

ECONOMIC IMPACT OF ADVANCED ENERGY INVESTMENT FROM THE INFRASTRUCTURE INVESTMENT AND JOBS ACT AND INFLATION REDUCTION ACT

By Advanced Energy Economy

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In 2020 and 2021, Advanced Energy Economy commissioned a series of reports to examine the economic benefits of federal investment in advanced energy, nationally¹ and in selected states,² as part of a stimulus package contemplated to respond to the COVID-19 pandemic. Based on the American Jobs Plan (AJP), which proposed \$2 trillion in stimulus, we estimated that the portion of federal investment in advanced energy would total \$591 billion. This would be spread across multiple advanced energy technologies and services, including electric vehicles, building electrification, renewable energy development, energy efficiency, energy storage, grid modernization, job training, and transmission. We developed detailed estimates of how the funding would be allocated and how much private sector investment would occur as a result of this spending. We then used that information as inputs to an industry standard economic impact model.

On that basis, we found that the total economic activity generated by this stimulus would rise into the trillions of dollars. These investments would also result in tens of billions of dollars per year in consumer savings on utility bills and from reduced transportation costs, increased tax collections, and the creation of many good advanced energy jobs.

With passage of the Infrastructure Investment and Job Act (IIJA) in 2021 and expected passage of the Inflation Reduction Act (IRA), we have updated our analysis to estimate the economic impact of this unprecedented federal investment in advanced energy.

In our analysis, the combined federal commitment to advanced energy in these two pieces of legislation reaches **\$444 billion**, or about 75% of the amount we modeled from the AJP. In addition to

¹ Economic Impact of Stimulus Investment in Advanced Energy for America, <https://www.aee.net/aee-reports/economic-impact-of-stimulus-investment-in-advanced-energy-for-america>

² Advanced Energy State Economic Impact Reports, <https://www.aee.net/aee-reports/advanced-energy-state-economic-impact-reports-for-2020>



the amount of spending, there are also some differences in how the funding is allocated among advanced energy sectors. Nevertheless, we expect the overall dynamics of how this investment in advanced energy will flow through the economy will be similar to what we modeled for the AJP.

Based on our understanding of how the \$444 billion in federal investment will be spent, we estimate that this will support almost **\$1.2 trillion in additional private sector investment**, for a **total public and private spend of about \$1.6 trillion**. This investment then flows through the economy, creating additional economic activity. These so-called multiplier effects are estimated to create an additional **\$1.2 trillion in overall economic activity**.

THUS, THE \$444 BILLION IN FEDERAL INVESTMENT IS EXPECTED TO PRODUCE:

- ⦿ **\$2.8 trillion** in total incremental economic activity (GDP)
- ⦿ Increase in employment by **23 million jobs** (in job-years)
- ⦿ **\$505 billion** in tax collections, and
- ⦿ **\$60 billion** in annual consumer cost savings.

This would represent a **six-fold return on investment** of federal dollars in advanced energy growth.



Economic Impact by State

The federal support for advanced energy, transportation, and manufacturing in the IRA and IIJA will also spur new economic growth, jobs, tax revenues, and consumer savings at the state level. Because many of the incentive policies in these measures flow to businesses and individuals, we anticipate that this stimulus will largely follow population, with larger and more populous states seeing a proportionately greater share. Working from our national analysis, we've developed preliminary forecasts of the economic growth, jobs, tax revenues and consumer savings in 13 states across the country. That said, state-specific factors – such as clean energy standards, permitting regimes, and the presence of energy industry and manufacturing communities – are likely to also serve as magnets for federal and private sector investment enabled by the IRA and IIJA, potentially driving a disproportionate share of benefits to those states.

State	Federal Investment (\$ billion)	Total Economic Impact (\$ billion)	Return on Investment	Total Jobs Created (Job Years)	Consumer Savings/year (\$ billion)
National	443.6	2801.7	6	23,133,879.00	60
AZ	11	162	15	1,029,202.00	9
CA	58	448	8	2,541,177.00	17.6
CO	8	53	7	348,509.00	2.4
FL	26	107	4	919,027.00	3
IL	21	181	9	1,086,884.00	8.3
MI	16	142	9	882,667.00	6.7
MN	8	68	8	448,908.00	3.2
NM	3	18	6	125,297.00	0.9
NV	5	31	6	198,956.00	1.4
OH	17	194	11	1,235,909.00	9.7
PA	20	180	9	1,131,663.00	8.8
TX	44	304	7	1,941,824.00	12.6
VA	14	103	7	648,168.00	5

