BTU Efficiency for You, Me and DCP


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Fast Facts

• Became DCP Midstream 1/1/07 (formerly Duke Energy Field Services)
• Operates primarily in 16 States
• Approximately 50 gas plants and several hundred compressor stations
• 56,000 miles of gathering and transmission pipelines
• Produces ~ 360,000 bbl/day of NGL
History with EPA Gas Star Program

- 2000: Helped EPA develop processing sector program
- 2001: DCP joined program by signing MOU
- 2001-2005: DCP remained a partner, implemented practices to reduce emissions, but did not report emissions reductions to the STAR Program
- 2002: BTU Efficiency pilot program began
- 2003: BTU teams started in 5 asset areas
- 2005: BTU Efficiency program extended to all asset areas
- 2006: DCP renews commitment to the Program
- 2006: Reported emission reductions and submitted Implementation Plan 2006: Received recognition as Partner of the Year for Gas Processing sector
BTU Efficiency – What is it and why should we care?

GAS IN TO SYSTEM
SALES (RESIDUE AND LIQUIDS)
FUEL USED
MEASURED VENTS AND FLARES
TOTAL GAS OUT

LOST GAS = GAS IN – GAS OUT

BTU EFFICIENCY = SALES/GAS IN
WHAT IS A GOOD BTU EFFICIENCY?
IS 90% GOOD%?
IF BTU EFFICIENCY IS 90%, WHAT HAPPENED TO THE OTHER 10%?
• THE OTHER 10% IS MADE UP OF A TOTAL OF FUEL USED, MEASURED VENTS & FLARES AND LOST GAS.
• WHAT CAN WE CONTROL?
• WHERE SHOULD WE CONCENTRATE EFFORTS?
• HOW DO WE KNOW WE ARE WORKING ON THE RIGHT ELEMENTS OF BTU EFFICIENCY?
BTU Efficiency

Local BTU Teams Must Drive The Process - Empowerment

LEAKS (Pipeline, dumps, unmeasured tie-overs, blow downs)

“DEAD” LATERALS (Cut & Cap)

Find It Fast
- Segmentation with DeLorme Mapping Software
- Laser – Aerial
- RMLD – Ground Follow-up to Aerial Laser
- Infrared Camera – Boosters & Plants

Fix It Fast
- Operations Resources
- Commercial
- Accounting
BTU Efficiency Program

- Program began in 2003 in 5 asset areas
- In 2004, expanded to 13 asset areas
- In 2005, expanded company wide
- Improve or maintain the calculated % of the difference between the MMBtu’s that enter the system and the MMBtu sales that leave the system (NGL, Condensate, and Residue Gas)
- Establish a baseline
- Implement Best Practices
- Set a standard
BTU Efficiency Teams

- **Asset Core Team – Measurement, Operations, Commercial & Accounting**
  - Establishes baselines
  - Sets the standards
  - Determines priorities based on sub-balances
  - Forms system teams
  - Studies electronic maps
  - Brainstorms
  - Sets the tone

- **System Teams – Field Oper., Meas. Tech, Mechanic, I&E, Commercial Rep, Accounting**
  - Studies the trends
  - Determines areas of focus
  - Leads by example
  - Meets As needed

- **Subsystem Teams – Everyone who touches the asset**
  - Accountable and responsible for subsystem balance
  - Share ideas with system and core teams
BTU Efficiency “TOOL CHEST”

- System Balancing
- Correct Sampling Issues
- EFM Calculation
- Compressor Pulsation
- Implementing Best Practices
- Gas Sales & Verifications
- Set Standards
- Liquid Measurement
- Check System Crossovers
- Establish Baselines – Metrics
- Meter Installation & Maintenance
- Zero Flow & Disconnects

BTU Efficiency Strategy
2002 to Current Performance

- 2002 L&U -1.26%
- 2003 L&U -1.14%
- 2004 L&U -0.91%
- 2005 L&U -0.77%
- 2006 L&U -0.68%
- 2007 YTD L&U -0.63%

50% Improvement over 2002
BTU Efficiency – Next Steps

- Continue Improvement on Lost Gas
- Maintain Improvement on Lost Gas
- Establish Teams to Improve Fuel Efficiency
- Establish Elements for all Systems to Utilize to Improve Fuel Efficiency
- Promote Specific Projects Through Value-Added Projects
- Promote Specific Projects Through Cost-Avoidance Projects