Truth in Testimony Disclosure Form

In accordance with Rule XI, clause 2(g)(5)* of the *Rules of the House of Representatives*, witnesses are asked to disclose the following information. Please complete this form electronically by filling in the provided blanks.

Committee: Oversight and Reform

Subcommittee: Environment

Hearing Date: 04/22/2021

Hearing Title :

The Role of Fossil Fuel Subsidies in Preventing Action on the Climate Crisis

Witness Name: Peter A. Erickson

Position/Title: Senior Scientist and Climate Policy Program Director

Witness Type: ◎ Governmental ● Non-governmental

Are you representing yourself or an organization? ◉ Self ○ Organization

If you are representing an organization, please list what entity or entities you are representing:

FOR WITNESSES APPEARING IN A NON-GOVERNMENTAL CAPACITY

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Are you a fiduciary—including, but not limited to, a director, officer, advisor, or resident agent—of any organization or entity that has an interest in the subject matter of the hearing? If so, please list the name of the organization(s) or entities.

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Please list any federal grants or contracts (including subgrants or subcontracts) related to the hearing's subject matter that you or the organization(s) you represent have received in the past thirty-six months from the date of the hearing. Include the source and amount of each grant or contract.

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Please list any contracts, grants, or payments originating with a foreign government and related to the hearing's subject that you or the organization(s) you represent have received in the past thirty-six months from the date of the hearing. Include the amount and country of origin of each contract or payment.

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Please complete the following fields. If necessary, attach additional sheet(s) to provide more information.

☑ I have attached a written statement of proposed testimony.

☑ I have attached my curriculum vitae or biography.

***** Rule XI, clause 2(g)(5), of the U.S. House of Representatives provides:

(5)(A) Each committee shall, to the greatest extent practicable, require witnesses who appear before it to submit in advance written statements of proposed testimony and to limit their initial presentations to the committee to brief summaries thereof.

(B) In the case of a witness appearing in a non-governmental capacity, a written statement of proposed testimony shall include— (i) a curriculum vitae; (ii) a disclosure of any Federal grants or contracts, or contracts, grants, or payments originating with a foreign government, received during the past 36 months by the witness or by an entity represented by the witness and related to the subject matter of the hearing; and (iii) a disclosure of whether the witness is a fiduciary (including, but not limited to, a director, officer, advisor, or resident agent) of any organization or entity that has an interest in the subject matter of the hearing.

(C) The disclosure referred to in subdivision (B)(ii) shall include— (i) the amount and source of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) related to the subject matter of the hearing; and (ii) the amount and country of origin of any payment or contract related to the subject matter of the hearing originating with a foreign government.

(D) Such statements, with appropriate redactions to protect the privacy or security of the witness, shall be made publicly available in electronic form 24 hours before the witness appears to the extent practicable, but not later than one day after the witness appears.

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Witness signature

4/20/21

Date

Statement of Peter A. Erickson

Senior Scientist, Stockholm Environment Institute, U.S. Center

To be presented to:

United States House Committee on Oversight and Reform, Subcommittee on Environment

Hearing on The Role of Fossil Fuel Subsidies in Preventing Action on the Climate Crisis.

April 22, 2021

Thank you to Chairwoman Maloney, Chairman Khanna, Ranking Member Comer, and members of the subcommittee for this opportunity to testify today.

My name is Peter Erickson, and I am a senior scientist and the climate policy program director of the Stockholm Environment Institute's U.S. Center, a research affiliate of Tufts University. My research focuses on the economics and climate consequences of oil and gas extraction and use.

Today my testimony has three main points: (1) Fossil fuel subsidies are an inefficient means of supporting economic activity. (2) They undermine efforts to deal with climate change. And (3) they aggravate the need for improvements in public health.

First, fossil fuel subsidies are an inefficient means of supporting economic activity.

The United States government has subsidized fossil fuel production for more than a century, including by forgiving otherwise required tax payments, through the intangible drilling cost provision and the percentage depletion allowance in the Internal Revenue Code.

The ostensible rationale for these subsidies has been to promote increased production and jobs. However, the vast majority of the value of subsidies goes to new oil and gas wells that are already expected to be profitable and would be developed anyway.

For example, at recent average oil and gas prices ($64 per barrel oil and $2.60/mmbtu of gas), my colleagues and I estimate that over 96% of subsidy value would flow directly to excess profits, over and above the profits that would be required to satisfy minimum investment hurdles.[1]

Most of the value of these subsidies is therefore not contributing to jobs on the ground.

Even in the few cases where subsidies do lead to increased investment, subsidizing fossil fuels is not an efficient means of creating jobs.

For example, a recent review of fiscal policy measures found that spending in renewables infrastructure would generate almost three times as many full-time jobs compared to spending on fossil fuels.[2] If job creation is the goal of subsidies, other industries, besides fossil fuels, are better job creators.

Second, fossil fuel subsidies undermine efforts to deal with climate change.[3]

The process of extracting and combusting oil and gas releases both carbon dioxide and methane emissions, both of which are greenhouse gases.

Addressing dangerous climate change requires winding down emissions from burning fossil fuels. In my research with colleagues, we have used energy scenarios compiled by the Intergovernmental Panel on Climate Change to evaluate how continued production and combustion of fossil fuels compares with the long-term emissions and temperature goals of the Paris Agreement.

In particular, limiting warming to the 1.5°C goal of the Paris Agreement would see global coal, oil, gas production declining each year by about 11%, 4%, and 3%, respectively, over the next decade.[6]

Subsidies to fossil fuel producers work against this outcome, and against the emission reductions required to satisfy the Paris Agreement. They make production and combustion of fossil fuels higher than they would otherwise be, especially during periods of very low oil and gas prices when companies have little or no incentive to drill and pump without them.[4,5] But whenever these subsidy-driven increases occur, even when relatively small, they still raise global greenhouse gas emissions, undercutting other hard won gains against climate threats.[1,7]

In addition, besides the direct effects on production and emissions, fossil fuel subsidies also have other adverse impacts on attainment of climate goals. Extra cash flow made available by subsidies can be used not only for drilling, but also for promoting fossil fuels and for political activities that can result in further favoritism towards the fossil fuel industry.[7]

Subsidies can also have symbolic effects, since their continued existence may be read by other nations as a sign that the US government is not taking its commitments to subsidy reform, and consequently climate change action, as seriously as it should be.

For example, in May of 2016, with other G7 governments gathered in Japan, the US committed to eliminate "inefficient" fossil fuel subsidies by 2025[8,9]. By following through on this commitment, the US would be encouraging other countries to do the same, which would therefore multiply the benefits.

Third, fossil fuel subsidies aggravate the need for improvements in public health.

Subsidies to fossil fuels also contribute to air and water pollution at the community level, working against important public health needs.

For example, my research has found that the intangible drilling cost and percentage depletion subsidies contributed billions of dollars to the valuations of new oil and gas fields in the Appalachian basin between 2008 and 2011, fueling a rapid increase of drilling for shale gas in that region.[10]

But, the cumulative costs of the ensuing damage to public health from air pollution in the region substantially outweighed benefits from oil and gas sector employment.[11] Further, the economic prosperity that was envisioned by promoters has not materialized.[12]

Exposure to air pollution from oil and gas drilling can also exacerbate socioeconomic inequalities. For example, in the Eagle Ford basin in Texas, it is low-income and Hispanic residents who have been disproportionately exposed to gas flaring.[13]

Closing thoughts

Opponents of fossil fuel subsidy reform often take the position that the long-recognized provisions in the US tax code, like the IDC and percentage depletion allowances, are not subsidies. These opponents often argue that these measures are not subsidies specifically *because* they have existed in the tax code for so long.

But that is wrong. Policy measures and other government support that change the balance sheet of companies at a cost to the public, whether provided through the tax code or otherwise, constitute just as much a subsidy as writing a check, if they provide financial benefits that are not generally available to other industries.[14,15]

Not only do the IDC and percentage depletion measure meet that definition, but so do many other policy preferences that extend well beyond the tax code.[4]

Regulatory loopholes around cleaning up pollution from abandoned fossil fuel extraction sites, and exemptions from proper management and disposal of hazardous wastes, each provide targeted financial benefits to fossil fuels companies, while also leading to additional, indirect public health impacts.[1] Similarly, systematically inadequate fees for plugging and abandoning oil wells have led to an outstanding cleanup bill of hundreds of billions of dollars that may well be transferred from corporations to the public.[1,16]

In summary, subsidies to fossil fuel producers hold back the low-carbon energy transition. Fossil fuel subsidies are an inefficient means of supporting economic activity, they undermine efforts to limit climate change, and they aggravate the need for improvements in public health. Government support would be better spent, helping both the economy and the climate, by instead advancing other public policy aims.

Removing fossil fuel subsidies can be an important part of addressing the climate crisis.

Thank you to the committee for this important hearing.

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Peter A. Erickson

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Professional Summary

- Broad expertise in greenhouse gas abatement and policy analysis. Published first-author research articles in prominent journals, including *Climatic Change, Climate Policy, Energy Policy, Environmental Research Letters, Environmental Science and Technology, Nature, Nature Climate Change,* and *Nature Energy.*
- Twenty years experience in environmental policy research and consulting, supported by funders such as UNFCCC, European Commission, World Bank, U.S. EPA, Bloomberg Philanthropies, Energy Foundation, KR Foundation, Schmidt Family Foundation, C40 Cities, World Resources Institute, NRDC, SIDA, U.S. states of Washington and Oregon, Western Climate Initiative, City of Seattle, City of Chicago
- Skilled in economic and financial analysis, modeling, writing, public speaking, project management, communication

Professional Experience

2008-Present STOCKHOLM ENVIRONMENT INSTITUTE – U.S., SEATTLE, WA
Scientist 2008-2011; Senior Scientist 2012-2021

Selected Projects and Research

- **Oil market economics.** Leading long-term research into how supply and demand in oil markets interact, and with what CO_2 emissions implications. Major research publications in *Nature, Nature Climate Change, Nature Energy, Climatic Change*, and others. Popular commentary in the *New Yorker, Scientific American, Seattle Times*, *Salt Lake Tribune, Texas Tribune,* others.
- **Emissions implications of new fossil fuel supply infrastructure.** Researching the GHG implications and lock-in of investments in new infrastructure for supplying fossil fuels, such as oil pipelines, coal export facilities, and chemical facilities.
- **GHG emissions abatement potential of the world's cities.** Led a research effort, funded by Bloomberg Philanthropies, on the GHG emissions abatement potential of urban-scale policy levers worldwide.
- **Net emissions impact of the CDM.** Lead researcher for the UNFCCC's High Level Panel on the CDM Policy Dialogue focused on additionality and over- or under-crediting in the CDM. Contributed chapter to major research report.
- **Implications of international offsets on global climate mitigation.** Researched and modeled the supply and environmental efficacy of alternative sources and methods of crediting greenhouse gas offsets from developing countries.
- **Scenarios of domestic offset supply in a U.S. cap-and-trade system.** Lead researcher, with Michael Lazarus, on a partnership between SEI and the World Resources Institute on the economics and emissions implications of domestic greenhouse gas offsets.
- **Embodied emissions in international trade.** Led a research initiative on the embodied emissions in international trade and assessing opportunities to shift trade for both emissions and development benefits.

- **Emissions leakage and the CDM.** With Michael Lazarus, conducted an assessment of the potential for the CDM to induce activity or emissions leakage in the cement, steel, and aluminum sectors.
- **King County (WA) consumption-based GHG inventory and GHG measurement framework**. Led effort to conduct geographic and consumption-based greenhouse gas inventories and recommend a new measurement framework for King County.
- **Role of behavior and consumption in global climate mitigation.** Developed a method to estimate the GHG reductions for a nation or community due to shifts in consumption behaviors. Working paper published summer 2012.
- **City of Seattle (WA) carbon neutral scenario analysis**. Contributing to a technical scenario analysis of how the Seattle community could reduce greenhouse gas emissions to near zero in the next few decades, with a focus on the buildings and transportation sectors.
- **State of Oregon consumption-based GHG inventory**. Peter was the project manager on this effort to develop a consumption-based (rather than production- or geographic-based) GHG inventory for the State of Oregon. Published in *Environmental Science and Technology* in 2012.
- **Europe deep GHG emissions reduction scenario.** Peter developed a deep greenhouse gas reduction scenario for the EU-27's transportation, buildings, and agriculture sectors – the deepest reduction scenario proposed EU-wide at the time of its publication.
- **Greenhouse gas mitigation potential in developing countries (US EPA).** Peter was the lead researcher on a study of greenhouse gas mitigation potential and policies in six developing countries for the U.S. EPA. Published as working paper, June 2009.
- **Industry greenhouse gas benchmarking**. Peter led an assessment of benchmarking as a policy tool for reducing industrial GHGs. Funded by the Washington Department of Ecology and the Energy Foundation.
- **GHG and green energy planning in Mongolia.** Researcher on alternative scenarios of Mongolia's energy development.

2000-2008 CASCADIA CONSULTING GROUP, SEATTLE, WA
Senior Associate (2006-2008); Associate (2002-'05); Project Assistant ('00-'01)

Selected Projects - 2008

- **Climate Change Policy Initiatives (Seattle City Council).** Peter led the development of a legislative agenda to address climate change
- **Energy Efficiency Policy Study (Seattle Office of Sustainability and Environment).** Led a study of energy efficiency policies for existing buildings in Seattle to support Mayor Greg Nickels' Green Building Task Force.
- **Carbon Footprint Calculator (Seattle Office of Sustainability and Environment)** Updated the City of Seattle's greenhouse gas footprint tool for businesses to include a greater focus on business supply chain (included upstream, embedded emissions) and year-to-year tracking.
- **Greenhouse Gas Inventory (Pierce County, Washington).** Oversaw Pierce County's greenhouse gas inventory process.

Selected Projects – Pre-2008

- **Carbon Footprint Calculator (Seattle Office of Sustainability and Environment)** Peter created the City of Seattle's greenhouse gas footprint tool for businesses
- **Other Carbon Footprint Calculators (Various clients).** Peter adapted the Seattle carbon footprint calculator for use by several other state and local jurisdictions

- **Oregon Waste Prevention Strategy (Oregon Department of Environmental Quality).** Peter contributed to research in support of DEQ's Waste Prevention Strategy.
- **Zero Waste Plan (City of Chicago).** Led several tasks of the development of a Zero Waste Plan for the City of Chicago.

Committees

2015 Compact of Mayors, City Mitigation Goals – Member of aggregation technical advisory group.

2012-2014 WRI GHG Protocol Mitigation Accounting Initiative. Member of the mitigation goals accounting technical working group.

2010-2012 ICLEI-US Community Greenhouse Gas Protocol. Member of the lifecycle technical advisory committee

Education

1994-1998 Carleton College, Northfield, Minnesota, USA
B.A with major in geology and extensive studies in mathematics, studio art
Magna Cum Laude, Phi Beta Kappa, with distinction in major*;* GPA: 3.83

Selected Recent (2009-2021) Publications

Achakulwisut, P., & **Erickson, P.** (2021). Trends in fossil fuel extraction: Implications for a shared effort to align fossil fuel production with climate limits. Stockholm Environment Institute.

Erickson, P., & Achakulwisut, P. (2021). Risks for New Natural Gas Developments in Appalachia. Ohio River Valley Institute.

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