

Cost-Effectiveness Testing- Reports and Studies on Various Impacts

Key documents and sources that are used in states and can help support cost-effectiveness practices.



Cost-Effectiveness Testing, General Guidance

National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources	https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs_08-24-2020.pdf
NSPM Case Studies – State examples of NSPM application	https://nationalefficiencyscreening.org/resources/case-studies/
Publications, Tools, and Data for State, Local, and Tribal Governments (EPA)	https://www.epa.gov/statelocalenergy/publications-tools-and-data-state-local-and-tribal-governments

Utility System Impacts

Avoided Energy Supply Components in New England: 2018 Report (Synapse Energy Economics, Resource Insight, Les Deman Consulting, North Side Energy, and Sustainable Energy Advantage. 2018)	https://www.synapse-energy.com/project/aesc-2018-materials
Keeping the Lights On: Energy Efficiency and Electric System Reliability (ACEEE, October 2018)	https://aceee.org/research-report/u1809
Everyone Benefits: Practices and Recommendations for Utility System Benefits of Energy Efficiency. (ACEEE, 2015)	https://aceee.org/research-report/u1505
Valuing the Contribution of Energy Efficiency to Avoided Marginal Line Losses and Reserve Requirements (RAP, August 2011)	https://www.raponline.org/wp-content/uploads/2016/05/rap-lazar-eeandlinelosses-2011-08-17.pdf
Determining Utility System Value of Demand Flexibility from Grid-interactive Efficient Buildings	https://emp.lbl.gov/publications/determining-utility-system-value
Performance Assessments of Demand Flexibility from Grid-Interactive Efficient Buildings: Issues and Considerations	https://emp.lbl.gov/publications/performance-assessments-demand

Energy Efficiency and Health & Environmental Impacts

Making Health Count: Monetizing the Health Benefits of In-Home Services Delivered by Energy Efficiency Programs (ACEEE, May 2020)	https://www.aceee.org/research-report/h2001
Public Health Benefits per kWh of Energy Efficiency and Renewable Energy (EPA, 2019)	https://www.epa.gov/statelocalenergy/public-health-benefits-kwh-energy-efficiency-and-renewable-energy-united-states
Cost-Effectiveness Tests: Overview of State Approaches to Account for Health and Environmental Benefits of Energy Efficiency (ACEEE, 2018)	https://aceee.org/sites/default/files/he-ce-tests-121318.pdf

<p>Avoided Emissions and generation Tool (AVERT) (EPA, 2018 Update)</p>	<p>https://www.epa.gov/statelocalenergy/avoided-emissions-and-generation-tool-avert</p>
<p>CO-Benefits Risk Assessment (COBRA) Health Impacts Screening and Mapping Tool (EPA, 2018 Update)</p>	<p>https://www.epa.gov/statelocalenergy/co-benefits-risk-assessment-cobra-health-impacts-screening-and-mapping-tool</p>
<p>Environmental Benefits Mapping and Analysis Program - Community Edition (BenMAP-CE) (EPA, 2018 Update)</p>	<p>https://www.epa.gov/benmap</p>
<p>Saving Energy, Saving Lives: The Health Impacts of Avoiding Power Plant Pollution with Energy Efficiency (ACEEE, February 2018)</p>	<p>https://aceee.org/research-report/h1801</p>
<p>Analysis of the Public Health Impacts of the Regional Greenhouse Gas Initiative (Abt Associates, January 2017)</p>	<p>https://www.abtassociates.com/sites/default/files/2018-06/Analysis%20of%20the%20public%20health%20impacts%20of%20regional%20greenhouse%20gas.pdf</p>
<p>Occupant Health Benefits of Residential Energy Efficiency (E4TheFuture, December 2016)</p>	<p>https://e4thefuture.org/wp-content/uploads/2016/11/Occupant-Health-Benefits-Residential-EE.pdf</p>
<p>Home Rx: The Health Benefits of Home Performance (US DOE, December 2016)</p>	<p>https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Home%20Rx%20The%20Health%20Benefits%20of%20Home%20Performance%20-%20A%20Review%20of%20the%20Current%20Evidence.pdf</p>
<p>State and Utility Pollution Reduction Calculator Version 2 (SUPR 2) (ACEEE, January 2016)</p>	<p>https://aceee.org/research-report/e1601</p>

<p>Energy Efficiency and Multiple Benefits</p>	
<p>ACEEE State Policy Toolkit: Guidance on Measuring the Economic Development Benefits of Energy Efficiency (ACEEE, March 2019)</p>	<p>https://aceee.org/topic-brief/economic-development-state-ee-toolkit</p>
<p>Quantifying the Multiple Benefits of Energy Efficiency and Renewable Energy (US EPA, July 2018)</p>	<p>https://www.epa.gov/sites/production/files/2018-07/documents/epa_slb_multiple_benefits_508.pdf</p>
<p>Non-energy Benefits in State Cost-Effectiveness Tests – Reducing Bias in Consideration of Energy Efficiency as a Resource (Skumatz, August 2018)</p>	<p>https://aceee.org/files/proceedings/2018/index.html#/paper/event-data/p127</p>
<p>The Cost of Saving Electricity Through Energy Efficiency Programs Funded by Utility Customers: 2009-2015 (Hoffman, I., C. Goldman, S. Murphy, N. Mims, G. Leventis and L. Schwartz, 2018)</p>	<p>https://emp.lbl.gov/publications/cost-saving-electricity-through</p>
<p>Assessing the Cost Effectiveness of Energy Efficiency Portfolios (LBNL, June 2017)</p>	<p>https://emp.lbl.gov/webinar/assessing-cost-effectiveness-energy</p>
<p>Non-energy Impacts Approaches and Values: An Examination of the Northeast, Mid-Atlantic, and Beyond (NEEP, June 2017)</p>	<p>https://neep.org/sites/default/files/resources/NEI%20Final%20Report%20for%20NH%20updated%2010.4.17.pdf</p>

Evaluating and Quantifying the Non-Energy Impacts of Energy Efficiency (LBNL Webinar, December 2016)	https://emp.lbl.gov/webinar/evaluating-and-quantifying-non-energy
Recognizing the Value of Energy Efficiency's Multiple Benefits (ACEEE, 2015)	https://aceee.org/research-report/ie1502
Recognizing the Full Value of Energy Efficiency (Regulatory Assistance Project, September 2013)	https://www.raonline.org/knowledge-center/recognizing-the-full-value-of-energy-efficiency/
Energy Efficiency Cost-Effectiveness Screening How to Properly Account for 'Other Program Impacts' and Environmental Compliance Costs (Regulatory Assistance Project, November 2012)	http://www.synapse-energy.com/sites/default/files/SynapseReport.2012-11.RAP_EE-Cost-Effectiveness-Screening.12-014.pdf
Applying Non-Energy Impacts from Other Jurisdictions in Cost-Benefit Analyses of Energy Efficiency Programs: Resources for States for Utility Customer-Funded Programs	https://emp.lbl.gov/publications/applying-non-energy-impacts-other

Multiple Distributed Energy Resources

How Distributed Energy Resources Can Improve Resilience in Public Buildings: Three Case Studies and a Step-by-Step Guide (US DOE, September 2019)	https://www.energy.gov/sites/prod/files/2019/10/f67/distributed-energy-resilience-public-buildingsv2.pdf
Energy Efficiency and Distributed Generation for Resilience: Withstanding Grid Outages for Less (DOE, 2019a)	https://www.energy.gov/sites/prod/files/2019/06/f64/EEDG-Resilience.PDF
Capturing More Value from Combinations of PV and Other Distributed Energy Resources (RAP, August 2019)	https://www.raonline.org/wp-content/uploads/2019/08/rap_shenot_linvill_dupuy_combinations_pv_other_ders_2019_august.pdf
The Value of Resilience for Distributed Energy Resources: An Overview of Current Analytical Practices (NARUC, April 2019)	https://pubs.naruc.org/pub/531AD059-9CC0-BAF6-127B-99BCB5F02198

Grid Modernization

Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends, Challenges, and Considerations	Report: https://eta-publications.lbl.gov/sites/default/files/gmlc_bca_final_report_20210202.pdf Presentation: https://eta-publications.lbl.gov/sites/default/files/woolf_benefit-cost_analysis_of_utility_grid_mod_investments-2019-08-14.pdf
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