CARB can be a climate hero by charging a higher fee on GHG Pollution

My grandchildren are counting on CARB to take a stronger stand than Alternatives 1 through 4. Of those, Alternative 1 is the least bad of the four, but it should include some research on CDR rather than simply rejecting it. CDR is not a magic bullet, as fossil companies want us to believe, but we shouldn’t just ignore it. CDR hasn’t been demonstrated at large scale, and its estimated cost is now around $800 per tonne of CO2.

But Alternative 1 isn’t nearly enough and its approach is flawed. All economists agree that carbon pricing is the most effective way to reduce all green house gas emissions, so aggressive modification of cap and trade could place California in the forefront of climate action, where it should be. Cap and trade’s price at only $17 is a climate embarrassment.

I needn’t elaborate on why the price is so low; that’s how it was designed. But with better climate awareness CARB can fix it.

I fail to understand why CARB hasn’t presented an Alternative 5, a price on carbon that is as high as damages we’ve suffered in California. The following table shows (admittedly incomplete) estimates of those damages and associated carbon fees.

**ECONOMIC LOSSES AND DAMAGE COSTS PER TONNE OF GHGS**

| Year | Damage costs, $ billion | Damages included | Source | GHG emissions, million tonnes | Dollars per tonne of GHGs |
| --- | --- | --- | --- | --- | --- |
| 2020 | 12.1 | all fires, suppression and property damage only | (1) | 431 | 28.1 |
| 2019 | 80 | all fires, property damage, suppression, economic losses | (2) | 419 | 191 |
| 2019 | 14.2 | Camp and Woolsey fires only | [(3)](https://www.iii.org/fact-statistic/facts-statistics-wildfires) | 419 | 33.9 |
| 2018 | 400 | all fires, property damage, suppression, economic losses | [(2)](https://www.accuweather.com/en/business/the-2019-california-wildfires-caused-less-damage-than-the-last-two-devastating-seasons/643455) | 425 | 941 |
| 2018 | 26.3 | all fires, property damage and suppression | (4) | 425 | 61.9 |
| 2018 | 148 | all fires, property damage, suppression, economic, immigration and health care | (5) | 425 | 354 |
| 2018 | 23 | wildfire insured and uninsured property losses | (6) | 425 | 54.1 |
| 2017 | 19 | wildfire insured and uninsured property losses | (6) | 424 | 44.8 |
| 2017 | 85 | all fires, property damage, suppression, economic losses | (2) | 424 | 200 |
| 2017 | 18.0 | all fires, property damage and suppression | (7) | 424 | 42.5 |

Notes:

(1) <https://en.wikipedia.org/wiki/2020_California_wildfires>

(2) <https://www.accuweather.com/en/business/the-2019-california-wildfires-caused-less-damage-than-the-last-two-devastating-seasons/643455>

(3) https://www.iii.org/fact-statistic/facts-statistics-wildfires

(4) <https://en.wikipedia.org/wiki/2018_California_wildfires>

(5) <https://www.nature.com/articles/s41893-020-00646-7>

(6) https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/climate-change/climate-change-has-increased-wildfire-risk.html

(7) https://en.wikipedia.org/wiki/2017\_California\_wildfires

Data in the table are inconsistent across time and in their coverages. The key conclusion is that cap and trade values are way too low. I suggest rules stating that a given year’s carbon fee (floor for cap and trade fee) be equal to total damages incurred in a previous year (maybe not the immediately previous one), in these categories:

* Compensation to all government jurisdictions for their climate related expenditures (e. g., fire fighting),
* Property damage losses both insured and uninsured,
* Utilities’ expenditures in exchange for shares of stock to be owned by the state, and
* Health care expenditures related to climate (e. g., most particularly from smoke inhalation).

CARB should promote the basis for carbon pricing to be at least equal to damages that climate change causes. To ignore the immediate need to price carbon higher is to ignore the needs of all Californians.