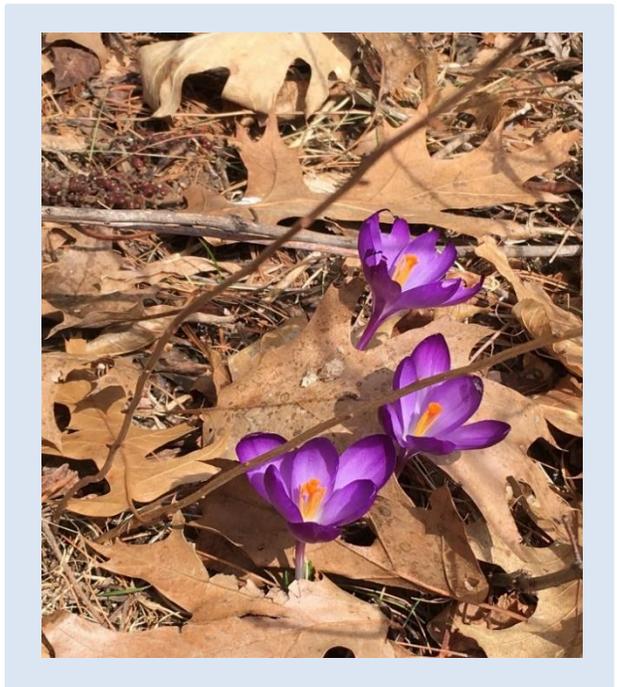


NESP QUARTERLY

MARCH 2021



SPRINGING FORWARD

JULIE MICHALS AND SHAYNA FIDLER

With this issue of *NESP Quarterly*, the National Energy Screening Project team welcomes spring and all that it brings: the sound of birds singing, peepers croaking, longer days of light, and a celebration of renewal. And above all, the promises of slowly returning to some level of normalcy with vaccinations on the rise and COVID cases waning.

While some creatures were hibernating this past winter, the work of the NESP forged forward. In this issue we share how states are launching efforts to review their cost-effectiveness testing practices by applying the [NSPM for DERs](#) -- whether for energy efficiency, transportation electrification or more broadly for all DERs, or in the context of distribution system planning. We're excited to share these developments, along with plans for 2021 work and important resources.

INSIDE THIS ISSUE

NSPM State Highlights

Where are states actively considering the NSPM?

New / Relevant Publications

New from LBL: BCA for grid mod investments, and valuing location impacts from DERs.

DSP Updates

NESP's database is refreshed, with new state data and improved features.

BCA vs. Rate Impact Analysis

Tim Woolf of Synapse Energy Economics tells us how these analyses answer different questions and should not be combined.

NESP in 2021 – What's Coming

Learn about efforts under way to develop a suite of resources to support NSPM application.

Events

Upcoming webinars on NSPM including AESP's "[Valuing DERs using a Consistent BCA Framework – Applying the NSPM](#)" on April 1.

 FOLLOW US ON TWITTER! [@NSPM_DERs](#)

STATES LAUNCH NSPM PROCESSES



This past quarter, several jurisdictions discussed launching a formal process to apply the NSPM BCA Framework to develop a primary cost-effectiveness test.

MINNESOTA

The MN Department of Commerce launched a stakeholder process to update the state’s cost-effectiveness testing practices for its Conservation Improvement Programs (CIP). To guide stakeholder discussions, the Department is using recommendations and content from a [Synapse NSPM report](#) where Synapse Energy Economics (Tim Woolf) is helping to facilitate the 5-step NSPM process to develop a primary test, as well as provide guidance on other BCA topics.

DISTRICT OF COLUMBIA

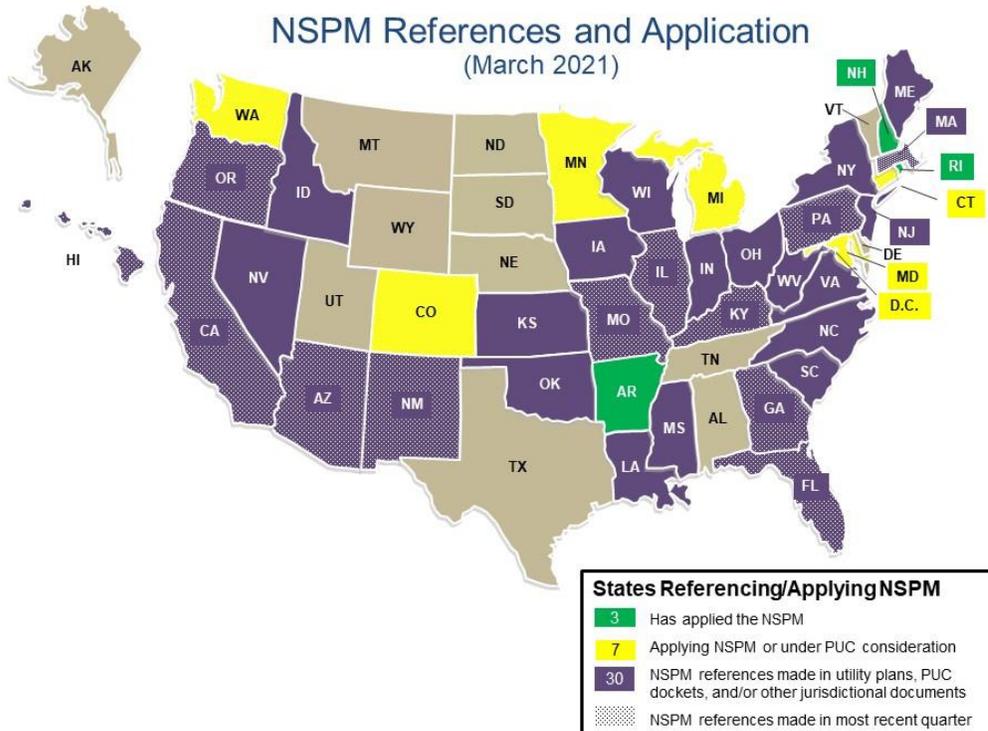
As part of implementing the [2019 Clean Energy Act](#), the DC Public Service Commission staff convened a BCA Framework working group to improve their cost-effectiveness test. Based on [committee discussions \(including an NSPM presentation\)](#), they will develop a straw proposal that applies the NSPM framework.

WASHINGTON

In light of [Clean Energy Rules](#) issued by the Washington Utilities & Transportation Commission (UTC) to support implementation of the state’s [Clean Energy Transformation Act](#), the UTC will soon need to develop guidance for utilities on updating its current cost-effectiveness testing process. The UTC will seek to build on experience with the NSPM for EE to apply the NSPM for DERs. This will inform BCA for the utility clean energy plans due at end of 2021.

MARYLAND

The Maryland PSC-led Transportation Electrification (EV) working group is moving forward with preliminary steps to apply the NSPM for DERs, following discussions that included [a presentation by Smart Electric Power Alliance \(SEPA\)](#) in February. The working group is reviewing the NSPM multi-step process to develop a primary cost-effectiveness test, starting with Step 1 to identify applicable policy goals for the state.



STATES TO WATCH:

MASSACHUSETTS

[Docket 20-150](#) will update energy efficiency guidelines. In comments, NEEP and NECEC recommended that the commission use the NSPM as a resource to update their cost-effectiveness testing practices. The current TRC test does not account for any societal impacts, which -- consistent the NSPM principles -- these organizations believe should be represented in the BCA based on MA's applicable policy goals.

CONNECTICUT

CT DEEP's [Investigation into Grid Modernization](#) continues. Within the Non-Wires Alternatives and Energy Storage sub-categories, the NSPM gained mention as a resource for DEEP. Energize CT (EE program platform managed by the utilities), cited the NSPM to "advance and evaluate state energy and environmental policy goals." In [testimony in the energy storage docket](#), NECEC recommends the NSPM BCA Framework to ensure current incentives are accurately reflected in CT's BCA practice.

PENNSYLVANIA

The Office of Consumer Advocate (OCA) is interested in using the NSPM to determine the cost-effectiveness of energy storage and other DERs. In [Docket M-2020-3022877](#) comments, the OCA included a report by Rakon Energy on [Utilizing Storage as an Asset](#) which cites the NSPM as a resource to guide stakeholders on conducting BCA for DERs.

NEW REPORTS THAT SUPPORT BCAS

New reports from Lawrence Berkeley Laboratory (LBL) offer guidance on BCA for grid modernization investments and accounting for locational DER value:



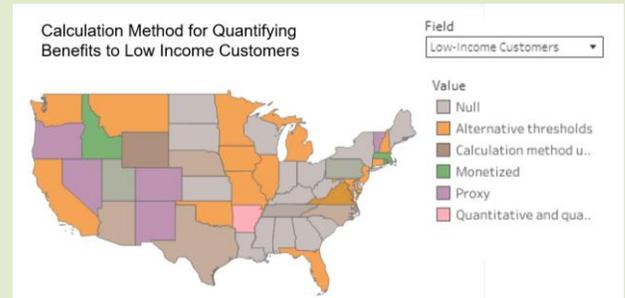
[Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends, Challenges, and Considerations](#) describes utility-facing technologies and projects for modernizing distribution systems, including inter-dependencies of grid components, and provides guidance on BCA versus least-cost benefit fit analysis for analyzing grid mod investments. Learn about trends in BCA for grid mod and challenges state PUCs face in reviewing utility plans and ways to address challenges.

[The Locational Value of Distributed Energy Resources](#) focuses on potential DER benefits for distribution systems such as for non-wires alternatives to defer, mitigate, or eliminate the need for traditional system investments at locations where distribution capacity is insufficient to meet expected future needs. It describes approaches and tools to estimate the locational value of DERs and examples of states considering the locational value of DERs.

DATABASE OF SCREENING PRACTICES (DSP) NEW DATA

The [DSP](#) now offers new information for several states where cost-effectiveness testing practices changed in the past year. These states are GA, IL, NE, OH, IA, and MO.

The DSP Tableau-platform database also now has an improved mapping interface for viewing and downloading a snapshot image of state BCA practices for a full range of parameters.



The DSP and Economic Development: Shayna's new blog explores states that account for economic development and job creation impacts in their BCA and describes the pros and cons of different approaches. Using the DSP, it addresses how states with economic development goals relevant to DER investments should account for these impacts in their BCAs consistent with the NSPM principles and further the importance of these benefits in light of the pandemic's economic toll.

Read the blog: ["How Can We Better Account for Economic Development in Benefit-Cost Analysis?"](#)

BCA VS. RATE IMPACT ANALYSIS

By Tim Woolf, Vice President – Synapse Energy Economics

Benefit-cost analysis (BCA) and rate impact analysis answer fundamentally different questions about cost-effectiveness. **BCA** gives insight on which DERs a utility should invest in on behalf of their customers. It shows how much the benefits outweigh the cost of investment for the utility, and sometimes the customer and/or society, depending on the jurisdiction’s applicable policies (see NSPM principles). **Rate impact analysis**, on the other hand, focuses on customer rates, and how much a DER or combination of DERs will increase or decrease such rates. While both analyses are important when considering DER investments, they answer different questions and express information differently in their results and therefore should not be combined.

Benefit-cost analysis results indicate the present value of cumulative benefits, costs, and net benefits of a program. BCA can inform utilities about future costs and benefits, including how the investment will help achieve applicable policy goals, it does not provide any information about how those costs and benefits are distributed across utility customers.

Rate impact analyses provide information about how different customers experience the costs and benefits of the DERs differently, by assessing three inter-related elements: rate impacts, bill impacts, and participation impacts. **Rate impacts** provide an indication of the extent to which rates for all customers (participating and non-participating) might increase or decrease, while **bill impacts** estimate the extent to which customer bills might be reduced for those customers that install DERs. **Participation impacts** reflect the portion of customers that will experience bill reductions or bill increases. Participation impacts are also key to understanding the extent to which customers are adopting DERs based on DER policies.

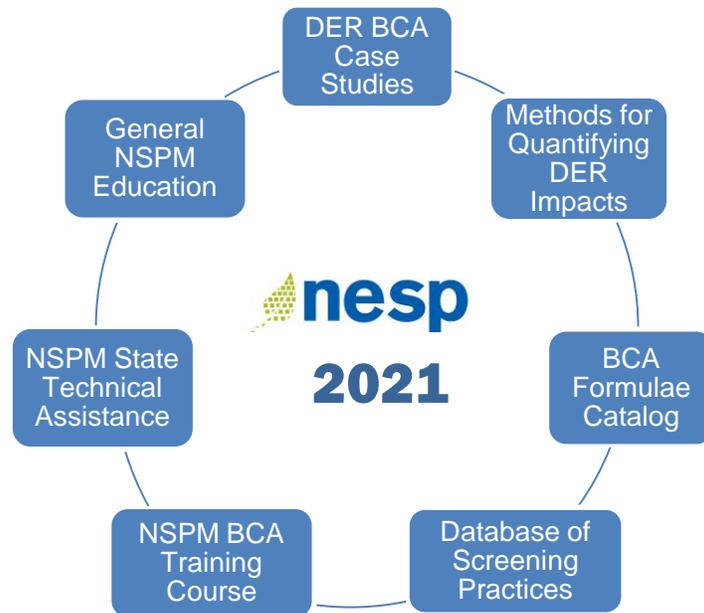
Consider the hypothetical energy efficiency program in this table, showing results for both benefit-cost and rate impact analyses.

The results of the two analyses tell us:

- The program is cost-effective, with benefits estimated at over two times the costs, thereby meriting acquisition of the resource.
- The rate impacts indicate that average **customer** rates will increase by 1.3%, whether they participate in the program or not.
- Customers that participate clearly benefit, however, as their monthly energy bill is expected to decrease by an average of 3.4%.
- With 68% of utility customers participating, most of the overall utility customers will benefit from investment in this efficiency program.

Benefit-Cost Analysis	Net Benefits (mil PV\$)	85
	Benefit-Cost Ratio	2.1
Rate Impact Analysis	Rate Impacts (%)	1.3
	Bill Impacts Participants (%)	-3.4
	Participation Rate (%) Participation Low-Income (%)	68 56
Additional Considerations	GHG Goal Achieved (%)	28

This example shows how BCA and rate impact analysis can be considered separately, yet side by side to weigh the impacts of investing in a program. While having no direct effect on one another, these two analyses together provide a bigger picture for utilities, regulators and other key stakeholders to consider on whether and to what extent to invest in DERs to meet system needs and applicable policy goals.



SNAPSHOT OF NESP 2021 ACTIVITIES AND PROJECTS

2021 will be busy for the NESP team, with E4TheFuture coordinating and managing various projects involving an expert consulting team and support from E4 partners and allies. To come/in the works:

Methods, Tools & Techniques (“MTT”). Synapse Energy Economics will lead development of a comprehensive supplementary resource to the NSPM for DERs. The resource will document existing and evolving methodologies, tools, and techniques (MTTs) for estimating the full range of utility and non-utility system impacts, pointing to examples from around the country. This “library” will cover complex to simpler methods and address associated pros and cons of quantification methods.

BCA Formulae Catalog: Actively being scoped with ICF, this comprehensive catalog of BCA formulae will provide calculations for the range of impacts identified in the NSPM for DERs. It will include variables, inputs, and factors necessary to account for different DER technologies. Building on existing resources (e.g., the NY BCA Handbooks), the catalog will help to provide transparency and understanding of underlying calculations that BCA practitioners can use to conduct BCA, applying key concepts and considerations identified in the NSPM. This work will be coordinated with the MTT project.

BCA Case Studies. SEPA, with support from ICF, will develop case studies based on real-world BCAs for various DER investment strategies. Use cases will cover a range of DER technologies and value streams to illustrate NSPM application. Key BCA considerations will include DER operating profiles, resource ownership/control, enabling effects/interactive effects, and more.

NSPM Education and State Technical Assistance. NESP will continue to help build understanding of the NSPM through webinars (see Events section, page 6), but with an increased focus on providing technical assistance to selected states that are moving forward to apply the NSPM (see “States Launching NSPM Processes” on page 2). NESP also is exploring online training on BCA for DERs.

Database of Screening Practices. E4TheFuture will continue to manage and update the DSP, which is focused on energy efficiency BCA practices. We plan to survey users this year on the potential for expanding the resource to other DERs.

Thanks to the NESP Project Consultants and Partners/Allies:

Energy Futures Group / ICF / Smart Electric Power Alliance / Synapse Energy Economics / Rábago Energy / Schiller Consulting
AEE / ACEEE / BPA / MEEA / NECEC / NEEP / SEEA / SWEET

EVENTS



Coming Up:

April 1, 2021 at 1pm EDT: AESP Webinar [“Valuing DERs using a Consistent BCA Framework – Applying the NSPM”](#)

May 6 at 3-4:30pm EDT: [California Efficiency Demand Management Council Spring Symposium](#) Session on Cost-Effectiveness Testing Reform

Noteworthy Past Events:

February 11, 2021: A panel consisting of Marty Kushler (ACEEE), Julie Michals, and Sherry McCormack (Southwestern Electric Power Company) presented for the Better Buildings Residential Network on [Passing the Test – How are Residential Efficiency Cost-Effectiveness Tests Changing?](#)

February 16, 2021: Kate Strickland, SEPA, presented at the Midwest Energy Solutions Conference on [Non-Wires Solutions.](#)

February 25, 2021: Julie Michals presented for the National Council on Electricity Policy (NCEP) on [“Exploring Optimization Through Benefit-Cost Analysis”](#) with Commissioner Abigail Anthony (RI PUC) and Snuller Price (E3).

Your continued interest in the NESP’s work is greatly appreciated.
We hope you have a safe and healthy spring season. See you next quarter!

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The National Energy Screening Project (NESP) mission is to improve cost-effectiveness screening practices for distributed energy resources DERs. NESP joins organizations and individuals with a common interest in improving cost-effectiveness assessments of distributed energy resources (DERs). Note that the NESP name was modified from National Efficiency Screening Project to National Energy Screening Project in Summer 2020 upon publication of the NSPM for DERs.