

January 16, 2020

The Environmental Partnership

**Rocky Mountain EHS Peer
Group**



The Environmental Partnership

Mission

Continuously improve the industry's environmental performance by taking action, learning about best practices and technologies, and fostering collaboration in order to responsibly develop our nation's essential oil and natural gas resources.



Three Program Principles

Take Action

- Companies implement environmental performance programs that are cost-effective, commercially proven, and achieve significant emissions reductions

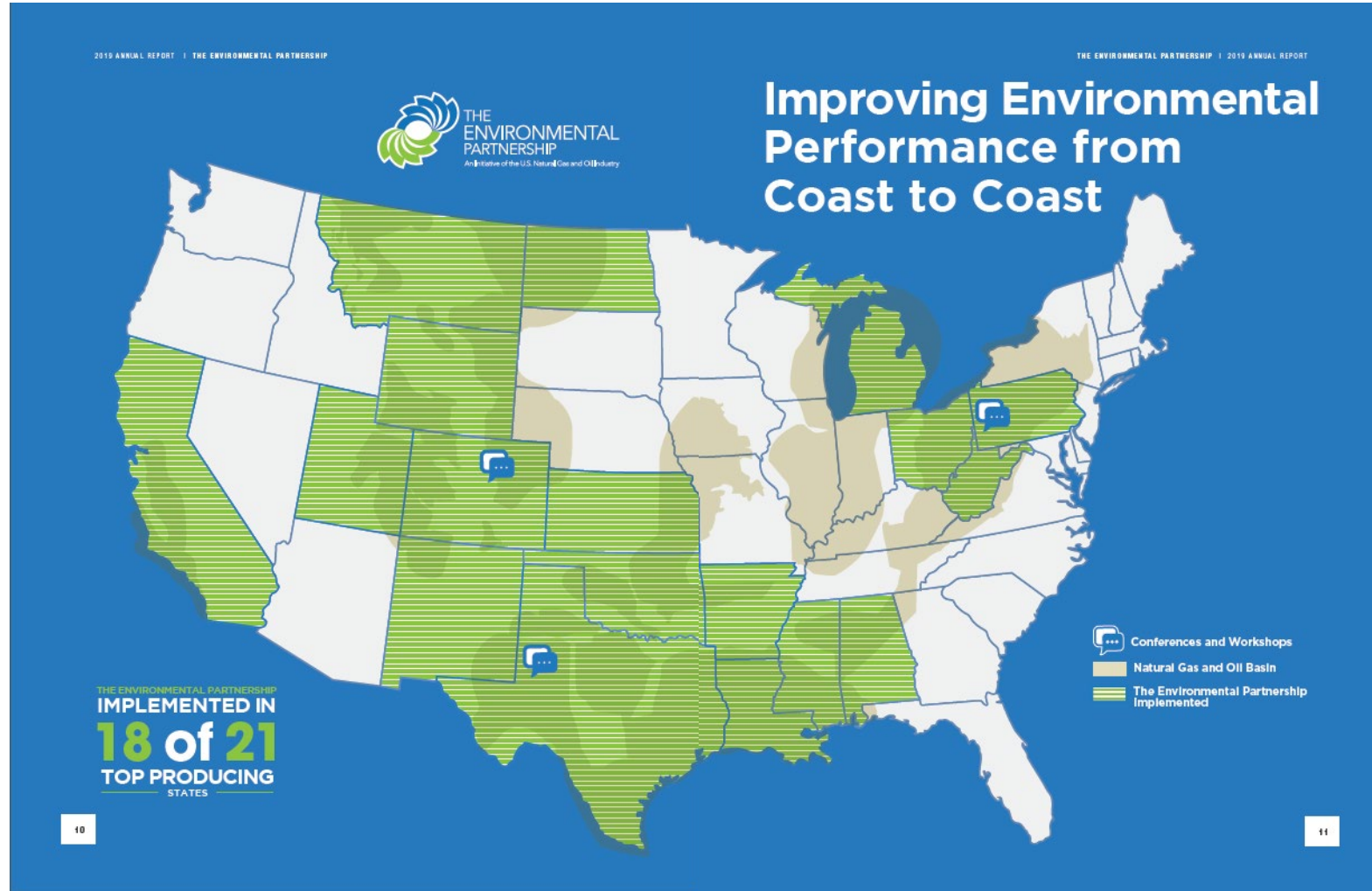
Learn

- Host industry workshops to foster operator-to-operator information sharing about best practices and new technologies

Collaborate

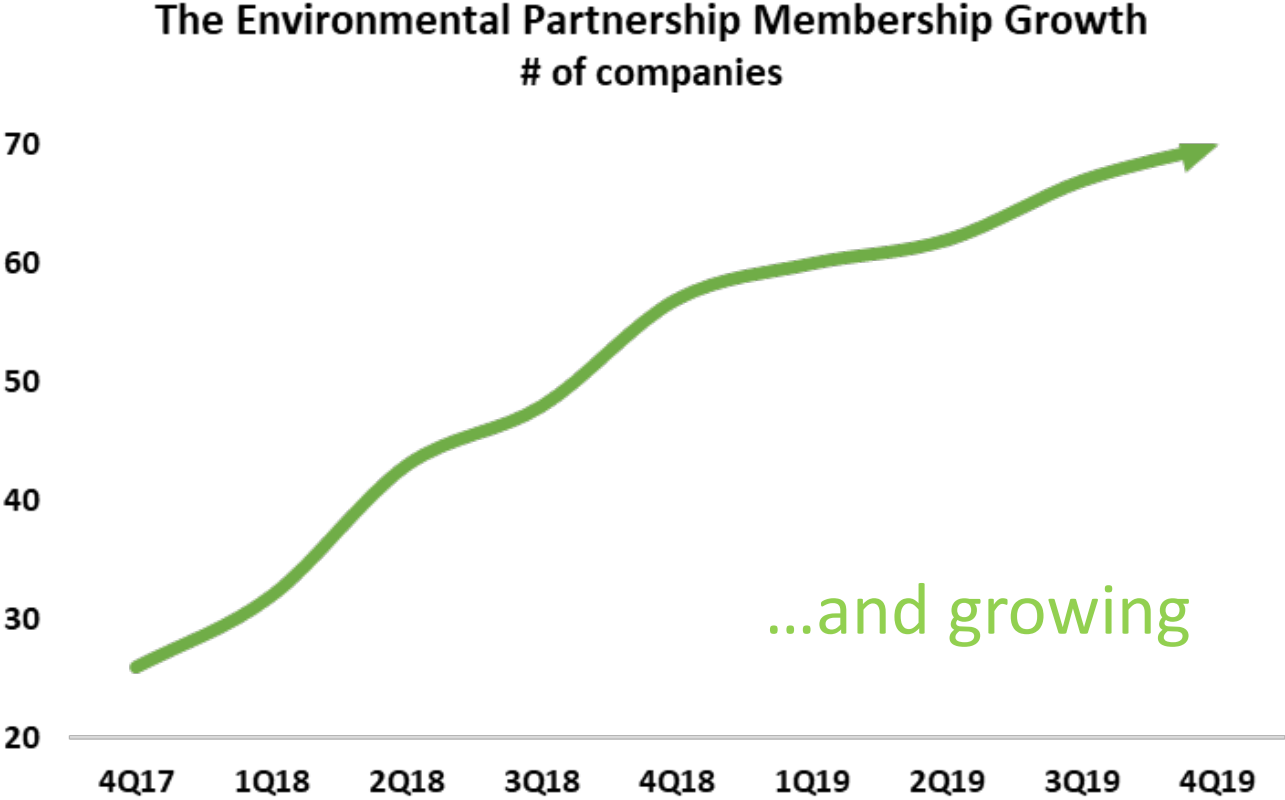
- Host conferences to promote dialogue with stakeholder groups to share information on new academic research, program learnings, and new technological developments

Building Broad & Diverse Participation



Continued Focus on Recruitment

The Partnership has more than doubled to 69 companies



69 Participating Companies Currently

1. Aera Energy
2. Aethon Energy
3. Alta Resources
4. American Petroleum Partners
5. Antero Resources
6. Apache
7. Ascent Resources
8. BHP
9. BP
10. Cabot Oil and Gas
11. California Resources Corporation
12. Callon Petroleum
13. Chesapeake
14. Chevron
15. Cimarex
16. ConocoPhillips
17. Continental Resources
18. CrownQuest
19. Denbury Resources
20. Devon
21. Encana
22. Enerplus
23. EOG Resources
24. EQT
25. Equinor
26. Equitrans Midstream
27. Extraction Oil & Gas
28. ExxonMobil
29. Fieldwood Energy
30. Flywheel Energy
31. Gulfport Energy
32. Hess
33. HighPoint Resources
34. Hunt Oil Company
35. Indigo
36. JKLM Energy
37. Lime Rock Resources
38. Marathon Oil
39. Murphy Oil
40. Noble Energy
41. Oasis Petroleum
42. Occidental Petroleum
43. Olympus Energy
44. Parsley Energy
45. PDC Energy
46. Penn General Energy
47. PennEnergy Resources
48. Pioneer Natural Resources
49. QEP Resources
50. Range Resources
51. Red Bluff Resources
52. Repsol
53. Riviera Resources
54. Sable Permian Resources
55. Seneca Resources
56. Sequitur Energy
57. Shell
58. SM Energy
59. Southwestern
60. Summit Discovery Resources
61. Surge Energy
62. Tallgrass Energy
63. Total
64. Trinity Operating
65. Warwick Energy
66. Western Gas
67. Whiting Petroleum
68. WPX Energy
69. XTO Energy

The Environmental Partnership

Taking Action

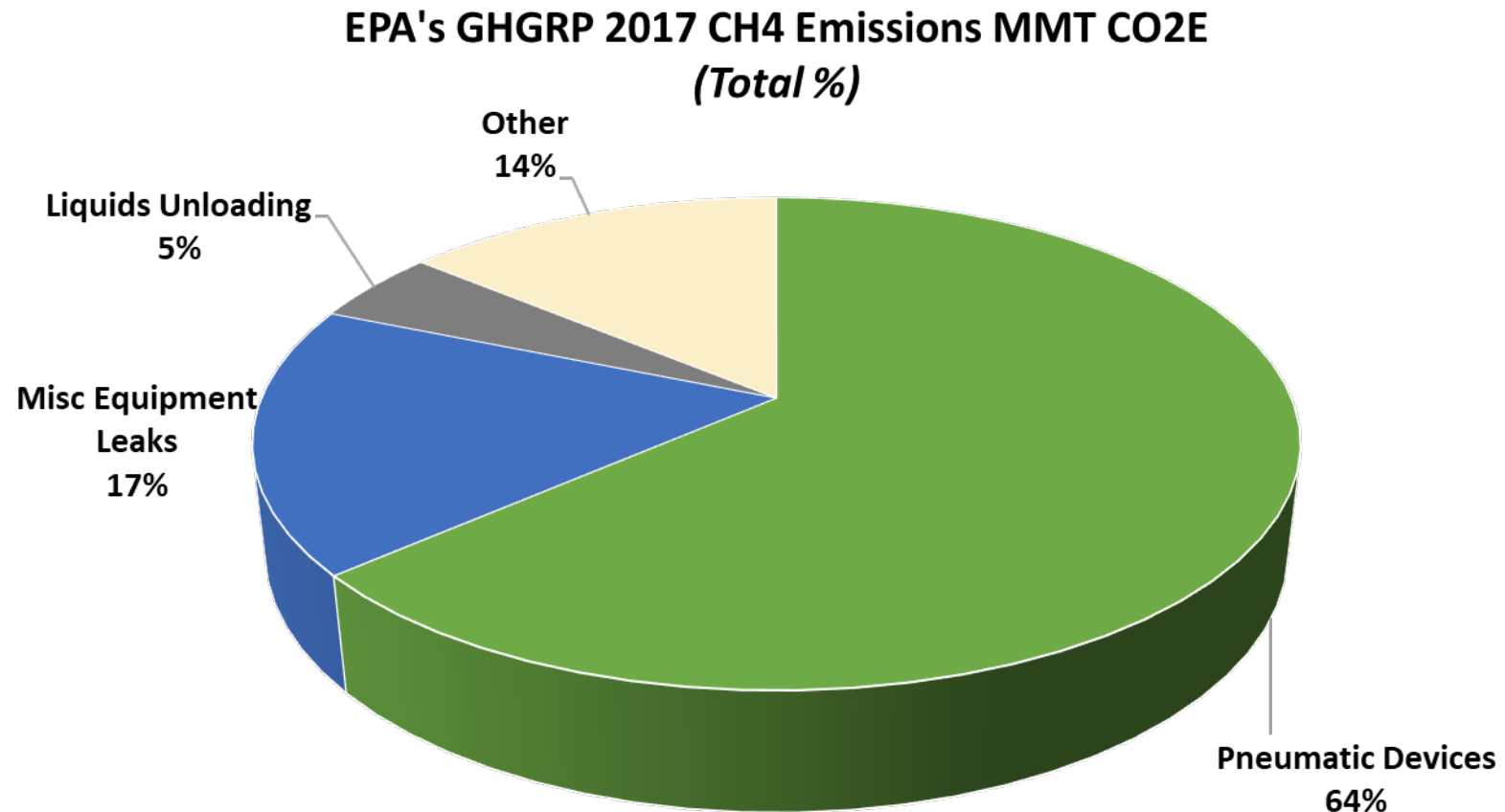


Emission Sources of Interest

Initial focus is the further reduction of air emissions, both methane and volatile organic compounds, from oil and natural gas sector.

Focus on highest emitting sources:

- Equipment Leaks
- High-Bleed Pneumatic Controllers
- Liquids Unloading



Environmental Performance Programs

To address top-emitting sources, participating companies will implement the following Environmental Performance Programs in a manner that best suits their unique operations:

1. Detection and timely repair of leaking equipment using optical gas imaging cameras, portable analyzers, or equivalent technology
2. Replacement or retrofitting of high-bleed pneumatic controllers with lower-emitting or zero-bleed controllers
3. Implementation of a best practice to minimize emissions by monitoring manual liquids unloading events



Reporting Requirements

- Participating companies agree to annual reporting to track progress.
- Annual reporting due April 30th.
- The Partnership's programs are purposefully designed to evolve in response to new information that will come from its implementation.
- All reported data is aggregated, and an annual report is developed to document The Partnership's efforts and made available to the public on our website.

Leak Detection and Repair Program

2018 Highlights



0.16%
LEAK OCCURENCE RATE



MORE THAN
156,000
SURVEYS CONDUCTED

MORE THAN
78,000
SITES SURVEYED



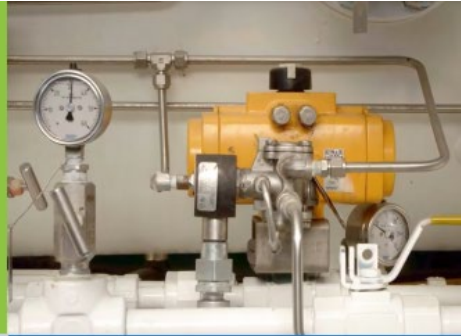
MORE THAN
56
MILLION
COMPONENTS INSPECTED



Controller and Liquids Unloading Programs

2018 Highlights

MORE THAN
28,000
HIGH-BLEED PNEUMATIC
CONTROLLERS REPLACED,
RETROFITTED, OR REMOVED
FROM SERVICE PRIOR TO 2018



IN 2018, MORE THAN
3,000
ADDITIONAL HIGH-BLEED
PNEUMATIC CONTROLLERS
REPLACED, RETROFITTED,
OR REMOVED FROM SERVICE

38
PARTICIPATING COMPANIES
NO LONGER HAVE HIGH-BLEED
PNEUMATIC CONTROLLERS
IN THEIR OPERATIONS



EMISSIONS MINIMIZED BY
MONITORING MORE THAN
132,000
MANUAL LIQUIDS UNLOADING
EVENTS IN 2018



The Environmental Partnership

Learning



Industry-Focused Workshops

- As part of the program’s “Learning” principle, The Partnership provides opportunities for companies to come together to share operational knowledge and best practices.
- The Partnership hosted two workshops in 2018:
 - Canonsburg, PA for Appalachian operators (July 26th)
 - Odessa, TX for Permian Basin operators (April 4th)
- The Partnership hosted three workshops in 2019:
 - Midland, TX (April 9th)
 - Oklahoma City, OK (April 11th)
 - Dickinson, ND (July 25th)
- The Partnership will host multiple workshops across the country in 2020, starting with Midland Texas in March.



The Environmental Partnership

Collaborating



2019 Annual Conference – “The Field of the Future”

- Each year, The Partnership hosts an annual conference to foster collaboration between industry operators and the organizations developing, testing, and implementing cutting-edge technology and techniques that are further reducing our environmental footprint.
- The 2019 Annual Conference was held in Houston, Texas and we will return to Houston for the 2020 Annual Conference.

Annual Conference Presenters



Program Collaboration since 2018 – CSU Energy Institute

- As part of the program's goal to advance the development of new technologies, funding was approved to support a study at Colorado State University's METEC site.
- METEC is a testing site that models natural gas facilities for researchers to test low-cost methane sensing technologies.
- Funding allowed participating companies to send their optical gas imaging camera operators to the site and advance the use of new detection technologies in the field.



2019 Annual Report

- The Environmental Partnership's First Annual Report was released July 30th.
- Please visit www.TheEnvironmentalPartnership.org and click on "Annual Report" to find out more!

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