

Priorities for Voluntary Renewable Energy Under the Clean Electricity Performance Program

Center for Resource Solutions • Clean Energy Accounting Project (CEAP)

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As Congress considers adoption of the Federal Clean Electricity Performance Program (CEPP), it is important to understand the impacts on existing renewable energy markets in the U.S., particularly private investment in and use of renewable energy—the voluntary market. The voluntary market is an important driver of clean energy development and, without careful design, a CEPP could damage it. A priority for the CEPP should be to do no harm to the voluntary renewable energy market in order to accelerate and reduce the public cost of the transition to clean electricity.

The voluntary market can and should drive incremental clean energy beyond what is stimulated by a federal program. Renewable energy certificates (RECs) are the common tracking mechanism for renewable energy used in both voluntary markets and state renewables programs, and the CEPP should use them to track progress, or if not, the CEPP should not interfere with these existing markets.

This paper provides an overview of the voluntary market and the critical role it has played in clean

RECOMMENDATIONS FOR SUPPORTING VOLUNTARY RENEWABLE ENERGY UNDER THE FEDERAL CEPP

- Do not allow LSEs to count voluntary renewable energy as qualified clean electricity toward the Federal CEPP.
- Use RECs to identify and exclude voluntary renewable energy from the Federal CEPP by either:
 - Using RECs as the tracking instrument for renewable energy under the CEPP and excluding RECs associated with voluntary renewable energy sales, or
 - If a separate federal instrument is created for all eligible generation, then:
 - The instrument should not represent environmental attributes and should be tied to RECs where they are issued, and
 - Exclude voluntary sales by either not issuing federal instruments for voluntary renewable energy or using a voluntary renewable energy set-aside.

energy development over the last twenty years. This is followed by recommended policy design elements and requirements that can easily be incorporated into CEPP implementation to avoid negative impacts to voluntary demand for and private investment in renewable energy.

The voluntary market is separate.

The voluntary renewable energy market is where individuals and businesses exercise their choice to buy clean, renewable energy or build their own renewable energy generation capacity beyond what is required by law. As with state Renewable Portfolio Standard (RPS) markets, renewable energy certificates (RECs) are used to verify exclusive delivery and consumption of voluntary renewable energy. Different direct and retail purchasing options are available to voluntary buyers in different locations, including self-generation using onsite or offsite generation, power purchase agreements with specific generation facilities, utility green power products, and unbundled RECs. All options include RECs. Except for consumer protection and truth-in-advertising laws, the voluntary market is unregulated. Rather, third-party standards and certifications are used to verify voluntary sales and exclusive delivery and ownership of generation attributes.¹

The voluntary market is important and working in every state.

Thousands of businesses and millions of individuals in every state across the country voluntarily purchase green power from thousands of renewable energy generators across the country. These purchases amount to billions of kilowatt-hours of renewable energy annually and comprise what is known as the “voluntary market.”² Voluntary renewable energy currently represents approximately 4% of total U.S. electricity sales, greater than total electricity consumption in the state of New York, and is growing at 22% per year.³ Remarkably, more than three quarters (77%) of renewable energy capacity additions (new renewable megawatts installed) were made outside of state-mandated renewable energy requirements in 2019,⁴ due in part to growth in voluntary renewable energy markets.⁵ Corporate buyers alone have invested in nearly 36 gigawatts (GW) of new renewable energy capacity since 2008,⁶ nearly enough to power the state of Georgia.

Alongside state mandates like RPS and direct regulations, the voluntary market has been a major driver of new clean energy, leading to more jobs and greater economic growth for states. The voluntary market leverages private, non-ratepayer funding to help speed the transition to renewable energy sources, and it provides a credible pathway for voluntary action to increase clean energy development. The CEPP should be

¹ For example, see the [Green-e® programs](#), administered by Center for Resource Solutions.

² See the National Renewable Energy Laboratory's (NREL's) voluntary green power market analysis at <https://www.nrel.gov/analysis/green-power.html>. Also see the U.S. Environmental Protection Agency's (EPA's) Green Power Partnership: <http://www.epa.gov/greenpower/>.

³ Heeter, J. and O'Shaughnessy, E. (September 2020). Status and Trends in the Voluntary Market (2019 data). National Renewable Energy Laboratory (NREL). Pg. 2. <https://www.nrel.gov/docs/fy21osti/77915.pdf>.

⁴ Barbose, G. (February 2021). U.S. Renewables Portfolio Standards 2021 Status Update: Early Release. Lawrence Berkeley National Laboratory. Pg. 18. https://eta-publications.lbl.gov/sites/default/files/rps_status_update-2021_early_release.pdf.

⁵ Ibid. Pg. 16.

⁶ See the Renewable Energy Buyers Alliance (REBA) Deal Tracker: <https://rebuyers.org/deal-tracker/>.

structured to coexist with and complement the voluntary market.

Voluntary buyers of renewable energy want to make a difference.

A key component of supporting the voluntary market is ensuring that private companies and individuals can affect change beyond state or federal renewable energy programs. Consumers may have different motivations for voluntarily purchasing renewable energy—for example, to reduce greenhouse gas emissions, increase energy security and reliability, create clean jobs, secure economic benefits, enhance stakeholder relations, or increase brand credibility. But fundamentally they want to increase their impact and make a difference. There are different ways to describe and measure impact,⁷ but the most basic way is to use renewable energy that is incremental to state or federal policy. Renewable energy purchased by voluntary consumers is not used to meet governmental targets or legal mandates. This separation enables the voluntary market to provide benefits to voluntary buyers, build on other efforts and make an incremental difference surplus to regulation and governmental programs, referred to broadly as “regulatory surplus.”

The CEPP could reduce voluntary demand and harm voluntary market.

If renewable generation purchased by voluntary buyers is counted towards the CEPP, voluntary

buyers will lose the opportunity to create impact beyond federal targets. They could not move the needle independently of the CEPP. This would reduce the demand-side impact of the voluntary market as a driver of new renewable energy. As a result, it may reduce voluntary purchasing and investment altogether—private dollars that would otherwise drive incremental change in the electricity sector beyond CEPP targets may shift or decline.

In addition, a federal clean energy policy that measures delivery of clean energy to customers, such as the currently proposed CEPP,⁸ must not double-count clean energy purchased by voluntary customers. Double counting is when two different parties are allowed to count or claim the attributes or consumption of the same megawatt-hour (MWh) of clean electricity. One example is where renewable generation has been sold to a specific voluntary buyer but also represents a portion of clean energy delivered to all retail customers—both a voluntary buyer and all LSE retail ratepayers cannot claim the same MWh or REC. Because the CEPP is based on LSEs’ retail sales, it may be understood as a retail delivery claim for the LSE. If voluntary sales are included, the resulting “double claim” may have an equivalent negative effect on market integrity.

Double counting and double claiming erode consumer confidence and reduce the delivery of real benefits to both voluntary buyers and all ratepayers. For this reason, most states with an RPS have

7 See Tawney, L. et al. (April 2018). Describing Purchaser Impact in U.S. Voluntary Renewable Energy Markets. World Resources Institute. Available online: https://www.epa.gov/sites/default/files/2018-06/documents/gpp_describing_purchaser_impact.pdf

8 Evergreen Action August 2021 report: “To determine the payment or penalty provided to an LSE, these entities must report the number of clean mega-watt hours (MWh) generated or procured in a given year and delivered to their customers, as a percentage of their overall demand load.” (p.11)

prohibited using voluntary purchases towards LSE compliance with the RPS.⁹

RECOMMENDATIONS

CRS makes the following recommendations and implementation suggestions to support voluntary renewable energy under the CEPP.

Exclude voluntary renewable energy from CEPP eligibility.

If renewable energy generation that is purchased by voluntary buyers is counted toward the CEPP it will remove the desired impact that most voluntary buyers are looking for and potentially undermine their motivation for buying renewable electricity. In practice, the government would also be paying LSEs incentives for investments made by private companies and other voluntary buyers leading on climate change mitigation. Maintaining regulatory surplus for voluntary purchasing by excluding it from the federal program recognizes the benefits of the voluntary market and ensures that federal targets are a floor, not a ceiling. Experience with state RPS demonstrates that both compliance and voluntary markets are more successful when they are designed to operate on a side-by-side basis.

The speed of the transition to 100% clean energy matters in the race to avoid the worst impacts of climate change. Voluntary procurement that

supports generation beyond the CEPP will accelerate the transition, rather than just compliance with federal targets. In the short term, these actions will create additional demand for new clean supply and infrastructure, reducing the climate risk that many communities face nationwide while also helping generate jobs and economic prosperity across the nation.

Likewise, keeping the voluntary market separate focuses the impact of the federal program on LSEs. A CEPP may be more effective at driving new clean energy if voluntary sales cannot be counted as qualified clean electricity, since LSEs would only receive grants for their own supply decisions. In short, if voluntary generation can be counted, voluntary sales displace some amount of LSE investment, whereas, if voluntary generation is not counted, voluntary sales sit on top of LSE sales for the CEPP, allowing each to have an incremental impact.¹⁰

Use RECs to protect the voluntary renewable energy market.

In state RPS programs, ensuring that a REC is delivered only once to a single party (avoiding double counting) also ensures that the generation is surplus to the RPS if sold in the voluntary market. Similarly, using RECs for the CEPP will ensure that LSE retail sales of renewable energy are properly

9 For example, CA, CO, DC, MD, ME, MI, MN, MO, MT, NC, NH, NJ, NM, NV, NY, OH, OR, PA, RI, TX, VT, and WA explicitly prohibit double counting renewable energy sold to voluntary customers with their RPS mandates. CT, MA, and WI have required that renewable energy may only be used for one purpose, which has been implemented as prohibitions against using voluntary renewable energy toward the RPS. DE allows LSEs to subtract voluntary renewable energy from the LSE load to which the RPS applies, which helps to avoid double counting but reduces the degree of regulatory surplus available to voluntary buyers in these states. The U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE) have also supported the voluntary market as a meaningful driver that should not be accounted for under regulatory schemes. See the EPA's Green Power Partnership (<https://www.epa.gov/greenpower>) and the joint *Guide to Purchasing Green Power* (<https://www.epa.gov/greenpower/guide-purchasing-green-power>).

10 A Federal CEPP might consider a provision allowing LSEs to reduce the load subject to the CEPP target by the amount of their own voluntary renewable energy sales. Although this would increase the time needed for the U.S. to achieve 100% clean energy, this approach would avoid claiming voluntary purchases toward the program targets.

accounted for and can preserve regulatory surplus for the voluntary market.

A federal program for LSE retail sales of clean energy requires tracking—a method or instrument for verification of the percent clean energy sold. RECs are the essential tracking instrument used to verify sales of renewable generation in both voluntary and compliance markets. REC tracking systems assign a unique identification number to each REC issued for one MWh of generation. This makes it easy to ensure that it can reside in an account of only one party until it is ultimately retired. Whether to determine compliance with a mandate or a grant under the CEPP, tracking and verification for the federal program should reflect ownership and transactions of RECs for the portion that is renewable energy, so that grants and payments are in line with what is legally delivered to serve LSE retail sales.

Eligible generation, including nuclear, that is not already tracked can be registered with existing REC tracking systems and issued certificates that, together with RECs, can be used to verify retail sales of qualifying clean electricity for an LSE's certified clean electricity percentage.¹¹ RECs sold to voluntary buyers can be excluded from this metric.

If a new federal tracking instrument is necessary, ensure that it prevents double counting and does no harm to the voluntary renewable energy market.

To implement the CEPP, a new federal tracking instrument may need to be created for all qualified clean electricity generation. Layering this new instrument on top of RECs would increase the risk of double counting and could result in grants or payments that do not actually reflect retail sales. The following conditions should be implemented where generation is issued both RECs and federal instruments to avoid double counting:

1. The new federal instrument should not represent the environmental attributes of generation. It would exist solely for the purposes of the federal program, and no environmental claims could be made based on its ownership or use.
2. The new federal instrument should be tied to the REC so that there is still a single instrument for retail claims per MWh. Otherwise, LSEs could procure federal tracking instruments for renewable generation in excess of their RECs, and federal compliance and payments would not reflect LSE retail sales.

To protect the voluntary market, LSEs should not be able to use federal instruments for generation sold to voluntary buyers. This could be accomplished by either not issuing federal compliance certificates for generation (RECs)

¹¹ All eligible generation should be tracked and issued certificates. A certain portion of that, renewable generation that is participating in existing state and voluntary programs, is already registered and being issued certificates, RECs. Eligible generation that is not already being tracked could be added to existing tracking systems and begin issuing certificates. Some tracking systems (NEPOOL-GIS, PJM-GATS, and NYGATS) already track and issue certificates for all generation. These certificates could be used as is. An ideal outcome would be for all tracking systems to track and issue certificates for all generation, including but not limited to renewable or CEPP-eligible generation.

sold to voluntary buyers¹² or by including a “set-aside” for voluntary sales in the federal program. Under a set-aside, federal instruments would be retired for voluntary renewable energy sales, rather than used by LSEs.¹³ Although it would work differently from a traditional set-aside,¹⁴ there is precedent for this approach. Eight states with regulations on greenhouse gas emissions from the electricity sector already use a similar set-aside mechanism to maintain voluntary market benefits beyond the regulations, restore regulatory surplus, and protect voluntary renewable energy demand and investment.

In the absence of one of the above provisions, voluntary purchasers looking to create impact beyond the CEPP would need to purchase federal instruments to match their renewable energy purchases along with the associated RECs.¹⁵ This would similarly preserve regulatory surplus by removing federal instruments from the market for every REC claimed by a voluntary buyer. But it would increase the burden on voluntary buyers, both due to the additional cost of the federal instrument and increased transaction costs associated with acquiring and managing multiple instruments and potentially multiple purchases. These costs may negatively affect voluntary demand and overall renewable energy development.

12 Since voluntary renewable energy can only be identified at the time of use and REC retirement, rather than at the time of REC issuance, it may not be possible to prevent issuance of federal instruments for voluntary renewable energy, depending on the timing of federal instrument issuance relative to REC issuance and retirement.

13 Voluntary sales could be determined based on REC tracking system data. Both California and states participating in the Regional Greenhouse Gas Initiative (RGGI) use REC retirement data from tracking systems to verify voluntary sales for their voluntary renewable energy set-asides in their cap-and-trade programs.

14 As the federal program is measuring retail sales, federal instruments would need to be matched with RECs for accurate accounting of retail sales. Therefore, the set aside must retire the federal instruments associated with voluntary RECs, rather than simply retiring an equivalent amount of federal instruments on behalf of voluntary renewable energy.

15 The federal instrument could be purchased “bundled,” or transacted together, with the REC from the same source, or they could come from a different generating unit, since the REC is the single instrument used for retail claims and the voluntary purchase of any CEPP instrument will provide regulatory surplus.

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