

IN THE MATTER OF THE APPLICATION OF)
OKLAHOMA GAS AND ELECTRIC COMPANY)
FOR AN ORDER OF THE COMMISSION)
APPROVING THE COMPANY'S 2016 DEMAND)
PORTFOLIO AND AUTHORIZING RECOVERY)
OF THE COSTS OF THE DEMAND PROGRAMS)
THROUGH THE DEMAND PROGRAM RIDER)
IN THE MATTER OF THE APPLICATION OF)

COURT CLERK'S OFFICE - OKC
CORPORATION COMMISSION
OF OKLAHOMA

CAUSE NO. PUD 201500247

Testimony Summary of Cristi Killian

On July 1, 2015 Cristi Killian filed Direct Testimony and on October 9, 2015 filed Rebuttal Testimony in Cause No. PUD 201500247 on behalf of Oklahoma Gas and Electric Company ("OG&E"). In her Direct Testimony, Ms. Killian supports the inclusion of the technology-enabled Integrated Volt Var Control Program ("IVVC") in OG&E's 2016-2018 Demand Portfolio. Ms. Killian further testifies that IVVC is a part of OG&E's current demand portfolio and has been successful at reducing customer demand and energy use during peak periods and the results have been verified through the current EM&V process.

The Integrated Volt Var Control ("IVVC") Program is a system of devices, controls, software and communications products used to manage OG&E's distribution system reactive power flow and voltage level. This technology is used to reduce energy and demand during peak periods while ensuring acceptable customer voltage levels. IVVC infrastructure can be installed on both 12.47kV and 34.5kV distribution circuits, and includes several key components as follows:

- Capacitor bank controllers
- Load Tap Changer (LTC) controllers
- Communication network
- Volt Var Optimization (VVO) application software

She further testifies that the LTC Controls are installed or upgraded to support reliable voltage regulation, and that the VVO software automatically controls these devices to optimize voltage and reactive power flow.

Ms. Killian further testified that IVVC supports reduction of customer's billing demand and energy use during peak periods. The IVVC program provides control of line equipment to enable optimized voltage operation of enabled circuits. This optimized operation ensures voltages are maintained within acceptable ranges. VVO will be placed in demand reduction mode when needed to help reduce system peak energy demand. Demand reduction mode reduces voltage in order to achieve a corresponding reduction in peak energy consumption. Based on study results achieved to date, a peak demand reduction of approximately 2% has been achieved across the circuits on which this technology has been deployed. The IVVC program will contribute to the Company's deferral goals with an estimated incremental savings of 12 MW and 5 MWh in the year 2016 and 15 MW and 5.9 MWh in the year 2017.

She further testifies that IVVC meets the definition of an energy efficiency program as it is a "means of reducing electricity consumption on the customer's side of the meter while achieving substantially the same level of end use service."¹ IVVC provides simple customer participation as per OAC 165:35-41-4 (b)(3) as customers on an IVVC enabled distribution circuits participate in energy savings without requiring changes in customer behavior. IVVC contribution to peak demand reduction is included in the Company's integrated resource plan (IRP) providing consistency between the program and the IRP required by OAC 165:35-41-4 (b)(6). IVVC achieves energy efficiency and peak shaving in new construction (OAC 165:35-41-4 (b)(8)) and promotes comprehensive energy efficiency in buildings as the circuit voltage is optimized through operation near the lower end of the acceptable band for customers on an IVVC enabled circuit (OAC 165:35-41-4 (b)(9)). Additionally, she testifies that low income and hard to reach customers served from IVVC enabled circuits achieve energy efficiency benefits in a proportion similar to other customers since IVVC does not require customer enrollment, but is enabled on a circuit basis (OAC 165:35-41-4 (b)(10)).

Ms. Killian testifies that she has identified other utilities that have included IVVC as a component of an approved energy efficiency or demand side management portfolio. She testifies that Indiana Michigan Power Company filed an Electric Energy Consumption Optimization (EECO) program as part of its DEMAND SIDE MANAGEMENT AND ENERGY EFFICIENCY PROGRAM COST RIDER (CAUSE NO. 43827 DSM-3) with the Indiana Utility Regulatory Commission. In her Direct Testimony, Ms. Killian recommends the

¹ OAC 165: 35-41-2, Definitions "Energy efficiency"
Testimony Summary of Cristi Killian
Cause No. PUD 201500247

approval of the IVVC Program as an energy efficiency program to be incorporated in the Company's portfolio of demand programs.

In her Rebuttal Testimony, Ms. Killian rebutted Ms. Champion's position that IVVC is not an energy efficiency program by stating the fact that IVVC provides tangible energy savings which is reflected in customers' monthly bills and that the program reduces electricity consumption on the customer's side of the meter. Moreover, OG&E has demonstrated that the IVVC program generates the same level of customer energy savings as more expensive behind-the-meter program. Ms. Killian testifies that IVVC provides the second highest TRC (2.20) of all measures and provides 11,030 MWh of the portfolio's energy savings and 27.3 MW of annual peak demand savings. Ms. Champion's recommendation, to cap IVVC spending, results in close to a 27% reduction in energy and peak demand savings decreasing the portfolio annual energy savings by 2,945 MWh and annual peak demand savings by 7.5 MW.

Ms. Killian further testifies in her rebuttal that Ms. Champion's recommended EM&V process will be more expensive and reduce IVVC energy savings.