

# Kinder Morgan: Leader in Energy Infrastructure

Note: Mileage and volumes are company-wide per 2019 budget.

## Largest natural gas transmission network

- ~70,000 miles of natural gas pipelines
- Connected to every important U.S. natural gas resource play and key demand centers
- Move ~40% of natural gas consumed in the U.S.

## Largest independent transporter of refined products

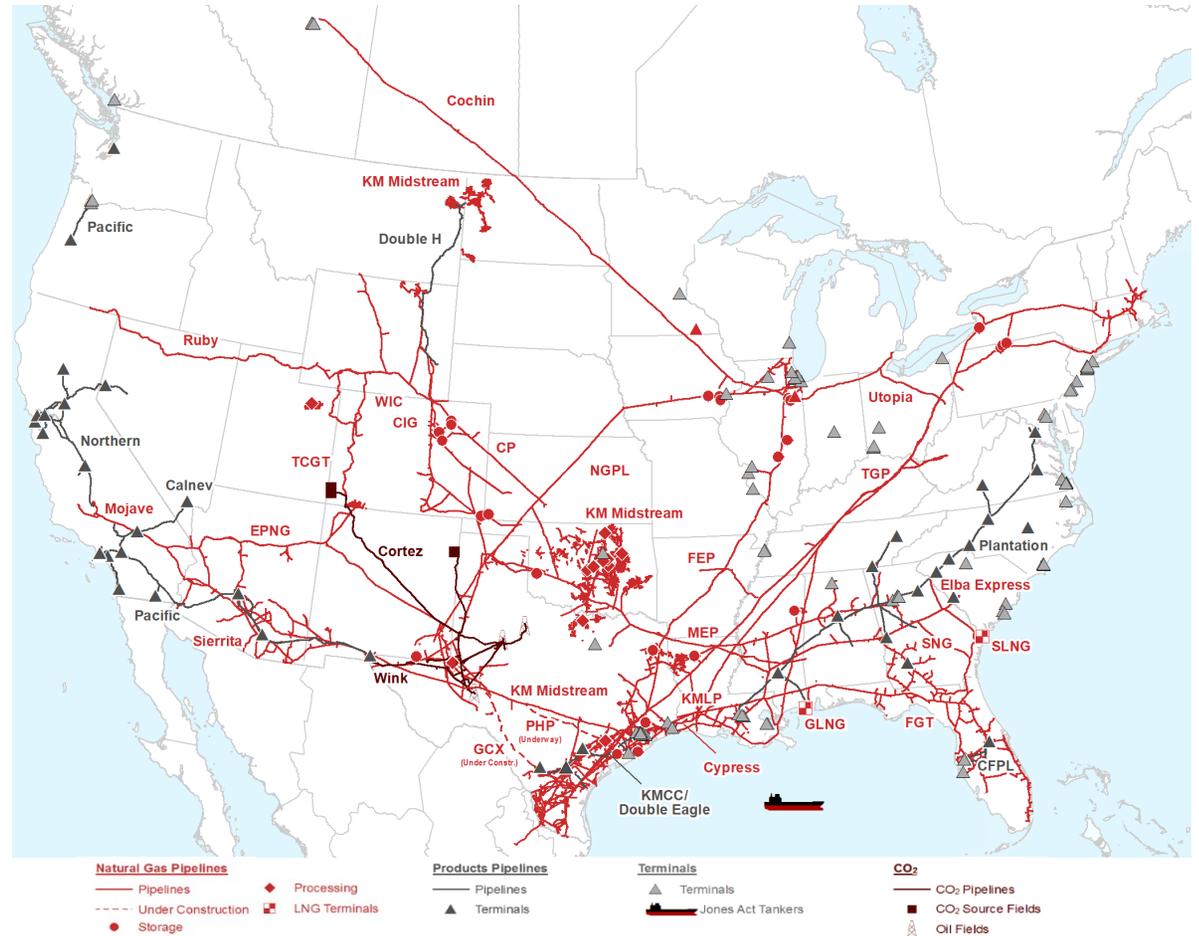
- Transport ~1.7 mmbbl/d of refined products
- ~6,900 miles of refined products pipelines
- ~5,800 miles of other liquids pipelines (crude and natural gas liquids)

## Largest independent terminal operator

- 157 terminals

## Largest transporter of CO<sub>2</sub>

- Transport ~1.2 Bcfd of CO<sub>2</sub>



# Kinder Morgan – Decades of Commitment to Methane Reductions



- Charter Partner of EPA's Natural Gas STAR Program: 1993 to present
  - Many innovative technologies and practices resulted from the program
- A Founding Member of the ONE Future Coalition in 2014
- A Charter Partner of EPA's Natural Gas STAR Methane Challenge Program – ONE Future Option in 2016
  - KM committed to a methane emission intensity target of 0.31% across our transmission and storage operations by 2025.
  - First reporting year of 2017, KM achieved a methane emission intensity of 0.04%
  - **Additional years of methane emission reductions and methane emission intensities need to be collected to better understand the trends and targets.**
  - **Continuous Improvement: ONE Future's methane management approach aligns with Kinder Morgan's Operations Management Systems (OMS) philosophy.**

# Kinder Morgan – Methane Reduction Programs Timeline (2015 to present)



- 2015: As part of ONE Future, began collaborating with EPA on their Methane Challenge program to include a ONE Future option
- 2016: EPA finalized the Methane Challenge-ONE Future option in August
- January 1, 2017: Official start date of Kinder Morgan's commitments under Methane Challenge
- 2017: Rollout of Methane Challenge tools and tracking systems to be used by stakeholders within Kinder Morgan: leak survey and repair spreadsheets, leak tracking database, gas loss minimization form
- 2017: Updating emission reporting tools for tracking and reporting methane reductions
- 2018: Finalize and rollout internal policy and procedure
- 2019 and beyond: Review progress, analyze data, refine process and procedures

# Current Methane Reduction Activities and Continuous Improvement

- ONE Future-Methane Challenge Commitments include:
  - Leak detection & repair at T&S stations (All stations annually by 2021)
  - Reduction of Transmission Pipeline Blowdown volumes
    - Pipeline pump downs and compression sleeves
  - Other technologies & work practices on case-by-case basis
- Internal Written Procedure
- Training and guidance
- Third year of program: Continues to evolve
- Continuous Improvement: always seek opportunities to make improvements
  - Continue communicating the program up and down the chain of command
  - Improvements with data collection & management tools
  - Get feedback from internal stakeholders/customers
  - Prioritization of leaks and repair activities
  - Implement lessons learned
  - Analyze and communicate data collected, identify trends, inform future decision-making, identify other opportunities to reduce