**Spire Missouri**
**GR-2021-0108**

**Response to Office of Public Counsel Data Request 2142**

**Request:** The rebuttal testimony of James Rieske p. 4, lines 12-13 states:

> *Finally, the Company's installation strategy minimizes the potential for stranded assets by focusing on diaphragm meters that are already scheduled for replacement.*

- Please provide a copy of "the Company's installation strategy" referenced above.
- Please define "replacement" in the above referenced statement. Is Spire removing and retiring meters (i.e., no longer in service) with thirty-five year useful lives every ten years?

DR Requested by Geoff Marke (Geoff.marke@opc.mo.gov).

**Response:**
The Company has worked to build detailed analysis tools that incorporate meter types, ages, and test results from meter removed into an analysis database that scores the replacement priority of every Spire meter for each region. This analysis tool is available to select meters and match them to opportunities where a Spire technician is scheduled to be at a customer's premise. This allows the workload planning group to leverage daily capacity to replace meters.

This strategy is outlined in the attached deployment strategy for Ultrasonic meters. The strategy has been in operation in Missouri West since July 2020. The strategy is ready to be deployed in Missouri East. The strategy is designed to be flexible as to the type of work and resources that have the capacity to perform the work.

I assume the 35-year useful life referenced in the request is in relation to a depreciation rate. The useful life of a meter is entirely dictated by the load it serves and the conditions of the gas that is traveling through the meter. The metrology is based on a mechanical movement that will deteriorate over time and the length of time will depend on how hard the meter is driven and the presence of moisture or foreign constituents in the meter. How hard a meter is driven will impact the mechanical mechanism that controls the consistency of the expansion and contraction of the diaphragm. Moisture or the presence of contaminants will affect how fully a diaphragm will expand. Either of these conditions will occur and begin to deteriorate accuracy, the question is always how rapidly. The movement of the diaphragm is recorded through a stem or axel connected to gears that translate the movement to the mechanical index that records the usage in cubic feet. The physical turning of the index is connected to the network module that records the revolutions and is programmed to simultaneously record this as usage in cubic feet in the network module. The index itself or the connection to the network module or both are prone to breakage.

When a meter is selected for the accuracy testing beginning at 10 years, it is removed from service and shipped back to the Company's testing facility. The meter is tested for accuracy and the external condition is evaluated against its age. However, the working mechanisms of the meter are inside the sealed body of the meter core. To examine or repair these internal parts the body must be opened. The process to open the core, replace the gaskets and reseal it would take far longer than the meter is worth for reuse. The Company, as most other companies in the industry, have found that reconditioning or refurbishing a used meter is nearly as expensive or more expensive than buying a new one. We are not able to physically inspect the condition of the internal components of the meter or perform replacement or repair cost effectively. This means reusing a removed meter increases the occurrence of mechanical failure or metrology inaccuracies.

This is common occurrence in the industry that has existed for years. For these reasons, for years the Company has condemned most meters that are removed for accuracy testing, particularly if that age exceeds more than 15 years. At times the Company will retire a meter as old as 10 years old based on the actual condition and useful life of that particular meter.

Signed by: James Rieske