

Six Decades of U.S. Climate Policy Evolution—A selection
David Hawkins, June 4, 2024

Slide 1: This will be a tour of six decades of US policy on climate protection.

Slide 2: We'll start in 1960. I was 17 and the CO₂ concentration was 317 ppm, about 10% above pre-industrial levels. We know that because two years earlier David Keeling set up a permanent CO₂ monitoring station at Moana Loa Hawaii. For a while CO₂ concentrations tracked my age plus 300; but that would change.

Slide 3 and 4: Two years later, 1962, the NAS published a report that contained the first climate policy advice, coming from the famed ecologist, Professor G. Evelyn Hutchinson—maximum use of solar energy. By coincidence I was working for him that summer on an ecology field study but I did not know about his advice on energy policy.

Slide 5: A year later, the Senate Committee drafting the Clean Air Act discussed the threat of CO₂ buildup due to man's activities: warmer temperatures and more destructive storms.

Slide 6: In 1965 the President himself called attention to the concern. In an environmental message to Congress LBJ noted the increase in CO₂ due to FF burning.

Slide 7: Later in 1965 LBJ's Science Advisory Committee issued a report on pollution threats and devoted an entire chapter to CO₂ from FF; noting the incredible speed man was reversing a half a billion year of geologic history.

Slide 8: A bit more guarded than the Senate Committee, the scientists noted that the CO₂ buildup "may eventually produce marked climatic change."

Slide 9: They made the first modern forecast of the amount of CO₂ buildup, predicting a 25% increase by the year 2000, which they said would produce marked changes in climate. Interestingly, they focused on climate modification as a possible response.

Slide 10: In 1967 the Senate Environment Committee spoke again; this time establishing a program to develop pollution control techniques for pollutants from fuel combustion, including CO₂. Unfortunately, the executive branch did nothing on CO₂ under this program for decades.

Slide 11: By 1969, Nixon was president and the inimitable Daniel Patrick Moynihan was a senior presidential advisor. He wrote this memo to John Ehrlichman, later of Watergate fame. Moynihan made some flamboyant predictions and flagged an end to burning FF as a possible response. However, he also said particle buildup might offset the CO₂ effects. This possibility was often cited by government officials for most of the next two decades.

Slide 12: Entering the '70s, the CO₂ level had reached 326 ppm. I was 27 and started working at NRDC in 1971. I was ignorant of climate change.

Slide 13: Energy policy, rather than climate policy dominated the '70s. First, with the 1973 oil embargo and then by the Iranian Revolution in 1979. Nixon commissioned the Federal Energy Administration in early 1974 to produce a Project Independence Blueprint, which was issued in November after Ford succeeded Nixon. The major emphasis of the report was on domestic FF production but some attention was given to Solar Energy research.

Buried in an appendix to the Solar Energy Task Force report was a startling call for curtailing FF use to keep CO₂ from exceeding 400-420 ppm. I have found no evidence that anyone other than the consulting firm author (and me) ever read this passage.

Slide 14: Jimmy Carter entered office in Jan 1977 and a top priority was issuance of a national energy plan. The plan was issued in April and as with Nixon and Ford, the emphasis was on domestic FF production. The policy imperative was to reduce dependence on imported oil and the main policy recommendation was to increase coal use and develop synfuels. CO₂ from FF was on the radar screen but policy was relegated to studying the issue.

Slide 15: A June 1977 Congressional Hearing highlights the Energy Department's approach: increase domestic FF production. Testifying on the CO₂ question, the head of the DOE research arm made it clear that domestic FF production was the "cornerstone" of the administration energy program. He cautioned the committee that nothing he said should be viewed as suggesting "that there is an impending enormous crisis caused by the increase in CO₂" from pushing FF.

Slide 16: The DOE official did note though that once the CO₂ is emitted it would remain for "several thousand years". However, he did not elaborate on the one-sided nature of this gamble.

Slide 17: Jack O'Leary, the head of the Federal Energy Administration dismissed climate science as "a hobby of a few individuals." He said he was not being pejorative but he was. The officials driving Carter energy policy were not about to let the speculation of a few scientists affect the call for more FF use. The only climate policy would be research.

Slide 18: And so Congress enacted the National Climate Program Act in 1978. The program was confined to research.

Slide 19: Gordon MacDonald sounds the alarm. Hawkins too busy to think about it. NYT. This was one of my dumber remarks to appear in print. I could have asked EPA staff to assess what EPA might do but I did not—a mistake I regret (though Reagan probably would have quashed any real assessment).

Slide 20: The Carter Science Advisor did commission a study by the NAS to assess knowledge on CO₂ impacts on climate. The "Charney" report was issued in 1979 and confirmed that CO₂ would produce climate change and there is "no reason to believe that these changes will be negligible." The NAS Committee cautioned that a "wait-and-see policy may mean waiting until it is too late." The committee did not say that was the Carter energy policy but it was.

Slide 21: After the election defeat of Carter in 1980, Carter's CEQ, headed by Gus Speth was allowed to release a report that rejected the wait and see approach.

Slide 22: The CEQ report recommended a focus on efficiency and renewable energy, avoiding FF commitments that would lead to unsafe CO2 levels, reduce deforestation and hold CO2 increases to no more than 1.5 times pre-industrial levels.

Slide 23: Entering the '80s CO2 had reached 339 ppm. I was 37; CO2 and my age increase still similar.

Slide 24: On environmental policy, Ronald Reagan was the warm-up for Trump. This sentence from a Reagan DOE official in 1987 encapsulates the government's framing of the climate issue, a framing that persists to this day. The premise is that the "major changes in energy policy" needed to address CO2 buildup will impose such heavy economic penalties that "only extremely compelling scientific evidence of impending disaster" would warrant taking action.

Slide 25: In the 1988 presidential election year there was a brief policy flourish. James Hansen gave compelling testimony on the reality of climate change to Congress; a large international conference in Toronto called for cutting global CO2 by 20% from 1988 levels by 2005; and a number of bills requiring emission cuts were introduced in Congress. These activities were in large part due to the advocacy work of my friend, Rafe Pomerance, who had been trying to get policy-makers to pay attention to the climate threat for almost a decade. Notably, the 1988 and 1989 bills were bipartisan bills: a House bill introduced in early 1989 had 144 sponsors, 25 of them R, including Newt Gingrich. None of these bills got a vote on the floor though.

Slide 26: 1990--I'm 47; CO2 at 354. CO2 is pulling ahead of me.

Slide 27: The Early 90s—Promises of Action. EPA releases a climate policy set of recommendations. UNFCCC adopted. I began to pay serious attention to climate policy.

Slide 28: The Clinton BTU Tax: economic and energy policy; not climate. Passed House but shrunk to modest gasoline tax in the Senate.

Slide 29: Clinton Post-BTU tax defeat. Only voluntary actions domestically. Kyoto Protocol; never ratified.

Slide 30: The Aughts: I'm 57; CO2 at 370

Slide 31: (run down the actions on the slide). Note that the 2003 McCain Lieberman bill got a respectable vote in the Senate 43 Ayes to 55 Nays. 6 Rs voted Aye (4 NE + McCain and Lugar). 10 Ds voted No and 2 Ds did not vote.

Slide 32: the Teens; I'm 67; CO2 at 390 in 2010. The Hawkins/ppm gap continues to grow.

Slide 33: Obama Acts

Slide 34: Trump reacts

Slide 35: The 20s, I'm 77 in 2020 and CO2 is 414 ppm, almost 100 ppm higher than in 1960. Last year it hit 421.

Slide 36: Today. We are in a policy tug of war some policy progress combined with setbacks. The Sup. Ct. overturns the Obama CO2 powerplant rule.

But Congress enacts the amusingly titled Inflation Reduction Act of 2022. The biggest climate spending bill ever but with no mandates and no Republican votes.

Just last month EPA issues new CO2 emission limits for existing coal units and new natural gas units. The same day they are published in the Fed Reg, more than a score of "red" states, power companies, and coal producers sue to overturn the rules. At this moment NRDC and other allied groups and states are drafting responses to motions to stay the rule. The D.C. Cir. denied a stay motion for the Obama CO2 rule but the Sup. Ct. granted the stay. This time around the result may be different but wait and see.

Slide 37: the IRA is a BFD. It has the potential to create huge reductions in CO2 emissions—around 50% below 2005 levels by 2035. But...

Slide 38: Achieving those reductions depends critically on the construction of very large numbers of zero-carbon power plants—wind, solar, nuclear. This is possible but far from inevitable. We are behind the pace we need—32 GW built in 2023 compared to a minimum of 46 GW needed to stay on track and the average annual build needed in the next five years ranges from 70 to 126 GW—multiples of what we have done before.

To conclude—if this were a wilderness backpacking trip, we have heard the bear and we have woken up and started to move. But we are not moving fast enough to outrun the bear. We are capable of moving faster but politicians have not yet grasped that we need to. Stay tuned.

Timeline--

1962 – G. Evelyn Hutchinson to NAS Energy Resources Report
 1965 -- LBJ Message to Congress; Science Advisory Committee rept to Pres.
 1967 – Sen. Rept on AQA 1967: Need to develop methods to control CO2 mentioned
 1969 – Moynihan to Ehrlichman memo
 1974 – FEA Project Independence Blueprint: 400-420 ppm limit recommended (in appendix)
 1977, April – Carter Nat'l Energy Plan: focus on coal and synfuels; only study CO2
 1977 – Kellogg and Schneider testimony on climate
 1978 – Nat'l Climate Program Act enacted. All research.
 1979 -- Charney NAS report
 1980, July – Gore Hearing on Climate
 1981, Jan. – CEQ, Global Energy Futures and the Carbon Dioxide Problem. Last week of Carter.
 1982, Mar 25 – Second Gore hearing on Climate. (Know enough to act.)
 1983 – EPA, Can We Delay a Greenhouse Warming?
 1983 – NAS "Changing Climate" report. Equivocal
 1984, Feb 28 – Third Gore hearing
 1985 – Villach Science Conference
 1986, June 10-11 – EPW hearing Sen. Chafee
 1987, Nov. – Sen ENR hearing w/ James Hansen
 1988 -- IPCC established
 1988 – US Pres Election Yr: (Rs want to distance from Reagan on environment)
 June 23, 1988 – James Hanson Testifies. (Inhofe attack <https://bit.ly/3mVabVF>)
 June 27-30, 1988 – Toronto Conference on the Changing Atmosphere. Cut global CO2 by 20% from 1988 by 2005
 July-Oct 1988 – Multiple bi-partisan regulatory climate bills introduced
 1989 – More bipartisan bills introduced. Pushback from coal and utilities.
 1990—EPA, Policy Options for Stabilizing Global Climate (Google Books)
 (1990—DH climate talk to Yale 25th Reunion)
 1992—UNFCCC adopted
 1993-2000 -- Clinton Admin—emphasis on voluntary actions
 1997 – Byrd-Hagel Res.
 1997— Kyoto Protocol
 1998 – S.2636 Leahy power plant CO2 bill and CO2 tax (no cosponsors)
 1999 – Petition to regulate CO2 under CAA section 202
 2000 – G.W. Bush elected. KP rejected. Use of CAA disavowed
 2002— Pavley auto law CA
 2003-2008 -- McCain/Lieberman and related bills
 2005 – CA adopts first GHG tailpipe standards
 2005 -- RGGI MOU signed (CT, DE, ME, NH, NJ, NY, VT). MA & RI signed in 2007
 2006 – AB 32 CA cap and trade
 2006 – USCAP formed
 2007 – Mass v. EPA Sup. Ct. decision
 2008 -- Obama elected
 2009 – Waxman-Markey bill passed in House

2010 – Kerry/Lieberman bill dies in Senate
2010-2012 – EPA adopts auto CO2 standards
2010 – shift to force EPA to adopt power plant CO2 rules
2015 – EPA adopts Clean Power Plan
(2015 – DH climate talk to Yale 50th Reunion)
2015 – Paris Accord
2016, February -- Sup Ct stays CPP
2017-2020 – Trump rollbacks of GHG rules
2018 – IPCC Special Report on 1.5 degrees
2019 – Green New Deal bill introduction
2020, Oct. – DC Cir 9 hours argument on Trump CPP repeal and ACE replacement
2020, Nov. – Election (TBD)