Natural Gas Infrastructure:
A focus on safety, integrity, and deliverability

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Recognizing What’s Important: Safety
Natural Gas System Overview

Storage Field
Compressor Station
Production Well
City Gate
Odorant Station
Medium Pressure Regulator Station
Standard Pressure Regulator Station

Legend
- Valving
- Transmission Pressure
- High Press. Distribution
- Medium Press. Distribution
- Standard Press. Distribution

Customer Service
Fuel Lines 7" WC
Customer Meter
MP 2 - 60 PSI
MP 3 - 60 PSI
SP 6" - 14" WC

Additional Supply from other Gas Supplier
1000 - 1800 PSI

Essential part of the nation’s infrastructure
Safely Transported Across the Country

2.5 million miles of pipeline
Michigan well-positioned for interstate supply
Consumers Energy: Natural Gas

- 1.7 Million Customers
- 1.6 Million Services
- 27,500 Miles of Distribution Pipeline
- 2,447 Miles of Transmission Pipeline
- 7 Compressor Stations
- 9 Interconnects
- 15 Storage Fields
- 309 bcf of Storage Capacity
Consumers Energy: Gas Compression Overview

- 7 Compressor Stations
- 48 Active Engine/Compressor Units
- 157,939 Combined Horsepower
  - St Clair Upgrade Underway: 4,835HP
  - Freedom Upgrade Planned: 18,750HP
- Huron Distribution Compressor
  - 1100 HP compressor
  - First of its kind

Boosts the pressure to move gas, along with storage injection/withdraws
Consumers Energy operates the 5th largest LDC transmission system

- 2,447 Miles of Transmission Pipeline
  - 265 Miles of Storage
  - 1,592 Miles of Mainlines and Inlets
  - 590 Miles of Transmission Operated on the Distribution
- 75% was Installed Pre-1970
- 316 Miles within High Consequence Areas (HCA)
- 66% is “Piggable”
Gas Transmission: Risk Reduction Measures

- Pipe Replacement
- Inline Inspection and Remediation
- Pressure Reduction
- Hydro Test
- Direct Assessment
- Enhanced Cathodic Protection

Safety of Gas Transmission and Gathering Lines
Consumers Energy: Infrastructure Investments

Making Major Infrastructure Investments in Michigan....

- **Mid Michigan Pipeline**: $370 million
- **Freedom Pipeline**: $17 million
- **1200B Southwest Pipeline**: $86 million
- **White Pigeon Compressor Station**: $73 million
- **Huron Distribution Compressor Station**: $9 million
- **Ray Compressor Station**: $175 million
- **St. Clair Compressor Station**: $195 million
- **South Oakland Macomb Network**: $TBD
- **West Oakland Pipeline Phase 2**: $68 million
- **Saginaw Trail Pipeline**: $610 million
- **Freedom Compressor Station**: $~240 million
- **Distribution Infrastructure Replacement**: $370 million over 5 years (throughout gas territory)

... improve reliability and safety while reducing cost
Thank You

Holly Bowers
Ex. Dir of Geospatial & Gas Asset Management
Consumers Energy
holly.bowers@cmsenergy.com