

## **Energy Resilience Planning for Communities**

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### Agenda

- Introduction to the Office of Energy Reliability and Security
- What is reliability?
- Who are the electricity regulators?
- Overview of national and state systems
- Online dashboard or toolkit for local energy reliability planning
  - Electricity, petroleum fuels, propane, natural gas
- Cyber and Physical Security

### MN Commerce: Office of Energy Reliability and Security

Located in the Division of Energy Resources

Planning, preparedness, and response

- Functions per US Code and Minnesota Statute
- Electricity, petroleum fuels, natural gas, propane
  - Physical and cyber security, supply issues, coordination
- State Energy Security Plan
- Community Resilience



### Reliability

- No single standard definition for reliability in Minnesota Statutes
- Reliability
  - Energy systems meets the needs of end-use customers even when a disruptive event occurs
  - Energy systems can withstand and rapidly recover from outages
  - Affected by regional market structures, engineering complexities, energy supply shortfalls, extreme weather events, Parts and equipment supply chain constraints, equipment failures, cyber threats, etc.

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### **Example: Electricity Regulators**

- Federal Energy Regulatory Commission(FERC)
  - Regulates the interstate transmission of electricity, natural gas and oil
  - Regulates electric grid reliability, primarily the bulk electric transmission system, as well as approve standards established by MRO and NERC
- Minnesota <u>Public Utilities Commission</u> (PUC)
  - Regulates electricity, natural gas and telephone as a quasi-judicial body
- Minnesota <u>Department of Commerce</u>
  - Environmental review
  - Analysis of resource and distributions plans
- Executive Order <u>23-13</u> (Emergency Response)

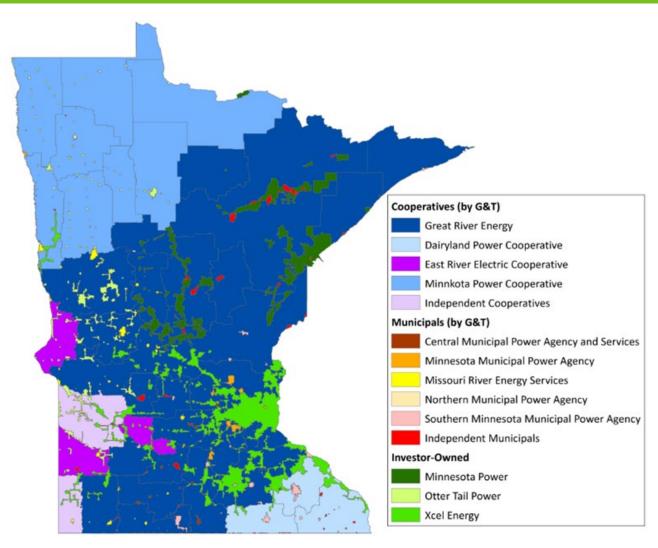
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### Electric System Interdependence



- Minnesota is part of a regional, national, and international electricity grid
- MISO is a regional transmission organization (RTO) that coordinates electricity transmission from Manitoba to the Gulf of Mexico
- MISO is regulated by the Federal Energy Regulatory Commission (FERC)

### Minnesota Utilities



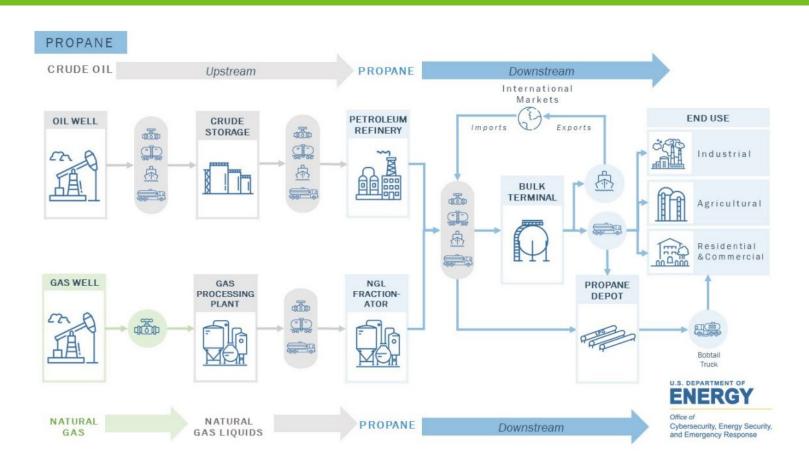
- 3 investor owned (public utilities)
- 44 electric distribution cooperatives served by 5 generation & transmission providers
- 125 electric municipal utilities mostly served by 5 municipal power agencies; approx. 30 independent municipal utilities

### Local Energy Planning and Resilience Needs?

#### A few ideas:

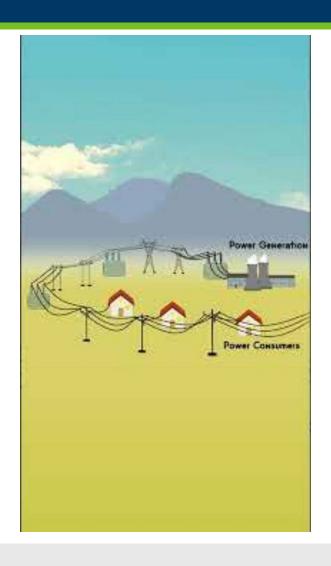
- Basic information about energy systems (electric grid, propane, natural gas)
- Overview of reliability and security
- Planning materials
  - Checklist or workbook
- In person or online
- Other?

### Example - Propane Supply Chain



State Energy Security Plan Optional Drop-In: Energy Supply Chain Diagrams

# Example of a short "explainer" video



What is a Power Grid?

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### Example: Simple planning checklist

List name and cell phone number:

# **Emergency management and related:**

- Community emergency manager
- County emergency manager
- HSEM regional representative
- Fire department
- Police and/or sheriff office

- Utilities:
- Electric
- Natural gas
- Propane
- Heating oil
- Telecommunications,
- Drinking water
- Wastewater
- Area Infrastructure:
- Pipelines
- Fuel terminals

#### **Planning questions**

Have you met all the key people?

Do they know each other? Meeting before an incident happens.

Does the local electric utility know what critical facilities are on a given feeder?

- What electricity feeders should be kept online if load is curtailed
- Restoration priorities
- Winter storm plowing priorities
- Propane or heating oil delivery in a weather emergency?

## Example Planning Toolkit (Alaska)

Primary Shelter Information					
Shelter		Location	Phone	Contact to OK Use and Open Shelter	
				Primary Name:	
				Number:	
Restrictions on use/availability, if any:				Backup Name:	
				Number:	
Bed Capacity	Number of	Number of	ADA Accessibility	Emergency	Kitchen
(15-20 sq ft/person)	Showers	Bathrooms		Power/ Generator	Facilities
			Yes □ No □	Yes □ No □	Yes 🗖 No 🗖

2013 Alaska <u>Small-Community-Emergency-Response-Plan-Toolkit-2013.11.26-PDF.pdf</u>

Alaska <u>2025 SCERP Toolkit.docx</u>



### **DISCUSSION**

THANK YOU!