

**The Empire District Electric Company  
EO-2013-0547**

**Supplemental Information Provided Pursuant to Paragraph 18 of the Joint Filing**

On January 31, 2014, a Joint Filing was made in *In the Matter of The Empire District Electric Company's 2013 Triennial Compliance Filing Pursuant to 4 CSR 240-22 in File No. EO-2013-0547*, pursuant to Commission Rule 4 CSR 240-22.080(9). This supplemental information is provided pursuant to paragraph 18 of the Joint Filing. Paragraph 18 states:

***18. DED-DE/GDS-Alleged Deficiency 7:** On page 5-69 of its triennial compliance filing Empire states that in order to fulfill this requirement of the IRP rule, it analyzed the demand-side portfolios of six utilities. Empire further states that through this research, it discovered that the set of candidate DSM programs from this IRP does have many commonalities with those of the other utilities that were considered. GDS agrees that there are many commonalities, but there are also many differences. Empire provides no explanation of why programs being offered by other utilities that it identifies as not being offered or planned by Empire are not applicable for Empire. (4 CSR 240-22.050(3)(A))*

***Remedy:** To fulfill this rule requirement Empire researched and reported on the demand-side portfolios of other utilities. After gleaning relevant information from other sources, the demand-side analysis in this IRP was conducted specifically for Empire and its particular service territory. Empire will expand upon the information in Table 5-31 and file it in this matter by March 3, 2014.*

Table 5-31 appeared on page 5-69 in Volume 5: Demand-Side Resource Analysis of the 2013 IRP filing. Rule 4 CSR 240-22.050(3)(A), requires the utility to “Review demand-side programs that have been implemented by other utilities with similar characteristics and identify programs that would be applicable for the utility.”

In the 2013 IRP filing, Empire pointed out that in order to fulfill this requirement of the IRP rule, Empire analyzed the demand-side portfolios of six utilities. These utilities were chosen due to their proximity to Empire’s service territory or by their similar size to Empire. However, from this proxy group there is no utility that is exactly comparable for this purpose. For example, Empire is smaller and more rural than other investor-owned utilities in Missouri, and has a different climate zone than utilities with similar size. Another factor is differences in demographics. With that being said, Empire reviewed the descriptions of demand-side portfolios from the websites of Ameren Missouri (Missouri), Otter Tail (North Dakota, South Dakota, Minnesota), Kansas City Power & Light Company (KCP&L) (Missouri), KCP&L Greater Missouri Operations Company (GMO) (Missouri), and Oklahoma Gas and Electric Company (OG&E) (Oklahoma, Arkansas), and Cleco Corporation (Louisiana).

While not an explicit requirement of the Commission's Chapter 22 Rule, Empire agreed to expand upon Table 5-31 in its 2013 IRP in order to provide an explanation of why programs that are being offered by other selected utilities are not being offered or planned by Empire.

The following is an amended version of Table 5-31, which shows only the programs of other select utilities that were *not* chosen to be part of Empire's preferred resource plan. Discussion of why each program was not included in Empire's preferred plan follows the table. In general, most programs were not chosen to be a part of Empire's preferred resource plan due to cost-effectiveness screening and, in some cases, due to overlapping with Empire's existing or proposed programs. Additionally, there are advantages to having a manageable number of programs in a focused energy efficiency portfolio.

<b>Survey of Comparable EE Portfolios</b>				
	<b>Program</b>	<b>Customer Class</b>	<b>Utilities Participating</b>	<b>Empire</b>
1	Direct Load Control	Residential	Otter Tail	No
2	Water Heating	Residential	Otter Tail	No
3	Thermal Storage Systems	Residential	Otter Tail	No
4	AC Cycling	Residential	Otter Tail	No
5	On-Bill Financing	Residential	Otter Tail	No
6	Low-Income Weatherization (Independent)	Residential	Ameren (MO), OG&E	No
7	Room AC	Residential	Ameren (MO)	No
8	Energy Star® New Homes	Residential	Ameren (MO), OG&E	No
9	Free Audit	Residential	Ameren (MO)	No
10	Home Performance with Energy Star®	Residential	KCP&L, GMO	No
11	Solar PV Installation	Residential	KCP&L, GMO	No
12	Free AC Tune-up/Duct Repair	Residential	OG&E	No
13	Energy-Efficient New Homes Discount	Residential	Cleco	No
14	Commercial Design Assistance	C&I	Otter Tail	No
15	Recommissioning & Retrocommissioning	C&I	Otter Tail, Ameren (MO)	No
16	EE Improvement Grants	C&I	Otter Tail	No
17	Plan Review Program	C&I	Otter Tail	No
18	Peak Pricing Plan	C&I	OG&E	No

## **1. Direct Load Control**

Empire included Direct Load Control in the screening process for each of its portfolio scenarios. In some of the more aggressive DSM portfolio scenarios, Direct Load Control became cost-effective in the latter years of the 20-year planning horizon. For the preferred plan, however, Direct Load Control screened as cost-prohibitive due in large part to the extensive financial investment required to convert metering infrastructure.

**2. Water Heating**

Empire screened residential heat pump water heaters and solar water heaters. The measures were not cost-effective during the 20-year planning horizon and therefore were not included in the preferred plan.

**3. Thermal Storage Systems**

Thermal energy storage is a peak management technology utilized in some utility service territories by customers with very large chilled water systems. By producing and storing chilled water or ice during off-peak hours, a portion of the cooling load can be shifted away from the utility peak. For the same reasons that Direct Load Control (see number 1 above) screened out of the cost-effectiveness testing in Empire's preferred plan, Thermal Storage Systems are not cost-effective for Empire during this 20-year planning horizon.

**4. AC Cycling**

AC cycling is a form of direct load control. Therefore, for the same reasons that Direct Load Control (see number 1 above) screened out of cost-effectiveness testing in Empire's preferred plan, AC Cycling is not cost-effective to Empire during the 20-year planning horizon.

**5. On-Bill Financing**

On-bill financing cannot be screened as an efficiency measure or program since it does not change savings or cost-effectiveness.

**6. Low-Income Weatherization (Independent)**

In all of Empire's energy efficiency portfolios, the Low-Income Weatherization program has been administered through Community Action Agencies. After more than five years, this program is now well-established and generates energy savings. Empire does not see an opportunity to improve its portfolio by investing in implementation of a new program that would be similar to an existing program with a proven track record.

**7. Room AC**

Empire screened residential room air conditioners as part of its 2013 IRP. A new federal minimum standard for this measure will become effective in June 2014. In the modelling, the measure was not cost-effective with the advent of the new federal minimum standard. Therefore, the measure was not included in the proposed portfolio.

**8. Energy Star® New Homes**

Empire has offered an ENERGY STAR New Homes Program since 2009. Aside from the participation associated with the building and rating of multi-family dwellings, the program has not performed particularly well with relation to its goals. Furthermore, customer and trade allies have expressed frustration with the ever-changing ENERGY STAR standards, and the cumbersome application process.

Additionally, Empire screened ENERGY STAR New Home v2.5 and v3.0 program. The programs were not cost-effective during the 20-year planning horizon and therefore were not included in the proposed portfolio.

**9. Free Audit**

Because Empire's proposed Residential Whole House Efficiency Program will feature a free audit component in conjunction with a direct-install of recommended measures produced by the audit, this program would be redundant and would not serve a purpose in Empire's portfolio.

**10. Home Performance with Energy Star®**

Empire has offered a Home Performance with ENERGY STAR Program since 2009. Aside from the participation associated with the building and rating of multi-family dwellings, the program has not performed well in relation to its goals. Furthermore, customer and trade allies have expressed frustration with the ever-changing ENERGY STAR standards and the cumbersome application process. Empire feels that the proposed Residential Whole House Efficiency Program will promote and capture savings from residential energy efficiency retrofits in a way that is more accessible to customers regardless of income level or energy efficiency awareness. Essentially, the proposed Whole House Efficiency Program will replace the existing Home Performance with ENERGY STAR Program.

**11. Solar PV Installation**

Empire included Solar Photovoltaic Installation in the screening process for each of its portfolio scenarios. In some of the more aggressive portfolio screenings, Solar Photovoltaic became cost-effective in the latter years of the 20-year planning horizon. For its preferred plan, however, Empire did not include Solar Photovoltaic since it screened out during the cost-effectiveness tests.

**12. Free AC Tune-up/Duct Repair**

Empire screened residential AC tune-ups. The measure was not cost-effective during the 20-year planning horizon.

**13. Energy-Efficient New Homes Discount**

This program is based on a Cleco program called the Power Miser Home program. It appears the Power Miser Home Program is similar to the ENERGY STAR New Homes Program. Empire screened the ENERGY STAR New Home v2.5 and v3.0 programs and neither program was cost-effective during the 20-year planning horizon (see number 8 above).

**14. Commercial Design Assistance**

Empire's Construction Design team and Business and Community Development Team already advise its customers of all classes on new construction and retrofits, and how those customers can most efficiently meet their electricity needs. Empire also informs customers considering energy efficient designs in retrofits or new construction through the pre-approval phase of its Commercial and Industrial

Facilities custom rebate program. Therefore, it is Empire's understanding that the type of assistance provided by the program in question, is already being provided.

**15. Recommissioning & Retrocommissioning**

Empire understands that this program is comparable in end-use to its Commercial and Industrial (C&I) Facilities Custom rebate program. The C&I program has been in Empire's portfolio for several years and is now well-established and generates more energy and demand savings than any other program in its portfolio. Empire does not see an opportunity to improve its portfolio by investing in the implementation of a new program with an end-use comparable to an existing program.

**16. EE Improvement Grants**

This program is a statewide and state-funded program offered by Otter Tail to its Minnesota C&I customers. As such, it is not applicable to Empire. As mentioned earlier, Empire's portfolio already targets the C&I sector. Empire's C&I programs are the most successful in the portfolio.

**17. Plan Review Program**

Like Commercial Design Assistance described above in number 14, Empire understands that this program would not serve a purpose not already being provided by its Construction Design team, its Business and Community Development team, and its Commercial and Industrial custom rebate program.

**18. Peak Pricing Plan**

Empire's demand-side consultant reviewed the Peak Pricing plans and pilots of other utilities. In fact, Peak Pricing was included in the Empire screening process for each of its portfolio scenarios. In some of the more aggressive portfolio screenings, Peak Pricing became cost-effective in the latter years of the 20-year planning horizon. For its preferred plan, however, Peak Pricing was not selected since it failed the cost-effectiveness tests.