

# THE TRUTH ABOUT ENERGY SUBSIDIES

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COAL



GAS



NUCLEAR



WIND



SOLAR

A new International Monetary Fund (IMF) study shows that USD\$5.2 trillion was spent globally on fossil fuel subsidies in 2017. Of this, China (\$1.4 trillion), the United States (\$649 billion) and Russia (\$551 billion) were the largest subsidizers.

These are the figures that Climate Change lobbyists will quote, to refute the true cost of renewable energy subsidies.

Focusing on the United States in 2016, subsidies to all five of the electricity generation energy sources above, are explained.

Subsidies fall into four categories:

- **Tax expenditure:** the amount of tax benefits or preferences received by taxpayers and forgone by the federal government

***48% of all subsidies go to taxpayers.***

- **Direct expenditures** to recipients (i.e., both producers and consumers): the amount of grants, loans, or other financial assistance awards made directly to recipients

***41% of all subsidies go to producers, an undefined amount of this goes to consumers.***

- **Research and development (R&D) support:** the amount of grants, loans, or other financial assistance awards made for R&D

***6.5% of all subsidies go to R&D (which means it goes to producers)***

- **DOE loan guarantees:** financial support authorized to be provided by DOE for innovative clean energy technologies that are typically unable to obtain conventional private financing because of their high technology risks.

***4.5% of all subsidies go to DOE loan guarantees (which means it goes to producers)***

When someone throws subsidy values at you, it is important to note that almost half (48%) goes towards taxpayer subsidies for all energy types. The other 52% goes to the producers. So that's 48% of the Climate Change lobbyist's argument out the window!

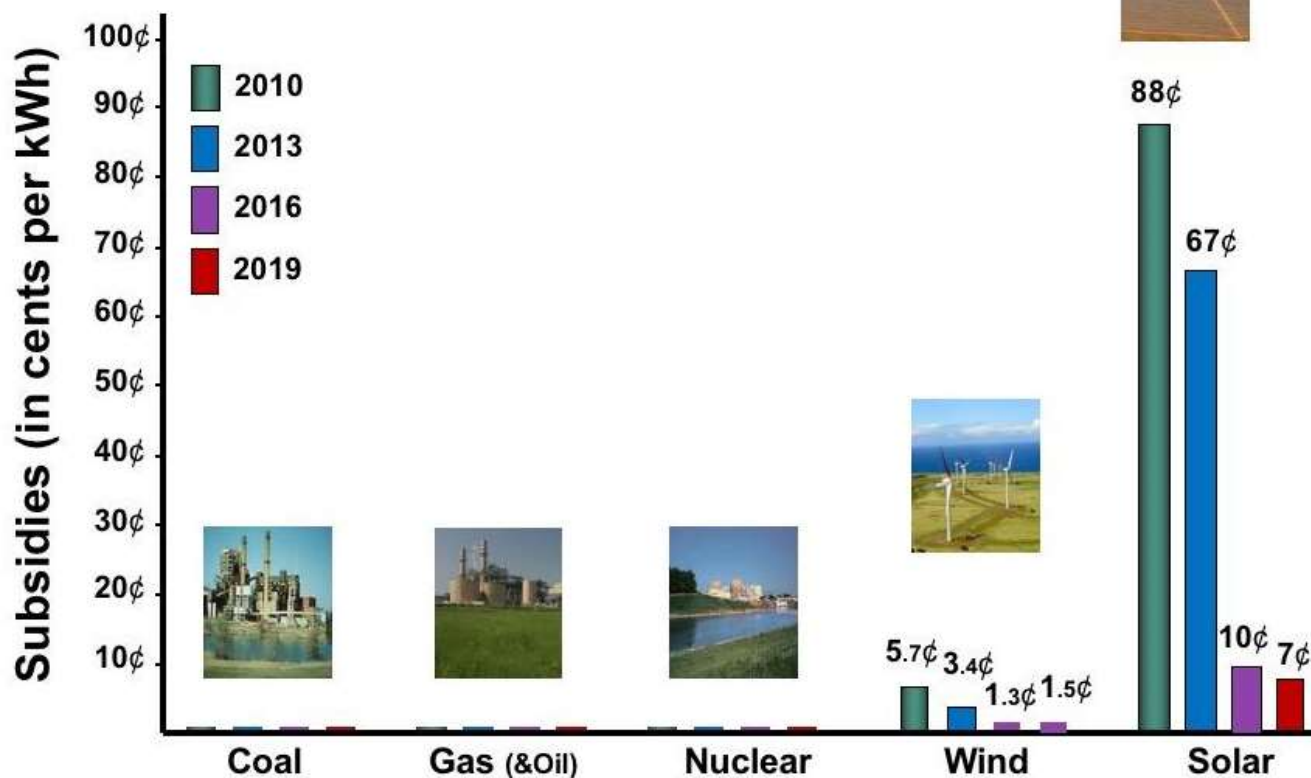
## SUBSIDIES BY ENERGY SOURCE

Based on the 2016 electricity production (in British Thermal Units) for the United States by energy source, subsidies can be shown as follows:

ENERGY SOURCE	PRODUCTION (BTU's)	GENERATION SHARE	SUBSIDY SHARES (\$millions)	SUBSIDY PER BTU
COAL	14807	29.6%	\$1,062,000.00	<b>\$71.72</b>
GAS	32652	35.0%	\$2,976,000.00	\$91.14
NUCLEAR	8352	19.6%	\$1,537,000.00	\$184.03
WIND	2038	5.4%	\$15,785,000.00	<b>\$2,647.51</b>
SOLAR	533	1.2%		<b>\$2,249.58</b>
OTHER	7384	9.2%		\$1,244.93

The University of Texas shows these figures in cents per kWh

**FEDERAL SUBSIDIES FOR VARIOUS ENERGY SOURCES  
NORMALIZED TO ENERGY PRODUCED FOR 2010, 2013, 2016  
AND PROJECTED FOR 2019**



On a total dollar basis, wind has received the greatest number of federal subsidies. Solar is second. Wind and solar together get more than all other energy sources combined.

However, based on production (subsidies per kWh of electricity produced), solar energy, has received over ten times the subsidies of all other forms of energy sources combined, including wind (see figure on previous page).

In researching this information, I have found considerable variations in the quoted figures relating to the actual subsidies. However, in all cases the overall percentages apportioned to each of the five energy sources focused on, are very similar to that shown on the previous page.

## SUMMARY

For the United States in 2016, the subsidies to fossil fuels were around 61% that of the subsidies to wind and solar.

Fossil fuels generated 64.6% of the electricity, whilst wind and solar generated 6.8%.

***For nearly 40% less expenditure of taxpayer dollars, fossil fuels delivered nearly 10 times as much “bang for your buck”.***

The value is in these bad boys:



**COAL**



**GAS**

If anyone is foolish enough to believe that we must reduce our CO2 emissions, then Nuclear is the logical choice.

PS: I spent three years as Electrical Design Engineer during the construction of Loy Yang “A” Station, the coal fired generator shown above.

Sources

U.S. Energy Information Administration - <https://www.eia.gov/analysis/requests/subsidy/pdf/subsidy.pdf>

Forbes article sourced from the University of Texas - <https://www.forbes.com/sites/jamesconca/2017/05/30/why-do-federal-subsidies-make-renewable-energy-so-costly/#2c100aa6128c>