

Message

**From:** Francis, Dick E SEPCO-GRA [/O=SHELL/OU=AG1-SHELL/CN=RECIPIENTS, [REDACTED]]  
**Sent:** 3/22/2018 2:43:36 PM  
**To:** Guidry, Greg M SEPCO-UPU [REDACTED]@shell.com]; Culpepper, Bruce B SHLOIL-HR/CCUS [REDACTED]@shell.com]; Malnak, Brian P SHLOIL-GRA [REDACTED]@shell.com]  
**CC:** Childs, Susan A SEPCO-GRA [REDACTED]@shell.com]; Thompson, Jennifer R SHLOIL-HR/CCUS [REDACTED]@shell.com]; Morello, Brad SEPCO-GRA [REDACTED]@shell.com]  
**Subject:** RE: New EDF Methane/Investor Disclosure Report - Update of report released in 2016

Folks,

Below is the analysis Brad Morello completed on the EDF report THE DISCLOSURE DIVIDE, Revisiting Rising Risk and Methane Reporting in the U.S. Oil & Gas Industry.

Shell received 6 points out of 11 possible points in the latest report. However, when using the Shell Methane Fact Sheet as a resource, Shell could have received 9 out of 11 points. When comparing the results from the same 5 questions used in the 2016 report using 2015 data, **Shell improved by 1 point.**

Notable scores:

- Shell received 6 points.
- ExxonMobil: 9 points (likely due to their announced methane commitment.)
- BP: 7 points
- Chevron: 6 points
- Total: 5 points
- BHP: 3 points

As we continue to improve our transparency on methane, via things like the methane fact sheet, I predict our scores will continue to improve.

**EDF Methane/Investor Disclosure Report**

Below is an analysis of the February 2018 report from EDF titled "THE DISCLOSURE DIVIDE, Revisiting Rising Risk and Methane Reporting in the U.S. Oil & Gas Industry." ([link](#)) Please note, a similar report was released by EDF in January 2016 and that analysis follows the current new report analysis separated by ++++++. Overall, Shell results were about the same as the previous report. Shell received 6 points out of 11 possible points in the latest report. However, when using the Shell Methane Fact Sheet as a resource, Shell could have received 9 out of 11 points. When comparing the results from the same 5 questions used in the 2016 report using 2015 data, Shell improved by 1 point.

In the new report published in February 2018, 64 companies (1 company less than the previous 65 companies reported on. Enbridge and Spectra Energy merged in February 2017 - and only Enbridge was analyzed in the new report) were evaluated by Greenpoint Innovations examining once again the current state of methane related activities by using publicly available data sources such as company websites, sustainability reports, annual reports, CDP disclosures and 10-Ks. Of the 64 companies were evaluated - 40 of the largest U.S. oil and gas producers, as well as 24 large midstream companies.

Objective of the new report –

1. Educate oil and gas investors (public and private), investment banks, and insurance companies on the importance of methane emissions,
2. Examine and document the current state of reporting on methane action in the U.S. oil and gas sector,
3. Provide recommendations to improve the amount, quality, and accuracy of methane emissions data and set a methane reduction target.

Companies were evaluated based on 'yes' or 'no' answers to the following eleven (11) questions (previous five questions from the 2016 report highlighted):

Shell scoring from new and previous report ----->		2015 data
1.	Reports Methane Emissions as a Standalone Figure	Yes
2.	Reports Methane Emissions as a Rate	No
3.	Reports Using Some Direct Measurement	
4.	Reports a Quantitative Methane Goal	No
5.	Discusses Methane Reducing Activities	
6.	Participates Publicly In Voluntary Methane Initiatives	
7.	Reports Position On Methane-Related Regulations	No
8.	Discusses General LDAR Use	Yes
9.	Reports LDAR Program Scope	
10.	Reports LDAR Program Frequency	
11.	Reports LDAR Program Methodology	
Total points		2 vs 3 points from the new report

Oct, 2017 data
Yes
No
No
No
Yes
Yes
Yes
Yes
No
No
Yes
6

w/ Methane Fact Sheet
Yes
Yes
Yes
No
Yes
Yes
Yes
Yes
Yes
Yes
No
Yes
9

What were the key findings?

- The quality of disclosure improved from the last report.
- Exxon and BP improved their ranking by providing specific methane fact sheets and could be compounded by coordinating with EDF.

- Methane data quality improved slightly from the last report.
- Overall scores improved due to a combination of share holder resolution responses and companies' tailor-made fact sheets in anticipation of this and similar question based reports.
- Seven companies have begun reporting on methane (five from Upstream: Antero Resources, Cimarex Energy, QEP Resources, Unit Corporation, WPX Energy AND Midstream: Kinder Morgan and Targa Resources Partners), but eight companies that once reported have stopped (three from Upstream: Encana, Linn Energy, Cabot Oil & Gas, AND five Midstream: Dominion Midstream Partners, Buckeye Partners, Enlink Midstream Partners, Magellan Midstream Partners, Plains All American Pipeline).
- Four companies provided targets, up from zero in 2015: two from Upstream (Hess and SWN) and two from Midstream (Kinder Morgan and NiSource).
- Five of the seven new companies newly reporting on methane were targets of methane-disclosure shareholder resolutions during the past two years and include Antero Resources, Cimarex Energy, and WPX Energy from Upstream AND Kinder Morgan, Targa Resources Partners, from Midstream.
- The report encourages investors in closing the disclosure divide through shareholder resolutions.

How did Shell and the other companies perform in the report? (Companies received one point for each 'yes' they received to a question. Lowest possible score=0, highest possible score =11)

Overview of scoring for all the Upstream companies:

0 points: 7 companies -

Continental Resources  
Encana  
Linn Energy  
Rice Energy  
SM Energy Company  
Exco resources  
SandRidge Energy

1 point: 5 companies –

Cabot Oil & Gas  
EP Energy LLC  
Freeport-Mcmoran Inc.  
Energen resources Corp  
Unit Corporation

2 points: no companies received 2 points.

3 points: 3 companies -

BHP Billiton  
EQT Resources  
Ultra Petroleum

4 points: 5 companies-

Apache  
Cimarex Energy  
QEP Resources  
Range Resources  
Seneca Resources (Nat'l Fuel)

5 points: 3 companies -

Pioneer Natural Resources  
Total S.A.

Antero Resources

6 points: 8 companies -

Anadarko  
Chevron  
EOG Resources  
Occidental  
**Royal Dutch Shell plc**  
Chesapeake Energy  
Newfield Exploration  
WPX Energy Inc

7 points: 2 companies -

BP  
Marathon Oil

8 points: 1 company -

Devon Energy

9 points: 3 companies -

Conoco Phillips  
Exxon Mobil  
Consol Energy

10 points: 3 companies -

Hess Corp  
Noble Energy, Inc  
Southwestern Energy Co

11 points: No companies received the maximum of 11 points.

Notables -

- Shell received 6 points.
- ExxonMobil: 9 points
  - BP: 7 points
  - Chevron: 6 points
  - Total: 5 points
  - BHP: 3 points

How would Shell perform if the research team used the methane fact sheet?

- Shell would receive 9 out of 11 points using the 2017 Methane Fact Sheet.
- Shell's Methane Fact Sheet was published after data collection completion (October '17).

Did any companies report a methane emission reduction target?

- Only two of the 40 oil and gas companies reported a methane target. Hess and SWN
- Four of the 64 total companies in the report reported a methane target. Hess, Kinder Morgan, NiSource and SWN

Proposed next steps –

- Identify opportunities and update Methane Fact Sheet by August - September 2018 and post on Shell web site.
- Please note: Shell Methane goal may be announced in November '18 under OGCI.



+++++

## January 2016 - Environmental Defense Fund (EDF) Reports on Oil & Gas voluntary methane emission reporting

In January, 2016, EDF published a report titled [Rising Risk Report: Improving Methane Risk Disclosure in the Oil and Gas Sector](#) (Methane disclosure). The report examines the current state of voluntary reporting on methane in the U.S. oil and gas sector. 65 companies were evaluated - 40 of the largest U.S. oil and gas producers, as well as 25 large midstream companies. Researchers used publicly available information to answer five specific reporting questions. Data sources included:

SEC filings, sustainability reports and company websites. Target audience for the report is the Oil and Gas investment community.

Objective of the report:

1. Educate oil and gas investors on the importance of methane emissions,
2. Examine and document the current state of reporting on methane in the U.S. oil and gas sector
3. Provide recommendations to improve the amount, quality, and accuracy of methane emissions data.

Companies were evaluated based on yes or no answers to the following five questions:

1. Report Methane Emissions as a Rate (leakage / losses as a % of production)
2. Report Methane Emissions as a Standalone Figure
3. Report a Quantitative Emissions Reduction Target
4. Report Position on Methane Related Policy
5. Discuss Leak Detection and Repair program (LDAR)

What were the key findings?

- The quality of disclosure is low, limiting usefulness for decision-making.
- The lack of rigorous and standardized metrics hampers disclosure quality.
- Zero companies disclose reduction targets, and few report methane-related data.

How did Shell and the other companies perform in the report? (Companies received one point for each yes they received to a question. Lowest possible score=0, highest possible score =5)

- Of the 40 producers, 14 companies received 0 points, 8 received 1 point, 10 received 2 points, 8 received 3 points. No companies received 4 or 5 points.
- Shell received 2 points. BP, Chevron, Total and Exxon also received 2 points, respectively.
- Shell response to the questions: 1. No, 2. Yes, 3. No, 4. No, 5. Yes.

How would Shell perform if the research team used the yet to be published 2015 Shell Sustainability report?

- Shell would receive 4 points using the 2015 Shell Sustainability report.
- Shell response to the questions: 1. Yes, 2. Yes, 3. No, 4. Yes, 5. Yes.

Did any companies report a methane emission reduction target?

- No. None of the 40 E&P companies surveyed reported a “quantitative methane emissions reduction target”.
- EPA data shows that while natural gas production has risen, actual emissions continue to decrease. This is due to a combination of ongoing voluntary actions by industry and complying with required regulation.
- While emissions in the US continue to decline, Shell is committed to going further on managing its emissions by not only complying with regulation, but also by delivering on its Operating Principles for Tight Sand or Shale oil and gas development, continued participation in the Center for Sustainable Shale Development (CSSD), and participating in science based programs that lead to additional improvement opportunities.

Is industry prepared to address the issues identified by the EDF report?

- According to API, API, along with IOGP and IPIECA, issued updated guidance last September 2015 on sustainability reporting that recommends many of the same reporting metrics contained in the EDF report. Further, a December 2015 IPIECA climate reporting framework document elaborates on many of the same reporting recommendations.

Thanks.

**Dick Francis**

*Manager, Regulatory Policy  
Upstream Unconventionals – US Onshore  
Shell Exploration & Production Company*

---

**From:** Francis, Dick E SEPCO-GRA

**Sent:** Thursday, February 1, 2018 3:02 PM

**To:** Guidry, Greg M SEPCO-UPU <[REDACTED]@shell.com>; Culpepper, Bruce B SHLOIL-HR/CCUS <[REDACTED]@shell.com>; Malnak, Brian P SHLOIL-GRA <[REDACTED]@shell.com>

**Cc:** Childs, Susan A SEPCO-GRA <[REDACTED]@shell.com>; Thompson, Jennifer R SHLOIL-HR/CCUS <[REDACTED]@shell.com>

**Subject:** New EDF Methane/Investor Disclosure Report - Update of report released in 2016

Folks,

Heads up.

Just got a call from Ben Ratner with EDF. He informed me that their **2016 Rising the Risk report has been updated and will be published this Monday**. This is a report designed to communicate methane reporting/disclosure data to the investment community.

Couple of comments from Ben:

- Like before, 64 companies evaluated.
- Report based on October 2017 available data.
- “Shell looked pretty good “

Ben did not provide a pre-read of the report.

Here is our analysis of the 2016 report:

**January 2016 - Environmental Defense Fund (EDF) Reports on Oil & Gas voluntary methane emission reporting**

In **January, 2016**, EDF published a report titled **Rising Risk Report: Improving Methane Risk Disclosure in the Oil and Gas Sector** (Methane disclosure). The report examines the current state of voluntary reporting on methane in the U.S. oil and gas sector. 65 companies were evaluated - 40 of the largest U.S. oil and gas producers, as well as 25 large midstream companies. Researchers used publicly available information to answer five specific reporting questions. Data sources included: SEC filings, sustainability reports and company websites. Target audience for the report is the Oil and Gas investment community.

Objective of the report:

1. Educate oil and gas investors on the importance of methane emissions,
  2. Examine and document the current state of reporting on methane in the U.S. oil and gas sector
  3. Provide recommendations to improve the amount, quality, and accuracy of methane emissions data.

Companies were evaluated based on yes or no answers to the following five questions:

1. Report Methane Emissions as a Rate (leakage / losses as a % of production)
  2. Report Methane Emissions as a Standalone Figure
  3. Report a Quantitative Emissions Reduction Target
  4. Report Position on Methane Related Policy
  5. Discuss Leak Detection and Repair program (LDAR)

What were the key findings?

- The quality of disclosure is low, limiting usefulness for decision-making.
- The lack of rigorous and standardized metrics hampers disclosure quality.
- Zero companies disclose reduction targets, and few report methane-related data.

How did Shell and the other companies perform in the report? (Companies received one point for each yes they received to a question. Lowest possible score=0, highest possible score =5)

- Of the 40 producers, 14 companies received 0 points, 8 received 1 point, 10 received 2 points, 8 received 3 points. No companies received 4 or 5 points.
- Shell received 2 points. BP, Chevron, Total and Exxon also received 2 points, respectively.
- Shell response to the questions: 1. No, 2. Yes, 3. No, 4. No, 5. Yes.

How would Shell perform if the research team used the yet to be published 2015 Shell Sustainability report?

- Shell would receive 4 points using the 2015 Shell Sustainability report.
- Shell response to the questions: 1. Yes, 2. Yes, 3. No, 4. Yes, 5. Yes.

Did any companies report a methane emission reduction target?

- No. None of the 40 E&P companies surveyed reported a “quantitative methane emissions reduction target”.
- EPA data shows that while natural gas production has risen, actual emissions continue to decrease. This is due to a combination of ongoing voluntary actions by industry and complying with required regulation.
- While emissions in the US continue to decline, Shell is committed to going further on managing its emissions by not only complying with regulation, but also by delivering on its Operating Principles for Tight Sand or Shale oil and gas development, continued participation in the Center for Sustainable Shale Development (CSSD), and participating in science based programs that lead to additional improvement opportunities.

Is industry prepared to address the issues identified by the EDF report?

- According to API, API, along with IOGP and IPIECA, issued updated guidance last September 2015 on sustainability reporting that recommends many of the same reporting metrics contained in the EDF report. Further, a December 2015 IPIECA climate reporting framework document elaborates on many of the same reporting recommendations.

Thanks.

**Dick Francis**

*Manager, Regulatory Policy*

*Upstream Unconventionals – US Onshore*

*Shell Exploration & Production Company*

