

Purchased Power Adjustment (PPA)

August 16, 2018



Resolution 1383

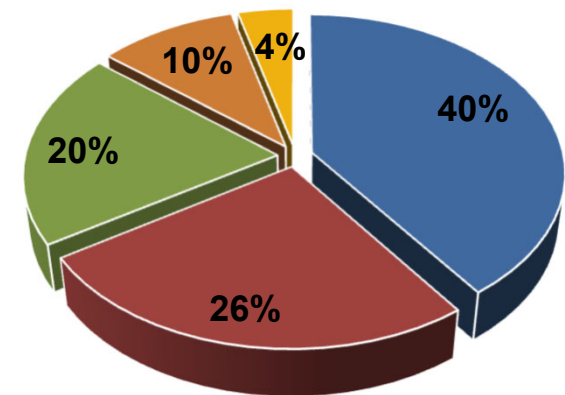
PPA Ensures No Under or Over Recovery of Purchased Power Costs

- PPA adopted by Board in 2002
 - New power supply contract eliminated TVA's rate-setting authority over KUB
 - Automatically flows through changes in TVA wholesale rates
- PPA amended in 2011 – TVA wholesale rate change
 - Established annual “true-up” of power costs paid to TVA and costs recovered from KUB electric customers
 - “True-up” balance audited annually
 - Audited balance flowed back to customers via PPA
 - Similar process used in gas division since 1992

TVA's Hydro Program

- Benefit of hydro generation assigned to residential customers
 - Residential rates include hydro credits
 - Non-residential rates include hydro debits to offset
- Debits and credits out of balance Valley-wide
- TVA intends to rebalance debits and credits this year
- Future rebalancing expected to occur more frequently

TVA Sources of Generation



- Nuclear
- Coal
- Natural Gas
- Hydro
- Wind/Solar/Other Renewables

Proposed Changes to PPA

- Modifications needed to properly flow through and allocate hydro rebalancing
- Housekeeping items
 - Remove obsolete language
 - Clarify terminology

Resolution 1383

- Amends Purchased Power Adjustment
 - Ensures timely and seamless allocation of hydro charges to KUB electric customers
 - Updates language
- Requires two readings
 - Second reading September 20
 - Effective October 1st

KUB

Request for Condemnation Authority

August 16, 2018



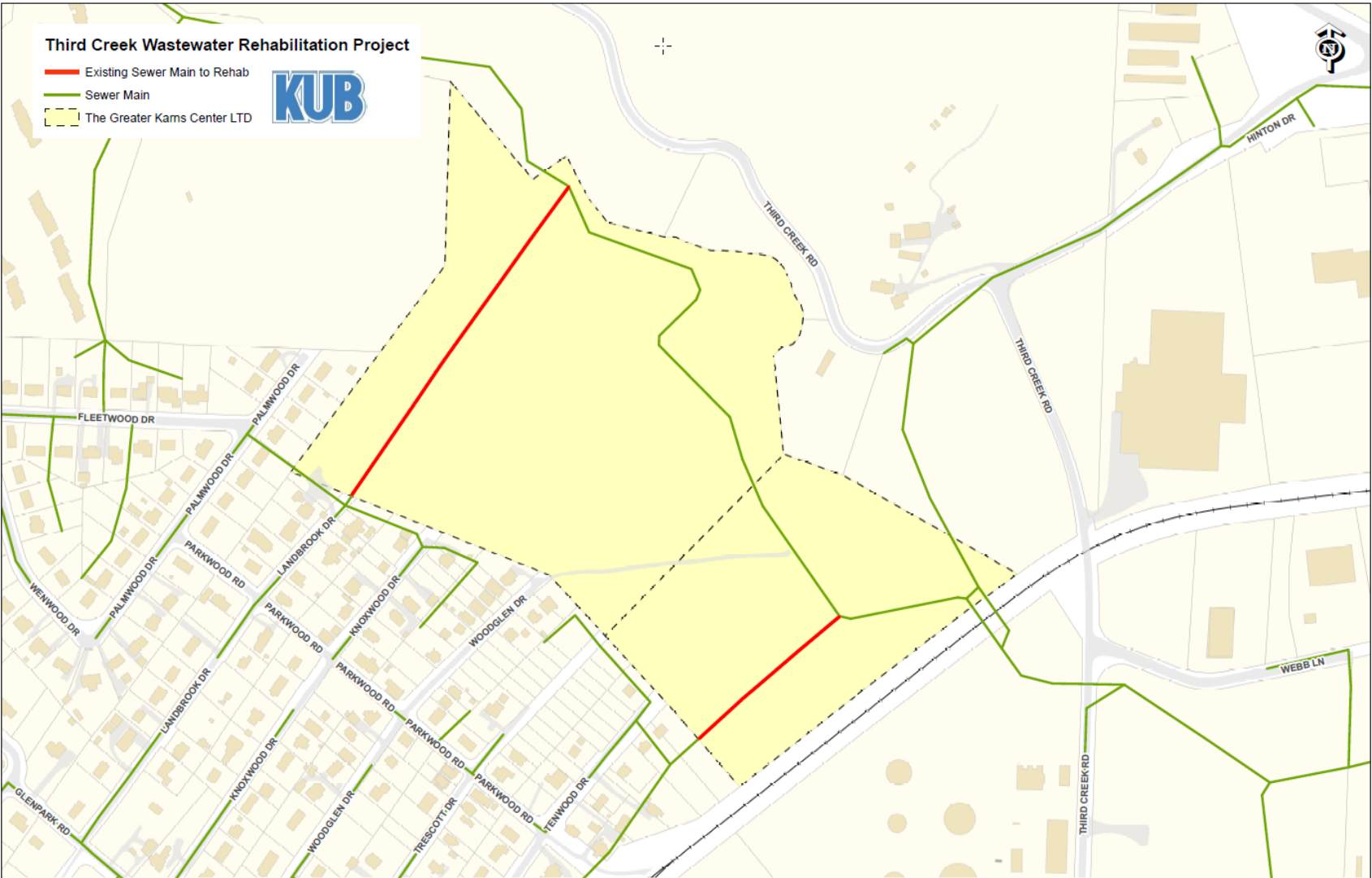
Resolution 1384

Third Creek Wastewater Area

- EPA Consent Decree requires inspection and maintenance of wastewater system
- Limited inspection of existing lines shows roots, with potential for blockage
- Required for equipment access
 - 15' wide permanent easement
 - Additional temporary easement (5' either side)

Third Creek Wastewater Rehabilitation Project

- Existing Sewer Main to Rehab
- Sewer Main
- The Greater Kams Center LTD



Easement Acquisition Process

- Easements on 2 parcels
 - Same owner on both properties
 - Existing wastewater lines – no change in alignment
- Negotiations began December 2017
 - Offering appraised value
 - Need to proceed with line inspection and rehabilitation

Resolution 1384

- Authorizes the condemnation and the taking of utility easements as may be necessary in support of KUB's EPA Consent Decree inspection and maintenance requirements for the Third Creek Wastewater Project

KUB

Automated Distribution Management System

August 16, 2018



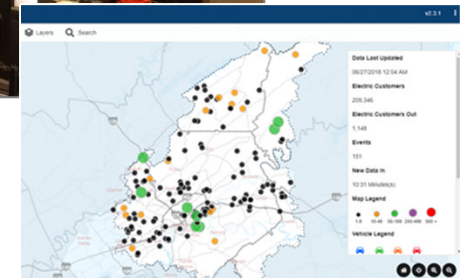
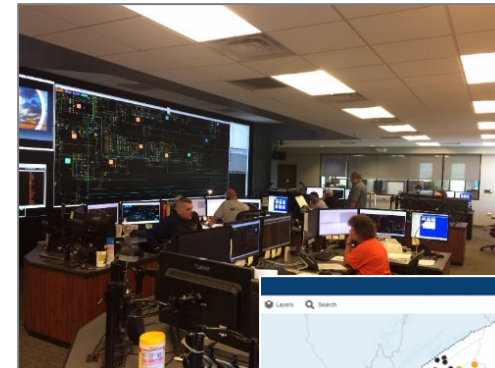
Outage Management – Blizzard of 1993

- 40,000+ customers w/o power
 - 8 days to restore
 - Frustrated customers
- Customers talked to live KUB representatives
 - Busy signals
 - Long wait times
- Manual, paper based process
 - Reps. made paper orders
 - Orders sorted/dispatched
 - Paper maps in field



Technology Improves Outage Management

- Implemented outage management systems (OMS) in 1994 and 2003
 - Automation established for high volume calls
 - Paperless processes instituted
 - Online outage reporting incorporated
 - Digital maps and work orders created improved efficiencies
 - Created online outage map
 - Mobile computing in the field
 - Enhanced crew management



Programs and Processes Improve Performance

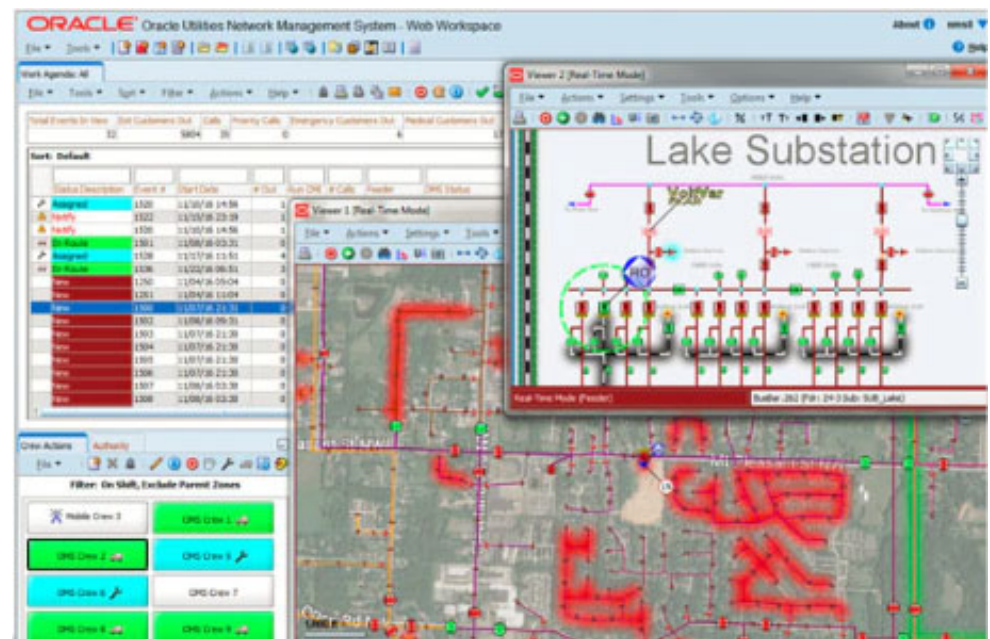
- Incident command system
- Century II programs
- Vegetation management program
- Grid modernization and automation initiative

	March 1993 Blizzard of '93	April 2011 Hail Storm	June 2011 Storm *	July 2015 Storm	May 2017 Storm
Customers out	40,000+	75,000+	127,000+	56,000+	54,000+
Poles replaced	100	142	151	81	40
Transformers replaced	45	91	132	40	19
Customer calls	50,000+	45,000+	220,000+	71,000+	28,000+
Restoration length	8 days	7 days	7 days	3 days	2.5 days
Estimated cost	\$2 million	\$2 million	\$4 million	\$2.5 million	\$1.2 million

* June 2011 event includes two separate storms on June 21 and June 23

ADMS Provides Continuing Improvement

- Replace OMS with Advanced Distribution Management System (ADMS) from Oracle
- Duration – 21 months
 - 12 months to retire OMS
 - 9 months for additional functionality
- Cost
 - Licensing/hardware \$800k
 - Implementation \$2.4M
- Project started August 2018



Technological Advancements Provide Key Benefits

- Leverage advanced meters and devices
 - Improve response times (fault locations)
 - No longer require customer outage calls
 - Enhance data analysis
- Enhance customer service and communication
 - External customers – outage and restoration notifications
 - Employees – event status and details
- Improve safety
 - Simulator for operator training
 - Switching plans with quality assurance and control
 - Monitor and alert on advanced device status

KUB

**Association of Metropolitan Water Agencies
Platinum Award for Utility Excellence**

August 16, 2018

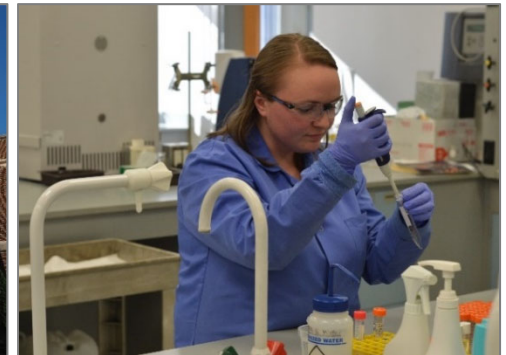


Sets Bar for Effective Utility Management and Contribution to Drinking Water Industry

- Honors “extraordinary management and stellar workforce performance”
- Recognizes proficiency in:
 - Infrastructure management and water quality
 - Customer satisfaction
 - Employee and leadership development
 - Financial soundness
 - Sustainability



**ASSOCIATION OF
METROPOLITAN
WATER AGENCIES**



KUB

