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Grayway



IRA Investment Spurs Manufacturing Growth

Permitting Problems Threaten Advancement

A JOURNAL FOR BUSINESS AND INDUSTRY



Welcome.

U.S. manufacturers have become experts at dealing with economic uncertainty over the last few years, but the outlook appears to be improving. Dropping inflation, unemployment, and increased real GDP are due, in part, to federal legislation like the Inflation Reduction Act (IRA), designed to stimulate the economy.

The IRA provides nearly $400 billion for clean energy projects, to be delivered through a variety of tax incentives, grants, and loans, which will flow through more than a dozen federal agencies.

This IRA funding is attracting strong interest from companies overseas. However, distribution of these funds has been slow due to permitting delays, and reform is needed to streamline the process, expedite the distribution of funds, and move forward with projects.

Many of these incentives have minimum requirements for U.S.-based materials, parts, and suppliers that can be achieved through domestic supply chains. Building resilient domestic supply chains isn't easy, but the end result creates partnerships that adds tremendous value to all levels of the economy.

Stephen Gray
President & CEO
GRAY, INC.

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The Inflation Reduction Act, signed into law last year, will distribute nearly $400 billion in tax credits to stimulate the economy, especially the clean-energy industry.



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One Year Later:
How Are the Inflation Reduction Act and Manufacturing Getting Along?

The Inflation Reduction Act (IRA) was signed into law on August 16, 2022, as a part of the Build Back Better framework. Over its short history, IRA has stimulated massive investments in battery and electric vehicle (EV) manufacturing across the country. Nearly 80 major clean energy manufacturing facilities have been announced—an investment equal to the previous 7 years combined, according to the American Clean Power Association.

Key provisions in the IRA that support manufacturing include:

- Nearly $400 billion for clean energy projects, to be delivered through tax incentives, grants, and loans
- The U.S. Department of Energy will receive about $12 billion to create a new loan program capped at $250 billion to improve energy infrastructure



INFLATION REDUCTION ACT INVESTMENTS BY SECTOR

McKinsey & Company

Total = **393.7**
$ billion



This chart reflects analysis of the appropriation figures contained in the Inflation Reduction Act, as well as those reported by the Congressional Budget Office and Joint Committee on Taxation. This analysis may differ from other analyses due to differences in methodology. Source: Inflation Reduction Act of 2022, H.R. 5376, 117th Cong. (2021-22); McKinsey analysis.

- Private investment incentives—the majority of the $400 billion will be distributed in the form of tax credits, with about half going to corporations

"These credits are designed to catalyze private investment in clean energy, transportation, and manufacturing," stated Justin Badlam, a member of McKinsey's Public Sector Practice. "Many of the tax incentives are direct pay, meaning that an entity can claim the full amount even if its tax liability is less than the credit."

Other Conditions.

Manufacturing facilities are only eligible for full IRA tax credits if they meet current wage and apprenticeship requirements, as well as some "made in America" percentages for materials, manufacturing, and assembly.

IRA funds will flow through more than a dozen federal agencies. "The U.S. Treasury Department is expected to handle the lion's share—more than $250 billion—given the prevalence of tax credits in the law," said Badlam. "The Departments of Agriculture and Energy, as well as the Environmental Protection Agency, will receive $120 billion combined to bolster climate, environmental justice, conservation, and resilience programs."

The IRA does, however, encourage small business growth. It doubles the research and development tax credit to ensure pre-revenue businesses have access to up to $500,000 starting next year. In addition, it increases taxes on companies making over $1 billion in profits, while providing tax credits to companies that meet strict domestic sourcing rules—which ensure that more jobs stay in the U.S. instead of being offshored.

Clean Tech Benefits the Most.

Clean-tech manufacturing—which consists of technology like electric vehicles, battery, and solar panels—and distribution sectors stand to benefit the most because the IRA contains new environment-related tax credits that specifically address these businesses.

"While manufacturers can directly benefit from the energy efficiency incentive under IRC section 179D, or clean energy generation and energy storage tax credits under the section 48 Investment Tax Credit, manufacturers with facilities where these eligible



U.S. Senate Majority Leader Charles Schumer (D-NY) speaks at a press conference on the Inflation Reduction Act at the U.S. Capitol on July 26, 2023 in Washington, DC. The event was held to highlight the legislation and how it is lowering green house emissions and investing in communities at risk to climate change. (Photo by Kevin Dietsch/Getty Images)

products and components are made can now also benefit from other tax credits that specifically incentivize the manufacturing of such products," said Lee J. Peterson, a senior manager for CohnReznick, a business consulting firm.

This express focus on incentivizing specific types of manufacturing and industrial products with the federal tax code is significant. Thus, added Peterson, "the IRA not only provides an incentive for manufacturing clean tech equipment and components, but the law also contains other federal income tax credits for the cost of such manufacturing equipment."

Speeding up Investment.

Although there is an abundance of funding and investment opportunities, getting the tax credits to companies has been slow, according to Brandon Farris, vice president of Domestic Economic Policy at the National Association of Manufacturers (NAM).

"It is important to maintain momentum and streamline the permitting process to distribute these funds as quickly and efficiently as possible," he said. "The IRA is driving investment interest, including by foreign companies that are eager to build facilities in the U.S. That's why we need to make sure that the permitting process is streamlined so that, as a country, we capture all these investment dollars."

Farris noted that, especially in the clean energy sector, permitting issues are slowing down the disbursement of funds, delaying the starts of new projects. While the Treasury Department is "a little behind" in getting the guidance out for these tax credits, many companies are holding off on starting their projects until the Treasury Department finishes its guidance. "If a company is relying heavily on these tax credits, it does not want to go ahead with the project until it is sure the funding is secured," said Farris.

This, of course, creates a bottleneck where companies are eager to build but waiting for the green light to move ahead.

Moving Clean Tech Forward.

Although it has wide-reaching implications for healthcare and direct debt reduction, the IRA is heavily focused on improving the manufacturing infrastructure. "The act couldn't have come at a better time, as the U.S. manufacturing industry is expected to have more than two million vacant jobs by 2030 and is struggling to keep up with already strained supply chains in a post-pandemic world," said Denis Phares, CEO for Dragonfly Energy Corporation, a battery manufacturer. CEO for Dragonfly Energy Corporation, a battery manufacturer.

Manufacturing is the backbone of American innovation. Thanks to the IRA and the valuable funding it provides, manufacturing is set for growth, noted Phares. "We are already seeing large companies, such as Toyota, Honda, Samsung, and LG, building manufacturing plants in the U.S. because of it," he said. "Be sure to get the money you qualify for before it is gone."

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> **Dennis Phares**
> **CEO**
> DRAGONFLY ENERGY CORPORATION

Learn more about the impacts of IRA on the manufacturing industry. →

Building from Within: Domestic Supply Chains to Power U.S. Manufacturing



President Biden recently noted that investing in U.S. supply chains is a top priority for American manufacturing industries. "To build a strong economy, we need a future that's made in America," he said. "That means using projects, parts, and materials right here in the United States of America. It means bringing manufacturing back, jobs back, building the supply chain here at home and not outsourcing abroad."

In other words, domestic supply chains for U.S. manufacturers.

It can seem like a daunting (or even impossible) task to totally reshore supply chains to the U.S., relying only on domestic sources. And although there are some major challenges to building a domestic supply chain, these can be tamed (at least in part) with some collaborative innovation, investment, creativity, and redundancy.

Domestic Advantages.

Advantages to a domestic supply chain include:

- **Reduced supply chain costs.** One of the biggest savings for companies that reshore is lower transportation costs, as well as the elimination of extra taxes, currency exchanges, and import fees.
- **Greater flexibility.** Domestic suppliers can often be more agile compared to foreign sources. Communication is also easier and order changes can be made more quickly.
- **Improved quality control.** Manufacturing and certification standards are expected for U.S. suppliers and help ensure higher levels of quality control. Working with domestic suppliers also improves efficiency and quality by having fewer language barriers and sharing the similar time zones/operational hours.
- **Improved inventory control.** An ongoing challenge for many manufacturers is inventory control. Forecasting can be difficult, especially when relying on foreign suppliers. Customers want their orders fulfilled immediately—using local or domestic suppliers makes it easier to maintain just-in-time inventories, which reduces inventory costs.

Developing the Supply Chain Edge.

One of the first considerations for building a domestic supply chain is understanding the capabilities of local suppliers, including their ability to expand capacity if and when needed. Although these capabilities may not be everything a manufacturer wants, suppliers may be open to converting their operations to expand business and produce new lines.

If local companies do not have all the capabilities a manufacturer is looking for, they can be developed with the help of the manufacturer, noted Jonathan Webb, director of strategy research for Procurement Leaders, a provider of market intelligence for a variety of industries. "This is known as supplier development," he said. "There are two options available to manufacturers. First, they can provide technical assistance to suppliers to support their expansion and development of new capabilities. Second, they can encourage suppliers to merge with others in order to increase their ability to produce scale. There is no reason why a company cannot deploy the same approach to bringing together a collection of smaller suppliers to forge a consortium to match the shortfall created by the shortened supply chain."

Investing in automation is absolutely essential for domestic manufacturers for supply chains to be cost-competitive with global supply chains that operate from lower-cost countries. Domestic suppliers that automate have lower operational costs and get products to market faster relative to those who don't utilize the power of automation. If a company finds a good domestic supplier that is not automated, another available option is for the manufacturer to share in the cost of automating the necessary equipment.

Another option is to internalize supply chain capabilities directly into the business. "This involves acquiring a supplier," said Webb. "However, savvy organizations can look to see where local companies, who may not have developed the precise solution to match the need, may be open to direct intervention as part of a new corporate entity."



> “Our data shows that about 25% of work is reshorable with no impact on profit.”
>
> **Harry Moser**
> **President & Founder**
> RESHORING INITIATIVE

Every Domestic Partner Helps

The COVID-19 pandemic proved the importance of redundancy in the supply chain. It takes time to build relationships and understand the needs of domestic partners. Making the decision to reshore is usually not an easy one. A valuable resource for companies looking to reshore is the Reshoring Initative, an organization that helps manufacturers decide whether domestic manufacturing and supply chains can reduce their total cost of ownership enough make the move profitable.

“The decision must be based on total cost of ownership, not price or landed cost,” said president and founder Harry Moser. “Our data shows that about 25% of work is reshorable with no impact on profit.”

If it is not feasible to reshore an entire supply chain, bring back as much of it as possible for domestic sourcing. A manufactured component is a good candidate for domestic production if it:

- Comes from China or Taiwan
- Has a high material or freight cost versus labor cost
- Can be easily automated
- Is not tooling intense (for example, machined, not stamped or molded)

Other considerations are type of material (plastic is generally attractive for reshoring because it is globally competitive in cost), energy usage, seasonal demands, or Made-in-America label for brand purposes.

“Domestic sources for finding suppliers are Thomas/Xometry, trade associations, and the Reshoring Initiative,” said Moser. “Also, if you decide to reshore in some capacity, make sure to build up an inventory before shifting—foreign suppliers may cut you off.”

This decision to shift from the more traditional supply chain approach to today’s proposed domestically driven model certainly isn’t an easy one. In most, if not every case, you are leaving behind decades of best practices, relationships, and solid returns on investment for the promise of a better future. But that better future really is a better future. With promised incentives and a structure that is built to facilitate and maintain growth, a framework is in place to propel companies past previous high-water marks. The proper alignment of a local, regional, and national partner networks provide the flexibility and feasibility to excel in today’s evolving markets.

Learn more about the benefits of establishing domestic supply chains. →



PROJECT SPOTLIGHT

Gray Adds New Projects As Solar Heats Up

Gray recently added to its list of industrial-scale solar projects in execution across the U.S., continuing its leading role as the solar market’s premier partner in facility engineering, architecture, and construction.

With years of advanced manufacturing experience, Gray offers solar manufacturers an expert partner with a proven record of delivering solar facilities amid challenging project timelines.

Recent policy tailwinds such as 2022’s Inflation Reduction Act (IRA) have catalyzed growth for the rapidly emerging sector, as companies from around the globe race to establish new U.S. operations. Currently, Gray is executing solar projects which total 14.6 GW of production capacity.

Gray is proud of the opportunity to help grow the domestic solar market and champion clean energy for future generations.



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