# 2012 Summer Reliability Forum: Storm Response Overview

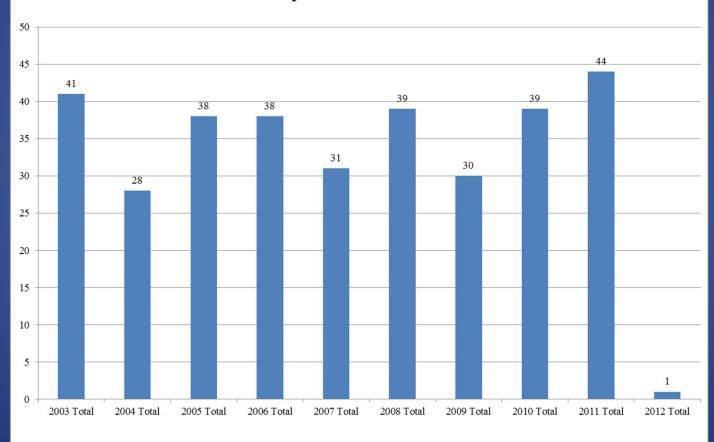


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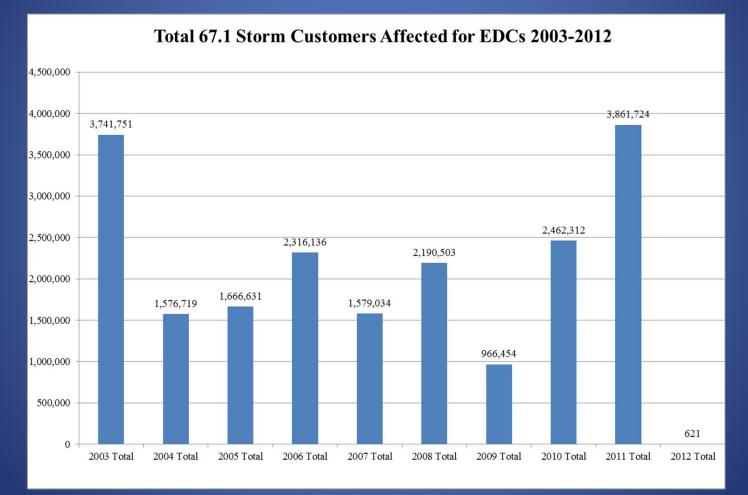
### Stormy 2011

Total 67.1 Reportable Storms for EDCs 2003-2012





#### **Customers Affected**



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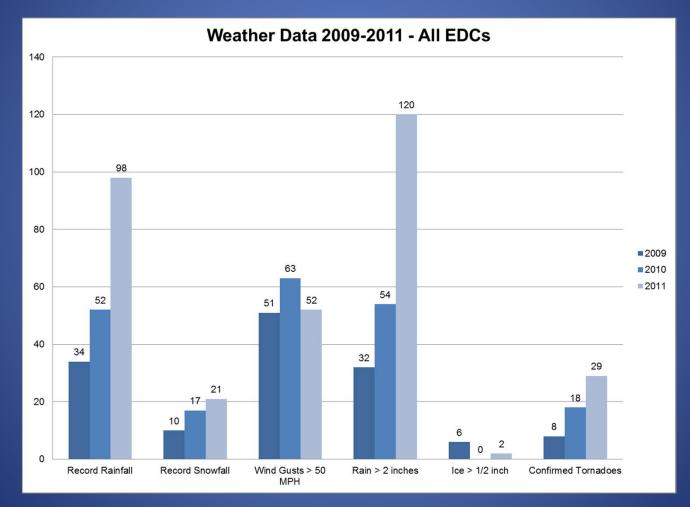


## Customers Affected – Less Direct Hurricane Impacts

Total 67.1 Storm Customers Affected for EDCs 2003-2011 Without Hurricanes Isabel (2003) and Irene (2011) 3,000,000 2,570,740 2,462,312 2,500,000 2.316.136 2,190,503 2,132,342 2,000,000 1.666.631 1,576,719 1,579,034 1,500,000 966,454 1,000,000 500,000 621 0 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2008 Total 2009 Total 2010 Total 2011 Total 2012 Total



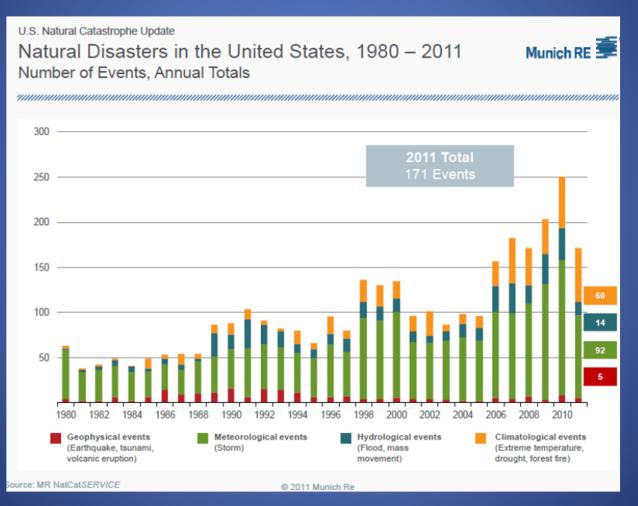
## Increase In Severe Weather Experienced By EDCs



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## Trending Increase In Natural Disasters In US

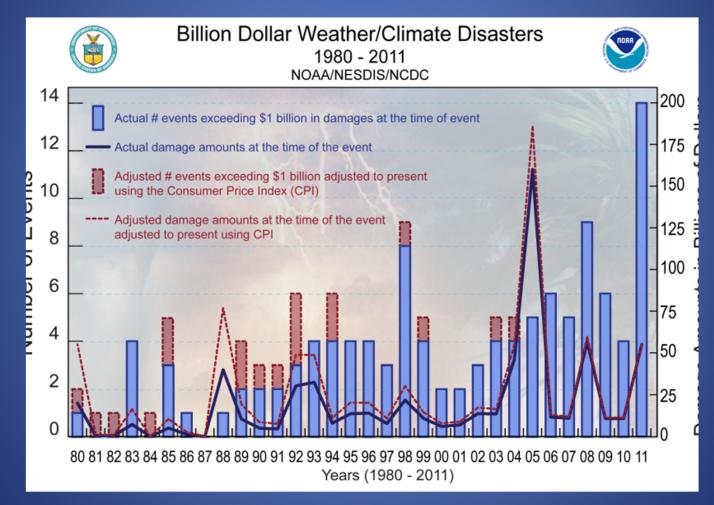


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#### **Trending Increase In Costs**





### Trending Increase In Costs -Thunderstorms

U.S. Natural Catastrophe Update U.S. Thunderstorm Loss Trends Munich RE Annual Totals 1980 - 2011 Average thunderstorm losses have increased fivefold since 1980. 30 Thunderstorm Losses 2011 Total 5-Year Running Mean \$25.8 bn nsured Loss (\$ billion, 2011 dollars) 25 20 15 10 5 0 1980 1985 1990 1995 2000 2005 2010 Year Source: Property Claims Service © 2011 Munich Re R NatCatSERVICE

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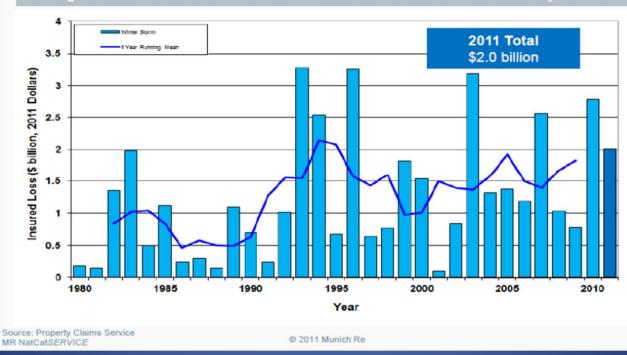


#### Trending Increase In Costs – Winter Events

U.S. Natural Catastrophe Update U.S. Winter Storm Loss Trends Annual totals 1980 – 2011

Munich RE

Average annual winter storm losses have almost doubled since the early 1980s





#### Key Storm Response Initiatives

- Implemented new regulations and policy statement on outage reporting and communications
- Met with EDCs in March to continue best practice discussion
- University of Florida's Public Research Center best practice sharing
- EDCs addressed Call Center and ETR Issues



# Key Storm Response Initiatives (Continued)

- PUC participated in EDCs storm response exercises – will be an ongoing effort
- Collected data from EDCs on call center and critical customer processes, weather and outages – forthcoming PUC Reports



Outage Reports – Highlighted Recommendations

- EDCs need to improve handling of high-volume call periods and accuracy of ETRs
  - Addressed in forthcoming report many improvements implemented
- EDCs need to strengthen relationships with local and county EMAs and Elected Officials
  - EDCs now providing liaisons to 911 and County EOCs



# Outage Reports – Highlighted Recommendations (Continued)

- The PUC and EDCs should further study the trend in increased severe weather events and improving resiliency of infrastructure and mitigation of storm damages
  - The needs and vulnerabilities identified should be considered in Long-Term Infrastructure Improvement Plans
- PUC staff will continue to compile data on reportable storms



# Outage Reports – Highlighted Recommendations (Continued)

- EDCs shall continue to implement corrective actions for worst-performing-circuits
  - Corrective actions should be complete by close of calendar-year quarter WPC was identified
  - TUS will continue thorough review of corrective actions
- EDCs should review vegetation management trimming cycles and methods in high outage-occurrence areas, including off right-of-way vegetation
- EDCs should also review other mitigation actions such as reclosers and sectionalizers and consider these in their Long-Term Infrastructure Improvement Plans



#### **Questions / Concerns**

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