

Revised Proposal: Hourly Clean Electricity Utility Product Design Options *September 2022*

1. Problem Statement

To date, hourly clean-electricity products have primarily been crafted as bespoke products for a single customer. Electricity providers are well positioned to expand access to these products, but the variations between each provider’s circumstances create the potential for a disconnect between what is being provided and the benefits that customers expect. In practice, hourly matched products from different providers may look and work very differently in terms of customers and their load data, generation resources and data, product specifications and terms, verification, disclosure, and credible claims. While some product variation is necessary and healthy, standardization around product design options will help ensure credible clean electricity accounting and increase access to hourly products.

- *How should different hourly matched clean electricity product options be designed to support credible sales and use claims?*

2. Proposal Summary

This project will outline the range of specifications that can be part of the design of an hourly clean electricity product in the U.S. with guidance around the reasons for and outcomes of selecting each. The objective will be to address all types of providers and products in different markets, and to provide general guidance on the data and conditions necessary to facilitate verification.

While this project will focus on the delivery of hourly specified electricity on a megawatt-hour (MWh) basis, it will have significant implications for attributional and consequential emissions accounting, which should be consistent with credible use claims. This effort could potentially identify gaps, establish best practices for consumer load data, and highlight critical issues (such as the order of operations when products include the grid mix) that directly support ongoing conversations about GHG accounting in other forums or in a subsequent CEAP project.

3. Summary Table

Scope limitations:	<ul style="list-style-type: none"> ▪ Focused on delivery of hourly specified electricity and associated electricity use claims in the U.S. ▪ Project will not consider attributional or consequential emissions accounting, although areas where additional guidance is needed can be identified. ▪ Aspects of the findings may be applicable outside of the U.S., but further research will be needed to comprehensively address market-specific circumstances.
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	<ul style="list-style-type: none"> There is a strong potential for a second CEAP project in this workflow that defines best practices for emissions accounting in coordination with updates to existing GHG accounting standards.
Potential outcomes:	<ul style="list-style-type: none"> A roadmap for providers to explore when designing new customer offerings. Increase proliferation of hourly products, providing access to more customers. A foundation that could be used to standardize emissions accounting best practices for hourly products.
Reasons for urgency:	<ul style="list-style-type: none"> Despite significant interest in hourly clean electricity accounting, there is limited supply available, and existing products are often tailored to specific buyers with large electricity footprints. Meeting demand for hourly products may help incentivize technology solutions (e.g., storage and transmission) that are necessary to decarbonize the grid. A U.S. executive order requires hourly products for government agencies, and existing regulations in the EU are mandating hourly reporting for EU-based companies' operations in the U.S.
Anticipated deliverable:	<ul style="list-style-type: none"> Overview of hourly clean electricity product options Report presenting opportunities and justifications for different product design specifications Best practices for customer data to facilitate hourly products Order of operations 2-page backgrounder Guidance on what data and conditions are needed for verification Examples of hourly products and credible claims they support Standardized product disclosure template
Other relevant initiatives:	<ul style="list-style-type: none"> EnergyTag work to define and build a market for Granular Certificates that enable consumers to choose the source of their electricity consumption in each hour of the day Singularity Open Grid Emissions Initiative WRI/IEI dialogue & local government cohort UN 24/7 Carbon-free Energy Compact provides resources for signatories
Available resources:	<ul style="list-style-type: none"> Existing deals and utility products (PCE, SVCE, AES) Google whitepapers outlining approach to measurement WRI's collection of relevant resources U.S. Executive Order 14057 Implementation Guidance U.S. EPA Guide to Purchasing Green Power Ch. 4 CRS core competencies: expertise in utility product design and verification, building on Green-e®
Potential challenges:	<ul style="list-style-type: none"> Scale of diversity in provider operations Limited specified resource data available for wholesale market transactions Greater clarity on accounting for storage may needed first Challenges securing load data at the right granularity and frequency Accounting for the role of DER storage in hourly products
Key working group stakeholders:	<ul style="list-style-type: none"> Regulated utilities Deregulated utilities Rural co-ops Energy marketers Hourly matched clean electricity buyers U.S. Federal Government National Laboratories Public utility commissions EAC tracking systems Software providers Grid operators Data providers