



# IEEE Benchmarking Update

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*June 15, 2005*

*Preliminary Draft Information*

*Working Group on Distribution Reliability*

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# Benchmarking

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- ◆ **Data is Never exactly the same!**
- ◆ **Two main reasons for differences:**
  - ◆ **Data Collection Process/System Differences**
  - ◆ **Exclusion Criteria Differences (Basis)**
- ◆ **IEEE 1366-2003**
  - ◆ **addresses data basis issues by clearly defining the rules.**
  - ◆ **It **DOES NOT** address the data collection issues**

# The following slides...

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- ◆ **Show company performance using the IEEE 2.5 Beta method to segregate data into:**
  - ◆ **Day-to-Day operating Indices vs.**
  - ◆ **Performance considering the whole customer experience (All)**
- ◆ **78 companies total with 56 companies returning supporting details**
  - ◆ **Customer density, use of step restoration, computerized reporting system, connected model, level of devices recorded.**
    - 98% of utilities use step restoration
    - 98% of utilities use a computerized reporting system
    - 73% of utilities had a connected model
      - 66% can record to the customer level
      - 93% can record to the transformer level

# Classification

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- ◆ **Urban, Suburban, Rural**
  - ◆ Rural  $\leq 50$  cust/mi or 31 cust/km
  - ◆ Suburban  $> 50$  cust/mi  $< 150$  cust/mi
  - ◆ Urban  $\geq 150$  cust/mi or 93 cust/km
- ◆ **Small, Medium, Large**
  - ◆ Small  $\leq 100,000$  customers
  - ◆ Medium  $> 100,000$  and  $< 1,000,000$  customers
  - ◆ Large  $\geq 1$ M customers
- ◆ **53,470,830 customers represented in US & Canada**

# Classification of Respondents

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- ◆ **Urban = 7 companies**
- ◆ **Suburban = 17 companies**
- ◆ **Rural = 36 companies**
  
- ◆ **Small = 29 companies**
- ◆ **Medium = 30 companies**
- ◆ **Large = 19 companies**
  
- ◆ **XX Co-ops/REAs**
- ◆ **XX IOUs**

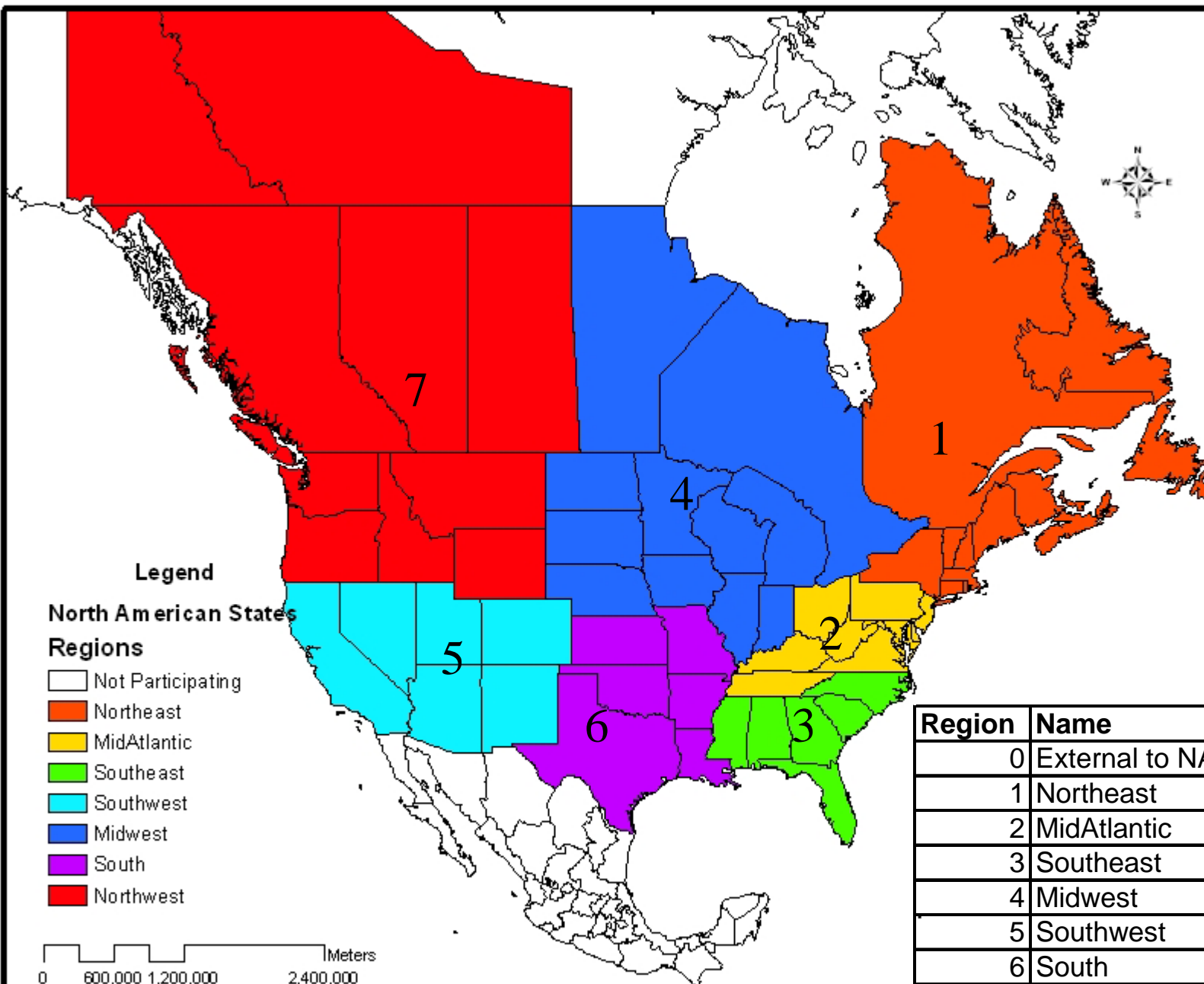
*Supporting details available only for a subset of respondents.*

Promoting Community Worldwide

# Respondents

- ◆ **105 Companies** have responded at some time
- ◆ **2004 Survey**
  - ◆ **78 responded in 2004**
    - 56 provided details
  - ◆ **40 were same as 2003 respondents**

All Respondents 2004						
Quartile	SAIDI IEEE	SAIDI AII	SAIFI IEEE	SAIFI AII	CAIDI IEEE	CAIDI AII
1	70.32	102.69	0.90	1.07	73.46	85.52
2	99.85	144.76	1.09	1.26	91.16	107.30
3	146.25	284.61	1.42	1.80	105.31	139.30
4	313.23	1113.20	3.66	4.73	472.81	472.81



- Legend**
- North American States**
- Regions**
- Not Participating
  - Northeast
  - MidAtlantic
  - Southeast
  - Southwest
  - Midwest
  - South
  - Northwest

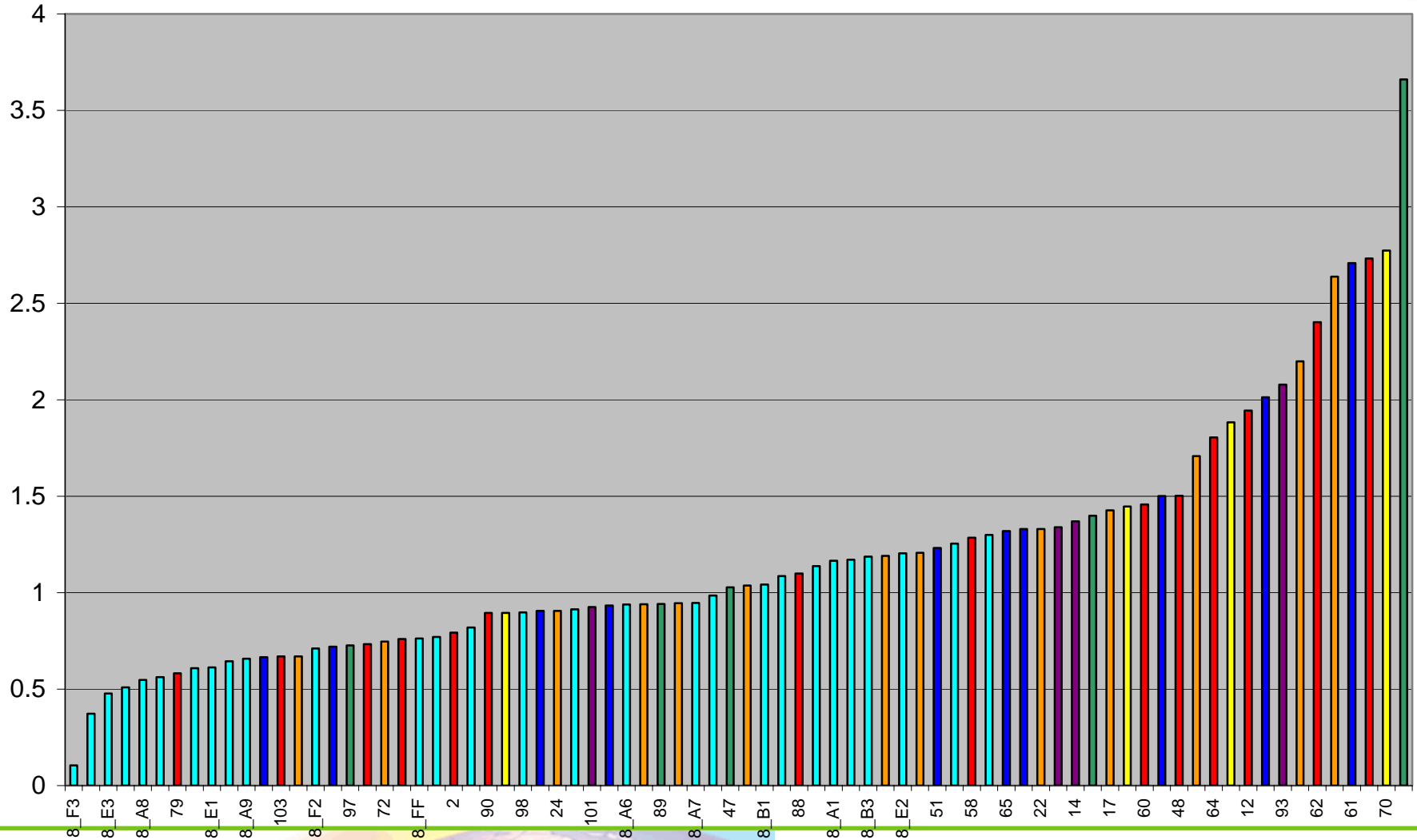
0 600,000 1,200,000 2,400,000 Meters

IEEE Benchmark

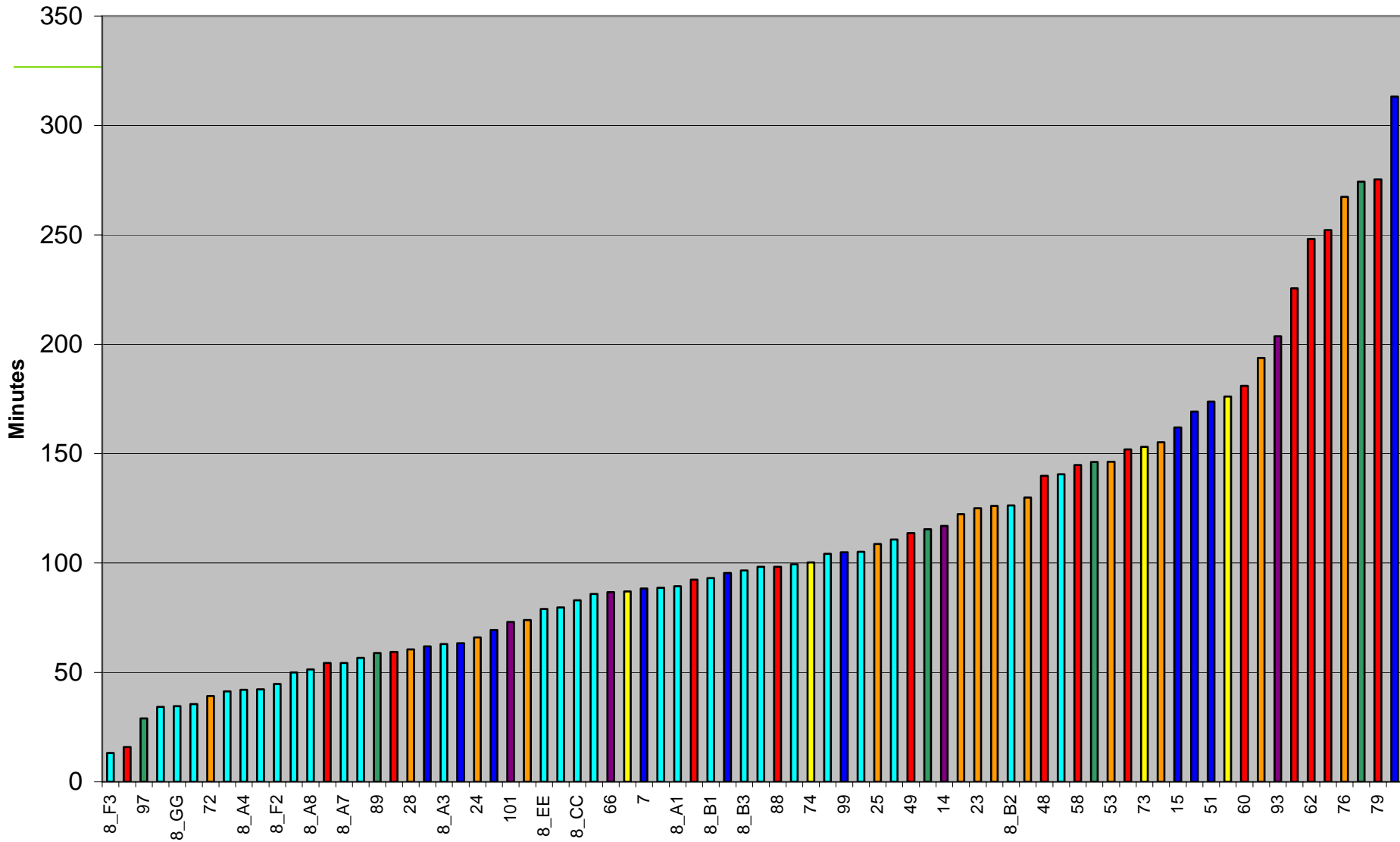
Region	Name	# Co
0	External to NA	1
1	Northeast	13
2	MidAtlantic	5
3	Southeast	5
4	Midwest	27
5	Southwest	8
6	South	4
7	Northwest	14
	<b>2004 Total</b>	<b>78</b>



# SAIFI IEEE



# SAIDI IEEE



# CAIDI IEEE

