

Trends in Utility Service Centers

Service center planning needs to evolve in response to new practices in the industry and the operations these facilities support.



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Why are Service Centers Changing?

- o How the industry works is changing, and the way service center facilities support these vital operations is evolving as well.
- o This paper is an overview of some past, present, and emerging changes in the electric utility industry that impact service center planning.
- o Similar industries such as gas, water, sewer, and communications have many of the same issues, but some are specific to each particular industry.

What is a Service Center?



- Also called:
 - Operations work centers,
 - District headquarters,
 - Crew facilities, etc.
- The primary function is not as much a place where work is done, as the place that supports work in the field.
- Service centers range from large industrial complexes to small rural sites; some are no-frills and others reflect local architectural styles.

The Traditional Service Center

These types of facilities have traditionally been islands unto themselves, with a full complement of everything needed for the electric operation in the region:

- Distribution and/or Transmission Crews.
- Substation operations.
- Meter reading.
- Engineering/design & work planning.
- Vehicle maintenance.
- Material warehousing.
- Dispatch, communications, and storm operations.
- District management, environmental, & safety.
- Customer service and bill payment office.
- Community relations, business development.
- Regional administration.

Same Old Changes...

Some changes have been going on for years:

- Field work locations change:
 - As growth occurs.
 - As infrastructure ages.
- Mergers change territories, consolidate administration
- Re-organizations change work assignments/flow.
- Technology improvements change work practices; reduce and centralize support staff:
 - Internet, computers/word processing allow central support.
 - Material handling booms and other equipment.
- Proliferation of electronic devices increase customer sensitivity to outages.

Common Recent Trends...

Some types of changes are increasing:

- **The business environment is more demanding:**
 - Just-in-Time delivery and 24/7 everything.
 - Increased cost reduction pressure.
 - Increased interest in sustainability.
- **Technology change is accelerating:**
 - Improved diagnostics and dispatch.
 - Cell phones, GPS, and mobile devices.
- **Industry practices are more sophisticated:**
 - More scheduled shifts, especially for first responders
 - “Mature” contractor environment (typically construction).
 - Use of separate storm response sites for large events.

What's Next?...

Some types of changes are just emerging:

- The “Smart Grid” may improve system diagnostics and avoid/mitigate some issues.
 - Likely to increase dependence on communications.
- Distributed generation (and MicroGrids) may reduce localized dependence on the grid for power.
 - Will battery power also provide real-time reliability?
- Drones may provide rapid detection and even response.
 - Can the “first responder” be a flying robot?
- 3-D Printing may reduce need to carry some parts
- ...and many current trends/changes will continue

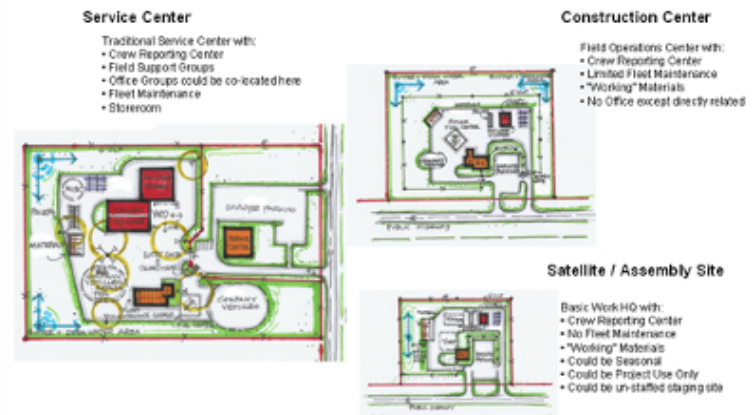
Implications for Service Center Planning

- Still need service centers for foreseeable future
 - It is not feasible for large utility trucks to go home for most workers/locations.
- Location requirements are becoming more about travel time (cost) than CAIDI (response)
 - First responders are already in field & using GPS dispatching
 - Major storm restoration using temporary logistic centers.
- Facility design evolving to become more of a logistic base (“pit stop”) for field crews than an autonomous regional office
 - Mix of centralized functions (dispatch, engineering) in other locations and distributed functions (crew supervision, fleet maintenance) at service center.
 - Other functions may be co-located, but independent.

An Evolving Service Center Approach

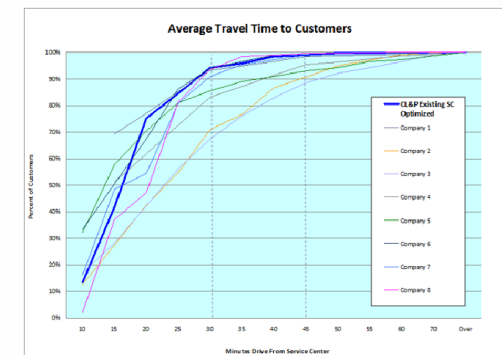
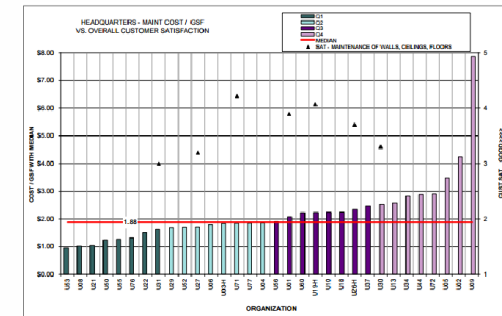
- Good location, flexible building, and adequate yard area are most important.
- Many companies are “templating” service centers to improve consistent work practices for safety and cost control.
- The evolution (and philosophy) of which functions to centralize varies by organization.
- It is possible to develop a balanced approach that cost-effectively supports these vital field operations.

Alternative Facility “Templates”



How Can You Prepare?

- Know Where You Stand
 - Benchmark your service center facilities with the industry
<https://facilityissues.com/utilities-council/>
 - Evaluate the travel time from your service center locations
<https://facilityissues.com/utilities-council/service-center-travel-time-benchmarking/>
- Plan for Change
 - Learn service center best practices from your peers
 - Make investments in service center facilities that anticipate changes
- Start Educating Stakeholders
 - Regulators, management, employees, customers, shareholders



Strategic Direction: Financials (Cash-Basis Only)

Savings	10-yr NPV	Outlay	10-yr NPV
Close and sell (~30)	\$76M	Net Book Value	\$37M
Avoided Capital (~30)	\$30M	New Site Development (~15)	\$15M
Facility Savings	\$106M	Existing Site Renovation (~82)	\$16M
Travel Savings	\$34M	Relocation Costs	\$14M
Total Savings	\$140M	Total Project Costs	\$82M

Conservative Opportunity = \$50M to \$75M (10-yr NPV)

\$58M