



# Grid Emergency Preparedness

David McRee



- Establish some terms
- Identify Types of Levels or Events
- Discuss the Preparations prior to the event
- Process for recovery

- Bulk Electric System or BES
- Energy Control Center or ECC
- System Operation Center or SOC or ECC
- Transmission Control Center or TCC or ECC
- Contingency or RTCA
- Transmission Storm Center or TSC
  - System or Local
  - C could also be Coordinator

- Used when the event is beyond the capability of the local area
- Levels define the complexity and extent of the event.
- Levels determine the activation and participation in the company.
- Numbers are easy

## Event Levels



### Level 1

Low to Moderate Damage  
Outside Assistance not needed  
Area Storm Center Active

### Level 2

Moderate Damage  
Multiple Areas Impacted  
System Storm Center  
Active

### Level 3

Significant Damage.  
Multiple Departments  
needed for restoration.  
Repairs expected to be  
multiple days

### Level 4

Extensive and Major  
Damage  
Repairs lasting up to a  
week or longer  
Company wide  
participation

- Level 1
  - Distribution Impacted
  - Being talked about on the news
- Level 2
  - BES system lines impacted
  - Critical customers impacted
  - Media needs to come talk
- Level 3
  - Reliability of the BES might be impacted
  - Talking to officials about the impact
- Level 4
  - It is a bad day

- Prepare as much as possible
- Establish the chain of authority
- Establish communication chains between departments
- What software systems will be used
- Hope you have a good weather forecast



This is different than this by a long stretch

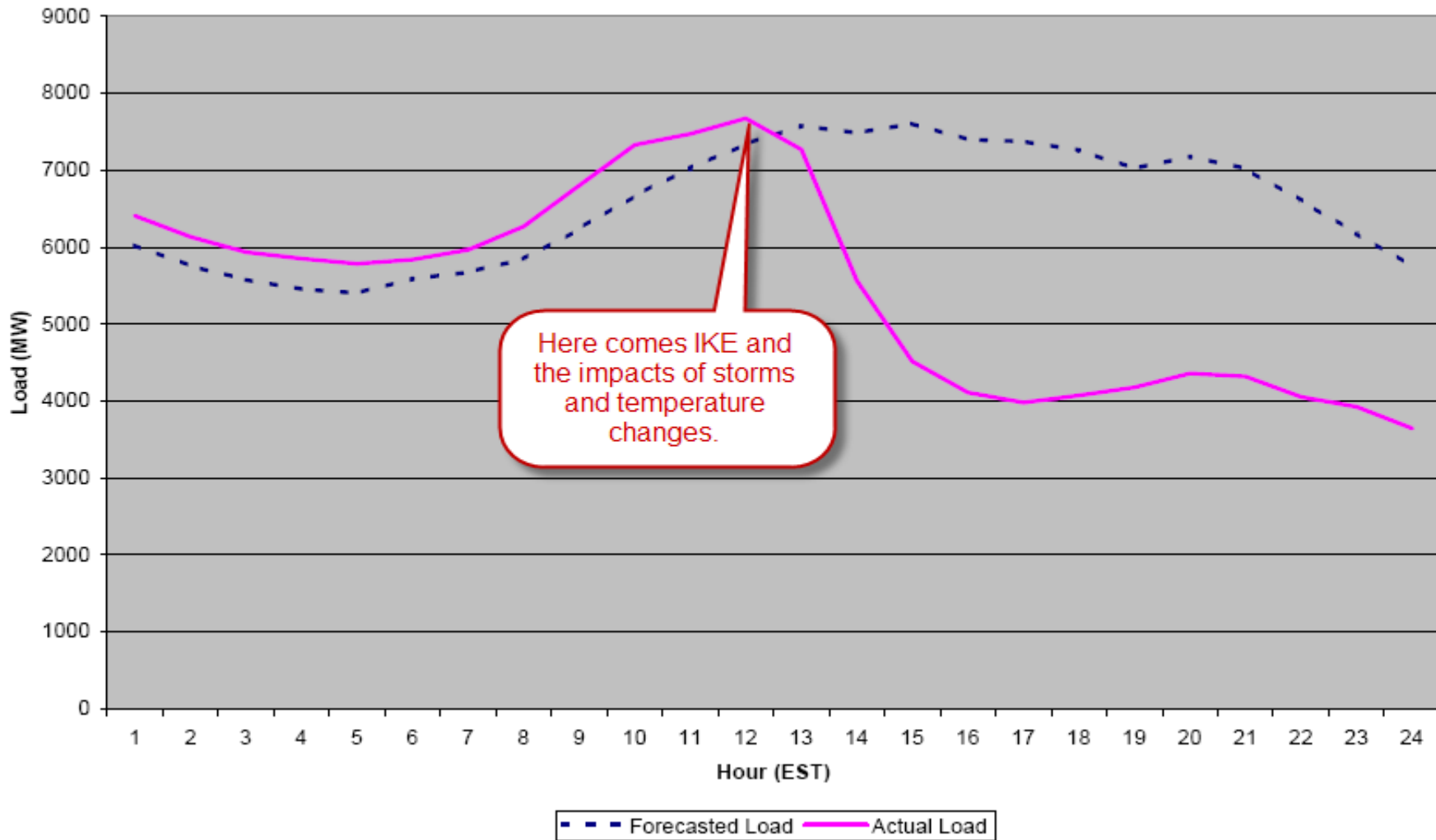




- Training is helpful, but how often is there a drill under the conditions of the event
- Review of Process and Procedures
  - Contracts in Place
  - People and Numbers Accurate
  - Does the Process make sense

- Not much planning can be done in advance
- Prioritize the assignment of the resources
  - How many critical loads are impacted
  - How is the generation fleet impacted
  - Are there contingencies that might become problematic if the event occurs
- What is the outlook for the next few days

Duke Energy Midwest Load  
9/14/08



## ■ What occurred on this day?

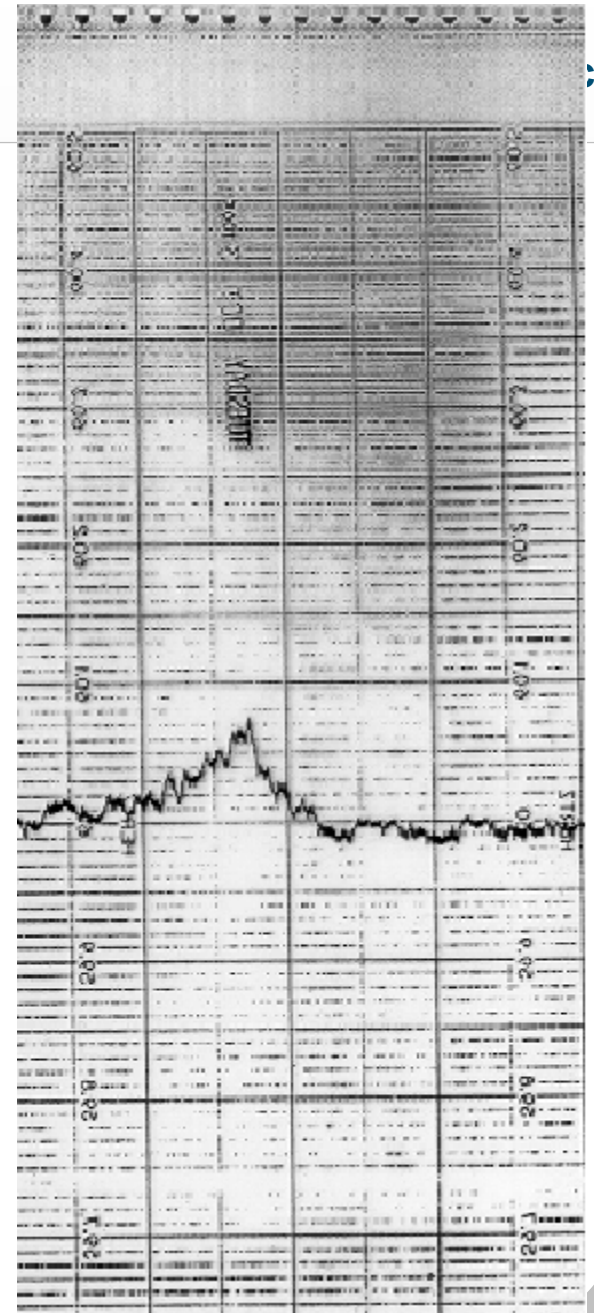
Tuesday October 3, 1995 @ 1:20 pm

Frequency went from 60.00 to 60.08

Every .01 in Frequency is 400 MWs in load lost/gained

O.J. Simpson Verdict

On October 3, 1995, an estimated 150 million people stopped what they were doing to witness the televised verdict of the O.J. Simpson trial. For more than a year, the O.J. saga transfixed the nation and dominated the public imagination.



ANY  
QUESTIONS  
?