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**Testimony in Support of LD 1870, An Act to Establish a Climate Superfund Cost Recovery Program to  
Impose Penalties on Climate Polluters**

**To the Committee on Environment and Natural Resources  
by Jack Shapiro, Climate and Clean Energy Program Director  
May 5, 2025**

Senator Tepler, Representative Doudera, members of the Environment and Natural Resources Committee, my name is Jack Shapiro, and I am the Climate and Clean Energy Director at the Natural Resources Council of Maine (NRCM). NRCM is a nonpartisan membership organization that has been working for more than 65 years to protect, restore, and conserve Maine's environment, now and for future generations. On behalf of our nearly 20,000 members and supporters, NRCM testifies in support of LD 1870, An Act to Establish a Climate Superfund Cost Recovery Program to Impose Penalties on Climate Polluters.

LD 1870 would generate funding for climate adaptation projects in Maine, by assessing cost recovery fees on large global fossil fuel companies. The pollution from these fossil fuel companies' products – largely carbon dioxide – is the primary cause of climate change, which is already impacting Maine, and poses a major threat to Maine's woods, waters, wildlife, coasts, and communities.

Our support for LD 1870 is rooted in both principle and practicality.

**Principle: Companies should be responsible for the pollution they create and the damage it causes.**

The fundamentals of climate science have been known for a very long time. French mathematician Joseph Fourier first published work describing how Earth's atmosphere traps heat in 1824, just a few years after Maine became a state.<sup>1</sup> In late 1856 and 1861 respectively, American scientist Eunice Foote and Irish scientist John Tyndall demonstrated the heat-trapping properties of carbon dioxide.<sup>2</sup> To situate these discoveries historically, this is the era that brought us bedrock scientific theories like evolution (Charles Darwin, 1859),<sup>3</sup> germ theory (Louis Pasteur, 1861),<sup>4</sup> and genetics (Gregor Mendel, 1865).<sup>5</sup> In 1896, 129 years ago, Swedish physicist Svante

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<sup>1</sup> Fourier, Joseph. *Remarques générales sur les températures du globe terrestre et des espaces planétaires*. 1824. *Annales de Chimie et de Physique*. <https://geosci.uchicago.edu/~rtp1/papers/Fourier1827Trans.pdf>

<sup>2</sup> Foote, Eunice. *On the Heat in the Sun's Rays*. 1856. *American Journal of Science*.

<https://archive.org/details/mobot31753002152491/page/381/mode/2up?view=theater>; Tyndall, John. *The Bakerian Lecture: On the Absorption and Radiation of Heat by Gases and Vapours, and on the Physical Connexion of Radiation, Absorption, and Conduction*. 1861. *Philosophical Transactions of the Royal Society of London*. <https://www.jstor.org/stable/108724?seq=1>

<sup>3</sup> Darwin, Charles, and Wallace, Alfred. *On the Tendency of Species to form Varieties; and on the Perpetuation of Varieties and Species by Natural Means of Selection*. August 1858. *Zoological Journal of the Linnean Society*.

<https://academic.oup.com/zoolinnean/article-abstract/3/9/45/2701607?redirectedFrom=fulltext>

<sup>4</sup> Pasteur, Louis. *Mémoire Sur les corpuscules organisés qui existent dans l'atmosphère: Examen de la doctrine des générations spontanées (Account of Organized Corpuscles Existing in the Atmosphere: Examining the Doctrine of Spontaneous Generation)*. May 19, 1861. *Paris Society of Chemistry*.

<https://gallica.bnf.fr/ark:/12148/bpt6k9761522s.textelimage>

<sup>5</sup> Mendel, Gregor. *Versuche über Pflanzenhybriden. (Experiments in Plant Hybridization)*. 1865. *Brünn Natural History Society*. <http://www.esp.org/foundations/genetics/classical/gm-65.pdf>

Arrhenius – who a few years later won the Nobel prize for defining acids and bases – directly connected the burning of fossil fuels, atmospheric carbon dioxide concentrations, and Earth’s temperature for the first time.<sup>6</sup>

By the early 1980s, large fossil fuel companies were not only aware of this, they were conducting their own research that accurately confirmed the scientific consensus on climate change and its impacts.<sup>7</sup> However, in the following years, instead of taking responsibility, they chose to mislead the public about the danger the use of their products entailed.<sup>8</sup>

The longstanding legal and environmental framework for addressing environmental pollution is the self-explanatory “polluter pays” principle. In this case, as large fossil fuel companies knowingly expanded fossil fuel production, resisted diversifying into other lines of business, and actively promoted a product that is now causing significant harm around the world, they should contribute to paying for those damages, as LD 1870 would have them do.

### **Practicality: Maine requires additional resources to prepare for and respond to climate impacts.**

Climate change is already having significant impacts in Maine. Last winter’s storms caused \$90 million in damage to public infrastructure alone. The damage to private property is likely significantly higher. The Maine Climate Council’s 2020 report on “the costs of doing nothing” outlines the scale of projected climate impacts in Maine. Just a small sampling includes: \$17.5 billion in damage to coastal buildings, including municipal water treatment plants and other infrastructure; tens of thousands of lost jobs in forestry, agriculture, tourism, and in coastal communities; threats to the fishing industry; and increases in vector-borne diseases like eastern equine encephalitis and Lyme disease.<sup>9</sup> These are just some of the damages fossil fuel pollution is bringing to Maine.

These damages should not be borne by Maine taxpayers alone. LD 1870 puts in place a reasonable structure to assess fees for damages on the largest and most profitable companies in the world, which have benefited tremendously from externalizing the damage their products have created in communities – like those across Maine – for many years.

### **Conclusion**

Fossil fuel companies and their allies will no doubt challenge this bill in court, but that is a challenge we should welcome, both on principle, and because in practice Maine deserves to be compensated for the significant damages our state has already borne and will face in the future.

We support LD 1870, and we urge the Committee to do so as well.

Thank you.

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<sup>6</sup> Svante Arrhenius. *On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground*. April 1896. Philosophical Magazine and Journal of Science. [https://www.rsc.org/images/arrhenius1896\\_tcm18-173546.pdf](https://www.rsc.org/images/arrhenius1896_tcm18-173546.pdf)

<sup>7</sup> G. Supran, et. al. *Assessing ExxonMobil’s global warming projections*. January 13, 2023. Science. <https://www.science.org/doi/10.1126/science.abk0063>

<sup>8</sup> Geoffrey Supran and Naomi Oreskes. *Assessing ExxonMobil’s climate change communications (1977–2014)*. August 23, 2017. Environmental Research Letters. <https://iopscience.iop.org/article/10.1088/1748-9326/aa815f>

<sup>9</sup> Eastern Research Group for the Maine Governor’s Office of Policy Innovation and the Future (GOPIF). *Assessing the Impacts Climate Change May Have on the State’s Economy, Revenues, and Investment Decisions: Volume 2: Cost of Doing Nothing Analysis Final*. August 7, 2020. [https://www.maine.gov/future/sites/maine.gov/future/files/inline-files/ERG\\_MCC\\_Vol2\\_CostOfDoingNothing\\_9-1-2020.pdf](https://www.maine.gov/future/sites/maine.gov/future/files/inline-files/ERG_MCC_Vol2_CostOfDoingNothing_9-1-2020.pdf)

