

**Ten Year Assessment  
of  
Steel Line Pipe Availability  
in  
North America**

INGAA Foundation Midyear Meeting  
April 20, 2006

# Demand Segments for Steel Line Pipe

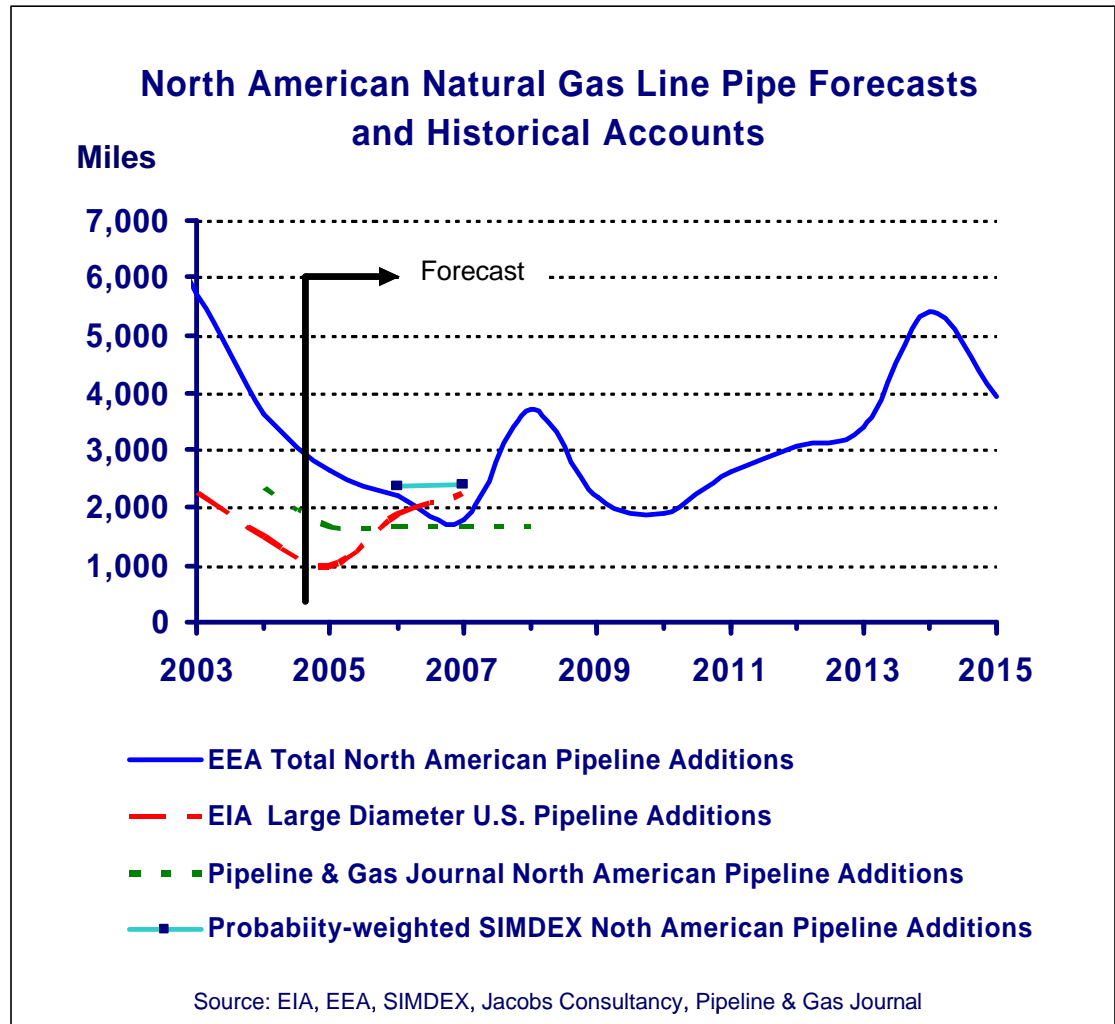
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1. New gas transmission lines
2. Replacement gas transmission lines
3. Liquids pipelines (crude, refined products)
4. Structural uses

# Drivers for Gas Transmission Pipe Installation

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1. End use demand growth
2. Connecting gas supply sources
  - Producing basins
  - New LNG terminals
3. Pipeline replacements
4. New “competitive advantage” projects



# North America Line Pipe Producers

## ERW Producers Up to 24" OD

<u>Company</u>	<u>Production Capacity (tons/year)</u>
American Steel Pipe	220,000
Ipsco	300,000
Stupp Corp.	225,000
Tubacero	190,000
Camrose	<u>140,000</u>
Sub Total	1,075,000

## DSAW Producers -- 24" and Up

<u>Company</u>	<u>Production Capacity (tons/year)</u>
Berg Pipe	480,000
Camrose Pipe	180,000
Durabond	200,000
Ipsco	300,000
Oregon Steel Pipe	170,000
SAW Pipes	500,000
Tubacero	<u>190,000</u>
Sub Total	2,020,000
<b>Grand Total</b>	<b>3,095,000</b>

# North America Line Pipe Annual Capacity in Miles

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ERW – up to 24” --	3900 miles
DSAW – 24” and up --	<u>3200 miles</u>
Total	7100 miles

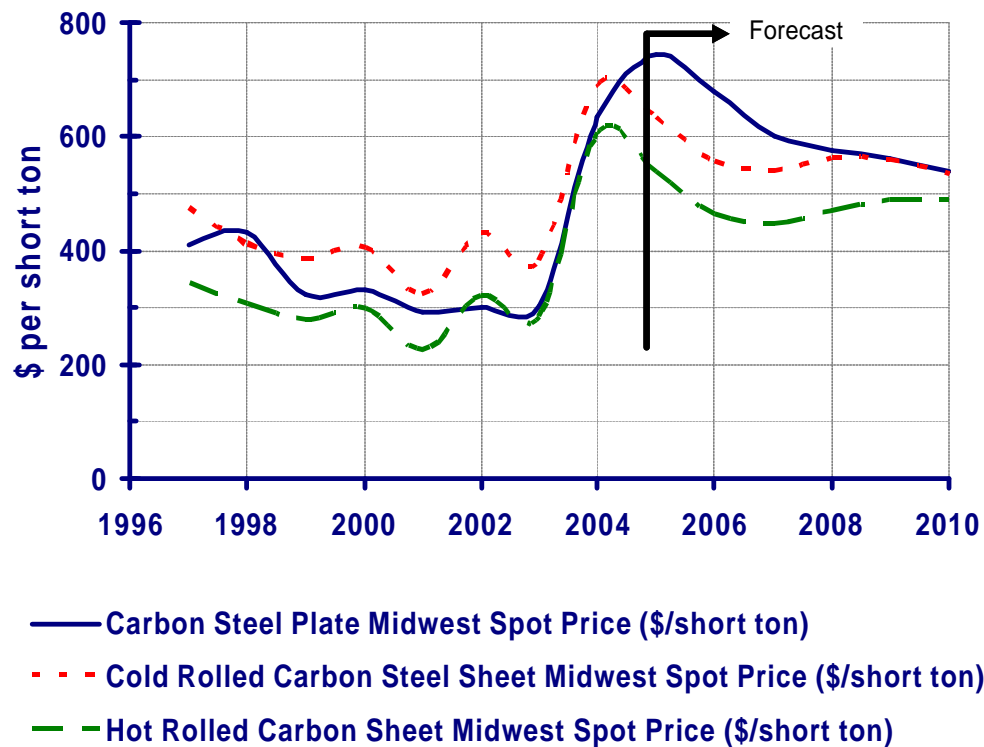
# Simdex Data Base of Pipeline Projects

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2006 – 2010  
(miles)

	<u>Up to 24”</u>	<u>Greater than 24”</u>
Raw Simdex Data	2,836	17,928
“Jacobs Weighted” Simdex Data	2,273	8,767
North America Annual Capacity	3900	3200

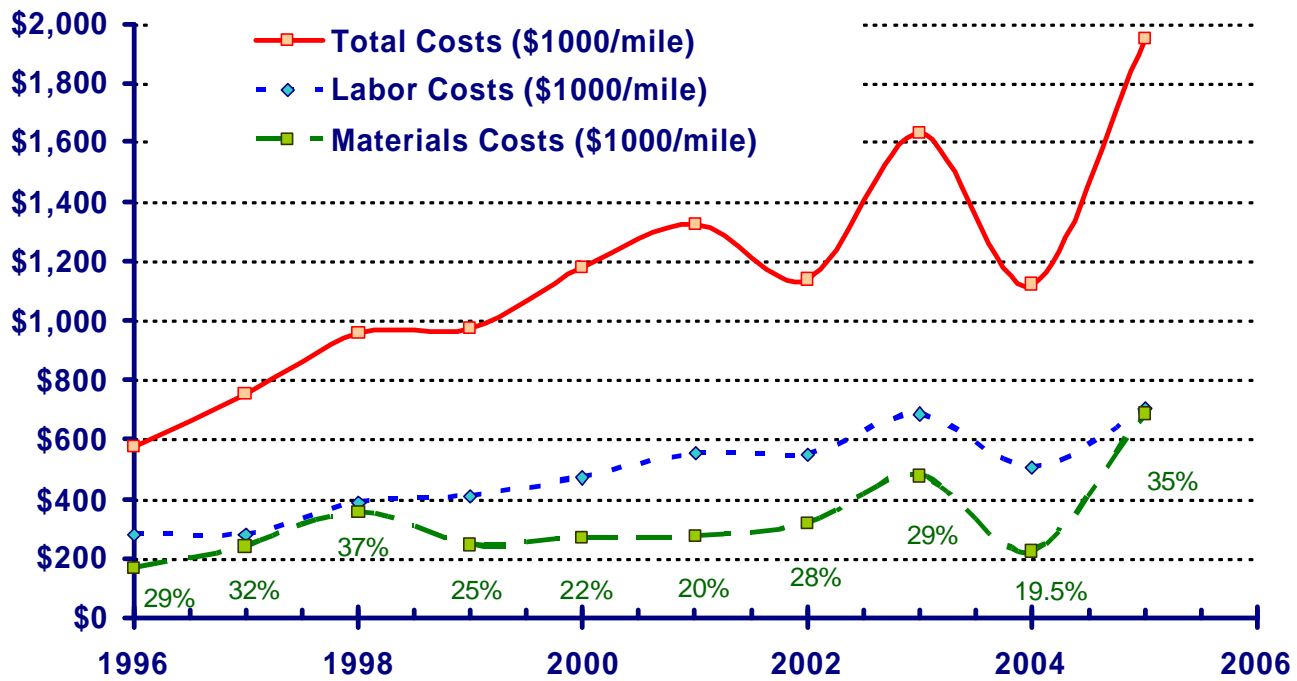
## North American Steel Flat Products Projected to Decline Slowly



Source: Global Insights, Jacobs Consultancy

## U.S. Nat Gas Land Pipe Construction Costs (\$1000/mile)

[%'s indicate fraction of total costs due to materials]



Source: US FERC, Oil & Gas Journal

<b>Cheyenne Plains Gas Pipeline Company LLC Total Project Costs (\$-millions)</b>	
<b>Description</b>	<b>Actual Cost as of 8/5/2005</b>
Right of Way	\$9.2
Damages	2.2
Survey	4.2
Mainline Pipe	145.3
Compressors	16.9
Other Materials	28.7
Labor	118.3
Inspection and Engineering	<u>17.7</u>
Total Direct Costs	342.3
Overheads	5.3
AFUDC	<u>10.2</u>
Total Project Cost	\$357.8

