

# FUEL FACTS



## Governments Should Phase Out Fossil Fuel Subsidies or Risk Lower Economic Growth, Delayed Investment in Clean Energy and Unnecessary Climate Change Pollution

Few concrete steps have been made to fulfill commitments by the G20 leaders in 2009, and more than 50 countries since, to eliminate fossil fuel subsidies.<sup>1,2,3</sup> Although the G20 commitment was an important first step which led to a broader international coalition, the lack of a timeline and an organization that could monitor and assist countries in the implementation of their commitments has limited its practical effect on the phase out of fossil fuel subsidies. In fact, governments are expected to spend nearly three times more money subsidizing fossil fuels than they did in 2009.<sup>4</sup>

In the United States, President Obama has repeatedly proposed cutting \$4 billion in annual federal subsidies to the oil and gas industry and 36 Congressmen urged a bipartisan committee to cut over \$120 billion in fossil fuel subsidies over the next 10 years.<sup>5</sup> Both proposals, and others, failed in the face of strong industry opposition. Meanwhile, efforts to reduce or eliminate fossil fuel consumption subsidies in countries such as Ethiopia, India, Mexico, and Nigeria have demonstrated the increasing urgency of subsidy reform as well as its pitfalls if poorly implemented.

In a time of economic hardship, progressing climate change and a growing demand for reliable and clean sources of energy, fossil fuel subsidies represent a reckless and irrational use of taxpayer money and government investment. NRDC and OCI urge the international community to establish a timeline to phase out fossil fuel subsidies by 2015, and recommend the timeline implementation be overseen by an independent body which can monitor the progress of governments in their efforts to phase out fossil fuel subsidies.

### Fast Facts On The Real Cost Of Fossil Fuel Subsidies:

Eliminating fossil fuel subsidies would:

- save governments US\$775 billion in 2012
- reduce global carbon dioxide emissions by nearly 6 percent by 2020
- reduce annual global primary energy demand by nearly 5 percent, if done by 2020
- reduce global carbon dioxide emissions by 5.8 percent, if done by 2020
- increase annual global gross domestic product between 0.1 percent by 2010 and by 0.7 percent by 2050<sup>6</sup>

***“Instead of taxpayer giveaways to an industry that’s never been more profitable, we should be using that money to double-down on investments in clean energy technologies that have never been more promising.”***

President Obama, March 29, 2012



For more information, please contact:

**Anthony Swift**  
aswift@nrdc.org

**David Turnbull**  
david@priceoil.org

**Jake Schmidt**  
jschmidt@nrdc.org

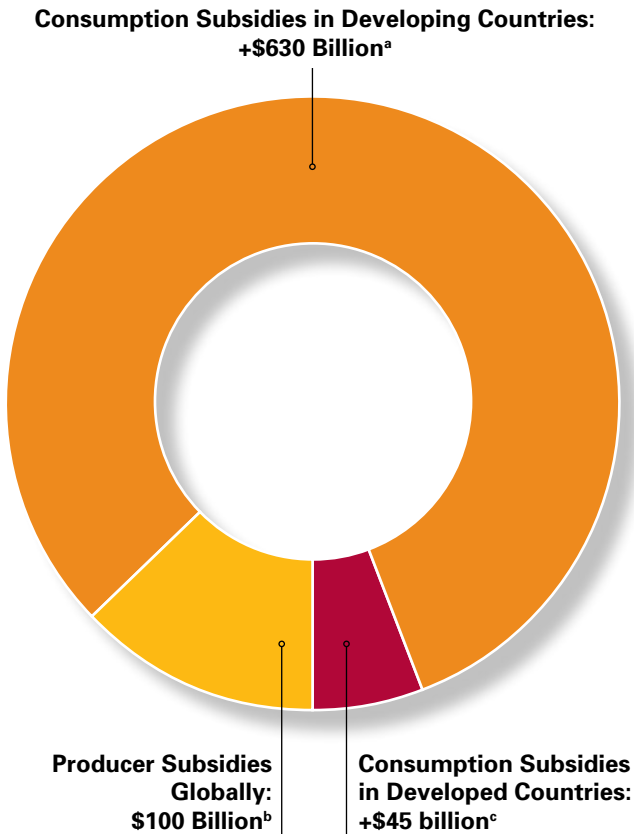
**Steve Kretzmann**  
steve@priceoil.org

# GLOBAL SUBSIDIES FOR FOSSIL FUELS ARE NEARLY US\$1 TRILLION

Conservative estimates project global fossil fuel subsidies to be \$775 billion in 2012,<sup>7</sup> limiting its tally to subsidies that directly support the production and consumption of fossil fuels (see Figure 1: Estimates of International Fossil Fuel Subsidies in 2012). These subsidies are more than twelve times the amount that is being provided to renewable energy.<sup>8</sup> Beyond the subsidies included in this analysis, many government actions further defray the true cost of producing and consuming fossil fuels. Public financing institutions and export credit agreements provide preferential support for the development of fossil fuel facilities that amount to tens of billions of dollars each year.<sup>9</sup> And governments spend tens, if not hundreds, of billions of dollars securing fossil fuel supplies, pipelines and shipping lanes.<sup>10</sup>

**Figure 1: Estimates of International Fossil Fuel Subsidies in 2012**

**\$775 Billion in total international fossil fuel subsidies in 2012**



Source:

a International Energy Agency, World Energy Outlook: Impact of high oil prices on the economy, 2012, pg. 5, [http://www.iea.org/media/impact\\_of\\_high\\_oil\\_prices.pdf](http://www.iea.org/media/impact_of_high_oil_prices.pdf).  
 b OECD, Joint Report: Analysis of the scope of energy subsidies and suggestions for the G-20 Initiative, June 16, 2010, pg. 4, <http://www.oecd.org/dataoecd/55/5/45575666.pdf>.  
 c OECD, OECD-IEA Fossil Fuel Subsidies and Other Support, OECD consumption subsidy data, Jan. 25, 2012, [http://www.oecd.org/site/0,3407,en\\_21571361\\_48776931\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/site/0,3407,en_21571361_48776931_1_1_1_1_1,00.html), as analyzed by Oil Change International, <http://priceofoil.org/wp-content/uploads/2012/05/OECD-Country-Subsidies-01-25-12.xlsx>.

The U.S. National Academy of Sciences estimated that the cost of the health effects in the United States alone attributed to fossil fuel use approaches US\$120 billion annually.<sup>11</sup> And the effects of climate change, including extreme weather, declining food production, rising sea levels, and diseases, cost hundreds of billions of dollars annually.<sup>12</sup> Although these adverse effects are felt globally, the poorest populations are the most vulnerable. The external costs of fossil fuels will only escalate if the international community continues to subsidize their production and use.

## Production Subsidies Do Not Lower Energy Prices or Affect Production Rates

Fossil fuel companies defend their production subsidies and claim that their elimination would result in higher energy prices, energy insecurity, and job loss. After G-20 nations committed to phase out fossil fuel subsidies in 2009, the American Petroleum Institute (API) argued that U.S. compliance “would likely constrict future energy supplies, reduce production, raise energy costs and kill jobs.”<sup>13</sup> However, six modeling studies of fossil fuel reform found that API’s assertions were unfounded. The studies showed that reducing fossil fuel subsidies would increase annual gross domestic product (GDP) of both OECD and non-OECD countries by an average of 0.7 percent by 2050.<sup>14</sup>

A recent study of petroleum production subsidies in the United States found that the presence of production subsidies does not have an impact on production rates.<sup>15</sup> The study compared subsidies between North Dakota and Montana, two states that share an oil field. Despite offering significantly higher production subsidies, Montana did not experience greater intensity in drilling or production. The study found that prevailing crude oil prices, not subsidies, determined production, concluding that “the main outcome of drilling and production tax deductions and incentives is to reduce and delay tax revenue collections.”<sup>16</sup>

*“Continuing to pour trillions of dollars into carbon-based infrastructure and fossil-fuel subsidies would be like investing in subprime real estate all over again.”<sup>17</sup>*

Secretary General Ban Ki-Moon and Al Gore, Feb. 16, 2009.

## Consumption Subsidies Do Not Benefit the Poor

A major justification for maintaining consumption subsidies is to protect the poor. In fact, many of these subsidies benefit the upper class more than the poor in developing countries.<sup>18</sup> The International Energy Agency (IEA) found that in 2010, just 8 percent of fossil fuel consumption subsidies, reached the poorest 20 percent of income groups.<sup>19</sup> Furthermore, a survey of 11 developing nations comprising about half of the world's population found that between 89 percent and 98 percent of fossil fuel consumption subsidies do not benefit the poorest populations.<sup>20</sup> Electricity subsidies where power generation is dependent on coal, oil, or gas, only benefit households that are connected to a grid, which in many developing countries excludes a large proportion of the poorest population. For example, in India about 44 percent of rural households are not on the grid.<sup>21</sup> And gasoline and diesel subsidies primarily benefit people who own vehicles, again, often in developing countries this is the wealthy.

Energy subsidies also hurt the poor by incentivizing conventional, centralized energy over small-scale, distributed, labor-intensive alternatives. This often means fewer job opportunities and more pollution from power plants and refineries that tend to be placed in poorer communities. In other cases, artificially low prices also lead to the fuel being diverted to other uses than for which the subsidy was intended, including selling fuel across borders or on the black market or diverting energy for less efficient uses.<sup>22</sup>

## REMOVING FOSSIL FUEL SUBSIDIES WOULD REDUCE CLIMATE CHANGE POLLUTION AND PROMOTE ECONOMIC GROWTH

Eliminating fossil fuel subsidies would significantly reduce global greenhouse gas emissions, helping world leaders meet commitments to curb climate change. The International Energy Agency estimates that eliminating just the fossil fuel subsidies related to consumption by 2020 would reduce annual global primary energy demand by nearly 5 percent and carbon dioxide emissions by 5.8 percent, or 2.6 gigatons—equivalent to almost half of U.S carbon dioxide emissions.<sup>23,24</sup>

Phasing out fossil fuel subsidies would also free nearly \$1 trillion of public money for other more economically beneficial endeavors. Particularly in these challenging economic times, when governments are on tight budgets and need to reduce unnecessary expenditures, eliminating fossil fuel subsidies that only increase the profits of the oil, gas and coal industries makes economic sense.

Ending fossil fuel subsidies is also a critical policy step for transitioning to a clean energy economy, giving renewable energy sources and clean technologies a better competitive chance by reducing the cost differential. But any reform or removal of fossil fuel subsidies should include social safety nets, such as targeted payments to the poorest in a population, and a robust administrative strategy to ensure the poor are provided the most benefits.<sup>25</sup>

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*“Investments in petroleum based projects generate 1 out of every 4 jobs created with the same amount of investment into clean energy jobs.”<sup>26</sup>*

Robert Polin, September 2008

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## FOUR RECOMMENDATIONS FOR HOW GOVERNMENTS SHOULD BEGIN TO PHASE OUT FOSSIL FUEL SUBSIDIES

In May 2012 a coalition of environmental, faith, development, trade, indigenous peoples, youth, and health organizations representing millions of citizens worldwide called on world leaders to fulfill their promises to eliminate wasteful fossil fuel subsidies and redirect the investment to create a more sustainable future.<sup>27</sup> NRDC and Oil Change International support the four key steps that these civil society groups recommend:

### 1. Define plans to phase out fossil fuel subsidies by 2015.

In September 2009, G20 leaders pledged to “phase out and rationalize over the medium term inefficient fossil fuel subsidies while providing targeted support for the poorest.” In order to fulfill this historic commitment, leaders should immediately establish a timeline for this process.

### 2. Increase transparency and consistency in reporting of subsidies.

An obvious first step to removing subsidies is to catalog all existing fossil fuel subsidies. Reporting and reform should be separate processes. Up to now, the disclosure of producer subsidies in particular has been lacking in many countries. It is imperative that governments commit to fully and fairly disclosing the existence and value of all fossil fuel subsidies in order to inform robust plans for reform.

### 3. Incorporate assistance and safeguards to developing countries, as well as poor and vulnerable groups.

Fossil fuel subsidy removal, particularly consumption subsidies, will only be successful by incorporating gender-aware safeguards for poor and vulnerable groups, and by assisting with financial, technical and capacity building in developing countries, where needed.

### 4. Establish or identify an international body to facilitate and support fossil fuel subsidy reform.

This body would be tasked to define and review proper and regular reporting by all countries, reporting all fossil fuel subsidy types as well as the actions taken by countries to reduce subsidies.

## Endnotes

- 1 Members of the G20 include: Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, and the United States.
- 2 G20 Leaders' Statement, the Pittsburgh Summit, 25 September 2009. [http://www.g20.org/Documents/pittsburgh\\_summit\\_leaders\\_statement\\_250909.pdf](http://www.g20.org/Documents/pittsburgh_summit_leaders_statement_250909.pdf).
- 3 NRDC, OCI *et al.*, No Time to Waste: Implementing Leader Pledges to Phase Out Fossil Fuel Subsidies, May 23, 2012, <http://priceofoil.org/wp-content/uploads/2012/05/FossilFuelSubsidiesNGOstatement.pdf>.
- 4 In 2009, IEA reported that global fossil fuel subsidies amounted to \$300 billion – in 2012, they are expected to reach \$775 billion. International Energy Agency (IEA), World Energy Outlook – IEA Analysis of fossil-fuel subsidies, 4 October 2011, pg. 3 [http://www.iea.org/weo/Files/ff\\_subsidies\\_slides.pdf](http://www.iea.org/weo/Files/ff_subsidies_slides.pdf).
- 5 U.S. Congressman Peter Welch, Welch to Super Committee: Save \$122 billion, end wasteful subsidies to the oil industry, October 17, 2011, [http://welch.house.gov/index.php?option=com\\_content&view=article&id=1709%3AWelch-to-super-committee-save-122-billion-end-wasteful-subsidies-to-the-oil-industry&catid=39%3A2011-press-releases&Itemid=32](http://welch.house.gov/index.php?option=com_content&view=article&id=1709%3AWelch-to-super-committee-save-122-billion-end-wasteful-subsidies-to-the-oil-industry&catid=39%3A2011-press-releases&Itemid=32).
- 6 Jennifer Ellis, PhD, For the Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD), "The Effects of Fossil-Fuel Subsidy Reform: A review of modelling and empirical studies." Geneva, Switzerland: March, 2010.
- 7 See figure 1.
- 8 IEA, World Energy Outlook 2011, estimates that clean energy subsidies total \$66 billion in 2012, see: <http://www.iea.org/weo/docs/weo2011/factsheets.pdf>.
- 9 Oil Change International *et al.*, "Low Hanging Fruit: Fossil Fuel Subsidies, Climate Finance, and Sustainable Development," June 2012, pg. 12.
- 10 Oil Change International *et al.*, "Low Hanging Fruit: Fossil Fuel Subsidies, Climate Finance, and Sustainable Development," June 2012, pg. 12.
- 11 National Academies of Science, Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use, Oct. 19, 2009, <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12794>.
- 12 United Kingdom, Stern Review on the Economics of Climate Change, Oct. 30, 2006, [http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/sternreview\\_index.htm](http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/sternreview_index.htm).
- 13 Washington Post, G20 Leaders Agree to Phase Out Fossil Fuel Subsidies, Sept. 25, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/09/25/AR2009092502453.html>.
- 14 The Global Subsidies Initiative, Untold Billions: Fossil-Fuel Subsidies, Their Impacts and the Path to Reform, March 2010, [http://www.iisd.org/gsi/sites/default/files/effects\\_ffs.pdf](http://www.iisd.org/gsi/sites/default/files/effects_ffs.pdf).
- 15 Headwater Economics, *Do Tax Subsidies Influence Domestic Oil Production?* May 2012, [http://headwaterseconomics.org/wphw/wp-content/uploads/state\\_lessons\\_for\\_subsidies.pdf](http://headwaterseconomics.org/wphw/wp-content/uploads/state_lessons_for_subsidies.pdf).
- 16 Headwater Economics, *Do Tax Subsidies Influence Domestic Oil Production?* May 2012, [http://headwaterseconomics.org/wphw/wp-content/uploads/state\\_lessons\\_for\\_subsidies.pdf](http://headwaterseconomics.org/wphw/wp-content/uploads/state_lessons_for_subsidies.pdf).
- 17 Ban Ki-Moon and Al Gore, "Green Growth Is Essential to Any Stimulus." *Financial Times*, February 16, 2009. <http://www.ft.com/cms/s/0/0fa98852-fc45-11dd-aed8-000077b07658.html>.
- 18 IEA, World Energy Outlook 2011, pg. 45.
- 19 IEA, World Energy Outlook 2011. pg. 45.
- 20 IEA, World Energy Outlook, 2011, pg. 45.
- 21 Krishnaswamy, S. and Chatpalliwar, S. "Energy Services to the Poor: Are they truly subsidized? An assessment of 'Economics and Willingness to pay' Vasudha Foundation and & Samvad, November 2011, pg. 10, [http://vasudha-india.org/publications/900385358\\_Energy%20Services%20to%20the%20Poor%20-%20Are%20they%20Truly%20Subsidized\\_November%202011.pdf](http://vasudha-india.org/publications/900385358_Energy%20Services%20to%20the%20Poor%20-%20Are%20they%20Truly%20Subsidized_November%202011.pdf).
- 22 Reforming Energy Subsidies: Opportunities to Contribute to the Climate Change Agenda," United Nations Environment Programme Division of Technology, Industry and Economics, 2008.
- 23 OECD/IEA, "World Energy Outlook 2011," Paris: 2011, [www.worldenergyoutlook.org](http://www.worldenergyoutlook.org).
- 24 In 2009, U.S. carbon emissions from energy consumption reached 5.4 billion metric tons, U.S. Energy Information Administration, International Energy Statistics, <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=90&pid=44&aid=8>.
- 25 World Bank, "Subsidies in the Energy Sector: An Overview," Background Paper for the World Bank Group Energy Sector Strategy, July 2010, pg. 55, available at [http://siteresources.worldbank.org/EXTESC/Resources/Subsidy\\_background\\_paper.pdf](http://siteresources.worldbank.org/EXTESC/Resources/Subsidy_background_paper.pdf).
- 26 Robert Pollin, *Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy*, University of Massachusetts Amherst PERI, September 2008. [http://www.peri.umass.edu/green\\_recovery/](http://www.peri.umass.edu/green_recovery/).
- 27 NRDC, OCI *et al.*, No Time to Waste: Implementing Leader Pledges to Phase Out Fossil Fuel Subsidies, May 23, 2012, <http://priceofoil.org/wp-content/uploads/2012/05/FossilFuelSubsidiesNGOstatement.pdf>.