



## ENVIRONMENTAL DEFENSE FUND

finding the ways that work

### Cutting Global Warming Pollution for a Dime A Day

#### *Key Findings from Government Analyses of Current Climate Legislation*

The Energy Information Administration (EIA),<sup>1</sup> which provides energy statistics for the Department of Energy (DOE), the Congressional Budget Office (CBO)<sup>2</sup> and the Environmental Protection Agency (EPA)<sup>3</sup> have all published their own analysis of H.R. 2454, the American Clean Energy and Security Act (ACES). Taken together, these studies represent the most credible and objective analyses available of the economic impacts of this legislation.

Although their analytical approaches differ, they all agree on the basic results:

- the U.S. economy will grow strongly under the proposed legislation; and
- the costs for the average American family, taking into account increased energy and gasoline prices, are small and affordable.

#### *Economic growth*

EPA and EIA's analyses show that the U.S. economy will grow strongly under the proposed legislation. According to the forecasts:

- In the year 2015, the estimated impact on GDP of H.R. 2454, relative to a no-policy case, ranges from a slight reduction of 0.4% to an increase of 0.1%.
- By the year 2030, the U.S. economy will be about 70% larger than it is today (the range is 69-72%).
- On an annual basis, the estimated impact by 2030 will be almost imperceptible: just two to five hundredths of a percentage point (0.02 - 0.05%).

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<sup>1</sup> Department of Energy's Energy Information Administration (EIA). "Energy Market and Economic Impacts of H.R. 2454, the American Clean Energy and Security Act of 2009," 4 August 2009.

<http://www.eia.doe.gov/oiaf/servicerpt/hr2454/index.html>

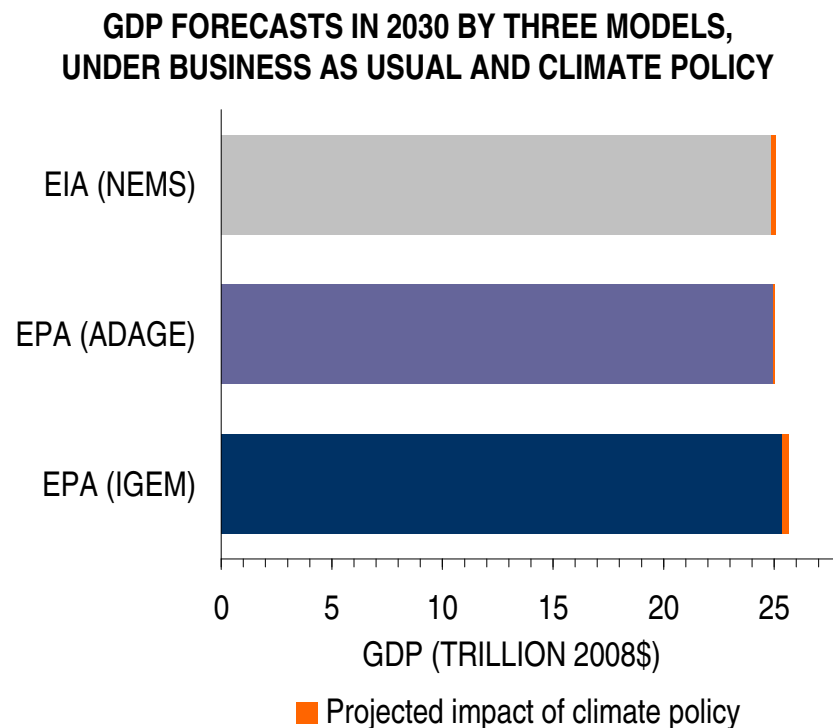
<sup>2</sup> Congressional Budget Office (CBO). "The Estimated Costs to Households of From the Cap-and-Trade Provisions of H.R. 2454," 19 June 2009. <http://www.cbo.gov/ftpdocs/103xx/doc10327/06-19-CapAndTradeCosts.pdf>

<sup>3</sup> Environmental Protection Agency (EPA). "EPA Analysis of the American Clean Energy and Security Act of 2009, H.R. 2454 in the 111<sup>th</sup> Congress," 23 June 2009.

<http://www.epa.gov/climatechange/economics/economicanalyses.html#hr2452>

- To create some context for these numbers, if the American economy will reach about \$25 trillion in January 2030 if we do nothing to address climate change, it will get there sometime between March and May with a carbon cap.

The following graph puts this in perspective:



### *Household impacts*

While macroeconomic analyses can give a sense of the big picture, it may be more useful to hone in on the household-level impacts. What are the costs for the average American family? The EPA, EIA and CBO analyses give us a clear sense of what the costs of the bill are likely to be, and they are small.

- The CBO estimates that the cost to the average household in the year 2020 will be just \$175 — less than fifty cents a day.
- Because of provisions designed to protect moderate and low-income families; the impacts are even smaller at the low end of the income scale. CBO estimates that the poorest one-fifth of U.S. households would see a *benefit* of \$40 a year through tax refunds and assistance with utility bills. The next fifth of households, meanwhile, would pay just \$40.

- The EPA's analysis, using more dynamic models of the macroeconomy, comes in with even lower costs. According to the EPA's estimate, for example, the average cost to households in the year 2015 will be just \$21 to \$70.
- In fact, over the entire span of the bill, the EPA's estimated average annual cost is just \$80 to \$111 per household, in present value. That is just 22 to 30 cents a day for the average American family — less than the cost of a postage stamp.
- In fact, on a per-person basis, EPA's estimated average annual cost amounts to only 9 to 12 cents — about a dime a day.
- The EIA's analysis, which also uses a dynamic model of the macroeconomy, comes in with very similar costs. According to the EIA's estimate, for example, the average annual cost to households over the period 2012-2030 will be just \$83 in 2007 dollars. That is just 23 cents a day for the average American family — and a dime a day per person (assuming an average household size of 2.2).

These estimates include the entire net costs to households of the program, taking into account higher prices for fossil fuels as well as savings from energy efficiency and the hundreds of billions of dollars (in present value) that the legislation returns to households over the program.

### *Energy costs*

EPA and EIA provide detailed estimates of energy costs in its analysis. While these are included in the household cost figures given above, the effect of climate legislation on energy prices is often of particular interest in its own right.

- According to EPA and EIA's modeling, residential electricity prices are essentially unaffected by the legislation until the year 2030, when they are estimated to be 14% to 17% higher than under the business-as-usual case. Household electricity *bills*, however, will increase by only about 3% to 10% in the same year compared to the reference case, as a result of the savings from investments in energy efficiency that the legislation will promote.
- What's more, in the years before 2030, EPA projects that the average household's electricity bills will go down as a result of the legislation. For example, EPA projects that in the year 2020 the average household's electricity bills under H.R. 2454 are projected to be about 8% below their levels in the no-policy case. EIA also estimates smaller bills between 2021 and 2023.
- Finally, while gasoline prices would rise, the effect is tiny. In the year 2020, the EIA and EPA forecast that gasoline prices will be only 14 to 20 cents per gallon higher than they would be without any policy. In 2030 the impact of the bill is estimated to be an increase

of 22 cents – this equates to a yearly increase of just over one cent per gallon per year relative to the no-policy case. That’s an imperceptible change, especially compared with the large swings in gasoline prices we have seen in recent years — sometimes as large as a dollar over the course of a few months.

- The real concern with petroleum is our increasing dependence on foreign oil. EPA and EIA’s analyses of oil consumption illustrate that H.R. 2454 would save us roughly \$20 billion annually over the next two decades:
  - ❖ Conservative interpretations of EPA figures show that under the cap, oil consumption is expected to fall significantly (up to about 8% by 2050). These numbers once again translate to reductions of \$20 billion by 2020, ramping up to just under \$90 billion by 2050.<sup>4</sup>
  - ❖ The EIA predicts that H.R. 2454 would reduce overall U.S. oil consumption by 344 million barrels in the year 2030 alone. This is more than 11% of predicted imports for the same year without the bill. To put that figure in perspective, 344 million barrels of oil are worth about \$24 billion today.<sup>5</sup>

In truth, all of the above is old news. The EPA, EIA and CBO studies are completely consistent with everything else we know. **The consensus among credible analyses is that the American economy will grow robustly while cutting carbon pollution and investing in a clean energy economy.**

We’re sure to hear a lot of numbers that have been cherry-picked from reports issued by whatever modelers-for-hire can be found to support the desired point. Forecasts are not crystal balls: they are only as good as the assumptions that go into them. And some of the assumptions used to get some of the numbers that will be floating around are just simply not credible.

The EPA and EIA in particular have set the gold standard in economic analysis by using the most credible, transparent and peer-reviewed models available. And the bottom line from these analyses is that for about a dime a day we can solve climate change, help reduce our dependence on foreign oil, and invest in a clean energy economy.

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<sup>4</sup> EPA analysis of HR2454 and using EIA’s predictions on oil imports and oil prices (expressed in \$2007).

<sup>5</sup> Assuming a price of \$70 per barrel of oil (Department of Energy’s Energy Information Administration). [http://tonto.eia.doe.gov/dnav/pet/pet\\_pri\\_wco\\_k\\_w.htm](http://tonto.eia.doe.gov/dnav/pet/pet_pri_wco_k_w.htm)



It's crucial to note that these estimates all correspond to the cost of climate policy compared to business-as-usual. But in reality, the business-as-usual scenario doesn't exist. It's a fantasy-land scenario in which there are no economic costs of unchecked climate change – and we all know that there is no such thing. The EPA, EIA and CBO analyses, like almost all economic modeling studies, look at only one side of the ledger: the costs of action, but not the benefits of averting the catastrophic consequences of climate change.