

Climate at a Glance: Subsidies

Bullet-Point Summary:

- **Fossil fuels** and conventional energy receive **almost no federal subsidies**.
- **Wind power** by itself receives **more subsidies** than all conventional energy sources combined.
- **Solar power** by itself receives **more subsidies** than all conventional energy sources combined.
- **Wind and solar power** receive **additional hidden subsidies** by:
 - imposing the **inefficiency costs** of its unpredictable generation on conventional, baseline power sources.
 - requiring the **construction of** new, lengthy, **expensive power lines**.
 - **not paying** for energy production on **government-owned lands** like conventional energy does.
 - being the beneficiaries of **renewable power mandates** that force consumers to purchase wind and solar power.

Short Summary: Climate alarmists often assert that wind and solar subsidies are necessary to level the playing field regarding fossil fuel subsidies. However, as shown in Figure 1, below, the U.S. Energy Information Administration (EIA) reports that wind and solar power each receive more federal subsidies than all conventional energy sources combined. Indirect subsidies add to the imbalance, as wind and solar get widespread access to free production on federal lands, require lengthy and expensive transmission lines but don't have to pay for them, benefit from renewable power mandates, and impose extra burdens and costs on baseload conventional energy due to the unpredictability of wind and solar power.

Wind and solar power advocates sometimes try to counter (without documentation) that conventional energy has *historically* received disproportionate subsidies. Even if that were true, two wrongs don't make a right, and consumers should not have to pay higher taxes today to balance out long-ago claimed favoritism during the 1950s.

Table 3. Quantified energy-specific subsidies and support by type, FY 2010, FY 2013, and FY 2016

million 2016 dollars, unless otherwise specified

Year and Support Type	Coal	Refined Coal	Natural Gas and Petroleum Liquids	Nuclear	Renewables	Electricity - Smart Grid and Transmission	Conservation	End Use	Total	Share of Total Subsidies and Support
2010										
Direct Expenditures	48	-	83	69	5,732	4	3,226	6,264	15,427	41%
Tax Expenditures	506	187	2,883	999	8,913	63	3,511	1,055	18,119	48%
Research and Development	320	-	10	177	844	566	704	97	2,718	7%
DOE Loan Guarantee Program	-	-	-	292	296	22	4	1,113	1,728	5%
Total	875	187	2,976	1,537	15,785	655	7,446	8,530	37,992	100%
Share of Total	2%	0%	8%	4%	42%	2%	20%	22%	100%	
2013										
Direct Expenditures	77	-	388	38	8,716	9	872	3,349	13,450	46%
Tax Expenditures	801	10	2,345	1,155	5,683	219	657	2,081	12,951	44%
Research and Development	216	-	64	197	864	887	517	189	2,934	10%
DOE Loan Guarantee Program	-	-	-	-	-	-	-	-	-	-
Total	1,094	10	2,796	1,390	15,264	1,115	2,046	5,619	29,335	100%
Share of Total	4%	0%	10%	5%	52%	4%	7%	19%	100%	
2016										
Direct Expenditures	19	-	111	40	909	11	234	3,391	4,716	31%
Tax Expenditures	906	-	(940)	160	5,316	160	560	2,653	8,816	59%
Research and Development	337	-	56	164	456	49	189	200	1,451	10%
DOE Loan Guarantee Program	-	-	-	-	-	-	-	-	-	-
Total	1,262	-	(773)	365	6,682	220	983	6,244	14,983	100%
Share of Total	8%	-	(5%)	2%	45%	1%	7%	42%	100%	

Notes: Totals may not equal sum of components due to independent rounding. Zero denotes rounding to zero value and a "-" symbol denotes a zero value. Energy-specific tax expenditures associated with renewables were allocated based on preliminary generation data. No hydropower generation was assumed to be eligible for production tax credits (PTC). It was assumed all investment tax credits were claimed by solar power plants. Municipal Solid Waste (MSW) and open-loop biomass generation estimates used to calculate PTCs were halved to represent the value of their PTC credit, relative to geothermal and wind. Generation estimates for 2016 were used to calculate credits associated with the PTC for wind plants that came online in 2006 and later.

Figure 1: Wind and solar power each receive more subsidies than all conventional energy sources combined. Source: U.S. Energy Information Administration, Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2016, Tables 3 and 4, <https://www.eia.gov/analysis/requests/subsidy/pdf/subsidy.pdf>.

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