

EOG RESOURCES INC

Form PX14A6G

March 28, 2014

NAME OF REGISTRANT: EOG Resources

NAME OF PERSON RELYING ON EXEMPTION: Green Century Capital Management

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Written materials are submitted pursuant to Rule 14a-6(g)(1) promulgated under the Securities Exchange Act of 1934. Submission is not required of this filer under the terms of the Rule, but is made voluntarily in the interest of public disclosure and consideration of these important issues.

Proposal No. 4 on EOG Resources 2014 Proxy Statement:

Argument in Favor

Resolved: Shareholders request the Board of Directors to report to shareholders via quantitative indicators by December 31, 2014, and annually thereafter, the results of company policies and practices, above and beyond regulatory requirements, to minimize the potential adverse impacts on ground and surface water from the company's hydraulic fracturing operations associated with shale formations. Such reports should be prepared at reasonable cost, omitting confidential information.

Supporting Statement: Proponents suggest the reports include a breakdown by geographic region, such as each shale play in which the company engages in substantial extraction operations, addressing at a minimum:

- Systematic post-drilling groundwater quality assessments;
- Quantity of fresh water and recycled water used for shale operations by region, including source;
- Percentage of wastewater stored in tanks, lined pits and unlined pits;
- Goals and quantitative reporting on progress to reduce toxicity of drilling fluids; and
- Percentage of drilling residuals managed in closed-loop systems.

EOG Resources Fails to Disclose Quantitative Risk Metrics Associated with Hydraulic Fracturing

Hydraulic fracturing operations continue to be linked to significant environmental and social impacts that could have financial implications for the company due to increased community opposition and regulatory scrutiny. Shareholder proposals requesting enhanced reporting on this issue continue to earn support from 30-40% of shareholders, indicating sustained concern from a sizeable bloc of shareholders about the inadequacy of existing company risk management disclosures. Currently, EOG Resources is not providing investors with the metrics necessary to assess the risks and impacts associated with the company's hydraulic fracturing operations. This memo contextualizes the issue, and outlines specific key areas of inadequate disclosure by EOG.

Shareholders are being asked to vote FOR a report on the results- via quantitative indicators- of company procedures and practices, above and beyond regulatory requirements, to minimize the potential adverse impacts on ground and surface water from the company's hydraulic fracturing operations associated with shale formations.

This is not a solicitation of authority to vote your proxy. Please DO NOT send us your proxy card; Green Century Capital Management is not able to vote your proxies, nor does this communication contemplate such an event. Green Century Capital Management urges shareholders to vote for Item number 4 following the instruction provided on the management's proxy mailing.

Rationale for a Yes Vote:

1. Hydraulic fracturing operations result in significant environmental and social impacts, which increase financial risks to shareholders.
2. Public and investor expectations for disclosure of relevant metrics regarding company risk management practices are rising.
3. EOG Resources does not provide investors with relevant metrics necessary to assess the company's exposure to risks associated with the impacts of hydraulic fracturing operations and whether the company is effectively mitigating those risks.

Summary

Hydraulic fracturing uses millions of gallons of water mixed with thousands of gallons of toxic chemicals to extract natural gas from underground shale formations. Proponents believe that EOG is exposed to significant risks associated with the impacts of its hydraulic fracturing operations on local water quantity and quality.

Consequently, the resolved clause asks EOG's board to report on the results of company policies and practices, above and beyond regulatory requirements, to minimize potential adverse impacts on ground and surface water from hydraulic fracturing operations. The supporting statement suggests this reporting be done by relevant geographic region- such as per 'shale play', because so many impacts, especially those related to water quantity and quality, are regional in nature.

The supporting statement suggests reporting on 5 key performance indicators:

- Systematic post-drilling groundwater quality assessments;
- Quantity of fresh water and recycled water used for shale operations by region, including source;
  - Percentage of wastewater stored in tanks, lined pits and unlined pits;
- Goals and quantitative reporting on progress to reduce toxicity of drilling fluids; and
  - Percentage of drilling residuals managed in closed-loop systems

At present, EOG's disclosure is limited to reporting broad company policies and narrative anecdotal descriptions of company risk management practices, but provides little or no quantitative reporting on requested key performance indicators. As such, investors cannot rigorously and objectively evaluate company progress in minimizing the impacts and risks of hydraulic fracturing operations on water quality and quantity.

Rationale point 1: Hydraulic fracturing results in significant environmental and social impacts, which increase financial risks to shareholders<sup>1</sup>

Hydraulic fracturing operations typically use millions of gallons of water per well, require careful transport and storage of thousands of gallons of chemicals, produce large volumes of waste water, and create greenhouse gases and other air emissions. These industrial operations also have significant social impacts on communities and the regions in which they operate. They can impair health, damage roads, create significant traffic congestion, increase burdens on emergency services, and reduce the availability of affordable housing, among other impacts.

<sup>1</sup> Given the extensive coverage of these risks and best management indicators in past investor memos, these risks and impacts are summarized in Appendix 1.



As a result of the environmental and social impacts of fracturing operations, companies face an abundance of regulatory, reputational, and litigation risk. Governments – from local towns to nation-states – have enacted bans and moratoria on hydraulic fracturing operations.<sup>2</sup> Such actions represent denial of companies’ “social license to operate” and can result in significant negative impacts to a company’s bottom line due to loss of revenue.

Consequently, investors and the public are seeking evidence via transparent disclosure that companies are adopting best practices for managing the risks associated with hydraulic fracturing operations. Some companies may, in fact, be implementing best practices on a broad scale but – absent disclosure – investors and the public are left in the dark about these efforts.

Rationale point 2: Public and investor expectations for disclosure of relevant metrics regarding company risk management practices are rising

As the industry faces increased scrutiny, a commitment to transparency is crucial for companies seeking to address the array of concerns regarding the risks and impacts of hydraulic fracturing on local communities, public health, and the environment. Prominent government agencies, relevant industry bodies<sup>3</sup>, and investors have recognized the need for the industry to transparently demonstrate a commitment to implementing best risk management practices<sup>4</sup>. Transparency requires full disclosure of steps being taken to minimize risks, acknowledgement of challenges and failures, and clearly communicated progress in continually improve operations.

Investors in particular require relevant, rigorous disclosure on key performance indicators in order to compare company risk and performance, and make informed investment decisions. This is the fifth year investors are engaging companies to raise concerns regarding the impacts of hydraulic fracturing operations. Proposals have consistently received remarkably high votes- consistently averaging over 30% since initial proposals were filed in 2010. These high votes send a clear message to the entire sector that investors need more specific, relevant disclosure as to how companies are managing the risks and impacts associated with their operations.

2 On Quebec’s moratorium, see <http://www.cbc.ca/news/business/story/2012/11/23/fracking-ban-nafta-lawsuit.html>. On Bulgaria’s, see <http://www.shalegas-europe.eu/en/index.php/resources/shale-opportunities-in-europe/bulgaria>. On France’s, see <http://www.shalegas-europe.eu/en/index.php/resources/shale-opportunities-in-europe/france>. On the Delaware River Basin Commission’s de facto moratorium, see <http://stateimpact.npr.org/pennsylvania/tag/drbc/>. On the State of Maryland’s de facto moratorium, see

<http://www.baltimoresun.com/features/green/blog/bal-bmg-legislative-fracking-ban-in-maryland-proposed-20120912,0,685510>

On local bans and moratoria in New York State, see <http://www.fractracker.org/maps/ny-moratoria/>.

3 The Appalachian Shale Recommended Practices Group (ASRPG) and the Center for Sustainable Shale Development (CSSD) are two examples of prominent multi-company consortia that have been formed to encourage wide-spread adoption of best practices among the industry. See [www.asrpg.org](http://www.asrpg.org) and [www.sustainable shale.org](http://www.sustainable shale.org).

4 See appendix 2 for growing calls from prominent regulatory bodies for increased disclosure from companies engaged in hydraulic fracturing.

As public expectations for company disclosure and transparency rise, investors are concerned that investment value may be undermined by company policies and practices that lag public and regulatory expectations for environmental protection. In the absence of meaningful disclosure, investors and the public have no way of assessing the risks and rewards of hydraulic fracturing operations present to various companies.

Rationale point 3: EOG Resources does not provide investors with relevant metrics necessary to assess the company's exposure to risks associated with the impacts of hydraulic fracturing operations and whether the company is effectively mitigating those risks.

Proponents believe that EOG is exposed to significant risks associated with the impacts of its hydraulic fracturing operations on local water quantity and quality. EOG is reported as the third highest corporate user of water for fracturing in the United States, drilling over 80% of its wells in areas of medium and high water stress according to a 2014 research report from Ceres.<sup>5</sup> Ceres reports that in drought-stricken Texas shale plays, EOG is the second largest fracturing water user in the Permian Basin and third largest in the Eagle Ford shale.<sup>6</sup> Other plays in which EOG operates include North Dakota's Bakken formation, Texas' Barnett Shale, and Colorado's DJ basin. In the DJ basin, 100% of EOG's wells are in "extremely high stress" water areas.<sup>7</sup> Consequently, the resolved clause asks EOG's board to report via quantitative indicators on the results of company policies and practices, above and beyond regulatory requirements, to minimize potential adverse impacts on ground and surface water from hydraulic fracturing operations.

The supporting statement suggests reporting on 5 key performance indicators:

- Systematic post-drilling groundwater quality assessments;
- Quantity of fresh water and recycled water used for shale operations by region, including source;
  - Percentage of wastewater stored in tanks, lined pits and unlined pits;
- Goals and quantitative reporting on progress to reduce toxicity of drilling fluids; and
  - Percentage of drilling residuals managed in closed-loop systems

The following analysis serves to benchmark EOG's current reporting against that requested in the proposal.

#### Gap Analysis of EOG Reporting

##### 1. Post-drilling groundwater quality assessments

Currently, EOG says little about its practices for systematically monitoring water quality post-drilling for potential contamination.

<sup>5</sup> Water stress is a measure of the ratio of water withdrawal to mean annual available supply, and is useful for showing where there is high competition for limited water resources among use. A more complete definition is available at page 15 of the Ceres report, "Hydraulic Fracturing and Water Stress: Water Demand by the Numbers", <https://www.ceres.org/resources/reports/hydraulic-fracturing-water-stress-water-demand-by-the-numbers/view>

<sup>6</sup> Ceres Report, pages 52, 57.

<sup>7</sup> Ceres Report, page 74

Regulations are increasingly requiring post-drilling water quality monitoring as a means of providing a baseline of water quality data against which claims of water contamination can be measured. The most recent and rigorous regulations being adopted by states, the primary regulators of hydraulic fracturing operations, call for post-drilling water quality monitoring. Two such states are Wyoming and Illinois.<sup>8</sup> Even where not required by regulation, Center for Sustainable Shale Development (CSSD) certification standards urge companies to adopt post-drilling water quality monitoring as a best practice for identifying cases of potential water contamination.<sup>9</sup> These indicators signal the potential for new regulatory requirements and increased expectations EOG may need to address in its operating areas.

In contrast to peers, EOG currently only states that “it is taking steps to comply with recently required [Colorado] rules requiring ...post-drilling testing of water wells in certain areas”<sup>10</sup>, failing to disclose its progress in meeting recent Colorado rules and also failing to disclose whether this best management practice is being implemented in other areas.

Peer comparison:

In contrast, Hess clearly states a policy that “[p]rior to and after conducting hydraulic fracturing, Hess conducts baseline water quality monitoring of pre-existing ground water wells and surface water bodies within a minimum 2,500 foot radius. At a minimum, water samples are tested for water quality parameters in accordance with state regulations and FracFocus Chemical Disclosure Registry guidance as well as for any known local contaminants. The exception to this practice is in the Bakken development, where the state of North Dakota monitors a long standing, established network of ground water monitoring wells.”<sup>11</sup>

2. Quantity of fresh water and recycled water used for shale operations by region, including source

As noted above, proponents believe that EOG is exposed to significant risks associated with its impacts on limited water availability, and contend that EOG fails to disclose relevant metrics regarding its risk management practices.

Peer comparison:

In contrast to peers, EOG’s disclosure regarding water management relies on reporting broad policies and narrative descriptions, while failing to provide quantitative metrics demonstrating the effectiveness of these company policies and practices in mitigating water related risks. For example, EOG states it “uses various sources of water depending on the region where the drilling takes place...Throughout its operations, EOG attempts to minimize use of water from sources that are also utilized for public drinking water.”<sup>12</sup> Statements such as these are too broad and vague for investors to be able to assess EOG’s progress and effectiveness in reducing the risks and impacts of its water use. In its response to the CDP water project, EOG attached this narrative without providing any additional specific figures, and was not scored.

<sup>8</sup> See Illinois Hydraulic Fracturing Regulatory Act, <http://www.ilga.gov/legislation/publicacts/98/PDF/098-0022.pdf>, and <http://wyofile.com/dustin/wyoming-embarks-on-groundwater-monitoring-rule-for-oil-and-gas-development/>.

<sup>9</sup> CSSD promotes independent third party certification of corporate use of best management practices for hydraulic fracturing operations. See performance standard 6,

<https://www.sustainableshale.org/wp-content/uploads/2014/01/Performance-Standards-v.-1.1.pdf>

<sup>10</sup> EOG website, “EOG’s Water Management Activities in Colorado”,

[http://www.eogresources.com/responsibility/water\\_management.html](http://www.eogresources.com/responsibility/water_management.html)

<sup>11</sup> Pg 21 <http://www.hesscorporation.com/downloads/reports/EHS/US/2011/default.pdf>

<sup>12</sup> EOG website, “What Sources of Water Are Used by EOG?”

[http://www.eogresources.com/responsibility/water\\_management.html](http://www.eogresources.com/responsibility/water_management.html)



The Appalachian Shale Regional Practices group (ASRPG) principles and the International Energy Agency's Golden Rules for a Golden Age of Gas report both call for quantitative reporting on water use and recycling.<sup>13</sup>

Peer comparison:

In contrast, EQT Corporation discloses quantitative goals and progress for managing its water impacts. In its 2013 corporate sustainability report, EQT indicates it has a goal of collecting nearly 100% of flow back water and reusing it for fracking new wells, and reports quantitative progress annually. EQT also lists total fresh water withdrawals quantitatively by source (surface water, groundwater, municipal water, etc.), and also indicated the volume of produced water produced, and percentages either reused or disposed of in deep injection wells for each of the 4 states where it operates. In contrast to EOG, investors are able to objectively assess EQT's risk exposure and risk management practices relating to impacts on local water sources.

3. Percentage of wastewater stored in tanks, lined pits and unlined pits

EOG fails to disclose key performance indicators relating to managing the risks to surface and groundwater quality associated with wastewater disposal.

Proper disposal and storage of wastewater is critical for protecting surface and groundwater quality. Unfortunately, wastewater is often stored in open-air, lined earthen pits- a practice identified by a cross-section of experts as having a particularly high-risk for water contamination due to the increased likelihood of leaks and over-flows.<sup>14</sup> Best practice to minimize instances of leaks and associated water contamination is containing wastewater in closed, above-ground storage tanks. Closed tanks can also mitigate risks to air quality, as toxic chemical vapors can escape when waste water is stored in surface pits open to the atmosphere, potentially posing local and regional air quality risks.

The practice of phasing out open pits in favor of closed tanks is called for in the CSSD's performance standards, and required by Illinois' new regulations.<sup>15</sup> Proponents believe this to be a sign of potential regulatory tightening elsewhere, and consequently urge companies to disclose current waste management practices and progress in implementing closed-loop systems.

In contrast to peers, EOG's current disclosure regarding its wastewater storage practices is unevenly reported and primarily narrative. Current disclosure includes: in the Marcellus Shale "all completion fluid and produced water is stored in lined tanks", without addressing practices in other shale plays. The company reports generally about making "investments in water storage infrastructure for the purpose of water reuse, including steel storage tanks to hold produced water" in the Permian Basin. The company says little or nothing in the other four shale basins in which it operates.

<sup>13</sup> For ASRPG, see [http://asrpg.org/pdf/ASRPG\\_standards\\_and\\_practices-April2012.pdf](http://asrpg.org/pdf/ASRPG_standards_and_practices-April2012.pdf). For the IEA report, see Appendix 2 and

[http://www.worldenergyoutlook.org/media/weowebiste/2012/goldenrules/weo2012\\_goldenrulesreport.pdf](http://www.worldenergyoutlook.org/media/weowebiste/2012/goldenrules/weo2012_goldenrulesreport.pdf)

<sup>14</sup> See Resources for the Future, "Pathways to Dialogue: What the Experts Say About the Environmental Risks of Shale Gas Development: Overview of Key Findings" (2013),

[http://www.rff.org/Documents/RFF-Rpt-PathwaystoDialogue\\_Overview.pdf](http://www.rff.org/Documents/RFF-Rpt-PathwaystoDialogue_Overview.pdf), page 6

<sup>15</sup> Illinois Hydraulic Fracturing Regulatory Act, Section 1-75(c)(1)





Peer comparison:

In contrast, Encana reports that it is moving to a closed-loop water management system across all of its shale plays and has committed to avoiding construction of any new drilling or flowback pits on pad sites.<sup>16</sup> Encana discloses its progress in rolling out these best practices by reporting that in the South Piceance Basin it launched an effort to close approximately 180 historic and active pits containing drill cuttings and completion flowback water, the last of which were closed in early 2011.

4. Percentage of drilling residuals managed in closed-loop systems

Similar to the key performance reference immediately above, this indicator relates to management of risks to ground and surface water quality associated with waste storage practices.

Drilling residuals, the byproducts of the drilling that precedes hydraulic fracturing, are another potential hazard to water quality identified by CSSD and the IEA.<sup>17</sup> Currently, EOG does not report any company policies or practices for managing storage of drilling residuals.

Peer comparison:

In contrast, Anadarko explicitly states that in both its Marcellus and Wattenberg operations, it conducts closed-loop management of solid material and drilling fluids, eliminating the need to dispose of these materials in pits.<sup>18</sup> Similarly, Consol Energy has stated that it has “fully implemented closed loop processes that allow for the capture and disposal of drill cuttings into containers, eliminating the use of open pits on site” in its Marcellus operations.<sup>19</sup>

Proponents request that EOG report on efforts to implement best management practices for managing drilling residuals by disclosing percentage of drilling residuals managed in closed-loop systems.

5. Goals and quantitative reporting on progress to reduce toxicity of drilling fluids

EOG fails to disclose progress in minimizing toxicity of its drilling fluids, a key performance indicator for managing the risks of ground and water contamination associated with the chemicals used in hydraulic fracturing fluids.

<sup>16</sup> “Caring About Water in Colorado”,

<http://www.encana.com/news-stories/our-stories/environment-caring-about-water-in-colorado.html>

<sup>17</sup> CSSD performance standard 3, <https://www.sustainablehale.org/performance-standards/>; IEA Golden Rules Report, page 23.

<sup>18</sup>[http://www.anadarko.com/SiteCollectionDocuments/PDF/Fact%20Sheets/2013\\_APC\\_Marcellus%20Fact%20Sheet\\_2013.p](http://www.anadarko.com/SiteCollectionDocuments/PDF/Fact%20Sheets/2013_APC_Marcellus%20Fact%20Sheet_2013.p)

<http://www.anadarko.com/SiteCollectionDocuments/PDF/WattenbergHZ/Wattenberg%20HZ%20Overview.pdf>.

<sup>19</sup> Consol Corporate Responsibility Report 2012, pages 41, 42,

<http://consolenergy.com/corporateresponsibilityreport/>.

Hydraulic fracturing uses millions of gallons of water mixed with thousands of gallons of toxic chemicals to extract natural gas from underground shale formations. The toxicity of chemicals used for drilling and fracturing wells, especially those used for fracturing, have been the subject of considerable public debate due to their potential to contaminate ground and surface water. Managing chemicals-related risks can be one of the most important steps a company takes to maintain its social license to operate, reduce its impacts on communities and the environment, and protect its bottom line.

In contrast to peers, EOG fails to report progress or specific metrics for reducing the toxicity of its fracturing fluids. Current disclosure is limited to a generally stated goal to ‘further minimize the amount of chemicals required for hydraulic fracturing in the completion of its wells’ without providing metrics illustrating progress in implementing this goal.<sup>20</sup>

Peer comparison:

In contrast, Chevron reports quantitatively on its reduction in chemical use noting, for example, that in its operations in the Marcellus Shale it has reduced use of MSDS-listed chemicals by 77%, from 31 chemicals to 7.21 Suppliers of fracturing fluids, such as Baker-Hughes and Halliburton, have developed scoring systems by which they rank the toxicity of their products. Baker-Hughes, for example, has used these to report its progress in toxicity reduction efforts.<sup>22</sup>

Proponents request that EOG disclose goals and quantitative reporting on progress to reduce toxicity of drilling fluids.

## CONCLUSION

Disclosure is critical – as it is the primary vehicle by which investors gain insight into the extent to which companies are adopting best management practices and realizing their benefits. Risk management policies are most meaningful when accompanied by data disclosing their effectiveness. EOG fails to provide investors with the metrics necessary to evaluate how EOG is managing the risks associated with the impacts of its hydraulic fracturing operations on local water sources.

Consequently, proponents urge that investors vote FOR this proposal.

<sup>20</sup> <http://www.eogresources.com/responsibility/hydraulicfracing.html>

<sup>21</sup> Chevron, “Partnering in the Marcellus”, <http://www.chevron.com/documents/pdf/PartneringMarcellus.pdf>. Material Safety Data Sheets (“MSDS”) are produced pursuant to U.S. Occupational Safety and Health Administration (OSHA) guidelines and are intended to inform workers of potentially harmful substances handled in the workplace

<sup>22</sup> <https://www.greenbiz.com/blog/2012/09/21/5-ways-clean-frackings-chemical-act?page=0%2C1>

## APPENDIX 1: Overview of key environmental and community impact concerns

### Water and Waste Risks

The high volume of water used, combined with the toxic nature of some chemicals used in the fracturing fluid, has raised numerous concerns surrounding the industry's impact on both water availability and water quality<sup>23</sup>. Social media videos of contaminated, discolored water containing methane and other chemicals attributed to fracturing operations are iconic representations of public concern about water contamination. To address public concern and maintain a social license to operate, companies will need to demonstrate how water risks are being managed at each stage of the drilling and completion process.

Key performance indicators relate to how companies are managing concerns over local water availability, the potential contamination of groundwater during the drilling process, and the treatment and disposal of wastewater to minimize potential surface water contamination.

### Toxic Chemical Risks

Due to concerns over the potential for hydraulic fracturing operations to contaminate local water supplies, the toxicity of chemicals used for drilling and fracturing wells has been the subject of considerable public debate.

Key performance indicators relate to how companies are minimizing the chemical toxicity of fracturing fluids.

### Air Quality Risks

The contribution of natural gas extraction to declining regional air quality has prompted health concerns among local residents, increasing the likelihood of tightened oversight and regulation of the industry<sup>24</sup>. Emissions from hydraulic fracturing operations have been linked to increased ozone and methane levels, further tarnishing natural gas's reputation as the more 'climate-friendly' alternative. Technical experts generally agree that a sizeable number of cost-effective emission reduction measures are currently available to substantially reduce methane and other emissions.

<sup>23</sup> Investigative journalists have reported numerous spill and water contamination incidents, some specifically related to hydraulic fracturing operations and others to oil and gas drilling more generally. Various companies have reached legal settlements over alleged contamination, but these settlements are sealed from public view. See "Drillers Silence Fracking Claims with Sealed Settlements", <http://www.bloomberg.com/news/2013-06-06/drillers-silence-fracking-claims-with-sealed-settlements.html>. For examples of other incidents and questions about the adequacy of state enforcement, see "Puny Fines, Scant Enforcement Leave Drilling Violators With Little to Fear", <http://www.eenews.net/stories/1059956366> and "Buried Secrets: Is Natural Gas Drilling Endangering U.S. Water Supplies", <http://www.propublica.org/article/buried-secrets-is-natural-gas-drilling-endangering-us-water-supplies-1113>.

<sup>24</sup> This is particularly a problem in Western states. See, for example, "Wyoming's Smog Exceeds Los Angeles' Due to Gas Drilling", <http://content.usatoday.com/communities/greenhouse/post/2011/03/wyomings-smog-exceeds-los-angeles-due-to-gasdrilling/1#>. See also, For Colorado, see "Tighter Emissions Control Standards Next Challenge for Oil and Gas Industry in Weld", <http://www.greeleytribune.com/news/7260650-113/emissions-gas-oil-industry>. For California, see "SCAQMD Adopts New Notification and Reporting Requirements for 'Fracking' and Other Oil and Gas Well Drilling Activities," <http://www.aqmd.gov/news1/2013/bs040613.htm>.

Key performance indicators regarding management of air quality risks relate to how companies are managing emissions from their hydraulic fracturing operations.

#### Identifying and Responding to Community Concerns

If left unaddressed, the negative impacts of hydraulic fracturing operations on local communities can generate significant opposition to the practice- even culminating into costly bans and moratoria on the industry. Companies that fail to comprehensively identify and address community concerns risk losing their social license to operate.

Key performance indicators relate to procedures companies have in place to identify, track, and respond to major community impact concerns.

APPENDIX 2: Evidence of growing calls from prominent government agencies and investor coalitions for companies to disclose practices for managing risks associated with hydraulic fracturing operations.

1. The Department of Energy's (DOE) Shale Gas Production Subcommittee recommended in 2011 that companies "adopt a more visible commitment to using quantitative measures (emphasis in the original) as a means of achieving best practice and demonstrating to the public that there is continuous improvement in reducing the environmental impact of shale gas production."<sup>25</sup>
  2. The International Energy Agency (IEA), in its 2012 report, Golden Rules for a Golden Age of Gas, declared "that full transparency, measuring and monitoring of environmental impacts and engagement with local communities are critical to addressing public concerns. IEA's golden rules call for companies to:
    - o "Establish baselines for key environmental indicators, such as groundwater quality, prior to commencing activity, with continued monitoring during operations."
    - o "Measure and disclose operational data on water use, on the volumes and characteristics of waste water ... alongside full, mandatory disclosure of fracturing fluid additives and volumes."<sup>26</sup>
3. In 2011, a coalition of investors released *Extracting the Facts: An Investor Guide to Disclosing Risks from Hydraulic Fracturing Operations*, which serves as a framework for companies to improve disclosure to best serve investor needs. It identifies 12 core management goals, best management practices, and key performance indicators on which investors require disclosure to adequately assess risk management practices. *Extracting the Facts* is supported by investors representing \$1.3 trillion in AUM, from Europe, Australia, and North America.
4. Building from *Extracting the Facts*, investors subsequently released a scorecard report in 2013- *Disclosing the Facts: Transparency and Risk in Hydraulic Fracturing Operations- benchmarking companies engaged in hydraulic fracturing against investor expectations for disclosure of best practices and relevant risk management metrics*.
5. In 2013, a "guidance note for financiers" was released under the auspices of "The Climate Principles: A Framework for the Finance Sector". The guidance note, *Shale Gas Exploration and Production: Key Issues and Responsible Business Practices*, builds on *Extracting the Facts* in noting that successful operators will need "to be equipped with a combination of robust management frameworks and accountabilities, as well as strong operating practices", and that "companies' quantitative disclosure of their performance against KPIs will be fundamental to their credibility and to track progress."<sup>27</sup>

This is not a solicitation of authority to vote your proxy. Please DO NOT send us your proxy card; Green Century Capital Management is not able to vote your proxies, nor does this communication contemplate such an event. Green Century Capital Management urges shareholders to vote for Item number 4 following the instruction provided on the management's proxy mailing.

25 Secretary of Energy Advisory Board Shale Gas Production Subcommittee Second Ninety Day Report (2011) [http://energy.gov/sites/prod/files/90day\\_Report\\_Second\\_11.18.11.pdf](http://energy.gov/sites/prod/files/90day_Report_Second_11.18.11.pdf), page 9

26 [http://www.worldenergyoutlook.org/media/weowebbsite/2012/goldenrules/weo2012\\_goldenrulesreport.pdf](http://www.worldenergyoutlook.org/media/weowebbsite/2012/goldenrules/weo2012_goldenrulesreport.pdf), page 11

27 <http://iehn.org/documents/CPFIShaleGasGuidanceNoteApril2013.pdf>