2019 WATT-HOUR METERING WORKSHOP

DATES
March 26-29, 2019
Basic Metering Segment
- March 26-27
Intermediate/Advanced Metering
- March 28-29

LOCATION
KMU Training Center
2090 East Avenue A.
McPherson, KS 67460
Kansas Municipal Utilities (KMU) is pleased to once again offer the Complete Watt-Hour Metering Workshop. The workshop is scheduled for March 26-29, 2019 and will be held at the KMU Training Center in McPherson, KS.

The watt-hour meter is often called “the cash register of the electric utility”. Is your “cash register” losing revenue for your utility? Mistakes, tampering, and improper operation can turn your watt-hour meters into a large source of revenue loss. Participants will gain valuable information on how to keep their utilities’ meters humming by attending this training event. This workshop is being offered to meet member’s technical training needs for electric utility personnel.

With the variety of metering equipment in the field and to ensure an optimal educational experience for participants, the workshop will offer both a Basic and an Intermediate/Advanced class. Participants will learn how to keep their utilities’ meters “in the black” with this workshop. A solid review of the basics, combined with in-depth study of installation, troubleshooting, and tampering of meters will be covered. For maximum benefit, consider registering for both segments of the Watt-Hour Meter Workshop classes.
REGISTRATION

BASIC METERING

**Early bird on or before March 15, 2019**
$350 per person (members)
$450 per person (Non-Members)

**Regular registration**
$425 per person (members)
$525 per person (Non-Members)

INTERMEDIATE/ADVANCED METERING

**Early bird on or before March 15, 2019**
$350 per person (members)
$450 per person (Non-Members)

**Regular registration**
$425 per person (members)
$525 per person (Non-Members)

COMPLETE WATT-HOUR WORKSHOP

**Early bird on or before March 15, 2019**
$650 per person (members)
$800 per person (Non-Members)

**Regular registration**
$800 per person (members)
$950 per person (Non-Members)

Questions: Please contact Brian Meek
(620) 241-1423 or email bmeek@kmuet.org

EARLY-BIRD DISCOUNT ENDS MARCH 15, 2019

REGISTRATION IS EASY!

**ONLINE:** WWW.KMUNET.ORG

**MAIL:** Kansas Municipal Utilities
2090 E. Avenue A
McPherson, KS 67460

**EMAIL OR FAX:** KMU@KMUNET.ORG
FAX (620) 241-7829

ROOM BLOCK INFO

KMU has secured a reduced room rate at the following hotels. Please contact the hotels directly to make reservations, and be sure to mention that you are attending the KMU Watt-Hour Metering Workshop.

**FAIRFIELD INN**
2270 E. Kansas Ave
McPherson, KS 67460

PHONE:
(620) 504-5353

KMU ROOM BLOCK:
$94.00/night

CUTOFF:
March 12, 2019

**PHONE:** (620) 241-7829

**ROOM BLOCK INFO**

KMU has secured a reduced room rate at the following hotels. Please contact the hotels directly to make reservations, and be sure to mention that you are attending the KMU Watt-Hour Metering Workshop.

**FAIRFIELD INN**
2270 E. Kansas Ave
McPherson, KS 67460

PHONE:
(620) 504-5353

KMU ROOM BLOCK:
$94.00/night

CUTOFF:
March 12, 2019
ABOUT THE BASIC METERING WORKSHOP

The basic/intermediate metering segment of the watt-hour workshop is designed for electric personnel with little experience with electric meters. Training will use a combination of interactive classroom and hands-on training to present and reinforce the educational experience. This segment will cover such topics as:

- The electric meter
  Construction and major parts
- Basic meter application theory
  Blondel’s Theorem
- PPE for electric meter safety
- Electric meter safety
- Tools needed for working with electric meters
- Instrument transformers
- C.T. & P.T. Rated metering
- How and when to use multipliers
- Types, methods of bypass and effects of malfunctions of sockets
- Self-contained metering and troubleshooting
- Definitions of common abbreviations
- Hands-on training
  Different stations for attendees to work through

The Basic/Intermediate segment will provide a good foundation for those interested in continuing with the Intermediate/Advanced class.
ABOUT THE INTERMEDIATE/ADVANCED METERING WORKSHOP

The intermediate/advanced metering segment of the watt-hour workshop will build upon the topics covered in the basic metering sessions and is designed for electric personnel needing advanced training with electric metering selection and troubleshooting. Training will use a combination of self-corrected meter exams, interactive classroom sessions and hands-on training to present and reinforce instruction.

This segment will cover such topics as:

- Wiring and application error analysis
- Polyphase metering
- Solid state vs. mechanical demand vs. thermal demand
- Solid state meters
- PPE for electric meter safety
- Electric meter safety
- Tools needed for working with electric meters
- Mounting electric meter sockets
- Hands-on training with different work
- Troubleshooting electric installations
- Theft of electric power
- Self-contained metering and troubleshooting

INTERMEDIATE/ADVANCED METERING

WEDNESDAY, MARCH 27
REGISTRATION
12:30 PM - 1:00 PM
CLASSROOM
1:00 PM - 4:30 PM

THURSDAY, MARCH 28
CLASSROOM & HANDS-ON
8:30 AM - 12:00 PM
LUNCH
12:00 PM - 1:00 PM
CLASSROOM & HANDS-ON
1:00 PM - 4:30 PM

FRIDAY, MARCH 29
CLASSROOM & HANDS-ON
8:30 AM - 12:00 PM
ABOUT THE INSTRUCTORS

Larry Chapman  
Chapman Metering, LLC

He has worked in the metering business his entire career, and is a highly-regarded expert on watt-hour meters. Mr. Chapman has been an instructor at other metering schools and workshops for more than 10 years and is a strong supporter of municipal utilities throughout the Midwest.

Jon Chastain  
The Durham Company

Kent Pottorf  
City of Garden City

WHAT TO BRING

This workshop will be taught in both the classroom and lab settings. Participants are encouraged to bring a note pad and pen/pencil for taking notes, as well as their laptop computers (optional), wiring diagrams and pocket calculators to take full advantage of this training opportunity. The following items will be required to participate in the hands-on lab sessions:

- ARC FLASH SHIELD
- RUBBER GLOVES W/ LEATHER PROTECTORS
- VOLTAGE METER
- FR CLOTHING
- SAFETY SHOES
- CALCULATOR
- HARD HAT
- SAFETY GLASSES

*KMU has a few shields that can be shared. DO NOT jeopardize your utility’s only arc flash shield.

EARN APPRENTICESHIP HOURS

A student registered in an apprenticeship program may be able to use the hours from this workshop toward a portion of the apprenticeship program completion. A certificate of achievement will be sent to the utility managers of each participant. Hours of attendance acquired will be reflected on the certificate.
2019 WATT-HOUR METERING WORKSHOP REGISTRATION

Basic Metering Segment – March 26-27
Intermediate/Advanced Metering Segment – March 28-29
Location: KMU Training Center, 2090 E. Avenue A, McPherson, KS 67460

Note: This form may be used to register more than one person, provided all are attending the same class(es).

ATTENDEE INFORMATION

1 | NAME

EMAIL

2 | NAME

EMAIL

3 | NAME

EMAIL

UTILITY/COMPANY

ADDRESS

CLASS SELECTION

Basic Metering Segment Only
Intermediate/Advanced Metering Segment Only
Both Basic and Intermediate/Advanced Metering

Basic Metering Segment Only
Intermediate/Advanced Metering Segment Only
Both Basic and Intermediate/Advanced Metering

Basic Metering Segment Only
Intermediate/Advanced Metering Segment Only
Both Basic and Intermediate/Advanced Metering

CALCULATE TOTAL DUE

Early Registration Fees (by March 15 deadline) includes lunches, breaks, and metering handbook.

Note: Early registration discount ends on March 15 and regular registration fees apply.

Registering is Easy!

WWW.KMUNET.ORG
Kansas Municipal Utilities
2090 E. Avenue A, McPherson, KS 67460
KMU@KMUNET.ORG
FAX (620) 241-7829

MEMBERS:
Full workshop - $800 (Early Bird: $650) Qty
Basic - $425 (Early Bird: $350) Qty
Intermediate/Advanced - $425 (Early Bird: $350) Qty

NON-MEMBERS:
Full workshop - $950 (Early Bird: $800) Qty
Basic - $525 (Early Bird: $450) Qty
Intermediate/Advanced - $525 (Early Bird: $450) Qty

CHECK ENCLOSED  BILL CITY/UTILITY

TOTAL DUE: $