

THE ECONOMIC OPPORTUNITIES OF ELECTRIC VEHICLES IN GEORGIA



Electric vehicles have big benefits for Georgia’s drivers. They produce zero harmful tailpipe emissions, they cost less to fuel and operate, reduce our dependence on oil imports and offer millions of dollars in economic value to the state.

This analysis assesses the economic impacts of two policy proposals regarding the growth of Georgia’s electric vehicle market. Georgia currently has more than 26,000 battery electric vehicles and over 55,000 hybrid electric vehicles on the road, representing 3% of all vehicles in Georgia. The first proposal reduces the electric vehicle annual license fees levied against battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) (collectively, EVs). Currently, an annual fee of \$200 is levied on all new EV purchases in addition to annual tag fees of \$55.¹ This proposal modifies the EV annual license and tag fees to a flat fee of \$50 for personal use vehicles and \$100 for business use vehicles. The reduced fee is assumed to apply for five years. The second policy proposal introduces a tax credit of \$2,500 for all EVs applicable at the time of purchase. The tax credit is assumed to apply for five years.

In order to estimate the full impact of both the reduced electric vehicle annual license fee and the introduction of a tax credit, The Greenlink Group used the IMPLAN model, leading economic development software that determines the impacts of changes in incomes and purchasing behavior at the state level. The analysis estimates the number of full-time equivalent employees, growth in gross domestic product (GDP), and increased income in Georgia of implementing both proposed policies. The net GDP, income, and job impacts of both policies from 2017-2026 are provided in Figure 1.

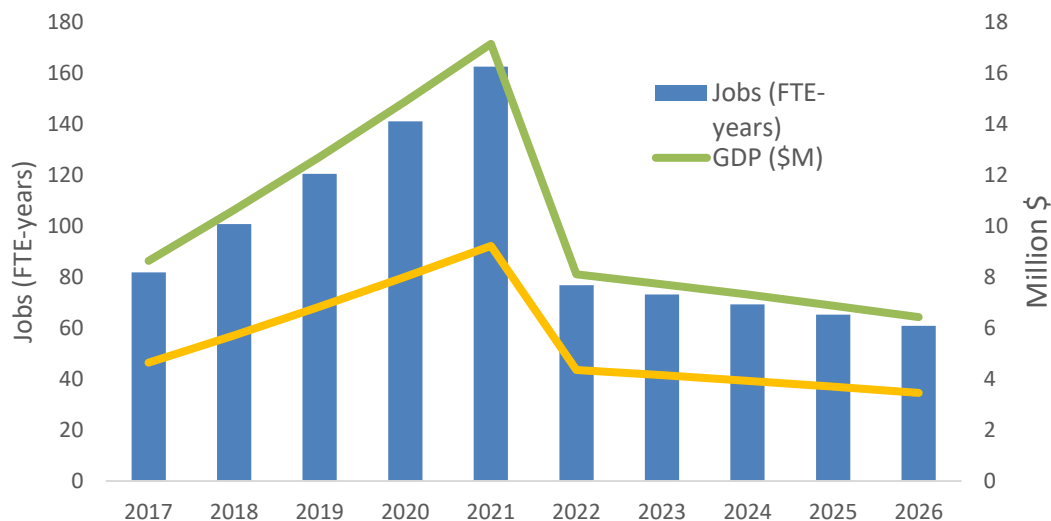


Figure 1. Net Economic Gains from EVs with Both Proposals in Effect

Our analysis estimates that a reduction in the current user fee to \$50 and the addition of a \$2,500 tax credit will result in significant net economic gains to Georgia. Combined, the policies produce net improvements of 951 full-time equivalent jobs, \$100 million in gains to GDP, and \$54 million in increased income. Overwhelmingly, the proposed tax credit is responsible for the resulting benefits and gains for Georgia when compared to the proposed reduction in EV annual license fee. The tax credit also better leverages Georgia’s public dollar; Tables 1 and 2 show that \$2.25-\$7.59 private dollars are spurred into action for each foregone public dollar for proposals

¹ The \$200 annual alternative fuel vehicle fees for non-commercial vehicles were implemented in April 2015 through HB 170. They are in addition to the ordinary annual fee all vehicles pay at the time of registration and renewal. For example, personal light-duty EV owners with an alternative fuel license plate must also pay a one-time manufacturing fee of \$25 for the plate, and annual fees of \$20 for registration and \$35 for the special tag. More at: <http://www.legis.ga.gov/Legislation/en-US/display/20152016/HB/170> and https://dor.georgia.gov/annual-alternative-fuel-vehicle-fees-faqs#field_related_links-486-0

containing the tax credit. Once the EV annual license fee reduction and tax credit are eliminated, the benefits to Georgia are reduced. The breakdown of how each proposed policy compares in terms of net revenue and job impacts of both proposals are provided in Tables 1-3. Table 4 shows the gross impact of having both proposals in place to show the projected economic outcome (as opposed to actions driven solely by the proposal).²

Table 1. Net Economic Gains from a reduced annual license fee and a \$2,500 tax credit for EVs

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
EVs Sold	792	834	878	922	969	410	433	456	480	504	6678
Jobs (FTE-years)	82	101	120	141	162	77	73	69	65	61	951
GDP (\$M)	8.6	10.6	12.7	14.9	17.1	8.1	7.7	7.3	6.9	6.4	100.4
Income (\$M)	4.6	5.7	6.8	8.0	9.2	4.4	4.1	3.9	3.7	3.5	54.0
Leveraging Ratio											\$2.25

Table 2. Net Economic Gains from a \$2,500 tax credit for EVs

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
EVs Sold	769	810	852	896	941	363	383	404	425	447	6289
Jobs (FTE-years)	78	96	114	134	154	63	57	51	44	38	829
GDP (\$M)	8.2	10.1	12.1	14.1	16.3	6.6	6.0	5.4	4.7	4.0	87.5
Income (\$M)	4.4	5.4	6.5	7.6	8.8	3.6	3.2	2.9	2.5	2.1	47.1
Leveraging Ratio											\$7.59

Table 3. Net Economic Gains from a reduced annual license fee for EVs

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
EVs Sold	400	424	449	474	501	548	578	609	640	673	5296
Jobs (FTE-years)	4	5	6	8	9	13	15	18	20	23	122
GDP (\$M)	0.4	0.6	0.7	0.8	0.9	1.4	1.6	1.9	2.1	2.4	12.8
Income (\$M)	0.2	0.3	0.4	0.4	0.5	0.8	0.9	1.0	1.1	1.3	6.9
Leveraging Ratio											\$0.42

Table 4. Gross Economic Gains from a reduced annual license fee and a \$2,500 tax credit for EVs

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
EVs Sold	792	834	878	922	969	410	433	456	480	504	6,678
Jobs (FTE-years)	173	214	257	302	349	279	300	323	347	372	2,918
GDP (\$M)	18.2	22.5	27.0	31.8	36.7	29.3	31.6	34.0	36.5	39.2	306.9
Income (\$M)	9.9	12.2	14.7	17.3	19.9	15.9	17.2	18.5	19.8	21.3	166.7

The Greenlink Group is a clean energy analytics and consulting company based in Atlanta, Georgia. Greenlink provides the evidence and expert analysis needed to evaluate the most pressing issues faced by today's energy market. By identifying the benefits, costs, and viable approaches to incorporate clean energy solutions, Greenlink helps clients to achieve savings and establish social value.

² Gross gains represent the impact of all EV purchases in Georgia, including EV purchases that would have occurred regardless of the tax or fee structure. Net gains solely represent the impact of the proposal. Therefore, the gross estimates are useful to estimate the observed economic outcome, while net estimates are useful for evaluating the gains attributable to the proposal.