

Shareholder Supporting Memo
Range Resources Proposal Regarding Methane Emissions

Name of Registrant: Unitarian Universalist Association
Name of Person Relying on Exemption: Unitarian Universalist Association
Address of Person Relying on Exemption: 24 Farnsworth Street, Boston, MA 02210-1409

Stockholder Proposal Regarding Methane Emissions

The Unitarian Universalist Association seeks your support for Proposal 4 on the 2018 proxy ballot. The resolved clause for this proposal states:

"Shareholders request Range Resources issue a report (by September 2018, at reasonable cost, omitting proprietary information) that reviews the Company's policies, actions and plans related to methane emissions management, including efforts to: measure, monitor, mitigate, disclose, utilize leak detection and repair (LDAR) technologies (including frequency, scope, and methodology)."

The proposal includes the following supporting statement:

We believe the report should include the leakage rate as a percentage of production, throughput, and or stored gas; management of high risk infrastructure; best practices; worst performing assets; environmental impact; reduction targets and methods to track progress over time. Best practice strategy would utilize real-time measurement and monitoring.

Summary:

This proposal has been filed by the Unitarian Universalist Association, a shareholder of Range Resources. It raises concerns about Range Resources' policies regarding methane emissions from the company's oil & gas production operations.

Shareholders concerned about methane leakage in oil & gas operations have filed shareholder proposals with the Company for several years, asking for greater disclosure and the setting of targets for methane leakage. The proposal in 2014 was withdrawn for dialogue, and one in 2012 received a vote of nearly 22%. Despite the Company's progress on methane-related disclosure, the Company fails to disclose on several important methane leak metrics which are reported by their peers including:

- LDAR program scope
- Methane emissions as a standalone figure
- Use of direct measurement to determine methane leaks
- Methane emissions reduction target

Range identifies "the consistent advancement and implementation of specific best practices in the field of emissions monitoring and reduction technologies" as one of their core values¹, however, the Company's practices of non-disclosure are out of alignment with their stated values. Methane leakage can reduce the advantage of natural gas over other fossil fuel sources and pose a risk to shareholder value. We believe the requested report will provide investors with the information they require to better understand methane-related risk and also offer an opportunity for the Company to strengthen disclosure.

¹ <http://www.rangeresources.com/corp-responsibility/environment-health-and-safety/emission-reduction-and-reporting>

RESOLVED: Shareholders request Range Resources issue a report (by September 2018, at reasonable cost, omitting proprietary information) that reviews the Company's policies, actions and plans related to methane emissions management, including efforts to: measure, monitor, mitigate, disclose, utilize leak detection and repair (LDAR) technologies (including frequency, scope, and methodology).

Supporting Statement:

Rationale to vote FOR Proposal 4:

The Company incorrectly claims this proposal is “substantively the same as a proposal presented in 2014, which was rejected by a significant margin with only 8 percent of shares which were voted at the 2014 annual meeting”.

- A proposal was presented in 2014 by Arjuna Capital requesting Range Resources to review plans to set quantitative methane reduction targets². The Company claims this proposal was rejected by a significant margin, however, this proposal was not voted on at the 2014 annual meeting as it was withdrawn by the proponent for a dialogue³.
- The proposal presented in 2014 requests the Company to review plans to set methane emission reduction targets, which the company has not done. It is substantively different from our proposal requesting the Company issue a report on efforts to: measure, monitor, mitigate, disclose, and utilize leak detection and repair (LDAR) technologies (including frequency, scope, and methodology).
- Trillium Asset Management filed a resolution related to fugitive methane emissions that received a 21.7% vote in 2013, which demonstrates significant support for improved methane emissions management among stockholders.

Despite the Company's progress on methane-related disclosure, there are several areas that present opportunities for the Company to strengthen disclosure and provide investors with the information they require to better understand and methane-related risk.

Although the Company improved its score in Disclosing the Facts 2017⁴ (a report evaluating oil and gas producers on methane management and reporting) there are opportunities for the Company to further strengthen its policies and practices related to methane emissions management. At a time of increased attention on the oil and gas production industry to reduce climate impacts and increased concern among investors to reduce carbon-related risk in their portfolios, the Company should prioritize climate-related disclosure. Methane is a climate pollutant 84 times more powerful than carbon dioxide over a 20-year period and is responsible for one quarter of today's global warming. Emissions from oil and gas production constitutes 31% of global methane emissions. Additionally, leaked methane represents lost product, therefore lost revenue.

² <https://www.sec.gov/Archives/edgar/data/315852/000119312514184046/d723106ddefa14a.htm>

³ https://engagements.ceres.org/ceres_engagementdetailpage?recID=a01A0000006iEABIA2

⁴ <http://www.rangeresources.com/corp-responsibility/environment-health-and-safety/as-you-sow>

Many of the Company's peers publicly disclose in areas regarding methane emissions management where Range Resources does not. While the Company claims, "the proposal will do nothing to advance the Company's continuous improvement efforts in this area or the reporting of such efforts and the effects to stockholders", the proposal seeks to address areas missing from the Company's current methane-related disclosure including:

- LDAR program scope
- Methane emissions as a standalone figure
- Use of direct measurement to determine methane leaks
- Methane emissions reduction target

LDAR Program Scope

The Company's website states, "well sites that were completed after September 18, 2015 are required to have an LDAR survey" and discusses LDAR frequency and methodology for sites with new wells. However, the Company does not indicate the proportion of facilities or assets covered under the LDAR program or specify what programs exist for wells completed before September 18, 2015. The Company discloses that it "currently operates more than 100 sites with LDAR surveys"⁵, yet this is not an adequate description of LDAR program scope. Considering the Company operates thousands of wells across approximately 875,000 acres in Pennsylvania and 140,000 acres in North Louisiana,⁶ investors would benefit from more detailed information on the proportion and location of the company's operations covered under the LDAR program. Reporting on LDAR program scope, frequency and methodology are considered the bare minimum for methane disclosure according to the Environmental Defense Fund's 2018 Disclosure Divide⁷ report. This report includes a disclosure scorecard in which Range Resources meets less than half of the disclosure requirements. Several of the Company's peers including Antero Resources, Consol Energy, Southwestern Energy, and WPX Energy Inc. report their LDAR program scope.

Methane Emissions as a Standalone Figure

The Company reports methane emissions for 2016 as a rate⁸ but does not report methane emissions as a standalone figure. The Company claims, "responding to this proposal would require an additional expensive analysis of thousands of individual field facilities". However, reporting methane emissions as a standalone figure would require minimal time and resources since the Company already calculates total methane emissions production for its rate calculation. Reporting this figure presents a low hanging fruit in which Range Resources can improve its methane disclosure score with little additional effort.

⁵ <http://www.rangeresources.com/corp-responsibility/environment-health-and-safety/air-quality-best-practices>

⁶ <http://www.rangeresources.com/operations/north-louisiana>

⁷ https://www.edf.org/sites/default/files/documents/the_disclosure_divide.pdf

⁸ <http://www.rangeresources.com/corp-responsibility/environment-health-and-safety/emission>

Direct Measurement

The Company currently determines methane emissions utilizing a combination of parametric monitoring, engineering calculations, and generally accepted modeling (simulation) using calculation methods that rely heavily on prescribed methods in the EPA's Air Emissions Factors and Quantification⁹. The Company does not report methane emissions using direct measurement and states "direct measurement of methane emissions is difficult since emissions are not always occurring in a predictable or measurable location"¹⁰. A growing body of scientific studies find EPA inventory data and generic emissions estimates often understate, sometimes drastically, actual amounts of methane released into the atmosphere¹¹. A recently published study by the National Academies of Sciences, Engineering and Medicine highlighted the need for: (a) strengthening measurement, monitoring, and inventories of methane emissions; (b) the development of a gridded inventory in the U.S. as a mechanism to integrate top down and bottom up measurement approaches, which can yield different results; and (c) the launch of a nationwide research effort to address knowledge gaps on anthropogenic sources of methane pollution.¹²

Direct or bottom-up measurements use on-the-ground equipment and better allow companies to know both location and volume of leaks more precisely. This method is considered more accurate than using generic emissions factors and can reveal the problem of "super-emitters". Super-emitters refer to the fact that a large portion of emissions result from a small number of leaks. A 2016 review of 15,000 measurements concluded that five percent of leaks contributed to 50 percent of leak volume¹³. A significant amount of methane can be released if such leaks go undetected for a long period of time, as methane is both colorless and odorless, and can only be seen by infrared technology. Therefore, using more precise direct measurements is encouraged to improve accuracy and help inform equipment replacement, monitoring, and repair priorities.

Methane Emissions Reduction Target

Methane targets are powerful signals of management commitment to methane emission reductions that allow investors to hold companies accountable for their commitments¹⁴. Although the Company claims its "operations are such that they are not associated with potentially significant methane emissions", the EPA identifies the oil and gas sector as the largest industrial source of methane emissions in the U.S., contributing to 31% of total methane emissions. Several upstream oil and gas companies have set methane reduction targets, such as those participating in the ONE Future Coalition¹⁵, and are assuming a leadership role in the industry. Setting a quantitative methane emissions target is certainly not "an attempt to impose standards that the Company has already effectively addressed." Establishment of methane targets is gaining momentum throughout the industry. Companies are adopting internal goals as well as joining voluntary initiatives such as that of the Climate & Clean Air Coalition in which eight major oil & gas companies committed to "Guiding Principles on Reducing Methane Emissions across the Natural Gas Value Chain"¹⁶. Shareholders are also filing resolutions to support stronger methane emissions management and the adoption of methane targets. This past year, resolutions were recently withdrawn with two companies, Anadarko and EQT, where the companies committed to review their policies and engage with shareholders on setting methane reduction targets. As more companies commit to improving methane management and disclosure, Range Resources has an opportunity to strengthen their position by setting a quantitative methane emissions reduction target.

⁹ Ibid.

¹⁰ Ibid.

¹¹ https://www.edf.org/sites/default/files/documents/the_disclosure_divide.pdf

¹² <http://nas-sites.org/dels/studies/methane-study/>

¹³ Ibid

¹⁴ Ibid

¹⁵ <http://www.onefuture.us/who-we-are/>

¹⁶ <http://www.ccacoalition.org/en/news/eight-energy-companies-sign-guiding-principles-reduce-methane-emissions>

Conclusion

- The Company incorrectly claims a similar proposal was voted on in 2014.
- The company fails to report on the scope of its LDAR program, leaving investors in the dark as to the extent of this important management practice.
- The Company reports methane emissions as a rate but does not report methane emissions as a standalone figure. The Company can improve disclosure for this item without conducting additional expensive analyses.
- The Company does not report methane emissions using direct measurement, a more effective and accurate approach, or report that it incorporates direct measurement into its assessment of methane leak management, as do leading companies.
- Several of the Company's peers have set quantitative methane emissions reduction targets. Setting a target presents an opportunity in which the Company can join its peers as an industry leader in methane management.

A report that reviews policies, actions and plans related to methane emissions management will help investors better understand the Company's position to manage financial, reputational and regulatory risk from methane emissions associated with their operations. For the reasons discussed above, **we recommend you vote FOR Proposal 4.**