Introduction

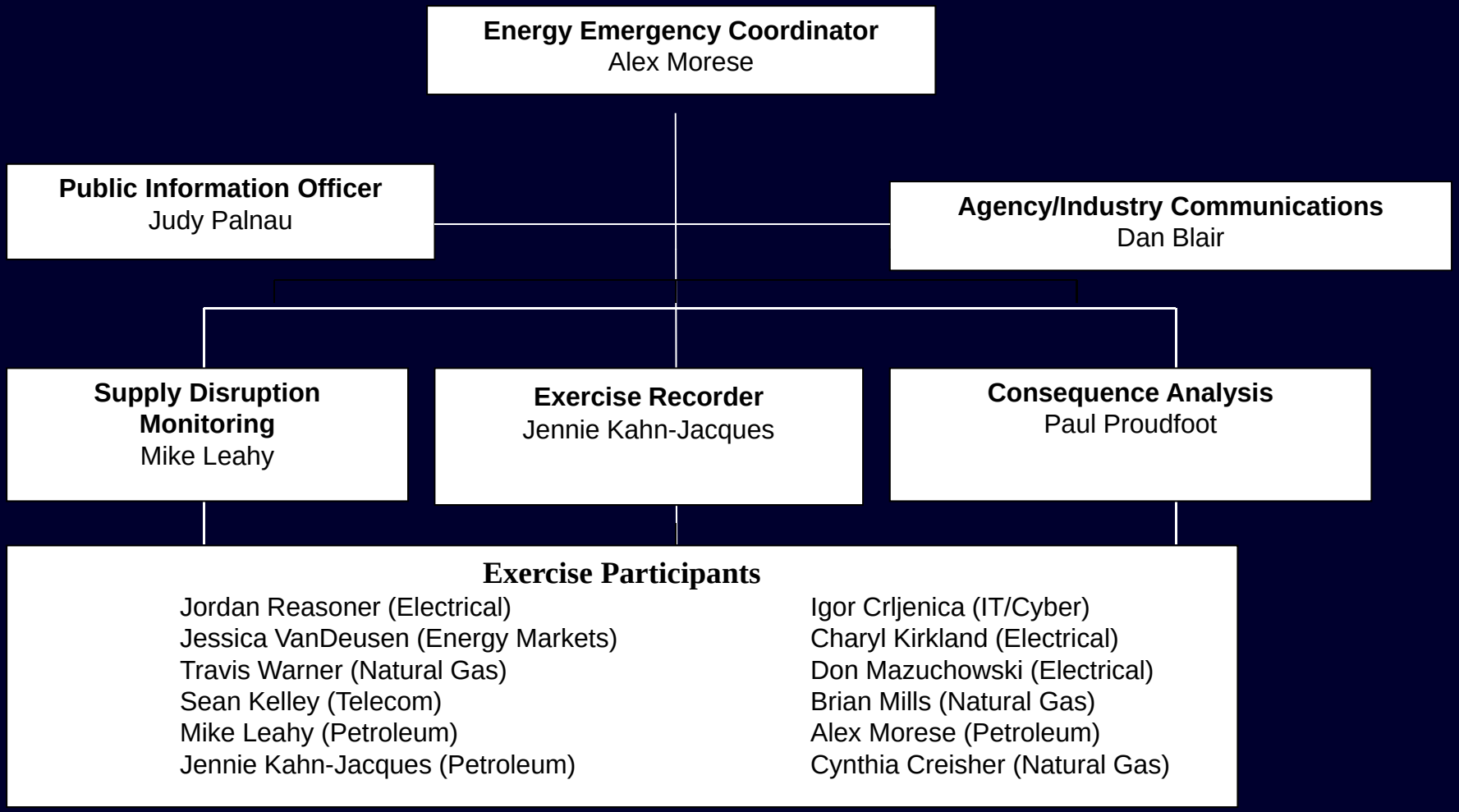
Mike Kenel

Opening Comments on the Exercise

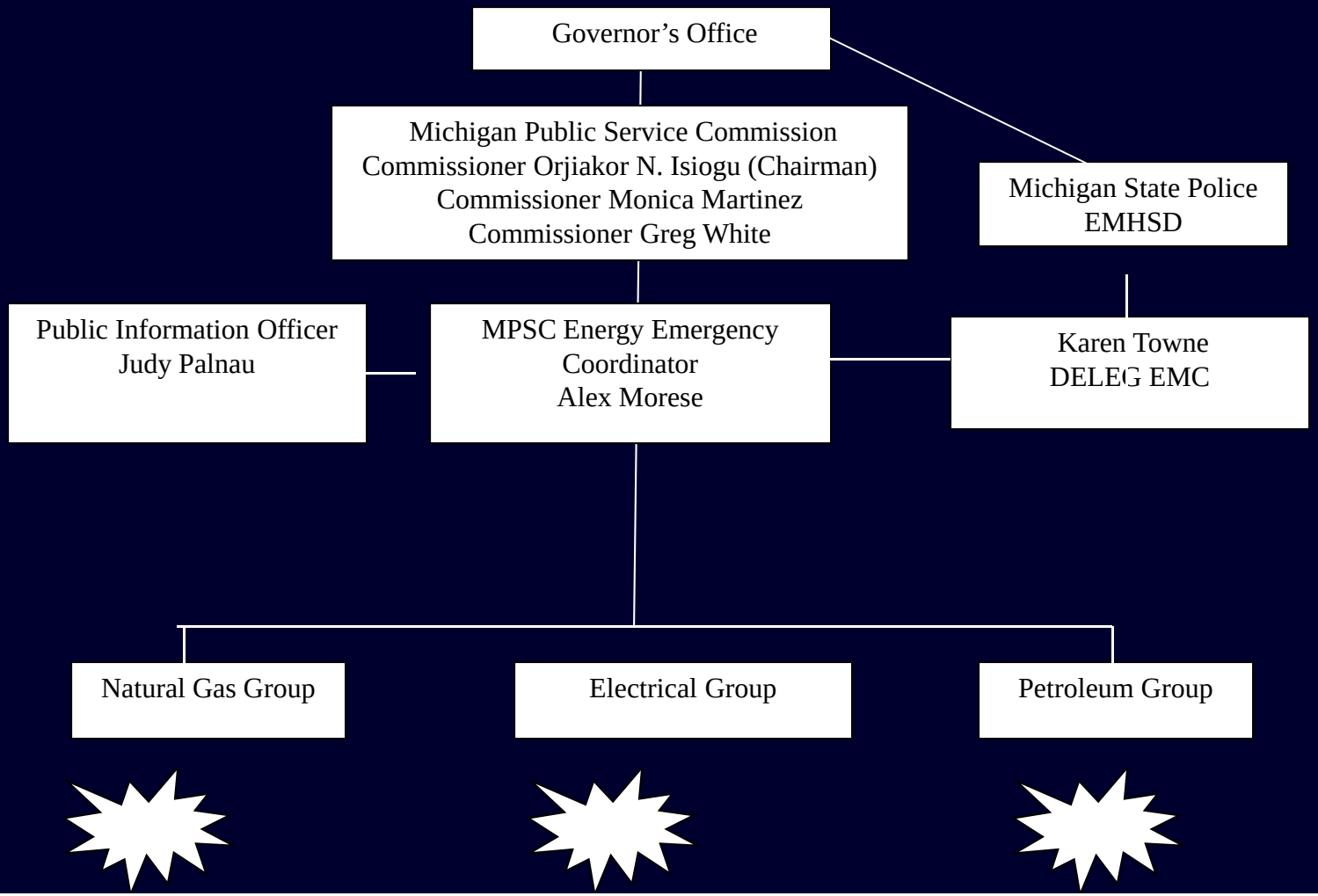
Exercise Specifics

- Date, Time, Location
- Purpose
- Participants
- Planners
- Visitors
- Timeline
- Computer Access
- Format

Exercise Roles



Exercise Communications Plan



Exercise Ground Rules

- Jennie to record all actual or expressed actions taken
- “Open Participation” – contribute when knowledgeable
- Typically, each energy group (natural gas, petroleum, electricity) will manage an event from an MPSC perspective until the severity of the event is such that the MPSC Energy Emergency Coordinator (Alex Morese) is engaged by the sector group to coordinate communications and actions involving the PIO, Commission Chair, and DELEG EMC. Once that occurs, Alex is now responsible for the overall coordinated action.

Awareness Training Opening Comments

Awareness Training

- Purpose
- Tabulate any unanswered Questions
- Agenda
  - Emergency Operating Procedures
  - Petroleum
  - Natural Gas
  - Electricity

Emergency Operating Procedures

Robin Barfoot

EOP Emergency Response Phases

- Phase I – Monitor and Alert
- Phase II – Assess and Decide Action
- Phase III – Actions and Feedback
- Phase IV – Review Lessons Learned

EOPs

EOP#1 Emergency Response: Phase I

- Monitor/forecast supply, demand, price
  - Energy Appraisal
  - Oil Daily
  - OPIS
  - Energy Assurance Daily
  - DHS Open Source Report
- Can alert of incipient problems

EOPs

EOP#1 Emergency Response: Phase II

- Assess magnitude and implication of emergency
- Increase monitoring of the affected system/region
- Evaluate available programs to deal with the emergency in economic, technical and social terms
- Select appropriate actions
  - No action – continue/increase monitoring
  - Begin internal notification and communication procedures
  - Consult EEMT
  - Recommend actions to Governor

EOPs

EOP#1 Emergency Response: Phase III

- Once an event occurs and the magnitude has been assessed, implement emergency programs. If immediate action is needed:
  - Voluntary measures
  - Mandatory measures
  - Must declare state of energy emergency/disaster to implement mandatory measures
- Continue monitoring
- Evaluate output to determine if contingency plan is successful
- Initiate remedial action to plan if required
- After emergency is over, state action is terminated.

EOP#1 Emergency Response: Phase IV

- Prepare after-action reports and conduct special analyses
- Revise plans, if necessary
- Resume routine monitoring

EOPs

EOP#2 Emergency Communications Procedure

Communication Method

Outlook:

- Emergency Communications Memo – distribution lists

Other:

- "Red Sheet" – contains all the needed numbers, including office, home and cell, for upper management emergency responders
- Emergency Contact Book – contains lists of emergency numbers to contact the utilities, petroleum companies, federal agencies, other state agencies, etc.
- Energy Emergency Assurance Coordinators (EEAC) system

EOPs

EOP#2 Emergency Communications Procedure

<u>Energy Emergency Event Notification</u>

Triggering Conditions:

- extensive power outages due to storms
- curtailment of power deliveries to meet high demand situations
- fuel shortages/price spikes

Prepare a situation report to summarize all relevant information about event and consequences. Report should be updated as new information becomes available.

Distribution List:

- a list has been set up in Outlook (MPSC Emergency Energy) and notification of an event should be sent to this list
- Karen Towne, the DELEG EMC, if the situation warrants

EOP#2 Emergency Communications Procedure

Telecommunication Emergency

Triggering Conditions:

Loss of telecommunication services

Distribution List:

- a list has been set up in Outlook (MPSC Emergency Telecom)
- Karen Towne, the DELEG EMC, if the situation warrants

EOPs

EOP#2 Emergency Communications Procedure

Statewide Energy Emergency Event Notification

Triggering Conditions:

- extensive power outages expected to last for days/weeks
- curtailment of power deliveries to meet extended fuel shortage situations
- other catastrophic situations/events that damages infrastructure beyond regular repair

Distribution List:

- MPSC Emergency Energy and Telecom
- Karen Towne, DELEG EMC
- State Police
- EEAC
- USDOE

EOP#3 E-Team Implementation

E-Team Access

- In the event the emergency is so serious that the Emergency Response Team is convened, MPSC staff should log onto E-Team
  - monitor the event
  - post situation reports
  - respond to requests from DELEG EMC or State Police
- Staff targeted to respond to energy emergencies have been trained in the use of E-Team.

EOP#3 E-Team Implementation

E Team is an incident management system that provides a common operating picture and resource management tool.

• When incidents require cross-jurisdictional collaboration, it supports accurate data sharing. Features:

- Incident reports
- Situation updates
- 72 hour situation reports
- Duty log
- Resource assets and requests
- Damage assessment

EOP#3 E-Team implementation

- Incident Report Completion
- The incident report is a primary feature of E-Team that allows the tracking of events
  - During an energy emergency, E-Team can be used to record and track the event accurately through E-Team through the incident reports.
  - Staff would submit incident reports into E-Team to keep all parties informed of the progress of the response.

EOP#3 E-Team Implementation

Situation Report

- Record information on an incident by completing a situation report
- Within an incident, follow these steps:
    - Create report
        - Situation
            - Agency SitRep

- This is where you record the events so that the information can be shared with all parties.

EOPs

EOP#4 Public Information Procedure

- Functions
  - Help public understand nature of the problem
  - Direct/encourage appropriate responses
    - Conservation
    - Energy use reduction programs
- Problems to avoid
  - Multiple authorities releasing conflicting information
    - Judy Palnau is the PIO for the MPSC. ALL contact with the media is through Judy at 241-3323.
  - Groups taking advantage of shortage in ways to further self interest
- Note – need to work closely with media and trade assoc. to distribute a consistent, concise and well informed message

EOPs

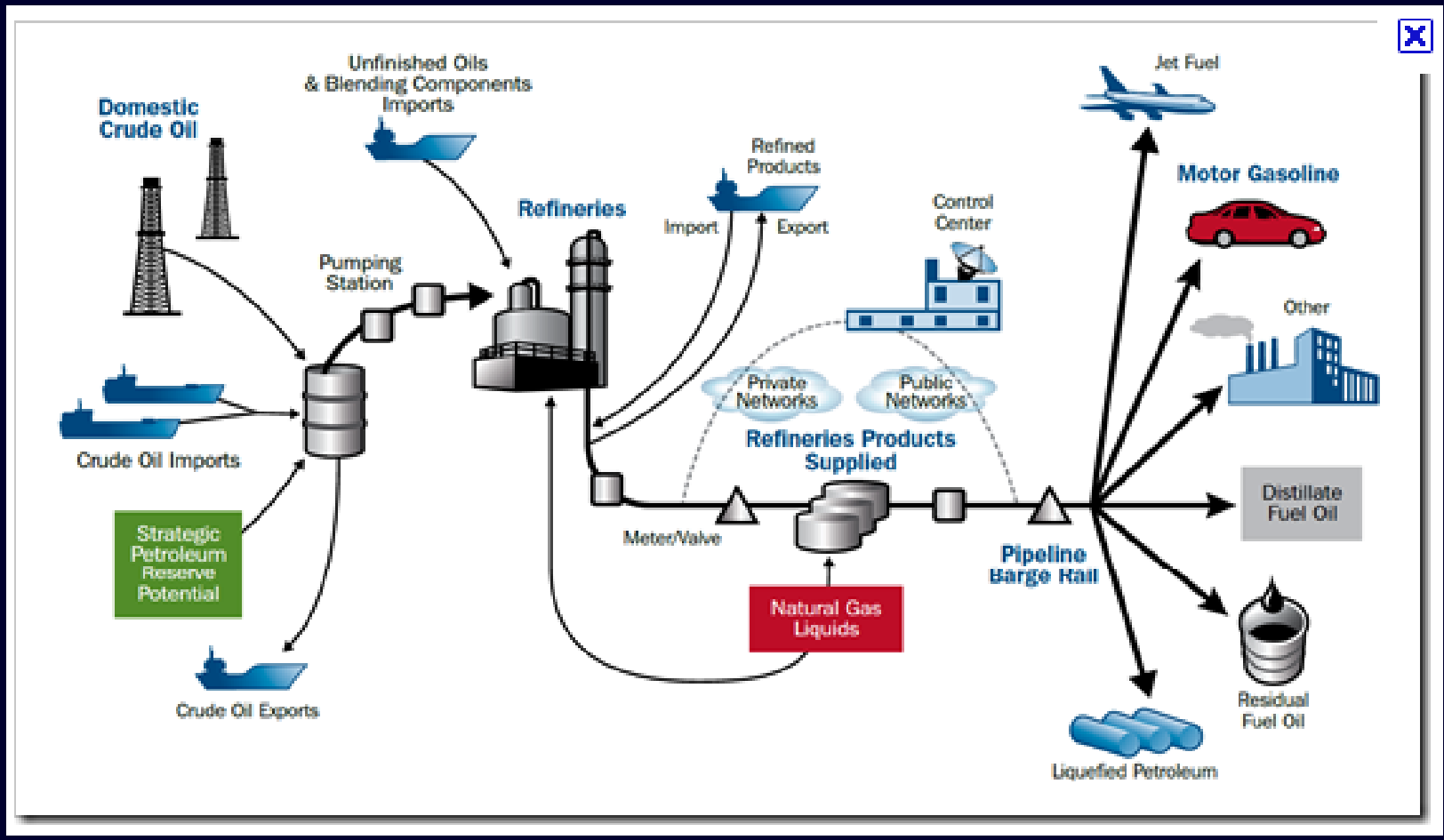
EOP#4 Public Information Procedure

- Types of Public Information Campaigns
  - Informational
    - Should provide clear, concise updates
    - Steps being taken to provide relief
  - Educational
    - How to minimize energy use and inconvenience
    - Work with the natural gas and electric utilities to deliver a unified message
    - MPSC will be the lead in a petroleum emergency

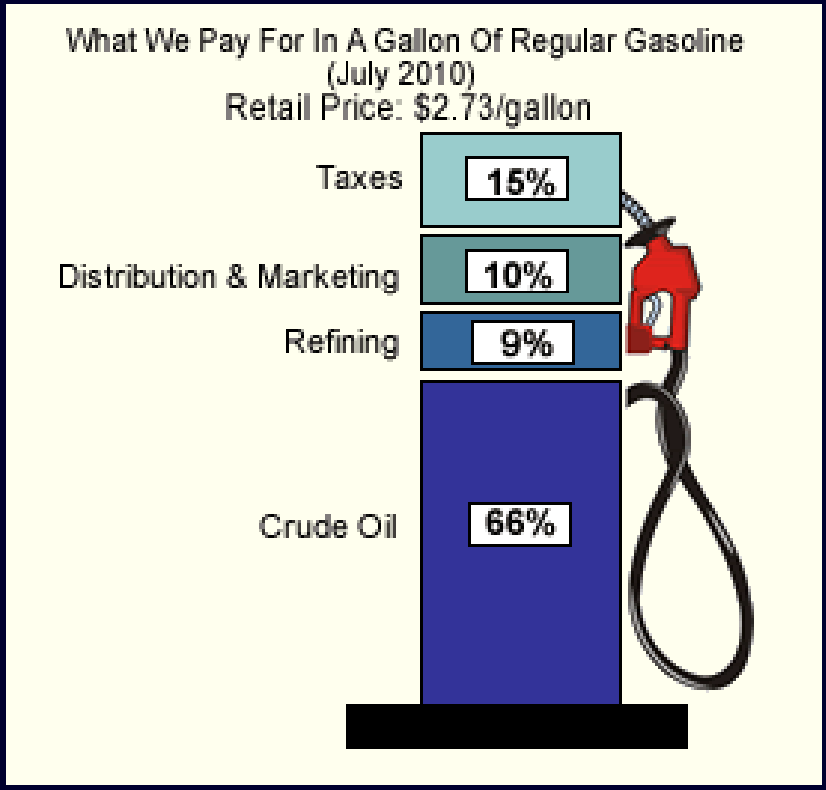
Petroleum

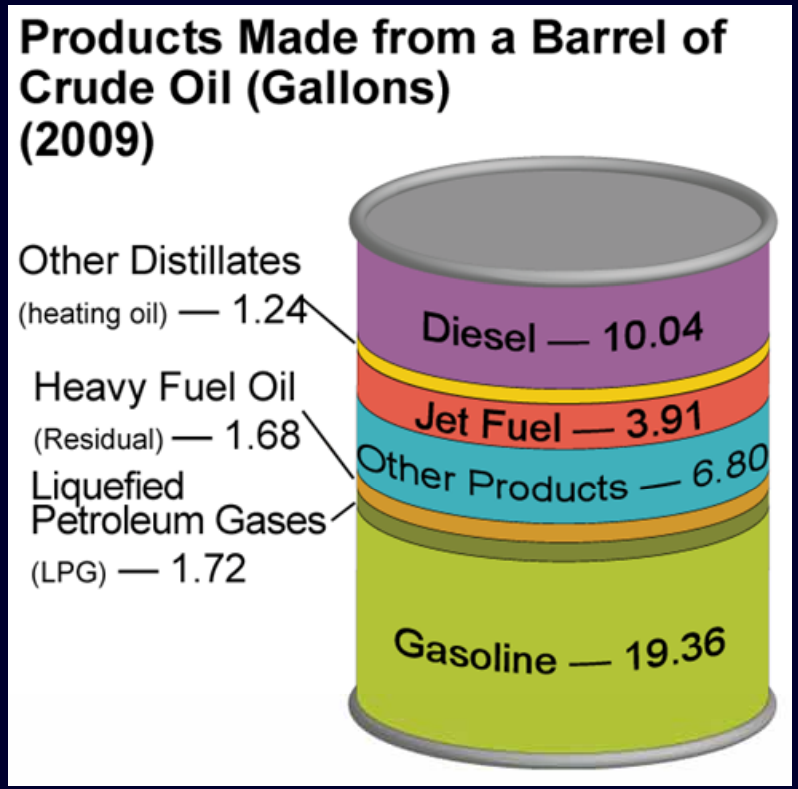
Alex Morese

Major components of the petroleum system



Petroleum system continued..





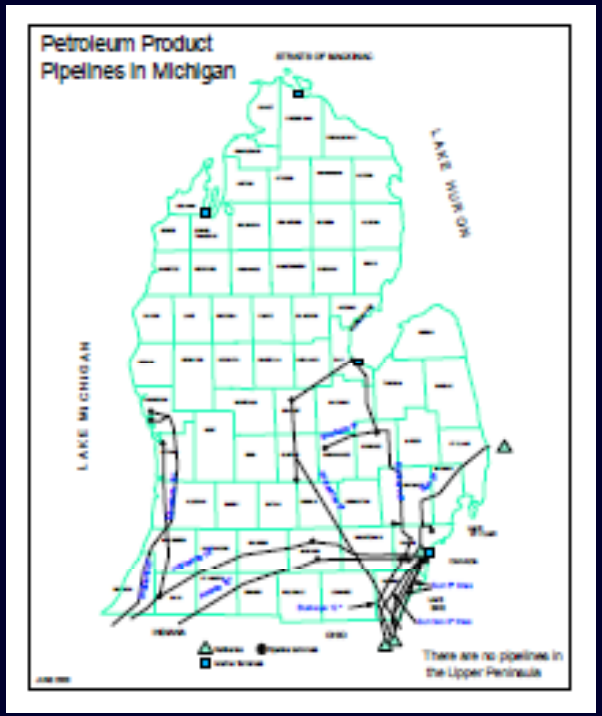
Major owners & operators of the petroleum system

- Refineries
  - BP Whiting (IL) – 405,000 bbl/d
  - Citgo Lemont (IN) – 167,000 bbl/d
  - ExxonMobil Joliet (IL) – 238,600 bbl/d
  - Marathon (MI) – 106,000 bbl/d
  - Toledo (BP/Husky) (OH) – 125,000 bbl/d
  - Toledo (Sunoco) (OH) – 160,000 bbl/d
- Michigan's Major Petroleum & Oil Pipelines
  - Wolverine
  - Marathon
  - BP (Amoco)
  - Buckeye
  - Enbridge (Lakehead)

Owners & operators cont'd..

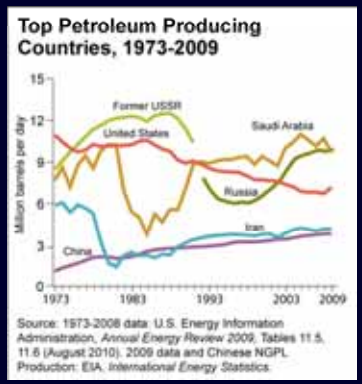
- Michigan's Petroleum Terminals
  - Rouge River Terminal Cluster (BP, Buckeye, Marathon)
  - Niles Terminal Cluster (Citgo, Marathon, Shell)
  - Taylor/Romulus Terminal Cluster (Atlas, BP, Buckeye, RKA)
  - Woodhaven Terminal (Exxon/Mobil)
- Propane Storage Facility
  - Marysville, MI

Distribution of oil and finished petroleum pipelines?



What natural disasters or man-induced events are likely to result in a disruption of the petroleum system?

- International political instability (Nigeria, Venezuela, Middle East)
- Hurricanes – disruption of production, refinery or distribution facilities (gulf coast or eastern sea board)
- Pipeline breakage/shutdown
- Refinery shutdowns
- Production curtailment + Market volatility = Price spikes



Supply disruption indicators and data sources

- Ongoing market price, supply, and demand monitoring provides some advanced leading indicators indicative of a potential supply problem. This data is available from a plethora of sources outlined in the *Supply Disruption Tracking Process*, including:
  - Gasbuddy.com
  - OPIS Alerts
  - Oil Daily Reports
  - SHOPP
  - AAA Fuel Gauge Report
  - DOE OE ISER Energy Assurance Daily (EAD)
  - EIA – This Week in Petroleum, Gasoline & Diesel Fuel Update, Market Assessment of Planned Refinery Outages, Petroleum Supply Monthly

Consequences of a major supply disruption to the petroleum system.

- Increased prices / tight supply
- Disruption of essential services (fire, police, EMT)
- Disruption of service vehicles (utility, telecom)
- Transportation impacts (air, car, bus, etc.)
  - Labor shortage (economic slowdown)
  - Stranded travelers
- Commercial / Industrial Impacts
  - Idle factories, tourism dropoff, lack of customers, layoffs

What responses or actions could be taken to lessen the impact of a major disruption within the petroleum system?

- Priority end-user plan (police, fire, EMT, some industry)
- State set aside (5% for essential public services)
- Fuel and/or driver hour waivers
- Promote car / van pooling programs
- Increase sizes of park and ride lots
- Promote flex-time / telecommuting
- Reduce highway speed limit (everyone’s favorite)

Historical petroleum emergencies impacting Michigan

- Arab Oil Embargo – 1973
- Energy Crisis – 1979
- Blackout – 2003
- Hurricane Katrina – 2005
- Enbridge Pipeline – 2010

Natural Gas

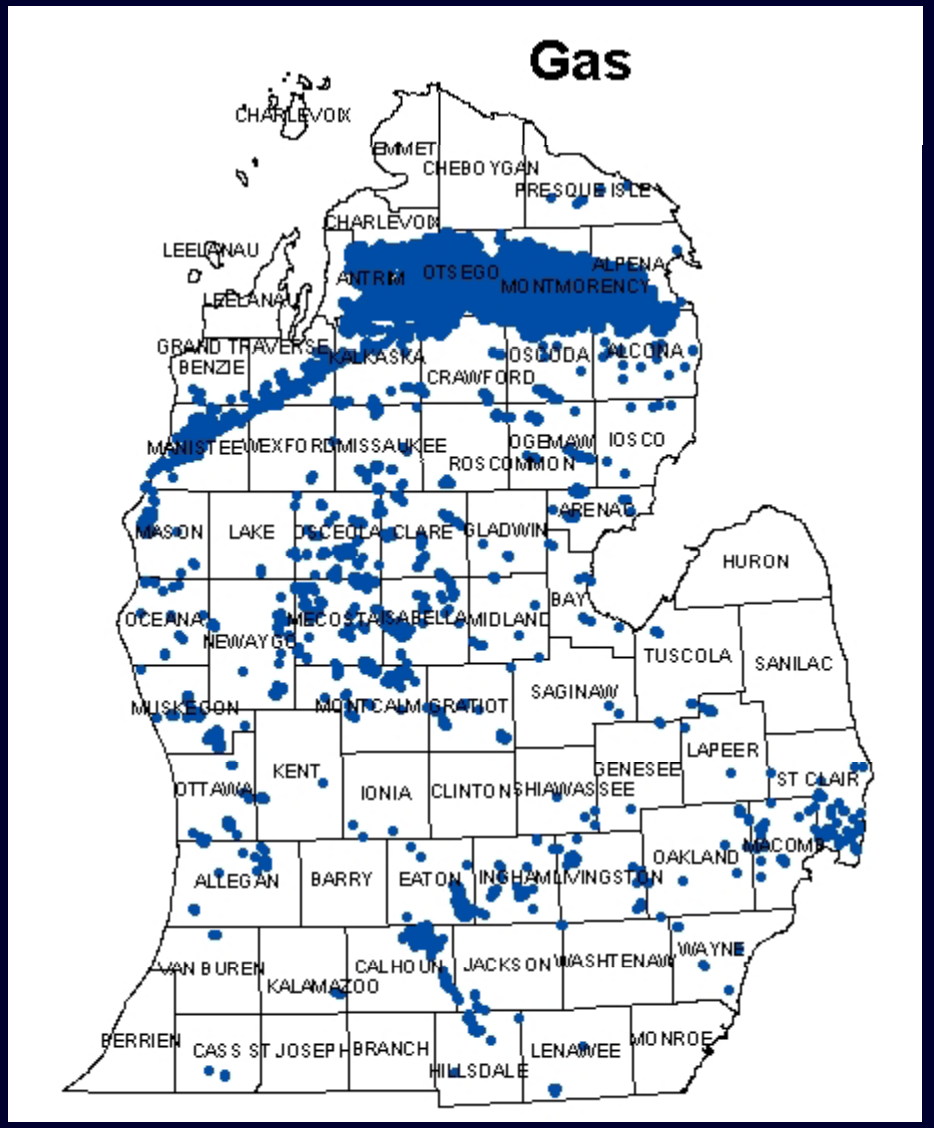
Travis Warner

Components of the Natural Gas System

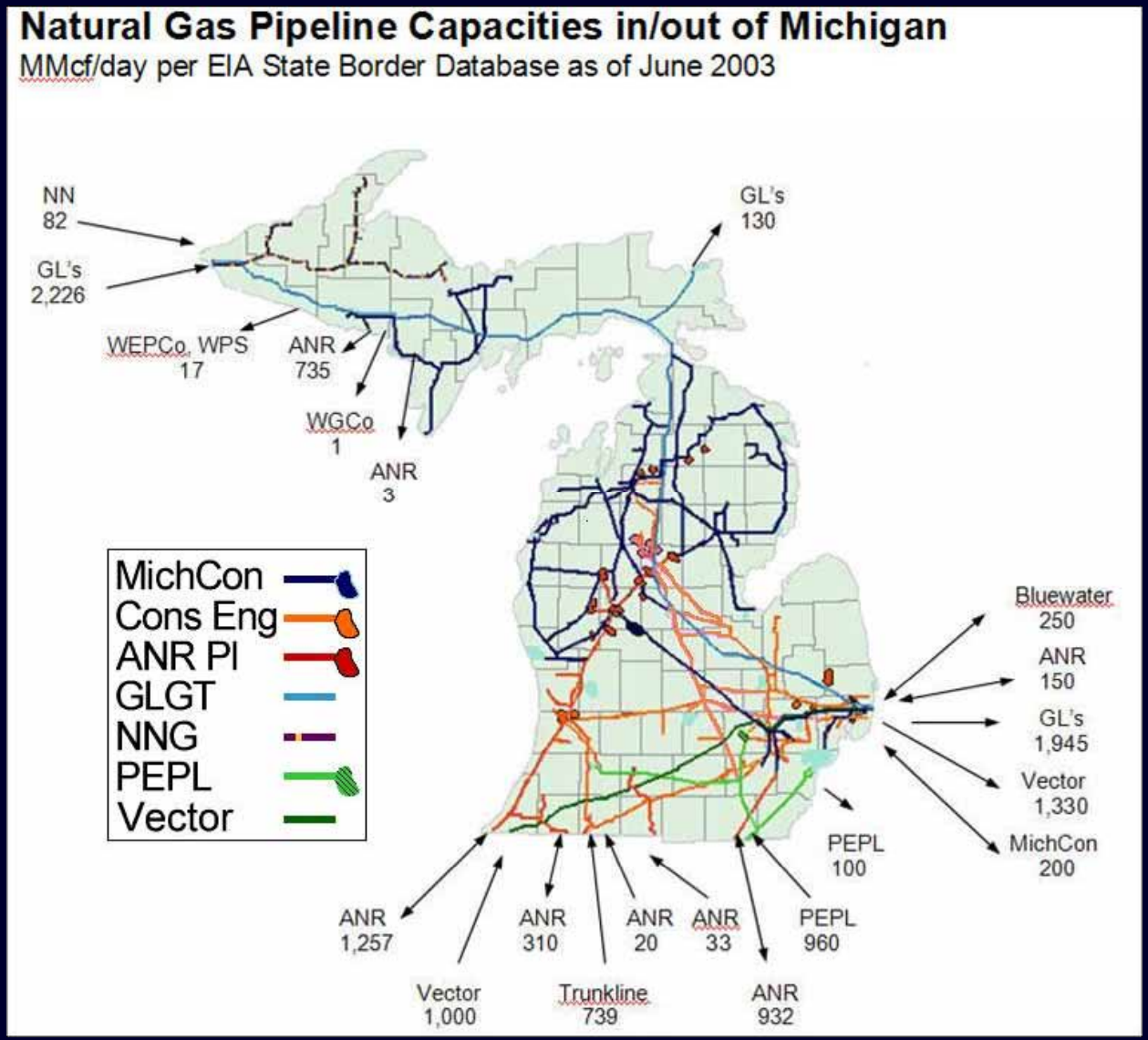
- Production
  - Wells
  - Gathering lines
  - Treatment facilities
  - Compressor stations
- Transmission
  - Interstate
  - Intrastate
  - Compressor stations
- Distribution
  - LDC (Local Distribution Companies)
  - City gates
  - Mercaptan
- Storage Fields

Michigan Gas Production

- Primarily Located in Northern Michigan
- Approximately 10,500 Active Wells
- 13 year decline – lack of new discoveries
- Accounts for 20% of Michigan Consumption
- Collingwood Shale Potential



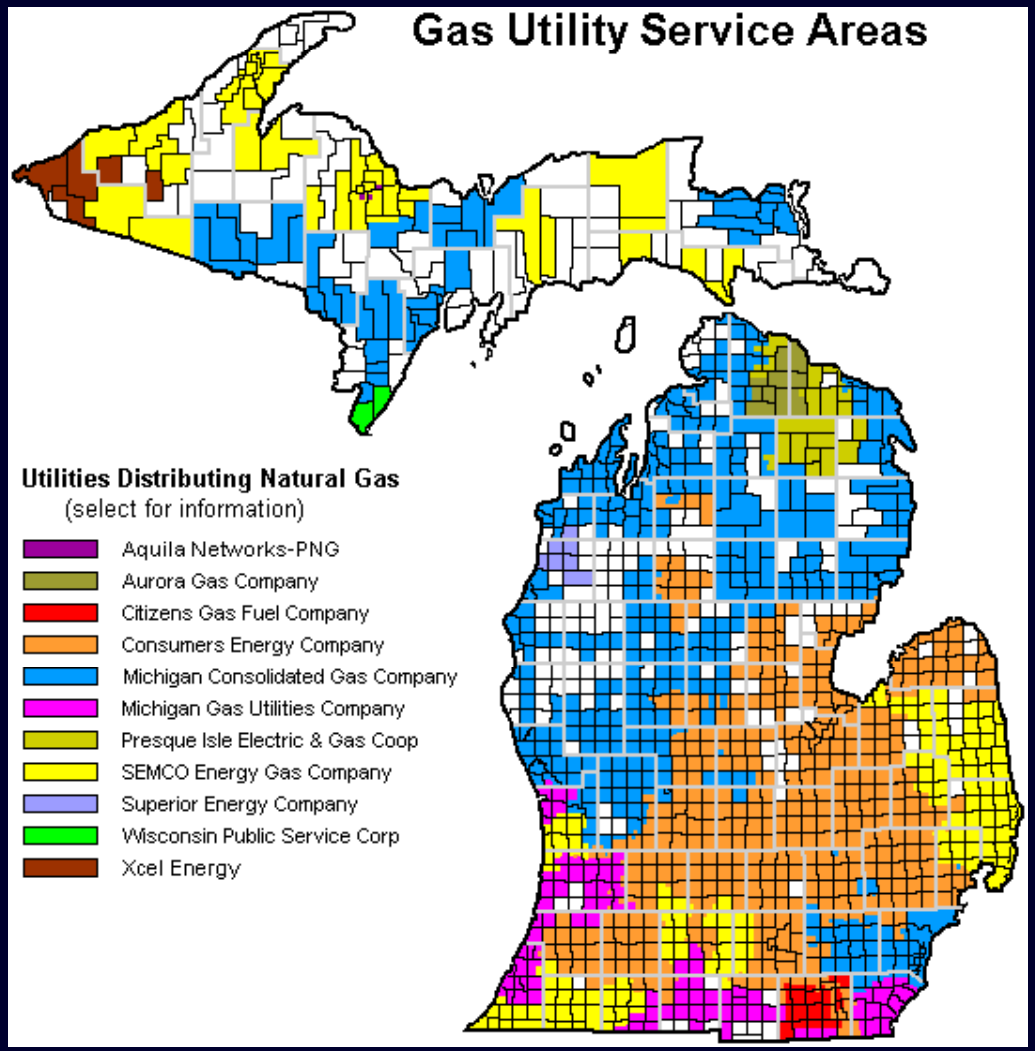
Natural Gas Transmission System



Utilities Distributing Natural Gas

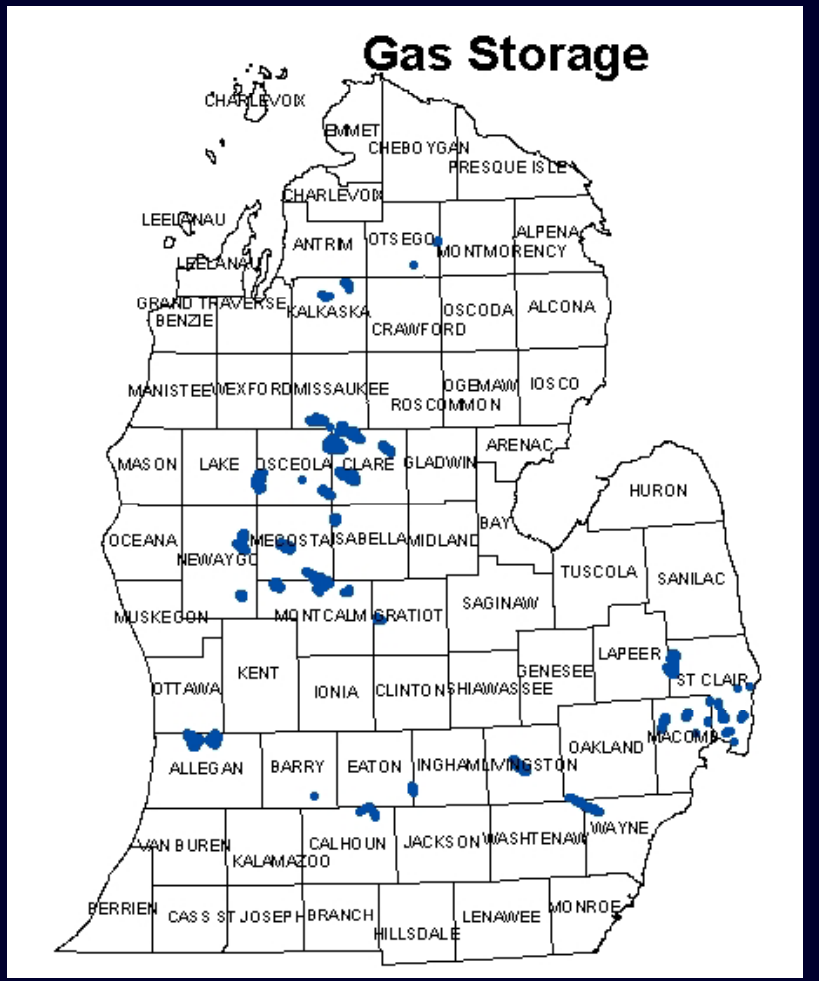
- 11 Utilities serve Michigan according to franchise agreements with townships.

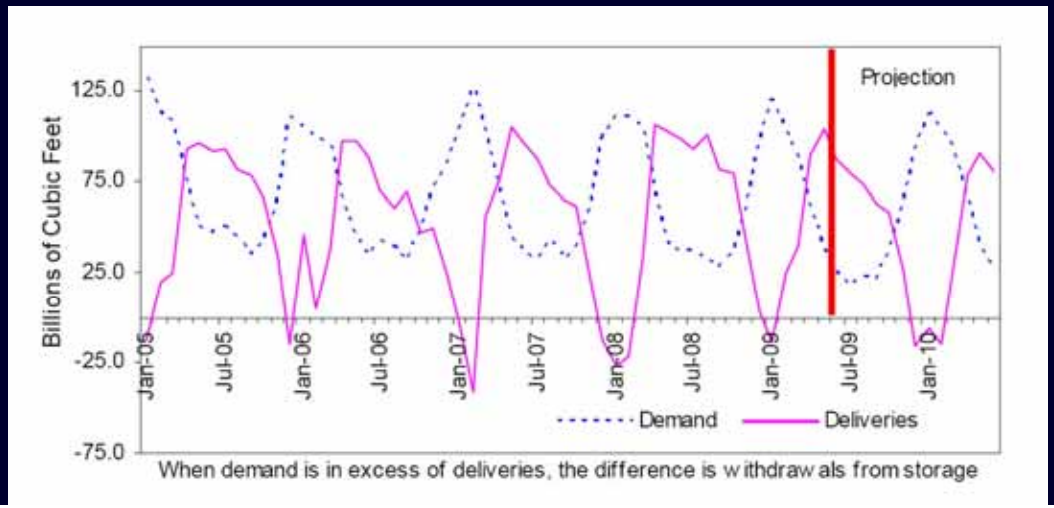
- Customers Served in 2009:
  - Consumers – 1,702,279
  - Michcon – 1,045,838
  - Semco – 278,676
  - MGU – 157,968
  - All Others - 40,175
  - TOTAL – 3,224,936



Gas Storage in Michigan

- 55 Storage Fields
  - Niagaran, etc.
  - Salt Caverns (2)
- 649 Bcf Capacity total
- Peak day of 7.8 Bcf - two thirds of the load comes from storage.
- Can be used to mitigate supply deficiencies in an emergency





Potential Disruption Causes

- Pipeline Ruptures
  - 3rd party damage
  - Unpredictable ruptures due to corrosion, bad weld, etc.
  - Natural Disasters
- Damaged Pipeline Facility (Compressor Stations, Treatment)
  - Mechanical Failure
  - Natural Disasters
- Damaged Distribution Facilities (City gates, Distribution main)
  - 3rd party damage
  - Natural Disasters

Gas Disruption Indicators

- SCADA (Supervisory Control and Data Acquisition)
  - Collects Measurements throughout given system (Operational status, Pressure, Temperature, Flow Rated)
  - Real-time – Early detection of malfunctions, leaks or other disruptions
  - Some have automated controls for rapid response
  - Controlled and Monitored 24/7 by pipeline operators
- In the event of a pipeline emergency, operators are required to contact MPSC Gas Safety Engineers as soon as possible (outlined in Gas Safety Procedures Manual).

Consequences of Gas Disruption

Rupture

- Safety
  - Fire/Explosions
  - Sour Gas
- Customer Outages
  - Heating
  - Other appliances

Supply Deficiency

- Supply Curtailment
  - Commercial Users
  - Municipalities
  - Residents

Responses for Gas Supply Disruption

- Re-route Supply
  - Within operator system
  - Between multiple operators/distributers
  - Storage fields
- Trucking in gas
  - Small volumes
  - Expensive
- Curtailment
  - Located in utilities tariffs, available on MPSC website
  - All based on common goals

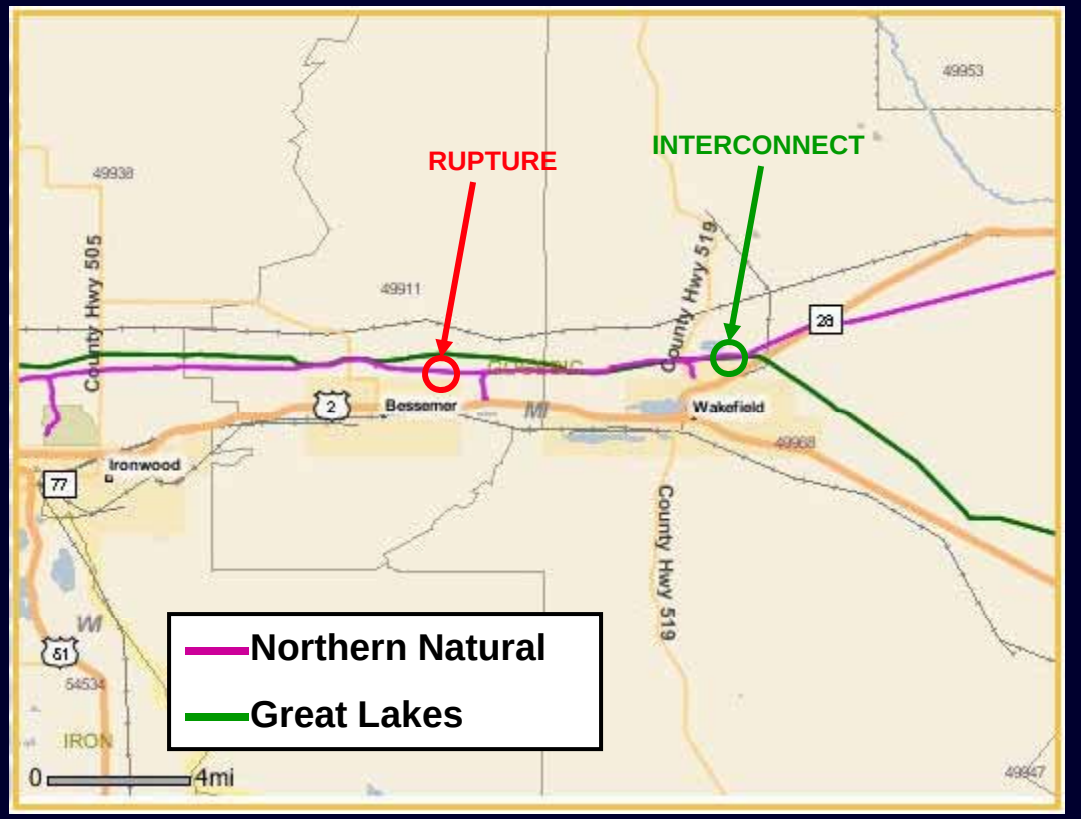
Example (Consumers & Michcon)

Priorities (per base period month)

1. Residential, Public Health Safety – less than 1,250 Mcf
2. Commercial – 1,250 - 8,334 Mcf
3. Commercial – 8,334 - 41,667 Mcf
4. Commercial – more than 41,667 Mcf
5. Non-Residential – With alternative fuel capability

Northern Natural Pipeline Rupture

- June 23, 2009
- 16” Pipeline rupture in Gogebic county
- Fire shooting above trees
- 15 Homes evacuated within ½ mile of rupture
- 387 customers shutoff initially
- Bottle Trucks used to provide gas to Ramsay and Bessemer
- Northern Natural Interconnect with Great Lakes East of Bessemer



MICHIGAN PUBLIC SERVICE COMMISSION

TELEPHONIC INCIDENT REPORT

Caller:	Date & Time of Report: 06/23/2009 02:10 PM
Caller's Phone Number:	
Incident Street Address & City: Bessemer	
Company: NNGCo 050 NEG	Date & Time of Incident: 06/23/2009 01:00 PM
Time Company Arrived at Site:	Time Gas was Shut off:
Cause Code: 07	
Description:	

NNGCo has had a rupture of a 16" natural gas transmission PL & pressure is currently at 100# & dropping. NNGCo will feed to east through connection with Great Lakes at Wakefield interconnect. No fire or injuries. Police are on site & area is evacuated for half mile. Gas still blowing. NNG & Great Lakes gas are also responding. Will follow-up with additional details as available. Nida in route.

Private Property Damage:	Est. Amount:
Operator Property Damage:	Est. Amount:

	Yes	No
Operator Facilities Involved		
Gas Ignition		No
Injuries		No
Fatalities		No
Interruption of Service #	Yes	
Telephonic DOT Notice		
Property Damage Exceeding $10,000		
Written DOT Report		
Unsafe Conditions Report		
Requires Drug Testing		
Third Party Damage		
(a) One-Number Call System Used		
(b) Company Contacted		
(c) Facilities Staked		
(d) Inspector at Job Site		
Operator Phone Report to Follow		
Operator Written Narrative Report		
Safety Engineer's Report		

Injuries & Disposition of Injured:

A. Hospitalized

B. Treated & Released

C. First Aid

D. Fatality

CAUSE CODES:

01 Third Party Damage

02 Operator Error

03 Material Defect

04 Corrosion

05 Construction Defect

06 Suicide (or attempt)

07 Other

Received By: Beth Schafer

Entered By & Date:

Rev. 4/2002


MAR 14 '12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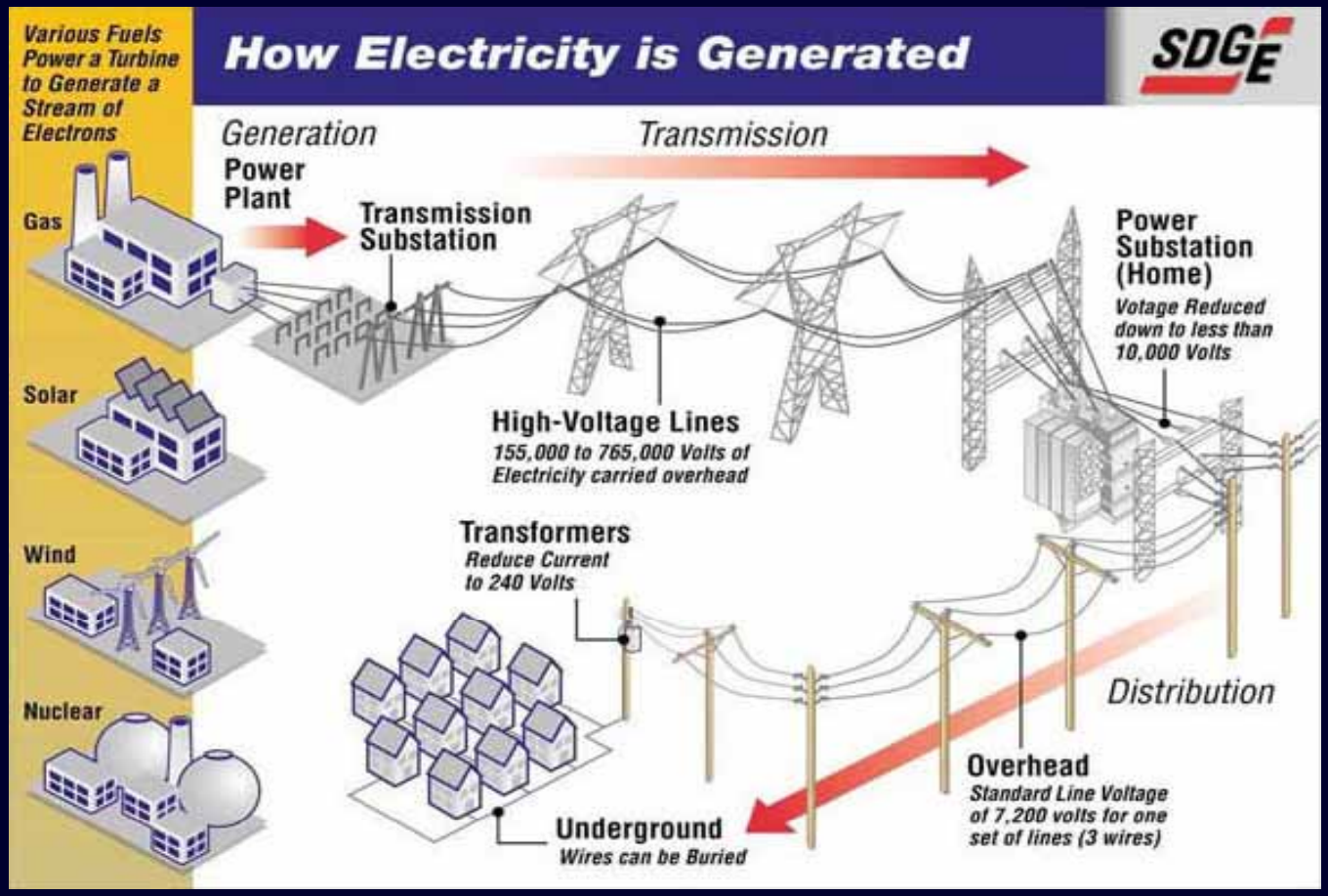
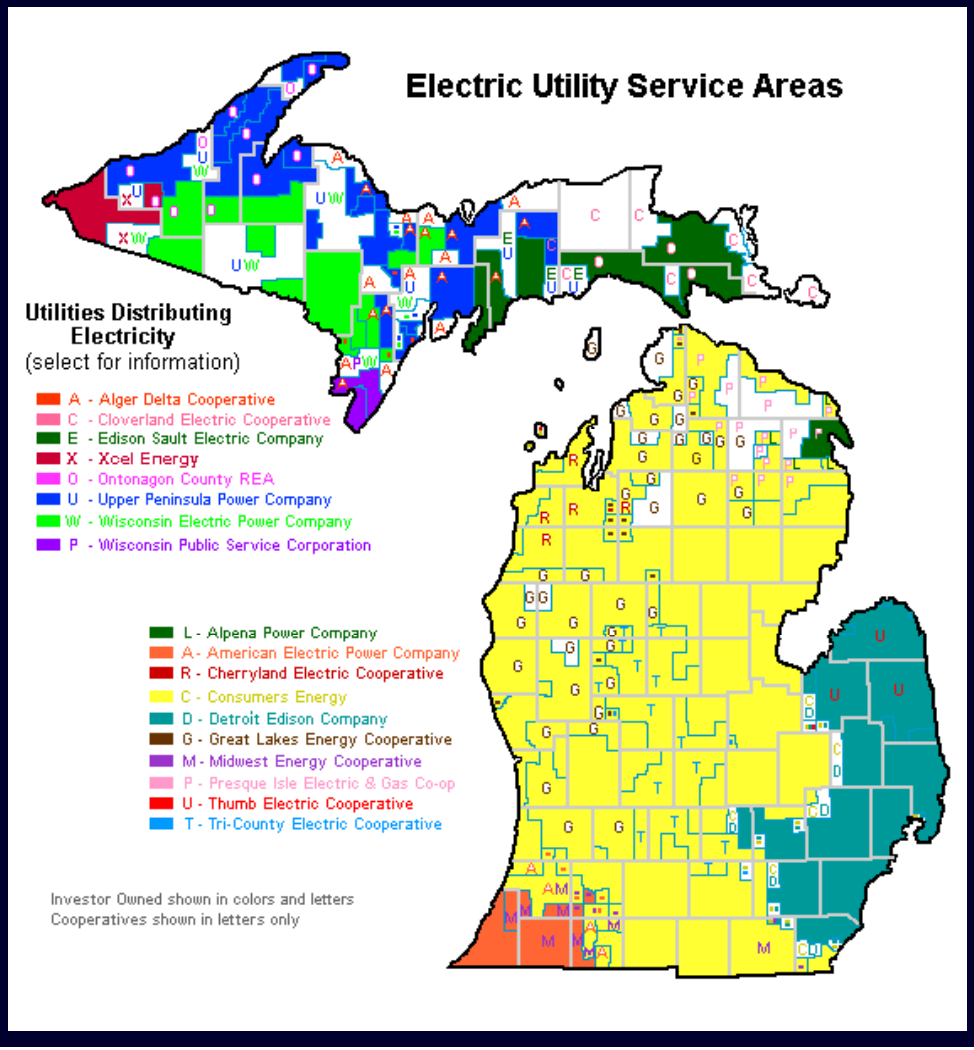
Electricity

Charyl Kirkland

Major components of the electrical system



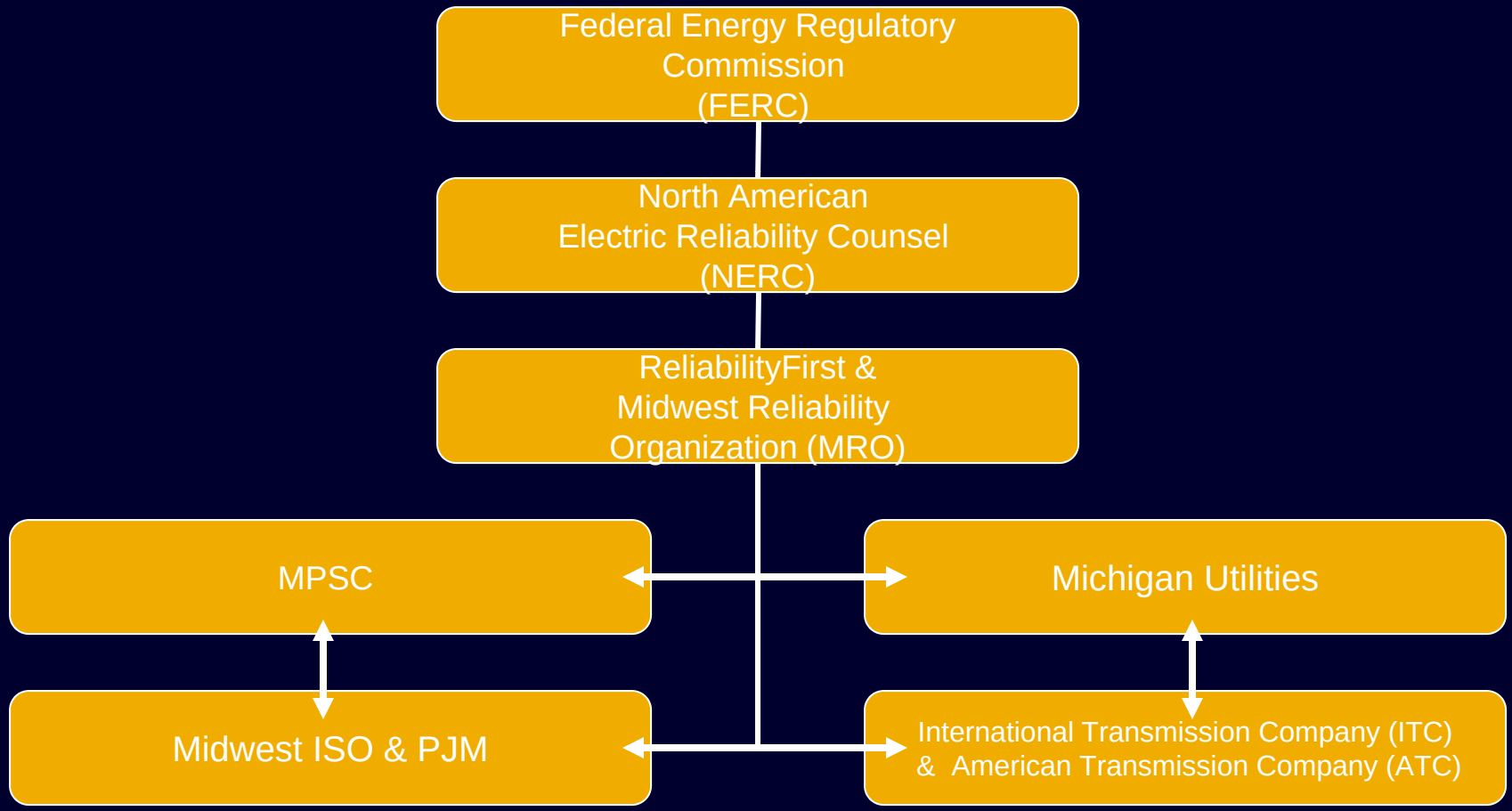
Michigan's Electrical System



Electricity in Michigan

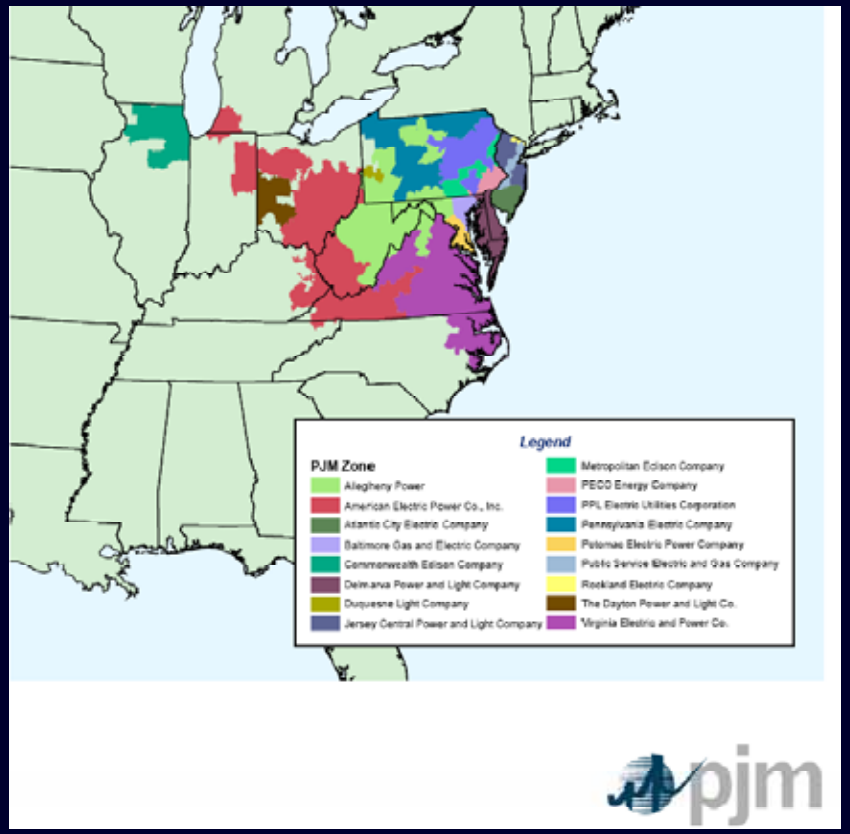
- Electricity is unique in that it cannot be stored large scale—once it is generated, it must be used.
- Electricity in Michigan is unique in that the MPSC is not in direct control of the utilities, transmission operators (TO's) and Independent System Operators (ISO's) during an electrical emergency.
- Coordination of events during an electrical emergency are orchestrated by the affected area's Balancing Authority (BA), TO, and ISO. Each utility in Michigan is part of an ISO that acts as their BA, TO and ISO.
- Midwest ISO and PJM are the ISO's for Michigan.

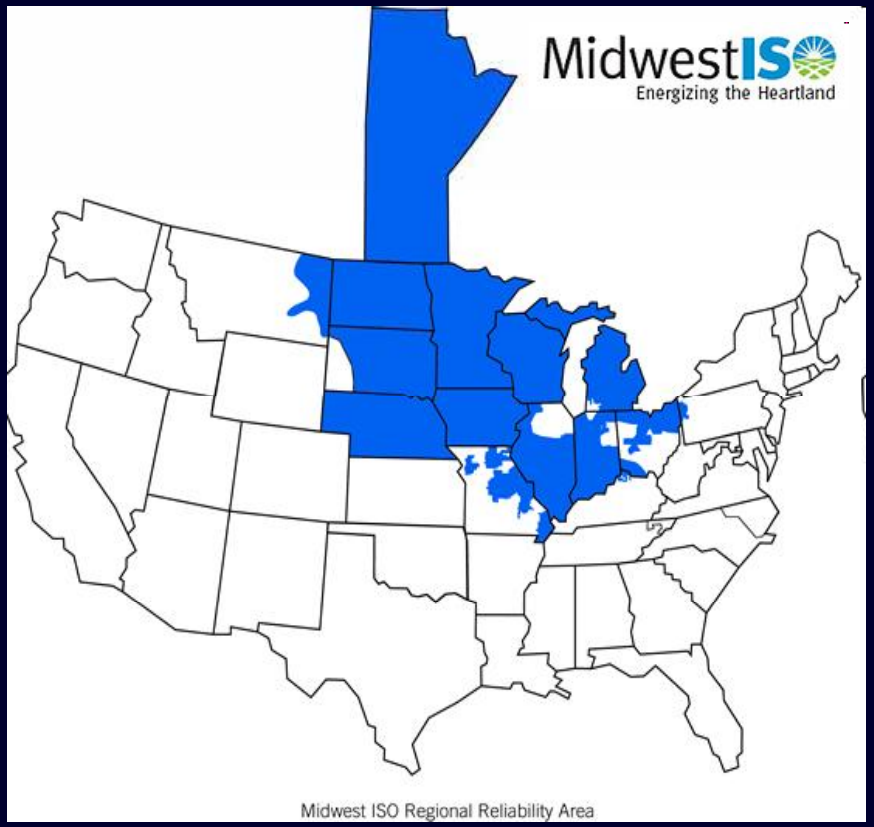
Government & Private Sector Entities



*Reliability*First & MRO Territory

PJM & Midwest ISO Territories





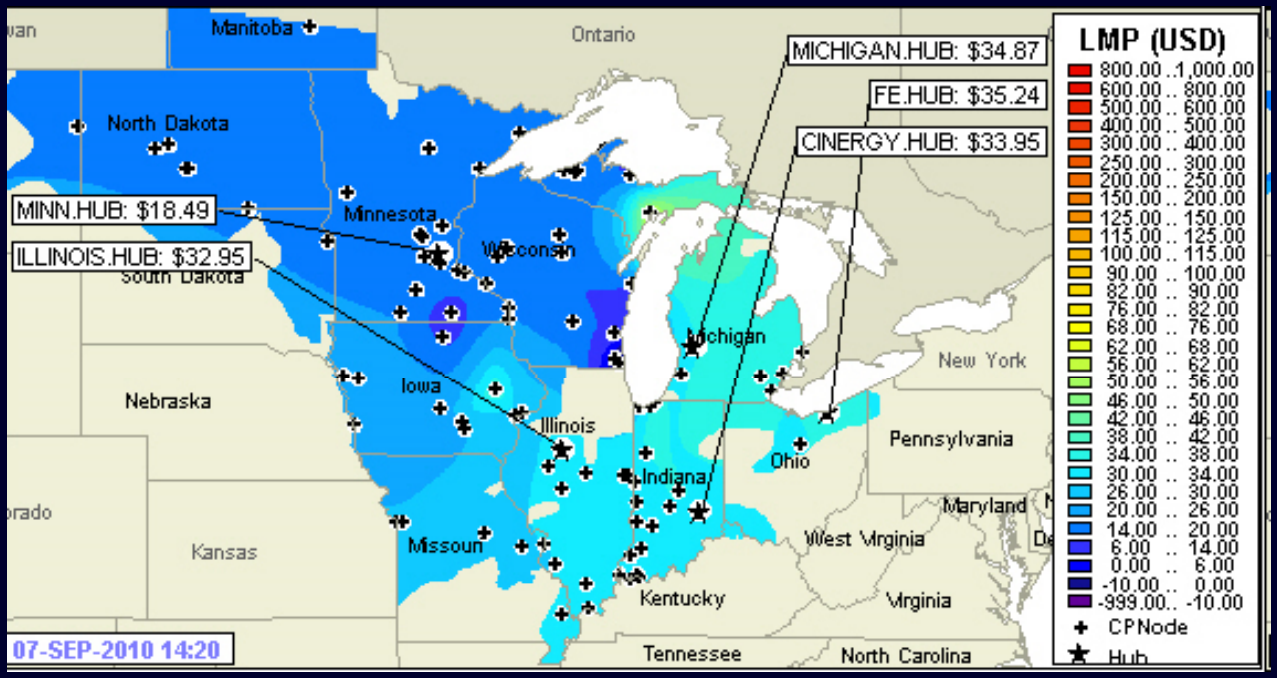
ITC Holdings & ATC Territories

Natural disasters or man-induced events likely to result in a disruption of the electrical system

- Trees (Vegetation Management, tree species)
- Third Party Contact with poles/substations (car accidents)
- Severe weather (Thunderstorms, Tornadoes, high winds)
- Equipment Failure (age, weather conditions)
- Intentional outages (maintenance)
- Problems on neighboring systems
- Sudden, sharp decrease in supply
- Sudden, sharp increase in demand (brownout)
- Cybersecurity/Cyberterrorism
- Decrease in gas fired generation due to drop in Natural Gas Supply
- Act of sabotage

Supply Disruption Indicators

- Severe weather warnings (tornadoes, high winds, ice storms, etc.)
- Real time pricing (higher costs=higher demand, supply strain)
- Locational Marginal Pricing (LMP)—Midwest ISO Website



Supply Disruption Indicators

- # of plants down for maintenance (could be issue if significant # of plants down)
- Commission staff are also notified by phone when an event causes a customer outage greater than 75,000 customers for DTE or 50,000 for Consumers Energy or 10 percent of the customers of the state's other regulated utilities.
- Significant increase in cost of coal, decrease in supply of coal

Alternative Responses or Actions to Lessen Impact

- Rerouting of power via transmission lines
- Purchasing additional power from wholesale market
- Conservative Operations Procedures
- Starting emergency generation facilities
- Interruptible Tariffs
- Curtailing Demand via public appeals
- Governor’s declaration of emergency (emergency assistance to help mitigate problem)
- Firm Load Shed

Disruption Tracking

- PJM and Midwest ISO will notify their stakeholders, including the MPSC (stakeholder) of power changes that affect reliability or supply (i.e.: Hot/cold weather alerts)
- Annually, the MPSC has PJM and Midwest ISO present their assessment plans for the upcoming winter/summer seasons to mitigate high demand caused by heating/cooling degree days.
- **Performance Standards**: Consumers Energy and Detroit Edison both submit annual performance reports to the Commission, reflecting on their power performance and responses over the previous year. MPSC Staff reviews the report with each utility and makes recommendations (if needed).

Disruption Tracking (cont'd)

- The MPSC remains in constant contact with the affected utilities or transmission company and their power pool (PJM or Midwest ISO) during an electrical emergency.
- Via email, telephone or "robo" calls, the MPSC receives vital information regarding the status of the emergency and when the power problem is projected to end.
- The MPSC uses the collected information to assess the situation and to determine if further steps are necessary (ie: investigation into protocol, governor declaration of emergency, etc.)
- The OWMD Division Director as well as the Energy, Data, and Security Section have access to the ISERNet to acquire information if the problem is widespread regionally.

Disruption Tracking (cont'd)

- If MPSC Staff receives notification that a specific generating unit is offline, an Excel spreadsheet that details Michigan's current generation facilities can be accessed at: S:\PSC\psc_energy_share\Energy Assurance Grant\Energy Assurance Plans\Plans\Electric Emergency Procedures\E Reference Materials
- This document as well as the Electrical Emergency Procedures Manual allows Staff to put outages in perspective based on fuel type, company, location, etc.

Monitoring Electricity

- The following is a list of data sources that provide information useful in monitoring electricity distribution and use:
  - 1. Electricity Sales – This information is published by the U.S.DOE's EIA in the "Electric Power Monthly." Monthly sales of electricity are shown by state, month, and sector. http://www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html
  - 2. Electricity Production by Fuel Source – This information is published in the EIA's "Electric Power Monthly",http://www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html and "Electric Power Annual," http://www.eia.doe.gov/cneaf/electricity/epa/epa_sum.html which includes, the quantity of fuel used, kilowatt-hour produced, and fuel costs by state. The source of this information is the "Monthly Report of Cost and Quality of Fuels for Electric Plants," FERC-423 (http://www.eia.doe.gov/cneaf/electricity/page/ferc423.html)
  - 3. Electric Incident Reporting – The U.S. DOE's Office of Electricity Delivery and Energy Reliability (OE) maintains a Web based reporting system to provide information on electric emergency incidents and disturbances. Electric utilities can file a form listing the particulars of incidents and outages including information regarding cause of the outage, contact information, area affected, number of customers affected, estimated time of restoration, and other details. This form, OE-417, replaces EIA-417 and expires in 2008. http://www.eia.doe.gov/cneaf/electricity/page/forms.html
  - 4. Levels of Fuel Inventories Available for Generation – Coal inventories and prices are published in EIA's "Quarterly Coal Report" that lists the amount of coal consumed in each state and the price paid by each sector. Levels of fuel inventories will be estimated by each utility and reported in terms of the number of days of supply on hand at each location for coal and oil-fired plants at such time as stepped-up monitoring is required. http://www.eia.doe.gov/cneaf/coal/quarterly/qcr_sum.html
  - 5. Generation Capacity and Plant Availability – This information for Michigan can be obtained from the "Inventory of Power Plants in the United States," published by the EIA, and from reports submitted by the utilities to the MPSC regarding power plant and planned maintenance outages. http://www.eia.doe.gov/cneaf/electricity/page/eia860.html

Monitoring Electricity

- 6. Regional System Reliability Forecast –Reliability*First* publishes annual reports of regional system reliability. These reports give long term reliability assessments and estimate regional reserve margins.[1]Additionally, MISO publishes operation reports and state of the market reports.[2]

- 7. Coal Distribution – This data is published in EIA's "Quarterly Coal Report" and is a source of information regarding the origin and method of movement of coal used in each state. http://www.eia.doe.gov/cneaf/coal/quarterly/qcr_sum.html

- 8. Cooling and Heating Degree Days – Cooling and heating degree day data are available from the National Weather Service and National Oceanic and Atmospheric Administration (NOAA). This data may be used to describe extreme weather conditions that create peak loads on the electrical generation system. http://ols.nndc.noaa.gov/plolstore/plsql/olstore.prodspecific?prodnum=C00095-PUB-A0001#TABLES

- 9. Contact Names, Addresses, and Telephone Numbers – The MPSC maintains a list of key utility personnel involved with emergency operations at key locations.

- 10. Summer Capacity Needs – The Commission in recent years has ordered all utilities providing or distributing power in Michigan to file self-assessments detailing their ability to meet the upcoming summer electric power needs. Additionally, the Commission has asked Midwest Independent Transmission System Operator, Inc., American Transmission Company, LLC, the Michigan Electric Transmission Company, and International Transmission Company to submit comments on issues they found relevant to the case. . Case Number U-16160 was the most recent order requiring these utilities and the order can be found at http://efile.mpsc.state.mi.us/efile/viewcase.php?casenum=16160&submit.x=29&submit.y=11

Event Specific Responses

- **Storm Status Updates**: For storms interrupting more than 50,000 Consumers Energy customers, status reports are sent via email daily and by telephone at least once throughout the storm to MPSC Staff contacts.
  - For more than 75,000 Detroit Edison customers interrupted, MPSC Staff is notified when their Emergency Headquarters is opened via email and telephone.
- **Third Party Contacts**: For third party contact (i.e.: car crashes into power pole, interrupting power) with a utilities' facilities a report is sent to the OWMD Director via email.

Event Specific Responses

- **Load Shed Notification**: For each intentional load shed action taken by Detroit Edison or Consumers Energy, the Manager of Electric Operations or the Director of OWMD will receive notification via telephone and email.
- **"Blacklight" Notification**: During a system-wide blackout condition, Consumers Energy and Detroit Edison will contact the OWMD Director, Manager of Electric Operations and the Manager of Energy Data and Security.

Event Specific Responses

- **Weekly Capacity and Demand**: During the summer months, a weekly supply capacity and load summary is sent on Mondays to the MPSC Staff for a weekly conference call.
- **Larger Unit Unexpected Outages**: For larger unit unexpected outages MPSC Staff is notified by the utility and receives updates regarding the status of the repairs.
- **Off Nominal Situations**: Max Gen Emergency Alert/Event are communicated by MISO/PJM (Detroit Edison) or by the Director of Electric Sourcing & Transactions (Consumers Energy).

Example Alert Email

- **From:** DoNotReplyMCS@midwestiso.org [mailto:DoNotReplyMCS@midwestiso.org]
  Sent: Tuesday, August 03, 2010 4:10 PM
  Subject: Midwest ISO is declaring a Hot Weather Alert effective 08/04/201007:00 EST

  Midwest ISO is declaring a Hot Weather Alert for Market Footprint effective from 08/04/2010 07:00 EST to 08/04/2010 22:00 EST. Average temperature is expected to be 91.

  Midwest ISO declared a Hot Weather Alert to prepare operating personnel and facilities for extreme weather conditions. Please reference RTO-OP-18 Conservative Operations.

  Please do not reply to this email. Contact your Client Relations Representative if you have any questions.

Event Specific Reponses

- For Major Events, the State of Michigan's Emergency Headquarters is opened and staff with direct contacts within the affected utility, transmission operator or power pool refer to their Emergency Contact Lists Manual (provided by MPSC Energy, Data & Security Section).

- For Electrical Emergencies, Staff would refer to these sections:
  - Emergency Contact Lists' Relevant Chapters for Electrical Emergencies
  - MPSC Emergency Communications Procedures
  - Michigan State Police Emergency Management & Homeland Security Division
  - MPSC Emergency Response Team Member List
  - Nuclear Power Plant Contact List
  - Electric Utility Emergency Contacts
  - Electric Transmission Emergency Contacts
  - MPSC Staff Natural Gas Emergency Contacts (Electricity can be generated using Natural Gas as a fuel.)
  - Michigan Energy Sector Coordinating Committee
  - MPSC Staff Directory/DELEG Organization Chart
  - Infrastructure Security & Energy Restoration Contacts
  - Energy Emergency and Assurance Coordinators
  - NARUC/NASEO Contacts
  - Department of Homeland Security Michigan Contacts
  - Michigan Intelligence Operation Center (MIOC) CIP Desk

Consequences of a Major Supply Disruption

- Disruption of essential services (police, hospitals, government buildings, traffic/safety mechanisms)
- Dependence on computers, electronics for communications
- Michigan is largely import dependent
- Until crisis is resolved, power would only be available to priority customers; all customer classes would be treated as interruptible customers
- In worst case, priority customers only would have access to power.

Historical Events

- Blackout of 2003
- Summer 2008 Storms
- “Routine” Summer & Winter Storms
- Hot Degree Days of 2010