

Outage Communication – Improving the Flow of Information

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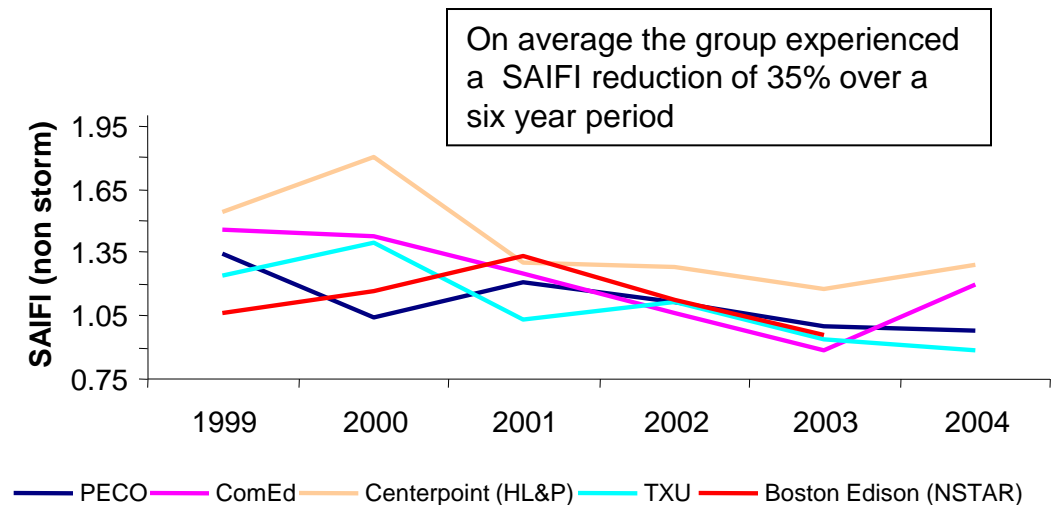
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Many utilities have decreased outage incidents dramatically...

Methods employed:

- Increased funding for tree trimming
- Increased distribution automation
- Instituted ...
 - Worst circuit programs
 - Worst device programs
- Replaced failure prone equipment e.g., underground cable

Selected Utilities' Reliability Indices

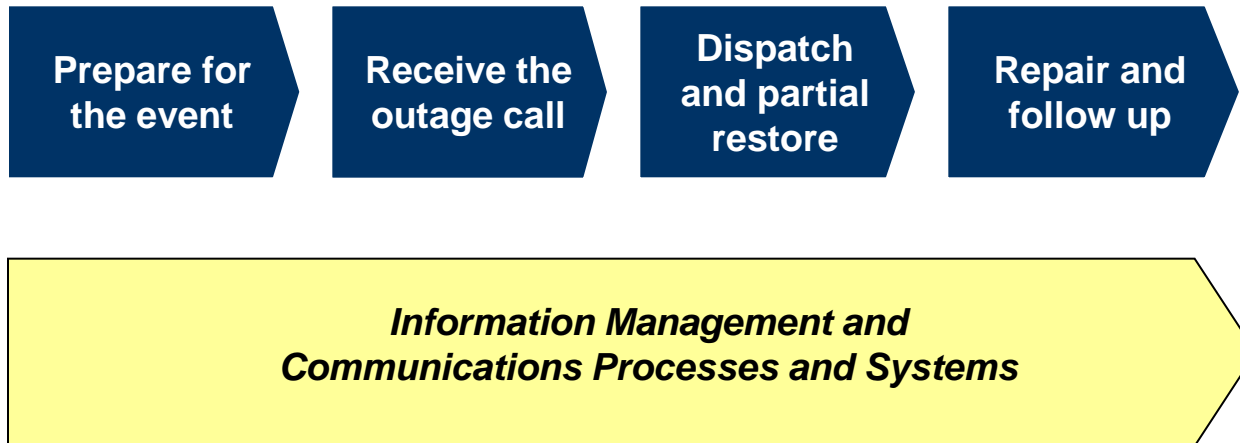


Source: State Regulatory Filings

...but now are turning their attention on improving outage communications with customers

This has forced utilities to think about how to optimize their outage communication process

Outage Management



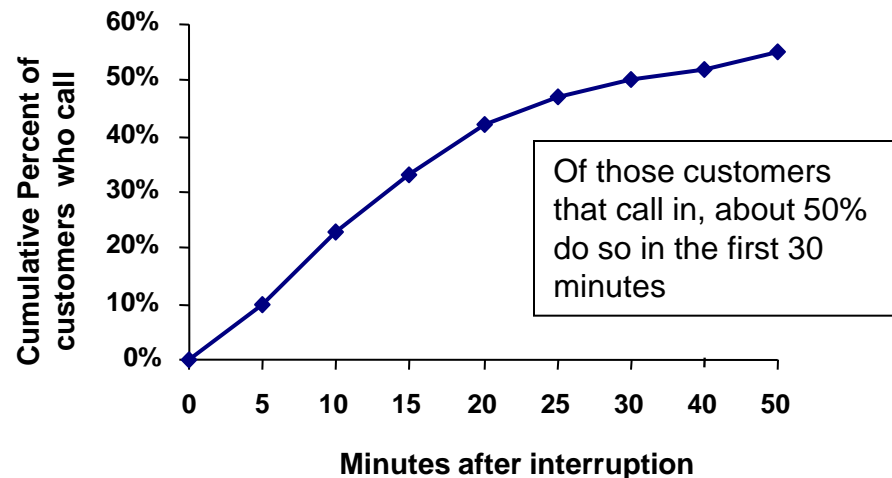
A key goal of customer outage communications is to optimize customer satisfaction with the utility response to unplanned outages

Our work with utilities suggests that key information drives customer satisfaction with outage communications

Five key things the customer wants to know about an outage:

- That the utility knows the power is out at my location
- When the power will be restored
- How extensive the outage is
- What the cause is
- What action is being taken

Typical Pattern of Customer Calls -Illustrative-



Source: NCI analysis

For those customers that do call, utilities have a limited window of opportunity to provide a positive outage communication experience

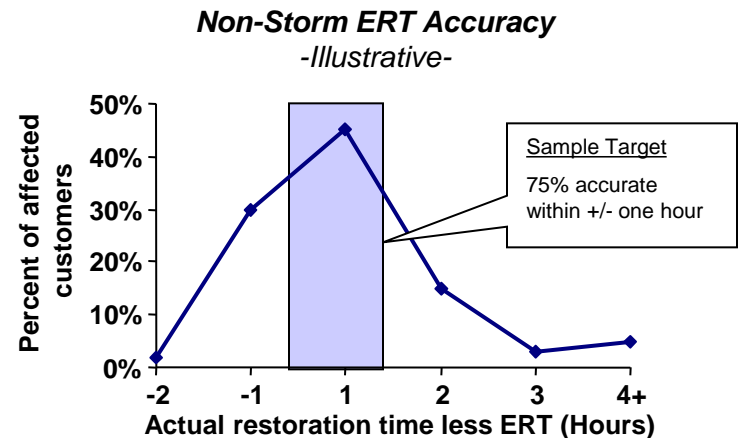
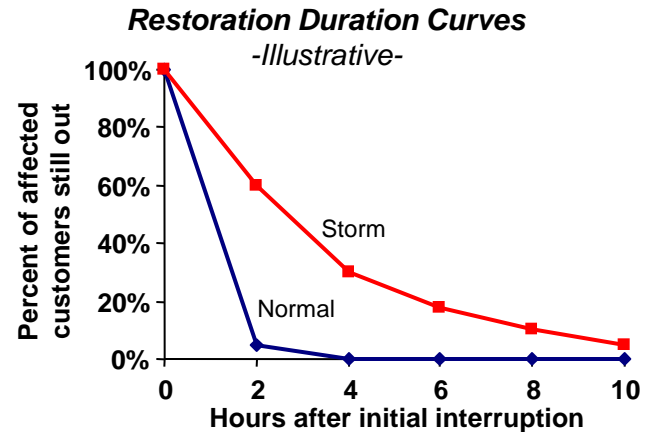
Providing an estimated restoration time is critical

Underscoring the importance of the default table values...

- For most customers, the default values provide an accurate reasonable estimate
- Giving no estimate can be worst than giving a less accurate estimate

... with the exception being storm events and extended outage durations

- For storms, storm default tables are based on stepwise assessment of the storm situation
- IVR call-backs can provide restoration updates and confirmation
- In addition, dispatchers should monitor expiration of ERTS

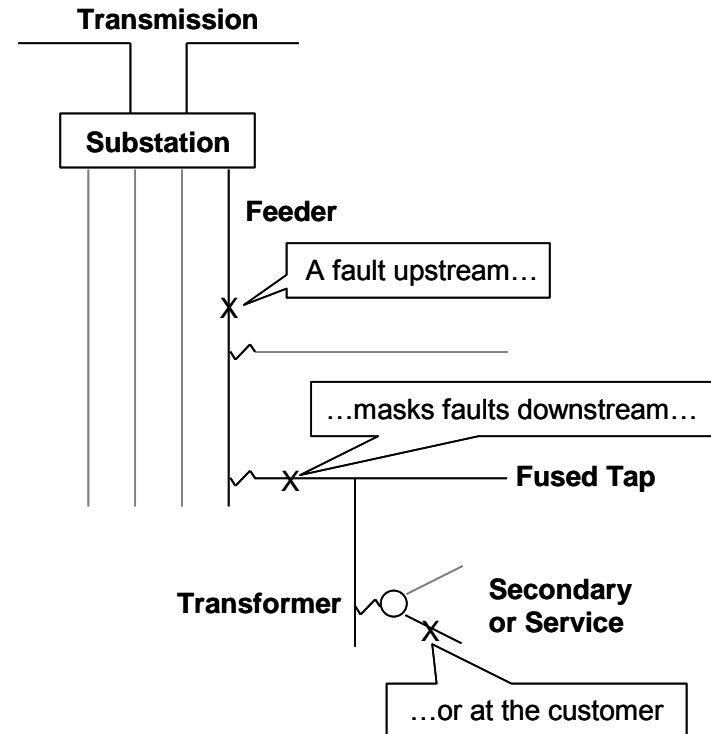


A “best practice” involves ongoing performance measurement associated with ERT reach and accuracy

After getting an ERT, the customer wants to know that the utility knows what is going on with the outage

A utility may not always know what is going on, especially when outages are nested

- Outage detection devices can unmask the blind spots
- For those utilities without the ability for remote outage detection, doing targeted call backs can confirm restoration
- In parallel with the customer call backs, use damage patrols to discover nested outages during major storms



Leading utilities have begun to apply technology to find solutions to knowing the system status (AMR, SCADA, IVR call backs).

Rapidly obtaining accurate cause information can be difficult

- Accurate cause information is typically not available until field crews or damage assessors arrive at the site
- Even when accurate cause information is available care must be given to provide it to customers in a meaningful way.

“The equipment serving your neighborhood failed”

versus

“The Airbreak switch’s hot line clamp overheated due to several failed strands on the 336 ACSR overhead wire”

- If other information on the outage is convincing (e.g., extent, ETR), cause information is less important

Utility outage cause script

-Illustrative-

“At this time the cause of your outage is still under investigation. The probable trouble associated with your outage is...”

1. Not yet determined
2. Planned maintenance
3. Storms in your area
4. An equipment problem
5. A problem with the transformer serving your location
6. A problem with trees
7. Damage done to power equipment

There are challenges in connection with taking outage communications capabilities to the next level

- Lack of sponsorship
- Organizational inertia
- Lack of focus on results

A roadmap to improve outage communication shows the way

Research Stakeholder Expectations

Drive customer satisfaction

- Conduct tailored outage communication focus groups and surveys to identify drivers of various market segments

Coordinate with Community

Outages that transcend individual customers

- Support the role of the utility in “community continuity”
- Create targeted community outreach programs
- Drill with outside agencies, with roles in utility restoration plans

Align Systems & Processes

Effectiveness

- Identify expected improvements in customer satisfaction ratings for each outage communication initiative
- Include outage communication performance as part of your companies’ key performance metrics

Measure Indicators & Results

Execution of the message

- Measure ERT accuracy and reach – both on a customer and outage centric basis

In conclusion...

- Customers demand that they quickly receive information on the estimated time of restoration
- Major storms require a more disciplined approach to outage communication as the restoration process becomes more complex
- Customers expect the utility to know when their lights are out, they have the ability to track the restoration process and accurately state when the lights will be on e.g., The FedEx syndrome – where is my package and when will it be delivered
- Regulators and the public are less tolerant to utilities that inadequately convey outage communication

Key Questions

- Do we measure ERT accuracy and reach? Is it on a customer or outage centric basis?
- Do our dispatchers have a report that tracks ERT expirations?
- Do we provide table-based default ERTs as soon as customers call?
- Can we link the expected improvement in customer satisfaction for each of your outage communication initiatives?
- Is outage communication performance part of our key performance metrics?