### **Natural Gas - Fueling Missouri's Growth**

#### Jerry Morris - President & CEO Southern Star Central Gas Pipeline, Inc.

August 31, 2011



### **About** Southern Star Corporate Structure



### **Southern Star Overview**

#### **Summary of Business**

#### Central Overview <sup>(1)</sup>

#### Southern Star Central Pipeline Map

System Capacity

- 2.4 Bcf/day • System Storage
- 47 Bcf Capacity •
- 1.3 Bcf/d Deliverability • Supply Basins
- Anadarko, Rockies, Hugoton
- **Pipeline Interconnects**
- 23
- **Operating Locations**
- CO, KS, MO, NE, OK, TX, WY
- **Compressor Stations**
- 40
- Miles of Pipeline
- Approx. 5,900 Peak Day (2009-2010)
- 2.5 Bcf/d

1. Data as of March 31, 2011.





# **US Gas Supply to 2035**

Figure 2. U.S. natural gas production, 1990-2035 (trillion cubic feet per year)



Source: EIA Annual Energy Outlook 2011



### **Natural Gas Production Trends**

- EIA Annual Energy Outlook 2011 projects a larger resource base for natural gas, based on re-evaluation of shale gas and other resources and a more rapid rate of bringing new resources into production.
- AEO 2011 estimates US Recoverable Natural Gas Resources at 2,552 Tcf.
- Potential Gas Committee 2009 estimates US Recoverable Natural Gas Resources at 2,074 Tcf.
- This is 100+ years of Gas Supply in the US

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Source - http://www.eia.doe.gov/reports/ & http://tonto.eia.doe.gov/FTPROOT/monthlyhistory.htm



# **Southern Star Gas Supply**





## **The Role of Natural Gas for Power Generation**

EPA Clean Air Act addendum

- Cross-State Air Pollution Rule could lead to a 35% increase (7.0 Bcf/d) in gas demand from power by 2014 in the United States
- Midwest and Midcontinent regions could account for 2.4 Bcf/d of the total

Benefits of Natural Gas

- Immediate fuel source for quick start units
- Future emissions regulations
- Natural gas supply and reserve life
- Reliability



### **Missouri Generation Facilities**



Southern Star currently provides natural gas service to 2676 MW of power generation in Missouri

#### Kelson Energy

• Dogwood – Pleasant Hill, MO

#### Kansas City Power & Light

- Hawthorn Kansas City, MO
- Lake Road St. Joseph, MO
- Greenwood Greenwood, MO
- RG3 Pleasant Hill, MO
- South Harper Peculiar, MO

#### **Empire District Electric**

- State Line Joplin, MO
- Energy Center LaRussell, MO

#### City Utilities of Springfield

 James River, Southwest, McCartney





### **Southern Star Missouri Pipelines**

Pipeline in Missouri		872.72	Total Miles	
HCAs in Missouri		39.97	HCA Miles	
Assessments		HCA Miles	Total Miles	
<u>Assessments</u> Completed	Thru 2010	HCA Miles 35.03	<u>Total Miles</u> 400.33	
<u>Assessments</u> Completed	Thru 2010 2011			
		35.03	400.33	
	2011	35.03 2.54	400.33 56.80	
	2011	35.03 2.54	400.33 56.80	

Difference in Assessed HCA Miles and HCA Miles is a result of new HCAs due to be assessed after 2012. High Consequence areas as defined by PHMSA regulations.



### HCA Completed Assessments in Missouri

Line Name	HCA (mi)	Pipeline (mi)	Year	Assessment Type
47th Street	0.03	0.03 2004		РТ
Kansas City	0.06	0.06	2004	РТ
Carrollton	0.39	0.45	2006	DA
Sedalia 12"	0.34	0.95	2007	РТ
Sugar Creek	12.21	33.35	2007	ILI
Springfield	3.39	68.35 2008		ILI
Fairfax	0.00	2.39	2008	ILI
LJ to Conc	0.51	36.26	2008	ILI
River to Col	0.25	13.17	2008	ILI
Lac to EOL	4.40	21.30	2008	ILI
Carrollton	0.14	0.18	2008	РТ
Sedalia 12"	0.19	0.19	2008	РТ
Joplin 20" Loop	0.78	57.79	2009	ILI
Southern Trunk	0.00	2.69	2009	ILI
Col - Lac	0.79	70.78	2009	ILI
Carrollton	0.17	19.61	2009	ILI
Sedalia Loop	0.35	7.10	2009	ILI
East KC 20"	0.70	31.84	2009	ILI
St. Joe 8"	2.86	6.43	2009	DA
Total Assessed Miles	27.54	372.93		



### HCA Completed Assessments in Missouri (cont)

Line Name	НСА	Pipeline	Assessment Type	Year	Status
Joplin to Lone Elm 10"	872.1	10924	ш	2010	Completed
Rangeline 16"	26435.7	56244	ILI	2010	Completed
Joplin Airport 16" & 20"	7406.1	22410	ILI	2010	Completed
Sedalia 16" Loop	3409	25991	ILI	2010	Completed
Lexington 6"	889.1	9636	DA	2010	Completed
St. Joe 16" Loop #2	3434.1	19194	ILI	2010	Completed
St. Joe 8"	530	530	GWUT/Casing Removal	2010	Completed
Total Ft	39,542	144,929			
Total Miles	7.49	27.4			



### **2011 HCA Assessments**

Line Name	НСА	Pipeline	Assessment Type	Year	Status
16" to Empire State Line	1276.7	2000	Tethered ILI	2011	Completed
Cotton Valley - Saginaw 16"		41784	ILI	2011	Completed
Solar Chemical Plant 10 & 16"	2215.1	9464	DA	2011	In Progress
Joplin Gas Company 8 & 16"	2452.6	2493	Pressure Test	2011	Scheduled
Tartan 10"	2774.1	50154	ILI	2011	Completed
Arkla 20"	1698.3	182935	Ш	2011	Completed
16" Line to DR Setting	1087	1087	Pressure Test	2011	Scheduled
Total Ft	13,423	299,896			
Total Miles	2.54	56.80			





# Homeowners & Contractors-Know what's below. Call before you dig.

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## **Our Role in the Future**

- Partner and Grow Markets for Natural Gas Power Generation
- Provide Safe & Reliable Natural Gas Transportation
- Focus on Incremental Gas Supply Opportunities



CENTRAL GAS PIPELIN