



WE MAKE CLEAN ENERGY HAPPEN®

Breakthroughs in Carbon Management & Emissions Reduction

ECOS Fall Meeting – August 28, 2023

Introduction to Williams

Williams:

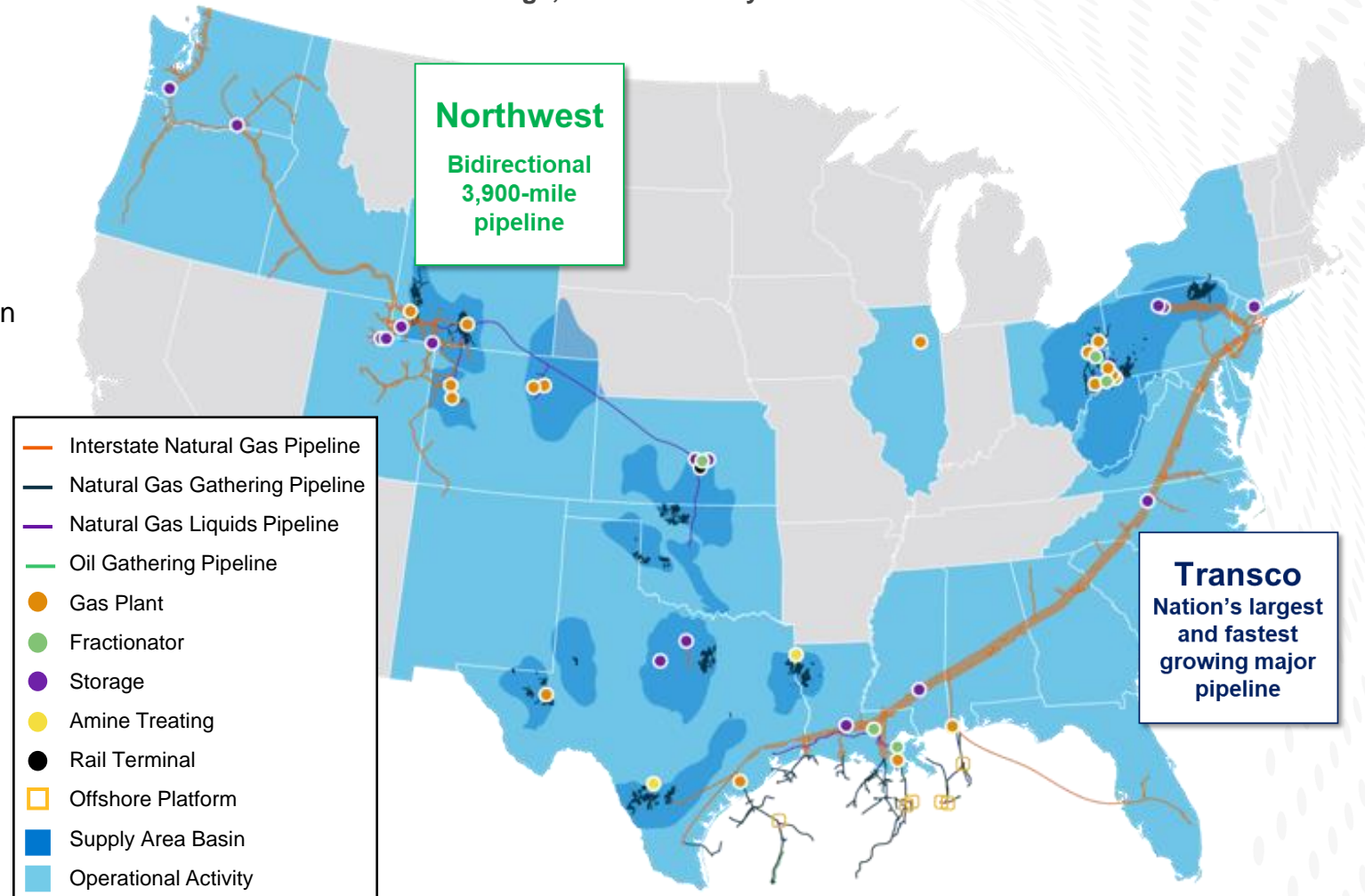
- Assets serve **14 key supply areas**
- Handle **~33% of US natural gas**
- Wellhead to Water/End-User connectivity in the lowest emissions basins

New Energy Ventures:

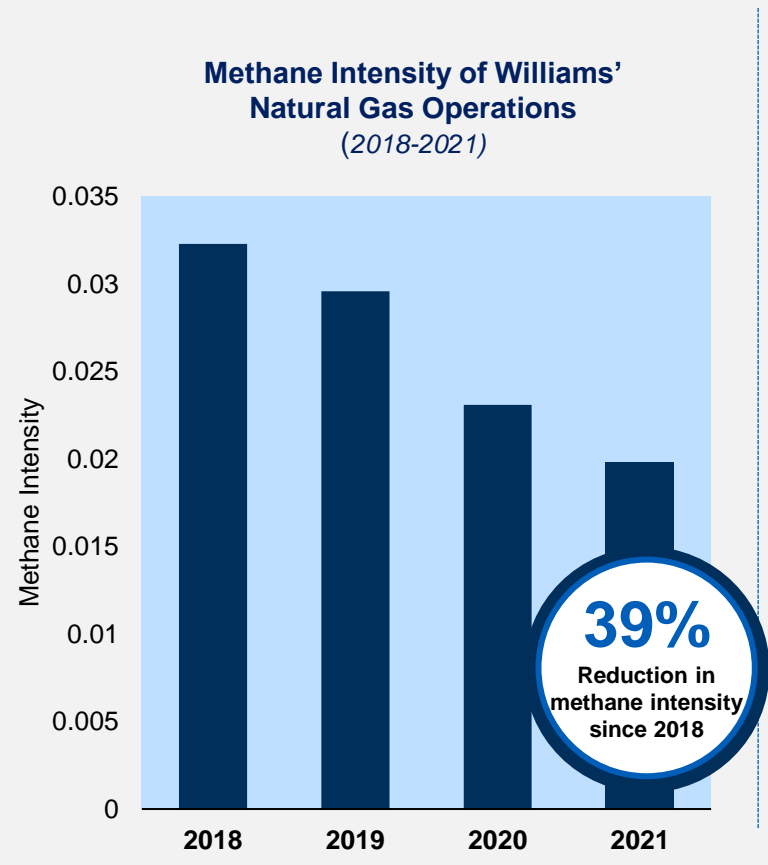
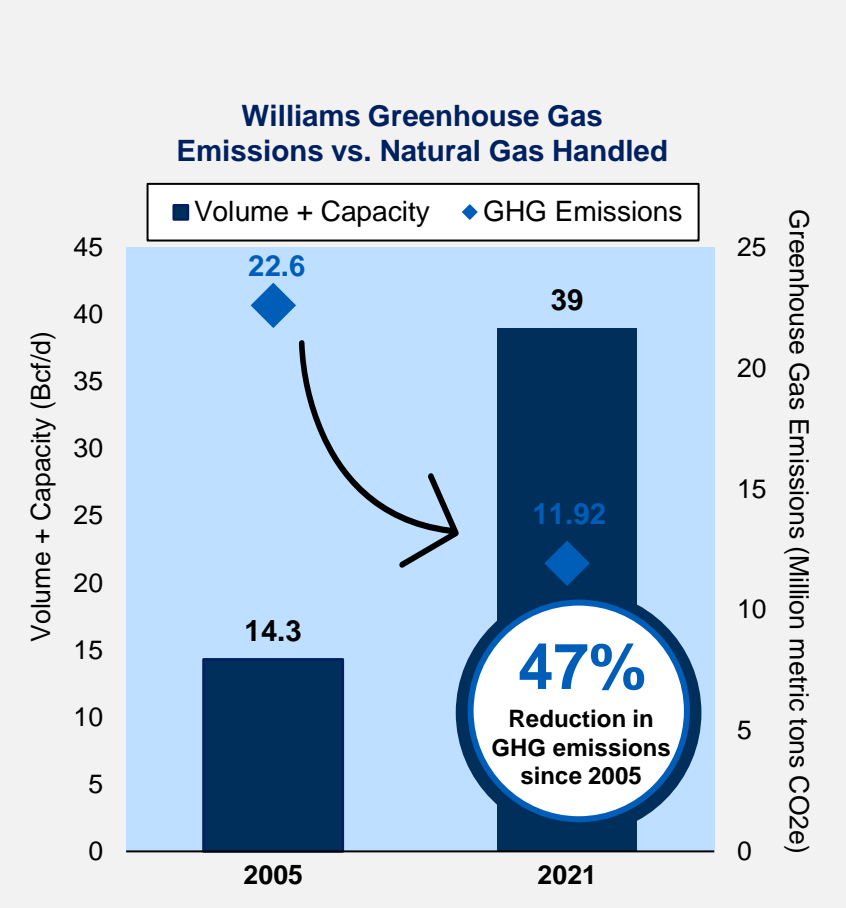
- Business development team dedicated to decarbonization opportunities:
 - Low Carbon Products
 - Solar & Battery
 - Carbon Capture & Sequestration (CCS)
 - Hydrogen



Williams acquired MountainWest Natural Gas Transmission and Storage Business from Southwest Gas Holdings, Inc. in February 2023



Williams' Climate Commitment



Williams' Climate Commitment

- **56% absolute reduction** in company-wide GHG emissions by 2030 compared to 2005
- **Net Zero** by 2050

Emissions down while business grows

Since 2005:

- Reduced GHG emissions **47%**
- Transmission capacity up over **140%**
- Gathering volumes up nearly **4.5x**

Since 2018:

- Improved methane intensity **39%**
- Transmission capacity up **20%**
- Gathering volumes up nearly **11%**

Implementing operating practices focused on safety and emissions reductions

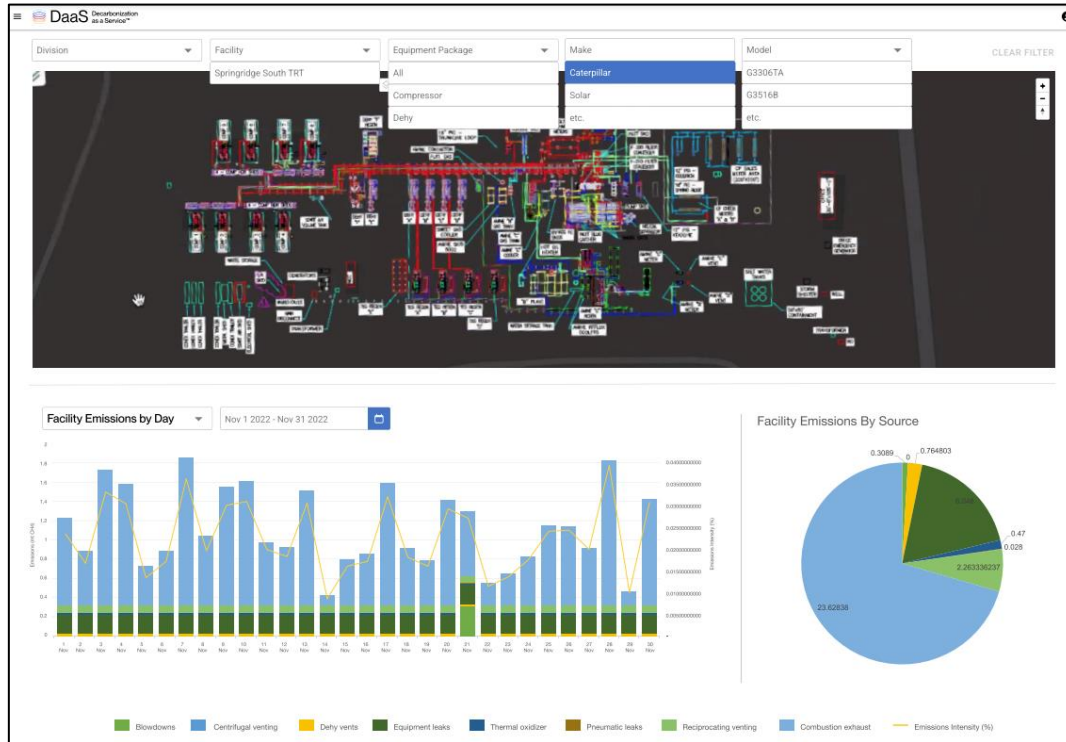


Modernizing equipment and investing in new technologies



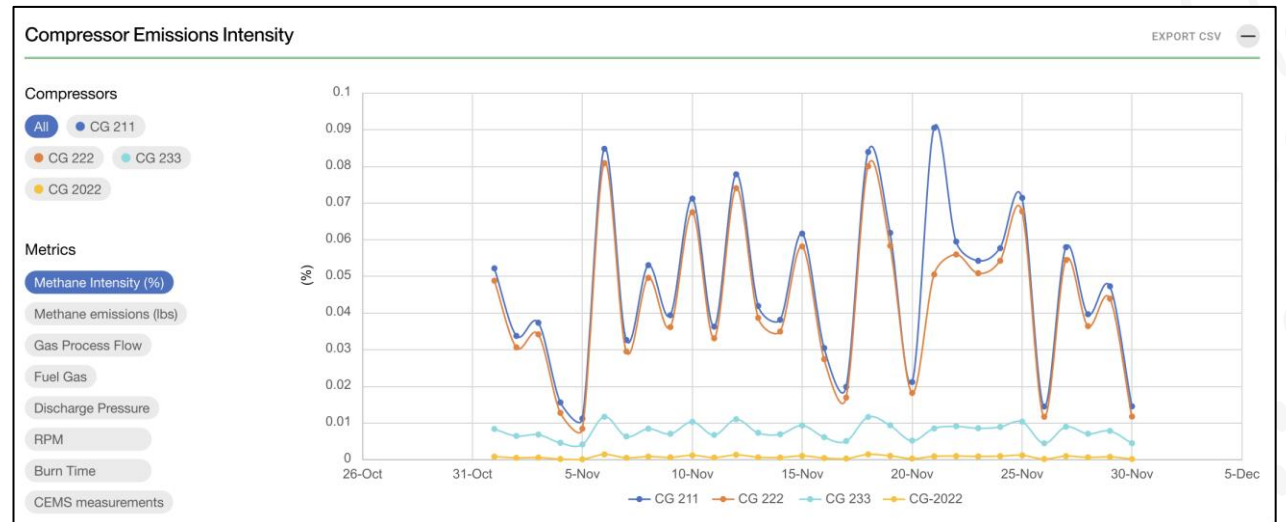
Improving overall operations efficiency

Enterprise Wide GHG Mitigation and Real-Time Operationalization



- Use **multiple** technologies and data sources (top-down and bottom-up) to detect, quantify, and reduce emissions
- Founded upon **measurement informed emission calculations**
- A **Facilities Dashboard** provides visual view of potential leak sources and associated emission intensity by equipment
 - Near real-time emissions quantification, combining source-level measurement with SCADA data
 - Daily / monthly emissions are categorized by equipment and by source type for each facility
 - Organize and consolidate emissions performance to compare equipment and prioritize emissions reduction opportunities across the system

Example: Compressor Emissions Intensity For A Given Facility



Natural Gas will be the Key to Meeting Future Energy Demand

Clean

- **Support climate goals:** replace emission intensive energy sources with clean burning natural gas
- **Ease of transport:** strong network of domestic infrastructure; rapidly expanding export infrastructure



Affordable

- **Low cost:** not reliant on subsidies
- **Efficient:** uses substantial infrastructure already in place
- **Economic:** cost-competitive to other fuel sources

Reliable

- **Dependable:** proven in periods of renewable electricity intermittency
- **Available:** ample reserves both domestically and internationally
- **Dispatchable:** very best solution for back-up power generation