

Frequently Asked Questions (FAQs): Technical

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Reference materials

Please review all [RE100's guidance](#) to support your review of these FAQs, including:

- The RE100 joining criteria
- The RE100 technical criteria
- The RE100 credible claims paper
- RE100's guidance on how its members are held to account

Please review previous [RE100 publications](#), including:

- Previous RE100 annual disclosure reports
- RE100 market briefings
- RE100's paper on business leadership in the transition to renewable electricity (referred to in this document as 'The RE100 Leadership Paper').

Joining RE100

1. Can any company join RE100?

No. There are eligibility criteria. One of them is having an annual electricity consumption of at least 0.1 TWh. Please see all the requirements in the [RE100 joining criteria](#).

2. Can a company join RE100 if it is already consuming 100% renewable electricity?

Yes, companies which already consume 100% renewable electricity can join RE100. They commit to maintaining this achievement and to having their achievement verified against the [RE100 technical criteria](#) year-on-year through the annual reporting obligation.

3. What are the next steps once a company becomes a member?

RE100 member companies must progress towards their RE100 target in-line with the [RE100 technical criteria](#), and once the target is achieved, maintain achievement year-on-year.

Members have an annual reporting commitment to the initiative which is met through responses to specific questions in CDP's Climate Change Questionnaire.

Members are also encouraged to participate in campaign activities, share knowledge with peers, inspire others to follow, and publicly advocate for the clean electricity revolution.

Setting a target: Scope and exclusions

4. What is included in a RE100 target?

RE100 targets are consumption targets. The goal is to be consuming 100% renewable electricity by a target year. All electricity consumed, coming from both self-generation and purchases from utility/supplier is included in the target.

The target boundary can be defined in terms of the organization's GHG emission boundary (following the GHG Protocol convention). RE100 targets are for the electricity consumption which underlies, according to the Greenhouse Gas Protocol:

- All Scope 2 emissions associated with purchased electricity; and,
- All Scope 1 emissions associated with the generation of electricity by the company, for the company's consumption.

For instance, a CHP plant used to generate electricity for self-consumption is within the scope of the RE100 target. If the electricity produced is sold to the grid for consumption by a third party, it does not fall in the scope of the target.

To consolidate your company's electricity consumption, RE100 recommends using the [Corporate Accounting and Reporting Standard](#) by the GHG Protocol, which will help setting your organizational boundary and operational boundary.

Boundary setting is an important step to consolidate company's electricity consumption data. Organizational boundaries define the operations that company owns or controls and operational boundaries involve identifying electricity consumption associated with its operations, categorizing them as direct and indirect emission sources.

As per this standard, there are two distinct approaches that can be used to consolidate electricity consumption:

- The equity share approach:** Under the equity share approach, a company accounts for electricity consumption from operations according to its share of equity in the operation.
- The control approach:** Under the control approach, a company accounts for 100% of the electricity consumption from operations over which it has control. Further, there are two

approaches within the control approach – Financial control and Operational control. The company has financial control over the operation if the former can direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities. A company has operational control over an operation if the former or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.

Please make sure that you are using the same approach for your GHG inventory and setting your RE100 target.

RE100 reserves the right to require members with significant consumption of electricity in franchise operations not accounted for in scopes 1 and 2 to extend the RE100 target to those operations.

5. Can subsidiary companies join RE100 independently from their group parent companies?

Generally, no. The RE100 commitment must be made by the group parent, for the entire group.

Individual companies with clear and separate branding from their parent companies, a degree of independence in their operations, and annual electricity consumption above 1 TWh/year may be permitted to join the initiative independently of their group parent. This recruiting decision is made by Climate Group on a case-by-case basis.

The subsidiary company must report to CDP independently from its parent company to meet its reporting obligation to RE100.

6. Can any operations or subsidiaries be excluded from RE100 targets?

RE100's materiality threshold provisions (detailed in the [RE100 technical criteria](#)) detail what electricity consumption an organization may exempt from its RE100 target.

Specific operations or business divisions are not inherently eligible for exclusion from the RE100 target. The RE100 materiality threshold provisions are the only provisions which may be applied to exclude electricity consumption from the scope of the RE100 target.

Exclusions made using the materiality threshold provisions must still be reported in the annual reporting exercise.

7. Are leased offices included in the RE100 target coverage? If a landlord has control over the electricity consumption, what is the tenant expected to do?

A RE100 target covers all electricity, purchased or self-generated, by a company as per the consolidation approach company has used (please refer to FAQ 4 to know more about the consolidation approach). The selected consolidation approach (equity share or one of the control approaches) is also applied to account for and categorize direct (Scope 1) and indirect GHG emissions (Scope 2) from leased assets. **If the selected equity or control approach does not apply, then the company may account for electricity consumption from the leased assets under Scope 3.**

Depending on the consolidation approach used, the tenant may need to include electricity consumption in the RE100 target coverage. The electricity consumption by the tenant is usually metered, but in case of unmetered connection, the electricity consumed by the tenant should be estimated based on the portion of area occupied by the tenant in the building. It is recommended to make third party verification for such estimations as a part of their existing GHG audit process or through an independent audit process.

If the landlord purchases renewable electricity for the entire building where the tenant has occupied one or more floors, tenant can claim RE usage provided it has a contractual arrangement with the landlord reflecting the transfer of ownership of RE attributes to the tenant.

8. Is backup generation included in a RE100 target?

No, but it can only be excluded under a specific set of circumstances.

The scope of the RE100 commitment for members that joined after January 2017 includes any electricity produced and consumed by the member.

The electricity production could come from fossil fuels in the form of backup generation, peak shaving generation, prime-power generation, or the electricity generated by a combined heat and power (CHP or cogeneration) system. Backup electricity generation is common across many industries, however true backup generation is rarely in use, and thus does not make a significant difference if a company removes it from the target coverage. This also reduces reporting burden on the company.

Thus, scope 1 electricity consumption from emergency backup generation used only in the case of grid outage can be excluded from the RE100 target. However, RE100 require greening prime power and CHP as well as systems used regularly for construction and peak shaving.

Achieving an RE100 target

9. Is there a deadline to achieve an RE100 target?

Yes. RE100 targets must align with the following minimum ambition:

- 60% by 2030
- 90% by 2040
- 100% by 2050

RE100's current average 100% target year is 2031.

For companies headquartered in South Korea and Japan, the interim targets are recommended but not required.

New members headquartered in those two countries must agree to do active policy engagement. They are asked to publicly call for a numerical target of renewable electricity deployment in the country and for an increase accessibility of renewable electricity for corporate buyers, in order to contribute to the acceleration of the expansion of renewable electricity in those countries.

10. How should we develop our roadmap to increase our consumption of renewable electricity?

RE100 does not advise on how companies should progress towards their RE100 targets. Rather, RE100 provides the rules for how that progress is measured.

A [CDP Accredited Solutions Provider](#) could support you in developing your strategy.

11. Is there a process for verifying the target achievement before any public claims?

Yes. [RE100 verifies](#) whether a claim (either a 100% target achievement or an interim target achievement) is consistent with the [RE100 technical criteria](#) before supporting any public messaging by the member.

RE100's [guidance on how its members are held to account](#) explains how this can happen as part of the annual reporting requirement, or on-demand.

12. What if a company cannot meet its RE100 target in time because of operations in markets without renewable electricity sourcing options?

Some companies may not be able to achieve their RE100 target by their target year. This is especially true for companies that operate in markets where corporate procurement of renewable electricity is challenging.

All markets will develop eventually, but in the meantime, the companies can get “stuck” at a certain percentage of renewables. RE100 considers that the companies sourcing renewables where possible show [leadership](#), even if they cannot reach their 100% target. If no renewable electricity sourcing options are available in a country that is a failure of the market and policy, not of the companies wishing to procure renewable electricity.

RE100 encourages members to report transparently on the barriers they face in their annual reporting. RE100 studies the barriers that members report facing in its annual disclosure reports and uses the information to help develop targeted policy messaging in challenging markets.

13. What is next once a company achieves 100%?

Once a company has achieved its RE100 target, it is expected to maintain the achievement year-on-year. Companies can also go further by developing their procurement portfolio to use more impactful procurement methods. See more information in the [RE100 Leadership Paper](#) and the [‘How members are held to account’](#) document, which outlines impact metrics.

Renewable energy resources

14. Which energy resources does RE100 consider ‘renewable’?

Please review Section Three of the [RE100 technical criteria](#).

15. Does RE100 consider electricity from fuel cells renewable?

It depends on the source of the fuel. A fuel cell itself is not inherently renewable or non-renewable. If it is consuming fuel generated from a renewable source, then the electricity output of the fuel cell can be considered as renewable. A fuel cell consuming natural gas cannot be considered as a renewable energy source.

16. Does RE100 consider electricity from energy storage renewable?

Please review Section Three of the [RE100 technical criteria](#).

17. Does RE100 consider electricity from wave or tidal energy renewable?

Wave energy is derived from wind energy, which RE100 considers renewable. Wave energy has seen little to no commercialization, and RE100 has received little to no interest from companies wishing to report using electricity from wave energy.

Tidal power is a distinct energy resource (not derived from one of the underlying energy resources listed in Section Three of the [RE100 technical criteria](#)). Tidal power is renewable. RE100 has not included it in Section Three primarily because of limited commercialization of the technology, and low interest from companies wishing to report using electricity from tidal energy. RE100 will recognize claims to use of renewable electricity generated from tidal energy if and when they are reported.

18. Is it required to obtain third-party certification of biomass or hydropower sustainability?

No. Third-party certification is RE100's recommended (not required) way to assure biomass or hydropower sustainability. There may be other ways a company can be assured the renewable electricity it has purchased from biomass or hydropower was sustainably generated. RE100 cannot endorse specific proposals for evaluating sustainability, but includes a requirement that corporate buyers should seek assurance of it.

19. Are run-of-river hydropower or hydropower in a pipeline, irrigation canal, or other conduit used primarily for non-energy purposes inherently sustainable?

No. Run of hydropower is not inherently sustainable, and may still involve the construction of a dam. Run-of-river projects may not change the flow patterns throughout the seasons, but their operation may result in significant variations in flow on a daily or even sub-daily basis, such as when used for hydropeaking. Additionally, these projects could affect the ability of aquatic species and larger particles of sediment to move along the length of the river. All these aspects need to be closely assessed and managed. Third-party verification standards for hydropower sustainability include run-of-river hydropower in the scope of the generation facilities they assess for sustainability.

Hydropower in a pipeline, irrigation canal, or other conduit used primarily for non-energy purposes represents a fraction of commercialized hydropower. This type of hydropower is broad in scope, meaning it should not be assumed that all its examples are sustainable.

20. Are legally required environmental impact assessments of impoundments sufficient to assure hydropower sustainability?

Hydropower impoundments in many markets are required by law to undergo environmental impact assessments. RE100 is not able to assess the content of these impact assessments and cannot categorically state whether, on their own, they could assure hydropower sustainability for corporate buyers. The fact that an impoundment has had an environmental impact assessment does not mean that it is sustainable. RE100 would also question whether the public authorities responsible for the impact assessments are appropriate, independent third parties.

The International Hydropower Association (IHA) has published a [how-to guide on environmental and social assessment and management of hydropower](#) for more context.

21. When do members need to have assurance of biomass/hydropower sustainability in place?

RE100 does not consider its language on biomass and hydropower sustainability a change to the RE100 technical criteria in 2022, but rather a clarification of existing guidance. There is, as a result, no guidance on a transition to members being required to seek assurance of biomass and hydropower sustainability.

Reporting

22. What data is requested by RE100 for annual reporting and why?

To understand what disclosures the initiative asks for, please review the relevant [RE100 reporting guidance](#). The [‘How members are held to account’](#) document provides additional context for annual reporting.

RE100 members commit to being publicly held to account on their progress towards their RE100 targets. To this end, RE100 members have an annual reporting obligation to the initiative. This

exercise, the public accountability of the membership, and the insights drawn from reported data are central to RE100's credibility and leadership position.

23. Can a company change the period it reports on?

This may be acceptable. A company may change the twelve months it reports on each year when there are administrative (for example, a merger or acquisition) or best practice (for example, aligning their reporting period with their country's fiscal year) reasons which incentivize a different choice of twelve months to report on in the next reporting year.

In reporting to CDP, the start and end date of the year being reported on are disclosed at the outset of the response, in C0.2. If the start and end in a response differ from those chosen in a previous response, companies should explain why in C5.1b (*Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?*).

24. Can a company request a change to its historic electricity consumption and renewable electricity consumption data reported to RE100?

No. There are limited cases where amendments may be made to CDP responses. Please review CDP's corporate response amendments policy, which details where, within a certain time after the reporting deadline **within the same year**, an amendment can be made, often for a fee. CDP will not amend responses for **previous** years of disclosure.

A member's boundary might change because of a merger or acquisition, suggesting its historic electricity consumption and renewable electricity sourcing will also change. These changes are not reflected in subsequent RE100 annual disclosure reports, which will only reflect disclosures as submitted during previous reporting years. While it is possible to re-state GHG emissions figures for previous reporting years in a **new** CDP response for the purpose of reflecting a change in organizational boundary, re-statements are not possible for electricity consumption or renewable electricity sourcing.

RE100, as an initiative, believes its historic data should reflect the state of the initiative at the time. It is therefore possible that members' own publications may contain historic totals for electricity consumption and renewable electricity sourcing which differ from RE100's annual disclosure reports because those totals reflect different organizational boundaries.

Guidelines and technical criteria

25. Are there guidelines which companies can use to claim consumption of renewable electricity credibly?

Yes.

- The [RE100 technical criteria](#)
- The [RE100 credible claims paper](#) – provides a set of criteria that renewable electricity sources and purchasing mechanisms must meet to support credible renewable electricity usage and delivery claims. These criteria can be applied to a local electricity market regardless of the type of market and the stage of market development. This briefing also provides guidance for verification, reporting, and communication of renewable electricity use.

These guidance documents are globally relevant. Where there is sufficient member demand RE100 will attempt to provide market-specific guidance but with members operating in over 150 markets this is not possible everywhere.

26. Are the technical criteria ever revised? Are the rules subject to change? Why?

Please review Section Two of the [RE100 technical criteria](#).

Credible claims

27. How can renewable electricity be ‘double-counted’ or ‘double-claimed’?

Double-counting and double-claiming can refer to slightly different problems with tracking of renewable electricity.

Double-counting of renewable electricity can refer to the same MWh of renewable electricity being tracked in more than one way. For example, if a generator is in more than one EAC registry, then the renewable electricity is being double-counted.

Double-claiming of renewable electricity refers to two different parties claiming to have used the same MWh of renewable electricity. In the example above, if one party purchases the certificates from system A issued to the generator while another party purchases the certificates from system B issued to the generator, the renewable electricity is being double-claimed. The only way to credibly claim use of renewable electricity in this instance is for one party to purchase the certificates from both system A and system B and to make a single claim.

28. What is a renewable energy contractual instrument?

A renewable energy contractual instrument is a contract between two parties for the sale and purchase of renewable energy attributes.

These attributes may be bundled or unbundled from energy itself.

Markets differ as to what contractual instruments are commonly available or used by companies to purchase energy or claim specific attributes about that energy, but they can include energy attribute certificates (RECs, GOs, etc.) and direct contracts such as Power Purchase Agreements (PPAs).

29. What are the quality criteria for tracking instruments?

To make credible claims about the contractual allocation of attributes, the following criteria must be met:

- Credible generation data
- Attribute aggregation
- Exclusive ownership (no double counting) of attributes
- Exclusive claims (no double claiming) of attributes
- Geographic market limitations of claims; and
- Vintage limitations of claims

For further information on these criteria please refer to the [RE100 credible claims paper](#).

Ways to procure renewable electricity

30. What procurement types are currently recognized by RE100?

Please review Section Four of the [RE100 technical criteria](#).

31. Can we claim the % renewable electricity in the grid?

No. Claiming the grid mix of renewable electricity, in almost all countries or areas, is double-claiming use of renewable electricity which other companies have actively purchased for themselves.

There are very specific cases in which RE100 recognizes claims to use of renewable electricity which are not based on active procurement of it. Complete guidance for them is found in *Section Four: Passive procurement* in the [RE100 technical criteria](#).

32. What about countries or regions with a high percentage of renewables in the grid?

In many countries with a highly renewable generation mix, there are also mechanisms for companies to actively allocate that renewable electricity to themselves. Therefore, active procurement of renewable electricity is expected.

Some countries have a highly renewable generation mix, and also have no mechanisms for companies to actively allocate that renewable electricity to themselves. RE100 recognizes that it is not beneficial to create unnecessary cost or bureaucracy for companies operating in markets where this is the case. This is why RE100 recognizes 'default delivered renewable electricity from the grid in a market with at least a 95% renewable generation mix and where there is no mechanism for specifically allocating renewable electricity'.

Please review *Section Four: 5.2* for complete guidance on the procurement type. It is currently only recognized in Paraguay, Uruguay, and Ethiopia. If you believe this procurement type should be recognized in other countries, please send evidence to re100@cdp.net.

33. Why do we have to buy renewable electricity in Costa Rica when the grid is already over 99% renewable?

In Costa Rica there is an EAC registry in place, meaning it is possible to actively purchase renewable electricity. Therefore, any claim to use of renewable electricity from the grid mix is double-claiming use of renewable electricity that other companies have actively purchased for themselves.

34. What if there is a government mandated renewable electricity target imposed on our company due to our large electricity consumption?

If a renewable electricity target directly applies to your company and you are procuring renewable electricity to meet it, this procurement can be counted for RE100 as long as it meets the rest of the [RE100 technical criteria](#).

35. The Australian Capital Territory (ACT) is 100% renewable; can we count it as renewable?

Not automatically, no.

Australia has an EAC system, meaning active procurement is possible. A passive approach may be credible as outlined in *Section Four: 5.1 Default delivered renewable electricity from the grid, supported by EACs*. Under this approach, passive claims can only be made for the renewable electricity in supplies that is delivered by default, and that is supported by EACs that have been retired on behalf of consumers. The Australian Renewable Energy Target (RET) is legislation that may be the basis for such claims.

Active procurement of renewable electricity is otherwise expected throughout Australia.

36. What about New Zealand? The grid is already 85% renewable, why can't we claim it?

Renewable electricity can be actively procured through several approaches in New Zealand. Therefore, any claim to use of renewable electricity from the grid mix is double-claiming use of renewable electricity that other companies have actively purchased for themselves.

37. In British Columbia, Manitoba and Quebec, grids are over 95% renewable. Why is active procurement of renewable electricity required there?

The entire Canadian grid has a lower than 95% renewable generation mix. There are also ways to actively procure renewable electricity in Canada, including in some of the provinces that have highly renewable grids. Active procurement is therefore expected.

In British Columbia, Manitoba and Quebec, RE100 recommends that corporate buyers:

- Ask suppliers or utilities to develop contracts which actively allocate renewable electricity. Currently, RE100 understands that power contracts in these provinces make no mention of any allocation of energy attributes to corporate buyers. These contracts could give credible claims to use of renewable electricity without implying the additional cost of issuing the renewable electricity generation with EACs.
- Ask suppliers or utilities to issue EACs to the generation they supply. Companies with default contracts (i.e. not specified renewable electricity contracts) could then claim the renewable EAC content in those default supplies as outlined in *Section Four: Default delivered renewable electricity from the grid, supported by EACs* in the [RE100 technical criteria](#).

38. Does RE100 recognize cross-border financial/virtual PPAs?

Only when the financial/virtual PPA is used to make claims to use of renewable electricity which observe market boundaries. See Appendix B in the [RE100 technical criteria](#) for the RE100 market boundary definitions.

39. Can carbon offsets or avoided emission statements be used to meet the RE100 target or for making renewable electricity consumption claims?

No. Offsets and EACs are fundamentally different instruments. The offset represents a quantity of global GHG emissions reduced or avoided by the project compared to a baseline scenario of what emissions would have occurred in the absence of the offset-funded project. Offsets, and their global avoided emissions claim, represent a different instrument and claim from the energy attributes associated with electricity production. Offsets convey tons of avoided CO₂ using project-level accounting, but they do not convey information about direct electricity generation emissions occurring at the point of production, like EACs do.

Thus, an offset does not confer any claims about the use of electricity attributes applicable to scope 2.

Please check section *8.2.4 Relationship to offset credits* in the [GHG Protocol's Scope 2 guidance](#) for more details.

40. How can we report default delivered RE in the US when the utility/supplier does not publish data about REC retirement overlapping the reporting period of the company?

To claim and report default delivered RE in the US, a reporting company needs to have data available corresponding to the reporting period of the company. In the event of data unavailability from the utility/supplier, the reporting company cannot claim and report default delivered RE. In

some circumstances, data is only available for a few months of the 12-month reporting period of the company. In this case, the company can only claim and report RE consumption corresponding to the period for which data is available. It is recommended to work with the utility/supplier to get them to make this data available in a timely manner.

RE100 expected data availability to be an issue when it introduced the default delivered renewables option, and the expectation is that companies will use this as an opportunity to push their suppliers for better data, and refrain from making claims until they have the data to support those claims.

Energy attribute certificates (EACs)

41. What is an Energy Attribute Certificate (EAC)?

An Energy Attribute Certificate (EAC) is a category of contractual instruments used in the electricity sector to convey information about electricity generation to other entities involved in the sale, distribution, consumption, or regulation of electricity. Typically, 1 EAC = 1 MWh of renewable electricity. EACs are issued to renewable electricity generators operating within the same market boundary as the claimant. EACs exist in markets with reliable tracking systems to ensure that no double counting of the attributes takes place. EAC can be sourced bundled as well as unbundled, where a bundled EAC means that it comes with the physical delivery of electricity (such as through a direct PPA), and unbundled means that it comes without the physical delivery of electricity. It is important to note that EACs are not offsets. They are contractual instruments that allow companies to accurately account for their renewable electricity purchases.

42. Which Energy Attribute Certificate (EACs) are currently accepted by RE100?

RE100 accepts any tracking instruments that meet the criteria for contractual allocation of attributes outlined in the [RE100 credible claims paper](#).

RE100 does not maintain a comprehensive list of certificates that meet these criteria. The following Energy Attribute Certificate systems are currently recognized as either fully or partially credible:

- REC (US and Canada)
- GOs (Europe)
- REGO (UK)
- T-REC (Taiwan)
- J-Credit, NFC, GEC (Japan)
- I-REC (International)
- TIGR (International)
- GEC (China)
- NZREC (New Zealand)

43. How can I get RE100 to endorse a particular REC/EAC system?

We have limited resources to verify EAC systems and focus them on government-supported systems where we have significant member demand. If you want to procure an EAC that has not been verified by RE100 please check it against the criteria in the [RE100 credible claims paper](#).

44. Is there a vintage limitation for certificates?

Yes. To make a credible RE claim, the vintage of the energy attribute certificates must be “reasonably close” to the reporting year of the electricity consumption to which it is applied. There is, however, no official consensus on what is “reasonable” in this case, and it may vary between markets. RE100 does not have a specific vintage limitation.

Companies can refer to certification standards, claim verification and recognition programs, and/or GHG inventory reporting systems to ensure that the vintage of generation does not occur too far in advance or after consumption.

The Green-e® standard has a 21-month vintage requirement which RE100 recommends as a reasonable practice. The requirement states that a given twelve-month reporting period of electricity consumption can use vintages of renewable electricity from the six months before the reporting period, the twelve months of the reporting period, or the three months after the reporting period.

45. Can Energy Attribute Certificates (EACs) be used to green electricity generated consumed from a Combined Heat and Power (CHP) plant?

In almost all cases, no. RE100 asks that you consider whether the emissions from the CHP plant are in Scope 1 or Scope 2 of your organization, whether the CHP plant is located on-site or off-site, and, if off-site, whether the electricity from the CHP is being sourced through a direct line or a grid transfer. These factors determine whether it is credible to use EACs to decarbonize electricity sourced from CHP which is using fossil fuels.

EACs are Scope 2 instruments conveying the environmental attributes of grid-delivered electricity. They cannot be used to decarbonize Scope 1 emissions or electricity that is not delivered through the shared electricity grid (e.g., through a direct line).

RE100 does not support decarbonizing electricity from on-site fossil fuels through any approach which does not directly or contractually reduce those fossil fuel emissions, regardless of the connection type and which Scope the emissions from the fossil fuels are in for your organization. A company with on-site CHP is choosing to have fossil fuel generation located on-site for its use, which is not a strategy that RE100 can support as a 100% renewable electricity initiative.

To decarbonize the electricity generated by an on-site CHP plant or an off-site one to which you have a direct line, regardless of which Scope the emissions are in, you must do one of the following:

- switch to a renewable energy system,
- switch to a renewable fuel source such as biodiesel or biogas for on-site power generation,
- purchase green gas certificates (e.g., ERGaR) from the same gas network.

If electricity from a CHP plant is off-site, contractually sourced through a grid transfer, and the emissions are in Scope 2 of your organization, RE100 accepts the use of EACs to decarbonize it. This is not a recommended approach, however. Contractual sourcing of CHP conveys fossil fuel attributes to your organization and procuring EACs from renewable generation does not inherently substitute those fossil fuel attributes.

46. How does RE100 approach the use of biogas certificates in the absence of market-based Scope 1 GHG accounting guidance from the GHG Protocol?

The appropriateness of using market-based instruments such as green gas certificates for Scope 1 emissions inventories is a contested issue. The GHG Protocol is undertaking a process to determine the need and scope for additional guidance building on the existing set of corporate GHG accounting and reporting standards for Scope 1, Scope 2, and Scope 3 emissions. As part of

this process, the GHG Protocol plans to holistically examine the appropriateness of market-based accounting methods across sectors, end-uses, and scopes. CDP intends to align with any revisions to the GHG Protocol standards and guidance resulting from this process, including on the use of green gas certificates for emissions accounting.

While the GHG Protocol process is ongoing, companies are encouraged to make their own judgement of the appropriateness of using green gas certificates in their emissions accounting.

Market boundaries

47. If a company has operations in many countries, is it allowed to source renewable electricity in one country or regionally to cover all of the operations?

No. Please review Appendix B in the [RE100 technical criteria](#).

48. Will RE100 ever recognize claims to use of renewable electricity in one market based on purchasing of renewable electricity in a different market?

This possibility is being studied by RE100. In 2022, RE100 held a public consultation around changes to the RE100 technical criteria which included a proposal to recognize **physical procurement of renewable electricity across a market boundary under certain conditions**.

The proposal was drafted largely in response to grid interconnection infrastructure and contracts for trade of energy and energy attributes in development between Singapore, other ASEAN countries, and Australia.

Ultimately, [the proposal was withdrawn for several reasons](#). Delays to the development of the infrastructure and contracts behind the original proposal meant that RE100 would have recognized a form of renewable electricity procurement several years before it could credibly be used. This would introduce a risk of RE100 receiving non-credible reporting. The credibility risk was compounded by wide misunderstanding of the proposal by RE100 member companies and other stakeholders, many of whom interpreted the proposal as a flexibility mechanism which could ignore the physical constraints of markets and electricity grids wherever renewable electricity is expensive or unavailable. The more important conclusion, however, was that, on a balance, it would not be helpful for RE100 to be prescribing or incentivizing particular actions at this stage and in this context. On the contrary, the conditions set by RE100 could potentially limit the development of vitally important projects, infrastructure, and associated contracts.

For RE100 to recognize procurement of renewable electricity across a market boundary, there will need to be conditions, namely: (1) physical cross-border transmission of electricity, (2) consistent accounting of energy attributes in the markets of origin and destination, and (3) mutually recognized instruments and contracts. RE100 cannot currently prescribe the detailed mechanisms for meeting these conditions.

RE100 will continue to study developments in key markets which could eventually give companies credible claims to use of renewable electricity generated outside of those markets.

49. What should a company do when renewable electricity sourcing options are not available in a country of operation?

RE100 recognizes that procuring renewable electricity in some markets is challenging, and sometimes impossible.

As leaders in renewable electricity procurement, RE100 members are encouraged to engage with local suppliers/utilities or policymakers and aggregate demand with their peers to open markets to voluntary procurement of renewable electricity. Members can also explore generating their own renewable electricity.

RE100 is happy to discuss opportunities to connect members in regions where RE is particularly challenging.

The electricity sector is tending towards liberalization in most markets (though some markets display the opposite), meaning that barriers to voluntary procurement are expected to be lowered over time.

50. Does RE100 have subnational market boundaries? For example, is ERCOT (Electricity Reliability Council of Texas) considered as a separate market by RE100?

No, RE100 does not have sub-national market boundaries. ERCOT counts as part of the USA and Canada market for RE100. RECs from Texas can be used to cover operations in the rest of the US and vice versa. This does not mean that companies should not consider these sub-national market differences in their procurement, only that RE100 does not have restrictions around this. Many companies follow more local procurement strategies to ensure that their renewable electricity that they are procuring influences the electricity mix that they are consuming from their local grid.

51. What about islands which are part of a country but do not share the same electricity grid (e.g., Puerto Rico, an unincorporated territory of the USA). Do we have to buy renewable electricity from the specific island where we have consumption?

RE100 does not have subnational market boundaries and thus would allow a claim for a REC from the mainland USA being used for consumption in Puerto Rico, if the rules of the REC system allow this. However, we also recognize that purchasing a REC in the mainland USA will have no impact on the electricity mix in Puerto Rico and thus don't recommend this as best practice.

52. What about nations made up of many islands (ex. Indonesia)? Do we have to buy renewable electricity from the specific island where we have consumption?

RE100 does not have subnational market boundaries and thus a company would not need to buy from the same island where their consumption is in Indonesia. We recommend, however, that companies take into consideration the impact that their renewables purchases will have on their physical electricity supply.

53. Does RE100 count AIB ex-domain cancellations?

The 2022 [RE100 technical criteria](#) consider countries which are not AIB members to be distinct markets for renewable electricity. Companies may not procure renewable electricity from AIB countries canceled ex-domain outside of AIB, except for in the microstates and areas detailed in Appendix B of the RE100 technical criteria. AIB does not support ex-domain cancellations within AIB. RE100 is aware that it is still not possible for consumers to cancel GOs in all AIB member countries and in the case where a consumer unable to cancel in the AIB country of consumption and forced to cancel in another AIB country RE100 still accepts that renewable electricity claim.

RE100 does not accept AIB ex-domain cancellations for consumption outside of the RE100 European market boundary. The definition of the RE100 European market boundary is changing on 1 January 2024. Companies should review Appendix B of the technical criteria to fully understand the impact on procurement resultant from this change.

54. Can I source renewable electricity from mainland China for operations in Taiwan, China?

The political and legal statuses of Taiwan, China are contentious issues. However, when it comes to the electricity market and as far as the RE100 team is aware, there is no grid-interconnection between Taiwan, China and mainland China. In addition, relevant laws governing the electricity

sector are distinct in both regions. Taiwan, China has its own RE market instrument known as T-REC, which is a valid RE market instrument for RE100 reporting. Additionally, Chinese Green Energy Certificate (GEC) are developed to be used only in mainland China.

Therefore, for RE100 you must use local market instruments such as T-RECs in Taiwan, China.

55. Can I source renewable electricity from mainland China for operations in Hong Kong?

Yes. Hong Kong is politically part of mainland China. It also imports around 25% of its electricity from mainland China. It is therefore part of the same market for renewable electricity as the mainland.

There are utilities in Hong Kong which issue EACs to local renewable electricity generation, meaning that companies operating in Hong Kong can procure renewable electricity locally. This may be a higher-impact approach to procurement than purchasing from the mainland.

56. Will the UK be excluded from the European market boundaries as a result of Brexit? Should UK & EU be treated as two separate markets?

The EU and Ofgem no longer mutually recognize renewable electricity accounting instruments in the trade of electricity between the EU and the UK. The UK is a distinct market for renewable electricity.

The definition of the RE100 European market boundary is changing on 1 January 2024. Companies should review Appendix B of the [RE100 technical criteria](#) to fully understand the impact on procurement resultant from this change.

Reporting to RE100 indicates that, overwhelmingly, claims to use of renewable electricity in the UK are already based on generation of renewable electricity in the UK. Similarly, almost no renewable electricity generated in the UK is used for claims to use of renewable electricity outside the UK.

57. When will Singapore and Malaysia will be considered one market for renewable electricity?

Singapore and Malaysia currently do not form a single market for renewable electricity. A market for renewable electricity is described by an area in which:

- The laws and regulatory framework governing the electricity sector are consistent between the areas of production and consumption;
- Electricity grids are substantially interconnected, indicating a level of system-wide coordination; and
- Utilities/suppliers recognize each other's energy attributes and account for them in their trade of energy and energy attributes.

While the members of ASEAN (Association of Southeast Asian Nations) have signaled that they intend to form a single market to facilitate trade of renewable energy market instruments, the ambition to form a joint market is not sufficient to consider it joined. Similarly, there are discussions of importing more renewable energy to Singapore through new grid infrastructure, but it is not yet built.

58. I-RECs are no longer issued in the Russian Federation. What can we do?

RE100 expects that markets will generally tend towards lowering barriers to procurement over time. It is possible, however, for markets to raise barriers.

The cease in issuance of I-RECs in Russia poses a new barrier to procuring renewable electricity credibly there. Companies operating in Russia must find alternatives for procuring renewable electricity within the country. RE100 has received reporting from companies suggesting contracts with suppliers in Russia are available which supply renewable electricity from generators not on the I-RECs registry, meaning it may still be possible to procure renewable electricity in Russia.

It is not acceptable for companies to purchase renewable electricity generated outside of Russia for claims to use of renewable electricity in Russia as a 'second best' option now that I-RECs are no longer available there. Claims to use of renewable electricity must reflect the realities in the markets in which those claims are made. Similarly, there is no justification for changing the rules for credible claims in the face of world events.

Where it is challenging to procure renewable electricity, RE100 asks its members to report on the barriers they face in C8 in the CDP Climate Change Questionnaire.

Re-powering of projects

59. How should we calculate fair market value?

RE100 cannot itself advise how to calculate fair market value, and would recommend working with a local market expert to assess fair market value. The RE100 guidance uses the concept of 'fair market value' to define principles for considering a renewable generator re-powered, but cannot include a methodology for how fair market value should be calculated.

Leadership and impact

60. Are the RE100 technical criteria by themselves leadership criteria?

No, the [RE100 technical criteria](#) are only part of a leadership criteria. They ensure the exclusive and credible usage and delivery claims for renewable electricity consumption, which is articulated in the RE100 technical criteria and the RE100 credible claims paper.

RE100 introduced a focus on leadership in its 2022 update of the technical criteria by specifying a commissioning or re-powering date limit for renewable electricity purchases. However, it is important to note that in some markets, this limit is not considered leadership, but rather a minimum best practice in corporate procurement of renewable electricity.

More broadly, the leadership aspect of RE100 is its global scope in both procurement and policy engagement. RE100 members set targets to consume 100% renewable electricity as impactfully as possible, requiring them to act in every market in which they operate. In challenging markets, RE100 members are expected to contribute to the liberalization of those markets.

The leadership dimensions presented in the [RE100 Leadership Paper](#) are provided as options for companies that have begun actively sourcing renewables and now seek to maximize their leadership in driving forward the clean energy transition.

61. How can I increase the impact of my renewable electricity purchase?

RE100 identifies different leadership dimensions in corporate procurement of renewable electricity, including an exploration of impactful procurement, in the [RE100 Leadership Paper](#). There are diverse ways to consider impactful procurement, with no consensus on how to evaluate it through various lenses (for example, through an environmental justice lens). RE100 chooses to emphasize procurement which contributes to changing the grid as central to impactful procurement. More

specifically, RE100 emphasizes additionality. Additionality is closely aligned with the initiative's aim to accelerate the transition to low-carbon grids. Additionality is also an interpretation of impactful procurement which currently has relevance in all markets. Additionality in the context of impactful procurement of renewable electricity is procurement which adds new renewable electricity capacity to grids which would not have been added to the grid without that procurement.

Other forms of impactful procurement which aim to change the grid exist, however. They are innovative and emerged after RE100 published its Leadership Paper. They are not relevant in all markets because they are only accessible in the most developed and liberalized electricity markets. RE100 is considering ways to recognize their use, but cannot recognize them in the RE100 technical criteria, which must stay globally relevant. Two of these approaches are described below.

Renewable electricity must be procured from the same market it is being used to decarbonize consumption in for a claim of use of renewable electricity to be credible: this is RE100's market boundary criterion. However, location-matching of consumption and generation can be more precise. Similarly, time-matching can also be more precise than RE100's vintage limitation (which only states that the vintage of renewable electricity generation should be 'reasonably close' to the consumption it is being applied to – without defining 'reasonably close'). EACs with a timestamp are becoming more available, along with hourly, or half-hourly metering, to facilitate precise time-matching of consumption of electricity and procurement of renewable electricity. When location-matching and time-matching are done precisely, they may help develop a more robust renewable grid. This approach to procuring renewable electricity has a high impact on the grid.

Another approach to procuring renewable electricity with a high impact on the grid is to precisely time-match procurement of renewable electricity with peak emissions from fossil fuel electricity generation (i.e., procure renewable electricity at the time of the highest locational marginal emissions on the grid¹). This approach to procurement is intended to optimize emissions reductions by displacing fossil fuel generation. To maximize global emissions reductions, the approach is best used on the dirtiest grid. Organizations which use this approach therefore may deploy it outside of the markets in which they operate. While this might result in higher emissions reductions for the expenditure on procurement than procuring in-market, the organization loses its claim to having itself used renewable electricity. An organization purchasing renewable electricity using this approach outside of the markets in which it operates should therefore view the purchases as the organization's investment in global emissions reductions, and not as part of the organization's procurement of energy for its operations.

Uncertainty around other impact measures does not diminish their importance in any way and companies should consider those metrics in addition to effects on the grid mix.

62. Does RE100 have requirements on the age / commissioning date of the power plant from which the electricity is purchased? Is RE100 looking into the topic of additionality? Does sourcing renewable energy from older facilities have the same impact?

RE100 will introduce a commissioning or re-powering date limit for purchases of renewable electricity starting 1 January 2024. Contracts with operational commencement dates before this date are grandfathered, and will be recognized until their expiry. RE100 has also specified exempted procurement types and a threshold amount of procurement which may ignore a commissioning or re-powering date limit. The complete guidance is found in the [RE100 technical criteria](#) (Section Five: 2.2).

¹ Locational Marginal Emissions (LME) is a metric that measures the tons of carbon emissions displaced by 1 MWh of clean energy injected to the grid at a specific location and a specific point in time.

Purchases from older projects have less direct impact on the energy transition. RE100 has studied commissioning or re-powering dates of projects purchased from since the 2021 disclosure cycle, and they will continue to be an important area of study in disclosure.

For broader discussions of impactful procurement, please see the [RE100 Leadership Paper](#) and FAQ 61: 'How can I increase the impact of my renewable electricity purchase?'

63. Is there additional recognition for companies that purchase from newer facilities?

The member progress table in the [2022 annual disclosure report](#) (published in January 2023) shares how much of members' sourcing of renewable electricity came from facilities commissioned in the last 5, 10, and 15 years, **only where those members submitted public disclosures to CDP**. RE100 is also exploring how it can recognize members' procurement from new facilities through RE100's Leadership Awards. Other standards and recognition programs, particularly in the U.S., only recognize voluntary purchasing from facilities built or repowered in the last 15 years, including the Green-e® Standard and the U.S. EPA's Green Power Partnership.

Please review [RE100's guidance on how its members are held to account](#) by the initiative for more details on what is made public about members in RE100 annual disclosure reports.

CONTACT

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