

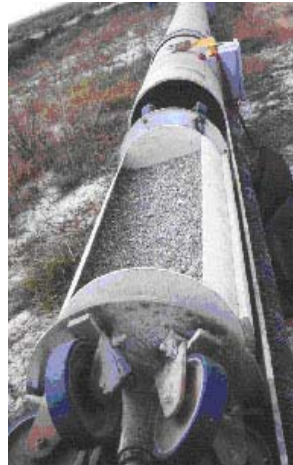
Electromagnetic Coal-Transport Pipeline

First Commercial Operation

Erdos, Inner Mongolia 2009



Mine



Pipeline



Power Plant

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The Business Opportunity

- China Produces over 2B Metric Tons of Coal a Year, US 1B
- In China, Transportation of Coal from Mines to Power Plants and Rail Heads is done primarily with Trucks: Expensive, Polluting, Unsafe
- Magplane has Demonstrated Magnetic Pipeline (MagPipe) Technology in the United States that is more Economical than Trucks.
- US Market not Likely to Accept MagPipe for Coal Transport Until System First in use Elsewhere
- Inner Mongolia (IM) has Officially Embraced the MagPipe as a Solution to its Growing Coal Transportation Problem.
- IM Backed Joint Venture Underway Developing Pre-Production MagPipe System in Baotou Inner Mongolia
- China first, then US Applications



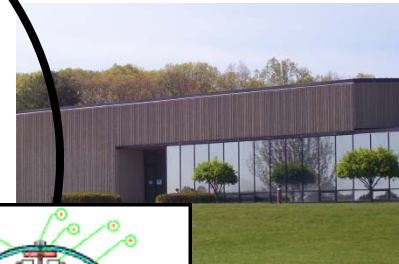
US - China Joint Venture

Inner Mongolia Market

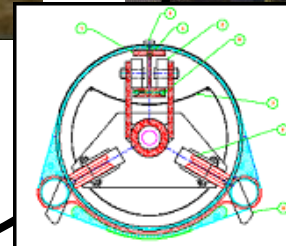
CHINA



US



*Magnetic Pipeline
System
(Magpipe)*



- Manufacturing
 - Vehicle
 - Motors
 - Power Electronics
 - System
- Rare Earth Magnets
- China Market

- Design
- Design Improvements
- Global Control System
- US Market

Demonstrated Technology

MagPipe Integrated System



Pipeline
Standard Pipe



Capsules
*NbFeB Permanent
Magnets*

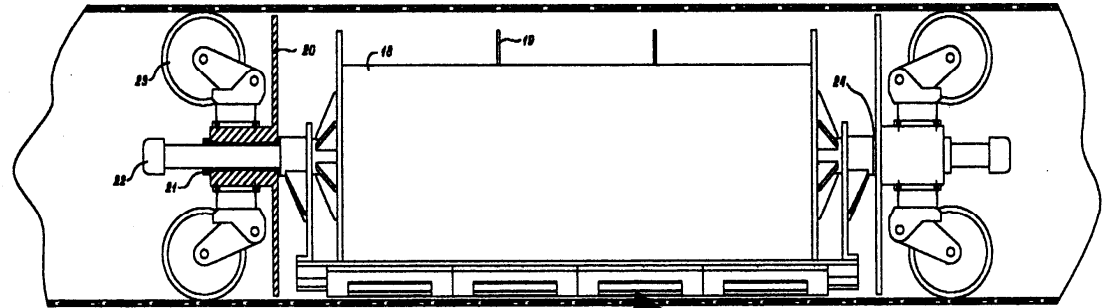
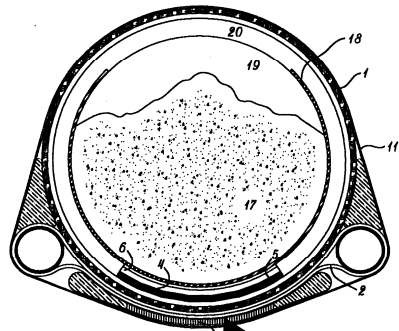


Power
Electronics/Controls
Robust Solid State

- *610 mm Pipeline Diameter 300 kg Payload of Phosphate Rock/Capsule*
- *Electromagnetic Propulsion at 65 km/hr*
- *275 m Pipeline Length*



Electromagnetic Propulsion of Multiple Capsules Continuous Automatic Operation



Periodically Spaced
Motor Windings

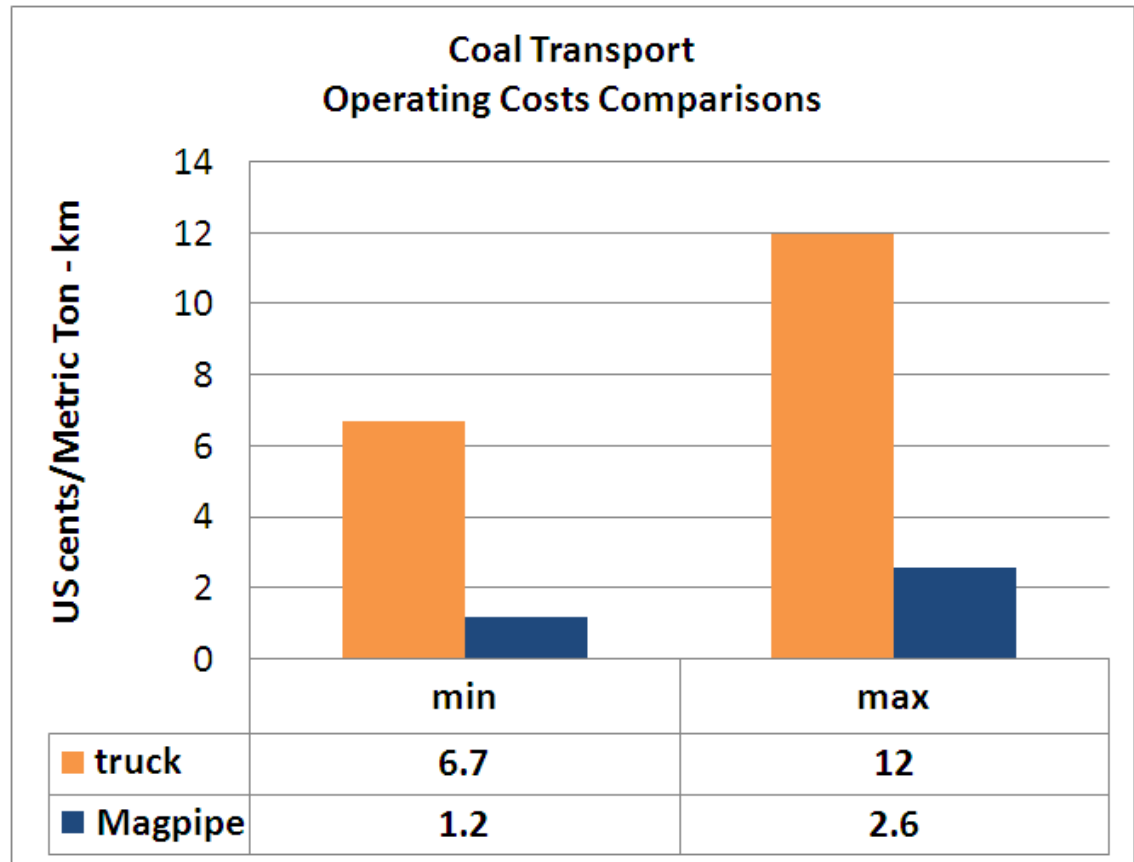
• Solid State
Power
Electronics

• Fault Tolerant
Wireless
Control

High Flux Permanent
Magnet Array



MagPipe Cost Competiveness



One Meter Diameter System has Capacity up to 10 Million Metric tons/year



Summary – MagPipe Perspective

- Coal Transportation is Imperative to Power Inner Mongolia's (IM) Revenue and Infrastructure
- Magplane Pipelines Can Transport Coal Significantly More Economically and Environmental Friendly than Trucks
- Proven/Demonstrated Technology
- PRC (China) Government and Private Funding
- Pre-Production System Complete in IM by early 2009.
- Commercial Sales in China by 2009, US by 2010