



**scottmadden**  
MANAGEMENT CONSULTANTS

Smart. Focused. Done Right.®

# Natural Gas LDC Operations Efficiency

November 2017

# Introduction

---

**Large utilities with multiple natural gas local distribution companies (LDCs) are challenged with realizing the true cost benefits of leveraging best practices available across their systems**

- In the last few decades, the energy sector has seen slow economic and demand growth and, in some cases, declining energy sales, leading many utilities to seek growth through acquisition
- As non-fuel costs and infrastructure replacement requirements continue to increase for gas LDCs, the need to identify operational efficiencies persist

**Cost-reduction efforts often struggle because companies cannot easily compare operations and identify improvement opportunities across different LDCs or jurisdictions**

- Standardization of gas LDC processes can create significant value, but how does a utility begin this effort?
  - How does the utility design an approach that allows visibility into each LDC's workload and comparison across them?
  - How does the approach "objectively" identify the best practices that exist, promote adoption, and achieve operational improvements across the companies?
  - How does the utility make this approach sustainable and repeatable?
- Companies that are able to do this successfully and repeatedly can immediately cut costs, increase margins, and position themselves to be the most competitive going forward

**ScottMadden understands this challenge and has partnered with clients to deliver a repeatable process that allows a utility to identify and implement efficiencies and best practices across its gas LDCs.**

# Workload-Based Assessment

## Philosophy of approach

- Workload drives cost, signals process differences, and is free of labor rate differences
- If you want to improve efficiency, you must improve workload volumes (units) or efficiency (unit rates)
- Normalizing workload with work volumes allows true benchmarking

## An effective workload-based assessment includes several key tenets:

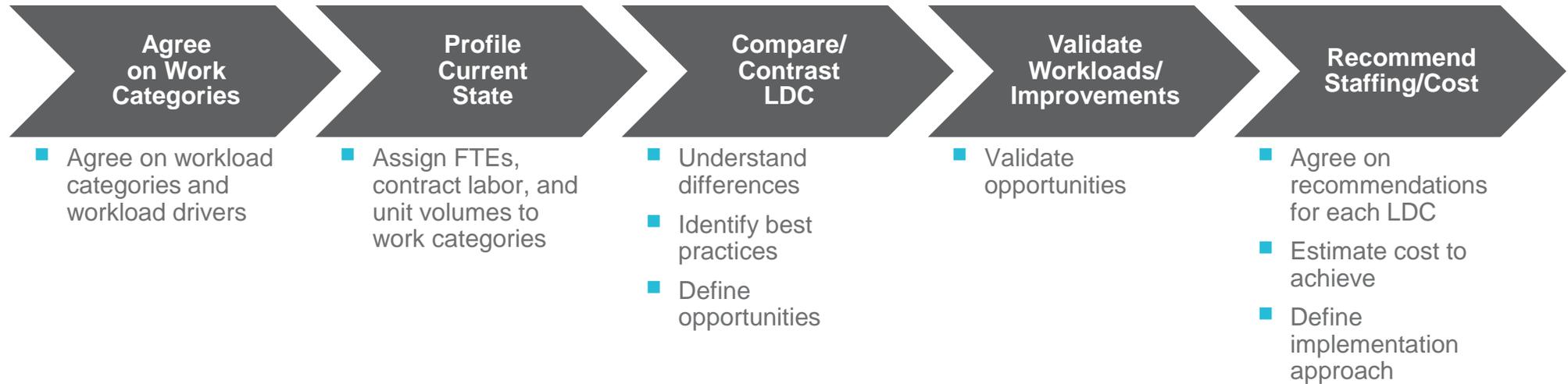
- Define the workload categories; compare categories across all LDCs to identify and resolve differences
- Identify and sanction differences in workload due to true volume drivers
- Use unit rates to identify the best practices among the LDCs
- Apply a line management/peer group ownership model; have decisions and recommendations created by teams that own the function, not third-party analysis
- Raise issues for challenge to break through local preference
- Separate identification of opportunities from decisions on how to best use benefits
- Review and challenge recommendations at multiple levels

## Example – Workload Categories

Main Construction and Replacement	Preventive Maintenance
<ul style="list-style-type: none"> <li>■ New construction                             <ul style="list-style-type: none"> <li>• Mains</li> <li>• Services</li> </ul> </li> <li>■ Replacement                             <ul style="list-style-type: none"> <li>• Mains</li> <li>• Services</li> </ul> </li> <li>■ Restoration/paving</li> <li>■ Project management</li> <li>■ Construction oversight</li> </ul>	<ul style="list-style-type: none"> <li>■ Leak surveys                             <ul style="list-style-type: none"> <li>• Transmission main</li> <li>• Distribution main</li> </ul> </li> <li>• Services</li> <li>• Outside meters</li> <li>• Inside meters</li> <li>■ Valve inspection</li> <li>■ Distribution regulator station inspection</li> <li>■ Cathodic protection inspections                             <ul style="list-style-type: none"> <li>• Field testing</li> <li>• Rectifier checks</li> </ul> </li> <li>■ Bridge crossing inspections</li> <li>■ Damage prevention</li> <li>■ Frost survey</li> <li>■ Right-of-way patrol</li> </ul>
Supervision/Management	
Administrative	

# Approach

ScottMadden has developed a comprehensive approach to identify best practices and efficiency opportunities across natural gas LDCs.



**The workload-based assessment process is based on ScottMadden’s philosophy that long-term savings cannot be achieved without first making real changes to workload (volumes or efficiency rate)**

- The approach includes a series of key workshops, with fact-finding assignments between each workshop, and relies on the teams—comprised of representatives from each LDC—to evaluate workload and identify efficiency opportunities
- This process leverages functional owners and creates a learning environment for the teams

# Vertically Integrated Utility Case Study

---

In 2017, a large, vertically integrated utility with multiple natural gas LDCs used this ScottMadden approach to perform a gas efficiency study. The teams, comprised of representatives from each of the LDCs and central functional area management, achieved the following:

- Identified saving opportunity of more than 10% – all based on associated changes to workload volumes and efficiency through process and technology changes
- Developed initiative charters as part of implementation planning
- Presented to senior management for review and challenge
- Gained senior management decision on which recommendations to move forward with, as well as decisions on how to use improvements—harvest savings or redeploy to more important activities

## Opportunities helped the client to:

- Gain alignment on utility standards and how to close the gaps within the LDCs
- Achieve cost reductions, efficiencies, and operational improvements across all LDCs
- Develop consistency in strategic goals and facilitate meaningful tracking and measuring of KPIs
- Efficiency examples:
  - Preventive Maintenance – Improved main and services surveys, leveraging new process and technology
  - Corrective Maintenance – Right staffing of crews for optimal performance
  - Engineering – Gas planning alignment through technology and standards
  - Odor Response – Redefining the role of a first responder
  - Main Replacement – Enhancements on construction contractor management
  - Gas Plant – Enhancing preventive maintenance routines and practices

# Contact Information

---

## Chris Vlahoplus

Partner and Clean Tech &  
Sustainability Practice Leader

ScottMadden, Inc.  
2626 Glenwood Avenue  
Suite 480  
Raleigh, NC 27608  
[chrisv@scottmadden.com](mailto:chrisv@scottmadden.com)  
O: 919-781-4191 M: 919-949-3806



Smart. Focused. Done Right.

## Ed Baker

Partner

ScottMadden, Inc.  
3495 Piedmont Road  
Building 10, Suite 805  
Atlanta, GA 30305  
[edbaker@scottmadden.com](mailto:edbaker@scottmadden.com)  
O: 404-814-0020 M: 678-488-8142



Smart. Focused. Done Right.