Clean Investment at the Community Level

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Summary

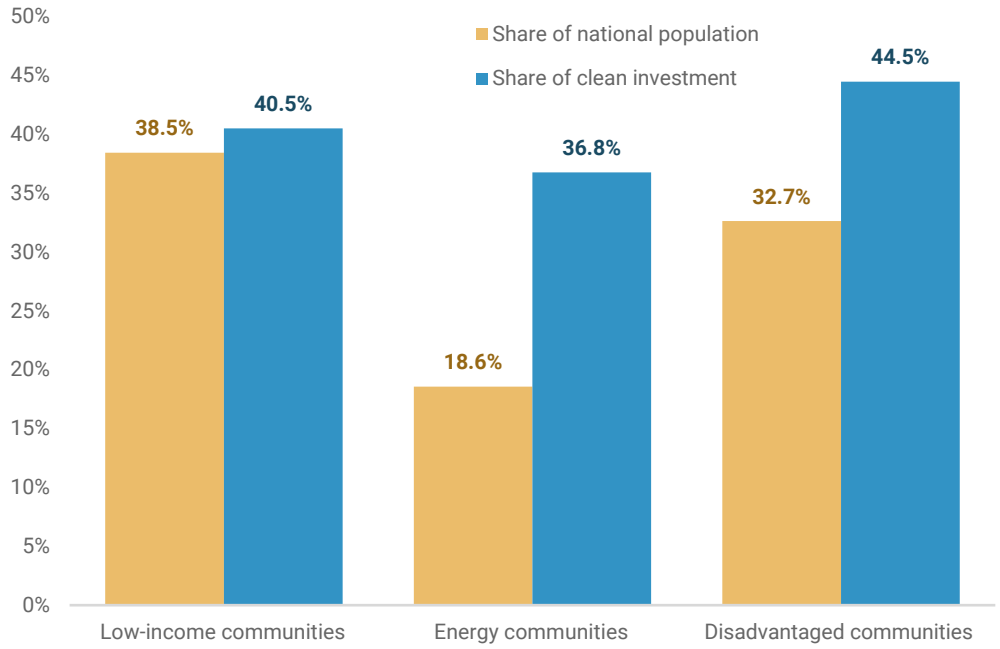
The Inflation Reduction Act (IRA) contains multiple provisions that seek to incentivize clean energy investment in specific communities, such as low-income communities or communities that have traditionally produced fossil fuels (i.e., energy communities). These incentives take the form of additional tax credits and priority access to loans and grants. The Clean Investment Monitor's (CIM) comprehensive facility-level investment data is uniquely suited to assess the extent to which actual—not just announced—investment is indeed flowing into these communities as legislators intended. In this note, we provide an overview of actual community-level investment trends in the first year following the IRA's passage.

We find that these communities are successfully attracting an outsized share of national clean investment (Figure 1). The share of clean investment occurring in energy communities is nearly double the share of the national population living in these communities (36.8% versus 18.6%). The share of clean investment occurring in disadvantaged communities is considerably higher than the share of the national population residing there as well (44.5% versus 32.7%). Actual investment in low-income communities was also positively disproportionate to the portion of the national population residing therein (40.5% versus 38.5%).

FIGURE 1

Percent of clean investment going to designated communities relative to percent of national population living in these communities

Q3-2022 to Q2-2023. Criteria explicitly defined in the IRA.



It's still too early to robustly evaluate the extent to which community-focused incentives in the IRA are shaping geographic investment trends, given that the implementing regulations for many of these incentives were only recently completed. Noting that 34.7% of actual investment in the year following the IRA came from projects announced after the IRA, we expect these trends will likely extend as more post-IRA project announcements turn to actual investment. We will continue to track community-level investment trends and publish our findings and underlying data on **cleaninvestmentmonitor.org**.

Our Method

Our analysis compares the share of post-IRA actual investment in clean technology manufacturing and deployment to the share of the national population that resides in three types of communities: energy communities, disadvantaged communities, and low-income communities. Community-level analysis is only possible for the clean technology manufacturing, utility-scale clean energy deployment, and industrial decarbonization investments in our database (the "Manufacturing" and "Energy & Industry" segments in the CIM database), as data on retail investments, such as purchases of electric vehicles or installation of rooftop solar systems, is only available at the state level. We assign census tracts to all Manufacturing and Energy & Industry facilities in our database for which we have exact address information. This accounts for 90% of all investment (by value) in these segments for the year following the passage of the IRA (Q3-2022 through Q2-2023). We then calculate the share of clean investment that went to census tracts with the following designations, as defined in relevant provisions of the IRA: energy communities, disadvantaged communities, and low-income communities. We compare this to the share of the national population that resides in these designated census tracts, as an indicator of the relative geographic weighting of clean investment compared to the overall population. In addition to total clean investment, we provide figures for manufacturing and utility-scale solar, storage, and wind—the four largest investment categories in the year following IRA passage.

Energy Communities

The IRA contains incentives for investment in communities that have a history of fossil fuel production. For example, the **Energy Community Tax Credit Bonus** in the IRA provides an additional 10% (for production tax credits) or 10 percentage points (for investment tax credits) for investment in communities that meet one of the following criteria:

- A "brownfield site" (as defined in certain subparagraphs of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA))

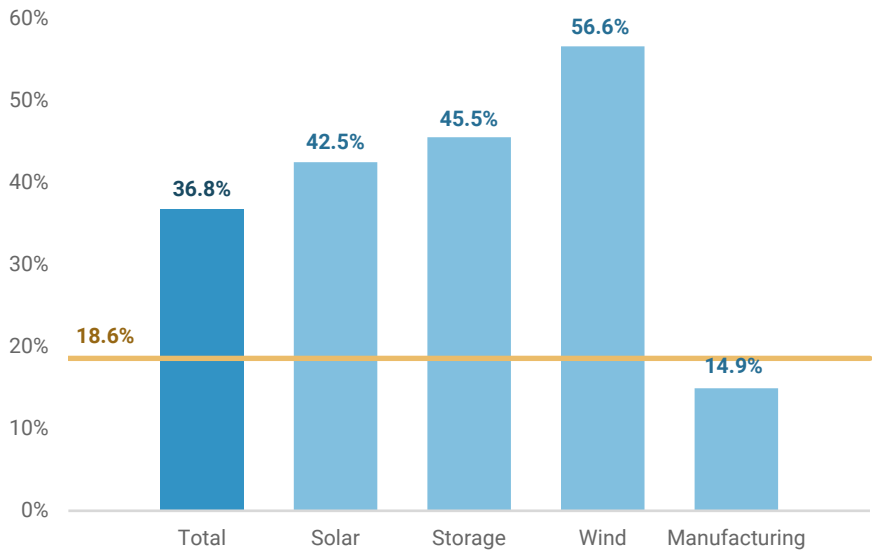
- A "metropolitan statistical area" or "non-metropolitan statistical area" that has (or had at any time after 2009)
  - 0.17% or greater direct employment or 25% or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas; and
  - an unemployment rate at or above the national average unemployment rate for the previous year
- A census tract (or directly adjoining census tract)
  - in which a coal mine has closed after 1999; or
  - in which a coal-fired electric generating unit has been retired after 2009

Based on these criteria, 36.8% of clean investment in the year following the passage of the IRA occurred in energy communities (Figure 2). That ratio is nearly double the percent of the national population living in an energy community (18.6%). Utility-scale wind investment occurred at a level three times higher than the share of the national population in energy communities, comprising more than half (56.6%) of actual investment for this technology. For utility-scale solar and storage, 42.5% and 45.5% of investment reached energy communities, respectively, while only 14.9% of manufacturing investment did. The majority of manufacturing investment in the CIM database is in the EV supply chain. Much of this investment is concentrated in traditional auto manufacturing regions, with a lower share going to energy communities.

FIGURE 2

Percent of clean investment going to energy communities

Q3-2022 to Q2-2023, orange line indicates percent of national population in energy communities. Criteria explicitly defined in the IRA.



Source: Rhodium Group/MIT-CEEPR Clean Investment Monitor, US Census, energycommunities.gov, WorldPop Hub.

Disadvantaged Communities

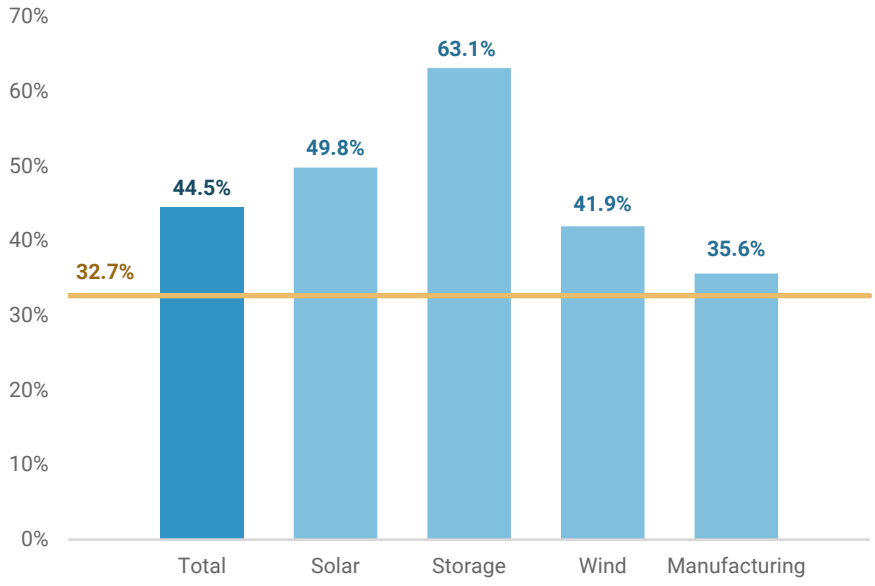
Several grant programs in the IRA prioritize funding for "disadvantaged communities." While the legislation does not define this term, except as applies to an EV charging grant program, the White House Council on Environmental Quality has proposed a definition for consideration by agencies as they implement IRA grant programs in which disadvantaged communities are prioritized as part of its Climate and Economic Justice Screening Tool (CEJST). The **CEJST definition** of "disadvantaged community" combines socioeconomic indicators and the level of environmental or climate burden a community faces. The Biden administration has committed to delivering 40% of the overall benefits of federal climate and clean energy investments to disadvantaged communities, consistent with this definition.

Using this definition, 44.5% of clean investment in the year following the passage of the IRA occurred in disadvantaged communities (Figure 3). That's considerably higher than the share of the national population residing in those communities (32.7%). Within this, the share of storage investment (63.1%) was nearly double the national population in disadvantaged communities. And the share of solar (49.8%), wind (41.9%), and manufacturing (35.6%) occurring in disadvantaged communities all surpassed that of the national population share.

FIGURE 3

Percent of clean investment going to disadvantaged communities

Q3-2022 to Q2-2023, orange line indicates percent of national population in disadvantaged communities. Defined based on CEJST criteria.



Source: Rhodium Group/MIT-CEEPR Clean Investment Monitor, US Census, CJEST.

Low-Income Communities

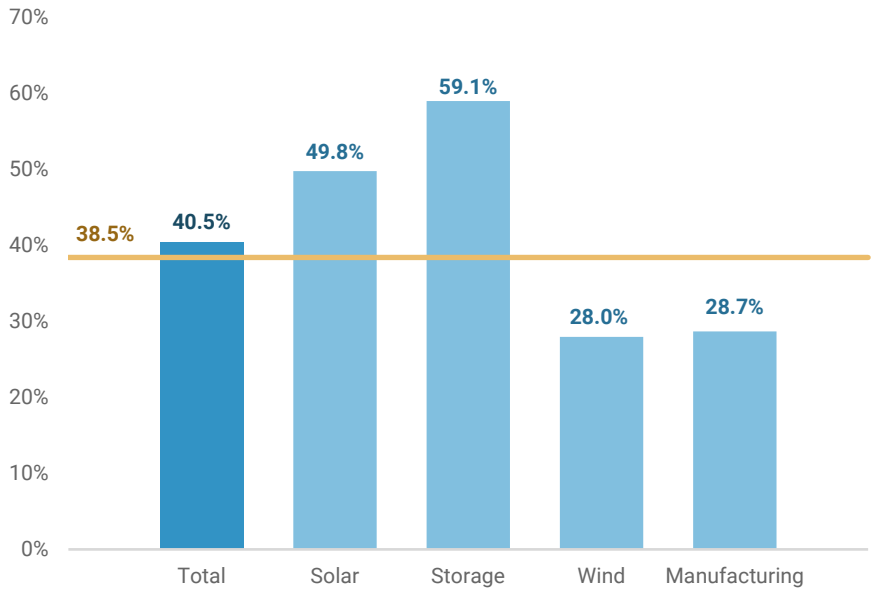
"Low-income community" is defined as census tracts where either the poverty rate is above 20% or household income is less than 80% of the area median. The IRA includes multiple incentives for investment in "low-income communities". For example, solar and wind project developers **are eligible for an additional 10% investment tax credit** for projects built in low-income communities, subject to maximum project sizes and an overall cap on the amount of wind and solar capacity that can take advantage of the bonus credit.

Using this definition, we find that in the first year following the passage of the IRA, 40.5% of clean investment went to low-income communities, higher than the 38.5% of the national population living in these communities (Figure 4). A considerably higher share of solar and storage investment went to these communities (49.8% and 59.1% respectively), compared to wind and manufacturing (28.0% and 28.7% respectively).

FIGURE 4

Percent of clean investment going to low-income communities

Q3-2022 to Q2-2023, yellow line indicates percent of national population in low-income communities. Defined based on NMTC eligibility.



Source: Rhodium Group/MIT-CEEPR Clean Investment Monitor, US Census, CDFI Fund.

Ongoing Tracking

It's too early to evaluate the extent to which IRA incentives for investment in energy communities, disadvantaged communities, and low-income communities

are shaping the geographic distribution of overall clean energy investment. The implementing regulations for many of these incentives have only recently been finalized and much of the actual investment that occurred in the year following the IRA was from projects that were announced or broke ground before the legislation and guidance was finalized. In fact, only 34.7% of actual investment in the year following the IRA came from projects announced after the IRA. As more post-IRA project announcements convert to actual investment, these trends will likely expand. Rhodium Group and MIT-CEEPR will continue to track these, and other, community-level trends in the **Clean Investment Monitor**.

For researchers interested in access to bulk data files with individual facilities mapped to census tract socioeconomic and other demographic data, please email **datarequest@cleaninvestmentmonitor.org**.

ABOUT THE CLEAN INVESTMENT MONITOR

The Clean Investment Monitor (CIM) is a joint project of Rhodium Group and MIT's Center for Energy and Environmental Policy Research. The CIM tracks public and private investments in manufacturing and deployment of climate technologies in the United States. Through this data and analysis, the CIM provides insights into investment trends, the effects of federal and state policies, and on-the-ground progress in the U.S. towards net-zero greenhouse gas emissions.

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Website: **www.cleaninvestmentmonitor.org**

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