

MCR



Leveraging Trade Allies to Build, Maintain and Advance Market Transformation Programs

Ed Schmidt, Director, MCR Performance Solutions, LLC

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MCR Performance Solutions: Management consulting to the utility industry

Natural Gas Energy Efficiency Finding the Win-Win

Ed Schmidt

Introduction

With the prospect of abundant supply and low natural gas prices into the foreseeable future, and the potential for continued declining use per customer, many natural gas companies are asking themselves...

do it? Or perhaps better stated, what are the requirements?

The case for doing more in natural gas central questions:

- With low natural gas prices, economic sense for customer
- Is there an approach to encourage...

Low natural gas prices are generally commodity costs produce less potential efficiency measures, perhaps lead greater efficiencies may not be realized costs create challenges for terms of meeting traditional regulatory pure economic terms, customers payback on efficiency investment, more). That's a tall order on both sides.

What Makes Sense for the Customer?
Finding what makes sense for customer options and technology choices as energy efficiency equipment. Ultimately anything and if so, what is the relatively short list of natural gas programs. The next page includes...

¹In this white paper, we address the first question in the second question, see the MCR white paper...

Natural Gas Energy Efficiency Making it Work for Shareholders

Ed Schmidt

This paper is the second paper in a series of MCR white papers focused on energy efficiency for natural gas utilities. The entire three-part series is focused on addressing...

- When natural gas prices are low, efficiency measures, perhaps lead greater efficiencies may not be realized costs create challenges for terms of meeting traditional regulatory pure economic terms, customers payback on efficiency investment, more). That's a tall order on both sides.
- Is there an approach to encourage...

The first white paper in the Win-Win series addresses the second question, see the MCR white paper...

The Regulatory Approach
Regulatory filings at a financial focus on the issues of recovering lost sales. Program...

There are several potential modifications to the LDCs calculation that LDCs ought to consider.

Natural Gas Energy Efficiency Cost Effectiveness—Getting it Right

Ed Schmidt

In the first two MCR white papers in this series about energy efficiency for gas utilities, two questions were addressed:

- With low natural gas prices, economic sense for customer
- Is there an approach to encourage...

Answers to both key remaining questions become energy efficiency program compact.

Why Focus on the Regulatory Approach?
Regulatory filings at a financial focus on the issues of recovering lost sales. Program...

1. PCT: Pay for performance
2. PAC: Pay for achievement
3. RM: Rate of return
4. TRC: Total resource cost
5. SCT: Short-term cost

MCR's industry experts develop solutions to key issues facing utility executives.



Energy and Water Partners in Energy Efficiency and Demand Response



NARUC Water Committee Meeting
NARUC Summer Committee Meetings
July 21-24, 2013
Denver, CO



Case Study on Energy Efficiency: Water Treatment Plant Upgrades

Pennsylvania American Water's Red Bank Pumping Station has been a part of the community's landscape for more than a century, providing a critical role in the delivery of drinking water to the community.



Water drawn by this pump station accounts for more than 291,000 gallons per day.

Mine water treatment plant, where it is treated to meet the needs of more than 291,000 customers in Allegheny and Washington counties.

Is it Time to See the (New) Light? Developing a LED Street Lighting Strategy

Ed Schmidt, Cynthia Menhorn

Often neglected if they exist at all, utility street lighting strategies and programs are becoming increasingly important given the emerging excitement (and reality) of solid-state lighting (LEDs). The quality of light, the promise of long product life...

energy efficiency seem to make replacement of vapor street lights with LEDs a "no-brainer." new technology, LED street lights are both a customer satisfaction and financial benefits, and a changing environment, to be successful, it is critical to get it right.

Running a portfolio of energy efficiency programs is a data intensive business. Baseline and replacement technologies, measure lives, deemed savings, budgets, program and cost effectiveness tests results: these energy efficiency business information. The data and support a wide range of management, regulatory reporting and demand response.

Essential data is critical to running an energy efficiency program. MCR's research suggests there is no standard set of data or software systems to manage this. Instead, a wide range of incomplete data is the industry.

Energy Efficiency Program Management and Reporting Systems
Frank Craig, Ed Schmidt, Jacob Hannan

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Example of a new street retrofit in San Antonio, Texas courtesy of Illuminix Lighting Technology Co., Ltd.



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MCR Performance Solutions performs program planning and implementation for Duquesne Light.

ENERLOGICS is an administrator for Duquesne's Act 129 program.

For more information on how we can assist you in saving energy, money, and the environment, contact:

MCR Performance Solutions
847-562-0066
www.mcr-group.com

ENERLOGICS Networks
412-254-8277
www.enerlogics.com

To learn more, visit www.mcr-group.com/energy-efficiency



Agenda

1. Two framing questions
 - What do we mean by “Trade Ally”?
 - Why do we care?
2. Answers to the following: How do we leverage the supply chain today?
How’s that working out?
3. MCR’s high-level intentional and structured approach to the supply chain

Two Framing Questions

What do we mean by “trade ally”?

- The very word “trade” tends to put us in a box!
- We’re NOT talking just about installers like:
 - Builders
 - Home performance contractors
 - Lighting contractors
 - Mechanical contractors, etc.
- We ARE talking about the end-to-end supply chain “upstream” of the end-user:



- And there are the influencers like associations, unions and other organizations

Why do we care?

The “Win-Win-Win” Benefits of Leveraging the Supply Chain

| Benefit | Utility | Supply Chain | Customer |
|--------------------|-----------------------------|---------------------|------------------------------------|
| Primary Savings | Energy | Sales Effort | Cost |
| Reduced Complexity | Sales Effort | Sales Effort | Decision-making |
| Dollar Costs | Program Implementation | Sales Support Tools | Equipment and Operations |
| Reduced Risk | EM&V | Program Compliance | Rebate Approval |
| Time Efficiency | Delivery, Fulfillment, EM&V | Sales Cycle | Decision-making, Rebate Submission |

***Leveraging Today's Supply Chain and
Determining How It's Working Out***

Concepts in supply chain engagement

Whose job is it?

- Utility
- Implementer
- Someone else
- Nobody (the “organic” approach)

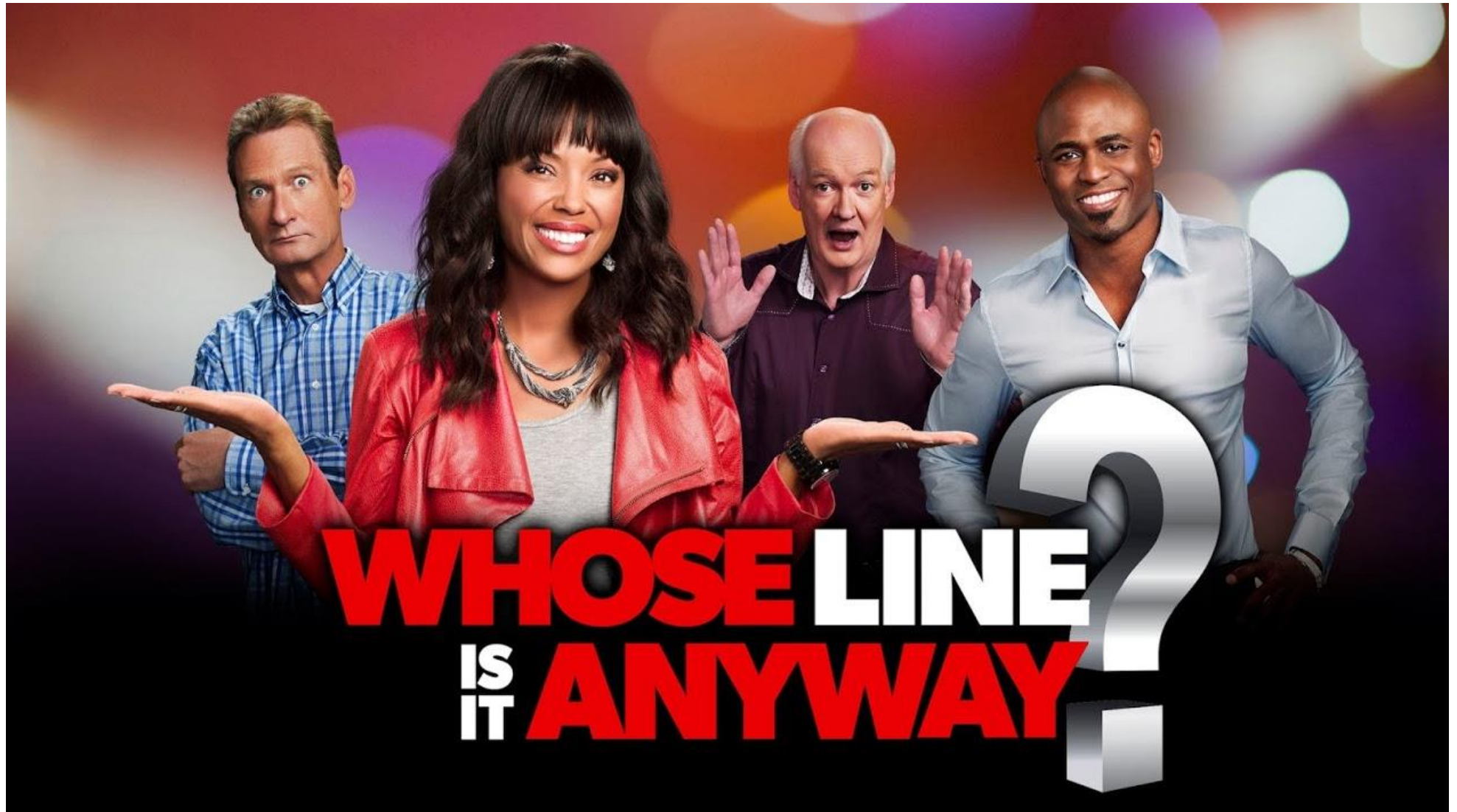
What does it look like?

- “Open network”
- “Closed network”
- Hybrid

How do you know how you’re doing?

- Metrics
- Contract terms
- Surveying

Whose job is it? That's a good question!



What it looks like and how I'm doing tend to be about the same!



Measuring Effectiveness **Insights from MCR anecdotal surveys**

■ Questions:

- Are you aware of the XYZ program?
- Do you actively participate in it by leveraging the XYZ program as you sell to your customers?

| Unaware | Aware / Not Engaged | Aware / Engaged |
|----------------|----------------------------|------------------------|
| 22% | 33% | 45% |

■ Trade ally/supply chain engagement is low

Do you know the scope, depth and level of your supply chain engagement?

Measuring Effectiveness

Comments from engagement with supply chain representatives

2. We did not understand that this determination of baselines and savings by the utility's methodology mattered to anyone but the utility.

1. We sell. The utility's rebate program is their problem, so why can't they track down all this extra documentation?

5. You should let the local trade allies become your sales team and spread the word about the programs

4. If you put it that way, I guess you're right; I make more when I sell more, so there is some incentive for me to follow the utility's rules.

3. So, it really is true that even though I sell based on customer payback and ROI, the rebate is looked at by the state, not just the utility, based on these other sets of numbers?

Measuring Effectiveness

If ex ante goals are met, along comes EM&V

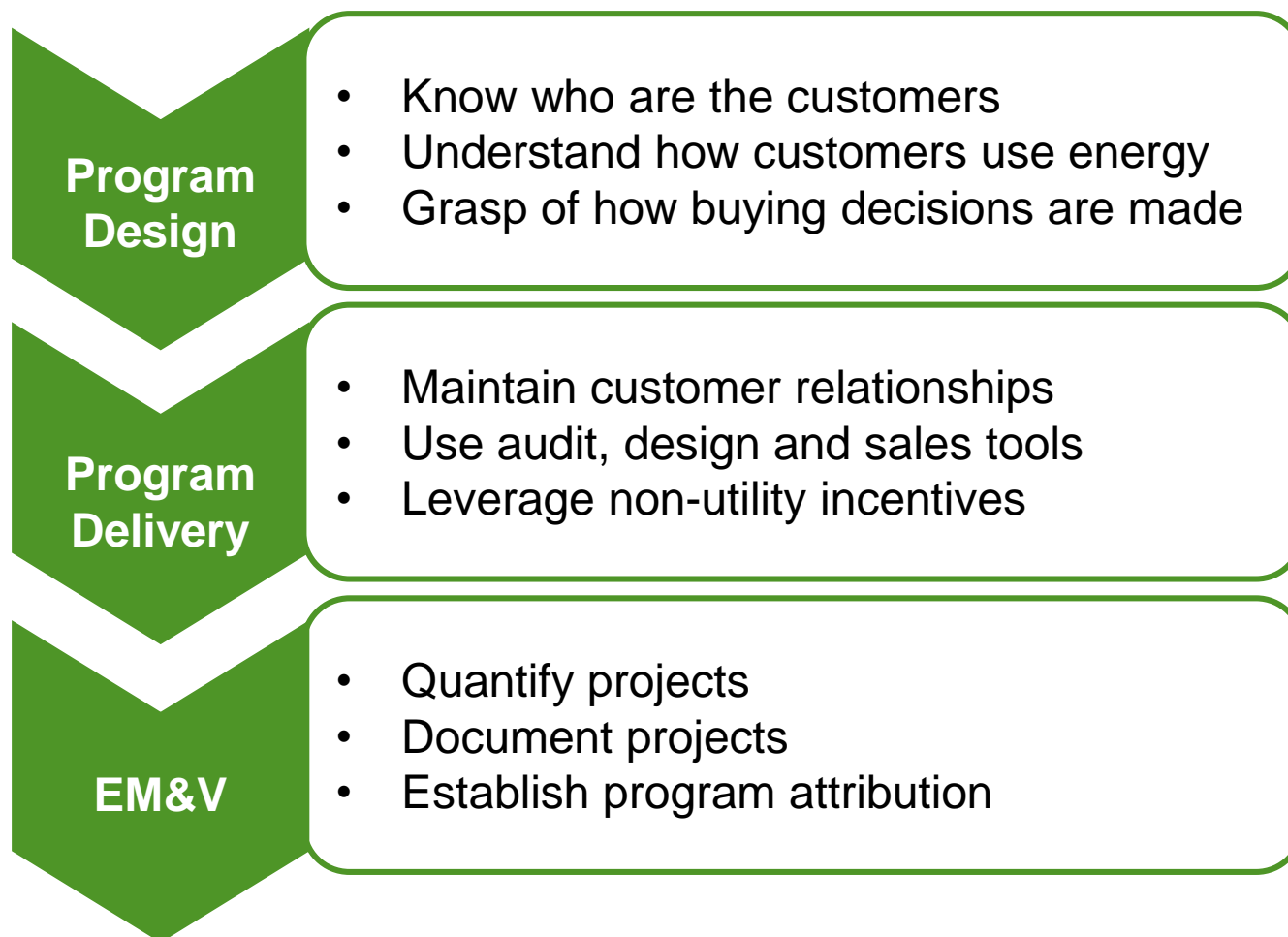
Evaluation Issues with the Supply Chain

| Cause | Effect | Remedy |
|---------------------------|---|---|
| Ineligible product | Rebate rejection, Or EM&V disallowance | Document, Specify eligible product |
| Wrong base HOU | Lower savings, Lower TRC, Lower net benefit | Logging study, Data collection at time of specification |
| Wrong measure life | Lower TRC, Lower net benefit | Use measured, NVLAP/IES L-70 |
| Wrong controls savings | Lower savings, Lower TRC, Lower net benefit | Logging study, Data collection at time of specification |
| Wrong post-watts | Lower savings, Lower TRC, Lower net benefit | Use measured, NVLAP LM-79 <u>system</u> wattage |

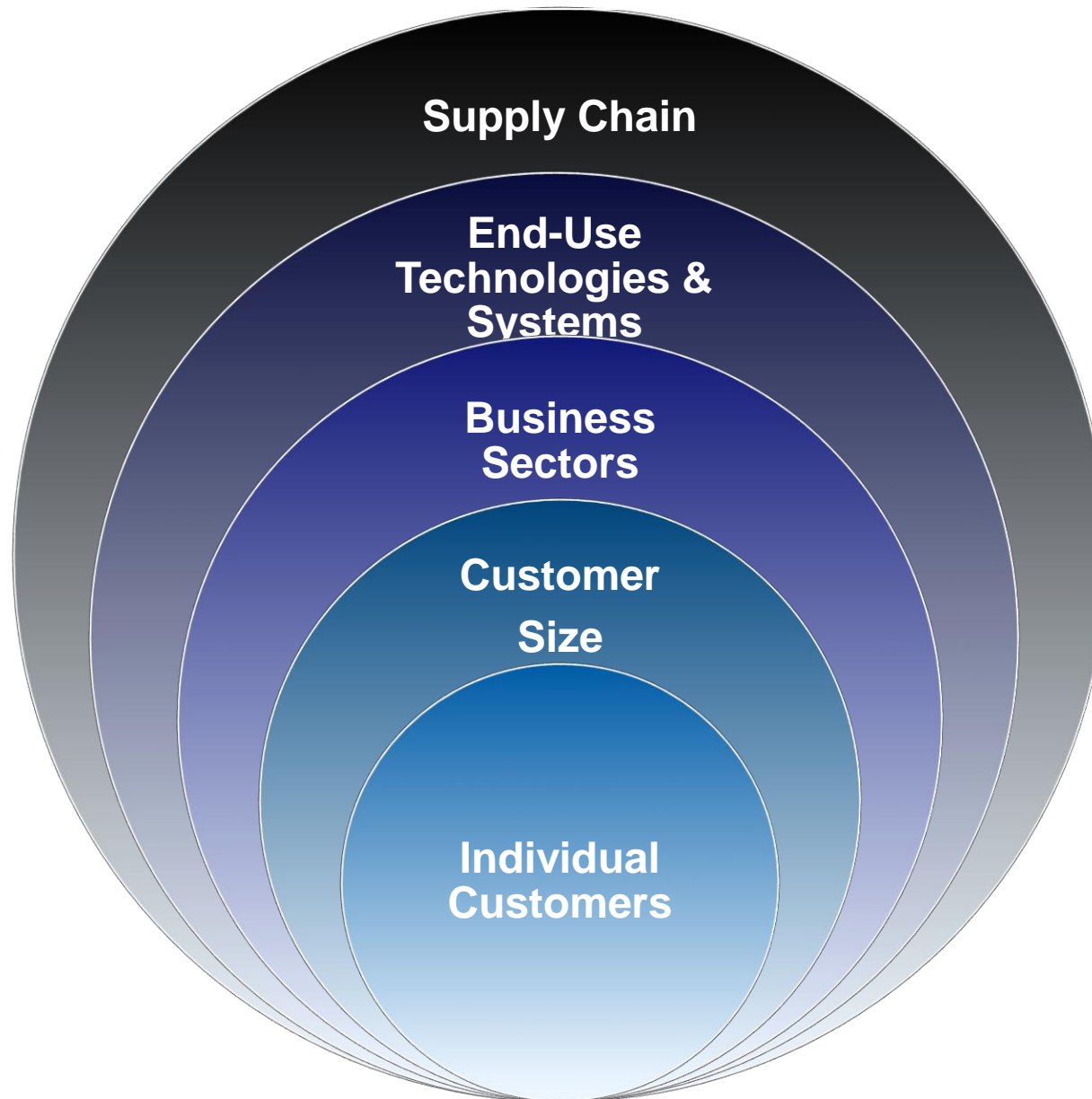
MCR's Approach to Leveraging the Supply Chain

Why engage the supply chain?

Supply Chain Value-Adds



What's the object of the game?



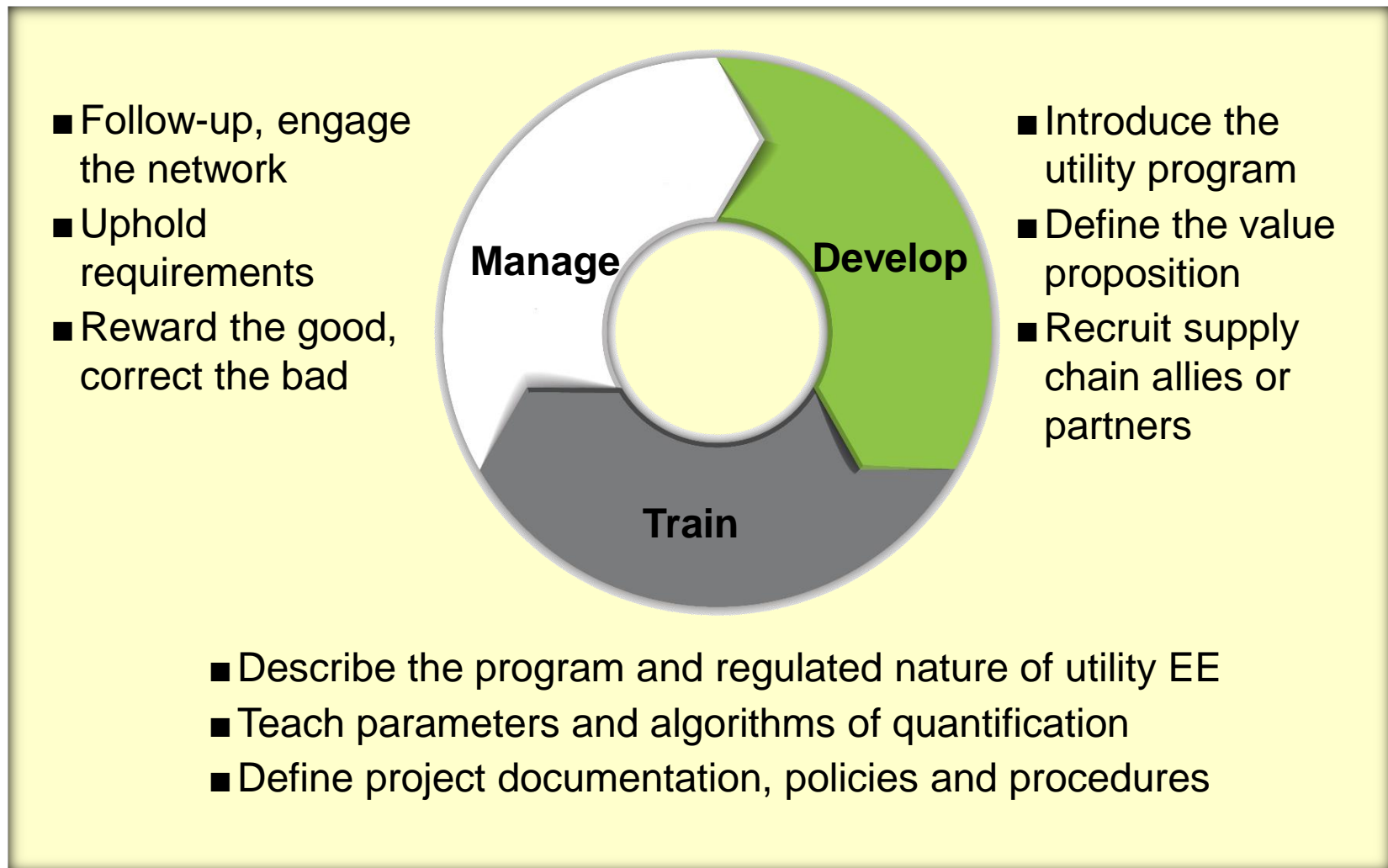
Ergo, segment, target markets and pinpoint supply chain interventions

| Target Market | Lighting | HVAC | Compressed Air | Metal Finishing | Water/Wastewater | Injection Molding | Commercial Kitchens | Agriculture |
|----------------------------------|----------|------|----------------|-----------------|------------------|-------------------|---------------------|-------------|
| Retail | X | X | | | | | X | |
| Manufacturing | X | | X | X | | X | | |
| Professional Services | X | X | | | | | | |
| Government Agency | X | X | | | | | X | |
| Educational | X | X | | | | | X | |
| Real Estate Management | X | X | | | | | X | |
| Utility/Water and Wastewater | | | | | X | | | |
| Hospitals | X | X | | | | | X | |
| Communications and Entertainment | X | X | | | | | | |
| Financial Services | X | X | | | | | | |
| All Other | | | | | | | X | X |

Understand who you are after in your ultimate pursuit of the customer!

One you know your market, apply MCR's approach to engagement

Developing, Training and Managing Engagement of the Supply Chain



Thanks!