

Testimony in Opposition to Governor's Bill 884
A Bill Authorizing the Adoption of Regulations to Implement a Program to Cap and
Reduce Greenhouse Gas emissions

March 8, 2021

To: Chairs and Distinguished Members of the Environment Committee, General Assembly, State of Connecticut.

From: Lucian Pugliaresi, President, Energy Policy Research Foundation, Inc.

The scale and scope of programs to implement an energy transition of the U.S. economy requires a global program for effective implementation. The Transportation Climate Initiative (TCI) will have no measurable impact on either local or global climate and is likely to include wasteful and ineffective measures. More importantly, it will raise gasoline prices, perhaps substantially at the very moment large numbers of Connecticut residents are suffering hardship as the national economy is recovering from the Covid pandemic. Cooperation is needed on a global scale and such cooperation can only be achieved through national commitments by the federal government in negotiations with major world carbon emitters worldwide. In the transportation sector especially, such commitments require an assessment and development of least cost national standards as part of a comprehensive program for negotiating controls on carbon emissions.

Sincerely,

Lucian Pugliaresi
President
Energy Policy Research Foundation, Inc. (EPRINC)
1031 31st Street NW
Washington, DC 20007
[*loup@eprinc.org*](mailto:loup@eprinc.org)
[*www.eprinc.org*](http://www.eprinc.org)

March 8, 2021

To: Honored Chairs Sen. Cohen and Rep. Demicco and Distinguished Members of the Environment Committee, General Assembly, State of Connecticut.

From: Lucian Pugliaresi, President, Energy Policy Research Foundation, Inc.

According to news reports and economic research the economic collapse sparked by the pandemic is triggering the most unequal recession in modern U.S. history, delivering a mild setback for those at higher income levels but a depression-like blow for those at the bottom. It is in many respects a generational setback. While the nation overall has regained nearly half of the lost jobs, several key demographic groups have recovered more slowly, including mothers of school-age children, Black men, Black women, Hispanic men, Asian Americans, younger Americans (ages 25 to 34) and people without college degrees.

As the U.S. economy begins to work its way out of the severe Covid recession, gasoline prices have begun to increase. Since early March 2021, the national average for a gallon of regular gasoline has increased by two cents to \$2.74. Rising crude prices, tightening gas supplies, and increased gas demand have contributed to drivers seeing higher prices at the pump. According to new data from the Energy Information Administration (EIA), total domestic gas stocks decreased by 13.6 million bbl to 243.5 million bbl, as demand increased from 7.2 million b/d to 8.15 million b/d last week. If these trends continue alongside higher crude prices, drivers can expect incremental price increases — of at least nickel — at their local gas stations in March.

At the close of Thursday's formal trading session, WTI increased by \$2.55 to settle at \$63.83. Crude prices increased this week after the Organization of the Petroleum Exporting Countries (OPEC) decided with its allies, including Russia, to maintain existing crude production cuts of 7 million b/d through April. Additionally, Saudi Arabia — a member of OPEC — agreed to extend its voluntary production cut of 1 million b/d by one month. Crude prices have increased despite EIA's latest weekly report revealing that total domestic inventories grew by 21.6 million bbl to 484.6 million bbl last week.

We also need to understand the scale and scope of the task before us and the importance of a national program to reduce carbon emissions in a cost effective manner. We will not succeed in any meaningful change with costly regional programs that are not implemented on a national scale. We will merely impose costs on Connecticut resident. The following charts outline my concerns with the program. The first chart shows US energy consumption from 1965 to 2019. Note that after tens of billions of dollars in investment and programs, the U.S. remains heavily reliant on fossil fuels. Wind and solar represent less than 4% of primary energy consumption. This is largely because convenience and fuel density of fossil fuels are both expensive and very difficult to replace in any cost-effective manner. Figure 2 shows that there will be no energy transformation without commitments from Asia and the rest of the non-OECD world, but how will we get these commitments? It will not be through programs such as TCI, but only through global commitments negotiated in part by the federal government. Only the federal government can bring a mix of national programs with are cost-effective, minimize regional differences in

costs, and are part of an international program to gain cooperation from other carbon emitters. Figure 3 shows the importance of obtaining cooperation from China as its national economy runs almost entirely on coal. These efforts require enormous commitments from the developed world and will not be achieved through regional programs such as TCI.

Finally, we should not ignore the environmental challenges of the energy transition, another area that requires a national instead of regional effort. If alternative technologies and renewable fuels are not adopted on a broad scale and if they impose unreasonable costs and challenges much of the developing world will not embrace the change. Without the developing world, there will be no energy transition and efforts such as TCI will only impose costs, it will not deliver climate benefits. We should not underestimate the scope of the problem. Here are just a few examples:

- A single 100-MW wind farm requires roughly 30,000 tons of iron ore, 50,000 tons of concrete, and 900 tons of plastics, meaning you still need oil to build wind turbines.
- The International Energy Agency sees 160-200 million electric vehicles by 2030, BP expects 320 million by 2040. There might be about 2 billion vehicles on the road globally compared to about 1.25 billion today. Hence even 400 million electric cars would be just 20% of the total.
- To transition beyond the internal combustion engine, mining of cobalt for batteries will need to grow 300%–800%.
- Lithium mining will need to rise more than 2,000%.
- 14 metals essential to building clean-tech machines; including nickel, dysprosium, and tellurium will need to increase 200%–600%.
- Four pillars of modern civilization have no cost-effective substitute for fossil fuels: Steel, Cement, Plastics and Ammonia (Fertilizer).

Thank you for the opportunity to present my views before the Committee on Environment.

Lucian Pugliaresi

FIGURE 1

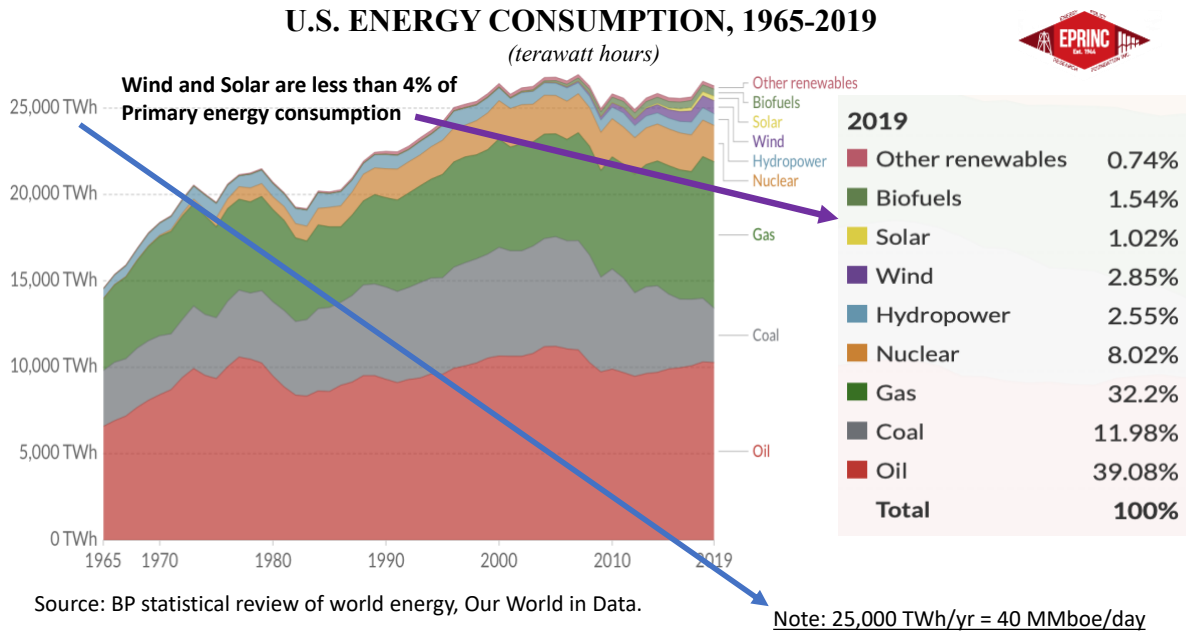


FIGURE 2

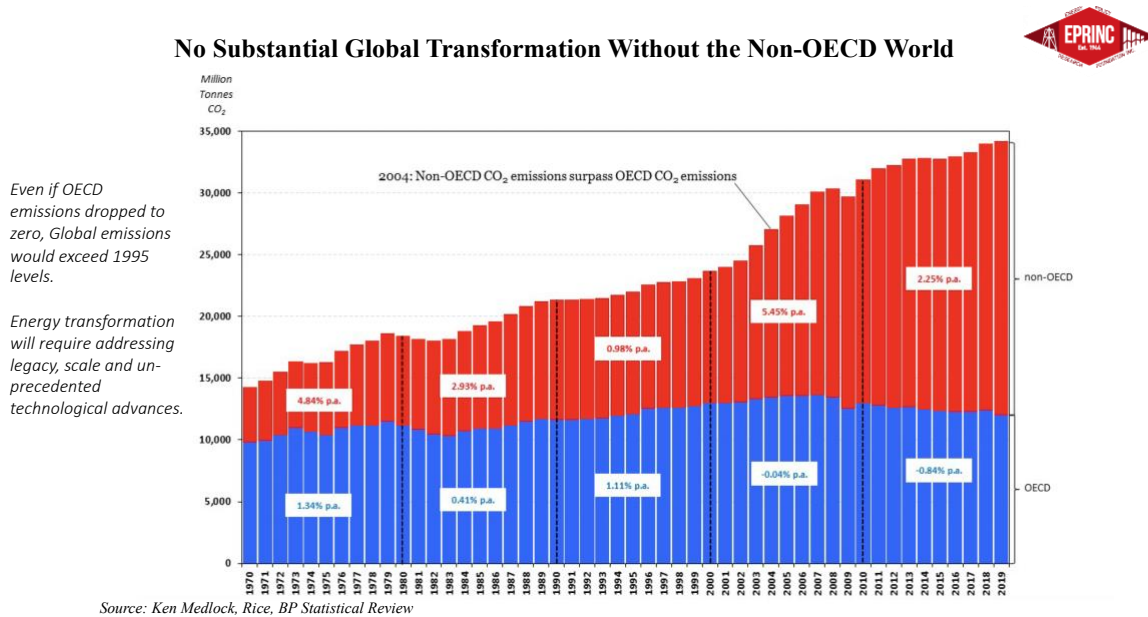


FIGURE 3

