



COLLEGE *of* SOCIAL SCIENCES

HAWAII ENERGY POLICY FORUM

UNIVERSITY *of* HAWAI'I *at* MĀNOA

Docket 2018-0088: Instituting a Proceeding to Investigate Performance-Based Regulation

PBR Goals and Outcomes Booklet Supplement to Excel Matrix

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Legend for Goals, Outcomes, and Metrics

Goal added or renamed: orange

Outcome added, renamed, replaced, or moved: green

Metric added: blue

Metric removed: red

Metric modified: purple

Goals are bolded in black

Outcomes are underlined in black

Metrics are italicized in black.

Please note that page numbers indicated in this document are from the respective parties' brief which can be found linked in each intervener's name.

Goal 1: Enhance customer experience

Outcome	<u>Metrics (Staff Report)</u>
Affordability	<i>Average total bill; average bill as percent of household income (i.e., energy burden); \$/kWh rate (p.14).</i>
Utility Bill Stability	<i>Percent change in average customer bill; absolute change in average customer bill (p.14).</i>
Reliability	<i>SAIDI, SAIFI, CAIDI, MAIFI (p.14).</i>
Service Quality	<i>Call center answer time; number of complaints; number of disconnections (p.14).</i>
Customer Satisfaction	<i>Customer satisfaction surveys (p.14).</i>
Interconnection Experience	<i>Time in queue for DER connections; "Interconnector" survey (p.14).</i>
Customer Engagement	<i>Percent of customers participating in DR and/or TOU rate programs; program administration/execution; program retention rate; access to data by third-party services; percent of customers with access to hourly or sub-hourly usage data; customer education (p.14).</i>

Outcome	<u>HECO</u>
Affordability	Added metric: <i>purchased fuel costs/purchased power costs</i> (Exhibit 1, p.12).
Utility Bill Stability	Added metric: <i>percentage of fuel and purchased power cost that is hedged or fixed; how much of power supply is on fixed price contract or declining (in real terms) over time versus how much is associated with escalators</i> (Exhibit 1, p.12).
Reliability	No change in outcome name and metrics (Exhibit 1, p.12-13).
Service Quality	No change in outcome name and metrics (Exhibit 1, p.13).
Customer Satisfaction	Modified metric: <i>number of random customer satisfaction surveys</i> (Exhibit 1, p.13). Added metrics: <i>number of existing transaction surveys; number of surveys offered to customers after telephone transactions; development of customer feedback component regarding program improvement</i> (Exhibit 1, p.13).
Interconnection Experience	Removed metric: <i>"interconnector survey"</i> (Exhibit 1, p.15). Added metrics: <i>Communication times to customers regarding the status of DER Applications; number of continuous process improvement surveys</i> (Exhibit 1, p.15).
Customer Engagement	Removed metric: <i>access to data by third-party services</i> (p. 16). Modified metrics: <i>Percentage of customers participating in DER, DR and/or TOU rate programs; customer education efforts and programs; percentage of customers with access to hourly or sub-hourly usage data</i> (Exhibit 1, p.16). Added metric: <i>percentage of customers providing grid support</i> (Exhibit 1, p.16).
Additional Outcomes or Comments	Added outcome: <u>CBRE implementation</u> (Exhibit 1, p.16) with metrics: <i>MWs of CBRE installed; number of participants</i> (Exhibit 1, p.17). Moved outcome: <u>social equity</u> from Advance Societal Outcomes goal to Enhancing Customer Experience goal (Exhibit 1, p.17).

Outcome	<u>Division of Consumer Advocacy</u>
Affordability	Priority outcome (p.19). No change in metrics (p.19).
Utility Bill Stability	Secondary outcome (p.19). No change in metrics (p.19).
Reliability	Priority outcome (p.19). Removed metrics: SAIDI; SAIFI (p.19).
Service Quality	Priority outcome (p.19). No change in metrics (p.19).
Customer Satisfaction	Priority outcome (p.19). No change in metrics (p.19).
Interconnection Experience	Secondary outcome (p.19). No change in metrics (p.19).
Customer Engagement	Secondary outcome (p.19). Modified metric: program administration/execution/retention rate (p.19). Removed metrics: access to data by third-party services; percent of customers with access to hourly or sub-hourly usage data (p.19).
Additional Outcomes or Comments	Added outcome: <u>customer equity</u> with metrics: percent of customers whose electric bills exceed 10% of household income; total dollars of subsidized programs (p. 10-11, 19); <u>data access</u> with metric: percent of customers with access to hourly or sub-hourly usage data (p. 14-15, 19). <u>cyber security</u> with metric: customer data breaches (p.13, 16-17, 19).

Outcome	<u>County of Hawaii</u>
Affordability	Strongly supports outcome (p.3).
Utility Bill Stability	Comment: Include overall rate reductions for HELCO and MECO, over a period of ten years (p.4).
Reliability	Added metrics (resiliency): <i>cumulative customers-hours without power; cumulative critical services customers-hours without power; magnitude of unserved loads; economic impacts of outages on ratepayers and Hawai'i, key production facilities without power; key military facilities without power; speed to which outages propagate; speed and extent to which outages are recovered from; ability for generation and distribution system to absorb shocks or rapid changes in power flow or quality; susceptibility to cyber-attacks and mitigation plan; loss of utility revenue; cost to regain complete operational safety and reliability after an outage/damage in distribution network or substations; cost to regain any renewables or other generation assets lost after an outage/damage; and avoided outage cost</i> (p.6).
Service Quality	No comment.
Customer Satisfaction	Strongly supports outcome (p.3).
Interconnection Experience	No comment.
Customer Engagement	Strongly supports outcome (p.3). Recommends consideration of tracking the degree to which HECO is making progress toward becoming a platform provider for energy services (p.4).
Additional Outcomes or Comments	Added outcomes: <i>creation of public/private partnerships</i> (p. 8-9) with metrics: <i>number of public/private partnerships created in pursuit of energy services; quantified customer savings; quantity of DERs and microgrids; capacity and energy delivered from DERs and microgrids; EoT and wholesale energy; EoT and generating units created using these partnerships;</i> <u>avoidance of stranded costs</u> (p.9-10)

Outcome	<u>City and County of Honolulu</u>
Affordability	Comment: acknowledges impact on C&CH (p.3).
Utility Bill Stability	Comment: acknowledges impact on C&CH (p.4).
Reliability	Comment: reliability outcome should be considered as distinct from a resilience outcome (p.4).
Service Quality	Comment: important outcome in furtherance of goal (p.5).
Customer Satisfaction	Comment: important outcome in furtherance of goal (p.5).
Interconnection Experience	Comment: essential performance area for gauging utility performance (p.4-5).
Customer Engagement	Comment: key outcome, how the utility reaches out to and recruits ratepayers enroll in and educate themselves about various energy-consumption options is a key area (p.5). May need to provide incentives to utility due to expenses and activities associated with engaging customers (p.5).
Additional Outcomes or Comments	n/a

Outcome	<u>County of Maui</u>
Affordability	Agrees with outcome and metric (p.4). Added metric: <i>alignment of electricity rates with the national average (p.4).</i>
Utility Bill Stability	Agrees with outcome and metric (p.4).
Reliability	Comment: Expected outcome (p.4).
Service Quality	Comment: Expected outcome (p.4).
Customer Satisfaction	Comment: Expected outcome (p.4).
Interconnection Experience	Agrees with outcome (p.4).
Customer Engagement	Agrees with outcome (p.4).
Additional Outcomes or Comments	Added outcome: <u>resilience</u> with metrics: <i>person-days not served, could be an absolute value or normalized to population (p.5).</i> Notes distinction between basic level of resilience and enhanced level of resilience (p.5).

Outcome	<u>Blue Planet Foundation</u>
Affordability	<p>Supports outcome, ranked as #3 priority outcome, make sure it is flexible for interpretation to consider both short run and long run affordability (p.14, 23).</p> <p>Modified metric (PIM): <i>electricity cost as percentage of household income</i> (p.23).</p> <p>Added metric (PIM): <i>non-fuel cost per kWh</i> (p.23).</p>
Utility Bill Stability	<p>Supports outcome, comments that it will flow from other outcomes such as move to more renewables (p.14).</p>
Reliability	<p>Supports outcome, comments may be appropriate to consider different levels of reliability for different customers needs (p.14).</p>
Service Quality	<p>Renamed outcome: <u>customer service</u> (due to Staff report description and suggested metrics) (p.14).</p>
Customer Satisfaction	<p>Supports outcome and metrics (p.14).</p>
Interconnection Experience	<p>Strongly supports outcome, ranked as #1 priority outcome (p.14, 23).</p> <p>Modified metrics (PIM): <i>time in queue</i> (p.23).</p> <p>Added metrics (PIMs): <i>connection statistics; costs of interconnection; customer and developer surveys; percent of connections without problems</i> (p.14, 23).</p>
Customer Engagement	<p>Strongly supports outcome and metrics, ranked as #2 priority outcome (p.15, 23).</p> <p>Modified metric: <i>customer education efforts</i> (p.23).</p> <p>Added metrics (PIMs): <i>growth in program participation levels; rating of customer portal</i> (p.23).</p>
Additional Outcomes or Comments	<p>Added outcomes: <u>Lower customer total energy expenditures</u>, ranked as #5 priority outcome with metric (PIM): <i>end-use energy surveys</i> (p.15, 23);</p> <p><u>Maximum consumer DER choices</u>, ranked as #5 priority outcome with metric: <i>number of customers who have access to services on the utility's platform</i> (p.15, 23).</p>

Outcome	<u>Distributed Energy Resources Council</u>
Affordability	Agrees with outcome, but should focus on addressing the special needs of LMI customers (p.6).
Utility Bill Stability	No comment.
Reliability	No comment.
Service Quality	No comment.
Customer Satisfaction	No comment.
Interconnection Experience	<p>Agrees with outcome (p.5).</p> <p>Added metric to current outcome, to account for the <i>costs to interconnect</i> (p.5).</p> <p>Added outcome: <u>reasonable and affordable interconnection costs with metrics for all classes of customers and includes a mechanism that can both track and adjust costs for interconnection</u> (p.5).</p>
Customer Engagement	No comment.
Additional Outcomes or Comments	Added outcomes: <u>customer access to energy data</u> (p.5); <u>meaningful enforcement and accountability</u> (p.6).

Outcome	<u>Hawaii PV Coalition</u>
Affordability	Agrees with outcome (p.12).
Utility Bill Stability	Comment: different pathways to outcome (role of the utility in provision of energy services) (p.8-9).
Reliability	Comment: outcomes related to outage duration and frequency requires knowing when outages occur and for which customers, and determining the relative importance of the frequency and duration of outages past a certain base level of performance (p.9). The suggestion that "enhancing the customer experience" means reducing the frequency or duration of outages, and the relative costs to consumers for achieving marginal improvements in reliable electric service, must be evaluated in relation to other desired outcomes, which should include development of self-sustaining DER markets which if appropriately integrated into utility operations, could deliver services to reduce the costs of outage and other reliability related utility investments. (p.9-10).
Service Quality	Comment: call response time should be a more outcome-basis metric aimed at measuring customer satisfaction with the ability to obtain services, resolve issues, and gain needed information (p.10).
Customer Satisfaction	No comment.
Interconnection Experience	No comment.
Customer Engagement	No comment.
Additional Outcomes or Comments	Added outcomes: <u>customer benefits; customer protection; equitable access; reliable service; transparency; uniformity</u> (p.12).

Outcome	<u>Hawaii Solar Energy Association</u>
Affordability	Agrees with outcome, relevant to HSEA businesses (p.6, 13)
Utility Bill Stability	No comment.
Reliability	Agrees with outcome (p. 6)
Service Quality	No comment.
Customer Satisfaction	No comment.
Interconnection Experience	Agrees with outcome, relevant to HSEA businesses (p.13).
Customer Engagement	No comment.
Additional Outcomes or Comments	n/a

Outcome	<u>Life of the Land</u>
Affordability	No comment.
Utility Bill Stability	No comment.
Reliability	Comment: Identified as a critical issue (p.2).
Service Quality	No comment.
Customer Satisfaction	No comment.
Interconnection Experience	No comment.
Customer Engagement	No comment.
Additional Outcomes or Comments	n/a

Outcome	<u>Ulupono Initiative</u>
Affordability	Comment: fundamental outcome of traditional utility regulation and should remain paramount (p.18).
Utility Bill Stability	Comment: equally important to affordability (p.18).
Reliability	Comment: fundamental outcome of traditional utility regulation and should remain paramount (p.18).
Service Quality	Comment: appropriately addressed by the conventional customer service metrics that are already in place (p.19).
Customer Satisfaction	Comment: supports intent but concern that survey-based PIMS may gather relevant information but are also subject to gaming (p.19).
Interconnection Experience	Supports this outcome in association with its added goal of network services with outcomes: <u>network access; least provision of network services</u> (p.19).
Customer Engagement	Supports the outcome of increased customer participation in providing energy and ancillary services to the grid (p.19). Comments that outcome should be focused on substantive results of customer participation (e.g. quantity of ancillary services provided) rather than merely on the number of participants in a program (p.19).
Additional Outcomes or Comments	Added outcome: <u>power quality</u> (based on the observation that the quality of electric power delivered varies in importance among customers) (p.19).

Outcome	<u>Advanced Energy Economy Institute</u>
Affordability	No comment.
Utility Bill Stability	No comment.
Reliability	No comment.
Service Quality	No comment.
Customer Satisfaction	
Interconnection Experience	No comment.
Customer Engagement	No comment.
Additional Outcomes or Comments	n/a

Goal 2: Improve Utility Performance

Outcome	<u>Metrics (Staff Report)</u>
Cost Control	<i>Capacity costs; total energy costs; fuel costs; customer costs; O&M expense; O&M (transmission, distribution, generation) per customer (p.15).</i>
Investment Efficiency	<i>CapEx:OpEx ratio; amount of third-party owned generation (MW) as percent of total system generation (MW) (p.15).</i>
Grid Planning Effectiveness	<i>Planning milestones achieved; stakeholder engagement efforts (p.15).</i>
Resource/Grid Solutions Procurement Transparency	<i>Stakeholder engagement efforts; MWs of grid solutions obtained in competitive procurements (p.15).</i>
Operational Efficiency	<i>Load factor; average heat rate; system losses; dispatch efficiency; usage per customer; aggregate power plant efficiency; reduction in peak load; MWh reduction of renewable energy curtailment (p.15).</i>
Cost of Power Supply	<i>Purchased fuel costs/purchased power costs (p.15).</i>
DER Asset Utilization	<i>MWs participating in DR programs; number of CBRE interconnections; number of behind-the-meter batteries; MWs of DER; number of DER installations per year; MWs installed by program type (e.g., CSS, CGS+, Smart Export); percent of DER controlled by aggregators; percent of DER participating in a DR grid service tariff (p.15).</i>
Project Management/Execution	<i>Cost overrun; final project cost vs. budgeted project cost; cost of overhead (p.15).</i>
Safety	<i>Number of incidents per year, by severity of outcome and activity type (p.15).</i>
Innovation	<i>Number of platform and/or value-added services available; R&D budget; R&D partnerships (p.15).</i>

Outcome	<u>HECO</u>
Cost Control	No change in outcome name and metrics (Exhibit 1, p.17-18).
Investment Efficiency	No change in outcome name and metrics (Exhibit 1, p.18).
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No change in outcome name and metrics (Exhibit 1, p.19).
Cost of Power Supply	No comment.
DER Asset Utilization	<p>Modified metrics: <i>number of DER application approvals or installations per year</i> (Exhibit 1, p.19-20).</p> <p>Removed metric: <i>number of CBRE interconnections</i> (Exhibit 1, p.19-20).</p>
Project Management/Execution	No comment.
Safety	No change in outcome name and metrics (Exhibit 1, p.20).
Innovation	<p>Removed metrics: <i>number of platform and/or value-added services available, R&D budget</i> (Exhibit 1, p.21).</p> <p>Added metrics: <i>revenues from third-party market participants to offset customer revenue requirements (registration fees, processing fees, data fees, bidding fees, etc.); R&D/Demonstration/Pilot projects report; number of new pricing options and/or rate designs to provide services for customers; number of new pricing options; programs, and/or rate designs to provide an incentive for customers to provide grid services for the benefit of all customers</i> (Exhibit 1, p.21).</p>
Additional Outcomes or Comments	Renamed goal as Transform Business and Improve Utility Performance (Exhibit 1, p.17).

Outcome	<u>Division of Consumer Advocacy</u>
Cost Control	Priority outcome (p.19). No change in metrics (p.19).
Investment Efficiency	Secondary outcome (p.19). No change in metrics (p.19).
Grid Planning Effectiveness	Priority outcome (p.19). Added metrics: <i>appropriate modeling tools used; system conditions adequately characterized; adequate range of new resources considered and analyzed on a comparable basis (p. 19).</i>
Resource/Grid Solutions Procurement Transparency	Renamed outcome as <u>Resource/Grid Solutions Transparency</u> . Secondary outcome (p.19). No change in metrics.
Operational Efficiency	Secondary outcome (p.19). Modified metric: <i>use per customer (p.20).</i>
Cost of Power Supply	Secondary outcome (p.19). No change in metrics (p.19).
DER Asset Utilization	Secondary outcome (p.20). Modified metric: <i>MWs and number of DERs (p.20).</i>
Project Management/Execution	Secondary outcome (p.20). No change in metrics (p.20).
Safety	Secondary outcome (p.20). No change in metrics (p.20).
Innovation	Secondary outcome (p.20). No change in metrics (p.20).
Additional Outcomes or Comments	Added outcomes: <u>cybersecurity</u> with metrics: <i>number of attempted network breaches; number of successful network breaches; percent of network breaches successful (p. 19);</i> <u>reliability</u> with metrics: <i>forced outage rates (related to generation and transmission resources); SAIDI; SAIFI (p.19).</i> <u>resilience</u> with metric: <i>MW of fast ramping capacity (p.19).</i>

Outcome	<u>County of Hawaii</u>
Cost Control	Strongly supports outcome (p.3). Comments: Include overall rate reductions for HELCO and MECO, over a period of ten years (p.4).
Investment Efficiency	No comment.
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No comment.
Cost of Power Supply	No comment.
DER Asset Utilization	No comment.
Project Management/Execution	No comment.
Safety	No comment.
Innovation	No comment.
Additional Outcomes or Comments	<p>Added outcomes: <u>avoidance of stranded costs;</u></p> <p><u>enhanced stakeholder and customer engagement</u> with metrics: <i>number of stakeholder meetings, number of town halls; number of customer surveys; and/or number of participatory outreach and governance meetings with individuals and businesses (p.10).</i></p>

Outcome	<u>City and County of Honolulu</u>
Cost Control	Comment: should be considered a primary PBR incentive (p.6).
Investment Efficiency	Comment: key performance indicator, suggests that outcome also be discussed in the context of more fundamental alternative regulatory mechanisms in Phase II of this proceeding (p.5-6).
Grid Planning Effectiveness	Comment: acknowledges impact on C&CH (p.7).
Resource/Grid Solutions Procurement Transparency	Comment: important outcome to consider as well as regulations to ensure fair play and guard against the potential for market or "buyer power" abuse from an "offtaker of last resort" or "grid gatekeeper" (p.8).
Operational Efficiency	Comment: acknowledges outcome is important for furtherance of goal (p.9).
Cost of Power Supply	No comment.
DER Asset Utilization	Comment: PBR elements to support DER should be considered as a primary area of exploration, should consider incentives for optimally-located and advanced DERs that maximize system benefits, reduce costs, and avoid the need for capacity additions (p.8).
Project Management/Execution	Comment: acknowledges impact on C&CH (p.8).
Safety	Comment: acknowledges outcome is important for furtherance of goal (p.9).
Innovation	Comment: acknowledges outcome is important for furtherance of goal (p.9).
Additional Outcomes or Comments	n/a

Outcome	<u>County of Maui</u>
Cost Control	Comment: Expected outcome (p.6).
Investment Efficiency	Comment: CapEx:OpEx ratio may be valid in some instances, but not in others (p.5).
Grid Planning Effectiveness	Comment: Expected outcome (p.6).
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	Strongly supports as a predominant outcome (p.6). Added metric: <i>observing the slope of the aggregate heat rate of the grid over time compared to renewable penetration (p.6).</i>
Cost of Power Supply	Comment: Expected outcome (p.6).
DER Asset Utilization	No comment.
Project Management/Execution	No comment.
Safety	Comment: Expected outcome - should be mandatory, not incentivized (p.6).
Innovation	No comment.
Additional Outcomes or Comments	n/a

Outcome	<u>Blue Planet Foundation</u>
Cost Control	Agrees with outcome, comments outcome may offer some opportunities for metrics or PIMS but is better achieved by broader regulatory reforms that give the utility the motivation and flexibility to reduce costs (p.16).
Investment Efficiency	Comments: related to fundamental problem of utility capex bias, recommends a broader outcome that removes capex bias rather than metrics or PIMS. Added outcome or replace with: <u>unbiased capex/opex decisions</u> (p.16).
Grid Planning Effectiveness	Supports outcome, comments is interested in explorable available and viable incentives (p.16).
Resource/Grid Solutions Procurement Transparency	Supports outcome and metrics (p.16).
Operational Efficiency	Supports outcome, but comments metrics would be difficult to develop as traditional objectives and measures (e.g. heat rate and load factors) would need to be reevaluated (p.16).
Cost of Power Supply	Supports outcome from perspective of minimizing fuel costs by moving off of fossil fuels (p.17). Notes ECAC sharing mechanism is an example of an incentive for this outcome (p.17).
DER Asset Utilization	Strongly supports outcome, ranked as #1 priority outcome (p.17, 23). May be amenable to metrics and PIMS, but broadly calls for a regulatory approach that corrects the utility's bias toward capex and motivates to provide a robust platform and a superior interconnection (p.17, 23).
Project Management/Execution	Comment: commission has previously raised concerns about utility performance toward this outcome (p.17). Any incentives would be best addressed on a project-by-project basis (p.17).
Safety	Supports outcome, comments that incentives in this context should focus on penalties (p.17).
Innovation	Comment: outcome is desirable but not readily amenable to measurement in metrics. Outcome can be promoted within a broader regulatory structure (p.17).
Additional Outcomes or Comments	Added outcomes: <u>Unbiased capex/opex decisions</u> ranked as #2 priority outcome with no metrics (depends on correcting regulatory incentives) (p. 17, 23); <u>A modernized business model</u> ranked as #3 priority outcome with no metrics (depends on correcting regulatory incentives) (p.18, 23); <u>Market development</u> with metrics , <i>volume or value of transaction on the utility platform or number of customers taking services from third parties on the platform</i> (p.18).

Outcome	<u>Distributed Energy Resources Council</u>
Cost Control	No comment.
Investment Efficiency	Agrees with outcome, but is not clear in what way non-wires solutions for grid modernization and continued progress towards our clean energy would be included in the metrics (p.7). Measurements should include an analysis of alternative solutions and accompanying costs (p.7).
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No comment.
Cost of Power Supply	No comment.
DER Asset Utilization	Agrees with outcome, recommends metrics that reflect the entire range of DER possibilities and strongly supports the adoption of locational metrics (p.7).
Project Management/Execution	No comment.
Safety	No comment.
Innovation	No comment.
Additional Outcomes or Comments	Added outcome: <u>voltage optimization</u> with metric: <i>voltage data</i> (p.7-8).

Outcome	<u>Hawaii PV Coalition</u>
Cost Control	No comment.
Investment Efficiency	No comment.
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No comment.
Cost of Power Supply	No comment.
DER Asset Utilization	No comment.
Project Management/Execution	No comment.
Safety	No comment.
Innovation	No comment.
Additional Outcomes or Comments	Added outcomes: <u>system resiliency; minimize market power abuse; local integrated resource planning; large scale utility-owned renewables versus DERs; deploy and support of a diverse portfolio of DERs"non-wires" or "non-transmission" alternatives; fair valuation of benefits and costs; economic and system efficiency (p.13-14).</u>

Outcome	<u>Hawaii Solar Energy Association</u>
Cost Control	No comment.
Investment Efficiency	No comment.
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No comment.
Cost of Power Supply	No comment.
DER Asset Utilization	Agrees with outcome, relevant to HSEA businesses (p. 13).
Project Management/Execution	No comment.
Safety	No comment.
Innovation	No comment.
Additional Outcomes or Comments	Goal of protecting customers from unnecessary rate increases and other costs align with HSEA goals (p.9). Suggests incorporation of other aspirational goals within outcomes or goal: a reexamination of utility decision making for commercial scale DER and utility scale bidding process, consideration of state goals as outlined in the Ratepayer Protection Act (p.11), and consideration of corporate governance structures that allow greater corporate accountability to customers and allow them to engage more completely in utility decision making (p.9-10).

Outcome	<u>Life of the Land</u>
Cost Control	No comment.
Investment Efficiency	No comment.
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No comment.
Cost of Power Supply	No comment.
DER Asset Utilization	No comment.
Project Management/Execution	No comment.
Safety	No comment.
Innovation	No comment.
Additional Outcomes or Comments	n/a

Outcome	<u>Ulupono Initiative</u>
Cost Control	Comment: fundamental outcome of traditional utility regulation (p.19).
Investment Efficiency	Comment: suggests outcome should be addressed in association with its proposed goal of least-cost capital formation, rather than under the utility performance goal (p.20).
Grid Planning Effectiveness	Replaced outcome with <u>grid investment efficiency</u> (focusing on the deployment of least-cost solutions) with metrics: <i>customer or third party capital; procurement of grid services; deferral/elimination of grid service demand</i> (p.20, 22).
Resource/Grid Solutions Procurement Transparency	Replaced outcome with <u>grid investment efficiency</u> (focusing on the deployment of least-cost solutions) with metrics: <i>customer or third party capital; procurement of grid services; deferral/elimination of grid service demand</i> (p.20, 22).
Operational Efficiency	Replaced outcome with <u>cost-effective operations efficiency</u> with metrics: <i>generation and grid operation (and losses)</i> (p.20-21).
Cost of Power Supply	Replaced outcome with <u>risk optimized power supply portfolio</u> with metric: <i>percentage of the supply portfolio that was hedged</i> (p.20).
DER Asset Utilization	Replaced outcome with <u>DER Asset Effectiveness</u> , concerned that current outcome may be process-related in a manner that is not sufficiently outcome oriented and suggests the underlying results sought to be obtained from DER are better captured in its proposed outcome (p.21).
Project Management/Execution	Removed outcome as it may or may not be a meaningful PBR outcome (p.21).
Safety	Comment: safety is a fundamental outcome and may also be addressed by applicable health and safety regulation (p.21).
Innovation	Removed outcome as innovation is not sufficiently outcome-oriented (p.21).
Additional Outcomes or Comments	<p>Added outcomes: <u>cost-effective operations efficiency</u> with metrics: <i>generation and grid operations and losses as well as customer service operations;</i></p> <p><u>grid investment efficiency</u> with metric: <i>total grid system cost to achieve a particular level of reliability and resilience;</i></p> <p><u>DER asset effectiveness</u> with metric: <i>supply curve of DER electrical system services identified by the program the utility uses the obtain the services;</i></p> <p><u>risk optimized power supply portfolio</u> with metric: <i>percentage of supply portfolio that was hedged - i.e. procured pursuant to fixed-price contract;</i></p> <p><u>system flexibility</u> with metrics: <i>percent of electrical system that can be increased or decreased through either ramping its reserve, demand response or customer sided generation</i> (p.21-22).</p>

Outcome	<u>Advanced Energy Economy Institute</u>
Cost Control	No comment.
Investment Efficiency	No comment.
Grid Planning Effectiveness	No comment.
Resource/Grid Solutions Procurement Transparency	No comment.
Operational Efficiency	No comment.
Cost of Power Supply	No comment.
DER Asset Utilization	No comment.
Project Management/Execution	No comment.
Safety	No comment.
Innovation	No comment.
Additional Outcomes or Comments	n/a

Goal 3: Advance Societal Outcomes

Outcome	<u>Metrics (Staff Report)</u>
Risk Distribution	<i>Percentage of cost that is hedged or fixed; how much of power supply is on fixed price contract or declining (in real terms) over time vs. how much is associated with escalators (p.16).</i>
RPS Achievement	<i>Percent of energy from qualified renewables (p.16).</i>
Energy Efficiency and Conservation (EEPS)	<i>Partnerships with Public Benefits Fee Administrator ("PBFA"); coordination of customer service/DR/PBFA activities; line losses; voltage optimization; auxiliary loads; facilitation of EEPS reporting (p.16).</i>
Energy Independence	<i>Dollar amount spent on imported energy (p.16).</i>
Carbon Intensity	<i>Tons CO2 per customer, system carbon emission rate (tons CO2 per MWh sold); fossil fuel generation (percent foss fuel [MWh] or total generation [MWh] (p.16).</i>
Electrification of Transportation	<i>Number of EVs added to the grid each year; percent of customers with EVs enrolled in DR programs; percent of customers with EVs on TOU rate (p.16).</i>
Beneficial Electrification	<i>Percent of (grid-interactive) electric water heaters (p.16).</i>
Capital Formation (sector wide)	<i>Annual total investment in electricity sector; annual non-utility investment in electricity sector; credit rating of utility (p.16).</i>
Resilience	<i>MW of fast ramping capacity; quantity and capacity of microgrids (p.16).</i>
Environmental Goals (visual, air, water pollution)	<i>Tons of pollution per customer and per MWh; water consumption (p.16).</i>
Access to System/Planning data	<i>Types of planning data electronically available (p.16).</i>
Social Equity	<i>Percent of LMI households participating in customer programs (DER/DR/CBRE/EE) (p.16).</i>

Outcome	<u>HECO</u>
Risk Distribution	No comment.
RPS Achievement	<p>Renamed outcome: <u>RPS milestones achievements and 100% renewable energy by 2045</u> (Exhibit 1, p.6).</p> <p>Modified metrics: <i>percentage of energy from qualified renewables (i.e., RPS) for each of the Companies</i> (Exhibit 1, p.7).</p> <p>Added metrics: <i>percentage of total renewable energy for the Hawaiian Electric Companies on a consolidated basis; percentage of total renewable energy for each of three Companies; percentage of total renewable energy for each of the major islands served by the Companies</i> (Exhibit 1, p.7).</p>
Energy Efficiency and Conservation (EEPS)	Removed metrics: <i>line losse; voltage optimization</i> (Exhibit 1, p.7).
Energy Independence	No change in outcome name and metrics (Exhibit 1, p.8-9).
Carbon Intensity	Renamed outcome: <u>Carbon intensity/GHG reduction</u> (Exhibit 1, p.8). No change in metrics.
Electrification of Transportation	<p>Renamed outcome: <u>EoT roadmap implementation</u> (Exhibit 1, p.10).</p> <p>Modified metric: <i>number of EV equivalents registered (EVs and E-Buses)/added (cranes, other electrification) each year; percentage or number of customers with EVs (or number of charging stations) enrolled in DR programs</i> (Exhibit 1, p.11).</p>
Beneficial Electrification	No comment.
Capital Formation (sector wide)	No comment.
Resilience	No comment.
Environmental Goals (visual, air, water pollution)	No comment.
Access to System/Planning data	No comment.
Social Equity	Moved outcome to Enhancing Customer Experience goal (p.17).
Additional Outcomes or Comments	<p>Renamed goal as Advance Clean Energy (Exhibit 1, p.6).</p> <p>Added outcome: <u>cost-effective, timely PSIP Action Plan implementation</u> (Exhibit 1, p.8) with metrics: <i>total system revenue requirement savings resulting from new PPAs (based on production simulation and first year of operation); new PPA \$/MWh versus benchmark price; utility eff incremental \$/MWh versus benchmark price for utility projects such as West Loch PV Project</i> (Exhibit 1, p.10).</p>

Outcome	<u>Division of Consumer Advocacy</u>
Risk Distribution	Secondary outcome (p.20). Modified metric: <i>power supply on fixed price contract or declining (in real terms) over time vs. how much is associated with escalators (p.20).</i>
RPS Achievement	Priority outcome (p.20), recommends in the context of comprehensive and more open resource planning and procurement for cost-effective compliance (p.12). No change in metric (p.20).
Energy Efficiency and Conservation (EEPS)	Priority outcome (p.20), recommends in the context of comprehensive and more open resource planning and procurement for cost-effective compliance (p.12). No change in metric (p.20).
Energy Independence	Secondary outcome (p.20). No change in metric (p.20).
Carbon Intensity	Secondary outcome (p.20). Modified metrics: <i>tons CO2/MWh; % fossil fuel MWh (p.20).</i>
Electrification of Transportation	Secondary outcome (p.20). No change in metric (p.20).
Beneficial Electrification	Secondary outcome (p.20). Note, the proposed metric is likely a typo as it is the same as that listed under capital formation (p.20).
Capital Formation (sector wide)	Secondary outcome (p.20). No change in metric (p.20).
Resilience	Priority outcome (p.20), but need more certainty and agreement on appropriate definition (p.10). Removed metrics: <i>MW of fast ramping capacity, quantity and capacity of microgrids (p. 20).</i> Added metrics: <i>number of first responders with access to critical infrastructure, percent of critical customers experiencing an outage during a major event, completion of joint utility-community planning activities (p. 20).</i>
Environmental Goals (visual, air, water pollution)	Secondary outcome (p.20). Modified metric: <i>tons of pollution per customer (p.20).</i>
Access to System/Planning data	Comment: data collection relates to customer's ability to access their own data to inform management of energy usage and investment decisions as well as the utility's ability to improve system dispatch and better inform procurement decisions (p.14). Therefore access to system/planning data could be classified under the Enhance Customer Experience goal (refer to data access outcome) and Improve Utility Performance goal . Data collection could also be a component within the Advance Societal Outcomes goal as publicly available system planning data could provide useful information to third-parties that might help spur innovation (p.14-15).
Social Equity	Renamed outcome: <i>customer equity</i> and moved to Enhance customer experience goal (p.19).
Additional Outcomes or Comments	n/a

Outcome	<u>County of Hawaii</u>
Risk Distribution	No comment.
RPS Achievement	No comment.
Energy Efficiency and Conservation (EEPS)	No comment.
Energy Independence	No comment.
Carbon Intensity	No comment.
Electrification of Transportation	<p>Agrees with outcome, recommends adding language that makes it clear that users benefit first, and utilities second (p.5).</p> <p>Added metrics (customer-focused): <i>number of EoT tariffs that allow customers to be compensated for vehicle to grid services; amount of partnerships entered into between the utility and third party entities like Counties that result in additional revenues to the Counties and reduced tax burden on County residents (p.6).</i></p>
Beneficial Electrification	No comment.
Capital Formation (sector wide)	No comment.
Resilience	<p>Agrees with outcome (p.5).</p> <p>Added metrics to current outcome: <i>incent the utility to site new energy facilities that are less exposed natural disasters and anthropogenic attacks, and for the utility to consult with local emergency first responders and County officials on vulnerable geographical regions (p.5).</i></p> <p>Added outcome: <u>Creation of Microgrids</u> to give more consideration to microgrids fulfilling the metrics identified under resilience (11-12).</p>
Environmental Goals (visual, air, water pollution)	No comment.
Access to System/Planning data	No comment.
Social Equity	Supports outcome. Added metric: <i>rate reductions for low income customers (p.4).</i>
Additional Outcomes or Comments	<p>Added outcome: <u>Economic Development/Job Growth Tied to Utility Investment in DER; Renewable Energy and EoT</u> with metrics: <i>jobs created; company headquarters moved to Hawaii; and number of new company formations that can be directly attributed to DER adoption; EoT, distribution grid upgrades and renewable energy development (p.11).</i></p>

Outcome	<u>City and County of Honolulu</u>
Risk Distribution	Comment: acknowledges outcome is important for furtherance of goal (p.16).
RPS Achievement	Added metric: <i>total or system renewable energy, as reported by the utility</i> (p.9).
Energy Efficiency and Conservation (EEPS)	Comment: acknowledges outcome is important for furtherance of goal (p.9).
Energy Independence	Comment: welcomes PBR elements to incent the utility (p.10).
Carbon Intensity	Comment: interested in ensuring that the utility's carbon footprint is eliminated as quickly as is technically feasible (p.10).
Electrification of Transportation	Comment: interested in inventing the utility to aid EoT (p.10). Welcomes explicit electrification-focused PBR elements including incenting investments to "make ready" facilities and the grid for EV infrastructure (p.11).
Beneficial Electrification	Comment: acknowledges outcome is important for furtherance of goal (p.9).
Capital Formation (sector wide)	Comment: acknowledges outcome is important for furtherance of goal (p.9).
Resilience	Supports exploring PBR elements focused on resilience (p.11). Recommends at a minimum, the Commission focus on electric grid resilience to the extent that it develops other areas competency around community resilience or "resiliency as a service" (p.12).
Environmental Goals (visual, air, water pollution)	Comment: encourages the Commission to adopt PBRs that align with the C&CH's environmental goals and charter mandate (p.12). Incenting the utility to meet environment goals is critical (p.13).
Access to System/Planning data	Comment: data access, openness, and transparency should be required (p.13).
Social Equity	Comment: social equity is a C&CH priority (p.13).
Additional Outcomes or Comments	Added outcomes: <u>Utility coordination to advance public projects; corporate social responsibility, accountability, and sustainability</u> (p. 2, 14-16).

Outcome	<u>County of Maui</u>
Risk Distribution	Comment: Risk distribution should be broadened to how contracting will occur (p.7.).
RPS Achievement	Comment: addressing RPS directly would be likely better than using PBR (p.8).
Energy Efficiency and Conservation (EEPS)	No comment.
Energy Independence	No comment.
Carbon Intensity	Agrees with outcome, but notes better to fix the RPS (p.6).
Electrification of Transportation	Strongly agrees with outcome (p.7).
Beneficial Electrification	No comment.
Capital Formation (sector wide)	No comment.
Resilience	No comment.
Environmental Goals (visual, air, water pollution)	Comment: better to address through law (p.8).
Access to System/Planning data	No comment.
Social Equity	No comment.
Additional Outcomes or Comments	n/a

Outcome	<u>Blue Planet Foundation</u>
Risk Distribution	Supports but with less emphasis (p.19).
RPS Achievement	Ranked as #1 priority outcome (p.24). Amended outcome: <u>RPS Achievement/Exceedance</u> with metric: <i>percentage of generation that is renewable</i> (p.17) and PIMs that reward for exceeding legal RPS requirements; penalties for not meeting legal RPS requirements; percentage of generation that is renewable. (p.19).
Energy Efficiency and Conservation (EEPS)	Strongly supports outcome and metrics, ranked as #7 priority outcome (p.19, 24).
Energy Independence	Renamed outcome: <u>Energy Security</u> , ranked as #6 priority outcome (p.19, 24). Added metric (PIM): <i>percentage of power imported to Hawaii</i> (p.24).
Carbon Intensity	Strongly supports outcome, ranked as #2 priority outcome (p.19, 24).
Electrification of Transportation	Strongly supports outcome ranked as #3 priority outcome (p.19, 24). Modified metrics (PIMs): <i>number of EVs on the system; percent of EV owners on TOU and DR</i> (p.24).
Beneficial Electrification	Strongly supports outcome, ranked as #9 priority outcome (p.19, 24). Added metric (PIM): <i>Net carbon reduction from services switching from fossil fuel services to electric power</i> (p.24).
Capital Formation (sector wide)	Comment: Supports overall growth of the electricity sector and a neutral marketplace for investments but cautions that prioritizing capital investment as an outcome may recreate a capex bias for the utility and at a broader scale (p.20). Raises concern over using "utility credit rating" as a metric (p.20).
Resilience	Strongly supports outcome, ranked as #4 priority outcome but term is ambiguous and difficult to define along with identifying metrics (p.20, 24). Modified metric (PIM): <i>capacity of microgrids</i> (p.24) Added metric (PIM): <i>average recovery time from disasters</i> (p.24).
Environmental Goals (visual, air, water pollution)	Supports outcome but observes that certain pollution issues may be localized and site or community specific (p.20). Modified metrics: for environmental pollution, metrics should include <i>environmental justice considerations</i> —i.e., measure not only aggregate pollution, but also the <i>distribution of pollution impacts</i> (p.20).
Access to System/Planning data	Strongly supports outcome, ranked as #8 priority outcome (p.21, 24). Added metric (PIM): <i>Response to customer requests</i> (p.24).
Social Equity	Strongly supports outcome and agrees with metrics as a starting point, ranked as #5 priority outcome (p.21, 24).
Additional Outcomes or Comments	n/a

Outcome	<u>Distributed Energy Resources Council</u>
Risk Distribution	Supports with no comments (p.8).
RPS Achievement	Supports with no comments (p.8).
Energy Efficiency and Conservation (EEPS)	Supports with no comments (p.8).
Energy Independence	Supports with no comments (p.8).
Carbon Intensity	Supports with no comments (p.8).
Electrification of Transportation	Supports with no comments (p.8).
Beneficial Electrification	Supports with no comments (p.8).
Capital Formation (sector wide)	Supports with no comments (p.8).
Resilience	Supports with no comments (p.8).
Environmental Goals (visual, air, water pollution)	Supports with no comments (p.8).
Access to System/Planning data	Supports with no comments (p.8).
Social Equity	Supports with no comments (p.8).
Additional Outcomes or Comments	n/a

Outcome	<u>Hawaii PV Coalition</u>
Risk Distribution	Comment: calls for efforts to address relative risk and changes in the distribution of risk (p.11).
RPS Achievement	No comment.
Energy Efficiency and Conservation (EEPS)	No comment.
Energy Independence	No comment.
Carbon Intensity	Comments: need broader goal of overall reductions in carbon emissions (p.15).
Electrification of Transportation	Comment: EoT involves much more than number of EVs purchases in the utility (p.15). Should measure vehicle miles travelled by electric vehicles of all types and reflected among customers of different income levels (p.15).
Beneficial Electrification	Comment: look at issues associated with beneficial electrification including social justice implications of technological transformation as measured within socio economic segments of Hawaiian society and long-term implications of a 100% renewable energy system - particularly if 100% renewable energy argues for 100% electrification (p.15).
Capital Formation (sector wide)	No comment.
Resilience	No comment.
Environmental Goals (visual, air, water pollution)	No comment.
Access to System/Planning data	No comment.
Social Equity	No comment.
Additional Outcomes or Comments	Added outcomes: <u>consideration of non-energy benefits; fair and open competition; minimum barriers to entry; flexibility, diversity of choice and innovation; economic and system efficiency; coordination with transmission level operations; avoidance or mitigation of emissions; consistency with regulatory objectives and requirements</u> (p.15-16).

Outcome	<u>Hawaii Solar Energy Association</u>
Risk Distribution	No comment.
RPS Achievement	Agrees with outcome, relevant to HSEA businesses (p.13).
Energy Efficiency and Conservation (EEPS)	No comment.
Energy Independence	No comment.
Carbon Intensity	No comment.
Electrification of Transportation	No comment.
Beneficial Electrification	Agrees with outcome, relevant to HSEA businesses (p.13).
Capital Formation (sector wide)	No comment.
Resilience	Agrees with outcome, relevant to HSEA businesses (p.13).
Environmental Goals (visual, air, water pollution)	No comment.
Access to System/Planning data	No comment.
Social Equity	Agrees with outcome, relevant to HSEA businesses (p.13).
Additional Outcomes or Comments	Added outcome: <u>ethical performance of utility</u> with metrics: <i>gaming of PIMs as a function of \$/PIM; alternative methods to determining affordability</i> (p.15-16).

Outcome	<u>Life of the Land</u>
Risk Distribution	No comment.
RPS Achievement	No comment.
Energy Efficiency and Conservation (EEPS)	No comment.
Energy Independence	No comment.
Carbon Intensity	Comment: Identified climate change as a critical issue. Separate climate change from Advanced Societal Objectives goal by establishing a fourth goal (p.2).
Electrification of Transportation	No comment.
Beneficial Electrification	No comment.
Capital Formation (sector wide)	No comment.
Resilience	Comment: Identified as a critical issue (p.2).
Environmental Goals (visual, air, water pollution)	No comment.
Access to System/Planning data	No comment.
Social Equity	Comment: Identified as a critical issue (p.2).
Additional Outcomes or Comments	n/a

Outcome	<u>Ulupono Initiative</u>
Risk Distribution	Replaced outcome with <u>risk optimized power supply portfolio</u> under Improving Utility Performance goal (p.22-23).
RPS Achievement	Strongly supports outcome and Commission utilization of the proper metric for evaluation of RPS compliance (p.23).
Energy Efficiency and Conservation (EEPS)	Strongly supports outcome (p.23).
Energy Independence	Comment: suggests energy independence as a indicator of progress rather than a PBR outcome. The RPS (evaluated using the proper metric) is the best indicator (p.23).
Carbon Intensity	Supports outcome and comments that is one of the better models of outcomes for this goal (p.23).
Electrification of Transportation	Supports outcome and comments that is one of the better models of outcomes for this goal. Metrics should express the electrical system impact as well as the societal impact (p.23).
Beneficial Electrification	Replaced outcome with <u>DER asset effectiveness</u> and <u>system flexibility</u> . (p.24).
Capital Formation (sector wide)	Changed from an outcome to a goal: least-cost capital formation (p.24).
Resilience	Changed form an outcome to a goal: resilience (p.24).
Environmental Goals (visual, air, water pollution)	Comment: assumes that outcome is related to direct environmental impacts from the regulated electrical utility sector - i.e. emissions from power generation and avoided generations from EoT (p.24).
Access to System/Planning data	Comment: Agrees that public access to the planning process is important but remains unclear how this would serve as a PBR outcome (p.24).
Social Equity	Comment: important outcome (p.24).
Additional Outcomes or Comments	n/a

Outcome	<u>Advanced Energy Economy Institute</u>
Risk Distribution	No comment.
RPS Achievement	No comment.
Energy Efficiency and Conservation (EEPS)	No comment.
Energy Independence	No comment.
Carbon Intensity	No comment.
Electrification of Transportation	No comment.
Beneficial Electrification	No comment.
Capital Formation (sector wide)	No comment.
Resilience	No comment.
Environmental Goals (visual, air, water pollution)	No comment.
Access to System/Planning data	No comment.
Social Equity	No comment.
Additional Outcomes or Comments	n/a

Additional Goals/General Comments

HECO

Added goals (Exhibit 1, p.21-37; Exhibit 3, p.1 provides a full list)

Modernize Grid and Improve Resiliency with outcomes:

Cost-effective, timely GMS implementation with possible metrics tied to the phased implementation of the Grid Modernization Strategy. For example, a metric could be developed based on meeting the Phase 1 milestones established by the Companies in the Application for Grid Modernization Phase 1 (Exhibit 1, p.23);

Innovative, cost-effective BESS deployment with metrics: MW of customer-sited BESS for solar PV systems; MW/MWh of grid-scale BESS (Exhibit 1, p.23-24);

Cost-effective, timely DR program implementation with metric: savings to customers based on avoided costs from DR (Exhibit 1, p. 24-26);

Effective Integrated Grid Planning (IGP) Implementation with metrics: meet IGP milestones as defined by the Commission; stakeholder engagement efforts (Exhibit 1, p.26-27);

Hardened Grid/ Diverse mix of resources and geographic locations with metrics: number of contracts and/or applications for Commission approval of renewable resources consistent with approved plans; number of DER resources interconnected at non-constrained LVM locations (Exhibit 1, p.27);

Microgrids Utilization with metrics: Quantity of microgrids relative to a staged/approved plan to increase resilience; SAIDI performance improvement for utility sponsored microgrids (Exhibit 1, p.28);

Regulatory Reform with outcomes:

Adopt practices to support utility innovation and flexibility in accomplishing objectives; Reduce regulatory process costs; Streamline practices and decisions; Fair and efficient allocation of costs among service users (Exhibit 1, p.28-30);

Support Financial Integrity with outcomes:

Credit ratings maintained or improved with metrics: credit ratings; credit rating metrics (such as cash flow); imputed debt (Exhibit 1, p.31-32);

Reasonable opportunity to earn a fair return with metrics: ROE; ROE achieved versus ROE authorized (Exhibit 1, p.32);

Timely cost recovery for encouraged/mandated initiatives with metrics: cost recovery lag inherent in cost recovery mechanisms (Exhibit 1, p.32-33);

Reduce regulatory lag (Exhibit 1, p.32-33);

Retirement of Fossil-Fueled Generating Unit with metrics: MW of generation converted to renewable energy; savings achieved through securitization (Exhibit 1, p.34-35);

Enable Capital Formation (sector wide) and Improve O&M Cost Treatment with metrics: annual total investment in electricity sector; annual non-utility investment in electricity sector; credit rating of utility; percentage of software development project costs treated like capital project costs (Exhibit 1, p.35-36);

Fair and efficient risk distribution with metrics: percentage of cost that is hedged or fixed; how much of power supply is on fixed price contract or declining (in real terms) over time versus how much is associated with escalators (Exhibit 1, p.36-37).

Division of Consumer Advocacy

Suggests Commission establish priority levels or ordinal tiers for goals/outcomes (p.4-6). Further refinement and potential recategorization of outcomes should be considered (p.14-16).

County of Hawaii

Added goal aimed at **developing an energy market and create the the utility of the future** with **outcomes**: rate of DER adoption; microgrid development; RPS achievement; grid planning effectiveness; electrification of transportation; job creation and customer engagement (p.7).

City and County of Honolulu

n/a

County of Maui

Finds Ulupono Initiative addition of "Financial Integrity" requires further discussion (p.3). Generally concerned about how PBR is funded (p.3). Suggests considering HERA as part of instant proceeding or new proceeding (p.8).

Blue Planet Foundation

Comment on "Protecting Utility Financial Integrity" proposals: has reservations on a goal or outcome focused specifically on protecting the incumbent utility business (p.21).

Distributed Energy Resources Council

DER Council wishes to join with Blue Planet Foundation's Goals and Outcomes Brief submitted August 24, 2018 (p.2).

Hawaii PV Coalition

Encourages Commission to explicitly adopt and integrate a commitment to developing and growing self-sustaining markets for DERs as a foundation for achieving the overarching goals proposed by the Staff (p.2). Recommends the Commission adopt an overarching vision statement articulating where the proceeding intends to ultimately take the utility business model in Hawaii (p.3). Urges the Commission to provide opportunities to check the process as it evolves against fundamental questions, including the question of how the proceeding will deliver positive change to the customer experience (p.3).

Hawaii Solar Energy Association

Added outcome: recyclability of resources (p.16).

Life of the Land

Other critical issues areas identified: cost reductions; transparency (p.2).

Added goal: **climate change** with **outcome** of GHG intensity and **metrics** of *tons of lifecycle GHG emissions per MWh of electricity generated* (p.2).

Ulupono Initiative

Added goals:

Utility financial integrity, with **outcomes:** utility credit rating, utility capital-raising capacity, and financial solvency of utility (p.12-13, 25-26);

Least-cost capital formation, with outcomes:

Total asset investment efficiency, mobilization of third-party capital with **metrics:** *amount of third-party capital mobilized at generation/transmission level and distribution level, measured separately in total and as a percentage of total capital required* (p.26);

Mobilization with third party capital (p.26);

Least-cost capital formation at utility level with **metrics:** *weighted average cost of capital for utility* (p.27);

Least-cost capital formation at independent power producer level with **metrics:** *weighted average cost of capital for IPPs* (p.27);

Resilience, with outcomes:

no power supply interruption for critical public health and safety and emergency response facilities, customer power loss duration, system recovery time (p.14-16, 27-29).

Network services with outcomes:

Network access with **metrics:** *includes magnitude of access as well as cost and time dimensions* (p.27-29);

Least cost provision of network services (p.16-17, 29-30).

Relevant PBR implementation time period should be determined as an aid to identification and selection of goals and outcomes and supports the consideration and use of a five-year time period for a Hawaii PBR program to be adopted (p.7-8).

Advanced Energy Economy Institute

Added goal: market innovation (p.3-5).

The Commission's focus should be on motivating the utility to take actions it otherwise would not take, and metrics should be within the utility's scope of control (p.5). The number of metrics tied to financial incentives or penalties should be no more than six; other metrics can be monitored through a scorecard. Selected outcomes/metrics should also be those that can be achieved in the relative near-term, and that apply to more than one goal (p.6). Includes illustrative table of how outcomes and metrics can be chosen in a way that is linked across multiple performance goals (p.7).

The following examples are provided (p.7):

Data access with **metrics:** *timeliness of data request responses; automation of data exchanges; ability to access data through self-service tools or APIs.*

Energy efficiency with **metrics:** *kWh and thermo reductions relative to baseline (gross or per capita).*

System efficiency with **metrics:** *peak load reduction (% or MW); ratio of average load to peak load (load factor).*

Third Party Resource Deployment with **metrics:** *MW of DER deployed (can distinguish by type); ease of access of market tools for third parties.*

Interconnection with **metrics:** *speed of processing valid interconnection requests; user satisfaction with interconnection process.*

Reach, Usage, Effectiveness, Feedback with **metrics:** *percentage customers that has access to customer engagement communication; number of customer interactions.*

