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November 4, 2022

The Honorable Lily Batchelder  
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1500 Pennsylvania Ave., NW  
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The Honorable Charles P. Rettig  
Commissioner  
Internal Revenue Service  
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Washington, D.C. 20224

Mr. Thomas C. West, Jr.  
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Department of the Treasury  
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Mr. William M. Paul  
Principal Deputy Chief Counsel  
And Deputy Chief Counsel (Technical)  
Internal Revenue Service  
1111 Constitution Ave., NW  
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**Re: Request for Comments on Credits for Clean Vehicles RFI Docket No. IRS-2022-0046**

Dear Ms. Batchelder, Mr. West, Mr. Rettig, and Mr. Paul:

The Natural Resources Defense Council (NRDC) offers these comments to the U.S. Department of Treasury (Treasury) and the Internal Revenue Service's (IRS) "Request for Comments on Credits for Clean Vehicles," docket item IRS-2022-0046.

NRDC is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, policy analysts, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Bozeman, MT, Beijing, and New Delhi.

Our comments respond to select questions within the agency’s Request for Information (RFI) issued on October 5, 2022, for tax code § 30D (Clean Vehicle Credit) and § 25E (Credit for Previously-Owned Vehicles), as amended by Public Law 117-169, commonly known as the Inflation Reduction Act (IRA). These comments seek to inform any form of regulatory or sub-regulatory guidance from the agency that governs the implementation of these, and other clean vehicles-related tax provisions created or amended by the IRA – especially any form of guidance that has the effect of law.

Our comments are organized as follows:

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## I. Introduction & Summary

NRDC supports the goals of the IRA’s provisions designed to encourage a largely domestic and more sustainable supply chain of vehicle components needed to meet climate, air quality, and equity goals. Additionally, we support Treasury and the IRS’s efforts to “work expeditiously to provide clarity and certainty to taxpayers [and other stakeholders] so that the climate and economic benefits of this historic legislation can be felt as quickly as possible.”<sup>1</sup>

The global supply chain for vehicles, components, batteries and the minerals of which those batteries are made is an extremely complex web that no one can accurately depict at this time. Even those automotive manufacturers who are first able shift global supply chains consistent with the goals of the IRA will be unable to reliably demonstrate their success at this point in time. It will take industry more time than has been given to develop and operationalize material tracing systems, certifications, and other necessary regimes that do not yet exist for manufacturers to show compliance. And even after those industry systems are in place so manufacturers could arguably comply, it will take time for the IRS to implement its own systems of recordkeeping to actually confirm compliance.

Given that neither the IRS nor industry have systems in place to track the sourcing of critical minerals or battery components covered under § 30D(e), and the extremely tight timeframe provided by the statute to implement these provisions, it simply will not be possible to establish guidance that attempts to resolve these issues that could actually be implemented in the real world by December 31, 2022. Accordingly, the agency has two options:

- 1) Issue draft guidance that will likely make it virtually impossible for American taxpayers to access tax credits needed to combat inflation, meet climate goals, and comply with federal air quality standards (fundamental goals of the IRA); or
- 2) Issue guidance that uses some form of a transition rule, as the agency has done in the past when faced with implementing provisions that require the development of major new administrative and compliance systems under constrained timeframes.

**We urge Treasury and the IRS to choose the second option of issuing guidance that makes use of appropriate transition rules. This is more consistent with the agency’s guiding**

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<sup>1</sup> West, Tom and Leonard, Shelley. 2022. “Briefing: Department of Treasury Climate and Clean Energy Notices” Washington, D.C., October 6, 2022.

**principles, satisfies the overarching intent of the IRA, and meets the statutorily-required deadline for guidance on the § 30D(e) clean vehicle tax credits.**

Treasury and the IRS have acknowledged that resolving these highly technical supply chain issues and administrative challenges will require input from experts in the field and that crafting this guidance would benefit from a robust stakeholder engagement process. Transition rules will accommodate that necessary public process, allowing for time for experts to provide testimony through public hearings, written comments, additional roundtables, and other means.

This option also protects against the issuing of rushed guidance that could deny American taxpayers access to these credits that are critical to the Inflation Reduction Act's intent to provide consumers relief from inflationary and volatile fuel prices and can also ensure that this credit is available to consumers for a wide range of EVs below the statutorily-specified vehicle price caps.

We also provide comments on the § 25E tax "Credit for Previously-Owned Vehicles," suggesting that used vehicles involved in any non-qualified resale be eligible for the one-time credit in any future eligible resale.

## **II. Overarching Recommendations Regarding Clean Vehicle Tax Credits**

### **A. There Are Substantial and Complex Administrative Challenges that Need to be Addressed to Fully Implement § 30D(e) and the Phase-in of Its Sourcing and Manufacturing Requirements.**

Full implementation of many of the amended § 30D tax code provisions require the development of technical, industry-facing guidance on a range of complex sourcing and manufacturing provisions, and real-world material and component tracking systems that are still in development and will require time to acquire data from companies throughout the supply chain.

Industry experts, scientists, United States (U.S.) agencies, NGOs, and a wide range of other stakeholders are still in the process of fully understanding and studying the complex geographic-related supply-chain challenges posed by the critical mineral and battery component requirements under § 30D(e), and the feasibility of industry players (automakers in particular) to create a fully compliant supply chain for these provisions and to do so prior to the credit expiring after 2032 (since these supply chains and material and component tracking systems are still in development).

These extremely technical issues cannot be satisfactorily resolved, nor can the real-world tracking systems needed be developed and integrated by the end of 2022 when draft guidance

must be issued. If Treasury and the IRS rush this process and issue draft guidance that attempts to prematurely resolve these complex issues, it is likely very few vehicles will qualify, which would significantly undermine the program's benefit to taxpayers and President Biden's climate and electrification goals. Additionally, rushed guidance would likely need to be substantially and significantly revised in the future, which would undermine the agency's guiding principle of providing clarity and certainty to taxpayers.

## **B. The Challenge of Mapping and Tracing the Electric Vehicle (EV) Battery Supply Chain**

The battery supply chain is complex and reserves of minerals needed for lithium-ion batteries are highly concentrated outside of the U.S.<sup>2</sup> Real geopolitical and geographic challenges will take time to fully understand and resolve, and ample time will be needed by industry compliance entities to develop the robust tracing systems that will be needed for these international supply chains to show compliance with IRS regulations.

Even though the federal government began addressing battery supply chain challenges and helping U.S. automakers become less reliant on foreign sources prior to the historic IRA, the transformation will still take years more to complete. For example, in June of this year President Biden invoked the Defense Production Act to secure domestic critical minerals supply chains,<sup>3</sup> and committees in Congress have continued to hold hearings and make funding available to try to understand and find solutions to the domestic supply challenges – including \$7 billion in grant funding from the Bipartisan Infrastructure Investment and Jobs Act (Infrastructure Law).<sup>4</sup>

These are critical first steps but shifting a global supply chain takes time and reliably tracking and verifying material sourcing across an international supply chain is complex. Many of the challenges are tied to the extraction and processing of five minerals that are used in many of today's leading EV batteries: lithium, nickel, cobalt, manganese, and graphite. These five minerals form the basic building blocks of lithium-ion battery cells that power EVs.

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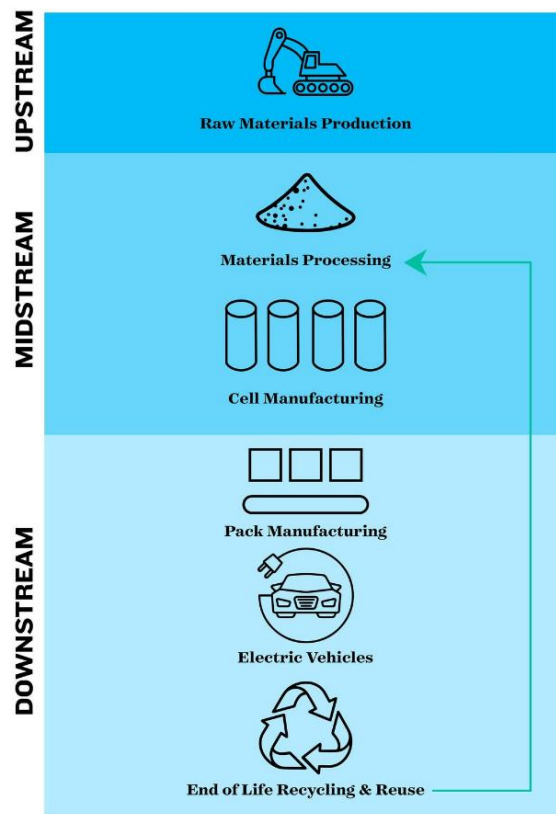
<sup>2</sup> Union of Concerned Scientists. “*Electric Vehicle Batteries: Addressing Questions about Critical Materials and Recycling*,” 2021. <https://www.ucsusa.org/sites/default/files/2021-02/ev-battery-recycling-fact-sheet.pdf> pg. 4

<sup>3</sup> The White House. “*Memorandum on Presidential Determination Pursuant to Section 303 of the Defense Production Act of 1950, as amended*,” 2022. <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/31/memorandum-on-presidential-determination-pursuant-to-section-303-of-the-defense-production-act-of-1950-as-amended/>

<sup>4</sup> The White House. “*Fact Sheet: The Biden-Harris Electric Vehicle Charging Action Plan*,” 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/13/fact-sheet-the-biden-harris-electric-vehicle-charging-action-plan>

The upstream portion of the battery supply chain includes identifying and exploring mineral reserves and extracting ores (sediments mixed with valuable minerals). These ores are then transported to a facility where they are processed and refined to a quality suitable for batteries. Once refined, these materials are used to make cathodes and anodes – the “positive” and “negative” side of the battery respectively – and then sent to downstream facilities that make battery cells. Finally, the battery cells are sent to yet another manufacturing facility where they are combined into large packs that can then be used in EVs and many other products. At the end of their useful first life application, the batteries can then be reused and/or recycled.

Figure 1: EV Battery Supply Chain



Midstream supply chain activities, like mineral refining and battery cell manufacturing, are also concentrated in a small number of countries, largely outside the U.S. Accordingly, even if the U.S. mined the mineral resources it does have, those minerals would currently need to be shipped to other countries for processing.

Some domestic manufacturers – like Ford and General Motors – have already begun to invest in domestic EV battery supply chains, but those initiatives are still in their infancy and may require

developing new mines in places where they do not yet exist.<sup>5</sup> Between long discovery and exploration periods, low-quality data from industry, and lack of federal agency resources, years could pass before it could be reliably demonstrated that such minerals were extracted from a reserve in the United States.

The intent of the IRA's § 30D(e) provisions was to ensure that the U.S. auto industry has strong EV supply chains that are less dependent on foreign actors. This market signal has been sent, and since the bill was signed into law, manufacturers have announced new partnerships, agreements and other actions to source the raw materials needed to support the nation's transportation electrification efforts and to begin the process of establishing § 30D(e) compliant supply chains.

As the industry acts in response to the IRA to alter global supply chains, Treasury and the IRS should avoid issuing any sort of guidance that attempts to prematurely resolve these complex issues or guidance that requires reliance upon mineral and material tracking systems that are still in development.

**C. While Complex Administrative Issues Are Being Resolved, Taxpayers Should Not be Denied Access to Tax Credits Needed to Combat Inflation, Meet Climate Goals, and Clean the Air**

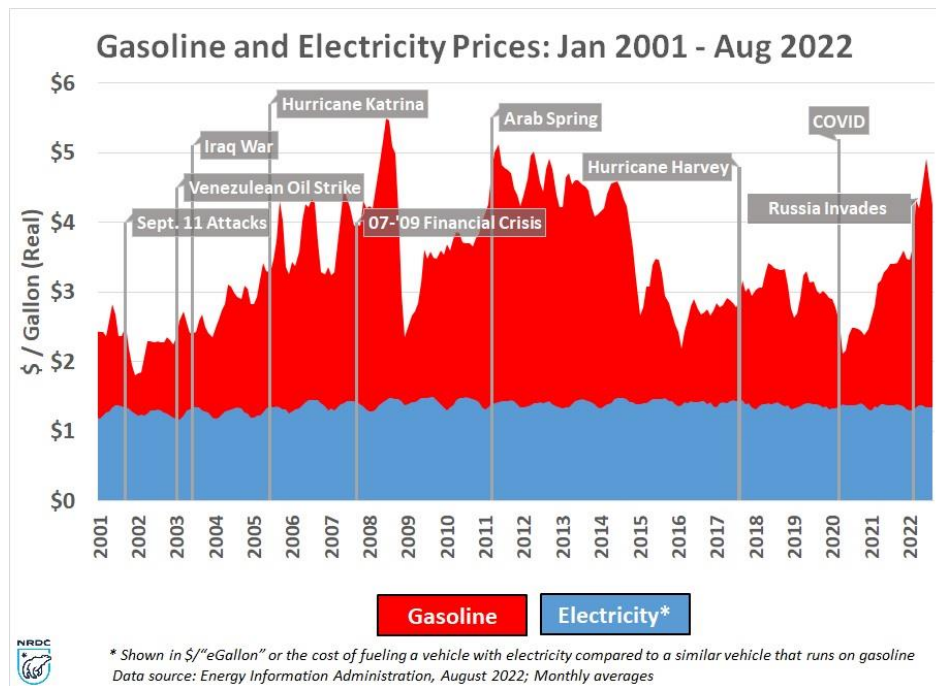
Treasury and the IRS will not be able to resolve the multiple, complex issues described above before it must issue draft guidance. Accordingly, that draft guidance should not unduly deny Americans access to tax credits needed to provide relief from inflationary fuel prices and accelerate the transition to zero-emission vehicles needed to meet climate and air quality goals.

The fundamental goal of the Inflation Reduction Act was to provide American taxpayers with relief from the impacts of the increasing costs of basic life necessities, including transportation fuel. The volatility of the price of gasoline hits especially hard now. Driving on electricity can provide households much needed relief. Charging an EV at home is roughly the equivalent of fueling up on a dollar-a-gallon gasoline. And the average price of residential electricity, adjusted for inflation, has stayed close to the dollar-a-gallon equivalent mark for over 20 years while gas prices have continued to go up and down erratically, as depicted in Figure 2.

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<sup>5</sup> Holzman, Jael. "E&E News: U.S. Automakers Ink Metals Deals That Bypass China." April 18, 2022. <https://subscriber.politicopro.com/article/eenews/2022/04/18/u-s-automakers-ink-metals-deals-that-bypass-china-00025869>.

Figure 2: Gasoline and Electricity Prices



Consistent with the overarching goal of the Inflation Reduction Act, the agency’s draft guidance should not deny American taxpayers relief from inflationary and volatile gasoline prices. Low and moderate-income taxpayers who spend a disproportionate amount of their disposable income at the pump are especially vulnerable to inflation and the wild fluctuations of the global oil market. Both § 30D and § 25E are needed to increase access to EVs and the dependable cost savings they can provide in low- and moderate-income communities.

There are already more than a dozen EV models available with MSRPs below the average new vehicle acquisition cost. And because § 30D can function as a point-of-purchase incentive, it could allow low- and moderate-income drivers to finance or lease one of those affordable EV models and realize operating cost savings immediately. § 30D is also critical to accelerate the adoption of EVs across the board, increasing the supply of EVs on the secondary market where most vehicle acquisitions take place, which will directly affect access to the tax incentives the IRA provides for previously-owned vehicles pursuant to § 25E.

In addition to considering the impacts draft guidance could have on American taxpayers’ ability to access EVs needed to combat inflationary and volatile fuel costs, Treasury and the IRS should also consider how its draft guidance will impact progress toward compliance with federal air quality standards. The agency should not deny taxpayers the considerable benefits associated with cleaner air. According to the American Lung Association, widespread EV adoption could



provide more than \$1.2 trillion in public health benefits, avoid 110,000 pollution-related deaths, and yield over \$1.7 trillion in global climate benefits.<sup>6</sup>

#### **D. Agency Guidance Should Include a Transition Rule to Allow More Time to Create Effective Systems for Determining Compliance**

Given the impossibility of demonstrating and verifying compliance at this point in time, the agency has two options:

1. Issue draft guidance that will likely make it virtually impossible for American taxpayers to access tax credits needed to combat inflation, meet climate goals, and comply with federal air quality standards; or
2. Issue guidance that uses some form of a transition rule, as Treasury has done in the past when faced with implementing provisions that require the development of major new administrative and compliance systems under constrained timeframes.

We urge the agency to choose the second option, which is more consistent with its guiding principles and the overarching purposes of the Inflation Reduction Act.

#### *Rushed Guidance Would Prevent Treasury and the IRS from Hearing from Necessary Stakeholders*

Ensuring that the § 30D credit does not spur irresponsible domestic mining practices requires robust public engagement. As a core principle of the agency's implementation process, such public engagement will be broadly useful across the changes to § 30D.

As highlighted earlier in these comments, the full implementation of many of the amended § 30D tax code provisions will require the development of technical, industry-facing guidance on a range of complex sourcing and manufacturing provisions, and real-world material and component tracking systems that are still in development.

Guidance fully implementing these substantive provisions should not be rushed, especially since issuing guidance that attempts to prematurely resolve these complex issues or that requires reliance upon mineral and material tracking systems that are still in development could lock in a number of unknowns and unintended consequences for an extended period of time.

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<sup>6</sup> American Lung Association. "Zeroing in on Healthy Air." 2022. <https://www.lung.org/getmedia/13248145-06f0-4e35-b79b-6dfacfd29a71/zeroing-in-on-healthy-air-report-2022.pdf>

Take, for example, the U.S.' domestic mining industry. As the U.S. attempts to onshore supply chains and production, it should require responsible mining practices that minimize environmental impacts and prioritize workers and communities by ensuring they also share in the economic benefits. Yet, for decades, the U.S. has lacked a comprehensive strategy for the safe, environmentally, and socially responsible domestic mining and development of many of the critical mineral resources needed for EVs. If Treasury and the IRS were to rush the process of issuing guidance, that action could increase the likelihood of importing the irresponsible and inequitable mining practices that exist abroad, which could cause undue hardship to many vulnerable communities.

The White House has recognized the gaps that exist with respect to its domestic mining operations and the creation of responsible mining practices, and it has taken steps to close these gaps through the establishment of several initiatives, including the Interagency Working Group on Mining Reform and American Battery Materials Initiative. However, the objectives of these multi-stakeholder reforms and initiatives will certainly not be accomplished by the start of 2023, further reiterating the unrealistic nature of Treasury and the IRS being able to craft well-informed draft guidance on these mining-related provisions within the extremely tight timeframe provided.

#### **E. The Agency Will be Faced with Extraordinary Administrative Challenges to Implement the § 30D(e) Sourcing Provisions**

There are extraordinary challenges that Treasury, the IRS, and automakers will face in fully implementing the critical mineral and battery component requirements of § 30D(b)(2) and (3). Given the realities of this and the extremely tight timeframe provided by the statute for the agency to implement the battery and critical minerals sourcing provisions, it is impossible to establish the necessary regimes and issue guidance on the implementation of these provisions by the effective date of January 1, 2023.

The IRS does not have systems in place to track the sourcing of critical minerals or battery components, and automakers are in the process of establishing these systems and announcing partnerships with supply chain tracking companies. For example, just two weeks ago, Ford announced a pilot with Everledger.<sup>7</sup> However, it will likely take years to implement the tracking, recordkeeping and reporting systems needed for the provisions that are expected to phase in as

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<sup>7</sup> Everledger, Ford to launch EV battery passport pilot <https://www.recyclingtoday.com/article/everledger-ford-to-launch-ev-battery-passport-pilot/>

soon as 2023. This complexity will be even further exacerbated and will for many years leave very few (if any) automakers eligible for the credit when the “Foreign Entity of Concern” provisions kick in under Section 30D(d)(7) for the battery components and critical minerals in 2024 and 2025, respectively.

*A Transition Rule Will be Required to Responsibly Implement § 30D(e)*

Given the challenges the agency and automakers will face in administering guidance and establishing reporting and compliance systems for the § 30D(e) sourcing provisions – and needing to do so under a difficult (or in this case impossible) time frame – issuing guidance that includes a transition rule for these provisions will be necessary. Issuing such transitional guidance is within the agency’s authority, as is further affirmed under the regulations and guidance provision, § 30D(e):

“IN GENERAL.—The Secretary shall issue such regulations or other guidance as the Secretary determines necessary to carry out the purposes of this subsection, including regulations or other guidance which provides for requirements for recordkeeping or information reporting for purposes of administering the requirements of this subsection.”

Draft guidance that includes a transition rule will allow Treasury and the IRS to conduct a more thorough and robust engagement process with key stakeholders, which will ultimately result in finalized guidance that is clear and certain and implements the § 30D tax credit in a way that allows the credit to be available to taxpayers.

Additionally, well-informed guidance will carry out the intent of the law consistent with today’s supply chain constraints, while also helping to keep the nation on a path to achieving President Biden’s goal of a 50 percent EV market share by the end of the decade.<sup>8</sup>

### **III. Responses to Specific Questions Posed in the Request for Information**

*This section provides replies to specific questions raised in the Treasury and IRS notice to help to inform development of guidance implementing § 30D and § 25E. We have chosen to answer select questions from this RFI, based on our expertise on battery supply chains and EV affordability. Our answers are intended to exemplify our points above – that there are many complex questions need to be answered, tracing systems implemented, and supply chain*

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<sup>8</sup> The White House. “Fact Sheet: President Biden Announces Steps to Drive American Leadership Forward on Clean Cars and Trucks,” 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/05/fact-sheet-president-biden-announces-steps-to-drive-american-leadership-forward-on-clean-cars-and-trucks/>

*infrastructure built in order for compliance to be evaluated and feasible. Again, these are all questions that will require time to appropriately address and may not have resolutions by the end of the year. Given this, the agency should avoid issuing any guidance that is developed through a rushed process to define these terms and calculations.*

### **A. Section 30D**

**2. Critical Minerals:** *Section 30D(e)(1) provides the new critical minerals requirements, including the applicable percentage requirements to be phased in over several years.*

*b. What factors and definitions should be considered to determine (i) the total value of the critical minerals contained in a vehicle's battery, and (ii) the percentage of that total value attributable to critical minerals (I) extracted or processed in the United States or a country with which the United States has a free trade agreement in effect, or (II) recycled in North America?*

Agency guidance should specify that the total value of minerals contained in a battery should be determined by the monetary value of materials. In addition to the commodity prices of the materials, the monetary value should factor in manufacturing and labor costs of material processing and battery component manufacturing to help incentivize good paying domestic manufacturing jobs. The agency should also specify whether the sourcing threshold applies to the total amount of critical minerals within a battery or to each individual mineral within a battery. For example, if all of the lithium in a battery met the sourcing requirements in 2023, and that lithium represented 40 percent of the value of a battery, would that battery then comply with the critical minerals sourcing criteria?

Determining the monetary value of minerals in a battery will require systems and clear enforcement of data transparency and sharing requirements. The agency will need to specify exactly what point in time the value of a mineral or component should be determined. It may create certainty for manufacturers if the values are determined by the value of the materials or battery components when they were purchased or when the procurement contract was signed rather than the current market value for specific minerals and battery components at the time the battery pack is manufactured. Regardless, the agency should be clear about the point at which value is defined so that manufacturers can access and provide the information necessary to predict and determine compliance.

The agency should also make clear exactly which compliance, or combination of compliance pathways, determines eligibility. For example, for "extracted or processed" in the U.S. or a Free Trade Agreement (FTA) country, would lithium that was extracted in Chile (a country that has an FTA with the U.S.) but then processed in Argentina comply?

Further, the agency should compile and share information with vehicle and battery component manufacturers on the processing and recycling facilities and capacity in the U.S. and FTA countries that would enable these requirements to be met.

Finally, the agency should be prepared for the fact that not all vehicle models within a certain model year will be compliant. For example, half of the model year 2024 Ford F-150 Lightning vehicles may have batteries that were produced with lithium extracted and processed in Argentina while the other half contain lithium extracted and processed in Chile. The agency's guidance should account for scenarios like these in a manner that does not penalize automakers for not being 100 percent compliant within a model year as they build out their compliant supply chains.

**3. Battery Components:** *Section 30D(e)(2) provides the new battery component requirements, including the applicable percentage requirements to be phased in over several years.*

**a. 3.a.** *What factors should be considered in defining the components of a battery of a clean vehicle?*

The agency should consider the final value of the entire battery pack (rather than cell/module) when determining compliance with final battery assembly criteria in the short-term.

Many auto manufacturers have entered joint ventures with battery manufacturers to build battery cell and pack manufacturing facilities in the U.S. For example, Ford's batteries are supplied by LG Energy Solution for their Mach-E vehicles and SK On for their F-150 Lightning vehicles – two companies headquartered in South Korea (a country with a Free Trade Agreement) with manufacturing facilities in the U.S. For their Nevada battery manufacturing facility, Tesla has partnered with Panasonic – a company headquartered in Japan (a country that the U.S. does not have a Free Trade Agreement with). The Treasury and IRS should take into account that joint ventures with companies headquartered outside of North America are common and specify exactly what is required for batteries produced through joint venture manufacturing to comply.

The IRA has undoubtedly spurred many new investments in battery manufacturing facilities. As of October 26, 2022, Bloomberg New Energy Finance has tracked a total of \$9.2 billion investments in battery cell and pack manufacturing and an additional \$2.4 billion in investments announcements in cathode and anode production in North America since the IRA was signed on August 16, 2022.<sup>9</sup> These investments suggest that manufacturers are starting to vertically integrate supply chains for their EV batteries, and they are starting this integration at the farthest

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<sup>9</sup> Cantor, C. Bloomberg NEF, *US EV Investment Rises in Post-Climate-Law World*, October 27, 2022

downstream point of battery supply chains (the closest point to assembly of their vehicles) with pack and cell manufacturing facilities and working their way down into components – including cathodes, anodes, electrolyte, and separators – that make up battery cells. Building North American capacity of these farther upstream cathode and anode material processing and component manufacturing portions of the battery supply chain will take more time and happen later than the pack and cell assembly portions, as is the nature of vertical integration.

It is evident that auto manufacturers are investing to reduce supply chains risks and bottlenecks and build a more competitive and diverse marketplace – the ultimate goal of the § 30D tax credits. Implementation of the IRA should support these efforts by ensuring that taxpayers can access credits to vehicles made by automakers actively working to bring their supply chains into North America and FTA countries during several years it takes to actualize domestic investment into operational facilities.

By evaluating compliance based on the final value of the battery pack, the Treasury and IRS can provide this support. Approximately 77 percent of the final cost of a battery pack is attributable to the cells that are combined to make the final battery pack that to power an EV.<sup>10</sup> The remaining 23 percent is attributable to the additional materials needed for wiring, battery and thermal management systems, and packaging and housing the cells and modules.<sup>11</sup> This cell to pack cost ratio of 77:33 continues to rise (i.e., battery cells making up a larger portion of the overall pack value) as pack manufacturing becomes more advanced and battery materials become more expensive.<sup>12</sup> Within the cell, the overwhelming majority of value is associated with the cathode and anode materials. Therefore, these materials still make up a major portion of the overall pack value.

Globally, 70 percent of cathode material processing and 86 percent of anode material processing takes place in China.<sup>13</sup> Even with 10 percent tax credits for cathode and anode material processing available through IRA, the concentration of this portion of battery supply chains will make it challenging for the U.S. to process the materials needed to meet predicted cathode and anode demand.<sup>14</sup> For example, one of the first synthetic graphite processing facilities – the primary material in lithium-ion battery anodes – in the entire U.S. opened just last year.<sup>15</sup>

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<sup>10</sup> Frith, J. Bloomberg NEF, *2021 Lithium-Ion Battery Price Survey*, November 30, 2021

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Stoikou, E. Bloomberg NEF, *North America Catches up in the EV Battery Race*, September 15, 2022

<sup>14</sup> Ibid.

<sup>15</sup> “Novonix Anode Materials.” Novonix Group, May 6, 2022. <https://www.novonixgroup.com/novonix-anode-materials/>.

Regarding manufacturing of the battery cells and packs, North America is extremely behind China and Europe, accounting for just 6 percent of the global 933 gigawatt-hour battery cell manufacturing capacity in 2022.<sup>16</sup> North America is trying to catch up. An additional 814 gigawatt-hours of battery manufacturing capacity are expected to come online in North America by 2030 – thirteen times manufacturing capacity at the end of 2021.<sup>17</sup> Building these plants takes time. The majority of current announcements are expected to come online during the 2025 calendar year.<sup>18</sup> However, construction delays, building material supply chain issues, access to skilled construction labor, and bottlenecks in supply of processed minerals used in battery cells are all factors that may increase time needed for these plants to reach full nameplate capacity.<sup>19</sup>

By evaluating value at the pack level, the Treasury and IRS will still capture the goal of incentivizing North American manufacturing of EV batteries while encouraging cell and pack final assembly as well as housing and wiring materials sourcing occur within North America. The Treasury and IRS could also choose to determine value at the final pack initially and then transition the value definition further upstream to battery cell in a later year as announced battery component facilities come online. Through this definition or definition transition, the agency would be acknowledging the reality that investments cannot transition into capacity overnight and that the EV market needs to be supported through accessible credits for consumers in the near term in order to meet U.S. climate and environmental justice goals.

Both IRA and the Bipartisan Infrastructure Law include many tax credits and grant programs like the Battery Processing and Manufacturing Grant Program, the §48C Advanced Energy Project Tax Credit, and the §45X Advanced Manufacturing Production Tax Credit that will further support the build out of domestic manufacturing needed to produce EV batteries that enable consumers to access the §30D Clean Vehicle Tax Credit. The Treasury and IRS should ensure that these funds are considered in guidance and made available as quickly as possible in order to make consumer access to the §30D tax credit feasible.

- c. *What factors and definitions should be considered to determine (i) the total value of the components contained in the battery of a clean vehicle, and (ii) the percentage of that total value attributable to components that were manufactured or assembled in North America?*

The values and locations of manufacturing of the individual battery components, cell, modules, and pack materials should all be factored into determining final value of the pack and its

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<sup>16</sup> Stoikou, E. Bloomberg NEF, North America Catches up in the EV Battery Race, September 15, 2022

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

compliance. As noted under question 2(c), the Treasury and the IRS should specify that value refers to monetary value and should include manufacturing and labor costs in addition to mineral commodity prices.

**4. Applicable Values:** The new critical mineral and battery component requirements in § 30D(e) are based on value.

- a. 4.a.** *What existing battery technology supply chain tracking methodologies or regulatory frameworks should be considered in determining applicable values?*

*These recommendations on the applicable values questions were developed in consultation with comments submitted by a group of NGOs organized by Clean Vehicles Coalition.*

Battery labels are great tools for sharing information about a battery. The label can be a physical sticker on a battery that either directly provides the necessary information or a QR code that can be scanned to access a website or document with necessary data. The information needs to be accessible even when the before a battery has been installed in an EV or after it has been removed. There are a few existing examples of battery labeling.

- 1) California's Advanced Clean Cars II - The ACC II rule passed earlier this year, requires a physical label on all batteries in EVs sold in California starting in 2024.<sup>20</sup> This label is in the form of a QR code that links to a database with information about the battery including chemistry, capacity, hazards, and a digital identifier. While this label does not require supply chain tracking information, a similar database and labeling scheme could be implemented and add necessary materials and sourcing information.
- 2) Battery Passports and Draft 2020 EU Battery Regulation - A battery passport is a digital tool that is currently being developed by Global Battery Alliance (GBA) – an industry group that also includes NGOs and works in partnership with governments.<sup>21</sup> GBA prioritizes establishing a circular battery supply chain, lowering greenhouse gas emissions, improving access to high-quality jobs, and protecting human rights. The Battery Passport is in line with these goals as a digital identifier for each EV battery that holds all lifecycle information in one place including state-of-health, material procurement due diligence, and recycling procedures.<sup>22</sup> The Battery Passport has been

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<sup>20</sup> California Air Resources Board. (2022). Section 1962.6, Title 13, California Code of Regulations. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/acciiifro1962.6.pdf>

<sup>21</sup> Global Battery Alliance, 2022. <https://www.globalbattery.org/about/>

<sup>22</sup> Global Battery Alliance. Welcome to GBA's Battery Passport. 2022 <https://www.globalbattery.org/battery-passport/>



endorsed as a preferred method for battery labeling by the draft 2020 E.U. Battery Regulation.<sup>23</sup>

These schemes as currently defined may not provide all of the information that is required to determine battery compliance with § 30D(e) requirements. For example, ACC II label does not include mineral supply information.

Treasury and the IRS should leverage existing examples, proposed regulations, and tracking systems such as those used to determine Buy America compliance to ease the process of developing systems and compliance processes for automakers. Doing so will ultimately increase consumer access to the § 30D credit. The agency should also work with DOE, EPA, and DOT to maximize the benefit of battery labeling throughout battery supply chains including end-of-life collection, sorting, and transport for reuse and recycling. The Treasury and IRS and automakers will need to work with third party supply chain tracking entities like Circular that are currently developing and piloting data collection sharing systems that can be used to implement battery passports that obtain the information needed from companies throughout the supply chain to determine compliance.<sup>24</sup>

#### **B. Section 25E (Previously-Owned Clean Vehicles)**

*What, if any, guidance is needed to address how a taxpayer can verify that a vehicle qualifies as a “previously-owned clean vehicle” as defined in § 25E(c)(1)?*

For the first time, previously owned (“used”) clean vehicles (including EVs) will be eligible for federal tax credits under tax code § 25E, thanks to the IRA. The used car market is twice the size of the new car market. It also has the potential to help a lot more taxpayers by helping to develop a secondary market for clean vehicles and through expanding the access that many low- and moderate-income taxpayers have to the consumer savings that come from EV ownership.

The IRA defines a previously owned clean vehicle as one that is acquired by a qualified taxpayer in a qualified sale, but the definition of a qualified sale includes the requirement that the sale be for no more than \$25,000 and “the first transfer since the date of enactment of this section to a qualified buyer other than the person with whom the original use of such vehicle commenced.”

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<sup>23</sup> European Commission. (2020). “*Proposal for a Regulation of the European Parliament and of the Council Concerning Batteries and Waste Batteries.*” (pg. 12) [https://eur-lex.europa.eu/resource.html?uri=cellar:4b5d88a6-3ad8-11eb-b27b-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:4b5d88a6-3ad8-11eb-b27b-01aa75ed71a1.0001.02/DOC_1&format=PDF)

<sup>24</sup> The EU Battery Regulation: Are you ready? <https://www.circular.com/batterypassport>

NRDC urges Treasury and the IRS to issue guidance on this provision that more accurately reflects Congress' intent with this tax credit to prevent the same previously owned clean vehicle from giving rise to credits under § 25E more than once. **Agency guidance should provide that the requirements under § 25E be implemented in a manner such that a clean vehicle that is resold for an amount greater than \$25,000, or to a taxpayer not meeting the income requirements, could still be eligible for the credit in a subsequent sale.**

For instance, if a taxpayer purchases a used EV for \$26,000 (a price at which it cannot qualify for the § 25E credit) and then trades the vehicle into a dealer, and a second taxpayer meeting the income requirements purchases that vehicle for \$24,000, that should still be a qualifying sale. Otherwise, a used EV that is resold in a non-qualifying transaction would never be eligible for the credit, effectively reducing the pool of credit-qualifying used EVs available for purchase by low- and moderate-income taxpayers.

Our recommendation for what qualifies as a “previously-owned clean vehicle” as defined in the statute is well within the agency’s purview and will allow this credit to be more beneficial to qualifying taxpayers seeking cleaner transportation options. Additionally, implementing this provision as we suggest will help EVs reach price parity with existing combustion engine used car options and help to provide more low- and moderate-income consumers with access to EVs that can help reduce their exposure to inflationary gasoline prices, consistent with the overarching goal of the Inflation Reduction Act.

### **C. Comments on Any Other Terms that May Require Definition or Additional Guidance**

NRDC will also respond to the RFI released on November 3, 2022 on the § 45W credit for “Qualified Commercial Clean Vehicles,” urging the agency to develop a definition for “comparable vehicle” for automakers without internal combustion engine (ICE) vehicles. And because clean vehicles need clean fuel to operate, NRDC will also provide comments that include recommendations related to the implementation of the § 30C Alternative Fuel Vehicle Refueling Property Credit designed to resolve statutory ambiguity with respect to the definition of a census tract that is not urban in a manner that is consistent with the agency’s guiding principle of “ensuring that as many eligible taxpayers as possible benefit from the incentives provided by the law while protecting against fraud and abuse.” Specifically, to ensure residents of rural census blocks and other deserving taxpayers are not unduly denied access to these important tax credits.

## IV. Conclusion

The passage of the Inflation Reduction Act was historic. If implemented correctly, this law has the opportunity to offer significant benefits to taxpayers through the many historic climate, clean energy and clean transportation investments – including relief from inflationary and volatile fuel prices.

### A. Section 30D

It is important that Treasury and the IRS get the implementation of the clean vehicles provisions right, and the agency will not be able to resolve the multiple, complex issues described above before it must issue draft guidance. And draft guidance should avoid prematurely denying Americans access to tax credits needed to provide relief from inflationary fuel prices and accelerate the transition to zero-emission vehicles needed to meet climate and air quality goals.

Given all that is at stake and the realities of the complex supply chain and administrative hurdles that require time to navigate appropriately, NRDC urges Treasury and the IRS to use its authority and the broad discretion given to the agency by the IRA to issue guidance on the § 30D(e) sourcing provisions that includes transition rules.

### B. Section 25E

NRDC urges Treasury and the IRS to issue guidance on this provision that more accurately reflects Congress' intent with this tax credit to prevent the same previously owned clean vehicle from giving rise to credits under § 25E more than once. Agency guidance should provide that the requirements under § 25E be implemented in a manner such that a clean vehicle that is resold for an amount greater than \$25,000, or to a taxpayer not meeting the income requirements, could still be eligible for the credit in a subsequent sale.

Thank you for considering our input to the federal guidance for these critical tax provisions.



Britt Carmon



Max Baumhefner



Jordan Brinn

Ms. Batchelder, Mr. West, Mr. Rettig, and Mr. Paul  
November 4, 2022  
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