

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:


ELECTRONIC BIG SANDY WATER)
DISTRICT'S UNACCOUNTED-FOR WATER) CASE NO. 2022-00301
LOSS REDUCTION PLAN, SURCHARGE AND)
MONITORING)

RESPONSE TO COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

Big Sandy Water District submits its Response to Commission Staff's Second Request for Information.

Dated: January 5, 2024

Respectfully submitted,



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CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, and the Public Service Commission's Order of July 22, 2021 in Case No. 2020-00085, I certify that this document was transmitted to the Public Service Commission on January 5, 2024 and that there is currently no party that the Public Service Commission has excused from participation by electronic means in this proceeding.



Counsel for Big Sandy Water District

BIG SANDY WATER DISTRICT

**Response to Commission Staff's Second Request for Information
Case No. 2022-00301**

Question No. 1

Responding Witness: Jessica Sexton

Q-1. Refer to the United System invoice filed as part of the December 15, 2023 monthly report filing. Confirm that the item to which this invoice refers is the “water listening device” proposed in Big Sandy District’s Amended Infrastructure Improvement Plan filed on February 10, 2023. If this cannot be confirmed, provide information on the nature of this device and its use to reduce water loss.

A-1. The item listed on the invoice is a digital listening device. It is a different device than the device that was originally considered for purchase when the Amended Infrastructure Improvement Plan was developed and filed with the Public Service Commission. A copy of the specifications sheet for the invoiced device is attached. After approval of the Amended Infrastructure Improvement Plan and authorization to purchase a digital listening device, Big Sandy Water District had discussions with Tim Blanton of the Kentucky Rural Water Association. Mr. Blanton is very experienced in the area of leak detection and has advised a number of water utilities on leak detection issues. Mr. Blanton highly recommended using the Itron Digital Listening Device. He advised that the device provided the best outcome from all of the devices with which he had worked, including the device that Big Sandy Water District had previously considered.



DLD

Digital Leak Detector

The Itron Digital Leak Detector (DLD) is the first true digital leak detector for buried distribution pipeline management. Lightweight and easy-to-use, DLD uses dynamic range compression and digital precision to identify leaks that are undetectable with other leak detectors.

KEY FEATURES

Digital Audio Processor

- » Dynamic range compression accentuates leak sounds and reduces loud noises
- » Hears leaks missed by other instruments
- » Precise digital filters block ambient noise
- » Automatic rejection of electrical interference (60dB)
- » Lightweight (< 1 lb.)
- » Wearable strap or belt clip

User Interface Buttons

- » LISTEN: Click on/off or press-and-hold to listen
- » VOLUME: 45 dB range in 29 steps
- » FILTER: Five digital filters for:
 - Ground (Gnd): Hard surfaces, soil, plastic pipe
 - Service (SER): Service pipes
 - Contact (Con): Valve, hydrant, service connections
 - Survey (SUR): Surveying
 - Open (OPn): Full listening range

High-Resolution, Waterproof Universal Sensor

- » Contact microphone for meters and fittings
- » Ground listening plate with quick-release sensor
- » Magnetic base for hydrants and valves

Smart Volume Limiting

- » Continuous, automatic volume protection
- » Suppresses clicks, pops and sudden loud sounds

Automatic Leak Location

- » Leak Index Score from 0 to 999 provides a visual determination when positioned over the leak. Technical specifications

TECHNICAL SPECIFICATIONS

Digital Audio Processor Unit

- » Frequency range: 30 - 4,000Hz
- » Power supply: 2 AA alkaline batteries
- » Battery life: >12.5 hours continuous listening
- » Display: LCD
- » Protection: IP54, weatherproof, splashproof
- » Weight: 15 oz (408.2 g)
- » Dimensions: 5" x 3.5" x 1.5" (12.7 cm x 8.9 cm x 3.8 cm)

Universal Sensor

- » High-resolution accelerometer
- » Sensitivity: 20 V/g
- » Resolution: 0.05 $\mu\text{g}/\sqrt{\text{Hz}}$
- » Protection
 - IP68, waterproof, fully submersible
 - Shockproof to 6,000 g

Ground Microphone Unit

- » Dimensions
 - Height: 34" (86.36 cm)
 - Disk: 4.5" (11.43 cm)
- » Weight: 2 lbs (910 g) with sensor attached
- » Materials:
 - Rod: Anodized aluminum
 - Disk: Stainless steel

Accessories

- » Carrying case: Rugged, lightweight
- » Probe: Stainless steel; connects to sensorsection title



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To realize your smarter energy and water future, start here: www.itron.com

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BIG SANDY WATER DISTRICT

**Response to Commission Staff's Second Request for Information
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Question No. 2

Responding Witness: Jessica Sexton

Q-2. Explain the difference in the estimated cost of the water listening device as listed in the Amended Infrastructure Improvement Plan and the cost of the device purchased.

A-2. The purchased device is not the device whose cost was used to estimate the cost of a water listening device. It is a different device manufactured and sold by a different entity. See also response to Question 1.