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PUBLIC SERVICE COMMISSION David S. Samford (859) 368-7740 david@gosssamfordlaw.com



December 14, 2016

VIA HAND DELIVERY

Hon. Talina R. Mathews, Ph.D. **Executive Director** Kentucky Public Service Commission P.O. Box 615 Frankfort, Kentucky 40602

> RE: Case No. 2015-00134

Dear Dr. Mathews:

Pursuant to the Commission's December 7, 2016 Order concerning the denial of a request for confidential treatment, East Kentucky Power Cooperative, Inc. ("EKPC") is filing one original and ten copies of revised pages reflecting as unredacted the information that had been denied confidential treatment. Please return a file-stamped copy of this filing to my office.

If you have any questions or require additional information, please contact me.

Sincerely,

David S. Samford

Enclosures

cc: Parties of Record



This Framework proceeds from the most rigorous EM&V approaches in the left column, to the least rigorous on the right. Rigor is a term that refers to the amount of certainty one can apply to the results of the evaluation, as based on the level of actual measurement of impacts versus estimation. Typically, the more rigorous an EM&V Process, the more reliant the process is on technically detailed, primary data collection and measurement, which in turn usually means the higher the expense.

## 1.4 Relative Value, Costs and Benefits of EM&V

The EM&V Protocols developed by DNV KEMA are generally consistent with national standards, including current Uniform Methods Protocols being developed by the US DOE. We comment on the appropriateness of the Protocols for small G&T operations and cooperatives, and cite a recent study sponsored by the National Rural Electric Cooperative Association which analyzed the capacity of cooperatives to conduct EM&V, and the subsequent costs. Their recommendations are in line with the deemed savings approach already being used by EKPC as most appropriate for regulatory compliance, while still being within a reasonable range of costs. In this report, DNV KEMA comments on the relative value of pursuing a more rigorous EM&V processes for the added costs. As we examined the recommended approaches, we strove to provide recommendations that meet the needs of the various stakeholders and users of EM&V information, while minimizing costs and complexity.

Table 1-3 lists the range of budgets for EM&V using industry standard percentages of total DSM spending that is typically devoted to EM&V and EKPC's budget projections from the 5-Year Plan. These budgets assume that EKPC's portfolio of DSM programs will achieve the participation levels that are projected in the 5-Year Plan (i.e., that there will be enough program activity to justify the costs of evaluation).

|      | EKPC EEDR Budgets & Potential EM&V<br>Budgets |           |    |           |    |              | Proposed EM&V Budgets |         |    |         |    |         |
|------|---|-----------|----|-----------|----|--------------|-----------------------|---------|----|---------|----|---------|
|      | I   | EE Budget |    | DR Budget | T  | otal EEDR \$ |                       | @ 3%    |    | @ 5%    |    | @ 8%    |
| 2013 | \$  | 3,090,465 | \$ | 2,673,087 | \$ | 5,763,552    | \$                    | 172,907 | \$ | 288,178 | \$ | 461,084 |
| 2014 | \$  | 4,065,942 | \$ | 3,549,017 | \$ | 7,614,959    | \$                    | 228,449 | \$ | 380,748 | \$ | 609,197 |
| 2015 | \$  | 5,379,674 | \$ | 3,476,517 | \$ | 8,856,191    | \$                    | 265,686 | \$ | 442,810 | \$ | 708,495 |
| 2016 | \$  | 6,458,724 | \$ | 4,022,767 | \$ | 10,481,491   | \$                    | 314,445 | \$ | 524,075 | \$ | 838,519 |
| 2017 | \$  | 7,075,474 | \$ | 4,306,517 | \$ | 11,381,991   | \$                    | 341,460 | \$ | 569,100 | \$ | 910,559 |

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request. Linda Perry collects these data, issues transfer payments, and forwards data to Alma Gentry.

- EKPC's subsidiary Envision. This subsidiary implements the energy efficiency programs to Owner-Members' commercial and industrial as well as residential customers. Energy Advisors submit onsite inspection results with requests for transfer payments and to Linda Perry. EKPC's Web site does not currently allow transfer payment request submission for C&I programs.
- 3. Analyst Beth Willoughby collects interruptible program data.
- 4. Analyst Stephanie Cornett collects direct load control program data.

The following depicts our understanding of the steps involved in EKPC's existing EM&V process following data collection. These observations are based on interviews conducted with EKPC staff and Owner-Members.

EKPC's IT department collects data submitted by the Owner-Members into a Crystal Reports database and grants limited access presumably only to Linda Perry. From a preliminary analysis, the project team considers this database sufficient to meet current EM&V needs but access to this database may impede a more robust process.

Load forecasting analyst Alma Gentry collects and aggregates these data sets described above, and disseminates to EKPC executives, managers and staff; and to EKPC's external consultant who conducts calculation of program impacts as part of the IRP process. These data are stored in Excel spreadsheets. Access to historical data varies by data type but prior to 2010 is not broadly available.

### 3.2.4 EM&V Adequacy for Future Scenarios

While current levels of EM&V methods reflect a common but minimum level of industry practice, the approaches would likely be inadequate if the regulatory or market conditions shown in Figure 3-1 were in effect. Section 5.4 explores the EM&V requirements for each of these scenarios.

### Figure 3-1: Potential Future EM&V Scenarios for EKPC

### a. Kentucky Public Service Commission (PSC):

i) If EKPC member(s) adopt a DSM surcharge.

ii) If Kentucky joins neighboring states to establish regional standards for EM&V requirements.

b. PJM:

i) EKPC only offers its DLC and interruptible programs into the PJM capacity auction.



| Figure 8-1: EKPC Current Staff Allocation (Hours/FTEs) Spent on EM&V | Figure 8-1 | : EKPC Curren | t Staff Allocation | n (Hours/FTEs) | Spent on EM&V |
|--|------------|---------------|--------------------|----------------|---------------|
|--|------------|---------------|--------------------|----------------|---------------|

| EKPC Executive/Staff |      | Hours /<br>Year | Title                                       | Function   | Data User or Practitioner |
|----------------------|------|-----------------|---|--|---------------------------|
| David Crews          | 0.05 | 104             | Senior VP, Power Supply                     | Executive/Strategy/Planning                                      | Data User                 |
| Alma Gentry          | 0.8  | 1664            | Load Forecasting Analyst                    | Load Forecasting   | Data User                 |
| Ann Wood             | 0.1  | 208             | Director of Regulatory Services             | Regulatory   | Data User                 |
| Beth Willoughby      | 0    | 0               | Analyst, Balance & Interchange              | Implementation-Interruptible Program                             | Data Practitioner         |
| Dan Playforth        | 0    | 0               | Senior Engineer                             | Implementation-C&I Programs                                      | Data Practitioner         |
| David Berry          | 0    | 0               | Energy Advisor                              | Implementation-C&I Programs                                      | Data Practitioner         |
| Fernie Williams      | 0.05 | 104             | Resource Planning Analyst                   | Resource Planning  | Data User                 |
| Greg Whittaker       | 0    | 0               | Balance & Interchange Operations Supervisor | Implementation-Interruptible Program                             | Data Practitioner         |
| lamie Hall           | 0.1  | 208             | Manager, Load Forecasting                   | Load Forecasting   | Data User                 |
| leff Hohman          | 0.05 | 104             | Manager of Member Services                  | Member Services  | Data User                 |
| losh Littrell        | 0    | 0               | Energy Advisor                              | Program Implementation-Residential                               | Data Practitioner         |
| Iulie Tucker         | 0.01 | 20.8            | Director of Power Supply Planning           | Power supply planning  | Data User                 |
| Linda Perry          | 0.75 | 1560            | Marketing Representative                    | Implementation (rebates) + Evaluation<br>(program data tracking) | Data User                 |
| Mark Mefford         | 0.25 | 520             | Load Forecasting Analyst                    | Load Forecasting   | Data User                 |
| Sally Witt           | 0.05 | 104             | Power Supply Analyst                        | Research tasks (unspecified)                                     | Data User                 |
| Sandy Mollenkopf     | 0.05 | 104             | Load Forecasting Analyst                    | Load Research  | Data User                 |
| Scott Drake          | 0.25 | 520             | Manager, Corporate Technical Services       | Implementation-C&I and<br>DSM Program Research                   | Data User                 |
| Sha Collier          | 0.15 | 312             | Marketing & Brand Supervisor                | Implementation/Marketing   | Data User                 |
| Stephanie Cornett    | 0.1  | 208             | Load Forecasting Analyst                    | Demand response  | Data User                 |
| Todd Pauley          | 0.25 | 520             | IT  | IT Systems   | Data User                 |
| John Farley          | 0.2  | 400             | Independent Consultant                      | External Support   | Data User                 |



Figure 8-2 illustrates the current organizational structure for DSM program management and evaluation staff. A key is provided showing direct users of DSM versus practitioners or those who develop or analyze DSM data. Red arrows depict informal relationships between groups where data are transferred, but where no formal reporting relationship exists.



### Figure 8-2: EKPC DSM Organizational Structure

KEMA, Inc.

February 7, 2013



Taking EKPC's projected budgets for 2013 – 2017 from the 5-Year Plan, DNV KEMA has calculated ranges of EM&V budgets shown in Table 8-2 below.

|      |              | E and DR Budgets<br>tential EM&V Bud | Proposed EM&V Budgets |            |            |            |  |
|------|--------------|--------------------------------------|-----------------------|------------|------------|------------|--|
|      | EE Budget    | DR Budget                            | Total EEDR \$         | @ 3%       | @ 5%       | @ 8%       |  |
| 2013 | \$ 3,090,465 | \$ 2,673,087                         | \$ 5,763,552          | \$ 172,907 | \$ 288,178 | \$ 461,084 |  |
| 2014 | \$ 4,065,942 | \$ 3,549,017                         | \$ 7,614,959          | \$ 228,449 | \$ 380,748 | \$ 609,197 |  |
| 2015 | \$ 5,379,674 | \$ 3,476,517                         | \$ 8,856,191          | \$ 265,686 | \$ 442,810 | \$ 708,495 |  |
| 2016 | \$ 6,458,724 | \$ 4,022,767                         | \$ 10,481,491         | \$ 314,445 | \$ 524,075 | \$ 838,519 |  |
| 2017 | \$ 7,075,474 | \$ 4,306,517                         | \$ 11,381,991         | \$ 341,460 | \$ 569,100 | \$ 910,559 |  |

### Table 8-2: EM&V Budget Ranges for EE and DR

Chapter 5 outlines an overview of the scenarios for compliance with projected PSC and PJM requirements under five different scenarios. DNV KEMA's recommended EM&V Protocols, if implemented, would require budgets in the 5-8% range for support of PSC requirements (scenarios 1 and 2). The incremental cost of compliance with PJM requirements for inclusion of only the \$impleSaver Program (air conditioner and water heater demand response), identified as scenario 3, should be relatively minor, since EKPC's third party vendor already collects much of the field data required and could work with EKPC (and its PJM support consultant, if applicable) to provide the required analysis and reporting. PJM incentives could offset those additional costs. Should EKPC opt to submit additional Direct Load Control programs (ETS and, when implemented, pool pump control), identified as scenario 4, these should also be a modest incremental cost, with metering costs already identified in the recommended PSC compliance scenarios. PJM incentives could offset some/all of the incremental costs. The more significant incremental cost would be for submittal of the remaining programs, primarily energy efficiency, into the PJM capacity auction (identified as scenario 5), since the type of monitoring and precision (and associated sample sizes) would not have been necessary under PSC compliance scenarios.