***WESTERN GAS MEASUREMENT SHORT COURSE***

***2016 ROUNDTABLE***

**Anaheim, California**

**May 5-6, 2016**

**Submitted Questions and Discussion Topics**

**Working Notebook**

**4/29/2016**

**Base Gas Metering SectionQuestion Submittal Template**

Matt Davidson

**Submitted by:**

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**e-mail: phone:**

**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 1c Question aux number:**

**Question/Issue Number: 1**

**What design do you use to capture small loads, e.g. room heating, for a large industrial customer where a single meter does not have the rangeability to accurately register the small load? For example, parallel run meters with independent cascade regulation, valve operation using a flow computer for run switching, separate tap and run for the small load, other?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jessie Mathew

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**Member Company/Org:**

**Puget Sound Energy**

**Topical Code: 1i Other ref number: PSE**

**Question/Issue Number: 2**

**What is the process/procedure for proving fixed factor for an AL1000 meters @ 2.0 psig.**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jeff Webb

**Submitted by:**

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**Member Company/Org:**

**Avista Utilities**

**Topical Code: 1h Other ref number:**

**Question/Issue Number: 3**

**How do you test (calibrate) and repair turbine meters up to 8”?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jorge Silva

**Submitted by:**

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**Member Company/Org:**

City of Palo Alto

**Topical Code: 1h Other ref number:**

**Question/Issue Number: 4**

**How often do you perform Differential Pressure testing? On all rotary meters or a specific size?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

**Submitted by:**

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**e-mail: phone:**

**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 1b Question aux number:**

**Question/Issue Number: 5**

1. **Do you have Romet as a certified meter supplier? How do you like these meters?**
2. **Is anyone looking at or testing the new compact American BK-250?**
3. **Is anyone looking at or testing the Itron I-250?**
4. **Do you use Instromet Q6 meters? If so, what is your experience with them?**
5. **Do you utilize the Coriolis meter? If so, what is your experience with this meter?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Member Company/Org:**

**Questar Gas**

**Topical Code: 1a Other ref number:**

**Question/Issue Number: 6**

**We are in the process of installing our first Flowsic500.**

**If you are using them, what has your experience with them been?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Eric Stachowiak

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**Member Company/Org:**

**City of Long Beach**

**Topical Code: 1b Other ref number:**

**Question/Issue Number: 7**

1. **Is anyone using BelGas parts to repair or upgrade their Fisher 200 series regulators?**
2. **How do you track/document the BelGas/Fisher"hybrid" regulators?**
3. **Do you see any potential compliance /regulatory issues with using "aftermarket parts?**
4. **Are any operators using BelGas regulators as replacements for Fisher 200 series regulators?**
5. **If so, is anyone using BelGas parts to repair or upgrade their Fisher 200 series regulators, such as using the BelGas "heads" on fisher bodies?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mark Buckley

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**Member Company/Org:**

**FortisBC Energy**

**Topical Code: 1b Other ref number:**

**Question/Issue Number : 8**

1. **Do you install any 2 psi Fixed Factor regulators in residential applications, and if so, do you perform any compliance sampling to check the set point?**
2. **Do you order any of your diaphragm meters with a pressure tap on the body? If so, what brand of diaphragm meters do you order with this feature?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 1b Question aux number:**

**Question/Issue Number: 9**

1. **Do you use clamp-on Ultrasonic meters for permanent installations for operational metering?**
2. **What is your best experienced accuracy and how do you achieve it? If not, can you please provide details of your experience with permanent installations?**
3. **Which clamp-on meter do you prefer the Siemens or Flexim in terms of reliability, ease of configuration, installation, and accuracy?**
4. **Do you have experience with Sick Flow600 4+1 Ultrasonic Meters for custody transfer service?**

**Do you use the 4 path Sick Flow600 for operational applications? If so, what is the best experienced accuracy out of the box?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jeff Webb

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**Member Company/Org:**

**Avista Utilities**

**Topical Code: 1e Other ref number:**

**Question/Issue Number: 10**

**Elster-American domestic meter failing families, 2004-2006. Anyone else seeing poor proofs?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jorge Silva

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City of Palo Alto

**Topical Code: 1b Other ref number:**

**Question/Issue Number: 11**

**Up to what size meter will you install underground...curb / vault?**

**What type of regulator do you use for underground curb / vault installations for residential up to 630 and commercial 5M and above?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Pacific Gas & Electric**

**Topical Code: 1c Question aux number:**

**Question/Issue Number: 12**

**What design do you use to capture small loads, e.g. room heating, for a large industrial customer where a single meter does not have the rangeability to accurately register the small load?**

**For example, parallel run meters with independent cascade regulation, valve operation using a flow computer for run switching, separate tap and run for the small load, other?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mark Buckley

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**Member Company/Org:**

**FortisBC Energy**

**Topical Code: 1e Other ref number:**

**Question/Issue Number : 13**

1. **Do you track residential regulators? If so, what information do you capture, and do use this information to determine whether a regulator should be removed from service?**
2. **Do you track commercial and industrial regulators, and if so, do you also have scheduled maintenance plans, to reduce failure? Or do you simply replace at failure?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Pacific Gas & Electric**

**Topical Code: 1k Question aux number:**

**Question/Issue Number: 14**

**What are your meter room requirements?**

**Do you use SNAP Provers at your meter plant? How often do you calibrate them?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Topical Code: 1h Question aux number:**

**Question/Issue Number: 15**

1. **Do you use DP calculator (Dresser or Romet) during rotary meter maintenance?**
2. **How often do you check and maintain your Turbine gas meters?**
3. **Do you use single or/and Auto Adjust rotor turbine meters?**
4. **Are you planning to replace them with a new technology?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Topical Code: 1c Question aux number:**

**Question/Issue Number: 16**

1. **How do you support meter set piping?**
2. **What type of base do you utilize to attach the necessary pipe supports?**
3. **How do you treat existing meter sets that do not have the appropriate pipe supports or support base?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Pacific Gas & Electric**

**Topical Code: 1i Question aux number:**

**Question/Issue Number: 17**

**How do you handle reconstruction work for indoor meter sets not built to company standards?**

**Does anyone have a standard for temporary hoses used in bypassing meter sets or regulator stations while maintenance?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Andy Fortier

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**Member Company/Org:**

**Northwest Natural Gas**

**Topical Code: 1h Other ref number:**

**Question/Issue Number: 18**

**Do you have ultrasonic meters installed in your system, used for custody transfer purposes?**

**If so, do you have an established maintenance program for them, and what does it entail?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mark Buckley

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**FortisBC Energy**

**Topical Code: 1g Other ref number:**

**Question/Issue Number : 19**

**For coriolis meters, what software do you use to convert from mass flow to either volume or energy and is it certified for custody transfer accuracy?**

**Do you have any coriolis meters in custody-transfer applications, and if so, are any of them installed in system pressures ranging from 20 psig to 100 psig?**

**NOTES:**

**Electronic Flow Measurement and Instruments/Systems Section**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Doug Fuller

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**Member Company/Org:**

**NW Natural**

**Topical Code: 2g Other ref number:**

**Question/Issue Number: 20**

**a) Does anyone have problems with moisture/condensation in their electronic instruments used for Volume measurement?**

**b) Have you been having accuracy problems due to this?**

**c) What works to solve the problem?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jessie Mathew

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**Puget Sound Energy**

**Topical Code: 2h Other ref number:**

**Question/Issue Number: 21**

**What is the frequency of accuracy check/calibration of electronic correctors, if other than annual?**

**If annual, any consideration to move to a 3 year, 5 year or 10 year check?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jeff Webb

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**Member Company/Org:**

**Avista Utilities**

**Topical Code: 2b Other ref number:**

**Question/Issue Number: 22**

**Honeywell’s new EC350 electronic corrector - How many and who are using?**

**What is your experience and are you using their cell modem?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jorge Silva

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**Member Company/Org:**

City of Palo Alto

**Topical Code: 2b Other ref number:**

**Question/Issue Number: 23**

**What is the deciding factor on when you install a Volume Corrector?**

**Is it size? Pressure? Load? Usage?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Bryan Niegergall

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**Member Company/Org:**

**Questar Gas**

**Topical Code: 2c Other ref number:**

**Question/Issue Number: 24**

**We have been getting a lot of requests for pulse outputs from meters on customers that have installed energy management systems.**

**What equipment are other companies using for this? Are barriers used?**

**Are agreements signed?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 2i Other ref number:**

**Question/Issue Number: 25**

**How do you determine spot elevation and atmospheric pressure for EC calibration?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Pacific Gas & Electric**

**Topical Code: 2b Other ref number:**

**Question/Issue Number: 26**

**Have you approved the Honeywell CNI2e modem? What is your experience?**

**Have you approved Parker PGI TEC-2 or 8 thermal electric chargers on ECs or electronic pressure recorders? What is your experience with this equipment?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 2k Other ref number:**

**Question/Issue Number: 27**

**How often do you calibrate and inspect TCIs and ECs?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Alan Mathews

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**Member Company/Org:**

**Williams – Northwest Pipeline**

**Topical Code: 9h Other ref number:**

**Question/Issue Number: 28**

**What is your experience with remote diagnostics from ultrasonic and Coriolis meters?**

**Do you install Flow Meters in regulator stations? Which brand/model? What are your maintenance requirements for these operational meters?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Andy Fortier

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**Member Company/Org:**

**Northwest Natural Gas**

**Topical Code: 9h Other ref number:**

**Question/Issue Number: 29**

**Do you remotely administer your ultrasonic meters, or record diagnostic telemetry from them?**

**NOTES:**

**Regulator Stations and Pressure ControlWestern Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mark Buckley

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**Member Company/Org:**

**FortisBC Energy**

**Topical Code: 3e Other ref number:**

**Question/Issue Number: 30**

**At Pressure Control Stations, what factors do you consider, when determining whether the station should have telemetry? And at what point would you install a SCADA system?**

**At Pressure control stations where the pressure drop is enough to create frost or ice on a regulator or pipe, at what point do you consider installing a reg-pilot heater, then move up to a line-heater? Is this considered at the Design stage, or is done it in response to regulator freeze?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Scott Lundgren

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**Member Company/Org:**

**NW Natural**

**Topical Code: 3c Other ref number:**

**Question/Issue Number: 31**

**For meter sets do companies as a standard mate components with flat faced steel flanges (regs, strainers or valves) with flat faced steel spool? Is mating a flat faced flange with a raised faced flange that is composed of the same material acceptable?**

**Do you utilize lubricant such as Sil Glyde when installing paper gaskets (Garlock 3000)?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Scott Lundgren

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**NW Natural**

**Topical Code: 3c Other ref number:**

**Question/Issue Number: 32**

**Do you use paper gaskets (Garlock 3000) on your 150 ANSI flanges? If so, do the crews have issues/concerns with gaskets being difficult to remove from the flanges when the meter set is being worked on? How do you address this concern?**

**What type of gaskets do you use on 150 ANSI raised faced flange connections on your meter sets?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Scott Lundgren

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**NW Natural**

**Topical Code: 3h Other ref number:**

**Question/Issue Number: 33**

**Do you install below ground inlet valves for service regs/farm taps and if so do you maintain them?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 3b Other ref number:**

**Question/Issue Number: 34**

**Is anyone testing the Pietro Fiorentini Reflux 819? What configurations, fail-open or fail-closed? Do you combine this regulator with a pilot-unloading monitor or have a different setup altogether?**

**What are your experiences with Pietro Fiorentini FE regulators?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Pacific Gas & Electric**

**Topical Code: 3b Other ref number:**

**Question/Issue Number: 35**

**Have you tested and/or approved the Mooney Flowgrid Slam-shut? Which applications will you install the slam-shut?**

**Have you experienced Mooney pilot diaphragm failures or pilot stem failures (e.g., bent stems)?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 3b Other ref number:**

**Question/Issue Number: 36**

**What type of regulators do you install in transmission meter sets that require multiple pressure cuts due to high inlet pressures? How many stages of regulation are used in these meter sets?**

**How often do you perform regulator maintenance on large meter sets tapped off transmission lines?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 3b Other ref number:**

**Question/Issue Number: 37**

**What guidelines are being followed for minimum physical separation between a regulator and monitor control valve?**

**Is the separation based on pipe diameter or a fixed number such as 20’ between regulator and monitor?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Pacific Gas & Electric**

**Topical Code: 3e Other ref number:**

**Question/Issue Number: 38**

**What types of electric powered valve actuators (such as Rotork or Limitorque) are being used for pressure control?**

**What is the maximum acceptable pressure drop across supply gas regulators when the gas is being used as power gas supply for actuators in control valve assemblies?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Topical Code: 3b Other ref number:**

**Question/Issue Number: 39**

**Which types of valves are they being installed on such as Globe, Grove B5 or Cameron T-31/T-32? Is anyone using Valbart (Flowserve) control valves and, if so, which applications are they being used on?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Member Company/Org:**

**Williams – Northwest Pipeline**

**Topical Code: 3c Other ref number:**

**Question/Issue Number: 40**

**What changes have your companies implemented to reduce or eliminate sulfur deposition in pressure reduction equipment?**

**• Changed regulator/pilot combinations**

**• Installed upstream line heating**

**• Multi-stage pressure reductions**

**If these or other changes have been implemented, what is the result? Has sulfur deposition been reduced? Have you seen an improvement in overall operation?**

**NOTES:**

**Advanced Metering Systems/Meter Reading Process**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Doug Fuller

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**NW Natural**

**Topical Code: 4h Other ref number:**

**Question/Issue Number: 41**

**We have Itron ERT AMR. We use these on a majority of all our AMR. Does anyone use the "Tamper Alarm" feature on these? We have Dresser IMC's that we get many false tamper alarms. The solution we are trying is to install or adjust these at 90 degrees.**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Topical Code: 4a Other ref number:**

**Question/Issue Number: 42**

**How many companies are still using analog phone lines for communication with AMR etc.? I understand these lines will cease to exist by the end of 2017. Do you plan to go with Cell, Radio, both? How far along are you?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Daniel Bellers

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**Southern California Gas Company**

**Topical Code: 4e Other ref number:**

**Question/Issue Number: 43**

**Is anybody reusing AMI modules?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jeff Webb

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**Avista Utilities**

**Topical Code: 4b Other ref number:**

**Question/Issue Number: 44**

**Is anyone using the new Itron Openway Riva?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Topical Code: 4b Other ref number:**

**Question/Issue Number: 45**

**Do you perform QA on meter modules prior to sending them to the meter vendors for installation?**

**What are your plans for replacing AMR modules at the end of their life?**

**NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Gas Quality Measurement and Management**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

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**Member Company/Org:**

**Southern California Gas Company**

**Topical Code: 6n Other ref number:**

**Question/Issue Number: 46**

**Elemental sulfur issues? Deposits on Regulator & other equipment?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Bryan Niegergall

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**Member Company/Org:**

**Questar Gas**

**Topical Code: 6b Other ref number:**

**Question/Issue Number: 47**

**Has anyone used or tested the Orbital GasPT analyzer?**

**If so, what was your experience with it?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Bryan Niegergall

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**Member Company/Org:**

**Questar Gas**

**Topical Code: 6c Other ref number:**

**Question/Issue Number: 48**

**There seems to be a lot of talk about bringing biogas into gas distribution systems, but there doesn't seem to be many actual projects to bring it in.**

**Has anyone besides SoCal actually hooked up a biogas source?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

**Submitted by:**

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 6k Other ref number:**

**Question/Issue Number: 49**

**Do you perform QA on meter modules prior to sending them to the meter vendors for installation?**

**NOTES:**

**Gas Odorization**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mike Pugh

**Submitted by:**

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**Member Company/Org:**

**Intermountain Gas Company**

**Topical Code: 7b Other ref number:**

**Question/Issue Number: 50**

**Do any member companies do electronic level measurement on odorant storage tanks?**

**What odorization technology is currently available to possibly demo or install as an alternative to YZ systems high maintenance systems?**

**What odorization technology is available as an alternative to War-King or King Tool wick type ordorizers to provide more consistent odorant injection?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mike Pugh

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**Topical Code: 7h Other ref number:**

**Question/Issue Number: 51**

**Do you have pump driven odorizers that see periodic low flow conditions? How are you controlling them, and how do you ensure accurate injection rates in low flow conditions?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Tim Wold

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**Intermountain Gas Company**

**Topical Code: 7k Other ref number:**

**Question/Issue Number: 52**

**Do any member companies use an olfactory (smell) test to determine if an employee is capable of identifying the odorant smell?**

**NOTES:**

**Pipeline Pressure Monitoring and SCADA**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Rafael Haro

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**Member Company/Org:**

**Southern California Gas Company**

**Topical Code: 8k Other ref number:**

**Question/Issue Number: 53**

**What measurement standards are used to monitor pressure?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Bryan Niegergall

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**Member Company/Org:**

**Questar Gas**

**Topical Code: 8b Other ref number:**

**Question/Issue Number: 54**

**We've always used Rosemount temperature and pressure transmitters, but there seems to be other choices out there now days that are less expensive and have similar spec's. What manufacture do others use and what has been your experience with them?**

**How often is system pressure monitoring point verified for accuracy?**

**NOTES:**

**Data Communications with Field Devices**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Doug Fuller

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**Member Company/Org:**

**NW Natural**

**Topical Code: 9a Other ref number:**

**Question/Issue Number: 55**

**How many companies are still using analog phone lines for communication with AMR etc.?**

**I understand these lines will cease to exist by the end of 2017. Do you plan to go with Cell, Radio, both? How far along are you?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jeff Webb

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**Member Company/Org:**

**Avista Utilities**

**Topical Code: 9b Other ref number:**

**Question/Issue Number: 56**

**Honeywell’s new EC350 electronic corrector - How many and who are using? What is your experience and are you using their cell modem?**

**NOTES:**

**Workforce Issues**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Steven Oblander

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**Member Company/Org:**

**Southern California Gas Company**

**Topical Code: 11i Other ref number:**

**Question/Issue Number: 57**

**What is your understanding of CFR 49 Section 192.805(C) “Non-Qualified Individuals”, with the question specifically regarding unqualified individuals working on a District Regulator Station under the observation of a qualified individual?**

**NOTES:**

**Other Issues (Leakage, environmental, Regulatory)**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Steve Gonzalez

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**e-mail: phone:**

**Member Company/Org:**

**Southern California Gas Company**

**Topical Code: 12h Other ref number:**

**Question/Issue Number: 58**

**What methods do other companies use to verify pipe wall thickness in regulator stations and customer MSA’s when corrosion has impacted the pipe wall thickness?**

**Are there approved devices that they use to measure the thickness?**

**Does the operator of the equipment have to be operator qualified on the instrument?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Rafael Haro

**Submitted by:**

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**Member Company/Org:**

**Southern California Gas Company**

**Topical Code: 12a Other ref number:**

**Question/Issue Number: 59**

**Are hydraulic deadweight testers still used in today’s field applications, if so, are correction factors utilized by field personnel?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Jeff Webb

**Submitted by:**

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**Member Company/Org:**

**Avista Utilities**

**Topical Code: 12o Other ref number:**

**Question/Issue Number: 60**

**If you do Project Charters for your large projects, what headings/topics are included? Willing to share a copy?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mike Pugh

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**Member Company/Org:**

**Intermountain Gas Company**

**Topical Code: 12c Other ref number:**

**Question/Issue Number: 61**

**Is the industry going to be forced to install worker-monitor systems to alleviate ozone depletion?**

**What new technology can be utilized to mitigate icing from high differential pressure reductions to avoid regulator freeze-ups?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

**Submitted by:** Alan Mathews

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**Member Company/Org:**

**Williams – Northwest Pipeline**

**Topical Code: 12i Other ref number:**

**Question/Issue Number: 62**

**What is your implementation process for the revised measurement standards from API, AGA and GPA?**

**What changes have you made to your policies and procedures as you implement the revised and new AGA and API measurement standards?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

**Submitted by:** Alan Mathews

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**Member Company/Org:**

**Williams – Northwest Pipeline**

**Topical Code: 12j Other ref number:**

**Question/Issue Number: 63**

**If you have been acquired, what issues have come up and how has integration been implemented?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Mark Buckley

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**Member Company/Org:**

**FortisBC Energy**

**Topical Code: 12m Other ref number:**

**Question/Issue Number: 64**

**In Canada our latest “Oil and Gas Pipeline Code, Z662-15” requires us to keep more detailed records of the materials we use. At the latest CGA Engineering Conference in April there were some discussions around, “Material Traceability”. Are you seeing the same level of scrutiny by your regulatory bodies in the US, and if so, what measures have you taken to improve your record keeping for purposes of traceability?**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

Matt Davidson

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**Member Company/Org:**

**Pacific Gas & Electric**

**Topical Code: 12g Question aux number:**

**Question/Issue Number: 65**

**How successful are you in removing liquids after pigging run? Have you experienced any problems later with liquids in DFM’s, distribution, end-use customers?**

**DISCUSSION NOTES:**

Type in text box for notes, or delete text box in word and use base text function

**OPEN TOPICS AND PARKING LOT ISSUES:**

**Process Improvements implemented in the last 2 years.**

**CONCLUDING REMARKS AND ACKNOWLEDGEMENTS**

**DISCUSSION SECTIONS:**

1. **BASE GAS METERING (p2)**
2. **CORRECTORS AND FLOW COMPUTERS (p22)**
3. **PRESSURE REGULATION (p33)**
4. **ADVANCED AND AUTOMATED METER READING (p45)**
5. **GAS QUALITY MEASUREMENT & MANAGEMENT (p51)**
6. **ODORIZATION AND GAS QUALITY (p56)**
7. **PIPELINE PRESSURE MONITORING & SCADA (p60)**
8. **DATA COMMUNICATIONS WITH FIELD DEVICES (p63)**
9. **WORKFORCE ISSUES (p66)**
10. **OTHER ISSUES (p68)**
11. **OPEN TOPICS AND PARKING LOT ISSUES**
12. **PROCESS IMPROVEMENTS**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

**Submitted by:**

**e-mail: phone:**

**Member Company/Org:**

**Topical Code: Other ref number:**

**Question/Issue Number:**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

**Question Submittal Template**

**Submitted by:**

**e-mail: phone:**

**Member Company/Org:**

**Topical Code: Other ref number:**

**Question/Issue Number:**

**NOTES:**

**Western Gas Measurement 2016 Roundtable**

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**Western Gas Measurement 2016 Roundtable**

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**NOTES:**

**Western Gas Measurement 2016 Roundtable**

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**Member Company/Org:**

**Topical Code: Other ref number:**

**Question/Issue Number:**

**NOTES:**