

# 26<sup>th</sup> World Gas Conference

1 – 5 June 2015, Paris, France



## *TS. WOC 2.1*

Promise Delivered:

Examining Trends in United States Natural Gas Underground Storage Utilization

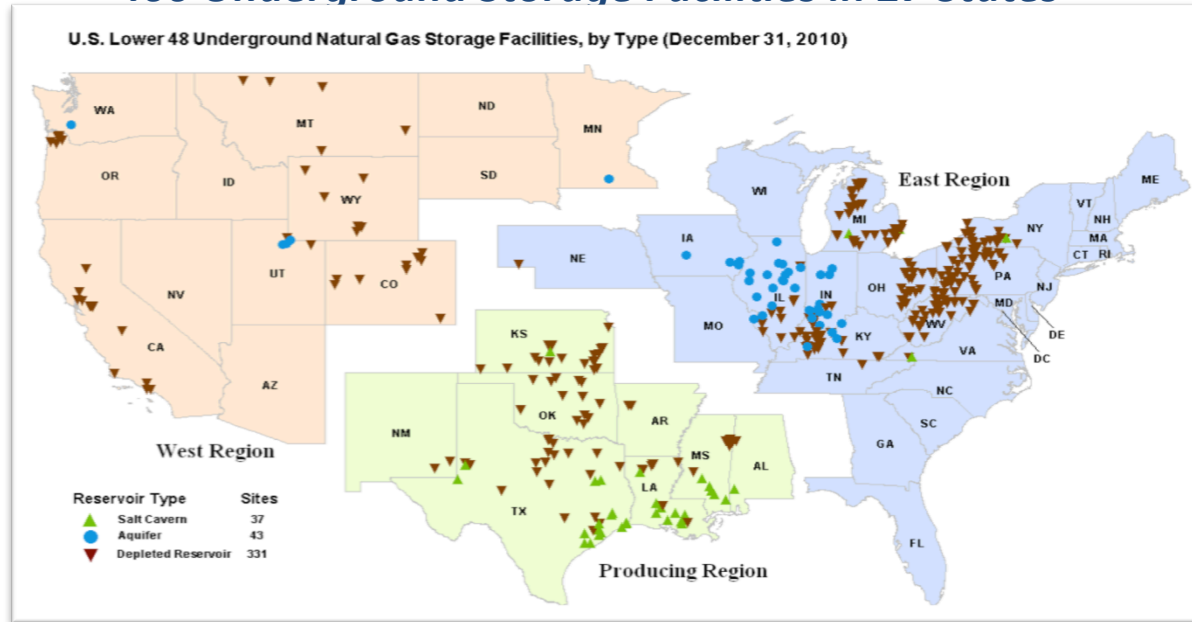
John Heer

CenterPoint Energy



# United States – Underground Storage

## 400 Underground Storage Facilities in 27 States



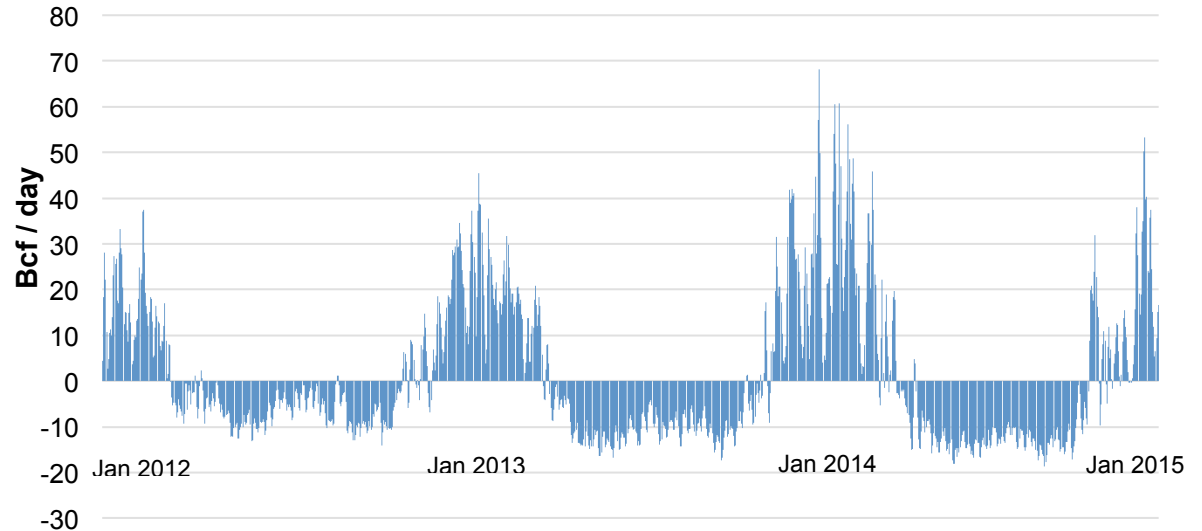
\* Source: U.S. Energy Information Administration, Form EIA-191A, "Annual Underground Storage Report"

*United States Underground Storage is large, diverse and highly effective in meeting customer and system integrity demands.*

# Trends in US Storage

- **Historically**
  - Injection early in year
  - Constant May through September
- **Current**
  - Infrastructure investments & production increases have increased storage flexibility
  - Summer net injections influenced by demand from power generation

## Net Daily Change in Natural Gas in Underground Storage



*Traditional summer injection volumes and winter withdrawal volumes are evolving as market demands shift.*

# Operator Experiences

- US local distribution gas companies (LDC) both own & contract storage volumes
- Storage relationship to the entire LDC supply portfolio
- Storage provides price hedging
- Important tool for operating flexibility
  - Monthly, Daily and Hourly
- CNP delivers gas in Northern and Southern US cities
  - Similarities and differences
- US regional experiences 2013/2014 to 2014/2015

*Storage is integral to reliable cost effective supplies*

# Power Generation

- **Historical**

- Low summer demand
- Pricing matches demand

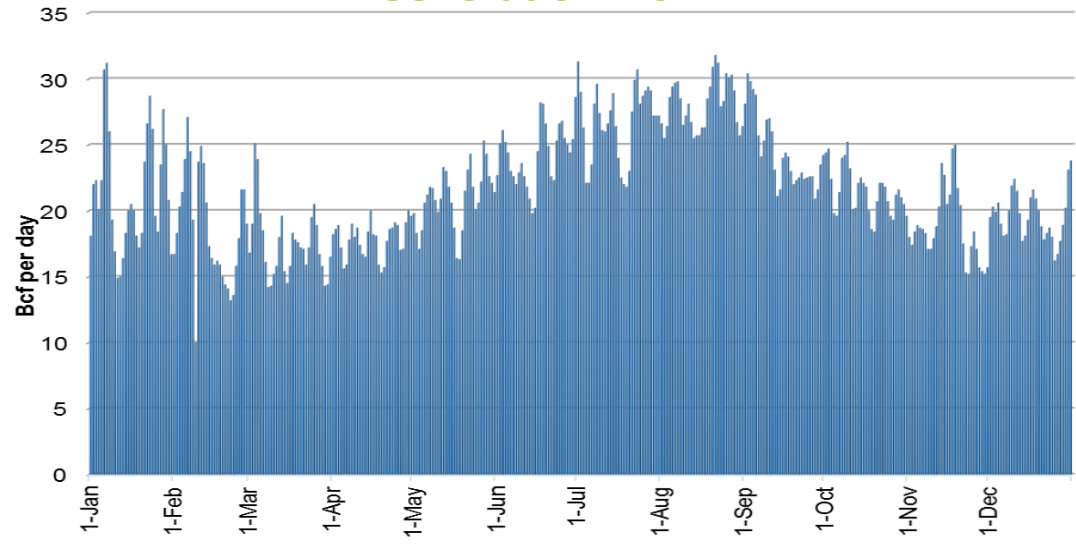
- **Recent Past**

- Power Generation
- Summer Cooling
- Increases in Pricing

- **Current**

- Combined winter and summer seasonal natural gas demand

## Natural Gas to Power Generation: 2014



*Summer cooling loads have added a second seasonal cycle to U.S. storage demands.*

# US Natural Gas Production

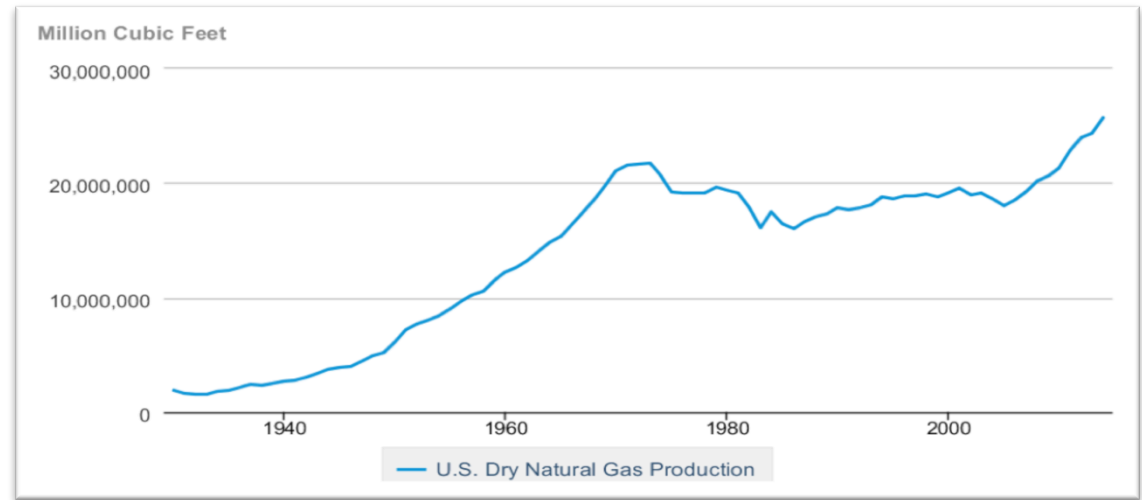
## ■ Market Elements

- Consistent strong production meets demand but also needs to be stored when demand is low

## ■ Not just Storage

- Strong domestic production and valuable storage assets make for supply reliability

## U.S. Dry Natural Gas Production



\* Source: U.S. Energy Information Administration

*The influence of storage assets on natural gas markets and physical system reliability does not end with the completion of a winter heating season.*