Making Progress on Smart Grid

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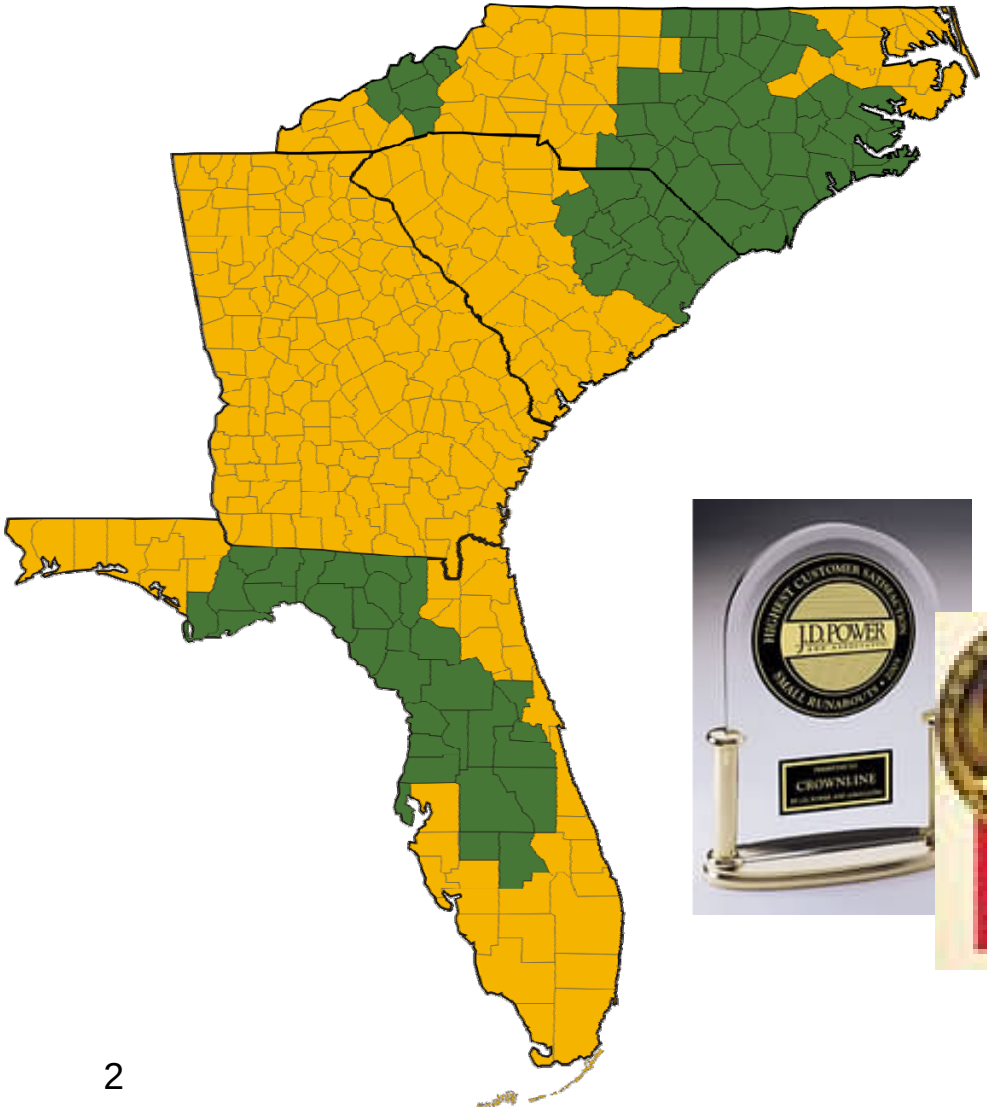

Progress Energy:

- 54,000 square miles
- 3.1 million customers
- History of innovation

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A History of Progress

PGN's workforce mobile enabled for over 10 years:

- Transformed processes through automating data handoffs
- Enabled decision making at the point of service delivery
- Increased visibility of grid operational status

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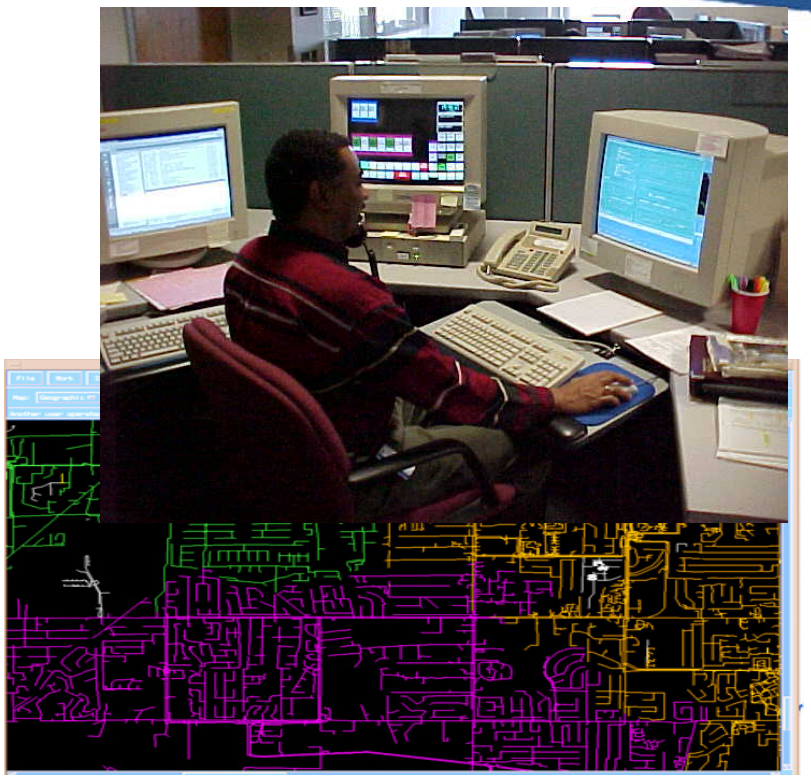
A History of Progress

Examples of improved operational visibility:

- Real time Var management
- Feeder Monitoring & OMS identifies fault location
- Momentary fault information used for prevention



On a journey that's not yet complete, but we have built a skilled and adaptable workforce

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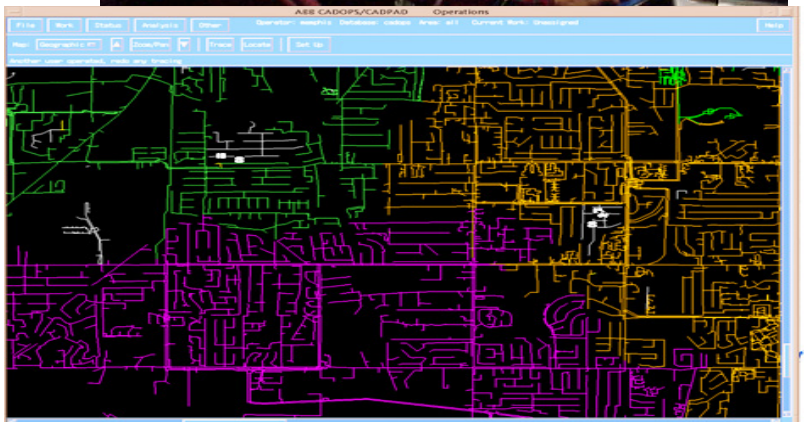
A History of Progress

- Our focus on enabling information has been strategic in other ways
- Asset data quality in GIS
  - Scrubbed to 1st level essential to OMS diagnosis
  - Scrubbed to 2nd level enabling accurate fault analysis
- We've institutionalized processes to keep them scrubbed



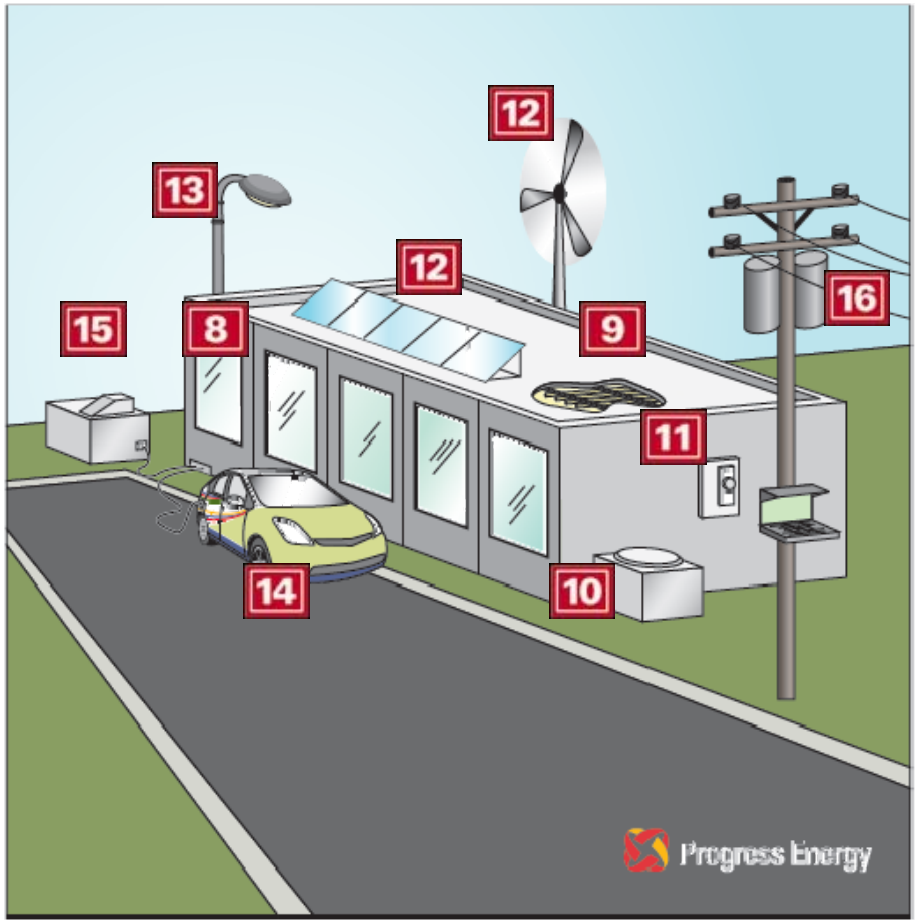
The Challenge for Progress

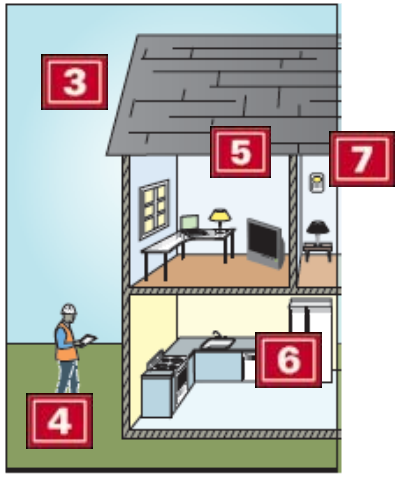
- How does a growth utility in a carbon constrained world fill out its generation portfolio?
- Many different kinds of risks, many different interests, many different stakeholders
  - Customers
  - Shareholders
  - Employees
  - Industries

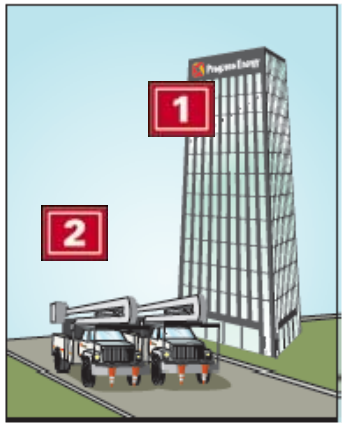
Components of the Smart Grid

1) Progress Energy Facilities
2) Progress Energy Fleet
3) Residential Building Envelope
4) Home Energy Audits
5) Compact Fluorescent Bulbs
6) Energy Efficient Appliances
7) Smart Thermostats
* Smart Pricing
8) Commercial Building Envelope
9) Fluorescent Lighting
10) Heating & Cooling
11) Smart Metering
12) Distributed Renewable Energy
13) Efficient Outdoor Lighting
14) Plug-In Hybrids
15) Distributed Generation
16) Smart Grid

* Dynamic Pricing







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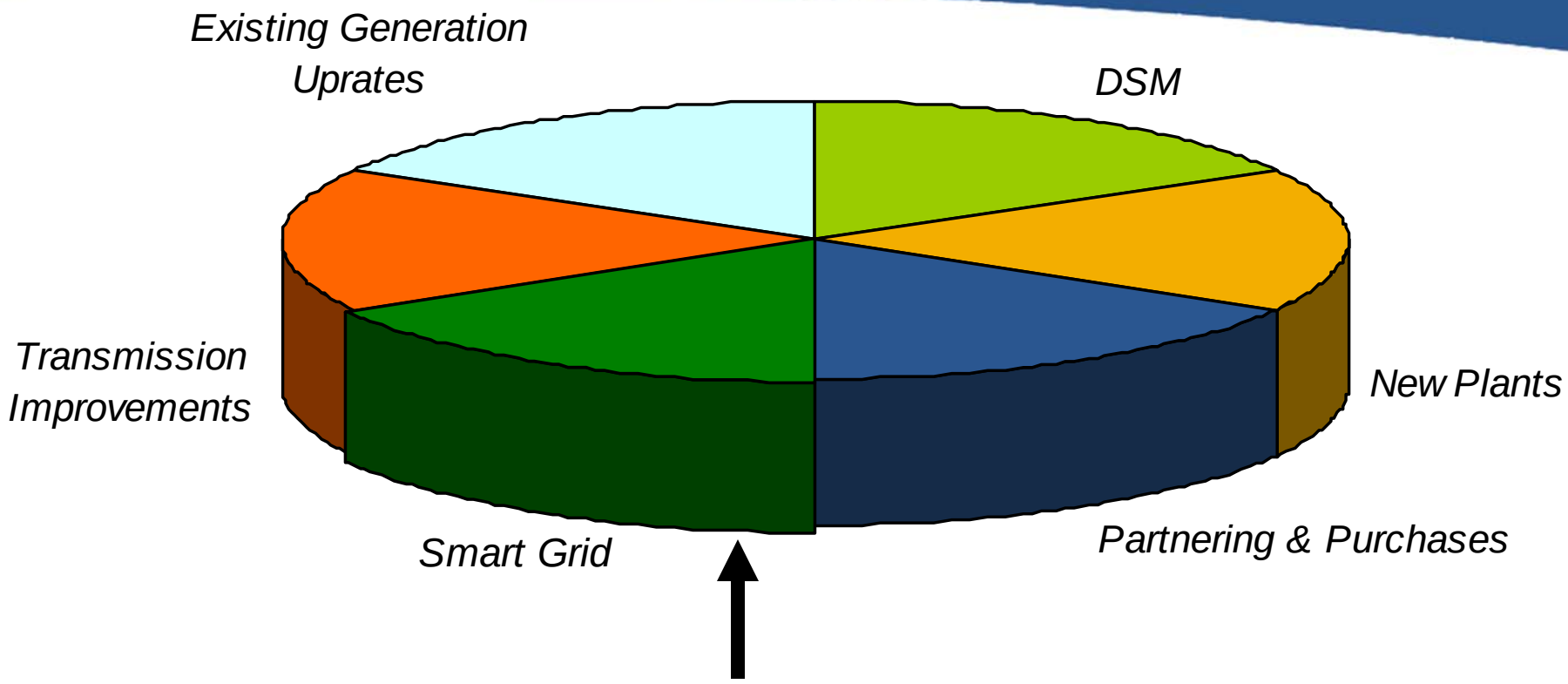
A Balanced Portfolio



Our Approach

Build the "Smart Grid" that enables us to displace additional capacity needs

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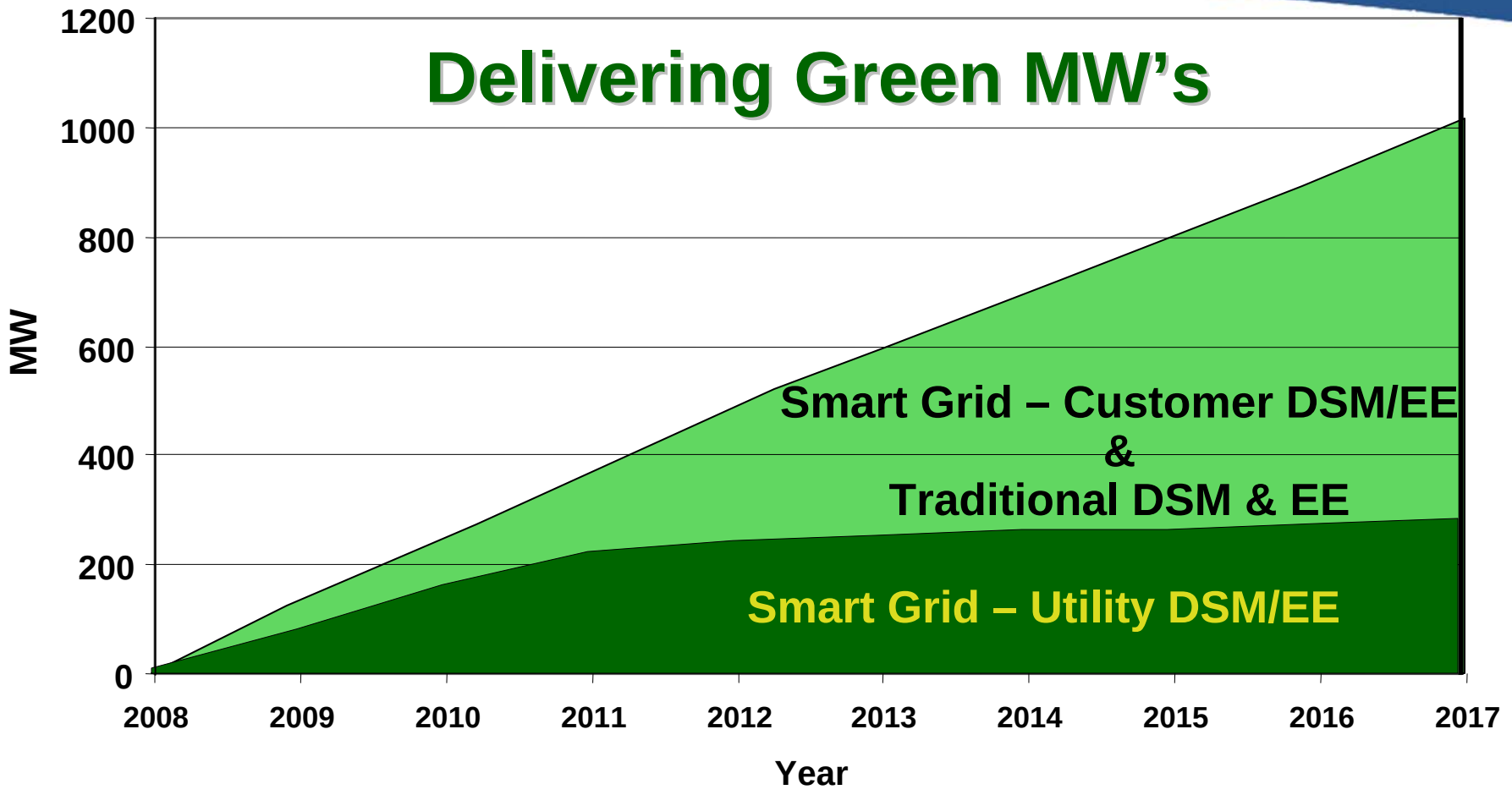
1000 MW Avoided Generation Timeline



* MW shown are year-end, not summer peak. Discount by 15 – 45MW/yr for Summer peak MW.

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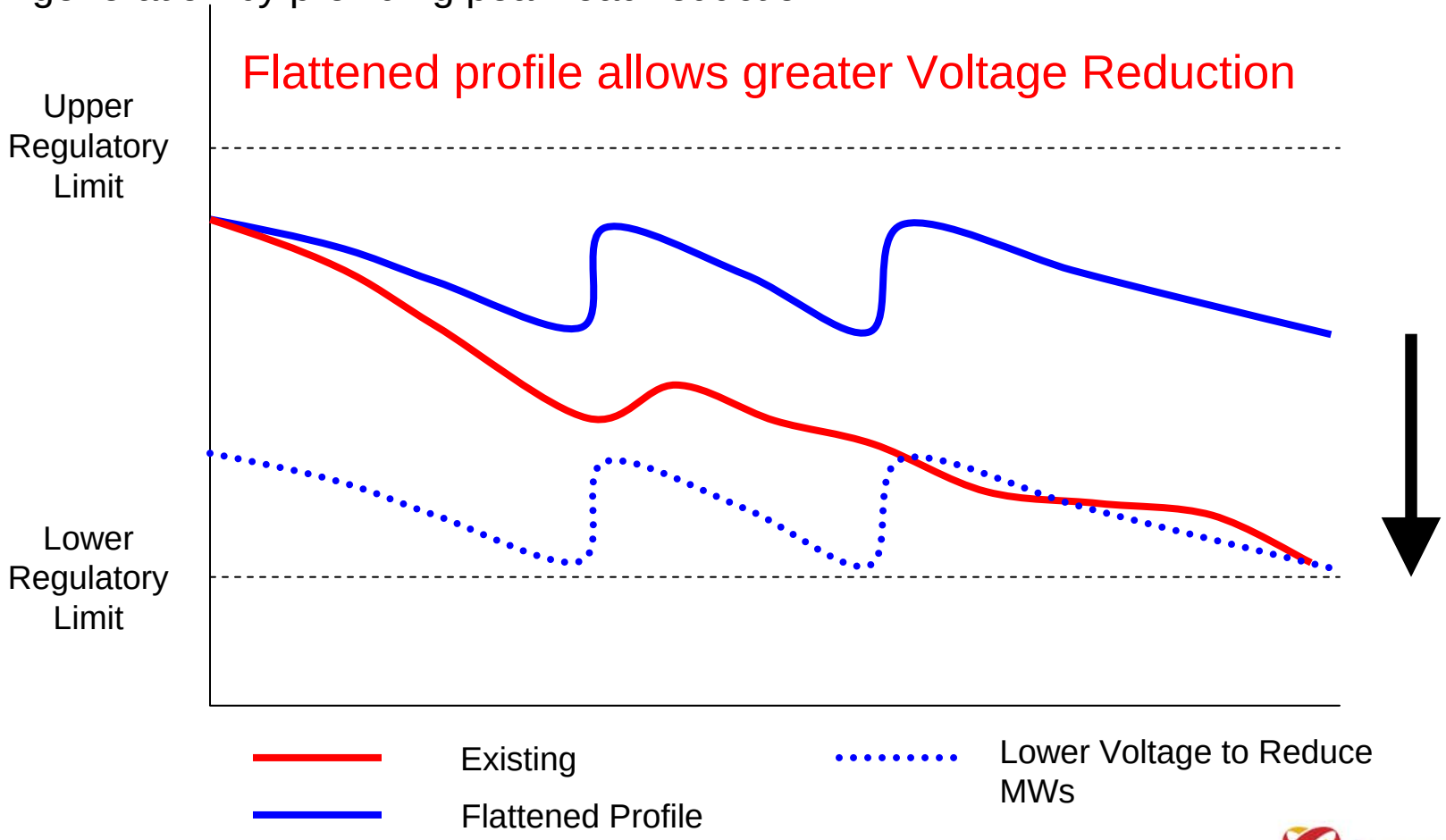
Smart Grid – How Does it Work?

- Coordinate voltage and var control to defer investment in additional generation by providing peak load reduction.



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As we Progress forward

Key strategic considerations:

- Workforce implications
- Don’t miss transformational process opportunities
- Understand your regulator
- Recognize the linkage between cost recovery and your business case

Conclusion

The challenge ahead:

- We must deal with growth in a carbon constrained world
- There are no magic bullets
- There is a critical need for coherent leadership & hard work

Advanced Utility-side load reduction through Smart Grid just makes sense