

New Federal EV Incentive

Post by Barry Kresch

EV Transferable Tax Credit Included in Inflation Reduction Act (IRA)

President Biden signed the Inflation Reduction Act into law on August 16th. With it comes a new EV purchase incentive.

It was past time to revise the existing federal EV incentive. The IRA brings with it some improvements, along with more complexity and some uncertainty. I have read a lot of the reporting around this legislation and find much of it not completely clear and sometimes inconsistent. There is also still additional rule-making that has to happen. This is what it looks like to me with the caveat that your mileage may vary and the content may be updated based on new information.

Summary of the new incentive:

- Tax credit of up to \$7500 for new EVs.
- Option to take the credit as a normal tax credit or assign it to the dealer to receive it as an immediate rebate (not to mention utilize it if you do not have enough tax liability). Begins 2024.
- Although the bill has a lot of language about dealers, Tesla and other direct sellers are eligible to the extent their vehicles meet the other requirements.
- Used EV incentive of up to the lesser of \$4000 or 30% of the vehicle cost.
- In order to receive the used EV incentive, the vehicle must be purchased from a dealer. Used-car only dealers qualify. Private sales do not.
- Means testing (income limits for recipients of new and used incentives).

- Price cap for new and used EVs.
- 10-year time horizon – Incentives in place through 2032.
- Minimum battery pack size requirement of 7 kWh (increased from the current 5 kWh, but still really small).
- New incentives are effective as of 2023.
- Requirements for minerals sourcing and battery manufacturing phase in beginning in 2023.
- Final assembly takes place in North America.

Limitations of the Current Incentive

The existing federal EV tax credit was limited from the beginning and has become increasingly less useful as time goes on. Perhaps because EVs were relatively exotic when it first began, each manufacturer was allotted a quota of 200,000 unit sales before they would begin to phase out of the incentive. It never made a lot of sense. Not only did it end up penalizing those companies that were first out of the gate, the number is puny considering the country has a light-duty fleet of approximately 200 million vehicles (Bureau of Transportation Statistics).

When a manufacturer crosses the 200,000 unit threshold, a phase-out period begins that lasts 15-18 months, depending on the timing of when they crossed. Tesla and General Motors exceeded the threshold in 2018. Tesla was fully phased out by the end of 2019 and GM followed in March, 2020. Toyota, Ford, Nissan, and Hyundai have either just recently hit that mark or are close.

The second limitation to the current program is inherent in its structure as a tax credit. You have to wait until you file your taxes to get it and it only helps if you have enough tax liability to offset. There is no carry-forward provision. All that said, it does have the virtue of relative simplicity. The

only rule is that the size of the credit is based on the size of the battery pack. All BEVs and the longer-range PHEVs qualify for the full credit, which begins at 18 kWh.

The New IRA Upends Much of This Thinking

The new program makes a good start by removing the 200,000 cap. In its place are new rules intended to introduce progressivity, and new requirements to jump-start a domestic supply chain and spur domestic manufacturing. The result is a much more complex program and a risk that the materials and manufacturing requirements may be so aggressive as to cause EVs to lose partial or complete eligibility, at least for a period of time.

The IRA is a big deal with a lot of parts that are out of scope of this EV-focused post. Nonetheless, what is arguably the most controversial aspect of the EV proposal goes to what is at the core of the bill as a whole. That is its big bet on industrial policy to revive domestic industry with an eye towards not only emissions reduction, but jobs and national security – a combination of tax incentives; direct pay; and support for research, materials sourcing, and manufacturing, coupled with consumer incentives, not only for EVs, but for solar, storage, and heat pumps. In my view, the design is a good one that will lead to private investment, job creation, leadership in industries of the future, and a lower risk profile. You don't need a long memory to recall the serious shortage of PPE early in the pandemic or the continuing shortage of microchips.

Automobile manufacturers are objecting to how aggressively the materials and manufacturing requirements are put in place and how quickly they escalate. We will see where this lands. I don't take what the manufacturers say at face value. Many of these companies are the same ones that fought airbags and

lobbied (with some degree of success) to loosen CAFE standards.

The other controversial part of the IRA is its provision to tie granting of oil and gas leases to renewable energy development. I don't see the point in tying the development of fossil-fuel assets to renewables. However, in the scheme of things, I think there will be a fossil-fuel long-tail no matter what we do, and there is enough here to generate a robust adoption of cleaner technology that will create a positive feedback loop and erode fossil-fuel demand. The simple fact is that as renewables scale and become cheaper, fossil fuels become less cost competitive.

The fact that the IRA has a 10-year lifespan is a great thing. Our government has never had a consistent energy policy to speak of. This makes for much greater certainty in the investment environment.

EV Material and Assembly Requirements

- Upon enactment (August 16th), the current incentive remains in place for the balance of 2022, but the domestic final assembly (of the vehicle, not the battery) provision will apply immediately. I'm not sure why they felt they had to lower the boom so quickly. Any EV that is imported will no longer be eligible and there are some major ones. Hyundai, Kia, Polestar, and Toyota are some of the manufacturers importing EVs to this country.
- The new tax credit is split into 2 parts: sourcing of critical minerals and assembly of batteries, each valued at \$3750.
 - These begin in 2023.
 - 40% of critical minerals must be sourced from a country with which the USA has a free-trade

agreement. This escalates each year until it reaches 80% in 2027, where it stays through the duration of the bill.

- 50% of battery components must be manufactured and assembled in North America. This escalates until it reaches 100% in 2029.
- It is possible that many EV manufacturers will not meet one or both of these requirements because they have to reorganize their supply chains and augment domestic manufacturing.
- Beginning in 2025, none of the critical minerals can be extracted or processed from a foreign entity of concern. This is obviously aimed at China, but it affects other countries as well.
- Beginning in 2024, none of the battery manufacturing can occur in a foreign entity of concern.
- Recycling of retired batteries that occurs in North America can be counted toward the required percentages.
- As noted above, final vehicle assembly must be in North America as of 8/16 (unless a binding contract had been signed and the customer is awaiting delivery). That is table stakes.
- The final assembly and sourcing provisions do not apply to used EVs.

There have been reports of intense lobbying happening around these requirements. We'll see if there is a grant of a waiver. There is also some rule-making to be done. For example, the NY Times wondered if a Chinese battery company like CATL were to build a facility here, whether that would escape the "entities of concern" provision.

This is a list of currently eligible vehicles on the Department of Energy website: <https://afdc.energy.gov/laws/inflation-reduction-act>. The list

applies to 2022. 2023 is TBD.

Price Caps and Means Testing

- There is a price cap for new vehicles of \$55,000 for a sedan and \$80,000 for an SUV, van, or pickup. For prospective Tesla buyers, it means the Model Y gets more support than the 3. These definitions are drawn from the EPA classifications.
- Used EVs have a price cap of \$25,000.
- A used EV has to be at least 2 years older than its model year.
- A used vehicle is eligible if it is the first transfer of a vehicle subsequent to the enactment of the legislation. It is intended to prevent multiple incentives per vehicle. Further, the transfer has to be to a different person (i.e. a person cannot get the incentive for buying a vehicle off-lease).
- The used incentive cannot be utilized by a person more frequently than once every 3 years.
- Eligible new car buyers are limited to a max adjusted gross income of \$300,000 for joint filers, \$225,000 for a head of household filer, and \$150,000 for a single filer.
- Used EVs are income limited to \$150,000 for joint filers, \$112,500 for head of household filer, and \$75,000 for a single filer.
- Neither the income limits nor MSRP cap are indexed for inflation over the 10-year course of the bill.

The federal MSRP cap seems to work differently than it does for the state incentive. Based on reporting in the [NY Times](#) that said, "Rivian's electric pickups start at \$72,500 but can easily top \$80,000 with options," I am assuming that means the federal definition is inclusive of options. This differs from what the state uses, which is the base MSRP of the trim level (i.e. excluding options). This will make it more difficult to

have a chart of available vehicles such as there is with the CHEAPR website. The Department of Energy's Alternative Fuels Data Center will likely publish such a list, but it will have to be hedged as "may" be eligible. You can always use a VIN decoder, which will tell you the particulars of a vehicle such that you can determine if it is eligible. The downside of that approach is that it is not usable unless you are far enough into the purchase process to have a VIN. Anyway, here it is on the NHTSA website: <https://www.nhtsa.gov/vin-decoder>

It will be interesting to see if as we, hopefully, emerge from the supply chain mess, manufacturers will make an effort to get their vehicles under the price caps. Of late, it has been going in the other direction.

Keep in mind that the income caps are binary. If you are within the cap, you get the full credit. If not, you get nothing.

It strikes me that having both an MSRP cap and means-testing is overkill. Until the income-limited incentives were introduced in 2021 for CHEAPR, the program used the MSRP cap as an indirect form of means qualification. It would probably get you to a similar place and be less intrusive.

In general, the more rules, the more difficult it is for the consumer, resulting in lower utilization than otherwise might have occurred. There are a bunch of rules here.

Tax Credit and Transference

- The new tax credit allows the purchaser to take the tax credit as is done now at filing time with the flexibility to use either the current or prior tax year to determine income eligibility.
- Alternatively, the purchaser can assign the credit to the dealer and receive the funds as a rebate at the time of purchase. This also solves the problem of someone who

doesn't have enough tax liability to use a standard tax credit.

- Transferring of the credit to a dealer goes into effect in 2024.
- When the credit is transferred, it is up to the dealer to verify eligibility. Only the prior tax year can be used in this instance and hopefully, there are adequate privacy protections in place.
- In order for a dealer to accept the transfer, they have to be registered with the Secretary of the Treasury. There appear to be some considerable burdens placed on dealers to comply with the program.

E-bikes and auto cycles

- Sorry, nothing here. An e-bike incentive was included in Build Back Better, but did not make it to the IRA.
- Auto cycles, such as the 3-wheeled Aptera vehicle do not qualify, nor do electric motorcycles.

Those individuals who had a binding contract, but had not taken delivery, of a vehicle that lost eligibility on August 16th or will lose eligibility next year, will still receive the tax credit. To be clear, the contract had to be in effect before August 16th, 2022.