



The Dashboard has five core features:

- Dashboard Filters
- Map Widget
- Equity Layers
- Donut Charts
- Table Widget

Each data point in the Dashboard represents a different award. The costs shown on the Dashboard represent the total spend from fiscal year (FY) 2019, FY 2020, and FY 2021 to date.

### Dashboard Filters

Dashboard filters allow users to view the cost data in the Dashboard in multiple ways. The following five Dashboard filters are available:

- Funding Category (types of awards- contract, grant, or cooperative agreement- used to transfer funds to people and organizations to reach the agency’s authorized mission)
- DOE Program Office (initiating or sponsoring office of funding category)
- Place of Performance (where the work outlined in the award takes place)
- Minority Serving Institution (institution of higher education that serves minority populations)
- J40 Relevance (Justice40 categories identified in Executive Order (EO) 14008, *Tackling the Climate Crisis at Home and Abroad*, establishing Justice40)

Selecting options from any of the above dropdown menus will then filter the cost data on all three aspects of the Dashboard – the map, the donut charts, and the table. For example, if the user selects “Contract” in the Funding Category, then only contract data will be visible in the Dashboard map, donut charts, and table. Filters are not mutually exclusive – the view can be further refined by using multiple filters at once. For example, if the user is interested in viewing grants that Fossil Energy issued in Florida to a Hispanic

Serving Institution, these results are obtainable by choosing the appropriate filters.

### Map

The map is a geographical representation of the place of performance for each of the awards. The number of awards in each geographic area is shown at various levels of detail; the user can view more detail on the individual awards as they zoom into the map. Where there are multiple awards in a particular area, the user will see a gray circle, 6, that contains a number which represents how many awards are in a particular area. Clicking on the gray circle causes the map to zoom in, to further drill down on an area.

At a very fine geographic level, the user will see three different colors of map pinpoint and each color indicates a different type of award – orange for contracts, green for cooperative agreements, and blue for grants. A user can click on these individual map pinpoints to view all of the information regarding that award - a description of the award along with place of performance, the DOE program office initiating or sponsoring the work, the awardee name, the total cost since FY19, the Minority Serving Institution category, and J40 aspects.

The default view of the map is the United States mainland but can be zoomed out to view the entire global map. On the upper left side, there are buttons for the user to select specific zoom levels of the map:

- US: United States Mainland
- HI: Hawaii
- AK: Alaska
- GU: Guam
- PR: Puerto Rico

The magnifying glass (🔍) displays a global view. The reset button (↺) returns the map to its original form.



## Map Layers

The map also has a button called “Select an Equity Layer” found next to this icon (📁) which allows the user to view an individual equity layer in tandem with DOE cost data on the map. The equity layers provide the user with several different ways to begin visualizing how much of DOE spending is going to the most overburdened and underserved parts of our country. When a user selects an individual equity layer, the colors indicate increasing levels of intensity for that equity indicator. The DOE cost data either the “Award Details” and/or the “Cost Heat Map” can be displayed over the selected equity layer. The following equity or DOE cost data layers can be selected:

Layer	Details
No Layers	No layer chosen.
Minority Population*	The percent of individuals in a tract (statistical subdivisions of a county that aim to have roughly 4,000 inhabitants) who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that the person is of a single race, not multiracial.
Low Income Population*	The percentile of a tract's population in households where the household income is less than or equal to twice the federal "poverty level."
Energy Burden**	The average annual housing energy costs divided by the average annual household income. Annual housing energy costs are based on household annual expenditures for electricity, gas (utility and bottled), and other fuels (including fuel oil, wood, etc.).
Air Toxin Cancer Risk	Lifetime cancer risk from inhalation of air toxics
Respiratory Hazards	Air toxics respiratory hazard index (ratio of exposure concentration to health-based reference concentration)
Ozone Level	Ozone summer seasonal avg. of daily maximum 8-hour concentration in air in parts per billion
Diesel Particulate Matter	Diesel particulate matter level in air, $\mu\text{g}/\text{m}^3$
All Particulate Matter	PM2.5 levels in air, $\mu\text{g}/\text{m}^3$ annual avg
Lead Paint	Percent of housing units built pre-1960, as indicator of potential lead paint exposure
Traffic Proximity	Count of vehicles (AADT, avg. annual daily traffic) at major roads within 500 meters, divided by distance in meters (not km)
Risk Facilities	Count of RMP (potential chemical accident management plan) facilities within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers
Hazardous Disposal Sites	Count of hazardous waste facilities (TSDFs and LQGs) within 5 km (or nearest beyond 5 km), each divided by distance in kilometers
Cleanup Sites	Count of proposed or listed NPL - also known as superfund - sites within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers
Water Discharge Sites	RSEI modeled Toxic Concentrations at stream segments within



	500 meters, divided by distance in kilometers (km)
COVID-19 Fatalities***	Displays rank quantile of cumulative deaths, per county, attributed to COVID-19, since Jan 1, 2020.
Award Details	Displays each DOE award as a map pinpoint or as a grey disk with the number of awards in that location (when zoomed out). This layer can be switched on and off.
Cost Heat Map	Aggregated costs by location on the map. Areas of warmer colors indicate higher volume of DOE costs while areas of cooler colors indicate a lower volume of DOE costs. The colors are relative to the zoom level and to the other spending amounts displayed in that geographic view. For example, when the map is displaying the entire U.S., Lexington, KY is a light purple color as the costs in that location are compared against costs across the U.S.; however, when we zoom in completely, Lexington, KY is a bright red color as the costs in Lexington are much higher compared to the other locations displayed on the map. When most zoomed in, a static legend will display showing fixed ranges of dollar amounts each color represents.

Unless otherwise noted, all layers derive from:

- the Environmental Protection Agency’s (EPA) [EJSCREEN’s Environmental Indicators](#).
- Layers with a single asterisk (\*) are from the EPA [EJSCREEN Demographic Indicators](#).
- The layer with the double asterisks (\*\*) stems from the Department of Energy’s [Low-Income Energy Affordability Data \(LEAD\) Tool](#).
- The layer with the triple asterisks (\*\*\*) stems from the National Center for Health Statistics, Center for Disease Control and Prevention [Provisional COVID-19 Death Counts in the United States by County](#).

When an equity layer is selected, a legend will appear in the bottom left corner of the map showing how each color correlates to a percentile for the indicator being measured for a particular geographic area. Percentile is a relative term, and in this case, helps us to explain how a particular location compares to other locations in the U.S. for the equity indicator that is selected. The general rule is that if value X is at the kth percentile, then X is greater than K% of the values. For example, if a user is looking at the equity layer “Respiratory Hazards” in Grangeville, Idaho, where the city is in the 40<sup>th</sup> percentile, then

Grangeville, Idaho’s exposure to respiratory hazards is greater than 40 percent of other communities in the United States. Approximately 60 percent of other cities’ exposures is worse.

*Note: for the equity layers, all layers are in percentiles except for “Energy Burden”, “Cost Heat Map”, and “Award Details”, which represent respectively, the energy cost as a percentage of income, the total cost of spending projects by location, and the count of spending projects by location.*

### Donut Charts

The donut charts provide another way to visualize the award cost data in terms of total dollars, and the data is categorized in three different ways:

- Cost to Date per Awardee
- Cost to Date per City
- Cost to Date per Category

In each donut chart, the total dollars are broken out by what each donut chart measures. For example, in the “Cost to Date per Awardee” donut chart, the graph aggregates the total dollars that each awardee is receiving. The user can hover over each awardee’s slice of the donut to view the awardee’s name and the costs distributed to



them.

### Table

The table displays information about each award in seven columns:

- DOE Program Office (initiating or sponsoring office of funding category)
- J40 Relevance (Justice40 categories identified in EO 14008, establishing Justice40)
- Principal Place of Performance (primary location where the work outlined in the award takes place)
- Awardee Name (official name of recipient of federal funding)
- FY 19 Cost (costs during FY 19)
- FY 20 Cost (costs during FY 20)
- YTD 21 Cost (costs through the last day of the accounting period)
- Total Cost (aggregate of all costs from FY 19 through YTD 21)

The user can view the definition of each column header by hovering over it. The table is sortable by ascending or descending order by clicking on the arrows next to the column name. Each row is expandable through a plus (+) located to the left of the DOE Program Office's name for each award. Expanding the row allows for the user to learn the funding category for the award and a brief description. To hide the description and return the row back to its original state, click on the negative button (-).

At the top of the table, the user can toggle how many records are shown in the table. In the top left dropdown, the user can select to see All, 5, 10, 25, 50, and 100 records at a time. If the user

### Dataset Details

To view the full dataset used to drive the Dashboard, users may click the link at the bottom of the Summary Section with the hyperlinked text, "full dataset". Clicking the link brings the user to a new webpage with a short summary of the dataset and a link to download the file. The table below describes the data attributes

wants to view more entries, there are buttons to increase the number of entries per page. To turn the page, there are buttons at the top right for the user to select different pages in the table.

### Source of the DOE Energy Justice Dashboard (BETA) Cost Data

The Energy Justice Dashboard (BETA) includes all grants, cooperative agreements, and contracts created in DOE's procurement system that were either awarded or modified on or after October 1, 2019. This includes awards made prior to October 1, 2019 if the awards were modified for any reason. Data from the National Nuclear Safety Administration and Energy Information Administration are included as these agencies utilize the DOE procurement system. Data from Bonneville Power Administration and the Federal Energy Regulatory Commission are not represented in the Dashboard.

The procurement and financial data were extracted from DOE's procurement system, Strategic Integrated Procurement Enterprise System (STRIPES) and DOE's Financial Management System, Standard Accounting and Reporting System (STARS). The Department's central business data warehouse linking common data elements from multiple DOE corporate business systems including STRIPES and STARS is the Integrated Data Warehouse (IDW).

Data for the Energy Justice Dashboard was extracted from IDW. Dashboard data is refreshed the second week of the month after the close of the accounting period. The data reflects costs as of the last day of the accounting month. For example, looking at the Dashboard data in May will show DOE costs for the April accounting period ending April 30<sup>th</sup>.



# Energy Justice Dashboard (BETA) Features

## Office of Economic Impact and Diversity

in the downloadable data file and where the data can be found in the data spreadsheet and on the Dashboard.

<b>Data Attributes</b>	<b>Description</b>	<b>Dashboard Location (Filter, Map, Donut, Table, Dataset Download)</b>	<b>Full Dataset Download (Column)</b>
Award Number	Unique number identifier assigned to the Grant, Cooperative Agreement or Contract	Dataset Download	Column A
Report Date	The date when the data was pulled from the IDW.	Dataset Download	Column B
Program Office	This is the office requesting the action and if this information is not available, it goes to the initiating Office for procurements or the sponsoring Office for financial assistance actions.	Filter, Map, Donut, Table, Dataset Download	Column C
Category	Funding category; top-level classifications of Grants, Cooperative Agreements, and Contracts	Filter, Map, Donut, Table, Dataset Download	Column D
Award Description	Description extracted from the source grant, cooperative agreement, or contract document. (Personal Identifiable Information has been removed where applicable)	Map, Table, Dataset Download	Column E
J40 Relevance	J40 Relevance categories originated through EO 14008. The terms were aligned with award descriptions in DOE grants, cooperative agreements, and contracts. DOE program offices confirmed the relevance during their quality reviews.	Filter, Map, Table, Dataset Download	Column F
Place of Performance (PoP)	Location of primary work under award and it is used to map the grants, cooperative agreement, and contract costs on the map. Address fields were brought forward or derived using data from the source documents.	Filter, Map, Donut, Table, Dataset Download	Columns G and H
PoP State	State where primary work is performed	Filter, Map, Table, Dataset Download	Column G
PoP City	City where primary work is performed	Map, Donut, Table, Dataset Download	Column H
Awardee Name	Official Awardee name as it appears on procurement and financial source documents	Map, Donut, Table, Dataset Download	Column I
Minority Serving Institute	Institutions of higher education that serve minority populations. Categories and a list of 850+ MSI institutions were taken from the official Department of Education list defined as 5 (eligible) and 6 (active). DOE actions were then mapped to the MSIs.  <a href="http://www2.ed.gov/about/offices/list/ope/idades/eligibility.html">www2.ed.gov/about/offices/list/ope/idades/eligibility.html</a>	Filter, Map, Dataset Download	Column J
Latitude	Measurement on map of north-south of the equator of the primary place of performance	Dataset Download	Column K
Longitude	Measurement on map of east-west of the prime meridian of the primary place of performance	Dataset Download	Column L
All Cost Fields	The financial data included in the Dashboard includes both appropriated and non-appropriated	Map, Donut, Table, Dataset Download	Columns M, N, O and P



Data Attributes	Description	Dashboard Location (Filter, Map, Donut, Table, Dataset Download)	Full Dataset Download (Column)
	information (an example of a non-appropriated resource is non-federal reimbursable work or revenues received). Costs* are defined as the price or expense of the resources used to produce a program, project, or activity. Accruals are included as well as prior year expended and recast costs.		
FY 19 Cost	Costs during FY 19	Table, Dataset Download	Column M
FY 20 Cost	Costs during FY 20	Table, Dataset Download	Column N
YTD 21 Cost	Costs through the last accounting period	Table, Dataset Download	Column O
FY 19-21 YTD Cost	Aggregate of all costs from FY19 to YTD 21	Donut, Table, Dataset Download	Column P

*\*Note: Due to the cost data extracted for individual fiscal years, negative costs/ refunds to DOE may appear due to corrective actions and/ or closeout actions.*