

The Management of Critical Spares in the Electric & Gas Utility Industry

Sample 2011 Survey Results

Utility Materials Management Benchmarking Consortium



UMMBC

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This presentation includes a sample of the information contained within the complete survey report, which is currently available for all UMMBC members. Please contact us to learn more about this survey or the UMMBC.

Introduction

About the Report

- ◆ This report summarizes the results of a survey conducted by ScottMadden, Inc., regarding the management of *Critical Spares* by electric & gas utilities in North America
- ◆ While no common, industry-wide accepted definition of “*Critical Spares*” exists at this time, these items generally have the following characteristics:
 - They are critical to the ongoing operation of the asset they support
 - They are generally equipment components or systems rather than individual parts
 - They typically have long lead times
 - They are generally high-dollar items
- ◆ The intent of the survey is to help establish a common definition for “*Critical Spares*” and to document industry leading practices regarding their management

Background

- ◆ The subject of “How to Manage *Critical Spares*” has been of interest to members of the Utility Materials Management Benchmarking Consortium for several years. Last year’s survey on “Inventory Optimization” indicated that *Critical Spares* represent from 10% to 50% of the dollar value of both Generation and T&D inventory on hand. Given their value, any attempt to “optimize” inventory levels must effectively deal with these materials
- ◆ However, since there was no common industry definition of a *Critical Spare*, the group has delayed addressing this subject until now
- ◆ The survey was designed in December 2010 by a planning group consisting of representatives from nine utilities and deployed via an internet-based survey tool on January 13, 2011. The survey was closed on February 8, 2011
- ◆ At the close of the survey, 31 responses were received from 24 different utilities

Survey Organizers and Planning Team

Survey Organizers



- ◆ ScottMadden, Inc., is leading management consulting firm with practice areas in energy, clean tech and infrastructure, corporate and shared services, and federal government. ScottMadden has served the energy industry for more than 25 years and assisted more than 200 energy clients (including 90% of the top 20), performing thousands of successful projects. ScottMadden helped launch the *Utility Materials Management Benchmarking Consortium* in 2007 and is currently the consortium coordinator



- ◆ The UMMBC is comprised of leading utilities in North America who are collaborating to develop information needed to critically examine and improve ongoing warehouse and inventory management operations in the electric & gas utility industry. Membership is open to all utilities. There is no cost to join

Survey Planning Team

- ◆ A smaller group of concerned utilities members agreed to serve as the planning team for this year's survey
- ◆ The members of the planning team represented 9 utilities from across the U.S. that included investor-owned and public power

Selected Survey Insights

The following are some representative key insights from this year's survey:

- ◆ It is clear that there is no common industry definition of *Critical Spares*, although some characteristics are more common than others. Based upon the most commonly accepted characteristics, we would postulate that a common industry definition read as follows:
 - *“A Critical Spare is an item that is unique to the asset it supports, whose absence would cause a significant loss of asset service availability or a significant negative impact on safety, the environment, or meeting regulatory requirements; is rarely used, and has a long lead time for replenishment.”*
- ◆ Nearly all companies (94%) recognize the concept of *Critical Spares*, but more than half do not have a standard, company-wide process for designating them in their inventory management systems
- ◆ For most companies *Critical Spares* represent between 11% and 30% of their total inventory based on \$ values
- ◆ Surprisingly, less than half of the responding business units indicated that their *Critical Spares* are linked to the specific assets they support via Bills of Material or other methods

Q5: Designation Process (by Business Unit)

Generation business units have adopted standard documented processes for identifying *Critical Spares* in their inventory systems to a greater extent than have T&D business units

Q5. Which of the following best describes your company's process for designating an item as a critical spare?

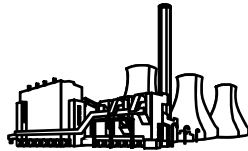


Figure 7: Respondents Representing Generation Only

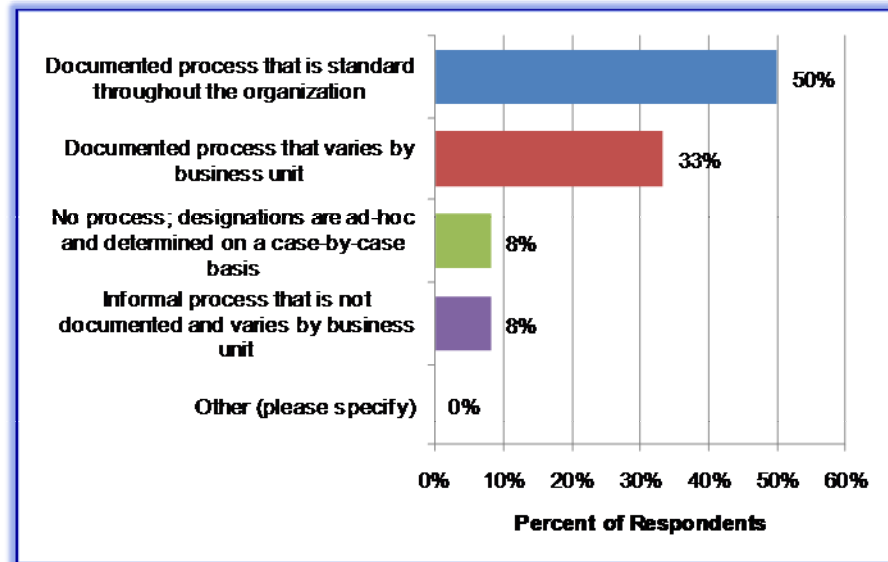
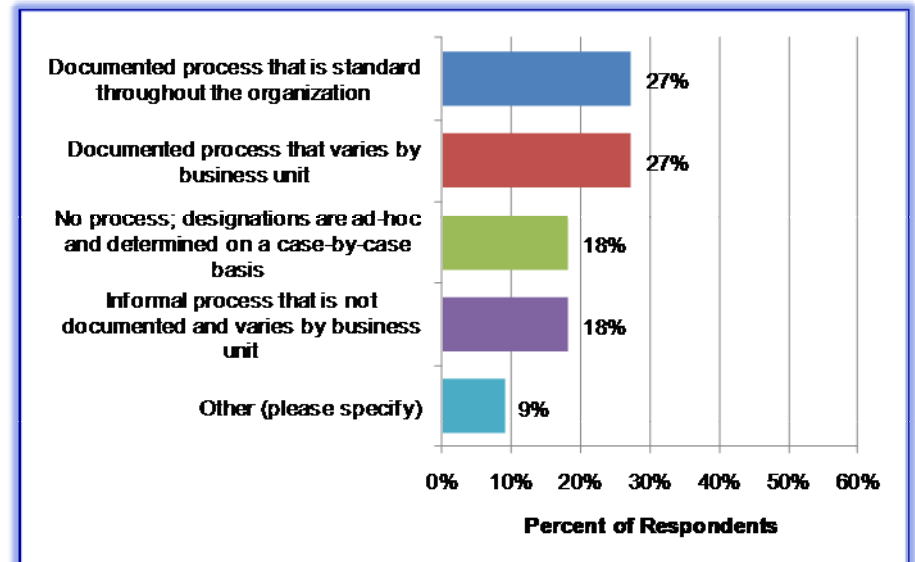


Figure 8: Respondents Representing T&D Only



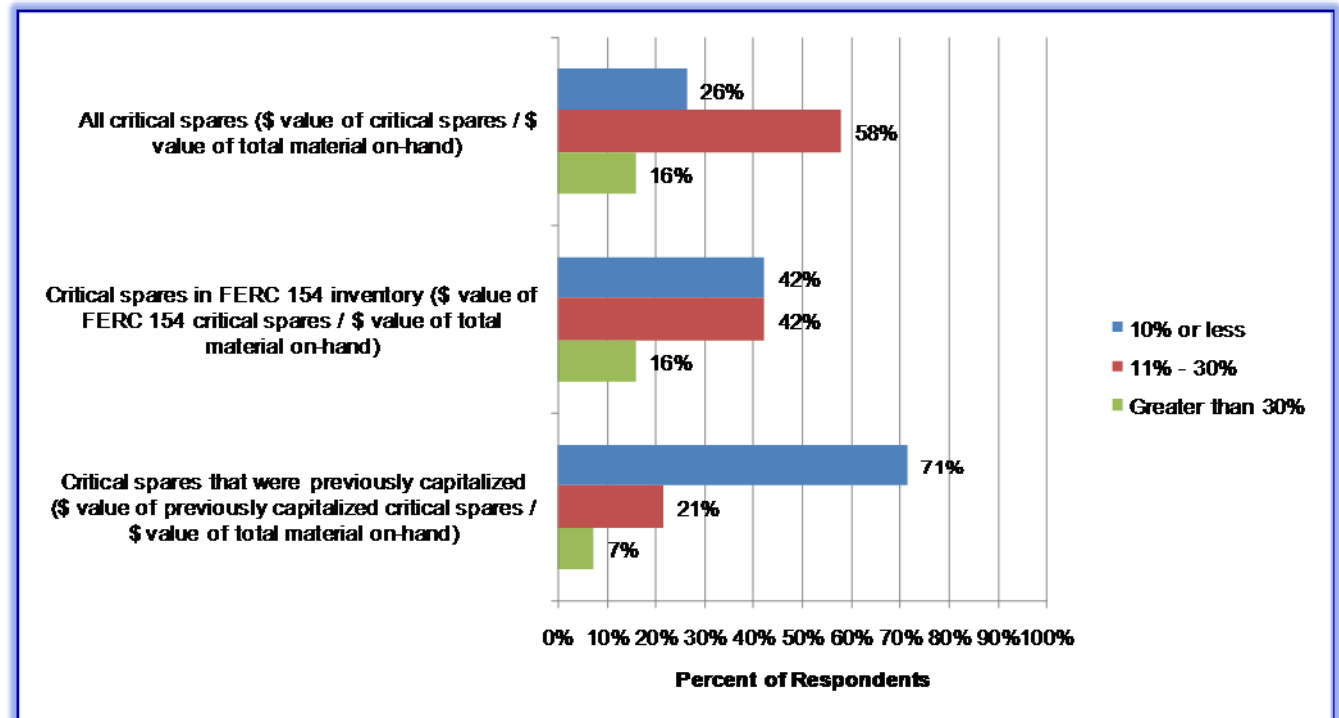
Q9: Critical Spares as a Percent of Inventory \$ Value

Responses were varied in terms of how much of total material on-hand dollars are represented by *Critical Spares*

- ◆ For most companies, *Critical Spares* represent between 11% and 30% of total inventory
- ◆ 84% of the respondents indicated that *Critical Spares* represent between 11% and 30% or less of their FERC 154 inventory
- ◆ 92% of the respondents indicated that *Critical Spares* represent between 11% and 30% or less of the previously capitalized inventory

Q9. What is the percentage of your total material on-hand \$ value for the following: (Note: total material on-hand is defined as previously capitalized material on-hand + FERC 154 inventory on-hand)

Figure 14: Representation of Critical Spares in Overall Inventory Levels (Based \$ Values)



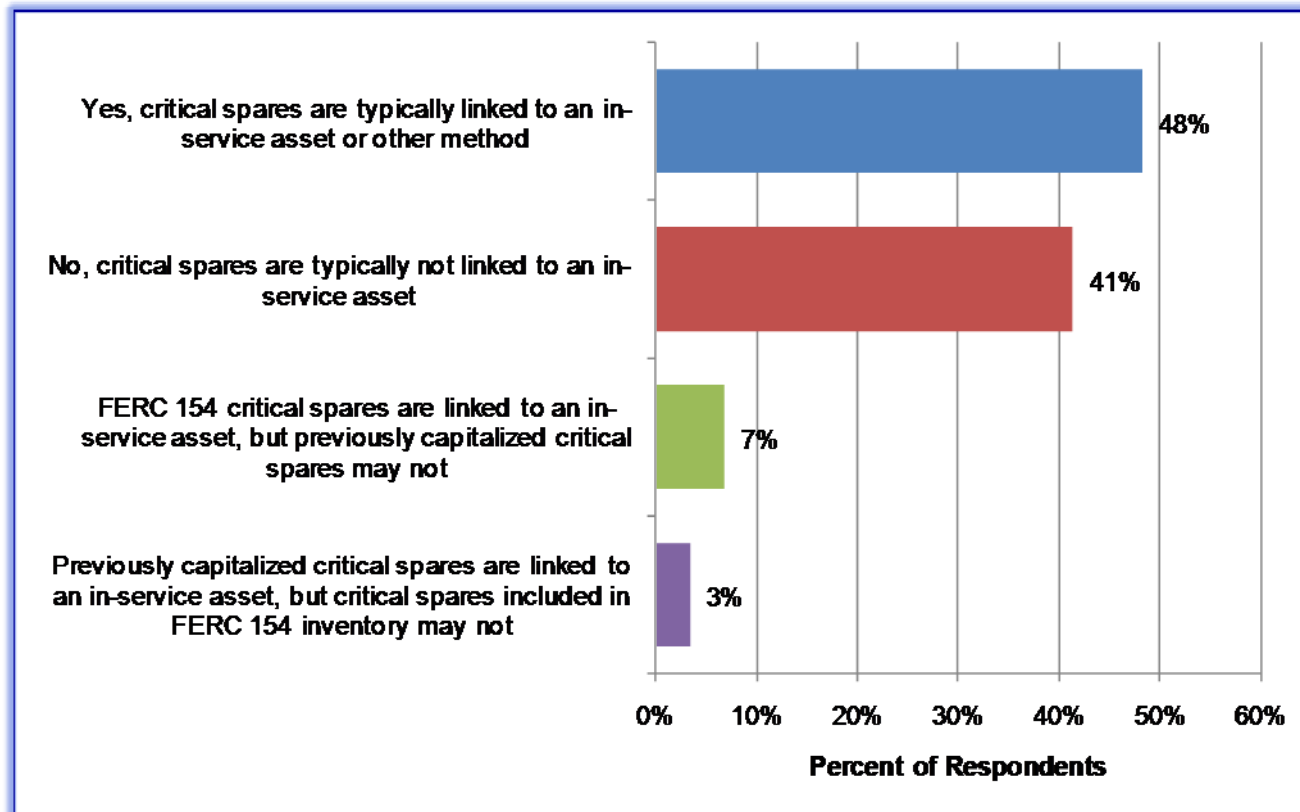
Q13: Link to Assets

Given the importance of *Critical Spares* to asset service availability we expected that such items would be linked to the assets they support via Bills of Material or other methods. The responses indicate that this is not always the case

- ◆ Less than half of the companies indicated that their *Critical Spares* are linked to specific assets they support

Q13. Are critical spares linked to a specific in-service asset? (e.g., via Bills of Material or other method)

Figure 20: Methods Used to Link Critical Spares to the Assets They Support



Contacts

If you have any questions regarding this survey, would like to learn more about the UMMBC, or would like to become a member please contact either of the following individuals:

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About the UMMBC

- ◆ The UMMBC is a group of leading utilities who are collaborating to develop the information needed to critically examine and improve ongoing warehouse and inventory management operations in the electric & gas utility industry. The consortium is open to all utilities. There is no cost to join and most surveys are conducted and provided to participants at no cost. Periodically, ScottMadden will charge a nominal fee for report production to recover production and development costs

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