Dear President Biden
CC: Vice President Harris, Energy Secretary Granholm, OSTP Director Prabhakar, OMB Director Young, FERC Executive Director Porter, National Climate Advisor Zaidi

The undersigned organizations are encouraged by the leadership of the Biden-Harris Administration for beginning to take steps to protect the public from harms associated with artificial intelligence (AI), but have many outstanding concerns. Like many technological advancements in the past, AI has the potential to improve health and educational outcomes and access to critical information, goods, and services. Yet, as the recent Executive Order (EO) acknowledges, AI also carries significant risks. As the last month's upheavals at OpenAI shows, the governance and decision making around AI is being developed and decided upon behind closed doors, with dangerously little transparency, or input from the public that will be impacted by it. The latest corporate moves seem to have expanded Silicon Valley's control of AI only to include more of Wall Street, continuing to leave civil society and those representing the public interest outside.

We were disappointed that AI's potential to worsen the climate change crisis, which President Biden himself referred to as "the number one issue facing humanity,[1]" was not addressed as a risk associated with the widespread use of AI in the EO. Our concerns about AI focus on its potential use to spread climate disinformation, and its vastly expanding energy use, both of which require basic transparency rules that are not included in the EO. Unfounded hype from Silicon Valley says that AI can save the planet sometime in the future but research shows the opposite is actually occurring right now.[2]

This week, leaders around the world, including Vice President Harris and Special Presidential Envoy for Climate John Kerry from the Biden-Harris administration, are preparing to attend COP28 to discuss critical carbon-emitting benchmarks necessary to preserve our planet. Without significant progress in carbon reduction, we risk an acceleration of climate disasters, including deadly floods, violent wildfires, famine, drought, and species extinction. Against this dire backdrop, we must carefully consider and mitigate the ways AI might intensify the climate crisis.

The creation and use of AI large language models (LLMs) heightens the risks associated with climate change on two fronts. First, AI LLMs can more quickly, cheaply, and covertly produce and distribute targeted climate disinformation which threatens to perpetuate climate denialism and slow efforts to fight climate change.[3] Second, due to their enormous energy requirements and the carbon footprint associated with their growth and proliferation, the widespread use of LLMs can increase carbon emissions.

Generative AI threatens to amplify the types of climate disinformation that have plagued the social media era and slowed efforts to fight climate change. Researchers have been able to easily bypass ChatGPT's safeguards to produce an article from the perspective of a climate

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[1] CNBC, "Joe Biden calls climate change the 'number one issue facing humanity'," Oct. 24, 2020, Link.
[2] CNN, "How AI could power the climate breakthrough the world needs," Nov. 27, 2023, Link.
[3] Stanford University & Georgetown University, "Can AI Write Persuasive Propaganda?", Feb. 21, 2023, Link.

change denier that argued global temperatures are actually decreasing.[4] Elsewhere, studies have documented extensive examples of the harms caused by climate disinformation on social media in the U.S. that could be further worsened by the onset of AI, including: an overall rise in the amount of climate disinformation presented to users;[5] algorithmically enhanced lies that falsely blamed oil and gas infrastructure failures on wind power;[6] enhancing the monetization of climate disinformation by both social media companies (profit generated via ads) and by climate deniers who create content (via revenue-sharing);[7] false claims linking wind power and whale deaths;[8] and the disproportionate reach and impact of climate denial narratives during global climate negotiations.[9] LLMs are likely to make this problem worse, not only because social media content is used to train such models, but also due to the ease with which people and organizations across the globe can use LLMs to produce vast volumes of climate disinformation that is specifically tailored to mislead unique audiences.

Additionally, but no less important, is the staggering amount of energy and physical resources LLMs consume over their life-cycle. While exact figures are unknown due to the unwillingness of Big Tech companies to release their data to the public, we know that data centers account for as much as 1.5 percent of total global electricity use[10] and U.S. data center consumption is predicted to double by 2030.[11] Data center energy use already exceeds the commercial airline industry.[12] AI search queries could increase energy consumption by as much as five to twenty fold, according to estimates from industry.[13] Many claim AI will reduce energy consumption, citing as much as a 50 percent efficiency gain in data centers.[14] However this is within the context of vastly expanding per-search energy use, and vastly expanding data centers. Simply put, current estimates are that it could more than double energy use.

Given the explosion in use of generative AI—ChatGPT, for example, has grown from 100 million active monthly users to 100 million active weekly users in the year since it launched—it is imperative that we better understand the extent to which it is contributing to the climate crisis.[15]

The recent EO from the Biden-Harris Administration directs the Secretary of Energy, National Climate Advisor, and others to work in collaboration with the private sector and members of academia to support development of AI tools to mitigate climate change risks. We request that this same task force consider how to ensure the AI boom does not contribute to the climate change crisis.

We urge this task force to consider how to leverage the power of the federal government to:

- Require companies to publicly report on energy use and emissions produced by the full life cycle of AI models, including training, updating and search queries.

[4] Inside Clilmate News, "AI Can Spread Climate Misinformation 'Much Cheaper and Faster,' Study Warns," March 31, 2023, Link.
[5] The Times, "Climate-sceptic accounts surge after Elon Musk's Twitter takeover," April 17, 2023, Link.
[6] Friends of the Earth, "New Facebook study: 99 percent of climate disinformation goes unchecked," Sept. 21, 2021, Link.
[7] The New York Times, "Google Promised to Defund Climate Lies, but the Ads Keep Coming," May 2, 2023, Link.
[8] Media Matters for America, "Misinformation about recent whale deaths dominated discussions of offshore wind energy on Facebook," March 23, 2023, Link.
[9] Institute for Strategic Dialogue, "Deny, Deceive, Delay Vol. 2: Exposing New Trends in Climate Mis- and Disinformation at COP27," Jan. 19, 2023, Link.
[10] IEA, "Data Centres and Data Transmission Networks," Accessed November 2023, Link.
[11] McKinsey & Company, "Investing in the rising data center economy," January 17, 2023, Link.
[12] Bloomberg, "How Companies Are Seeking to Reduce the 'Invisible Emissions' of Digitization," Feb. 4, 2023, Link.
[13] Cornell University's arXiv, "Carbon Emissions and Large Neural Network Training," Accessed Aug. 14, 2023, Link
[14] MIT News, "New tools are available to help reduce the energy that AI models devour," Oct. 5, 2023, Link.Google Efficiency Report, accessed November 2023, Link
[15] TechCrunch, "OpenAI's ChatGPT now has 100 million weekly active users," November 6, 2023, Link.

- ○ Google's researchers also called for this in a 2021 peer-reviewed paper saying "To help reduce the carbon footprint of ML [machine learning], we believe energy usage and CO_2e should be a key metric in evaluating models, and we are collaborating with MLPerf developers to include energy usage during training and inference in this industry standard benchmark."[16]

- Study the effect AI systems can have on climate disinformation.

- Implement rigorous safeguards against the mass production of disinformation while preserving free expression and human rights.

- Require companies to provide an explanation to the general public of how generative AI models produce information, how their accuracy on climate change is measured, and the sources of evidence for factual claims they make.

Sincerely,
Accountable Tech
Action for Climate Emergency (ACE)
Amazon Employees for Climate Justice
Center for Countering Digital Hate
Climate Action Against Disinformation
Ekō
Electronic Privacy Information Center (EPIC)
Fight for the Future
Friends of the Earth
Global Action Plan
Green America
GreenLatinos
Greenpeace USA
Kairos Action
Open MIC
Roots
The Tech Oversight Project

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[16] Cornell University's arXiv, "Carbon Emissions and Large Neural Network Training," Accessed Aug. 14, 2023, Link.