National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources

2026 Edition Errata

The National Association of State Energy Officials (NASEO) has identified the following corrections to the **2026 National Standard Practice Manual** (NSPM). Page numbers refer to the 2026 edition as published. In the table below, ~~red strikethrough~~ marks text removed and blue underline marks text added.

Most of the edits pertain to correcting references to host customer resilience impacts (instead of reliability impacts) in order to align with impact definitions in Chapter 6. Additionally, where relevant, references are made to societal resilience.

Corrections

No.	Location	Correction
1	**Chapter 3, Benefit-Cost Analysis Principles** Table 3-1, Principle 6: Avoid Double-Counting Impacts p. 3-2	Some BCA benefits and costs can potentially be captured in more than one impact category. Clearly documenting the way in which a BCA ~~includes all impacts in~~ accounts for each impact helps to avoid double-counting, and either over- or under-estimating the value of DERs.
2	**Chapter 4, Section 4.4 NSPM Multi-Step Process to Develop a JST** Step 3, Table 4-4. Example Non-Utility System Impacts, Host Customer Impacts row p. 4-10	Host customer portion of DER energy-related benefits and costs (e.g., transaction costs, resilience~~, reliability~~ benefits), and host customer non-energy impacts (NEI), such as impacts on productivity, comfort, health and safety, maintenance costs, and more.
3	**Chapter 6, Section 6.3.5 Utility System 'Grid' Resilience** p. 6-12	… this can allow the utility to prioritize the deployment of resources to repair the distribution system and reduce the number of emergency calls (which in turn can potentially reduce storm restoration costs ~~and the need for~~ as a result of the reduced need for overtime labor support). …
4	**Chapter 6, Section 6.7.1 Societal Impacts – Summary** Energy security text box p. 6-26	~~While jurisdictions~~ Jurisdictions often have energy security related policies and goals~~, these are not considered to be societal impacts. Energy security focuses~~ . These goals focus on ensuring that the energy infrastructure is robust, secure, reliable and resilient, and can restore services rapidly in the event of any disaster, whether related to severe weather events, systems and infrastructures failures, and/or deliberate physical or cyberattacks. …

No.	Location	Correction
5	**Chapter 6, Section 6.7.1** Table 6-12. Societal Impacts, GHG Emissions row p. 6-26	GHG emissions created by ~~fossil-fueled~~ energy resources
6	**Chapter 6, Section 6.8 Summary – Reliability and Resilience Impacts** Table 6-15. Reliability and Resilience Impacts by DER p. 6-30	Table previously listed Reliability impacts for Electric Utility System and Gas Utility System only. Two rows added under Reliability: Host Customer: Not Relevant (NR) Societal: Not Relevant (NR) *Consistent with the text stating that for all DER types, reliability impacts are relevant only to the utility system.*
7	**Chapter 7, Section 7.8 Behind-the-Meter Versus Front-of-the-Meter Impacts** Table 7-2. Key Differences Between BTM and FTM DERs, Benefits row (Behind-the-Meter) p. 7-14	Host-specific: reduced bills, ~~reliability~~ improved resilience, and local backup
8	**Chapter 7, Section 7.10 Importance of Program Scale and Threshold Dependent Valuation** p. 7-16	… can achieve their full range of potential benefits (such as deferred capital investments and host customer ~~reliability~~ resilience). …
9	**Chapter 9, Section 9.3 Benefits and Costs of Demand Response Resources** Table 9-1. Typical Impacts of Demand Response: Electric Utility System, Resilience row (Notes) p. 9-6	Most resilience benefits typically flow to host customers and society
10	**Chapter 10, Section 10.3 Benefits and Costs of Distributed Generation Resources** Table 10-1. Typical Impacts of Distributed Generation: Electric Utility System, Resilience row (Notes) p. 10-5	Most resilience benefits typically affect host customers and in some use cases, society

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11	**Chapter 11, Section 11.1 Summary of Key Points** Bullets on potential benefits sought and meeting host customer needs p. 11-1, 11-2	What potential benefits are sought: optimizing market revenues, reducing utility system costs, reducing host customer energy costs, ~~reliability,~~ increasing host customer resilience and associated societal resilience benefits (e.g., by improving resilience in critical facilities)? Meeting host customer and societal needs: depending on the price signals sent to the host customers, this could potentially include generation capacity, transmission capacity, distribution capacity, system reliability, system resilience, host customer site ~~reliability, and host customer site~~ resilience, and societal resilience (e.g., for critical facilities).
12	**Chapter 11, Section 11.4 Key Factors that Affect Distributed Storage Benefits and Costs** Meeting Utility System Needs p. 11-7	… avoiding peak distribution costs, mitigating renewable curtailment, ancillary service, and supporting system reliability~~, and supporting system resilience~~.
13	**Chapter 11, Section 11.4 Key Factors that Affect Distributed Storage Benefits and Costs** Meeting Host Customer Site Needs p. 11-8	The DS resource could also provide benefits to the host customer site, in terms of the host customer~~'s reliability or~~ resilience needs. This would be especially likely for customers seeking back-up power or customers in a micro-grid. In the case where DS resources are sited at critical facilities (e.g., hospitals, police and fire stations, etc.) benefits extend to society as a whole.
14	**Chapter 11, Section 11.5 Common Challenges in Determining DS Benefits and Costs** Table 11-5. Potential Benefits of DS Resources, resilience rows p. 11-13	*Columns: Sell to market / Meet system needs / Meet customer needs* ~~System~~ Host site resilience: – / ~~✓~~ – / ~~–~~ ✓ ~~Host site~~ Societal resilience: – / – / ✓
15	**Chapter 13, Section 13.2 Introduction** Table 13-2. Key Considerations for Conducting BCA Analysis, Unlocking Value Streams and Time-Dependent Value rows p. 13-4	… For instance, for a microgrid to provide ~~reliability~~ resilience benefits when the broader grid goes down (a value unique to microgrids), it must be able to provide enough power to meet the critical load needs of its host customers and to society (see Sec. 7.10, Importance of Program Scale and Threshold Dependent Valuation) … The same is true for microgrids for their principal value stream of host customer and societal ~~reliability~~ resilience, and for VPPs that provide time-dependent critical grid functions such as ancillary services (see Sec. 7.3, Temporal Impacts)
16	**Chapter 13, Section 13.6 Microgrids: Overview** p. 13-12	Microgrids are a key tool that utilities use to address the challenges of grid ~~reliability and~~ resilience. … The ability of microgrids to maintain power when the rest of the grid is down provides communities with ~~reliability and~~ resilience to maintain critical infrastructure such as water treatment, medical care, telecommunications, and shelter during wider grid outages (NARUC-NASEO 2022). …

No.	Location	Correction
17	**Chapter 13, Section 13.9 Key Consideration: Unlocking Value Streams, Threshold-Dependent Valuation** p. 13-18, 13-19	… For instance, a microgrid is the only scenario in which a BCA test would include host customer ~~reliability~~ and societal benefits in terms of reducing time without power during outages. Table 13-4 shows the unique value streams unlocked by each of the four specific scenarios covered in this chapter~~. As evidence by the table's inclusion of value streams such as distribution capacity,~~ , whereby the 'unique' value streams that can be provided are not always exclusive to the specific scenarios. … However, EE resources cannot directly provide ancillary services to the grid and claim that value~~, which is possible with~~ as a dispatchable resource (a condition for a VPP).
18	**Chapter 13, Section 13.9** Table 13-4. Unique Value Streams Unlocked by Each Specific Scenario, Microgrids row p. 13-19	Host customer and societal ~~reliability~~ resilience ~~Unique~~ Depending on project, can be distribution capacity, distribution O&M (in case of unique NWS opportunities)
19	**Chapter 13, Section 13.9.4 Microgrids** Table 13-5. Key Value Streams Unlocked by Microgrids p. 13-22	*Category: Value Stream* ~~Host Customer: Reliability~~ Utility System: ~~Unique~~ Distribution capacity, or Distribution O&M, etc. (in the case of unique NWS opportunities) Host Customer: Resilience Societal: Resilience, Other Environmental *Host Customer: Reliability row deleted; Utility System row moved to the top of the table.*
20	**Chapter 13, Section 13.9.4 Microgrids** Body text following Table 13-5 pp. 13-22, 13-23	The first two key value streams unlocked through microgrids are the host customer ~~reliability and~~ and societal resilience benefits ~~from being able~~ , due to the ability to supply power during short- and/or long-term outages. As previously noted, a microgrid can be composed of a single DER, such as a generator or battery energy storage system, as long as the DER is paired with the capability of the customer to island during a grid outage and therefore provide backup power. ~~However, if this resource is not paired with the capability of the customer to island, then it is not a microgrid and cannot provide backup power. In addition, the specific DER configuration will influence whether the microgrid can provide both host customer reliability and resilience, or only reliability benefits. Systems powered by only a battery storage system have limited capability to provide resilience benefits, since they have no way to replenish the battery's supply of energy. This is why many microgrids combine storage with solar PV or other energy generating resources, allowing for the customers served by the microgrid to also gain resilience benefits from the system.~~ To provide tangible ~~reliability and/or~~ resilience benefits, both host customers and societal (by keeping critical facilities and/or services in operation during an outage), microgrids must meet performance thresholds ~~which ensure they provide value to the host customer~~. ~~For reliability, this~~ This can entail metrics such as the critical power load in kW that the microgrid needs to be able to sustain while the grid is down. … ~~In the context of resilience, these performance~~ Performance thresholds ~~can be based on~~ must also include longevity metrics such as hours or number of days islanded that the microgrid can support critical loads. … While host customer ~~reliability and~~ and societal resilience are the most prominent benefits unique to microgrids, they can also serve as NWSs to avoid high-cost infrastructure investments …

No.	Location	Correction
21	**Chapter 13, Section 13.12.4 Time-Dependent Value Quantification – Microgrids** Callout box and body text p. 13-31	Callout: For both VPPs and microgrids, the novel value streams that these scenarios can enable (e.g., host customer and societal ~~reliability~~ resilience) necessitate modeling of granular time impacts. Body: … the novel value streams that microgrids enable (including host customer ~~reliability and~~ and societal resilience) have unique time-dependent considerations … This modeling requirement is due to the applicable ~~reliability and~~ resiliency metrics (such as the number of hours that a microgrid can support critical loads in islanded mode, …)
22	**Chapter 13, Section 13.14.4 Key Consideration: Supporting System Costs – Microgrids** Callout box and body text p. 13-34	Callout: Incremental microgrid supporting system costs, such as a microgrid controller, should be included in a BCA whenever the analysis is claiming the incremental benefits provided by the microgrid such as host customer and societal ~~reliability~~ resilience. Body: … a BCA test should always include them whenever the analysis includes the incremental benefits provided specifically by the microgrid (such as host customer and societal ~~reliability~~ resilience benefits for avoiding outages). …
23	**Chapter 14, Section 14.7 Conducting BCAs Using Models/Tools** OpenBCA paragraph p. 14-14	The tool allows users to select traditional cost tests (e.g., UCT, TRC test, SCT) to serve as secondary tests~~, as well as to assess associated rate impacts~~.
24	**Appendix C, Introduction** p. C-1	These impacts may be evaluated formally through an economic development analysis (EDA).
25	**Appendix D, Stage 2: Articulate the DEA Context** Text preceding Table D-4 p. D-6	Table D-4 presents several of the most likely applications of ~~BCAs and DERs~~ DEAs, with examples.
26	**Cover Page** Cover image	Replaced one of the images on the cover page.

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