, 2016.

b. KCP&L/GMO made a tariff filing, on November 12, 2015 to modify tariff sheets to reflect the agreement set forth in paragraph 12 a.

⁸ For example, if the effective date of the tariffs implementing MEEIA Cycle 2 is January 1, 2016, then the filing of a rate case by each company with an update period ending within the period from July 1, 2018 through December 31, 2020 satisfies this requirement.

c. Cycle 1 EM&V calendar is:

Stipulation and Agreement in File Nos. EO-2012-0009 and EO-2014-0095

Stipulation Paragraph	Process Steps	Program Year Days	Cumulative Days	Date
10.b.i.	Draft EM&V Report Circulated to Stakeholders	120	120	4/30/16
10.b.ii.	Comments and Recommendations on Draft EM&V Report	60	180	6/29/16
10.b.iii.	Meeting to Discuss Comments Prior to Final Draft Report	0	180	6/29/16
10.b.iv.	Final Draft EM&V Report Issued	30	210	7/29/16
10.b.[first]iv.	Still Concerns – Comments on Final Draft Report	20	230	8/18/16
10.b.[first]iv.	Still Concerns – Conference Call to Attempt to Resolve Concerns	10	240	8/28/16
10.b.[first]iv.	Still Concerns – Final EM&V Report Issues	15	255	9/12/16
10.b[second]iv.	File a Change Request	21	276	
10.b[second]iv.	Conference Call on Procedural Schedule	2	278	
10.b[second]iv.	File Responses to Change Request	19	297	
10.b[second]iv.	Evidentiary Hearing Completed Not Later Than	39	336	
10.b[second]iv.	Commission Report and Order Not Later Than	30	366	

(i) The KCP&L/GMO Evaluator will include a section in its April 30, 2016 draft EM&V Report which will identify any C&I Custom Rebate projects which have been approved for Cycle 1, but which have not been included in the results of the April 30, 2016 draft EM&V Report (“Carryover Project”).

(ii) The KCP&L/GMO Evaluator will include a separate section of its July 29, 2016 final EM&V Report which will:

- List the Carryover Projects;
- Provide the EM&V results for the Carryover Project for which EM&V is complete and identify each Carryover Project for which EM&V is incomplete (“Incomplete Carryover Project”); and
- State when it expects to have the final EM&V results for Incomplete Carryover Projects.

(iii) Stakeholders can express concerns and provide comments by August 18, 2016 regarding the July 29, 2016 final EM&V Report including any concerns and comments regarding Incomplete Carryover Projects.

d. Recovery of all Cycle 1 DSIM costs including all program costs, all throughout disincentive and any performance incentive for Cycle 1 C&I Custom Rebate program projects will be achieved through the Cycle 1 DSIM subject to prudence review for Cycle 1 DSIM costs. As the result of the agreements in this Stipulation, KCP&L and GMO shall use their respective Cycle 1 2015 DSMore files to calculate the Cycle 1 gross benefits to determine the TD-NSB for projects completed under the C&I Custom Rebate program between January 1, 2016 and June 30, 2016. These projects will be modeled in DSMore with a completion date of December 31, 2015. The Cycle 1 performance incentive amounts will result from full retrospective EM&V.

e. The Signatories acknowledge that by including C&I Custom Rebate carryover projects that were approved under Cycle 1 and those paid out through July 31, 2016 will increase the GMO/KCP&L MEEIA Cycle 1 actual expenditures above the Commission-approved budget. Moreover, additional EM&V costs may be incurred by GMO/KCP&L to accommodate these carryover projects, which will also impact the allowable 5% EM&V budget. The Signatories agree that if the additional EM&V costs are less than \$100,000, Commission approval is not needed.

f. While the Stipulation does not include a specific transition plan for Cycle 2, the Signatories agree that such a plan will likely be needed for the Business Custom program or other programs with lead times longer than 30 days, whether or not there is a Cycle 3. Therefore, the Company will propose a transition plan to the Signatories at least one (1) year prior to the end of Cycle 2. The Signatories will use best efforts to agree on a transition plan at least nine (9) months prior to the end of Cycle 2. Any Cycle 2 transition plan will require application to and approval by the Commission in accordance with 4 CSR 240-20.094(4).

13. Regulatory Flexibility.

a. For the purposes of settlement of Case Nos EO-2015-0240 and EO-2015-0241 only, the Signatories recommend the Commission waive 4 CSR 240-20.094(5) for good cause in light of future uncertainties and in recognition of the fact that the offering of MEEIA programs is voluntary at the election of the electric utility (section 393.1075.4 RSMo. and 4 CSR 240-20.094(3)(E)). KCP&L/GMO will not commit to implement MEEIA Cycle 2 portfolio for a three-year period, without the ability to discontinue all programs in the MEEIA 2 portfolio under appropriate conditions as defined by KCP&L/GMO. Therefore, KCP&L/GMO's MEEIA Cycle 2 tariff sheets shall include a reservation of rights provision reading as follows:

KCP&L/GMO reserves the right to discontinue the entire MEEIA Cycle 2 portfolio, if KCP&L/GMO determines that implementation of such programs is no longer reasonable due to changed factors or circumstances that have materially negatively impacted the economic viability of such programs as determined by KCP&L/GMO, upon no less than thirty days' notice to the Commission.

b. In the event of discontinuance, KCP&L/GMO shall provide notice in Case No. EO-2015-0240 and/or Case No. EO-2015-0241 no less than thirty (30) days prior to discontinuing the MEEIA Cycle 2 portfolio. KCP&L/GMO shall also provide written notice to the Signatories to this Agreement no less than thirty (30) days prior to the effective date of such discontinuance. KCP&L/GMO shall also advise customers of discontinuance by publication no less than thirty (30) days prior to the effective date of such discontinuance in newspaper(s) of general circulation in KCP&L/GMO service territory. KCP&L/GMO shall honor commitments made to MEEIA Cycle 2 program participants prior to the effective date of the discontinuance. In its notice, KCP&L/GMO shall (1) explain the reason(s) (e.g., changed circumstances) for the discontinuance of all MEEIA Cycle 2 programs in the portfolio); and (2) provide detailed workpapers that support its determination that continued implementation of the MEEIA Cycle 2

portfolio is unreasonable. Concurrent with its notice filing, KCP&L/GMO shall file a new tariff sheet(s) to indicate that the Company is no longer offering the MEEIA Cycle 2 portfolio.

c. In the event that KCP&L/GMO terminates all MEEIA Cycle 2 programs, KCP&L/GMO shall forfeit any recovery of the EO in connection with such programs but will continue to collect through the DSIM mechanism: (1) Program Costs incurred in delivering programs for commitments made by KCP&L/GMO to program participants prior to the effective date of the discontinuance and (2) Throughput Disincentive related to energy savings delivered through the discontinued MEEIA Cycle 2 programs through the date such savings have been “rebased” in a general rate case. The Company’s independent evaluator will perform a final EM&V to be reviewed by the Commission’s Auditor and approved by the Commission.

d. If any party has concerns regarding KCP&L’s/GMO’s discontinuance of all MEEIA Cycle 2 programs, it shall file a responsive pleading in Case No. EO-2015-0240 and/or Case No. EO-2015-0241 within fifteen (15) days of KCP&L/GMO’s written notification. Upon receipt of any such response, KCP&L/GMO shall promptly schedule a meeting, (providing reasonable advance notice of the meeting to all Signatories) where KCP&L/GMO will attempt in good faith to answer all questions regarding the discontinuance of all MEEIA Cycle 2 programs. In the event the Commission has questions or concerns, KCP&L/GMO agree to appear at a hearing or Agenda to address those concerns.

e. In the event all programs of KCPL and/or GMO are discontinued, Staff will continue to schedule and perform prudence reviews of the costs subject to the KCP&L/GMO DSIM.

f. KCP&L/GMO will take action as soon as reasonably practicable to adjust rates consistent with the discontinuance of the portfolio to ensure that KCP&L/GMO neither over- nor

under-recovers costs incurred in connection with KCP&L/GMO's MEEIA Cycle 2 portfolio. To the extent that KCP&L/GMO has over-recovered, such over-recoveries shall be returned to customers with interest at KCP&L/GMO's short-term borrowing rate. To the extent that KCP&L/GMO has under-recovered, such under-recoveries shall be recovered from customers with interest at KCP&L/GMO's short-term borrowing rate.

14. Rider.

a. Initial rates for Residential and Non-Residential will be computed for estimated initial six month Program Costs and the TD plus the unrecovered balances from Cycle 1 MEEIA programs for KCP&L (GMO unrecovered balances from Cycle 1 will be recovered over a 24 month period) as set out in the tariff sheets in Appendix D. Over- or Under- recovery of Commission-approved Program Costs and TD will be tracked and included in Rider adjustment for each six-month period thereafter for estimated Programs Costs and TD. EO will be computed in 2019 and included in Rider over a two-year period thereafter. The Cycle 1 Performance incentive will be collected through the Rider.

b. GMO will initiate a rider mechanism as shown on the specimen tariff sheets to take effect January 1, 2016 with rates effective February 1, 2016. GMO reserve balances for Cycle 1 will be recovered over a two year period and will be included in the initial tariffs and trued up through the tariff process.

c. KCP&L reserve balances for Cycle 1 will be recovered over a six-month period and will be included in the initial tariffs and trued up through the tariff process.

15. Building Information.

a. KCP&L agrees to provide upon request to owners (or their authorized agents) of multi-tenant buildings with five or more tenants and over 50,000 square feet, aggregated whole-

building electricity usage data no later than January 1, 2017. Restrictions on the frequency of aggregated whole-building electricity usage data reports may be established by KCP&L/GMO. The cost to KCP&L/GMO to provide aggregated whole-building electricity usage data is considered a program cost for Business Energy Efficiency Rebate-Custom. It is understood that the aggregated whole-building electricity usage data made available to owners (a) shall be used solely for benchmarking purposes and (b) shall not provide data identifiable to any specific KCP&L/GMO customer in the building.

16. Other Items.

a. Customer Notice for Cycle 3 – KCP&L and GMO will provide customers a notification that the companies have filed for their next round of MEEIA programs. KCP&L and GMO will provide Staff and OPC with draft language for the customer notice prior to the MEEIA filing. KCP&L and GMO will review and consider suggested edits to the draft language from Staff and OPC prior to the filing. Distribution of this notice will begin once the filings have been made.

b. The Signatories agree that KCP&L does not need to make a December 1, 2015 DSIM rider tariff filing because the specimen tariff sheets set forth in Appendix D include the DSIM rider tariff (Sheet No. 49E) that KCP&L would file on December 1, 2015. The Signatories agree that if the Commission approves this Stipulation and orders the filing of compliance tariff sheets, Sheet No. 49E should take effect on February 1, 2016.

c. Variations. The Signatories agree that some of the terms and conditions in this Stipulation are inconsistent with the Commission's rules, and that good cause exists by the agreements made within this entire Stipulation to recommend the Commission grant

KCP&L/GMO variances from those rules.⁹ The specific variances requested by the Company are found in Appendix H.

III. GENERAL PROVISIONS

17. This Stipulation is being entered into for the purpose of disposing of the issues that are specifically addressed herein. In presenting this Stipulation, none of the Signatories shall be deemed to have approved, accepted, agreed, consented or acquiesced to any ratemaking principle or procedural principle, including, without limitation, any method of cost or revenue determination or cost allocation or revenue related methodology, and none of the Signatories shall be prejudiced or bound in any manner by the terms of this Stipulation (whether it is approved or not) in this or any other proceeding, other than a proceeding limited to enforce the terms of this Stipulation, except as otherwise expressly specified herein. Without limiting the foregoing, it is agreed that this Stipulation does not serve as a precedent for future MEEIA plans, and does not preclude a party from arguing whether the Plan has or does not have an impact on KCP&L/GMO's business risk in any pending or future proceeding.

18. This Stipulation has resulted from extensive negotiations and the terms hereof are interdependent. If the Commission does not unconditionally approve this Stipulation, or approves it with modifications or conditions to which a party objects, then this Stipulation shall be void and no signatory shall be bound by any of its provisions.

19. If the Commission does not unconditionally approve this Stipulation without modification, or approves it with modifications or conditions to which a party objects, and notwithstanding its provision that it shall become void, neither this Stipulation, nor any matters associated with its consideration by the Commission, shall be considered or argued to be a waiver of the rights that any Signatory has for a decision in accordance with Section 536.080

⁹ All rule references are to 4 CSR Division 240.

RSMo 2000 or Article V, Section 18 of the Missouri Constitution, and the Signatories shall retain all procedural and due process rights as fully as though this Stipulation had not been presented for approval, and any suggestions or memoranda, testimony or exhibits that have been offered or received in support of this Stipulation shall become privileged as reflecting the substantive content of settlement discussions and shall be stricken from and not be considered as part of the administrative or evidentiary record before the Commission for any further purpose whatsoever.

20. If the Commission unconditionally accepts the specific terms of this Stipulation without modification, the Signatories waive, with respect to the issues resolved herein: their respective rights (1) to call, examine and cross-examine witnesses pursuant to Section 536.070(2), RSMo 2000; (2) their respective rights to present oral argument and/or written briefs pursuant to Section 536.080.1, RSMo 2000; (3) their respective rights to seek rehearing pursuant to Section 386.500, RSMo 2000; and, (4) their respective rights to judicial review pursuant to Section 386.510, RSMo Supp. 2012. These waivers apply only to a Commission order respecting this Stipulation issued in this above-captioned proceeding, and do not apply to any matters raised in any prior or subsequent Commission proceeding, or any matters not explicitly addressed by this Stipulation.

21. This Stipulation contains the entire agreement of the Signatories concerning the issues addressed herein.

22. This Stipulation does not constitute a contract with the Commission. Acceptance of this Stipulation by the Commission shall not be deemed as constituting an agreement on the part of the Commission to forego the use of any discovery, investigative or other power which the Commission presently has. Thus, nothing in this Stipulation is intended to impinge or

restrict in any manner the exercise by the Commission of any statutory right, including the right to access information, or any statutory obligation.

23. The Signatories agree that this Stipulation resolves all issues raised in this case, and that the testimonies of all witnesses whose testimony was pre-filed in this case should be received into evidence without the necessity of the witnesses taking the witness stand.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing document has been hand-delivered, transmitted by e-mail, or mailed, First Class, postage prepaid, this 23rd day of November, 2015, to counsel for all parties on the Commission's service list in this case.

/s/ Roger W. Steiner _____

Roger W. Steiner

KCP&L Greater Missouri Operations Company
Summary of MEEIA Cycle 1 TD-NSB and Lost Margins

	2013	2014	2015	2016	2017	2018	Total
Cycle 1 - GMO							
TD-NSB Realized	2,674,537	3,449,981	5,253,068	4,065,855	-		15,443,441
Estimated Lost Margins	685,636	2,730,289	6,500,980	7,804,522	(0)		17,721,427
Difference	1,988,901	719,692	(1,247,912)	(3,738,667)	0		(2,277,986)
Additional Lost Margins from Staff's Position	-	-	-	-	4,625,335	1,896,651	6,521,986

IN-SERVICE TESTING REPORT

Greenwood Solar Plant

Missouri Case No. ER-2016-0156



Kansas City Power & Light

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Attachment B.	Construction Completion & Pre-Operational Test Status
Attachment C.	72-Hour Performance Test Results
Attachment D.	Capacity Test Results

1.0 Executive Summary

KCP&L Greater Missouri Operations Company (“KCP&L-GMO” or “GMO”) performed in-service testing of the Greenwood Solar Plant (“Facility”) equipment during the period from June 8, 2016 through June 15, 2016. Testing included: a) observation of power production in a standard operating mode during periods when the sun was lighting the panels; and b) confirmation that the facility meets at least 95% of the guaranteed alternating current (“AC”) capacity based on the capacity test as outlined in the contract. In-Service testing was completed and Substantial Completion was granted on June 20, 2016. KCP&L-GMO previously provided to the Staff of the Missouri Public Service Commission (“MPSC”) this in-service test criteria that established specific construction and performance conditions that the Greenwood Solar Plant equipment had to meet in order to demonstrate that the generation equipment was in-service and “used and required to be used” for service to KCP&L-GMO’s customers. This in-service criteria was also provided to the MPSC in the hearings for the certificate of convenience and necessity for this facility. As of June 20, 2016, KCP&L-GMO successfully achieved each in-service criterion for the Greenwood Solar Plant.

2.0 Greenwood Solar Plant Project Description and Background

The Greenwood Solar Plant is adjacent to the Greenwood Energy Center located at 14015 S Smart Rd, Greenwood, MO. The facility covers approximately twelve (12) acres and consists of solar panels and support structures, transformer/inverter skids, switchgear, and physical security (including fencing, lighting, and cameras). The total plant nameplate capacity is approximately three megawatts (“MW”) AC. The on-site switchgear is connected to the distribution system at the site. The facility produces approximately 4,700 megawatt-hours (“MWh”) annually, enough to serve approximately 440 homes.

Factors¹ contributing to the decision to construct the facility include: a) the Commissions stated preference for company-owned generation instead of heavy reliance on purchase power agreements to meet Missouri load requirements; b) GMO’s furthering commitment to renewable energy by installing this first utility-scale solar system in its generation portfolio; c) the ability for GMO to gain hands-on solar operations and maintenance skills for utility-scale solar; and d) acknowledgement of customer interest in solar energy as exhibited by the passage of Proposition C and continued emphasis on renewable supply resources in the recent Missouri Comprehensive State Energy Plan process.

3.0 In-Service Test Criteria and Procedures

The new Greenwood Solar Plant equipment In-service criteria, attached to this Report as Attachment A – In-Service Test Criteria, includes: (1) Completion of all major construction work; (2) Successful completion of all pre-operational tests; (3) Successfully meeting contract operational guarantees necessary for satisfactory completion of all other In-Service Criteria; (4) Equipment successfully meeting certain in-service performance and capacity criteria; and (5) The existence of sufficient transmission/distribution facilities and interconnection facilities.

¹ EA-2015-0256, Application, ¶¶ 13 and 14, and the Post-Hearing Brief of KCP&L-GMO, Page 5

The in-service criteria contained specific performance and capacity criteria. The performance criteria required the demonstration that the equipment was functional during daylight hours over a consecutive 72-hour testing period. The capacity criteria required that the facility meet at least 95% of the guaranteed AC capacity based on the Capacity Test as outlined in the contract or amended contract.

4.0 In-Service Test and Results

Construction Completion and Pre-Operational Testing:

The completion of major construction and pre-operational testing occurred prior to the facility being tied in to the distribution grid on June 3, 2016. Attachment B - Construction Completion & Pre-Operational Test Status provides the construction completion and commissioning dates of all the major equipment. Walk-through was performed and Substantial Completion was awarded on June 20, 2016.

Contract Guarantees:

The facility successfully met all contract operational guarantees that were necessary for satisfactory completion of all other In-Service Criteria.

Performance Testing:

The 72-hour performance test began on June 8, 2016 and was completed on June 10, 2016. Successful completion of this test was based on the duration of consecutive five-minute time intervals the facility produced power in a standard operating mode. This is exhibited in the testing report through the level of measured AC voltages for all three phases. The test results are provided in Attachment C – 72-Hour Performance Test Results.

Capacity Testing:

The capacity test began and was completed on June 15, 2016. Successful completion of this test was based on the average of the guaranteed capacity for each five-minute time interval in the testing period. The test results are provided in Attachment D – Capacity Test Results.

Transmission/Distribution facilities:

At the time the facility was declared fully operational and used for service, all electricity produced at the facility was being delivered to customers through the distribution feeder. There are no production or transmission restrictions on the facility.

Transmission/Distribution interconnection facilities:

At the time the facility was declared fully operational and used for service, all interconnection was complete and power was being delivered to the distribution feeder.

5.0 Conclusion

KCP&L-GMO and its contractors have completed all major construction and pre-operational testing of the Greenwood Solar Plant equipment. During the period of June 8 through June 15, 2016 the

individual testing of the solar generation equipment demonstrated the ability to meet the In-Service Criteria by fulfilling the 72-consecutive hour performance test and the capacity test. All operational contract guarantees necessary for satisfactory completion of the In-Service Criteria is complete, and facilities for interconnection, and transmission and distribution exist and are sufficient for the total plant design. Therefore, the Greenwood Solar Plant has successfully met each of the In-Service Criteria and as of June 20, 2016 can be declared “used and required to be used” for service to KCP&L-GMO’s customers.

Attachment A - In-Service Test Criteria

1. All major construction work is complete.
2. All preoperational tests have been successfully completed.
3. Facility successfully meets contract operational guarantees that are necessary for satisfactory completion of all other items in this In-Service Test Criteria.
4. Upon observation of the facility for seventy-two (72) consecutive hours the facility will have demonstrated that when sunlight was shining on it during that period it produced power in a standard operating mode.
5. Facility shall meet at least ninety-five percent (95%) of the guaranteed AC capacity based on the Capacity Test as outlined in the contract or amended contract. The Capacity Test shall determine the facility's Corrected Capacity at the Design Point Conditions.
6. Sufficient transmission/distribution interconnection facilities shall exist for the total plant design net electrical capacity at the time the facility is declared fully operational and used for service.
7. Sufficient transmission/distribution facilities shall exist for the total plant design net electrical capacity into the utility service territory at the time the facility is declared fully operational and used for service.

Attachment B – Construction Completion and Pre-Operational Test Status

KCP&L-GMO Greenwood Solar Plant
 Major Construction and Pre-Operational Test Status
 Date: 07/28/2016

Greenwood Solar Plant - 3MW Central Station Solar (Sungevity)				
ID	Task Name	Actual Start	Actual Finish	% Complete
A	Project Award	09/30/2015	09/30/2015	100%
B	Engineering	10/01/2015	12/25/2015	100%
C	Procurement	11/03/2015	05/03/2016	100%
D	Notice to Proceed	03/02/2016	03/02/2016	100%
E	Mechanical Completion	05/23/2016	05/23/2016	100%
F	Pre-Commissioning	06/24/2016	06/30/2016	100%
G	Startup and Performance Testing	07/01/2016	07/14/2016	100%
H	Substantial Completion	06/21/2016	06/21/2016	100%
I	Final Completion			99%

Attachment C – 72-Hour Performance Test Results

KCP&L-GMO
Greenwood Solar Plant
72-Hour Performance Test Results

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/8/2016 2:05	1	12983.0	12950.8	13005.6
6/8/2016 2:10		12997.8	12972.4	13024.6
6/8/2016 2:15		12995.2	12960.8	13023.4
6/8/2016 2:20		12995.4	12971.4	13020.0
6/8/2016 2:25		12999.2	12957.4	13023.0
6/8/2016 2:30		12988.8	12957.0	13017.2
6/8/2016 2:35		13002.2	12975.0	13032.6
6/8/2016 2:40		13006.2	12974.2	13036.4
6/8/2016 2:45		13001.8	12970.2	13032.6
6/8/2016 2:50		13012.2	12976.6	13041.4
6/8/2016 2:55		13029.2	12991.6	13057.4
6/8/2016 3:00		13033.2	13000.8	13060.0
6/8/2016 3:05		2	13027.0	12996.4
6/8/2016 3:10	13029.8		13004.8	13060.0
6/8/2016 3:15	13038.8		13011.0	13063.8
6/8/2016 3:20	13029.6		13003.2	13056.4
6/8/2016 3:25	13036.4		13007.2	13060.6
6/8/2016 3:30	13038.8		13010.6	13066.4
6/8/2016 3:35	13035.6		13006.4	13064.0
6/8/2016 3:40	13042.2		13020.2	13071.0
6/8/2016 3:45	13042.4		13019.2	13076.8
6/8/2016 3:50	13041.6		13006.8	13068.8
6/8/2016 3:55	13022.4		12991.0	13049.0
6/8/2016 4:00	13036.0		13004.6	13066.0
6/8/2016 4:05	3		13014.0	12989.0
6/8/2016 4:10		13023.2	13004.0	13060.8
6/8/2016 4:15		13022.8	12992.4	13055.2
6/8/2016 4:20		13021.0	12991.8	13048.2
6/8/2016 4:25		13019.8	12989.6	13047.8
6/8/2016 4:30		13032.0	12998.8	13060.8
6/8/2016 4:35		13022.0	12985.8	13046.4
6/8/2016 4:40		13016.4	12979.0	13047.8
6/8/2016 4:45		13017.6	12976.4	13048.8
6/8/2016 4:50		13015.4	12980.4	13052.0
6/8/2016 4:55		13009.0	12972.4	13038.0
6/8/2016 5:00		13004.6	12969.0	13035.8
6/8/2016 5:05		4	13001.6	12963.8
6/8/2016 5:10	12978.0		12933.2	13012.0

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/8/2016 5:15		12974.8	12939.2	13019.6
6/8/2016 5:20		12972.6	12941.2	13019.8
6/8/2016 5:25		12978.4	12948.8	13008.0
6/8/2016 5:30		12974.0	12944.4	13012.0
6/8/2016 5:35		12985.2	12956.0	13024.0
6/8/2016 5:40		12986.2	12948.6	13032.2
6/8/2016 5:45		12995.6	12946.0	13032.6
6/8/2016 5:50		13000.0	12955.4	13035.4
6/8/2016 5:55		12999.4	12951.2	13029.0
6/8/2016 6:00		12979.4	12941.2	13013.4
6/8/2016 6:05	5	12994.4	12951.6	13019.0
6/8/2016 6:10		12998.0	12956.6	13031.4
6/8/2016 6:15		12994.8	12950.2	13030.6
6/8/2016 6:20		12970.6	12929.8	13011.4
6/8/2016 6:25		12974.6	12934.4	13013.6
6/8/2016 6:30		12965.0	12924.4	12998.4
6/8/2016 6:35		12961.8	12915.2	12994.2
6/8/2016 6:40		12951.4	12901.6	12976.8
6/8/2016 6:45		12963.0	12921.4	12987.2
6/8/2016 6:50		12961.2	12919.6	12986.6
6/8/2016 6:55		12968.6	12924.4	13012.4
6/8/2016 7:00		12968.2	12921.6	13005.4
6/8/2016 7:05	6	12967.8	12920.4	13003.0
6/8/2016 7:10		12952.0	12928.4	12982.2
6/8/2016 7:15		12960.6	12926.4	12984.8
6/8/2016 7:20		12968.0	12920.8	12994.2
6/8/2016 7:25		12959.8	12918.2	12991.8
6/8/2016 7:30		12971.8	12922.0	12998.4
6/8/2016 7:35		12965.8	12921.8	12990.8
6/8/2016 7:40		12963.6	12915.6	12987.8
6/8/2016 7:45		12959.6	12929.2	12990.2
6/8/2016 7:50		12966.0	12926.0	12989.6
6/8/2016 7:55		12957.6	12902.4	12975.6
6/8/2016 8:00		12957.8	12913.0	12985.4
6/8/2016 8:05	7	12956.6	12917.4	12989.6
6/8/2016 8:10		12969.8	12916.6	12990.6
6/8/2016 8:15		12981.6	12920.6	12989.8
6/8/2016 8:20		12977.4	12925.4	12989.0
6/8/2016 8:25		12977.6	12936.2	13000.2
6/8/2016 8:30		12980.8	12938.6	13002.2
6/8/2016 8:35		12985.6	12946.8	13006.0
6/8/2016 8:40		12966.2	12929.2	12988.6
6/8/2016 8:45		12982.2	12931.2	12987.8

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)	
6/8/2016 8:50	8	12981.6	12916.2	12985.4	
6/8/2016 8:55		12979.6	12919.2	12989.2	
6/8/2016 9:00		12969.6	12916.6	12980.6	
6/8/2016 9:05		12974.4	12914.8	12982.2	
6/8/2016 9:10		12971.8	12915.4	12981.8	
6/8/2016 9:15		12969.8	12913.0	12968.4	
6/8/2016 9:20		12987.0	12925.2	12976.8	
6/8/2016 9:25		12950.6	12881.2	12942.2	
6/8/2016 9:30		12944.6	12879.4	12948.6	
6/8/2016 9:35		12951.8	12893.4	12955.4	
6/8/2016 9:40		12891.2	12835.6	12900.8	
6/8/2016 9:45		12908.0	12858.8	12915.0	
6/8/2016 9:50		12959.4	12910.8	12957.8	
6/8/2016 9:55		12961.0	12897.8	12948.4	
6/8/2016 10:00	12940.4	12879.4	12950.8		
6/8/2016 10:05	9	12953.6	12900.4	12974.8	
6/8/2016 10:10		12964.8	12888.6	12974.2	
6/8/2016 10:15		12959.0	12892.0	12967.8	
6/8/2016 10:20		12946.2	12902.4	12964.4	
6/8/2016 10:25		12967.4	12918.0	12973.6	
6/8/2016 10:30		13023.2	12953.2	13022.6	
6/8/2016 10:35		13010.2	12940.4	13006.2	
6/8/2016 10:40		12991.0	12930.8	12996.6	
6/8/2016 10:45		13008.6	12921.6	12989.4	
6/8/2016 10:50		12963.6	12892.2	12956.0	
6/8/2016 10:55		12929.2	12866.8	12953.0	
6/8/2016 11:00		12977.2	12910.0	12979.8	
6/8/2016 11:05		10	12973.0	12887.0	12959.6
6/8/2016 11:10			12990.0	12892.4	12973.2
6/8/2016 11:15	12990.6		12909.8	12988.6	
6/8/2016 11:20	12966.2		12887.0	12953.2	
6/8/2016 11:25	12961.2		12887.8	12952.6	
6/8/2016 11:30	13003.8		12932.0	13010.0	
6/8/2016 11:35	13065.6		12987.4	13067.6	
6/8/2016 11:40	13075.8		12996.2	13078.0	
6/8/2016 11:45	13110.8		13024.4	13106.8	
6/8/2016 11:50	13161.2		13074.4	13139.4	
6/8/2016 11:55	13149.2		13071.2	13142.4	
6/8/2016 12:00	13151.8		13071.2	13127.6	
6/8/2016 12:05	11		13149.0	13063.2	13136.4
6/8/2016 12:10			13139.2	13059.4	13140.6
6/8/2016 12:15		13129.2	13043.0	13132.4	
6/8/2016 12:20		13132.6	13039.6	13134.4	

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/8/2016 12:25		13134.4	13037.6	13132.0
6/8/2016 12:30		13133.2	13035.6	13122.6
6/8/2016 12:35		13107.6	13027.6	13100.4
6/8/2016 12:40		13101.8	13019.4	13094.2
6/8/2016 12:45		13117.4	13021.6	13118.6
6/8/2016 12:50		13112.2	13010.6	13083.6
6/8/2016 12:55		13106.8	13014.0	13079.0
6/8/2016 13:00		13081.2	13007.0	13082.8
6/8/2016 13:05	12	13071.8	12997.4	13062.8
6/8/2016 13:10		13095.0	12984.8	13061.2
6/8/2016 13:15		13095.8	12984.4	13060.0
6/8/2016 13:20		13069.0	12979.6	13050.2
6/8/2016 13:25		13063.6	12958.2	13038.6
6/8/2016 13:30		13144.8	13043.6	13124.2
6/8/2016 13:35		13147.2	13046.6	13125.2
6/8/2016 13:40		13120.6	13023.2	13097.0
6/8/2016 13:45		13091.8	13027.2	13084.6
6/8/2016 13:50		13127.2	13028.2	13102.2
6/8/2016 13:55		13120.0	13035.2	13096.2
6/8/2016 14:00		13107.6	12999.2	13096.6
6/8/2016 14:05	13	13157.8	13069.2	13142.6
6/8/2016 14:10		13195.6	13089.0	13176.0
6/8/2016 14:15		13201.0	13074.0	13166.0
6/8/2016 14:20		13186.8	13064.0	13163.0
6/8/2016 14:25		13172.6	13075.2	13159.2
6/8/2016 14:30		13189.6	13073.2	13162.8
6/8/2016 14:35		13183.0	13061.2	13136.6
6/8/2016 14:40		13167.2	13058.6	13128.8
6/8/2016 14:45		13170.6	13059.2	13138.4
6/8/2016 14:50		13173.6	13061.0	13134.2
6/8/2016 14:55		13151.2	13031.4	13116.8
6/8/2016 15:00		13134.8	13030.4	13102.4
6/8/2016 15:05	14	13128.0	13021.2	13073.6
6/8/2016 15:10		13132.4	13021.0	13107.4
6/8/2016 15:15		13094.8	12993.2	13101.8
6/8/2016 15:20		13082.4	12986.6	13070.2
6/8/2016 15:25		13103.8	12982.2	13050.8
6/8/2016 15:30		13087.0	12960.4	13053.0
6/8/2016 15:35		13057.0	12932.8	13051.8
6/8/2016 15:40		13047.4	12927.0	13041.8
6/8/2016 15:45		13071.4	12932.4	13048.2
6/8/2016 15:50		13040.8	12907.0	13020.0
6/8/2016 15:55		13043.2	12918.4	13025.6

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/8/2016 16:00		13035.6	12938.4	13012.6
6/8/2016 16:05	15	13032.0	12917.2	13012.6
6/8/2016 16:10		13012.0	12897.4	13001.4
6/8/2016 16:15		12988.0	12889.2	12974.0
6/8/2016 16:20		12994.2	12891.4	12987.0
6/8/2016 16:25		13000.0	12902.8	12978.2
6/8/2016 16:30		13001.4	12872.2	12990.8
6/8/2016 16:35		12973.0	12867.2	12979.0
6/8/2016 16:40		12943.8	12844.4	12935.4
6/8/2016 16:45		12939.0	12837.4	12935.6
6/8/2016 16:50		12927.0	12803.0	12933.6
6/8/2016 16:55		12916.0	12765.6	12934.6
6/8/2016 17:00		12882.4	12763.6	12898.0
6/8/2016 17:05		16	12897.4	12798.6
6/8/2016 17:10	12898.6		12785.4	12916.2
6/8/2016 17:15	12872.0		12761.6	12906.4
6/8/2016 17:20	12893.6		12776.2	12886.4
6/8/2016 17:25	12872.2		12773.8	12860.8
6/8/2016 17:30	12856.4		12760.2	12868.0
6/8/2016 17:35	12862.8		12759.0	12878.6
6/8/2016 17:40	12858.8		12749.2	12869.0
6/8/2016 17:45	12852.6		12746.0	12827.8
6/8/2016 17:50	12828.0		12724.8	12826.6
6/8/2016 17:55	12870.8		12752.4	12860.4
6/8/2016 18:00	12853.0		12724.8	12844.2
6/8/2016 18:05	17		12848.6	12730.6
6/8/2016 18:10		12859.6	12724.2	12861.6
6/8/2016 18:15		12829.4	12696.4	12839.4
6/8/2016 18:20		12794.4	12675.0	12814.8
6/8/2016 18:25		12812.6	12687.0	12828.0
6/8/2016 18:30		12818.4	12688.0	12842.4
6/8/2016 18:35		12807.0	12671.6	12810.0
6/8/2016 18:40		12772.8	12665.8	12801.6
6/8/2016 18:45		12806.0	12694.0	12825.0
6/8/2016 18:50		12831.6	12680.6	12824.6
6/8/2016 18:55		12828.0	12706.0	12818.6
6/8/2016 19:00		12811.8	12695.2	12816.4
6/8/2016 19:05		18	12802.2	12703.8
6/8/2016 19:10	12830.0		12719.2	12847.8
6/8/2016 19:15	12822.2		12712.2	12835.2
6/8/2016 19:20	12837.6		12732.0	12849.8
6/8/2016 19:25	12838.6		12728.6	12845.8
6/8/2016 19:30	12831.8		12728.6	12866.0

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/8/2016 19:35		12838.0	12738.4	12875.0
6/8/2016 19:40		12803.0	12690.2	12804.8
6/8/2016 19:45		12785.4	12671.4	12769.4
6/8/2016 19:50		12805.4	12692.4	12810.2
6/8/2016 19:55		12822.2	12710.8	12840.8
6/8/2016 20:00		12824.0	12695.6	12827.4
6/8/2016 20:05	19	12789.4	12655.4	12791.8
6/8/2016 20:10		12774.8	12667.4	12787.4
6/8/2016 20:15		12778.8	12694.0	12805.4
6/8/2016 20:20		12762.0	12692.2	12778.8
6/8/2016 20:25		12773.8	12695.6	12798.8
6/8/2016 20:30		12783.8	12709.4	12800.0
6/8/2016 20:35		12795.2	12707.0	12809.2
6/8/2016 20:40		12784.6	12689.6	12790.6
6/8/2016 20:45		12770.6	12676.0	12789.8
6/8/2016 20:50		12788.4	12693.2	12806.4
6/8/2016 20:55		12785.4	12698.0	12792.8
6/8/2016 21:00		12800.0	12709.4	12792.4
6/8/2016 21:05	20	12765.0	12659.8	12780.4
6/8/2016 21:10		12783.2	12659.6	12777.8
6/8/2016 21:15		12765.6	12681.2	12774.4
6/8/2016 21:20		12767.4	12671.4	12795.0
6/8/2016 21:25		12761.2	12663.4	12794.0
6/8/2016 21:30		12740.8	12658.4	12777.6
6/8/2016 21:35		12791.6	12703.0	12812.4
6/8/2016 21:40		12803.6	12695.0	12814.0
6/8/2016 21:45		12808.8	12701.0	12839.6
6/8/2016 21:50		12811.4	12713.4	12854.6
6/8/2016 21:55		12829.2	12742.6	12869.2
6/8/2016 22:00		12842.0	12763.8	12891.2
6/8/2016 22:05	21	12869.0	12784.6	12900.0
6/8/2016 22:10		12873.6	12795.8	12903.0
6/8/2016 22:15		12883.8	12811.8	12930.4
6/8/2016 22:20		12887.6	12817.6	12922.0
6/8/2016 22:25		12933.8	12834.0	12954.6
6/8/2016 22:30		12947.4	12866.2	12979.6
6/8/2016 22:35		12956.2	12875.0	12990.2
6/8/2016 22:40		12947.0	12876.4	12983.6
6/8/2016 22:45		12963.4	12876.8	12996.4
6/8/2016 22:50		12973.4	12902.0	13009.6
6/8/2016 22:55		12971.8	12892.0	13013.4
6/8/2016 23:00		12977.6	12889.0	13000.6
6/8/2016 23:05	22	12956.4	12869.2	12968.0

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/8/2016 23:10		12922.6	12851.6	12938.4
6/8/2016 23:15		12943.6	12859.4	12966.8
6/8/2016 23:20		12932.8	12842.2	12957.8
6/8/2016 23:25		12957.4	12869.2	12976.2
6/8/2016 23:30		12951.8	12888.8	12980.6
6/8/2016 23:35		12988.8	12906.6	13006.2
6/8/2016 23:40		12978.6	12880.6	12998.2
6/8/2016 23:45		12976.4	12892.0	13001.8
6/8/2016 23:50		12985.0	12920.4	13019.8
6/8/2016 23:55		13003.6	12926.4	13022.0
6/9/2016 0:00		13023.8	12925.8	13041.6
6/9/2016 0:05	23	13003.0	12935.0	13035.6
6/9/2016 0:10		13030.8	12928.8	13037.0
6/9/2016 0:15		13022.0	12920.6	13017.8
6/9/2016 0:20		12977.4	12890.2	12978.4
6/9/2016 0:25		12982.2	12904.4	12993.4
6/9/2016 0:30		12976.6	12914.0	12999.6
6/9/2016 0:35		12995.6	12921.0	13029.6
6/9/2016 0:40		13013.2	12935.8	13028.2
6/9/2016 0:45		13010.8	12942.2	13023.4
6/9/2016 0:50		13021.4	12958.2	13049.2
6/9/2016 0:55		13024.8	12955.2	13051.4
6/9/2016 1:00		13035.0	12959.8	13051.2
6/9/2016 1:05	24	12995.0	12933.6	13012.4
6/9/2016 1:10		12963.6	12899.2	12986.8
6/9/2016 1:15		12976.6	12904.6	12987.4
6/9/2016 1:20		12980.0	12923.4	12995.0
6/9/2016 1:25		13012.2	12945.0	13024.8
6/9/2016 1:30		13008.2	12938.6	13016.0
6/9/2016 1:35		13023.0	12948.6	13035.6
6/9/2016 1:40		13026.0	12948.0	13039.8
6/9/2016 1:45		13009.2	12936.6	13021.2
6/9/2016 1:50		12947.6	12871.8	12949.8
6/9/2016 1:55		12954.4	12886.2	12973.8
6/9/2016 2:00		12967.8	12885.6	12984.4
6/9/2016 2:05	25	12950.6	12885.6	12961.2
6/9/2016 2:10		12941.6	12893.0	12960.0
6/9/2016 2:15		12949.0	12892.2	12969.6
6/9/2016 2:20		12973.4	12905.4	12979.0
6/9/2016 2:25		12973.4	12912.0	12986.8
6/9/2016 2:30		12987.2	12923.6	13009.2
6/9/2016 2:35		12997.6	12930.4	13017.4
6/9/2016 2:40		12993.6	12925.8	13008.8

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/9/2016 2:45		12929.2	12877.6	12954.4
6/9/2016 2:50		12917.6	12859.2	12930.4
6/9/2016 2:55		12876.6	12807.4	12886.2
6/9/2016 3:00		12850.2	12788.0	12872.2
6/9/2016 3:05	26	12857.8	12806.2	12886.2
6/9/2016 3:10		12848.0	12793.8	12868.2
6/9/2016 3:15		12859.6	12794.8	12871.6
6/9/2016 3:20		12859.2	12802.6	12875.2
6/9/2016 3:25		12853.2	12802.6	12880.0
6/9/2016 3:30		12834.0	12785.8	12866.0
6/9/2016 3:35		12825.6	12773.2	12855.4
6/9/2016 3:40		12819.4	12775.8	12853.0
6/9/2016 3:45		12832.8	12767.8	12851.8
6/9/2016 3:50		12832.6	12768.0	12851.6
6/9/2016 3:55		12819.4	12759.8	12836.2
6/9/2016 4:00		12808.4	12746.8	12825.6
6/9/2016 4:05	27	12819.4	12764.0	12842.6
6/9/2016 4:10		12838.0	12766.2	12861.8
6/9/2016 4:15		12832.4	12761.0	12866.0
6/9/2016 4:20		12827.6	12766.2	12854.8
6/9/2016 4:25		12828.4	12766.4	12858.2
6/9/2016 4:30		12828.0	12765.4	12848.0
6/9/2016 4:35		12812.2	12745.2	12818.6
6/9/2016 4:40		12795.0	12734.8	12823.2
6/8/2016 4:45		12806.6	12744.6	12837.2
6/9/2016 4:50		12801.4	12745.6	12824.0
6/9/2016 4:55		12801.8	12745.0	12821.0
6/9/2016 5:00		12770.6	12718.6	12803.2
6/9/2016 5:05	28	12766.2	12710.8	12799.4
6/9/2016 5:10		12796.0	12749.8	12822.6
6/9/2016 5:15		12815.6	12763.4	12837.2
6/9/2016 5:20		12796.0	12734.8	12821.6
6/9/2016 5:25		12797.0	12745.0	12823.8
6/9/2016 5:30		12800.2	12748.4	12827.0
6/9/2016 5:35		12805.2	12747.0	12826.8
6/9/2016 5:40		12803.6	12756.4	12838.0
6/9/2016 5:45		12803.4	12746.8	12838.0
6/9/2016 5:50		12813.4	12752.2	12846.4
6/9/2016 5:55		12806.6	12751.8	12845.6
6/9/2016 6:00		12788.6	12735.4	12818.0
6/9/2016 6:05	29	12782.6	12726.4	12817.0
6/9/2016 6:10		12760.2	12700.6	12805.6
6/9/2016 6:15		12758.2	12698.0	12807.0

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/9/2016 6:20		12813.6	12764.4	12855.8
6/9/2016 6:25		12813.8	12745.6	12836.0
6/9/2016 6:30		12779.6	12722.0	12812.4
6/9/2016 6:35		12786.6	12729.4	12816.2
6/9/2016 6:40		12795.6	12736.8	12814.0
6/9/2016 6:45		12786.6	12719.0	12819.2
6/9/2016 6:50		12772.8	12700.4	12809.8
6/9/2016 6:55		12781.4	12707.0	12818.8
6/9/2016 7:00		12838.0	12773.2	12870.8
6/9/2016 7:05	30	12832.0	12764.8	12856.8
6/9/2016 7:10		12831.0	12767.8	12862.2
6/9/2016 7:15		12833.6	12777.8	12871.6
6/9/2016 7:20		12835.4	12764.8	12856.2
6/9/2016 7:25		12836.0	12780.8	12862.0
6/9/2016 7:30		12812.2	12752.4	12848.2
6/9/2016 7:35		12829.8	12755.4	12867.4
6/9/2016 7:40		12807.4	12749.4	12858.0
6/9/2016 7:45		12780.2	12725.0	12827.6
6/9/2016 7:50		12787.0	12721.0	12835.6
6/9/2016 7:55		12832.0	12763.4	12861.2
6/9/2016 8:00		12852.4	12763.4	12867.6
6/9/2016 8:05	31	12845.8	12752.4	12860.4
6/9/2016 8:10		12806.6	12730.4	12846.2
6/9/2016 8:15		12834.6	12773.4	12881.0
6/9/2016 8:20		12872.4	12807.0	12917.4
6/9/2016 8:25		12876.6	12800.6	12905.8
6/9/2016 8:30		12883.0	12802.0	12900.0
6/9/2016 8:35		12858.8	12800.2	12903.2
6/9/2016 8:40		12845.8	12793.0	12887.4
6/9/2016 8:45		12833.6	12764.2	12870.2
6/9/2016 8:50		12852.2	12766.6	12887.0
6/9/2016 8:55		12920.4	12811.6	12948.8
6/9/2016 9:00		12950.2	12849.2	12977.2
6/9/2016 9:05	32	12934.0	12840.2	12960.0
6/9/2016 9:10		12950.8	12863.8	12968.6
6/9/2016 9:15		12975.0	12884.8	12993.6
6/9/2016 9:20		12954.4	12881.2	12982.0
6/9/2016 9:25		13047.0	12947.0	13051.8
6/9/2016 9:30		13139.0	13062.0	13144.8
6/9/2016 9:35		13127.8	13051.8	13150.2
6/9/2016 9:40		13139.4	13046.6	13164.2
6/9/2016 9:45		13085.0	12985.8	13080.2
6/9/2016 9:50		13051.2	12959.0	13064.2

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/9/2016 9:55		13061.6	12971.2	13067.6
6/9/2016 10:00		13072.0	12988.6	13096.0
6/9/2016 10:05	33	13043.6	12959.0	13082.6
6/9/2016 10:10		13094.2	13003.8	13115.6
6/9/2016 10:15		13125.4	13028.0	13124.6
6/9/2016 10:20		13115.4	13025.2	13134.8
6/9/2016 10:25		13101.2	13026.4	13120.0
6/9/2016 10:30		13113.2	13024.8	13118.8
6/9/2016 10:35		13118.6	13018.2	13133.4
6/9/2016 10:40		13107.0	13017.4	13133.8
6/9/2016 10:45		13134.6	13046.4	13147.8
6/9/2016 10:50		13153.4	13032.2	13124.6
6/9/2016 10:55		13126.8	13010.6	13124.8
6/9/2016 11:00		13132.8	13029.4	13145.8
6/9/2016 11:05	34	13129.4	13030.4	13128.4
6/9/2016 11:10		13107.6	13019.0	13098.4
6/9/2016 11:15		13121.8	13010.6	13115.0
6/9/2016 11:20		13130.8	13003.2	13132.2
6/9/2016 11:25		13095.2	12995.6	13104.6
6/9/2016 11:30		13085.6	12986.4	13103.2
6/9/2016 11:35		13096.2	13004.2	13110.0
6/9/2016 11:40		13085.8	13010.0	13093.0
6/9/2016 11:45		13061.8	12970.0	13065.0
6/9/2016 11:50		13066.8	12972.0	13074.2
6/9/2016 11:55		13070.4	12974.6	13076.8
6/9/2016 12:00		13080.2	12952.6	13081.4
6/9/2016 12:05	35	13056.2	12936.8	13066.0
6/9/2016 12:10		13061.2	12966.4	13066.2
6/9/2016 12:15		13064.0	12961.0	13059.6
6/9/2016 12:20		13044.0	12928.0	13036.4
6/9/2016 12:25		13050.6	12925.2	13056.4
6/9/2016 12:30		13027.4	12923.4	13042.0
6/9/2016 12:35		13010.8	12904.0	13009.8
6/9/2016 12:40		13018.0	12893.6	13018.8
6/9/2016 12:45		13015.8	12871.2	13005.2
6/9/2016 12:50		13012.6	12878.6	12996.4
6/9/2016 12:55		13021.8	12878.2	13007.0
6/9/2016 13:00		12997.8	12880.6	12994.6
6/9/2016 13:05	36	12992.6	12864.6	12991.6
6/9/2016 13:10		12964.6	12844.4	12958.2
6/9/2016 13:15		13031.0	12898.4	13035.6
6/9/2016 13:20		13050.4	12894.8	13042.4
6/9/2016 13:25		13046.8	12900.0	13008.4

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/9/2016 13:30		13024.2	12888.8	13008.0
6/9/2016 13:35		13005.4	12876.8	12991.6
6/9/2016 13:40		13008.4	12861.8	12977.0
6/9/2016 13:45		13002.2	12858.8	12971.2
6/9/2016 13:50		12991.4	12866.0	12974.2
6/9/2016 13:55		12985.0	12863.2	12974.0
6/9/2016 14:00		13014.4	12869.2	12993.0
6/9/2016 14:05	37	12998.4	12849.8	12969.4
6/9/2016 14:10		12995.0	12868.0	12976.6
6/9/2016 14:15		12979.2	12858.8	12957.8
6/9/2016 14:20		12953.8	12830.6	12950.6
6/9/2016 14:25		12967.8	12842.6	12964.8
6/9/2016 14:30		12959.0	12840.0	12968.8
6/9/2016 14:35		12980.8	12840.4	12968.0
6/9/2016 14:40		12984.8	12830.0	12959.8
6/9/2016 14:45		12939.0	12805.6	12927.8
6/9/2016 14:50		12946.0	12807.4	12931.2
6/9/2016 14:55		12946.0	12809.4	12944.8
6/9/2016 15:00		12939.0	12805.4	12940.0
6/9/2016 15:05	38	12969.2	12838.6	12973.0
6/9/2016 15:10		12980.0	12842.2	12960.6
6/9/2016 15:15		12964.4	12846.6	12971.4
6/9/2016 15:20		12921.2	12799.4	12925.6
6/9/2016 15:25		12947.6	12810.2	12934.0
6/9/2016 15:30		12941.2	12809.0	12917.8
6/9/2016 15:35		12947.8	12849.2	12969.6
6/9/2016 15:40		12929.4	12820.2	12955.0
6/9/2016 15:45		12910.4	12791.8	12924.2
6/9/2016 15:50		12917.2	12775.2	12920.8
6/9/2016 15:55		12904.8	12774.6	12916.4
6/9/2016 16:00		12916.4	12788.8	12922.0
6/9/2016 16:05	39	12894.6	12762.6	12906.8
6/9/2016 16:10		12872.4	12744.0	12895.6
6/9/2016 16:15		12878.0	12754.2	12890.8
6/9/2016 16:20		12883.8	12759.6	12887.8
6/9/2016 16:25		12889.4	12764.8	12885.2
6/9/2016 16:30		12873.0	12746.2	12893.6
6/9/2016 16:35		12858.6	12729.0	12871.8
6/9/2016 16:40		12913.0	12769.6	12903.2
6/9/2016 16:45		12898.2	12757.6	12902.0
6/9/2016 16:50		12877.4	12757.2	12897.8
6/9/2016 16:55		12900.8	12785.0	12933.8
6/9/2016 17:00		12911.0	12775.6	12922.4

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/9/2016 17:05	40	12906.0	12756.0	12914.8
6/9/2016 17:10		12878.6	12749.4	12914.2
6/9/2016 17:15		12890.8	12757.6	12939.4
6/9/2016 17:20		12887.2	12759.4	12928.0
6/9/2016 17:25		12885.0	12760.0	12889.6
6/9/2016 17:30		12886.4	12748.0	12879.2
6/9/2016 17:35		12890.8	12752.6	12900.4
6/9/2016 17:40		12886.2	12754.8	12894.2
6/9/2016 17:45		12855.6	12729.2	12894.6
6/9/2016 17:50		12860.8	12726.4	12890.4
6/9/2016 17:55		12851.8	12729.8	12903.2
6/9/2016 18:00		12855.8	12724.0	12892.8
6/9/2016 18:05		41	12857.6	12745.0
6/9/2016 18:10	12853.4		12731.4	12869.2
6/9/2016 18:15	12864.0		12734.0	12896.2
6/9/2016 18:20	12877.6		12749.0	12912.2
6/9/2016 18:25	12876.4		12738.8	12882.8
6/9/2016 18:30	12876.6		12728.0	12891.2
6/9/2016 18:35	12877.2		12744.6	12900.4
6/9/2016 18:40	12882.6		12736.6	12914.2
6/9/2016 18:45	12863.4		12726.4	12903.0
6/9/2016 18:50	12870.6		12721.0	12902.0
6/9/2016 18:55	12879.6		12720.2	12904.6
6/9/2016 19:00	12878.4		12728.0	12904.8
6/9/2016 19:05	42		12855.0	12759.0
6/9/2016 19:10		12826.0	12713.2	12895.6
6/9/2016 19:15		12834.8	12717.6	12905.2
6/9/2016 19:20		12850.8	12725.2	12903.0
6/9/2016 19:25		12844.6	12739.8	12900.8
6/9/2016 19:30		12851.4	12748.0	12904.4
6/9/2016 19:35		12867.0	12752.0	12910.4
6/9/2016 19:40		12873.6	12736.0	12909.4
6/9/2016 19:45		12865.8	12749.4	12900.2
6/9/2016 19:50		12885.4	12776.6	12925.2
6/9/2016 19:55		12879.8	12768.0	12934.6
6/9/2016 20:00		12892.4	12777.0	12933.2
6/9/2016 20:05		43	12930.6	12814.4
6/9/2016 20:10	12937.2		12834.4	12950.8
6/9/2016 20:15	12907.2		12798.6	12934.4
6/9/2016 20:20	12901.8		12800.8	12933.2
6/9/2016 20:25	12924.8		12823.2	12958.4
6/9/2016 20:30	12885.8		12788.0	12906.2
6/9/2016 20:35	12890.4		12788.4	12913.2

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/9/2016 20:40		12864.8	12768.0	12896.6
6/9/2016 20:45		12867.2	12777.4	12906.4
6/9/2016 20:50		12886.0	12811.8	12919.0
6/9/2016 20:55		12877.8	12785.8	12884.2
6/9/2016 21:00		12860.2	12763.4	12884.6
6/9/2016 21:05	44	12852.6	12775.0	12906.8
6/9/2016 21:10		12837.0	12769.2	12883.4
6/9/2016 21:15		12836.6	12775.2	12876.2
6/9/2016 21:20		12853.6	12784.4	12890.4
6/9/2016 21:25		12835.0	12759.2	12867.6
6/9/2016 21:30		12854.6	12768.6	12888.6
6/9/2016 21:35		12879.2	12770.4	12906.8
6/9/2016 21:40		12887.2	12793.6	12913.8
6/9/2016 21:45		12881.2	12802.0	12918.4
6/9/2016 21:50		12900.6	12811.2	12925.2
6/9/2016 21:55		12911.4	12817.4	12923.8
6/9/2016 22:00		12921.0	12850.6	12932.6
6/9/2016 22:05	45	12918.8	12846.0	12931.0
6/9/2016 22:10		12935.6	12850.4	12965.8
6/9/2016 22:15		12963.4	12861.4	12986.4
6/9/2016 22:20		12977.6	12879.8	12975.8
6/9/2016 22:25		12985.8	12899.0	12990.2
6/9/2016 22:30		12940.4	12837.4	12977.8
6/9/2016 22:35		12973.2	12860.6	12992.4
6/9/2016 22:40		12999.6	12886.6	12993.6
6/9/2016 22:45		12908.4	12816.0	12930.0
6/9/2016 22:50		12918.4	12828.2	12960.2
6/9/2016 22:55		12888.2	12791.4	12926.8
6/9/2016 23:00		12905.4	12785.6	12921.4
6/9/2016 23:05	46	12929.8	12801.2	12931.4
6/9/2016 23:10		12937.6	12842.0	12959.0
6/9/2016 23:15		12864.0	12794.0	12919.6
6/9/2016 23:20		12867.6	12772.2	12897.4
6/9/2016 23:25		12920.6	12807.8	12935.0
6/9/2016 23:30		12914.8	12824.0	12940.2
6/9/2016 23:35		12903.2	12823.8	12943.4
6/9/2016 23:40		12944.4	12833.6	12967.4
6/9/2016 23:45		12955.2	12867.2	12989.8
6/8/2016 23:50		12955.8	12871.0	12986.8
6/9/2016 23:55		12976.8	12874.8	13022.4
6/10/2016 0:00		12988.4	12896.8	13033.4
6/10/2016 0:05	47	13006.0	12915.0	13027.0
6/10/2016 0:10		13019.2	12935.2	13058.0

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/10/2016 0:15		12954.4	12869.8	13009.8
6/10/2016 0:20		12967.0	12891.0	13010.0
6/10/2016 0:25		12987.2	12917.6	13017.6
6/10/2016 0:30		12986.4	12908.6	13004.2
6/10/2016 0:35		13007.4	12932.6	13040.8
6/10/2016 0:40		13005.2	12946.4	13047.0
6/10/2016 0:45		13004.0	12941.4	13056.8
6/10/2016 0:50		13028.4	12954.2	13082.2
6/10/2016 0:55		12984.8	12902.8	13008.4
6/10/2016 1:00		12975.2	12906.0	13014.6
6/10/2016 1:05	48	12973.8	12912.8	13033.2
6/10/2016 1:10		12973.4	12903.0	13003.6
6/10/2016 1:15		12957.6	12895.0	12988.4
6/10/2016 1:20		12976.6	12912.2	13015.4
6/10/2016 1:25		12983.4	12926.6	13034.0
6/10/2016 1:30		13001.0	12943.4	13043.4
6/10/2016 1:35		12997.0	12941.6	13038.2
6/10/2016 1:40		13015.0	12956.4	13041.4
6/10/2016 1:45		13039.2	12962.6	13059.8
6/10/2016 1:50		13045.8	12991.8	13089.4
6/10/2016 1:55		12978.8	12924.2	13002.2
6/10/2016 2:00		12970.8	12893.8	12987.8
6/10/2016 2:05	49	12995.2	12930.0	13023.8
6/10/2016 2:10		13002.8	12944.6	13030.4
6/10/2016 2:15		13003.4	12923.8	13025.0
6/10/2016 2:20		13014.6	12950.4	13047.0
6/10/2016 2:25		13023.0	12972.0	13054.2
6/10/2016 2:30		13022.2	12969.2	13053.4
6/10/2016 2:35		13041.6	12970.4	13063.2
6/10/2016 2:40		13007.0	12922.0	13022.4
6/10/2016 2:45		12992.0	12919.2	13008.2
6/10/2016 2:50		13005.0	12935.0	13018.0
6/10/2016 2:55		13008.0	12935.2	13013.0
6/10/2016 3:00		12991.4	12922.2	13007.6
6/10/2016 3:05	50	12975.4	12921.8	13008.6
6/10/2016 3:10		12976.4	12922.2	13011.6
6/10/2016 3:15		13020.6	12947.8	13026.6
6/10/2016 3:20		13025.8	12953.6	13025.4
6/10/2016 3:25		12951.0	12892.6	12968.8
6/10/2016 3:30		12950.8	12904.2	12980.4
6/10/2016 3:35		12926.4	12874.6	12950.6
6/10/2016 3:40		12886.0	12830.2	12904.8
6/10/2016 3:45		12886.2	12830.4	12903.6

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/10/2016 3:50		12883.8	12810.0	12893.0
6/10/2016 3:55		12875.8	12801.8	12883.2
6/10/2016 4:00		12880.0	12818.4	12885.0
6/10/2016 4:05	51	12856.6	12810.8	12893.4
6/10/2016 4:10		12815.6	12758.2	12834.8
6/10/2016 4:15		12789.6	12735.0	12805.6
6/10/2016 4:20		12810.6	12754.8	12835.4
6/10/2016 4:25		12802.2	12767.8	12835.2
6/10/2016 4:30		12795.0	12740.4	12822.2
6/10/2016 4:35		12813.8	12748.2	12835.8
6/10/2016 4:40		12827.8	12765.0	12842.0
6/10/2016 4:45		12813.4	12767.4	12840.4
6/10/2016 4:50		12810.8	12750.0	12823.0
6/10/2016 4:55		12825.4	12759.4	12834.0
6/10/2016 5:00		12802.0	12752.2	12820.6
6/10/2016 5:05	52	12794.0	12741.2	12824.4
6/10/2016 5:10		12815.6	12745.8	12833.4
6/10/2016 5:15		12813.2	12746.8	12822.8
6/10/2016 5:20		12806.0	12739.8	12799.6
6/10/2016 5:25		12802.8	12742.4	12810.6
6/10/2016 5:30		12785.8	12722.8	12812.2
6/10/2016 5:35		12783.4	12712.8	12805.2
6/10/2016 5:40		12805.2	12728.4	12831.2
6/10/2016 5:45		12796.4	12733.0	12828.8
6/10/2016 5:50		12803.4	12756.8	12821.2
6/10/2016 5:55		12795.8	12735.4	12810.4
6/10/2016 6:00		12773.0	12711.0	12795.0
6/10/2016 6:05	53	12832.2	12784.8	12863.2
6/10/2016 6:10		12851.0	12795.0	12877.4
6/10/2016 6:15		12848.0	12795.6	12872.0
6/10/2016 6:20		12842.8	12784.2	12859.8
6/10/2016 6:25		12830.2	12784.6	12856.6
6/10/2016 6:30		12825.2	12772.4	12860.4
6/10/2016 6:35		12797.4	12756.0	12832.4
6/10/2016 6:40		12803.8	12739.0	12837.8
6/10/2016 6:45		12806.2	12744.2	12832.2
6/10/2016 6:50		12806.6	12740.8	12839.4
6/10/2016 6:55		12813.2	12755.2	12835.0
6/10/2016 7:00		12806.4	12751.8	12846.2
6/10/2016 7:05	54	12779.6	12726.6	12819.4
6/10/2016 7:10		12791.2	12729.4	12821.8
6/10/2016 7:15		12793.0	12728.6	12821.0
6/10/2016 7:20		12819.0	12773.2	12853.6

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/10/2016 7:25		12855.4	12799.2	12874.6
6/10/2016 7:30		12871.8	12805.8	12883.0
6/10/2016 7:35		12854.0	12794.8	12871.6
6/10/2016 7:40		12835.6	12793.2	12856.8
6/10/2016 7:45		12863.8	12805.6	12869.2
6/10/2016 7:50		12873.2	12805.8	12882.6
6/10/2016 7:55		12880.6	12820.8	12902.4
6/10/2016 8:00		12849.6	12794.6	12864.2
6/10/2016 8:05	55	12825.4	12793.0	12849.0
6/10/2016 8:10		12836.2	12769.2	12851.2
6/10/2016 8:15		12826.2	12770.0	12843.0
6/10/2016 8:20		12818.4	12764.2	12841.6
6/10/2016 8:25		12904.0	12836.0	12916.8
6/10/2016 8:30		12884.0	12835.2	12900.0
6/10/2016 8:35		12905.2	12828.8	12902.2
6/10/2016 8:40		12896.0	12835.6	12907.6
6/10/2016 8:45		12885.4	12819.2	12909.6
6/10/2016 8:50		12886.8	12817.6	12911.2
6/10/2016 8:55		12891.8	12807.4	12913.2
6/10/2016 9:00		12866.0	12797.4	12895.2
6/10/2016 9:05	56	12867.8	12789.2	12888.6
6/10/2016 9:10		12875.2	12798.8	12890.6
6/10/2016 9:15		12926.6	12853.2	12932.8
6/10/2016 9:20		12930.0	12866.4	12954.0
6/10/2016 9:25		12929.2	12850.0	12945.4
6/10/2016 9:30		12945.6	12867.0	12959.0
6/10/2016 9:35		12996.8	12909.6	13008.2
6/10/2016 9:40		13009.4	12917.8	12998.0
6/10/2016 9:45		13010.6	12937.2	13031.8
6/10/2016 9:50		13045.2	12954.4	13073.0
6/10/2016 9:55		13059.4	12964.4	13051.6
6/10/2016 10:00		13037.0	12962.2	13050.6
6/10/2016 10:05	57	13024.8	12954.2	13047.6
6/10/2016 10:10		13039.0	12949.0	13054.0
6/10/2016 10:15		13022.0	12944.2	13043.6
6/10/2016 10:20		13014.0	12961.4	13026.2
6/10/2016 10:25		13010.6	12930.6	13034.8
6/10/2016 10:30		13046.6	12961.2	13078.8
6/10/2016 10:35		13050.2	12972.4	13105.2
6/10/2016 10:40		13029.8	12957.2	13057.8
6/10/2016 10:45		13018.0	12950.6	13052.6
6/10/2016 10:50		13013.8	12929.4	13063.8
6/10/2016 10:55		13020.2	12947.2	13061.2

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)	
6/10/2016 11:00		13005.4	12941.6	13041.0	
6/10/2016 11:05	58	12999.8	12925.8	13021.0	
6/10/2016 11:10		12999.4	12924.6	13019.2	
6/10/2016 11:15		13015.6	12921.4	13021.6	
6/10/2016 11:20		13012.2	12899.8	13014.4	
6/10/2016 11:25		13014.4	12892.0	13008.6	
6/10/2016 11:30		12992.6	12893.2	13012.0	
6/10/2016 11:35		12969.8	12871.8	12992.2	
6/10/2016 11:40		12972.4	12858.2	12983.8	
6/10/2016 11:45		12984.4	12876.0	12984.6	
6/10/2016 11:50		12979.6	12881.4	12982.4	
6/10/2016 11:55		12979.2	12871.8	12976.0	
6/10/2016 12:00		12998.0	12857.2	12967.2	
6/10/2016 12:05		59	12977.0	12848.2	12967.8
6/10/2016 12:10			12988.2	12899.8	12994.2
6/10/2016 12:15	13000.0		12869.2	13001.8	
6/10/2016 12:20	12989.6		12855.8	12990.0	
6/10/2016 12:25	12970.4		12855.0	12982.4	
6/10/2016 12:30	12937.6		12830.2	12955.0	
6/10/2016 12:35	12960.2		12868.0	12978.8	
6/10/2016 12:40	12979.6		12860.6	12988.4	
6/10/2016 12:45	12958.6		12829.0	12961.2	
6/10/2016 12:50	12985.6		12853.0	12982.6	
6/10/2016 12:55	12998.0		12862.8	12995.0	
6/10/2016 13:00	12961.2		12836.4	12966.4	
6/10/2016 13:05	60		12950.4	12829.4	12962.2
6/10/2016 13:10			12879.2	12774.8	12903.6
6/10/2016 13:15		12968.8	12835.2	12976.0	
6/10/2016 13:20		12934.6	12820.2	12935.2	
6/10/2016 13:25		12969.0	12852.8	12968.0	
6/10/2016 13:30		12952.2	12817.8	12940.2	
6/10/2016 13:35		12879.8	12748.4	12882.4	
6/10/2016 13:40		13032.6	12896.2	13027.0	
6/10/2016 13:45		13019.0	12906.2	13023.0	
6/10/2016 13:50		12892.0	12802.0	12899.0	
6/10/2016 13:55		12993.2	12871.2	12992.2	
6/10/2016 14:00		13015.4	12894.0	13013.8	
6/10/2016 14:05		61	12987.4	12887.2	12993.0
6/10/2016 14:10			12969.4	12860.6	12977.2
6/10/2016 14:15	13015.0		12887.2	13019.0	
6/10/2016 14:20	13021.0		12885.0	13022.8	
6/10/2016 14:25	12870.6		12762.0	12913.2	
6/10/2016 14:30	12936.4		12831.2	12955.8	

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/10/2016 14:35		13001.8	12875.2	12998.4
6/10/2016 14:40		13011.6	12865.4	13009.0
6/10/2016 14:45		12980.0	12871.0	13002.2
6/10/2016 14:50		12900.4	12801.0	12945.0
6/10/2016 14:55		12957.0	12868.8	12991.6
6/10/2016 15:00		12955.4	12847.8	12979.8
6/10/2016 15:05	62	12947.6	12817.8	12950.2
6/10/2016 15:10		12942.4	12795.4	12935.0
6/10/2016 15:15		12817.4	12691.6	12846.4
6/10/2016 15:20		12964.0	12846.8	12963.8
6/10/2016 15:25		12926.6	12815.6	12941.8
6/10/2016 15:30		12992.6	12864.0	12996.2
6/10/2016 15:35		13030.0	12895.6	13031.6
6/10/2016 15:40		12984.2	12841.2	12980.8
6/10/2016 15:45		12977.8	12847.4	13010.6
6/10/2016 15:50		12982.2	12862.8	12983.2
6/10/2016 15:55		13000.8	12896.4	13016.2
6/10/2016 16:00		13003.2	12874.6	13017.6
6/10/2016 16:05	63	12983.2	12849.4	12970.2
6/10/2016 16:10		13009.4	12867.6	13002.8
6/10/2016 16:15		12986.2	12873.4	13000.2
6/10/2016 16:20		12902.2	12784.4	12934.4
6/10/2016 16:25		12930.4	12815.8	12969.0
6/10/2016 16:30		12946.4	12836.8	12994.8
6/10/2016 16:35		12943.0	12820.8	12973.6
6/10/2016 16:40		12942.4	12810.0	12949.6
6/10/2016 16:45		12957.6	12836.0	12963.6
6/10/2016 16:50		12938.8	12825.8	12967.6
6/10/2016 16:55		12941.6	12824.0	12965.2
6/10/2016 17:00		12929.2	12826.0	12946.6
6/10/2016 17:05	64	12923.0	12795.6	12937.6
6/10/2016 17:10		12938.8	12799.8	12949.2
6/10/2016 17:15		12937.6	12777.6	12946.0
6/10/2016 17:20		12897.8	12771.0	12931.2
6/10/2016 17:25		12909.8	12780.8	12925.8
6/10/2016 17:30		12921.6	12778.6	12936.6
6/10/2016 17:35		12913.4	12760.2	12935.4
6/10/2016 17:40		12909.2	12778.8	12930.6
6/10/2016 17:45		12901.2	12766.0	12919.6
6/10/2016 17:50		12894.8	12764.4	12922.6
6/10/2016 17:55		12897.2	12761.8	12914.2
6/10/2016 18:00		12871.8	12750.0	12896.2
6/10/2016 18:05	65	12886.0	12744.6	12895.0

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/10/2016 18:10		12890.6	12749.8	12926.2
6/10/2016 18:15		12906.0	12746.8	12935.2
6/10/2016 18:20		12914.8	12764.4	12919.8
6/10/2016 18:25		12920.4	12780.2	12943.4
6/10/2016 18:30		12922.8	12779.4	12960.6
6/10/2016 18:35		12898.4	12730.8	12924.8
6/10/2016 18:40		12873.6	12689.8	12861.2
6/10/2016 18:45		12848.0	12685.4	12859.6
6/10/2016 18:50		12846.8	12693.0	12872.0
6/10/2016 18:55		12846.6	12705.4	12897.6
6/10/2016 19:00		12851.0	12720.2	12878.6
6/10/2016 19:05	66	12869.8	12746.6	12883.6
6/10/2016 19:10		12860.6	12737.0	12882.2
6/10/2016 19:15		12839.6	12744.8	12891.0
6/10/2016 19:20		12869.6	12745.2	12917.4
6/10/2016 19:25		12872.0	12762.2	12940.0
6/10/2016 19:30		12869.0	12768.6	12922.8
6/10/2016 19:35		12881.6	12767.2	12928.8
6/10/2016 19:40		12890.4	12769.4	12944.4
6/10/2016 19:45		12899.8	12810.0	12970.4
6/10/2016 19:50		12891.0	12808.0	12977.4
6/10/2016 19:55		12835.6	12761.6	12910.0
6/10/2016 20:00		12845.8	12778.2	12921.0
6/10/2016 20:05	67	12867.8	12796.0	12944.0
6/10/2016 20:10		12898.4	12794.0	12941.8
6/10/2016 20:15		12881.8	12795.8	12936.4
6/10/2016 20:20		12889.2	12824.2	12947.6
6/10/2016 20:25		12893.2	12841.4	12946.4
6/10/2016 20:30		12900.0	12813.2	12944.4
6/10/2016 20:35		12890.6	12807.0	12940.4
6/10/2016 20:40		12870.2	12828.2	12954.6
6/10/2016 20:45		12876.6	12831.0	12940.4
6/10/2016 20:50		12874.6	12825.6	12944.4
6/10/2016 20:55		12859.4	12808.6	12928.8
6/10/2016 21:00		12871.0	12803.8	12911.0
6/10/2016 21:05	68	12865.6	12800.8	12906.8
6/10/2016 21:10		12861.0	12810.8	12915.0
6/10/2016 21:15		12869.0	12840.6	12920.0
6/10/2016 21:20		12879.0	12838.2	12936.8
6/10/2016 21:25		12877.2	12837.6	12951.2
6/10/2016 21:30		12903.2	12840.4	12958.6
6/10/2016 21:35		12918.8	12865.6	12979.6
6/10/2016 21:40		12908.8	12867.8	12990.4

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/10/2016 21:45		12919.2	12886.4	12984.2
6/10/2016 21:50		12937.8	12878.8	12983.6
6/10/2016 21:55		12931.8	12858.6	12966.6
6/10/2016 22:00		12893.2	12832.8	12941.2
6/10/2016 22:05	69	12898.6	12834.8	12945.8
6/10/2016 22:10		12905.8	12842.8	12937.2
6/10/2016 22:15		12888.4	12813.0	12918.6
6/10/2016 22:20		12880.4	12816.4	12921.0
6/10/2016 22:25		12873.4	12847.0	12944.0
6/10/2016 22:30		12912.4	12846.0	12955.4
6/10/2016 22:35		12942.6	12855.0	12976.6
6/10/2016 22:40		12931.4	12864.8	12970.4
6/10/2016 22:45		12939.2	12870.8	12989.6
6/10/2016 22:50		12969.4	12885.2	13011.8
6/10/2016 22:55		12978.8	12923.8	13013.0
6/10/2016 23:00		12946.0	12914.4	12982.2
6/10/2016 23:05	70	12911.8	12869.8	12969.6
6/10/2016 23:10		12936.0	12875.6	12982.4
6/10/2016 23:15		12958.4	12891.8	12978.0
6/10/2016 23:20		12970.0	12910.4	13002.0
6/10/2016 23:25		12928.6	12837.8	12958.4
6/10/2016 23:30		12934.8	12852.2	12966.8
6/10/2016 23:35		12922.2	12871.2	12978.4
6/10/2016 23:40		12909.0	12852.2	12966.6
6/10/2016 23:45		12898.0	12833.8	12952.0
6/10/2016 23:50		12917.4	12834.4	12956.2
6/10/2016 23:55		12905.8	12829.0	12938.8
6/11/2016 0:00		12900.2	12816.4	12929.8
6/11/2016 0:05	71	12904.2	12832.4	12951.4
6/11/2016 0:10		12908.2	12835.8	12964.6
6/11/2016 0:15		12911.8	12855.4	12960.4
6/11/2016 0:20		12930.8	12863.2	12957.4
6/11/2016 0:25		12959.2	12889.4	12994.2
6/11/2016 0:30		12976.2	12888.8	13014.8
6/11/2016 0:35		12966.2	12884.2	13004.6
6/11/2016 0:40		12978.4	12891.6	12992.6
6/11/2016 0:45		13006.4	12918.8	13030.2
6/11/2016 0:50		13017.6	12956.6	13057.4
6/11/2016 0:55		12992.6	12964.4	13035.8
6/11/2016 1:00		12960.8	12916.8	12986.2
6/11/2016 1:05	72	12993.0	12936.2	13016.2
6/11/2016 1:10		12985.0	12939.8	13035.4
6/11/2016 1:15		12989.0	12940.2	13030.4

Timestamp	Hours Completed	SEL 734 - Measured AC Phase A Voltage, (V)	SEL 734 - Measured AC Phase B Voltage, (V)	SEL 734 - Measured AC Phase C Voltage, (V)
6/11/2016 1:20		13019.8	12947.2	13036.2
6/11/2016 1:25		13016.2	12958.8	13054.6
6/11/2016 1:30		13002.8	12966.0	13049.6
6/11/2016 1:35		12966.2	12924.0	13013.2
6/11/2016 1:40		12986.0	12915.2	13006.2
6/11/2016 1:45		13000.2	12922.6	13011.0
6/11/2016 1:50		12982.8	12938.8	13016.8
6/11/2016 1:55		13010.4	12965.4	13042.8

Attachment D – Capacity Test Results

DRAFT

KCP&L-GMO
Greenwood Solar Plant
Capacity Test Results

Time Stamp	SEL 734 - Measured AC Power, (W), (-Direction)	SEL 754 - Measured AC Power-(W), (-Direction) ADJUSTED TO STC /DESIGN POINT CONDITIONS-(DPC) (500W/m ² Minimum POA)	% of Guaranteed Capacity Corrected to STC/DPC (2.97 Mw)
Average of Guaranteed AC Capacity			109%
6/15/2016 9:05	(1,555,400.00)	(3,248,799.51)	109%
6/15/2016 9:10	(1,613,800.00)	(3,262,598.74)	110%
6/15/2016 9:15	(1,667,200.00)	(3,269,426.38)	110%
6/15/2016 9:20	(1,714,400.00)	(3,284,201.63)	111%
6/15/2016 9:25	(1,764,400.00)	(3,298,442.51)	111%
6/15/2016 9:30	(1,814,000.00)	(3,306,550.34)	111%
6/15/2016 9:35	(1,865,600.00)	(3,320,183.59)	112%
6/15/2016 9:40	(1,913,800.00)	(3,326,981.75)	112%
6/15/2016 9:45	(1,954,000.00)	(3,327,303.11)	112%
6/15/2016 9:50	(2,002,600.00)	(3,326,338.56)	112%
6/15/2016 9:55	(2,049,600.00)	(3,334,530.88)	112%
6/15/2016 10:00	(2,083,000.00)	(3,347,378.40)	113%
6/15/2016 10:05	(2,127,200.00)	(3,344,719.40)	113%
6/15/2016 10:10	(2,164,400.00)	(3,352,216.78)	113%
6/15/2016 10:15	(2,214,600.00)	(3,353,480.85)	113%
6/15/2016 10:20	(2,261,600.00)	(3,340,879.19)	112%
6/15/2016 10:25	(2,292,000.00)	(3,335,751.69)	112%
6/15/2016 10:30	(2,328,800.00)	(3,334,723.74)	112%
6/15/2016 10:35	(2,361,800.00)	(3,327,278.33)	112%
6/15/2016 10:40	(2,386,000.00)	(3,324,794.71)	112%
6/15/2016 10:45	(2,415,000.00)	(3,323,199.01)	112%
6/15/2016 10:50	(2,460,800.00)	(3,326,932.16)	112%
6/15/2016 10:55	(2,478,200.00)	(3,322,011.65)	112%
6/15/2016 11:00	(2,509,400.00)	(3,311,652.82)	112%
6/15/2016 11:05	(2,535,800.00)	(3,305,678.74)	111%
6/15/2016 11:10	(2,568,000.00)	(3,299,728.22)	111%
6/15/2016 11:15	(2,583,200.00)	(3,299,061.16)	111%
6/15/2016 11:20	(2,598,600.00)	(3,300,754.07)	111%
6/15/2016 11:25	(2,623,400.00)	(3,299,546.89)	111%
6/15/2016 11:30	(2,660,000.00)	(3,285,881.97)	111%
6/15/2016 11:35	(2,666,600.00)	(3,281,692.07)	110%

Time Stamp	SEL 734 - Measured AC Power, (W), (-Direction)	SEL 754 - Measured AC Power-(W), (-Direction) ADJUSTED TO STC /DESIGN POINT CONDITIONS-(DPC) (500W/m ² Minimum POA)	% of Guaranteed Capacity Corrected to STC/DPC (2.97 Mw)
6/15/2016 11:40	(2,692,200.00)	(3,286,111.22)	111%
6/15/2016 11:45	(2,718,200.00)	(3,297,866.52)	111%
6/15/2016 11:50	(2,728,400.00)	(3,291,642.54)	111%
6/15/2016 11:55	(2,743,800.00)	(3,295,147.56)	111%
6/15/2016 12:00	(2,747,400.00)	(3,292,456.16)	111%
6/15/2016 12:05	(2,765,400.00)	(3,265,325.63)	110%
6/15/2016 12:10	(2,771,400.00)	(3,264,096.59)	110%
6/15/2016 12:15	(2,770,600.00)	(3,266,061.24)	110%
6/15/2016 12:20	(2,774,200.00)	(3,259,754.92)	110%
6/15/2016 12:25	(2,787,800.00)	(3,215,922.36)	108%
6/15/2016 12:30	(2,790,000.00)	(3,216,232.74)	108%
6/15/2016 12:35	(2,783,000.00)	(3,238,807.29)	109%
6/15/2016 12:40	(2,789,200.00)	(3,234,233.29)	109%
6/15/2016 12:45	(2,791,000.00)	(3,250,723.45)	109%
6/15/2016 12:50	(2,786,800.00)	(3,243,574.60)	109%
6/15/2016 12:55	(2,788,200.00)	(3,218,251.10)	108%
6/15/2016 13:00	(2,784,400.00)	(3,242,062.96)	109%
6/15/2016 13:05	(2,794,600.00)	(3,223,658.44)	109%
6/15/2016 13:10	(2,788,800.00)	(3,249,633.37)	109%
6/15/2016 13:15	(2,779,200.00)	(3,228,717.33)	109%
6/15/2016 13:20	(2,788,000.00)	(3,221,165.05)	108%
6/15/2016 13:25	(2,786,800.00)	(3,227,349.57)	109%
6/15/2016 13:30	(2,797,000.00)	(3,197,001.64)	108%
6/15/2016 13:35	(2,784,800.00)	(3,209,393.29)	108%
6/15/2016 13:40	(2,781,000.00)	(3,223,916.65)	109%
6/15/2016 13:45	(2,774,600.00)	(3,231,775.03)	109%
6/15/2016 13:50	(2,653,000.00)	(3,079,361.08)	104%
6/15/2016 13:55	(2,784,800.00)	(3,209,821.71)	108%
6/15/2016 14:00	(2,780,600.00)	(3,223,997.55)	109%
6/15/2016 14:05	(2,772,600.00)	(3,234,505.71)	109%
6/15/2016 14:10	(2,771,800.00)	(3,238,418.97)	109%
6/15/2016 14:15	(2,778,800.00)	(3,198,986.34)	108%
6/15/2016 14:20	(2,230,200.00)	(2,575,160.31)	87%
6/15/2016 14:25	(2,834,200.00)	(3,136,541.88)	106%
6/15/2016 14:30	(2,800,400.00)	(3,139,705.67)	106%
6/15/2016 14:35	(2,791,200.00)	(3,187,832.07)	107%
6/15/2016 14:40	(2,466,000.00)	(3,337,930.29)	112%
6/15/2016 14:45	(2,422,600.00)	(2,751,590.11)	93%
6/15/2016 14:50	(1,853,600.00)	(2,576,094.52)	87%

Time Stamp	SEL 734 - Measured AC Power, (W), (-Direction)	SEL 754 - Measured AC Power-(W), (-Direction) ADJUSTED TO STC /DESIGN POINT CONDITIONS-(DPC) (500W/m ² Minimum POA)	% of Guaranteed Capacity Corrected to STC/DPC (2.97 Mw)
6/15/2016 14:55	(2,096,800.00)	(2,965,708.18)	100%
6/15/2016 15:00	(2,634,200.00)	(3,098,500.73)	104%
6/15/2016 15:05	(2,703,000.00)	(3,244,401.80)	109%
6/15/2016 15:10	(2,502,200.00)	(3,256,569.92)	110%
6/15/2016 15:15	(2,611,000.00)	(3,273,955.92)	110%
6/15/2016 15:20	(2,564,800.00)	(3,257,454.85)	110%
6/15/2016 15:25	(2,542,800.00)	(3,259,353.02)	110%
6/15/2016 15:30	(2,535,600.00)	(3,259,433.98)	110%
6/15/2016 15:35	(2,484,200.00)	(3,278,127.54)	110%
6/15/2016 15:40	(2,445,200.00)	(3,297,493.10)	111%
6/15/2016 15:45	(2,413,000.00)	(3,296,935.86)	111%
6/15/2016 15:50	(2,369,400.00)	(3,300,816.32)	111%
6/15/2016 15:55	(2,334,000.00)	(3,300,275.48)	111%
6/15/2016 16:00	(2,300,600.00)	(3,296,176.94)	111%
6/15/2016 16:05	(2,274,400.00)	(3,284,222.50)	111%
6/15/2016 16:10	(2,218,800.00)	(3,283,457.43)	111%
6/15/2016 16:15	(2,174,600.00)	(3,284,765.00)	111%
6/15/2016 16:20	(2,130,800.00)	(3,295,063.76)	111%
6/15/2016 16:25	(2,088,400.00)	(3,277,235.63)	110%
6/15/2016 16:30	(2,053,200.00)	(3,269,769.63)	110%
6/15/2016 16:35	(2,023,000.00)	(3,264,772.50)	110%
6/15/2016 16:40	(1,984,800.00)	(3,272,554.42)	110%
6/15/2016 16:45	(1,948,200.00)	(3,264,779.74)	110%
6/15/2016 16:50	(1,895,600.00)	(3,246,431.47)	109%
6/15/2016 16:55	(1,856,000.00)	(3,252,443.53)	110%
6/15/2016 17:00	(1,807,200.00)	(3,255,973.78)	110%
6/15/2016 17:05	(1,751,800.00)	(3,255,909.31)	110%
6/15/2016 17:10	(1,685,200.00)	(3,271,497.44)	110%
6/15/2016 17:15	(1,629,800.00)	(3,264,441.45)	110%
6/15/2016 17:20	(1,592,400.00)	(3,253,617.66)	110%
6/15/2016 17:25	(1,548,600.00)	(3,246,508.46)	109%
6/15/2016 17:30	(1,499,600.00)	(3,242,479.85)	109%