

## American Meteorological Society

This document provides an extension to information gathered for the report, *Irresponsible Science?: How the fossil fuel and arms industries finance professional engineering and science organizations*<sup>1</sup>, published by Scientists for Global Responsibility (SGR) in October 2019. Information sourced from the American Meteorological Society's publicly available documents is provided first, followed by commentary by SGR.

The American Meteorological Society—or simply the AMS – is a large professional organization with nearly 12,000 members.<sup>2</sup> Its creation dates to 1919, with the organization launching its first scientific journal, the *Journal of Meteorology*, in 1945; this later split into two journals, the *Journal of Applied Meteorology* and the *Journal of the Atmospheric Sciences*.<sup>3</sup>

### *Statement of purpose and values*

The AMS summarises its main goals on its website as follows.

#### *Core Values*

We value the integrity of science and the scientific process.

We believe that a diverse, inclusive, and respectful community is essential for our science.

We believe that decisions affecting society should be made in a transparent, evidence-based manner.

We are committed to excellence, relevance, and agility in all our activities.<sup>4</sup>

#### *Mission Statement*

The American Meteorological Society advances the atmospheric and related sciences, technologies, applications, and services for the benefit of society.<sup>5</sup>

#### *AMS Strategic Goals*

- To convene a wide range of related disciplines and professions in tackling critical problems of societal importance that center on weather, water, and climate.
- To carry out the AMS mission through innovative use of first-class publications, meetings, and other vehicles.
- To cultivate a talented, diverse, and enthusiastic workforce in the professions served by the AMS.
- To accelerate the development and enhance the utility of applications, products, and services that leverage weather, water, and climate science.
- To advocate for the importance of the scientific process and to serve as a trusted source of information for public decision making.
- To build knowledge of the atmospheric and related sciences among varied audiences.
- To develop greater synergies among all sectors of the enterprise.
- To support collaborative national and international programs that benefit society, help protect lives, build economic value, and foster resilience.

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<sup>1</sup> <https://www.sgr.org.uk/publications/irresponsible-science/>

<sup>2</sup> <https://www.ametsoc.org/index.cfm/ams/membership/>

<sup>3</sup> <https://www.ametsoc.org/ams/index.cfm/about-ams/ams-history/history-of-the-ams/>

<sup>4</sup> <https://www.ametsoc.org/index.cfm/ams/about-ams/ams-organization-and-administration/strategic-goals/>

<sup>5</sup> <https://www.ametsoc.org/index.cfm/aMS/about-ams/>

- To maintain a commitment to the long-term health and fiscal integrity of the AMS and to the accessibility of its products and services.

### Investments

According to Form 990 tax return information obtained via ProPublica, in December 2019 the AMS held \$7.68m in publicly traded securities.<sup>6</sup>

After reaching out to AMS Executive Director, Keith Seitter, SGR was informed that the organization is invested in the following mutual funds:

Mutual Fund (Investment Manager)	Percentage of fund invested in fossil fuels <sup>7</sup>
FIREX (Fidelity)	0%
FITLX (Fidelity)	1.96%
FIVFX (Fidelity)	1.45%
VFTAX (Vanguard)	0.87%
VAIPX (Vanguard)	0%
VWILX (Vanguard)	1.91%
VIMAX (Vanguard)	8.38%
VGSLX (Vanguard)	0%
VBIRX (Vanguard)	0%
VSMAX (Vanguard)	6.1%
PTTAX (Pimco)	0%

### Investment policy

The AMS does not appear to hold an ethical investment policy.

### Transparency

The AMS does not publicly disclose where it holds any of its \$7.68m in investments, giving it zero transparency.

### Corporate Patrons

<sup>6</sup> <https://projects.propublica.org/nonprofits/organizations/42103657/202013189349308286/full>

<sup>7</sup> Information sourced from <https://fossilfreefunds.org/>

We were unable to find any evidence of financial sponsorship from fossil fuel companies. There was, however, a significant proportion of sponsors involved in arms manufacturing, including Lockheed Martin, Ball, L3Harris and Northrop Grumman.<sup>8</sup>

### **Education programmes and grants**

The AMS does not appear to be accepting corporate sponsorship from fossil fuel companies for its education programmes and grants.

### **Events sponsorship**

The AMS does not have any events sponsored by fossil fuel corporations.

### **Environmental policy**

Whilst the AMS does not appear to have a publicly available environmental policy, its FAQ section on Environmental Stewardship does outline a number of the measures the organization is taking to limit its impact on the climate, including plastic-free mailers for its journals, 100% wind power for its Washington office, a goal of 100% renewable energy for the organization as a whole by its 100<sup>th</sup> anniversary in 2019, and some efforts to make its annual meetings more environmentally friendly.<sup>9</sup>

### **Other relevant information**

In 2011, the AMS released a statement on its ambition for more environmentally-friendly meetings that includes the following guidance:

- 'Advise participants in advance of the meeting's green goals and request their cooperation and participation in meeting them.
- Seek sponsors and donors reflecting positive environmental values and practices.
- Select a destination consistent with the meeting purpose and attendees' locations, connected with major transportation hubs via mass transit systems, and conducive to walking and biking.
- Consider using offsets programs to reduce impacts of carbon emissions associated with attendee travel, and provide attendees with relevant information.
- Consult convention and visitors bureaus regarding venues and suppliers using green practices.
- Provide opportunities for some (e.g., keynote) speakers to deliver addresses remotely and avoid traveling to the meeting for a brief stay.
- Extend the conference benefits with minimal environmental impact by providing online opportunities for people not attending the conference to obtain conference information.
- Minimize participant gifts, but when provided minimize packaging and toxic materials.

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<sup>8</sup> <https://www.ametsoc.org/index.cfm/ams/membership/ams-corporation-and-institutional-membership/list-of-ams-corporation-and-institutional-members/>

<sup>9</sup> <https://www.ametsoc.org/index.cfm/ams/about-ams/faqs-on-environmental-stewardship/>

- Minimize printed material, use paper with certified recycled content and a high proportion of postconsumer content, avoid chlorine-bleached paper, and print double-sided using vegetable-based inks.
- Use local products and talent when possible to minimize transportation-related pollution.
- Provide participants opportunities to comment on the environmentally friendly practices of the conference and suggest improvements.<sup>10</sup>

In 2019, the AMS released a statement that reiterated the science and urgency of Climate Change as an official position of the organization.<sup>11</sup>

In 2020, the AMS adopted a position statement on the importance of investment in Weather, Water, and Climate (WWC) research and infrastructure.<sup>12</sup>

In 2014, the *American Meteorological Society Bulletin* carried out a survey of AMS to determine the consensus amongst members on the existence and causes of global climate change.<sup>13</sup>

### **SGR comments**

SGR acknowledges that the AMS has gone to some effort to acknowledge the scientific consensus on climate change along with its severity, and provided more information on its investments than several of the other professional organizations we contacted in the US.

SGR has continuing concerns, however, on the following aspects:

#### *Transparency*

The AMS has very low public transparency on its company investments, with there being no accessible information available on where the \$7.68m highlighted in the company's 990 form for 2019 is held. Beyond publicly available information, SGR reached out to executive director of the AMS, Keith Seitter, who disclosed that the organization does not hold any direct investments in companies, stating that the AMS invests 'only in mutual funds and makes use of SRI [socially responsible investment] funds as part of its overall portfolio.' After being provided with a list of the mutual funds that the organization holds, we were able to determine that the AMS does hold indirect investments in the fossil fuel industry.

Given that many members of the public are deeply concerned about climate change and that those with a background in climate sciences have a current and future role in measuring, projecting and mitigating the effects of climate change, the AMS's indirect investment via mutual funds in fossil fuel companies is concerning.

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<sup>10</sup> [www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/green-meetings/](http://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/green-meetings/)

<sup>11</sup> <https://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/climate-change1/>

<sup>12</sup> <https://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/priorities-for-a-new-decade-weather-water-and-climate/>

<sup>13</sup> <https://journals.ametsoc.org/view/journals/bams/95/7/bams-d-13-00091.1.xml>

As the AMS makes clear in its statement on Weather, Water and Climate, “Intensive observations and research over the past four decades have shown that people are causing climate to change and that human-caused climate change is dangerous and the consequences potentially dire.”<sup>14</sup>

As the current US government itself states, if urgent action is not taken on climate change, “the costs of our inaction will be passed down to future generations.”<sup>15</sup> By offering financial support to an industry responsible for the worsening of climate change, the organization’s investments in fossil fuel companies appear to contradict in action the severity of climate change as outlined in the AMS’s position statements.

SGR has concerns about investments in and financial ties to fossil fuel companies by professional science and engineering organizations for these reasons:

- Professional science and engineering organizations have considerable influence with politicians and the public and it’s crucial that they put in place robust science-based targets and plans that are compatible with the goals of the Paris Agreement - and end lobbying behaviour that could undermine it;
- As the UK Health Alliance on Climate Change puts it, “engaging with companies whose business model relies on fuel extraction is of limited use—only divestment will stop extraction”.<sup>16</sup> Worldwide, according to the Alliance, over 1,000 organizations with £7 trillion assets have committed to divesting from fossil fuels and instead investing in climate solutions.<sup>17</sup> Research indicates that divestment reduces the price of fossil fuel shares. According to a team at the University of Waterloo in Canada, “lower share prices increase the costs of capital for the fossil fuel industry, which in turn decreases their ability to explore new resources and exploit proven resources”.<sup>18</sup> The greater the likelihood of these fossil fuel resources staying in the ground, the more likely we are to meet the international climate change targets agreed under the Paris Agreement in order to prevent potentially catastrophic climate change;
- In order to keep to the below 2°C target, only one-fifth of known fossil fuel reserves can be burned, putting these assets at risk of becoming stranded. The fraction is even smaller when considering how to meet the 1.5°C target. According to the UK Health Alliance on Climate Change, fossil fuels are an increasingly risky investment and fossil fuel free indexes equalled or outperformed unsustainable alternatives for 5-10 years. “Divestment announcements by prominent investors signal financial risks to the market, which in turn depress share prices,” say the University of Waterloo researchers. “Therefore, divestment announcements can have a measurable impact on the fossil fuel industry.” Shell said in 2018 that divestment had become a material risk to its business.<sup>19</sup> In 2020 fund manager CCLA, which invests on behalf of charities including Church of England dioceses, dropped its investments in oil giants Shell and Total for financial reasons.<sup>20</sup> On January 27<sup>th</sup> 2021, ratings agency S&P warned 13 oil and gas companies, including Royal Dutch Shell and Total, that it is considering downgrading

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<sup>14</sup> <https://www.ametsoc.org/index.cfm/ams/about-ams/ams-statements/statements-of-the-ams-in-force/priorities-for-a-new-decade-weather-water-and-climate/>

<sup>15</sup> <https://www.state.gov/policy-issues/climate-crisis/>

<sup>16</sup> <http://ukhealthalliance.org/divestment>

<sup>17</sup> <https://www.divestinvest.org/11-trillion-counting-divestinvest/>

<sup>18</sup> <https://theconversation.com/how-divesting-of-fossil-fuels-could-help-save-the-planet-88147>

<sup>19</sup> <https://www.theguardian.com/commentisfree/2019/oct/13/divestment-bank-european-investment-fossil-fuels>

<sup>20</sup> <https://www.divestinvest.org/church-of-england-fund-drops-remaining-fossil-fuel-investments/>

their credit ratings. The agency has increased its risk rating for the oil and gas sector as a whole from “intermediate” to “moderately high” because of the move away from fossil fuels, poor profitability and volatile prices, according to news reports.<sup>21</sup> There are also signs that oil companies may struggle to recruit employees with the skills they need.<sup>22</sup>

- Many fossil fuel companies are relying on carbon capture technology and nature-based solutions being deployed at a huge scale to offset their planned emissions.<sup>23</sup> Heavy reliance on the global scale deployment of carbon capture and storage technologies is misplaced given the lack of progress in this area for the last 20 years. According to an international group of 41 scientists and academics, such technologies are “expensive, energy intensive, risky, and their deployment at scale is unproven.”<sup>24</sup> It is irresponsible to base net zero targets on the assumption that uncertain future technologies will compensate for present day emissions.”

For those keen to retain support for the energy sector, there are plenty of companies that are much more progressive than fossil fuel companies in which to invest. For example, Orsted (formerly DONG, Danish Oil and Natural Gas) has shifted from being a fossil fuel dominated company to one heavily focused on renewable energy. Similarly, some large German engineering companies, such as Siemens<sup>25</sup> and E.ON, have also made major shifts away from fossil-fuel related work.

There is, of course, a narrow window of opportunity to keep global temperature rise below 1.5°C that warrants a fast transition away from fossil fuel dependency. We think that investment in the renewable energy and energy storage sectors would meet demand for energy more cost-effectively and more sustainably whilst continuing to provide jobs for geologists, investment in green chemistry would promote the use of alternative renewable feedstocks, and investment in energy conservation measures would reduce the energy demand.

#### *Financial links to arms corporations*

We have also identified that AMS has recent financial links with (at least) the following companies in the arms sector:

- Northrop Grumman
- L3Harris
- Ball
- Lockheed Martin

SGR has ethical concerns about investments in and other financial ties to arms companies by professional science and engineering organizations, especially those that export to nations with poor human rights records or are involved in the development and production of nuclear weapons systems. Hence we also urge professional bodies to minimise their financial links with this sector.

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<sup>21</sup> <https://www.theguardian.com/business/2021/jan/27/rating-agency-sp-warns-13-oil-and-gas-companies-they>

<sup>22</sup> <https://www.ft.com/content/3b53f1bd-4625-4733-afb9-af4301257506>

<sup>23</sup> <https://insideclimatenews.org/news/16072020/oil-gas-climate-pledges-bp-shell-exxon/>

<sup>24</sup> <https://www.climatechangenews.com/2020/12/11/10-myths-net-zero-targets-carbon-offsetting-busted/>

<sup>25</sup> Siemens has committed to the 1.5°C target under the SBTi and E.ON’s carbon emissions are aligned with the below 2°C pathway according to TPI.

