CEAP | CLEAN ENERGY ACCOUNTING PROJECT

Indicators of Clean Electricity Procurement that Drive Supply

Initiative Proposal | October 2023

1. Problem Statement

Voluntary buyers of renewable electricity are increasingly focused on enhancing the impact of their procurement. There are different ways to evaluate impact, but often it is evaluated in terms of the effect of procurement on the amount of clean electricity supply. However, there is no consensus on what kinds of procurement (purchases, products, or deals) have a greater effect on clean electricity supply. There are competing theories of clean electricity market transformation. To date, companies and organizations have ranked general procurement options (e.g., power purchase agreements, utility green pricing programs, unbundled RECs, etc.) in terms of impact on clean electricity supply based on general characteristics and assumptions. Reliance upon oversimplified rankings may limit access and impact. Regional variation in terms of resource mix, market structure, and regional demand profile/shape affects the impact of individual procurements and different types of procurement. There is a need for indicators of impact that can be applied both across product types/procurement options and across regions, such that buyers and sellers can evaluate and increase their impact on clean supply in context using the purchasing options that are available or possible.

This CEAP initiative will answer the question:

- *What are credible indicators of individual clean electricity procurement that drive creation of clean electricity supply?*

2. Proposal Summary

This initiative will produce consensus guidance for companies and other voluntary buyers of renewable energy in the United States seeking to increase the impact of procurement on clean electricity supply. The guidance will identify aspects or features of different clean electricity procurement or purchases in the United States that support the creation of clean electricity supply or the preservation of existing clean supply. It will then identify observable or measurable indicators or proxies for impact on supply that can be applied across regions and procurement options. These indicators will help standardize impact requirements, criteria, claims, reporting, and recognition for voluntary procurement, and, when they are used in aggregate, produce more clean electricity.

The guidance may include indicators of:

- Direct impact on new clean generation or capacity
- Direct impact on maintaining existing clean generation or capacity
- Increased indirect impact on new or existing clean generation or capacity

The indicators will be quantitative, where possible. Examples of possible indicators include:

- Long-term purchasing

- Age of the generation facility
- Regulatory surplus
- Tax equity investment included
- Purchase helped overcome project barriers, e.g., interconnection, siting, permitting

3. Summary Table

This table will further define the initiative along specific parameters and criteria and inform the working group stage.

Scope limitations:	▪ This initiative will not conduct new research to determine the empirical or modeled impact of different procurement options and deal structures on supply. Neither will it conduct economic analysis of renewable energy markets or the price elasticity of supply or demand for renewable energy to determine when or at what price or levels of supply and demand voluntary purchasing will force creation of new supply. Rather, it will draw on existing research and the collective experience of people working on projects. ▪ This initiative will not define direct or indirect metrics for the amount of new generation or capacity that will result from individual purchases. ▪ Geographic scope will be the United States.
Potential outcomes:	▪ Define credible indicators of impact on supply, across procurement options and regions, based on aspects of procurement that can be reliably correlated to changes in supply. ▪ Provide a basis for recognition and claims related to impactful procurement and leadership, including potentially an impact index or score. ▪ When indicators are used in aggregate, procurement will produce more clean electricity.
Reasons for urgency:	▪ The window to avoid dangerous climate change is quickly closing. Along with increasing overall demand for clean electricity and expanding access to clean electricity, individual clean electricity procurement that meaningfully affects the production of clean electricity should be a priority now, especially for the largest buyers. ▪ Uncertainty is an immediate barrier to collective action, and has led to fragmentation, reliance on generalized or assumed information, and disagreements about impact that reduce aggregate demand.
Anticipated deliverables:	▪ A slide deck or short report that includes indicators of procurement that drive supply that can be applied across regions and procurement options.
Other relevant initiatives:	▪ The GHG Protocol will be updating Scope 2 guidance and has prioritized the impact of electricity procurement on supply as a criterion for evaluating recognized accounting approaches. ▪ The U.S. Department of Treasury has been evaluating impactful clean electricity procurement for clean hydrogen production as a part of establishing rules for the clean hydrogen production tax

	credit. Certain states have similarly been exploring rules for electrolytic hydrogen to reduce emissions and create more clean electricity supply. ▪ The Clean Energy Buyers Institute (CEBI's) Next Generation Carbon-Free Electricity Procurement Initiative has identified membership priorities for clean energy procurement aimed at increasing impact.
Relation to existing CEAP initiatives:	▪ This work could build off of CEAP's Guidance for Supplier Clean Electricity Procurement initiative.
Available resources:	▪ RE100. *Business leadership in the transition to renewable electricity* ▪ Tawney et. al. *Describing Purchaser Impact in U.S. Voluntary Renewable Energy Markets* ▪ GHG Protocol. *Scope 2 Guidance*. Chapter 11. (pg. 88-93). ▪ WRI. *Actions Large Energy Buyers Can Take to Transform and Decarbonize the Grid: Procurement Practices for Achieving 100% Carbon Free Electricity* ▪ Princeton ZERO Lab. *System-level Impacts of 24/7 Carbon-free Electricity Procurement* ▪ CRS. *How RECs Make a Difference* ▪ *Guide to Purchasing Green Power*. Pgs. 6-3 through 6-5. ▪ International Energy Agency. *Advancing Decarbonisation Through Clean Electricity Procurement*. https://www.iea.org/reports/advancing-decarbonisation-through-clean-electricity-procurement ▪ Technical University of Berlin. *System-level impacts of 24/7 carbon-free electricity procurement in Europe*. https://zenodo.org/record/7180098#.Y9Fm9xPMJUy
Potential challenges:	▪ Additional research, market-specific economic analysis of impact of different demand, and/or modeling or analysis of market dynamics may be needed to develop a reliable impact metric. ▪ Reluctance of key stakeholders to provide information. ▪ The relationship between individual procurement and changes in supply may be too complex to credibly identify consistent indicators across supply options, regions, and project circumstances. ▪ There may be unmitigable disagreement among stakeholders on aspects of purchases or indicators.
Key working group stakeholders:	▪ Clean electricity project developers ▪ Clean electricity investors ▪ Electric utilities ▪ Large corporate and institutional clean electricity buyers ▪ Leadership standards and recognition programs ▪ Environmental NGOs ▪ Grid and market operators