“How Driving Methane Emissions Reductions Enhances Safety”

Faye Gerard, Regulatory Compliance and Environmental Manager
BPX Dual energy challenge

Global energy demand to rise by a third
Population to hit 9 billion

RISING MIDDLE CLASS

FEWER EMISSIONS ESSENTIAL TO TACKLE CLIMATE CHANGE
Paris aims for net zero emissions within the second half of the century
Keep the lights on
14.5% Increase in renewables in 2018
IEA Sustainable Development Scenario Shows Oil Demand at 70 Mbd in 2040

Three Scenarios for World Demand and OPEC Market Share

- **World Oil Demand**
  - CPS
  - NPS
  - SDS

- **OPEC Market Share**
  - CPS
  - NPS
  - SDS

Source: IEA
Lightsouce BP
BPX Energy Business Overview

BPX Energy Post-Deal

Current production 500 mboed (27% liquids)

Resources 12.7 bn boe (35% liquids)

Acres 6.3 m

Drilling locations 11,600 (37% liquids)

Planned Divestments

Wamsutter
San Juan
Woodford
Anadarko
Permian Delaware
Haynesville
Eagle Ford

Combined drilling inventory

Cumulative well count

After-tax IRR (1)

BPX Energy
BHP US Onshore assets

Operated wells

BPX Energy before acquisition (2018)
3,500

BPX Energy post-integration (2021)
9,400

Basins
6
3

Capital budget
~$950m
~$2.5bn

Production (mboed)
315
~500

Oil % of production mix
~5%
~25%

(1) Calculated at $2.75 Henry Hub
2 Million MT CO₂e since 1999

1999
- Used enhanced automation to reduce methane emissions during a process in which we periodically remove fluids that have accumulated in a well.

2000
- Developed a technique known as plugging completions that captures gases that would otherwise be flared or vented as wells are completed. Began programme to replace high-voltage controllers with ones that emit less methane.

2001
- Began tracking sustainable greenhouse gas reduction activities in our operations.

2008
- Introduced a carbon price in our investment decisions for certain large projects.

2014
- Completions of first multilateral well. Drilling multiple horizontal wells from an existing wellbore reduces equipment and drilling individual wells from multiple well pads. This reduces the potential for leaks from equipment.

2017
- Trained the use of drones and in-suite mounted laser scanners to detect and quantify methane leaks.

2018
- Began using solar pumps instead of gas pneumatic pumps for thermal injection. Received completion of the programme we started in 2009 to replace 13,000 high-voltage controllers.
Replaced over 10,000 high bleed pneumatic controllers
Solar heat trace pumps
Drone leak detection
Augmented Reality Technologies
Our goals are simply stated. No accidents, no harm to people, and no damage to the environment.
BPX Dual energy challenge

Global energy demand to rise by a third
Population to hit 9 billion
RISING MIDDLE CLASS

FEWER EMISSIONS ESSENTIAL TO TACKLE CLIMATE CHANGE
Paris aims for net zero emissions within the second half of the century