



ICLEI USA Renewable Energy Credit Guidance for U.S. Local Governments

Version 1.0, May 2024

Executive Summary

ICLEI - Local Governments for Sustainability USA (ICLEI USA) generally does not recommend that local governments purchase Renewable Energy Credits (RECs) as a greenhouse gas (GHG) emissions-reduction strategy. The purchase of unbundled RECs in particular is not recommended, as these RECs are not effective at reducing electricity-generation emissions and per the U.S. Community Protocol, cannot be included in an emissions inventory. There are some cases where acquiring RECs as part of a Power Purchase Agreement (PPA), or utility green power or green tariff program, may make sense, particularly if the local government has limitations on other strategies to support local renewable energy. In these cases, RECs may be included in inventories but only in parallel with an inventory that does *not* include RECs.

Renewable Energy Strategies

Before pursuing REC purchases, local governments should consider other strategies to build and advocate for renewable development in their community and region. In addition to providing greater certainty than most REC purchases for reducing emissions, these strategies may provide additional co-benefits, such as a higher return on investment, improvements to local air quality, resilience through on-site renewable energy, and support for local businesses.

<p>Build new renewable generation in your community.</p> <p>Advocate for more renewable generation in your state and grid region.</p> <p>Benefits will be captured in GHG inventory; no additional accounting needed.</p>	<p>Use a PPA or virtual PPA to purchase bundled RECs and electricity.</p> <p>Participate in a utility green power or green tariff program, <i>if</i> the program builds new renewable generation in or near the utility service area.</p> <p>RECs can be counted for local GHG inventory, but total gross emissions with RECs excluded must also be reported (see guidance on following</p>	<p>Purchase unbundled RECs.</p> <p>Do not count for local GHG inventory.</p>





	pages).	
--	---------	--

Understanding RECs

As defined in the [U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions \(USCP\)](#), a REC is a tradable commodity that represents one megawatt-hour (MWh) of electricity generated from a third-party verified renewable energy resource.¹ RECs represent the environmental benefits of renewable electricity generation, including that the generation did not produce GHG emissions.

RECs are related to, but different from carbon offsets. RECs apply specifically to clean electricity, have units of MWh, and are applied to an entity’s electricity consumption. Carbon offsets, on the other hand, represent a general emissions reduction, have units of metric tons of CO₂e, and are applied to an entity’s emissions from any source. **Note: ICLEI USA does not recommend purchasing carbon offsets as an emission-reduction strategy.**

RECs can be *unbundled*, meaning they are sold separately from the electricity that was generated. The MWh generated are usually sold into wholesale power markets undifferentiated from other types of generation, while the REC is sold to an electricity consumer who wants the environmental attributes; this financial mechanism allows the REC to be purchased by a consumer in a completely different part of the country, even if the electric grid is not physically connected to the location of the renewable energy generation. Alternatively, some arrangements, such as power purchase agreements (PPAs), allow a customer to buy RECs *bundled* with the electricity.

Another major consideration when deciding to include RECs in an inventory is *additionality*. Even if RECs are bundled, they should not be included in a GHG inventory unless you are convinced that a developer only built the renewable generation due to the RECs. If developers are building renewable generation for other reasons, such as economic considerations or to meet regulatory requirements, then the associated RECs should not be included in an inventory.

There are two types of markets for RECs in the U.S.²: Compliance and Voluntary. Compliance markets exist where state renewable portfolio standards (RPSs) require a minimum amount of power supplied from utilities to come from renewable sources. The voluntary market consists of corporations, government entities, and individuals who buy the RECs because they want to claim the environmental benefits.

¹ ICLEI U.S. “ICLEI U.S. Community Protocol - July 2019 - v1.2,” 2019.

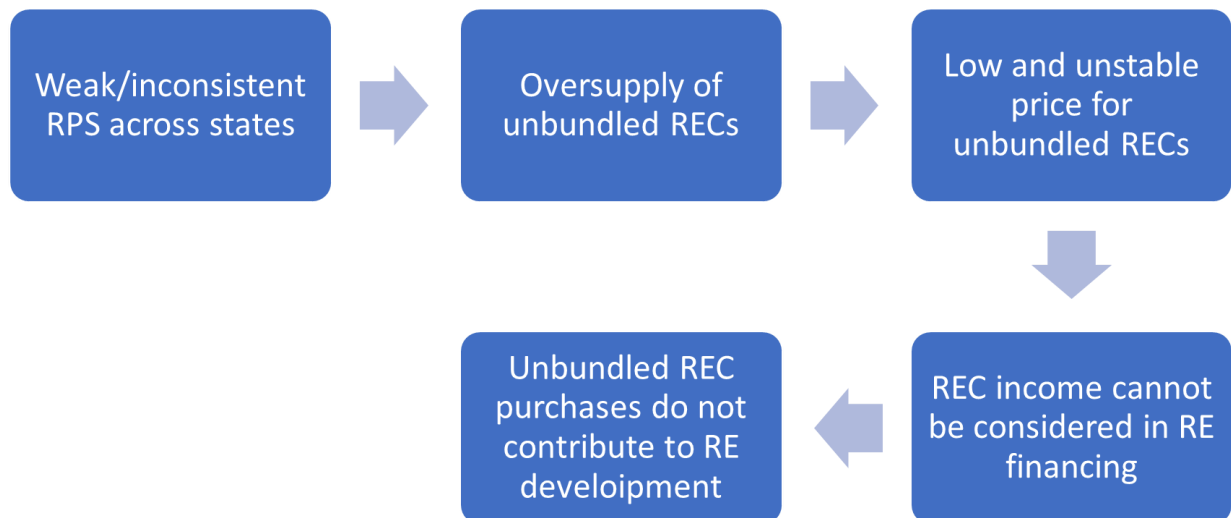
² All of the guidance in this document is intended for use in the United States. Both voluntary and compliance RECs are regulated differently in other countries, so the considerations described in the document may or may not apply outside the US.



In the national voluntary market, demand for unbundled RECs has consistently lagged behind available supply, meaning it is not necessary for developers to build new generation in order to have RECs to sell. This has resulted in REC prices that are low, and more importantly for renewable energy developers, unpredictable. This means that RECs, especially unbundled RECs, are likely to lack additionality, and, therefore, be ineligible for inventorying.

Renewable energy developers generally finance projects through a bank loan. Similarly to when an individual is applying for a mortgage, the bank will want to see a predictable income stream for repayment of the loan. The unpredictable price of unbundled RECs means banks will not accept them as part of the income calculation, meaning unbundled REC purchases have little or no impact on the development of new renewable energy. Arrangements such as a power purchase agreement, on the other hand, give developers a known price for their electricity for the life of the contract, which is very advantageous for financing.

Problems in the U.S. unbundled REC market



Utility green power or green tariff programs

Utility programs may be the most common way for local governments, residents, and small businesses to cover their electricity use with renewable energy. In order to determine if there is additionality, you should ask the following questions about a utility green power or green tariff program:

- Will new renewable generation be built to supply customers signing up for the program? Conversely, will new renewable generation be built if customers do not sign up for the program?
- Where will the renewable generation be located relative to the entity purchasing the REC?
- Is the renewable generation for the program separate from and additional to any renewable generation required for meeting any state Renewable Portfolio Standard?



RECs generated from your own renewable energy

RECs can also be produced by renewable generation owned by your local government, located at local government facilities or located at buildings in your community. In this case, you want to make sure to retain ownership of the RECs (for local government generation) or that RECs are retired on behalf of the customer (for community generation).

If RECs are sold, you cannot claim the emissions benefit of the renewable generation in your accounting, because whoever bought the REC is claiming it in theirs. For example, if you have solar on a local government building that is reducing the metered electricity use for that building, and the RECs are sold, you would have to add in the electricity generated from the solar as if it were grid-generated when calculating the emissions footprint of that building. You should determine who owns the RECs for any on-site renewable energy project before including any on-site renewable energy in your inventory.

Recommended Renewable Energy Strategies

ICLEI USA recommends that local governments focus first on supporting the development of renewable energy within their communities:

- Ensuring a favorable local regulatory environment for the installation of both distributed and utility-scale renewable energy.
 - [SolSmart certification](#) can include a local government implementing specific planning and zoning changes to ease development of renewable energy, including streamlining permitting for rooftop solar, which lowers costs.
- Supporting the development of rooftop solar in your community through:
 - Community education.
 - Rebates and community grant programs.
 - Group-buy solarization campaigns.
- Installing solar on local government facilities and land. Beside encouraging renewable energy, this may yield long-term financial savings for the local government.
- Developing and/or participating in community solar projects, if enabled in your state.
- Advocating to your state Public Utilities Commission or equivalent, state legislature, and regional grid interconnection organization for policies to facilitate the development of more renewable energy. This advocacy is most effective if done in collaboration with other local governments in your state and region.



REC Accounting and Reporting

Purchases of unbundled RECs **cannot be included** in your GHG inventory accounting. RECs purchased through a PPA or utility green power or green tariff program may be included with the following caveats. Where RECs are included in local GHG-emissions accounting:

1. Emissions **must** be reported both *without* RECs (this is called “location-based”), and with RECs (called “market-based”). See the reporting example below.
2. For the market-based calculation, a [residual-mix emissions factor](#)³ should be used for any electricity use not covered by the RECs.
3. For the market-based calculation, RECs can only be applied to electricity emissions, and should not be older than two years. It is not acceptable to use excess RECs to calculate negative electricity emissions or offset emissions from sources other than electricity.

Note: Reporting only emissions without considering RECs (location-based) is acceptable. Reporting only emissions with RECs (market-based) is not acceptable. Requirements 1, 2, and 3 are aligned with the [Scope 2 Guidance](#) for corporate GHG inventories. The *U.S. Community Protocol* and LGO protocol also disallow only reporting emissions with RECs applied. The exclusion of unbundled RECs is a requirement added by ICLEI USA for the reasons explained in this document.

REC Reporting Example

This example illustrates the recommended reporting of a simplified hypothetical inventory where a portion of community electricity use is covered by RECs that meet the requirements for inclusion. This illustration is based on a hypothetical scenario where 1,000,000 kWh of residential electricity and 500,000 kWh of commercial electricity are covered by RECs, the regional eGrid emissions factor is 1,000 kg CO₂e/MWh, and the residual mix emissions factor is 1,100 kg CO₂e/MWh.

As we see, the market-based emissions are higher than what would result from applying the eGrid factor to the electricity not covered by RECs.

Sector	Activity	Location-Based MT CO ₂ e	Market-Based MT CO ₂ e
Residential electricity	1,200,000 kWh	1,200	220
Commercial electricity	800,000 kWh	800	330
Transportation	5,000,000 VMT	1,500	1,500
Total emissions		3,500	2,050

³ Residual mix is the mix of generation remaining after renewable generation associated with RECs sold from the region is removed.



Final Considerations

RECs are a complex topic. ICLEI USA has developed this guidance to help ICLEI Members make informed decisions and apply appropriate accounting for community and municipal operations' greenhouse gas emissions. Greenhouse gas accounting best practices have evolved and will continue to grow over time as scientific understanding and available data change. Therefore, please note, that this guidance will likely continue to evolve, and requirements may be modified or changed in the future.