

# Dirty Secrets in Pallone's "Clean Energy" Plan

Chairman Frank Pallone recently introduced the CLEAN Future Act, a plan to reduce carbon emissions. As head of the House Energy and Commerce Committee he is supposed to lead the Democrats on climate change.

Unfortunately, the Pallone proposal is a failure of climate leadership in at least five key regards:

- 1. The Pallone standard sets a target rate for carbon intensity at 1,807 CO2e lbs/MWh, nearly twice as dirty as the current national average. This is a significant failure of ambition at a time of climate crisis.
- 2. Beginning from this dangerously lax definition of clean energy, the plan leaves the door wide open for fracked gas and potentially even some coal to qualify as "clean."
- 3. The proposed target for emissions intensity is significantly less ambitious than the 2030 targets in the Clean Power Plan, the Obama administration's signature regulations under the Clean Air Act.
- 4. The proposed Pallone target is barely more stringent than emission standards recently proposed by the Trump administration for supercritical coal plants.
- 5. If the Pallone proposal is similar to existing emissions trading systems, it will likely include a loophole for woody biomass, effectively allowing massive emissions from burning wood to be treated as carbon neutral.

## A Dirty Energy Standard

At the center of Pallone's proposal is a clean energy standard, a mandate requiring power providers to achieve 100% clean energy by 2050. As you would expect, it allows renewable energy like wind and solar to be credited towards that 100% goal. But it also offers a curious definition of "clean energy," allowing all power sources that emit less than 0.82 metric tons, or 1,807 pounds, of carbon dioxide equivalent per MWh to qualify as well.

It can't be emphasized enough how different a field of zero-emission solar panels is from a power plant that emits hundreds of pounds of CO2 each hour. Most of us don't walk around with units of measure for power plants in our heads, but that is really quite a lot of pollution for a supposedly clean energy standard.

For starters, virtually every kind of natural gas power plant falls comfortably within that range. A lot of older coal plants, averaging over 2,100 pounds of CO2 according to a <u>2016 survey</u> from the Department of Energy, would be disqualified, but not all of them. Many so-called <u>supercritical and ultra-supercritical</u> coal plants could conceivably make the cut.

Comparing Pallone's proposed 1,807 pounds of CO2e per MWh to other standards is equally troubling. For instance, the Trump administration recently proposed dismantling an Obamaera rule for regulating carbon pollution from new coal plants. But even under the weaker Trump rule, supercritical coal plants would still be allowed to emit <u>1,900 pounds</u> of CO2 per MWh — a number only barely on the outside of Pallone's range.

Exactly how the standard would be implemented raises a bunch more questions. The framework itself reads:

> "Non-emitting generators receive full credit for the electricity they produce, whereas coal- and gas-fired generators with carbon intensities lower than 0.82 metric tons [1,807 pounds] of CO2 (for example, those that capture their emissions) receive partial credit after accounting for upstream fossil emissions."

Putting to one side the fact that carbon capture is <u>disastrously expensive</u>, it is odd that it is mentioned at all. Even calculating for upstream emissions associated with extraction and transportation, the Pallone standard is likely dirty enough to allow for natural gas and some coal plants without even pretending to incentivize carbon capture technologies that either don't exist or are too expensive to deploy. For a clean energy standard this looks like an awful lot of fossil fuel.

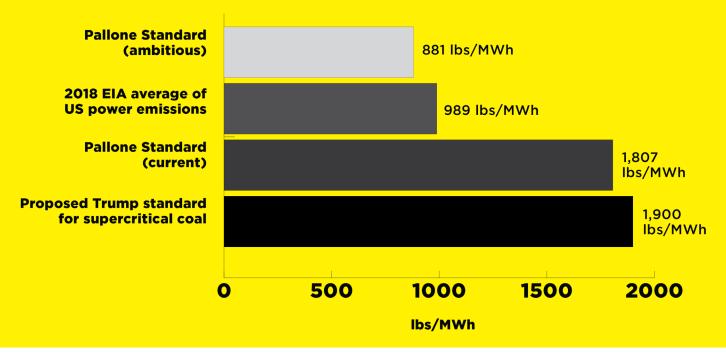
#### What's in an equivalent? CO2 vs CO2e

One thing to keep in mind is that the Pallone standard is measured in terms of carbon dioxide equivalent. In practice this means that emissions of additional greenhouse gases, like methane leaks, could be factored into the overall emissions target. But the exact scope of such emissions, especially around natural gas, is deeply controversial with estimates <u>varying</u> <u>widely</u>. However, the proposed Pallone standard is so high that even with substantial upstream emissions, natural gas would not be disqualified.

The more ambitious scenario of 881 lbs/MWh changes the situation somewhat. Nearly a decade ago in 2012, the state with the <u>lowest average</u> NGCC emissions was Tennessee at 771 lbs/MWh. Even assuming a 20% <u>increase</u> in emissions owing to leakage, this likely means that the standard is low enough to protect newer natural gas plants — without even factoring in the potential of many facilities on the edge of the target emission rate to purchase credits to achieve compliance.

Putting aside questions of measurement, a related risk is political. One of the biggest dangers of Pallone's technology neutral approach is the faith it puts in future administrations. If a future president tasked the Environmental Protection Agency (EPA) with developing life-cycle estimates as part of applying the Pallone standard, there is no guarantee that the result would not simply defer to the fossil fuel industry by minimizing or totally excluding upstream emissions.

### **Clean Energy in Context**



The Pallone proposal is less ambitious than the Obama administration's 2030 targets. Over five years ago, the Obama administration finalized its Clean Power Plan. Every single state was given a goal to reduce its carbon emissions based on various factors like energy mix and region. Although the plan was nowhere near ambitious enough to keep the world below the 1.5 degrees Celsius threshold needed to avoid climate catastrophe, the fact remains that every single state in the union was mandated to achieve a 2030 target more ambitious than Pallone's 1,807 lbs/MWh.

It is also important to note that the Obama Clean Power Plan used a 2012 baseline for each state to calculate their emission reduction targets. While Pallone is touting his framework as a bold policy to tackle the climate crisis, the fact of the matter is that over half of the states -27 to be exact — already had a lower emissions baseline in 2012 than what Pallone is proposing in 2020. States as diverse as Louisiana, Massachusetts and Nevada all had 2012 baselines low enough to fall within Pallone's standard.

**Even Pallone's more ambitious target would make fracking the status quo for another generation.** The current framework does indeed entertain the possibility of a more stringent baseline for clean energy, throwing the number 0.4 metric tons of CO2e, or 881 pounds, per MWh as a possible alternative. Although nearly anything would be an improvement on his first take, this is still nowhere near enough.

Wind, solar and storage are indeed expanding and getting cheaper, but there is no escaping the fact that the first years of the new millennium saw a massive buildout of natural gas capacity. This was accompanied by the fracking boom, the dangerous drilling technology linked to water contamination, increased birth defects and higher cancer rates. Today it accounts for <u>over 75%</u> of all natural gas produced in the US.

Consider <u>the fact</u> that the average nuclear reactor in the US is 37 years old and the average coal plant is 40 years old. Compare that to <u>the average</u> natural gas combined cycle (NGCC) plant at just 14 years old. These are comparatively young machines, and the over-<u>250 gigawatts</u> of US generating capacity they represent is totally incompatible with meeting our international obligation to help the world stay under 1.5 C.

Even Pallone's more ambitious target of 881 lbs/MWh could enshrine natural gas in the power sector and fracking in our communities for decades to come. NGCC emission rates fall within a variable range, but this is still a technically feasible number already achieved by many existing natural gas facilities. Again, the comparison to the original Obama administration Clean Power Plan is instructive. In developing reduction targets, the Obama EPA factored in <u>average</u> <u>NGCC emissions</u> from each state. Unsurprisingly the numbers varied, but even back in the baseline year of 2012 there were 16 states with average NGCC emissions low enough to qualify for even Pallone's more ambitious standard. NGCC plants in states as diverse as Mississippi, Connecticut and Oregon all had low enough emissions rates to qualify.

Factoring in for methane leakage and other lifecycle factors would likely eliminate some NG-CCs out of eligibility, but others would still make the cut. Many others would be close enough to the standard to make offsetting these facilities with clean energy credits economically feasible (see below).

This is a problem. A clean energy standard that allows for fracked gas power plants would be a double-disaster. Not only would it allow fracking to continue to devastate communities and our climate; it would also effectively block the uptake of clean renewables like wind and solar. If fracked gas NGCC plants qualify as clean energy, what incentive would states and utilities have to phase them out as soon as possible? The fracking status quo could be locked in for another generation.

**Emissions trading shell games.** The CLEAN Future Act does not simply propose a technology neutral energy standard to achieve net zero. It would implement that standard using an emissions trading system. The framework itself explains the system utilities would need to use in order to show movement towards the 2050 target:

> Regulated suppliers must possess a sufficient quantity of "clean energy credits" at the end of each year, or they may otherwise make an "alternative compliance payment." Suppliers may buy and trade clean energy credits from one another or purchase them via auction.

Keep in mind that the 2018 average emissions rate for electricity generated in the US was already <u>989 pounds of CO2 per MWh</u> — barely above Pallone's more ambitious target. A great deal would depend on the final legislative language and the implementing regulations, but in practice this means that every form of energy emitting below the target — from wind and solar to fracked gas and nuclear — would generate credits. These credits could then be sold to power providers emitting above the target as a way to show compliance.

So fracked gas plants emitting below the standard could hypothetically sell their credits to other fracked gas plants and coal plants emitting above the standard. But because the standard is so low, the likeliest scenario would be a glutting of the market with too many credits. The value of the credits would collapse and polluters emitting above the cap would be able to simply buy credits on the cheap to keep fossil fuel plants online. This would happen at the expense of communities already living on the frontlines of our dirty energy economy, whether at sites of extraction or around the fence-lines of power plants. It would also happen at the expense of the climate, as similar trading schemes have <u>failed to reduce and often worsened</u> overall pollution. Time is running out to solve the climate crisis and market-based mechanisms like these do not reflect principles of justice for communities or the urgency of actually reducing emissions.

**Biomass Loopholes.** Ironically, one technology that is polluting enough to exceed Pallone's clean energy standard — wood-fired power plants, whose stack emissions typically exceed <u>3,000 pounds of CO2</u> per MWh — would likely be left out of the emissions trading system entirely, if existing policy is an indication. For example, both the New England and Mid-Atlantic states' Regional Greenhouse Gas Initiative and California's cap-and-trade program exempt biomass power plants from their emissions-trading schemes. Moreover, relying on a "technology neutral" approach to reaching net-zero emissions will mean that false solutions such as burning wood and trash will continue to compete with non-emitting technologies like wind and solar for renewable energy incentives. Biomass energy is pitched as a "green" alternative to fossil fuels because programs such as these <u>simply don't count the emissions</u>.

This framework should really be called the Dirty Future Act. In every way possible, Pallone's proposal fails to address the climate crisis, which is extremely disappointing considering the congressman considers himself to be an environmental leader. Actual climate leadership would involve goals to achieve 100%clean renewable energy for the electricity and transportation sectors by no later than 2030 and the complete decarbonization of the economy by 2050, at the latest. It would simultaneously prioritize a just transition for workers, justice for frontline communities and reduce our share of global emissions in line with our disproportionate historic contribution.

Pallone was right about one thing, now is the time for bold action. We just need something dramatically better than the so-called CLEAN Future Act.

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