DSESP 2020 User Guide

Introduction: Background and Using Tableau

The DSESP

    The Database of State Efficiency Screening Practices (DSESP) was originally published in fall 2018 by the National Efficiency Screening Project (now the National Energy Screening Project – NESP). The database serves as a free repository of electric utility ratepayer-funded energy efficiency program cost-effectiveness test inputs by state across the US. Feedback from two user surveys highlighted difficulties of using, navigating, and applying data from an excel interface. Therefore, in summer 2020, NESP migrated the DSESP to Tableau, a data visualization and management software. The updated interface is accompanied by an updated to the underlying dataset, which now includes cost-effectiveness information for natural gas utility energy efficiency programs and some information in impact quantification methodologies (from the LBNL 2020 paper, Applying Non-Energy Impacts from Other Jurisdictions in Cost-Benefit Analyses of Energy Efficiency Programs: Resources for States for Utility Customer-Funded Programs).

Tableau Features

    Tableau offers data sorting and visualization above and beyond excel spreadsheets. Key features in Tableau include:

- Undo

  Every action a user takes in Tableau can be undone in reverse order using the small undo arrow at the top of the interface, near the tabs.

- Column Sorting

  Select "ABC" in the upper right-hand corner of any column header to sort the column in ascending or descending alphabetical order.

- Selection Menus

  Some tabs have selection menus that allow users to view only data for the type of energy, state(s), primary test(s), impact(s), and/or discount rate(s) in which they are interested.

- Keep Only/Exclude

Users can filter the data in the visualization by selecting "Keep Only" and "Exclude" in the hover menu for each datapoint to keep or exclude all rows with that value in the column. For example, if a user only wants to view information for states using the TRC test in the Summary of States tab, they can hover over the Primary Test column cell for a state in which the primary test is the TRC and click on "Keep Only". Information for states that do not use the TRC as the primary test will be greyed out.

Selecting a cell will also keep only the data relevant to that row in the page (e.g., selecting a datapoint in the Arkansas row in the Summary of States will exclude all states except Arkansas in the other worksheets on that tab).

- Undo

Once the user begins to make changes in the visualization, an undo button will appear in the upper left-hand corner of the portal to allow them to go back through their changes. This may be particularly useful to undo zoom in or out on the map tab.

- Tooltips (hover)

More information for each datapoint, including a full description, policy and value source materials, and notes, are available as a pop-up "tooltip" when the user hovers over a feature in Tableau. Select the cell to keep the tooltip on the screen and to select within the tooltip. Select the cell again to deselect the tooltip. Selecting the cell will also highlight all other cells with that value.

When the user selects the tooltip, the "View Data" symbol will appear next to Keep Only/Exclude. From there, users can view the data shown in the tooltip including reference information and can select source hyperlinks to view original data sources in their browser.

- Downloading the underlying dataset for each page

In the bottom right-hand corner of the portal (next to the full-screen button) there is a rectangular button with a down arrow. This button will pull up a menu from which users can select a file format in which to download the data: image, data, crosstab (spreadsheet), pdf, PowerPoint, and excel workbook. To analyse the underlying dataset, users can download as an excel crosstab. To download the screen view, users can download a pdf version. From the data format, users are also able to download the data as a text file.

Users are encouraged to explore the new interface and database to best meet their interests and needs. Tableau is a powerful tool that offers new opportunities for understanding and analysing this data.

<u>Additional materials</u>

On the main DSESP webpage are accompanying downloadable resources, including:

- A user guide/introduction to the DSESP
- The DSESP glossary (also included in the DSESP tooltips where relevant)
- The DSESP guidance document list (previously a tab in the DSESP v1)

Using the Tabs in this Workbook

Summary of States Tab

This tab summarizes cost-effectiveness testing information for all jurisdictions in the DSESP. Users can scroll down the page to view general cost test information, as well as which impacts are included in the test for each state. Users can scroll each table to the side to view additional states. Hovering over a cell will show policy and value source information, as well as notes.

Maps Tab

The Maps Tab features two tables. Above, a table showing the Primary Test, Primary Assessment Level, and Discount Rates (select view using "Filter by…" dropdown menu) used by states. To highlight only states with a particular value, select that value in the sidebar list.

Below, the map allows users to view which impacts are included in which tests. Users can select the primary test(s) in using the checkboxes on the right and the impact using the dropdown menu to view treatment of that impact across all states using the selected test(s). Again, to highlight all states applying a particular treatment, select that value from the colored boxes in the sidebar list. Hovering over a state will show policy and value source information, as well as notes.

View Single State Tab

The view single state tab provides cost-effectiveness test information by state, including general test information as well as information on impact treatment in that state including whether each impact is included in the primary test, approach to calculating the impact, and the value of the impacts. Users can select the state they would like to view from the dropdown menu to the right. Hovering over a cell will show policy and value source information, as well as notes.

Test & Application Info Tab

This tab shows general CE test info for all states. Users can select the states they would like to view in the dropdown checklist menu and/or sort by the primary

tests they are interested in. To see additional states, users can scroll down. Hovering over a cell will show policy and value source information, as well as notes.

Utility System Impacts Tab

The Utility System Impacts Tab shows information on treatment of utility system costs and benefits in state CE tests. Users can select the information they would like to view by choosing to see whether each impact is included in the states' primary tests, how the states describe the impacts, and what approach the state uses to calculate the impact if applicable. Users can scroll right in the table to view additional impacts and scroll up/down to view the benefits or costs tables. Hovering over a cell will show policy and value source information, as well as notes.

Non-Utility System Impacts Tab

The Non-Utility System Impacts Tab shows information on treatment of non-utility system costs and benefits in state CE tests. Users can select the information they would like to view by choosing to see whether each impact is included in the states' primary tests, how the states describe the impacts, and what approach the state uses to calculate the impact if applicable. Users can scroll right in the table to view additional impacts. Hovering over a cell will show policy and value source information, as well as notes.

Impacts Summary Tab

This tab allows users to view impact treatment across jurisdictions. The chart shows how many jurisdictions out of the 52 include the impact in their primary CE test. Users can select whether they would like to see impacts which are definitely included in the test or may be included as part of a proxy (Potentially). Hovering over a bar will show the impact name and number of jurisdictions out of 52 including that impact in their test.

Impacts Comparison Tab

This tab allows users to view all data available for any impact. The chart shows the primary test for each state, whether the selected impact (chosen from the right-hand dropdown menu at the top of the page) is included in that state's primary test, how the impact is calculated or estimated, and information from the referenced LBNL report on the impact's quantification if applicable. This quantification information includes categorization of how the data was collected in the impact quantification study, a description of the method used to assess the data, and the method's transferability, as assessed in the LBNL report (which appears in the tooltip for this tab). Users can also filter this information by electric or natural gas utility CE tests, and by the type of primary test using the filters at the top of the view.