

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-190529 & UG-190530
Puget Sound Energy
2019 General Rate Case**

PUBLIC COUNSEL DATA REQUEST NO. 256:

Please refer to Catherine A. Koch’s Rebuttal Testimony, Exh. CAK-6T at 4:15-17, which references an “(i)nability to obtain new electric replacement equipment as they have been discontinued and the reliance on a limited number (less than 250,000), of refurbished equipment.”

- a) Provide identify with specificity the types of electric replacement equipment that have been discontinued.
- b) Provide documentation of the discontinuation of each type of electric equipment identified in your response to subsection (a) above.
- c) Describe with specificity what is meant by the reference that less than 250,000 of refurbished equipment are available. For example, are these meters, in the US, and/or in PSE inventory?
- d) Ms. Catherine A. Koch’s Revised Direct Testimony, Exh. CAK-1Tr, indicates that AMR meters were failing at a rate of 1.6 percent annually (Exh. CAK-4 at 4:16). How many years will 250,000 refurbished meters last if PSE’s AMR meters continue to fail at a rate of 1.6 percent annually?

Response:

Puget Sound Energy (“PSE”) provides the following response to Public Counsel Data Request No. 256.

- a) PSE provides the following table in response to subpart (a).

Category	Equipment Number	Equipment Name
Electric Meter + AMR Communication Module	98-2251	Focus AX S4
Electric Meter + AMR Communication Module	98-2207	Focus AL 1 way
Electric Meter + AMR Communication Module	98-2381	Focus AX USC
Electric Meter + AMR Communication Module	98-1155	Gridstream RF
AMR Communication Module for third party meters	98-2451	Series 4 kV2c

Electric Meter + AMR Communication Module	98-1715	Elster A2
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- b) Attached as Attachments A-F to PSE's Response to Public Counsel Data Request No. 256, subpart (b), is the requested documentation.
- c) The number of Landis + Gyr ("L+G") electric meters with a L+G Automated Meter Reading ("AMR") communication module that are either in the process of being refurbished by L+G or currently serving PSE customers now, which is the bulk of equipment, is about 250,000. This L+G equipment is harvested from the existing AMR system as a result of the Advanced Metering Infrastructure ("AMI") transition, which L+G refurbishes once it is removed. PSE's refurbished inventory is limited by the fact that compatible L+G communication modules are no longer manufactured and as stated in PSE's Response to Public Counsel Data Request No. 255, other manufacturer's AMR communication modules are not compatible with PSE's L+G network.
- d) If, hypothetically, the 250,000 refurbished AMR meters were readily available in inventory today (which they are not because many are still in service), PSE estimates the 250,000 would last between four and eight years, based on new customer growth at about 14,000-15,000 customers annually, and replacement needs from failed equipment, which is similar to customer growth. However, the calculation is inaccurate because the refurbished supply of AMR meters is dependent on the pace and number of AMI meters replaced, which changes from day to day. For example, as of today, only 9,148 refurbished AMR meters exist in inventory. In addition, the calculation requires several assumptions, such as an assumed harvesting pace, that location supports meter needs, that 100 percent of the harvested equipment is refurbishable, and that net metering growth (which requires two meters) stays flat, which is an unreasonable assumption in light of the Clean Energy Transformation Act and other clean energy interests.

**ATTACHMENTS A-F to PSE's Response
to
PUBLIC COUNSEL Data Request No. 256**

Attachment A to PSE's Response to Public Counsel Data Request No. 256

Customer Service Alert

End-of-Sale and Last Time Buy Opportunity

Subject: Series 4-Meter Communication Modules End-of-Sale Notification

Product: FOCUS AX, FOCUS AXe and S4x

Background

Landis+Gyr will be sunsetting the Series 4 communication technology modules for FOCUS AX, FOCUS AXe, and S4x meters. **The last time buy opportunity window is effective immediately and expires December 1, 2019.** Currently, the Series 4 modules only support the RF Mesh communication protocol; whereas the Series 5 alternative supports both RF Mesh and RF Mesh IP communication protocols.

Additionally,

- The FOCUS AX platform does not support Series 5 communication modules. Refer to the FOCUS AX End-of-Life Notification Customer Service Alert, 98-2268, for more information.
- S4x and AXe platforms do support Series 5 communication modules and are the alternatives for this product line. In order to take the Series 5 alternative, the minimum system requirements are:
 - Command Center 6.5 or later
 - Tech Studio 4.0 or later
 - Firmware 10.06 and DCW 10.02 and later
 - ZigBee firmware 2.03.08 and later



NOTE: This does not impact the FOCUS AX Polyphase, Aclara kV2c, and the Elster A3 electric endpoints that incorporate Series 4 modules.

Landis+Gyr will continue supporting the existing Series 4 endpoints deployed today.

Action Required

The last time buy opportunity for the endpoint types listed in Table 1 will expire Friday, December 1, 2019.

Landis+Gyr asks that our customer base begin taking steps to transition to the Series 5 FOCUS AXe and S4x product lines. Please work with your local representatives for any support required in this process to include meter samples and testing assistance.

Table 1. Endpoint Type End-of-Sale

Endpoint	Part Number	Meter Form Number
Enhanced Modular FOCUS AX	26-1552-XXXX (4MB)	
	26-1553-XXXX (8MB)	
Enhanced Modular FOCUS AXe	26-1552-XXXX (4MB)	
	26-1553-XXXX (8MB)	
Enhanced Integrated FOCUS AX	40-1653-XXXX	2S, 2SE
	40-1562-XXXX	1S
	40-1564-XXXX	3S
	40-1565-XXXX	4S
Enhanced S4x	26-1552-XXXX (4MB)	
	26-1553-XXXX (8MB)	



IMPORTANT: *There is a limited number of 500,000 Series 4 modular communication modules available. Orders will be filled on a first-come-first-served basis. There is **no** limit to the number of **Series 4 Integrated** meters you can order.*

For last time buy orders:

- For Series 4 modular meters, deliveries will be completed by March 2020.
- For Series 4 integrated meters, delivery schedule and dates will be provided once your order has been placed depending on the volume of the order. Landis+Gyr plans to make its final shipments of Series 4 integrated meters by the end of June 2020.

Customer Service

Please contact the Landis+Gyr Customer Support Team at 888-390-5733 for questions or assistance.

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Attachment B to PSE's Response to Public Counsel Data Request No. 256



Customer Information Letter

End-of-Sale Notification

Subject: End-of-Sale Notification
Product: FOCUS AL One-Way Endpoints

Introduction

The Landis+Gyr FOCUS AL One-Way product (Catalog ID 7th and 8th digits "70" and "90") is facing a component end-of-life issue, impacting Landis+Gyr's ability to produce new endpoints.

Description

Effective January 18, 2019, Landis+Gyr will no longer be producing new FOCUS AL One-Way endpoints. This decision was made due to the end-of-life of an Integrated Circuit component and the unavailability of a replacement.

Impact to Landis+Gyr One-Way Customers

Landis+Gyr will work on a customized plan to support maintenance and growth operations for each customer. Please reach out to the local Landis+Gyr program team for more information on the alternatives available for this product line.

Customer Service

Please contact the Landis+Gyr Customer Experience Team at 888-390-5733 for questions or assistance.

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Attachment C to PSE's Response to Public Counsel Data Request No. 256



Customer Service Alert

End-of-Sale and Last Time Buy Opportunity

Subject: FOCUS AX USC End-of-Sale Notification

Product: FOCUS AX USC (40-1335)

Background

Landis+Gyr will be sunsetting the FOCUS AX UtiliNet Solution Center (USC) product (Landis+Gyr part number **40-1335**, Catalog ID 7th and 8th digit **0U**). Colorado Springs Utilities (CSU) is the only customer currently ordering this product and Landis+Gyr would like to offer a last time buy to cover CSU's immediate needs. Since this product is over 10 years old, several component end-of-life (EOL) challenges continue to impact it and significant time and effort would be required to keep this product active moving forward.

Action Required

The last time buy opportunity for this product is effective immediately and will expire December 1, 2019. The total number of units available as a part of the last time buy are 4,000.

Landis+Gyr will continue to offer field support for the units deployed today.

Customer Support

Please contact the Landis+Gyr Customer Support Team at 888-390-5733 for questions or assistance.

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Attachment D to PSE's Response to Public Counsel Data Request No. 256

Customer Service Update

Gridstream RF Electric Endpoint End of Sale Notice

Product

Gridstream RF Electric Endpoints

Description

Landis+Gyr announces effective March 31, 2012, the End-of-Sale of select residential, commercial and industrial Gridstream RF electric endpoint products. End-of-Sale refers to the time when certain products are no longer available for new purchases. As a result, Landis+Gyr has developed replacement products. Table 1-1 lists the discontinued part numbers. Table 1-2 through Table 1-3 lists corresponding replacement and specific system-level requirements.

Beyond the March 31, 2012 date, Landis+Gyr cannot guarantee availability of the discontinued products. This does not apply to the service and support programs for those products. Landis+Gyr will continue to support these products on the Gridstream RF system.

Gridstream RF Residential and Commercial Electric Endpoints

Table 1-1 lists the discontinued part numbers. Table 1-2 through Table 1-3 lists replacement endpoints for Command Center 5.0 and Command Center 5.6.



NOTE: Customers using Command Center 5.1 and 5.5 will need to order Command Center 5.0 part numbers.

Table 1-1. Discontinued Part Numbers

Residential				
Endpoint	RF Firmware	Meter Firmware	Part Numbers	Command Center
Modular FOCUS AX	5.19	5.32	FASY-0746-0003	4.1
Modular FOCUS AX	5.65	5.34	FASY-0746-0004	4.1 Service Pack 2
Enhanced Modular FOCUS AX	6.17	5.34	26-1350	5.0
Integrated FOCUS AX	5.19	5.32	40-6203 40-1234	4.1

Table 1-1. Discontinued Part Numbers(Continued)

Integrated FOCUS AX	5.65	5.34	40-1509 40-1510	4.1 Service Pack 2
FOCUS AL	5.19	3.34a	FASY-0796-0001 FASY-0796-0002	4.1
FOCUS AL	5.65		FASY-0796-0005 FASY-0796-0006	4.1 Service Pack 2

Commercial and Industrial

Endpoint	RF Firmware	Meter Firmware	Part Numbers	Command Center
S4e	5.19	6.32	40-1140	4.1
Enhanced S4e	5.60	6.32	FASY-0825-0004	4.1 Service Pack 2
Enhanced S4e	6.17	6.32	FASY-0825-0005	5.0



NOTE: Customers running versions of Command Center prior to 5.0 must upgrade to 5.0, 5.1, 5.5 or 5.6 to order the new part numbers.

Table 1-2. Replacement Part Numbers for Command Center 5.0

Residential				
Endpoint	RF Firmware	Meter Firmware	Command Center 5.0 Part Number	
Enhanced Modular FOCUS AX	6.17	5.34	26-1552 (4MB Flash) 26-1553 (8MB Flash)	
Enhanced Integrated FOCUS AX	6.15	5.34	40-1284: 2S, 2SE 40-1399: 1S 40-1285: 3S 40-1286: 4S	
FOCUS AL	See Table 1-3, "Replacement Part Numbers for Command Center 5.6".			
Commercial and Industrial				
Endpoint	RF Firmware	Meter Firmware	Command Center 5.0 Part Number	
Enhanced S4e	6.17	6.32	26-1554 (4MB Flash) 26-1557 (8MB Flash)	

Table 1-3. Replacement Part Numbers for Command Center 5.6

Residential			
Endpoint	RF Firmware	Meter Firmware	Command Center 5.6 Part Number
Enhanced Modular FOCUS AX	7.5X	5.35	26-1552-0001 (4MB Flash) 26-1553-0001 (8MB Flash)
Enhanced Integrated FOCUS AX	7.5X	5.35	40-1563: 2S, 2SE 40-1562: 1S 40-1564: 3S 40-1565: 4S
FOCUS AL	7.5X	3.34a	FASY-0796-0009 FASY-0796-0010
Commerical and Industrial			
Endpoint	RF Firmware	Meter Firmware	Command Center 5.6 Part Number
Enhanced S4e	7.5X	6.32	26-1554-0001 (4MB Flash) 26-1557-0001 (8MB Flash)

a. 3.34 is a decimal interpretation of 3.22 hexadecimal value, which is tracked in FOCUS AL metrology.

Assistance

For specific ordering questions, contact your Program/Project Manager directly.

Customer Service

Contact our Customer Support Staff at 888-390-5733 for assistance, questions and concerns.

Attachment E to PSE's Response to Public Counsel Data Request No. 256

Customer Service Alert

End-of-Sale and Last Time Buy Opportunity

Subject: Series-4 kV2c Communication Modules End-of-Sale Notification
Product: Series-4 kV2c Communication Module (45-6100)

Background

Landis+Gyr will be sunsetting the Series-4 kV2c communication modules for Aclara kV2c meters due to component End-of-Life (EOL) issues (Landis+Gyr part number 45-6100-0003). Landis+Gyr would like to offer a last time buy opportunity to help support and manage immediate customer needs until an alternate product is available.

Landis+Gyr is currently working on enabling Aclara Gen5 kV2c meters with Series-5 technology by 2021. Currently, the Series-4 modules only support the RF Mesh communication protocol; whereas the Series-5 alternative will support RF Mesh and RF Mesh IP communication protocols.

Action Required

The last time buy opportunity window is effective immediately and expires March 31, 2020. A total of 15,000 communication modules will be available as a part of the last time buy and will be offered to customers on a first-come, first-served basis. Standard lead times apply for orders purchased during the last time buy. Landis+Gyr will also support warranty returns with replacements.

For customers that order Series-4 kV2c meters via Aclara, please reach out to Aclara to place your orders. A last time buy of communication modules have been offered to Aclara to support customer needs.

Customer Service

Please contact the Landis+Gyr Customer Success Team at 888-390-5733 for questions or assistance.

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Attachment F to PSE's Response to Public Counsel Data Request No. 256

Product Update



Joint Announcement

Landis+Gyr Cellnet SSMM & MFMM communications on Elster ALPHA Plus Meter end-of-availability.

Overview

Elster and Landis+Gyr have jointly agreed to announce the end-of-availability of the Landis+Gyr Cellnet SSMM and MFMM modules on the Elster ALPHA Plus meter in 2016. Elster's ALPHA Plus meter is also commonly referred to as A1+ or A2 ALPHA.

Description

Elster's ALPHA Plus meter and Landis+Gyr's Cellnet SSMM & MFMM have been highly successful products since their introduction in the 1990's. The ALPHA Plus meter was one of the first meters to offer instrumentation, system service tests, and power quality monitoring, elevating the role of the meter from strictly a revenue billing device to a powerful diagnostic tool. Cellnet was one of the first automated remote meter reading systems to support commercial & industrial meters, eliminating the need for routine site visits to read advanced function meters. Through a partnership between Landis+Gyr and Elster, utilities have been able to realize the benefits of these two industry leading technologies by purchasing ALPHA Plus meters with SSMM and MFMM modules.

With the industry having moved toward more modern technology, both in metering and remote meter reading systems, Elster and Landis+Gyr have agreed to cease production of MFMM and SSMM solutions on the ALPHA Plus meter per the following dates.

Key Dates:

- Meter orders must be received by **September 30, 2016**
- Meters must be delivered by **December 31, 2016**
- Customers can place orders in **2015 for 2016 delivery**

Alternatives

This announcement affects ALPHA Plus meters with the SSMM & MFMM modules only. Other Landis+Gyr and Elster products are not affected. Other joint products offered by the Elster/Landis+Gyr partnership will continue to be available to the market.

Contact your Elster representative for alternatives to the ALPHA Plus meter, or your Landis+Gyr representative for alternatives to the Cellnet SSMM and MFMM communication modules.