

# Choosing Distribution Service

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## A Platform for Discussion of Issues in Customer Choice and Electric Reliability

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Chicagoland  
South  
50c NEWSSTAND

## DOWNTOWN BLACKOUTS

# Power fails, sparks fly



"They have neglected their infrastructure for too long... We are sick and tired of them, and they had better change."

**Mayor Richard Daley**



Image courtesy of CTV

"This level of service under these conditions is a disgrace to us. It's a personal disgrace to me. I will not tolerate it, and you will not have to."



**Navigant**  
CONSULTING, INC.



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graph LR
    PS[Population sprawl] --> PN[Public 'necessity']
    DHE[Digital homes and economy] --> EN[Electronic 'necessity']
    PA[Prosperity and affluence] --> ACN[A/C 'necessity']
    IT[Information technology] --> IN[Information 'necessity']
    IT --> ARE[Accurate restoration estimates]
    DR[DistCo regulation] --> LRS[Less revenue, more scrutiny]
    LRS --> RDL[Reimburse for damage/losses]
    RDL --> F[Forgiveness]
    PI[Public image] --> U[Unforgiveness]
    SHU[Storms, car hits, uncontrollables] --> F
    U --> ES[Expected service levels]
    F --> AS[Actual service levels]
    PI --> AS
    DAM[DistCo Asset Management] --> AS
    ES -- "One-way ratchet?" --> AS
    ES --> CS[Customer satisfaction]
    AS --> CS
  
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**Most influences are leading to increased customer expectations of service**

## And PSC's are trying to force utilities to respond

*Led by bellwether states, the move is toward more PSC control*

### Illinois

- Negotiated targets
- Economic damages
- Penalties
- Mandated programs
- Audits
- Public reporting

### New York

- PBR
- Public reporting

### New Jersey

- Audits
- Mandated programs

### California

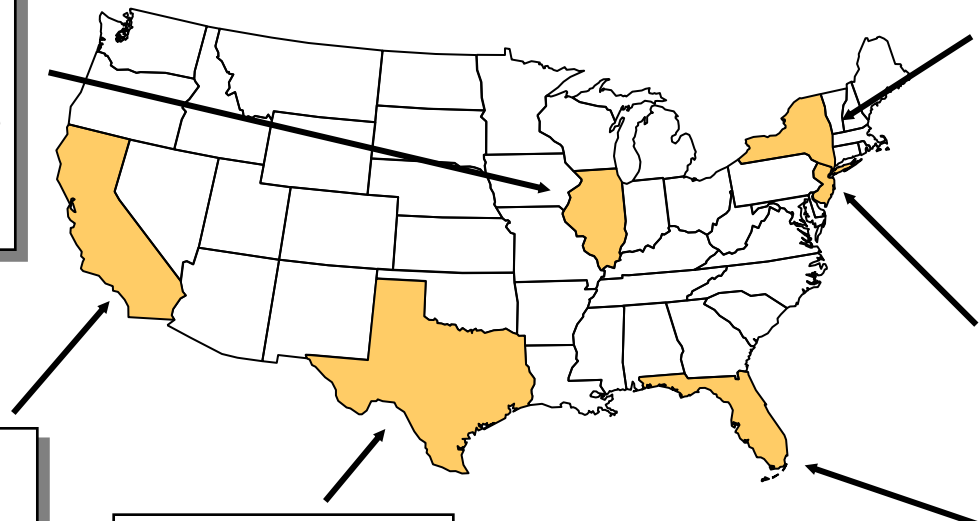
- PBR
- Fines > \$ millions
- Mandated programs

### Texas

- Fines > \$ millions
- Negotiated targets
- Public reporting
- Audits

### Florida

- Audits
- Mandated programs
- Increased spending

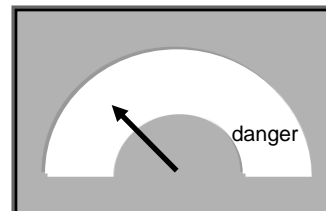


# Today, just managing SAIDI is no longer good enough

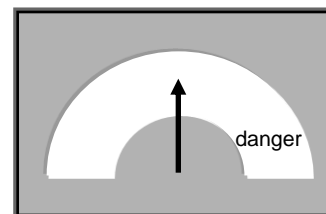
- Commissions and customers are no longer satisfied with good performance on system averages like SAIDI, SAIFI and CAIDI
- Many of the new regulations require reporting of performance on worst circuits, with negotiated targets for improvement, e.g., what was proposed by the Texas PUC:

	SAIFI	SAIDI	Compliance
– ‘Minimum acceptable	3.8	315	98.5%
– ‘Target’	2.6	158	90.0%
- What they really want is customer satisfaction, few complaints, and not even small ‘pockets’ of consistently poor performance

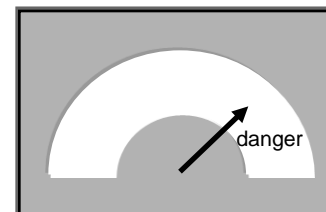
System



Worst Circuits

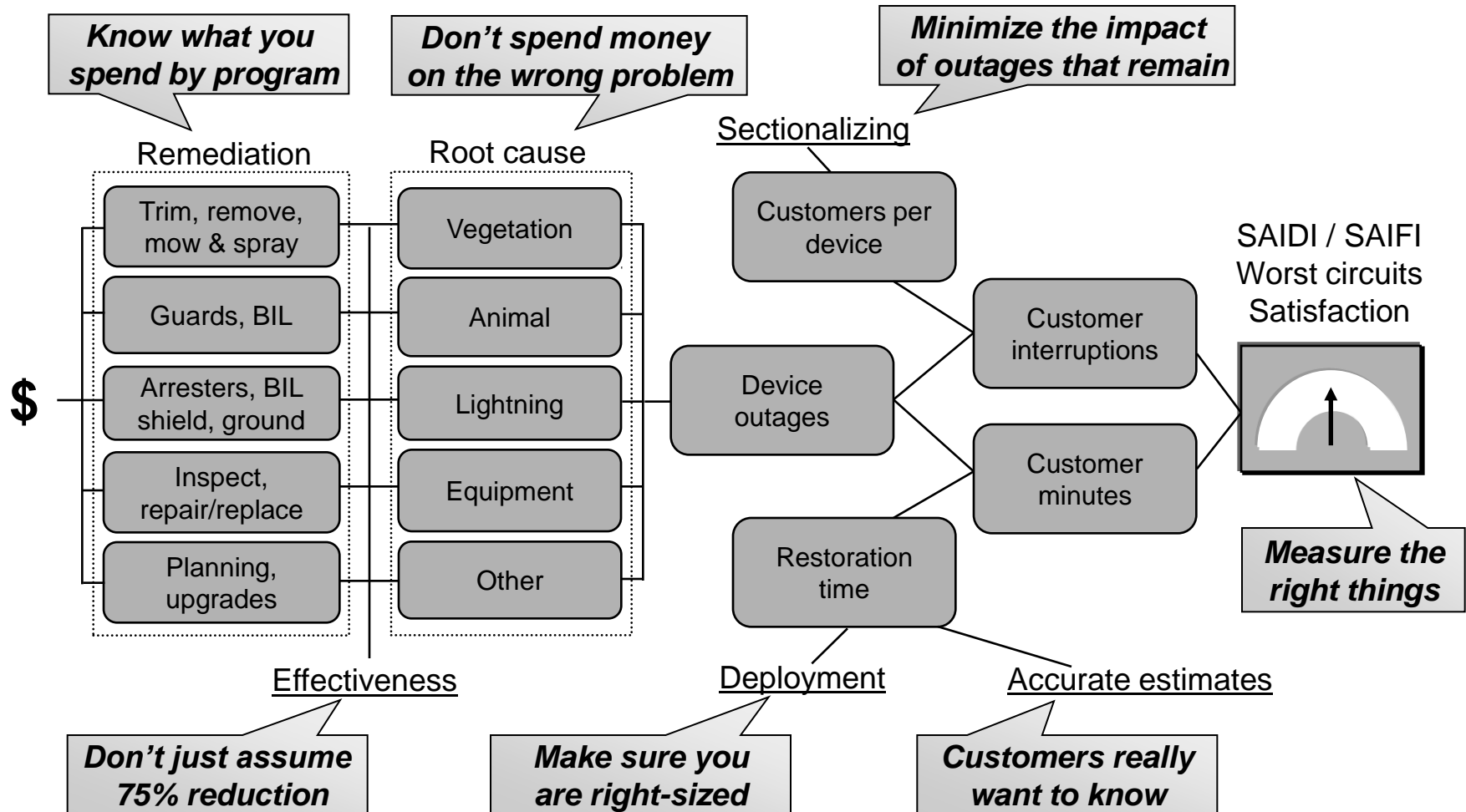


Worst Pockets



***Many companies don't even measure 'worst pockets' now***

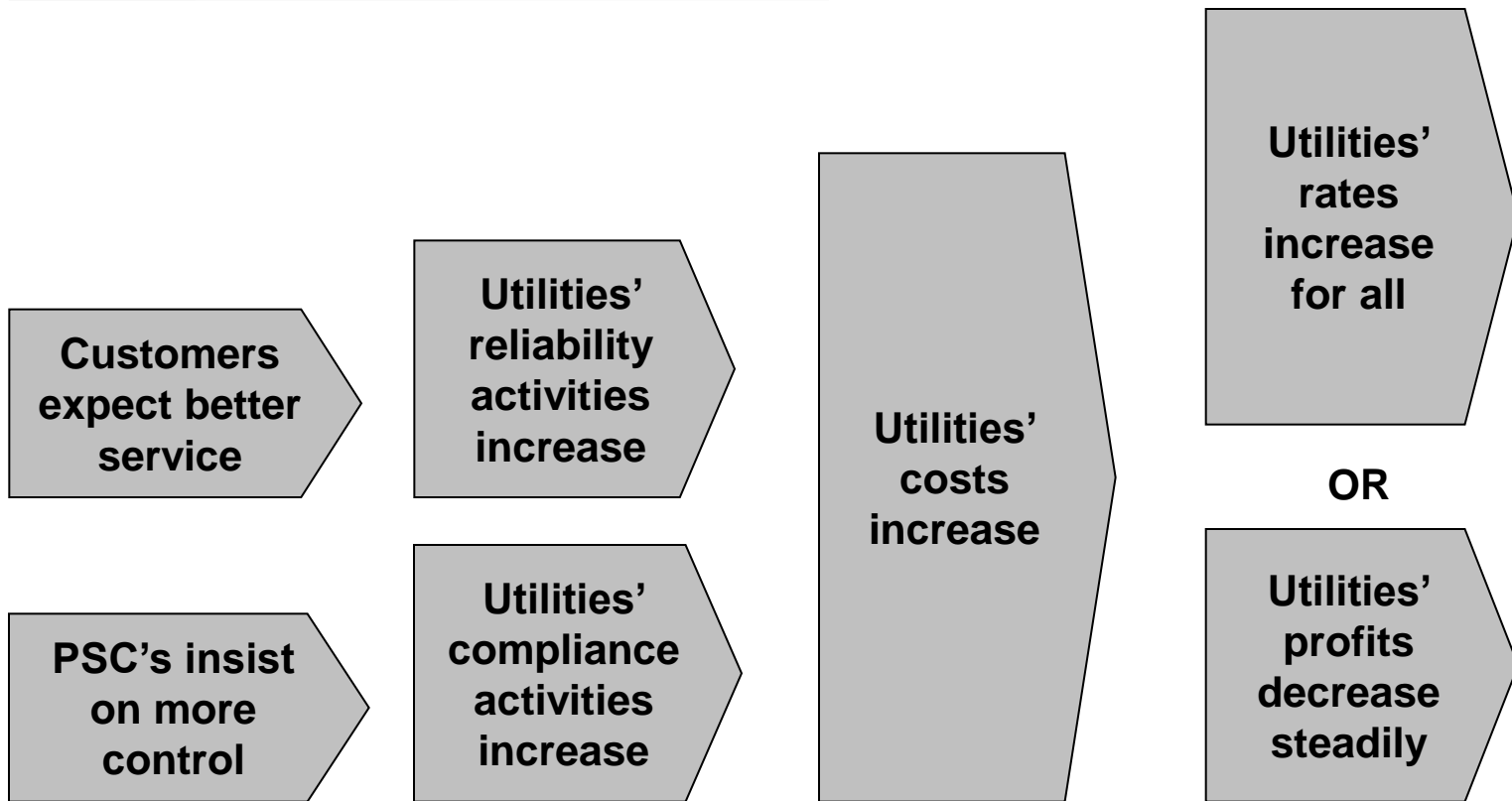
# Utilities know what it takes to improve reliability - time and money



## So, where is this train going?

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*And isn't there a better way?*



## In other industries, the better way was unbundling and choice

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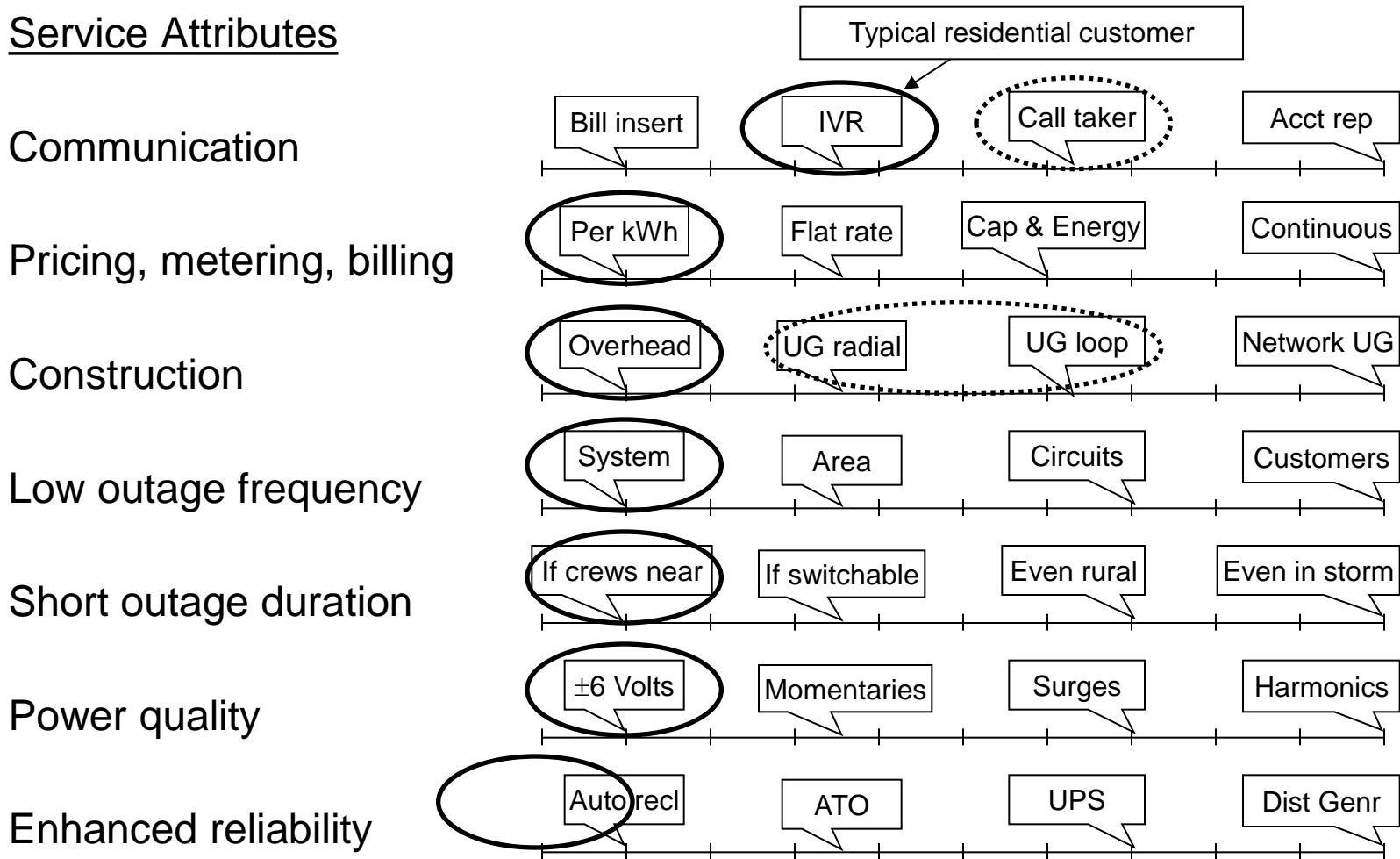
Industry	Basic service	Premium services
Airlines	No-frills Advance booking	Frequent flyer programs Walk-up fare
Telephone	Rotary No call features	Touch tone Call waiting, etc.
Banking	No minimum balance Transaction charges	Minimum balance 'Free' checking

***The key is: the customer has control and choice,  
and even basic service is safe, reliable, and fair***



# Today, there is little or no choice on distribution service

## Service Attributes



***Most customers have no choice or a forced group choice***

## But how can distribution customers have a choice?

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Communication -	Different customers can have access to different levels of communication, from an IVR menu to a personally assigned account representative
Pricing, Metering, Billing -	A variety of rate plans could be made available, including flat monthly rate like telephone or cable
Reliability -	Different areas can be predetermined to have better reliability, as today we have secondary networks in major central business districts and URD in new developments
Restoration -	Different priorities could be set, as today we have for hospitals and public necessities

***If gated communities can choose levels of security, common facilities, and landscaping, why can't distribution service be a group choice?***

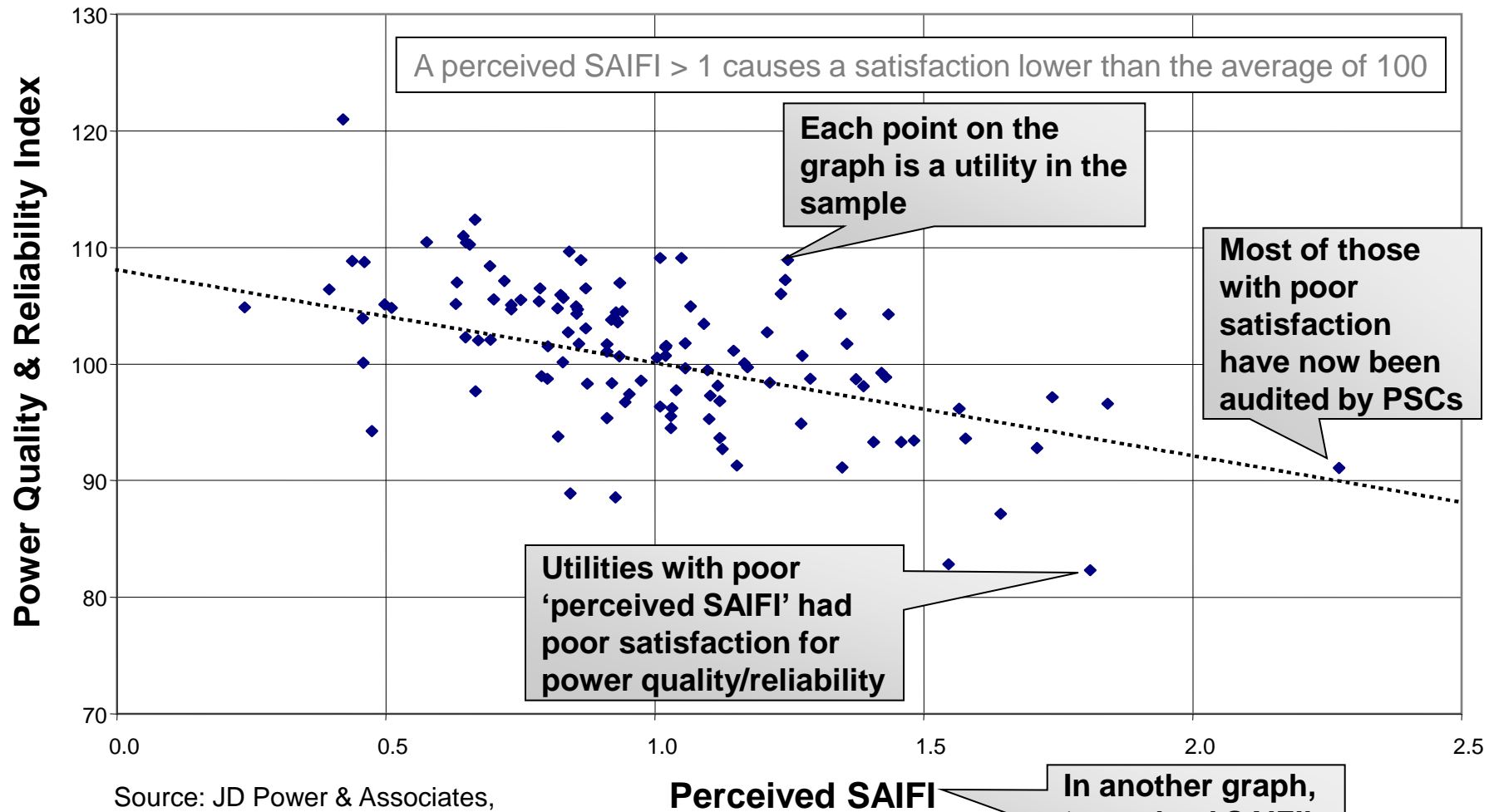
## What are the key elements of such a program?

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- Basic service must be safe, reliable, and fair
- The long-run 'target' would be that customers would have no more than 'n' (2?) sustained outages per year, except for major storms every few years
- The long-run 'target' for restoration would be in less than 'm' (2?) hours, except for very remote areas, and except for major storms, when an accurate estimate for each customer would meet customer needs
- Areas that are judged to be unable to meet the basic service level due to inherent design or environmental problems would be either slated for a long-term redesign program funded by all ratepayers, or would be offered economic incentives to accept lower reliability (but not lower safety or fairness)
- Regulators and ratepayers could decide that central business districts and major office parks, airports, and malls should be more reliable, with backup power options that could be provided either by the customers or by the utility - as a premium service
- Certain areas would be eligible for group choice to have 'highly reliable service', with a long-term plan for achieving such service and transitioning-in higher rates. The areas would be based on technical and economic feasibility, not race, ethnicity, etc.
- Communications, pricing, metering, and billing options would be offered similarly

***As long as basic service is safe, reliable, and fair, offering options increases customer satisfaction and regulator approval***

To do this right, utilities will need to know what drives satisfaction  
*E.g., that customers expect no more than 1-2 sustained outages per year*

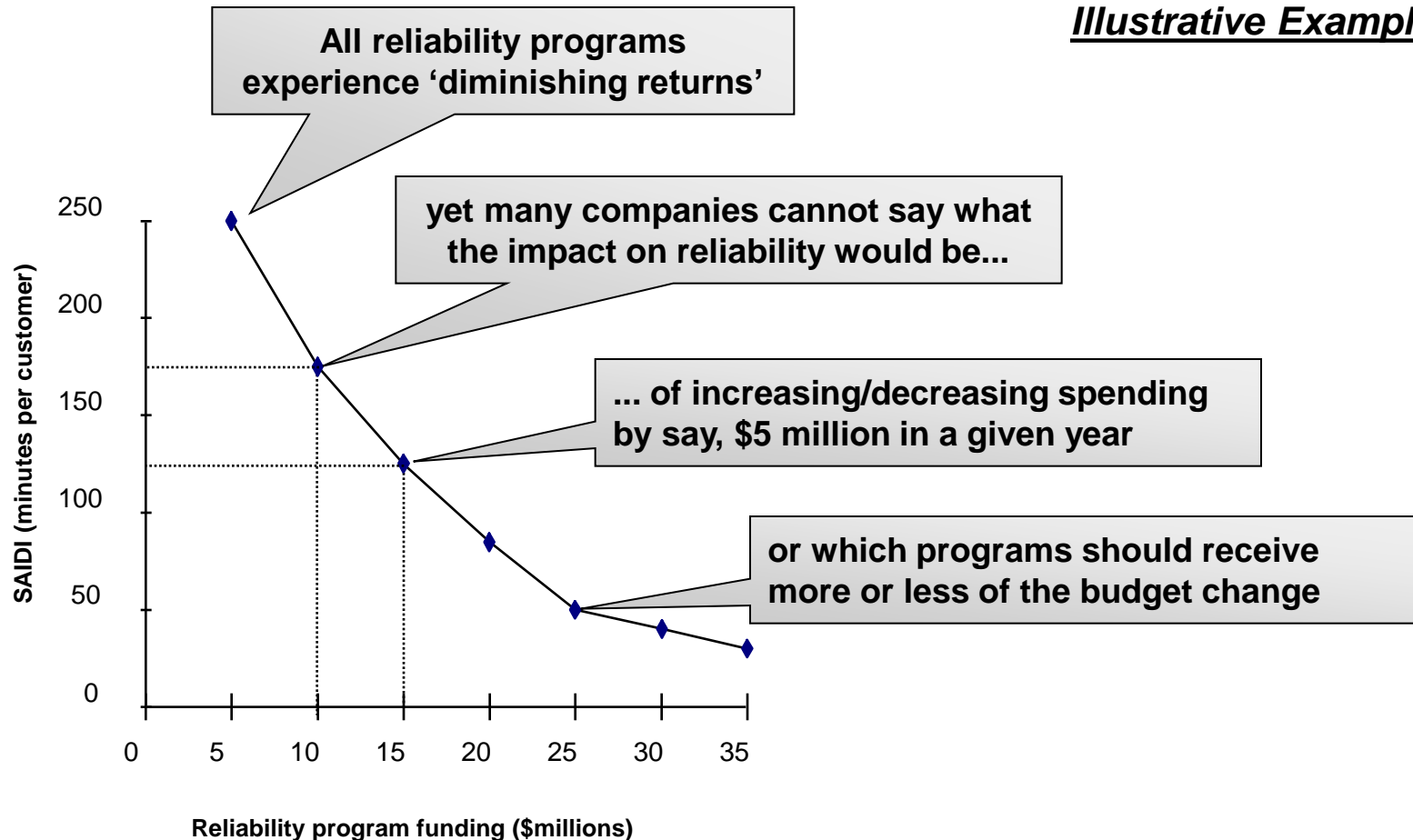


Source: JD Power & Associates,  
with Navigant Consulting



# Utilities will need to learn where they are “on the curve”

## Illustrative Example



***This approach has to be extended from the system level, i.e., SAIDI, to individual pockets of customers***

## What are some of the technical considerations for basic service?

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Construction	Radial or loop fed Overhead or underground Voltage and wire size Armless construction, wood or metal poles and crossarms 'Legacy' design problems not yet corrected
Exposure	Trees, width of right-of-way, and clearance obtainable Access from road (rear lot line, farm) Lightning, animals, wind, ice, car hits, dig-ins, wood rot Age of equipment and maintainability
Restoration	Existence of alternate feeds Sectionalizing (manual and automatic) Substation redundancy (individually and by group) Distributed generation or battery backup Customer density/distance from optimally placed service centers
Limitations	Information systems limitations Call center logistics, including limitations of local phone switches

# Utilities need to identify problem areas and develop transition plans

*Identify areas with inherent problems in meeting basic service levels*

*Develop what it would take to fix the problems, even if it might mean redesigning or rebuilding part of the system*

*Be prepared to do what it takes over the long run, provided rates can be designed to be adequate*

***“If you can’t beat ‘em, join ‘em”. Stop fighting the trend toward higher service levels. Instead, let it ensure your future***



Source: Navigant Consulting study of animal remediation. Red triangles show animal-caused outages over 5 years, indicating opportunity to improve service through installing animal guards

## Develop strategies for rates and cost of service

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Case Study	Lesson Learned
Airlines	If you give people options, make sure you get good at predicting what options will be selected by whom, when, and where. They call it 'yield management'
Telephone	Customers will be satisfied paying more than before, as long as they can choose, even if some choices are dictated by technical availability (DSL)
Gas in GA	Don't surprise customers with transition charges, and be sure the rate program will work in any weather

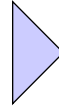
***This is important. Spend the effort to study the 'what ifs'. Remember, with choice, your customers can and will 'cherry pick' your offerings to your disadvantage, so you need to design a program that is robust enough to let them***



## Next steps - How do we get there from here?

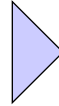
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### Regulatory Trends



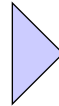
Know what local, state and federal regulators are doing nationwide, and get ready to begin a dialog starting from where your regulators are now

### Customer Satisfaction



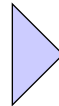
Use existing and new surveys to learn what service will satisfy customers and to test their reactions to possible plans for unbundling and choice

### Locate the Problems



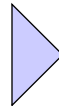
Using various measures of performance, locate and determine the root cause of the problem areas that could not meet a basic service level

### Cost Out the Solutions



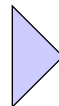
Determine what it would take to achieve the basic service level in each area, and be ready with long-term transition plans or alternatives

### Pilot Unbundling



After discussing with regulators and customers, develop unbundling and choice programs and pilot them in areas that are open to the ideas

### Keep the Ball Rolling



Get a groundswell of successful pilots, with customers and regulators praising the success of the concepts

***You can get there from here, or you can let others drive you somewhere else!***