

# Open consultation around proposed changes to the RE100 technical criteria

**April 2024**

## Introduction

RE100 commits to reviewing the RE100 technical criteria every two years. This process allows the campaign to recognize shifts in markets, new and credible renewable electricity (RE) procurement, and to ensure that the criteria support RE100's mission. RE100 last made changes to the RE100 technical criteria in 2022.

RE100 is bringing four proposals for the criteria in 2024. They are refined from their original forms which were discussed with RE100 companies in closed door town hall meetings in February 2024. A summary of the town hall discussions is shared on pages 13-15.

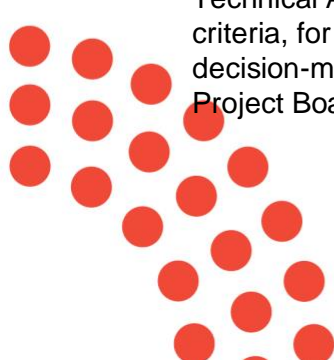
## Awaiting changes to the GHG Protocol

The Greenhouse Gas (GHG) Protocol is undergoing a stakeholder review process that may result in significant changes to GHG emissions accounting and reporting. The RE100 technical criteria are closely linked with the GHG Protocol given that market-based scope 2 emissions and RE use claims are based on the same contractual instruments and data.

In 2024, RE100 is not proposing new location matching (market boundaries) or time matching (vintage) requirements because these may be considered for the Scope 2 Quality Criteria. Rather, the proposals are contextual to RE use claims and fit into the themes of 'instrument features and policy context' discussed in Chapter 8 in the current Scope 2 Guidance. The 15-year facility age limit introduced in 2022 is an example of a change to the technical criteria RE100 has previously made using this approach.

## RE100's governance

RE100's strategy and performance are overseen by a Project Board, comprising representatives from the executive management teams of both Climate Group and CDP. The Board is responsible for confirming the strategic direction and approach of RE100, including membership criteria, the RE100 technical criteria, and RE100's regional partnerships. The Board is advised by two groups: the RE100 Advisory Committee and the Technical Advisory Group (TAG). The TAG is responsible for defining the RE100 technical criteria, for formal approval by the Project Board. The RE100 Project Board is the only decision-making body in RE100. Both the Advisory Committee and the TAG advise the Project Board.



## How to participate

Use [this form](#) to participate in the consultation. You are required to disclose potential conflicts of interest (financial or non-financial). Further information is detailed in the competing interest guidelines in the annex on page 17.

The consultation will close on **27 May 2024** so that **feedback can be discussed in the June RE100 TAG meeting**.

The consultation covers four topics (detailed proposals starting on page 3):

- **Criteria on co-firing or mixing of renewable and non-renewable fuels**
- **Requiring energy attribute certificates (EACs) for all RE purchasing from the grid in markets where EACs are available**
- **A call for evidence to relax the original off-taker exemption to the facility age limit**
- **Inviting proposals to change Section Four of the technical criteria**

## How your feedback will be used

**All submissions will be made publicly available by RE100 along with information related to the submitting organization (including its name).**

Names and email addresses associated with the submission will not be disclosed, but RE100 will not screen the remainder of the submissions for private, confidential, or identifying information. RE100 will not consider feedback submitted anonymously in name or affiliation.

# 1. Criteria on co-firing or mixing of renewable and non-renewable fuels

## Introduction

The RE100 technical criteria currently recognize RE use claims derived from sustainable biomass or, more generally, renewable fuels (including Power-to-X (PtX) fuels, e.g. hydrogen or ammonia, manufactured from renewable resources) without cofiring/mixing criteria. This means it is possible (for example) to purchase the renewable fraction of the electricity generated by a coal plant that co-fires 5% sustainable biomass or a fuel cell consuming 50% renewable hydrogen to meet a RE100 target.

Co-firing or mixing of renewable and non-renewable fuels may create climate risks for several reasons:

- It finances generators that produce electricity mainly derived from fossil fuels, and may extend their lives, lock in fossil fuel emissions, and divert finance from purely renewable electricity generation technologies.
- Co-firing biomass or ammonia with coal can result in **worse** lifecycle emissions compared with burning coal alone (NRDC, 2021, TransitionZero, 2023).
- Using PtX fuels to generate electricity diverts from their much-needed use in decarbonizing hard-to-abate processes that cannot be electrified, and is highly wasteful given that up to 75% of the input electricity is lost in the round-trip conversion. An analysis (TransitionZero, 2023) shows that the emissions abatement cost of decarbonizing power generation with 20% ammonia co-firing with coal is **four times higher** per MWh compared to using wind or solar generation to displace coal.

Co-firing and PtX fuels feature prominently in several countries' national fossil fuel phase-out plans. However, some of these plans have poor safeguards on their lifecycle impacts (by not accounting for land and/or fossil fuel and industrial emissions in biofuel production, or fossil fuels in PtX fuel production).

It is RE100's view that the technical criteria could introduce new requirements to mitigate the above risks and send a clearer signal to markets and policymakers for a more rapid and wholesale transition to a low-carbon energy system. RE100 believes a technology-specific approach should be considered. Biomass/ammonia coal co-firing is particularly important to several national energy policies, and there is a depth of research highlighting its risks. However, general co-firing or mixing criteria should also be considered by this consultation given that natural gas is also a candidate for co-firing, and can have similar lifecycle emissions comparable with those of coal when methane fugitive emissions are accounted for. Some caution may be warranted around creating rules that impact partially renewable hydrogen or ammonia that is mono-fired or used in fuel cells. Renewable hydrogen and ammonia have roles in a net zero energy system, and RE100 only wishes to see these products used effectively (i.e., not in electricity generation). Because they are produced in very small quantities today, RE100 is wary of creating unintended consequences for their growth.

## Proposals

The criteria could:

Proposal	Description
A	Exclude all RE generated by co-firing with coal; or
B	Exclude all RE generated by co-firing or mixing with fossil fuels; or
C	Only consider thermal or fuel cell generators as re-powered once they start using 100% renewable inputs (i.e. a change to Appendix C).

These proposals would only affect RE purchasing from the grid. They would not impact self-generation or RE purchasing from non-grid sources. RE100 companies that consume self-generated electricity must already transition this consumption to 100% RE by virtue of having an RE100 target.

These binary approaches are proposed instead of more specific emissions thresholds. While some frameworks (e.g. the EU taxonomy for sustainable activities and RFNBO Directive) propose emissions thresholds for electricity generation and PtX fuels, these may be difficult to generalize and implement globally. Similarly, biomass GHG emissions accounting may change significantly. Therefore, RE100 is not proposing any criteria on emissions rates as there is a risk they will be difficult to follow or become outdated in the short term.

### Impacts of each proposal on different uses of renewable fuels

Proposal	Co-firing with fossil fuels	PtX fuel mono-fired or used in fuel cell
A	No RE can be purchased from any generator co-firing a renewable fuel with coal.	RE can be purchased from the renewable content of the fuel <b>(equivalent to current technical criteria)</b> .
B	No RE can be purchased from any generator co-firing a renewable fuel with a fossil fuel.	RE can only be purchased if the renewable content of the fuel is 100% and the generator uses that fuel exclusively.
C	Generators retain their original commissioning date always, even if increasing their renewable inputs over time, until the renewable inputs reach 100% and the generators are considered re-powered by RE100.	Generators retain their original commissioning date always, even if increasing their renewable inputs over time, until the renewable inputs reach 100% and the generators are considered re-powered by RE100.

### Justification

Criteria on RE procurement from co-firing or mixing of renewable and non-renewable fuels will help ensure renewable fuels are used effectively and mitigate risks of higher lifecycle emissions and fossil fuel lock in associated with their ineffective use.

## Impact

It is difficult to estimate the impact of each of these proposals. RE100 data does not currently capture whether purchased RE was a product of co-firing or mixing with a non-renewable fuel, what the non-renewable fuel was, or the co-firing or mixing share.

In 2023, RE100 companies reported roughly 4 TWh of RE purchasing with a biomass technology type and roughly 5 TWh of RE purchasing with a technology type that was simplified to a mix that included at least some biomass. It is not known how much production of electricity derived from fossil fuels is associated with these volumes. Only 17 GWh of purchased RE was reported as generated from renewable hydrogen, and it is not known if this was produced by generators consuming partially renewable hydrogen.

## Implementation

A change to the technical criteria would be implemented immediately, with RE100 companies held to account on it in the first reporting period they disclose on following the publication of the new criteria, and without grandfathering. This is reasonable, because RE100 companies' purchasing from biomass is almost exclusively done through short-term procurement arrangements (retail contracts with suppliers and unbundled EACs), meaning that these arrangements can be quickly modified or replaced if necessary.

## Changes to RE100 company disclosures

- RE100 companies may need to disclose any fossil fuels that were co-fired with sustainable biomass, and what the co-firing share was.
- RE100 companies may need to disclose the renewable share of the PtX fuels that generated RE that was purchased.

RE100 expects this data can be collected today. It should be possible to engage directly with the generator from which RE is purchased, or with the EAC registry that a generator is registered with to collect this data. Any RE use claim derived from hydrogen or ammonia must already demonstrate the hydrogen or ammonia is renewable and could go further by establishing the overall renewable share of the fuel that was consumed.

## **RE100 will value feedback that comments on the accessibility of this data in different markets and procurement scenarios.**

If only the re-powering definition change is adopted, no changes to RE100 companies' disclosures is required.

## 2. Requiring EACs for all RE purchasing from the grid in markets where EACs are available

### Introduction

Energy attribute certificates (EACs) are standardized, tradable instruments issued to a unit of generation (generally, one MWh) which are used to aggregate, track and convey property rights to energy attributes. If an EAC is issued, only the energy user that redeems or retires the EAC or on whose behalf the EAC is redeemed or retired can claim to be using the electricity the EAC was issued to.

EACs occupy the most precise and standardized category of market-based instruments in the GHG Protocol Scope 2 Guidance<sup>1</sup>. In addition to allocating property rights to energy attributes, they perform an essential function in RE procurement by making information more easily accessible. EACs allow an energy user to express and disclose on its preferences in RE procurement, such as selecting specific technologies or facilities commissioned after a certain date.

RE100 currently recognizes any [credible RE use claim](#), which is possible using a contractual instrument other than an EAC that allocates property rights and performs the tracking function. However, other contractual instruments are not standardized, and may not convey information to energy users as efficiently or transparently as EACs.

[One of the six RE100 Global Policy Messages is for policymakers to support a credible and transparent system for issuing, tracking, and certifying competitively priced EACs.](#) The RE100 technical criteria could more directly advance this Global Policy Message by ceasing recognition of certain claims that are not supported by cancellation of EACs by or on behalf of energy users.

### Proposal

RE100 is proposing to require EAC cancellation by or on behalf of the energy user for all RE purchasing from the grid. This requirement would only exist in markets with one or more established EAC registries (defined as the presence of a public EAC registry or an I-RECs or equivalent private registry).

In markets where EAC systems are not established, claims based on other contractual instruments will continue to be recognized.

Claims relating to self-generation (i.e. not purchasing from the grid) or purchasing from a non-grid source (e.g. purchasing from an on-site facility or from an off-site facility to which there is a direct line) will continue to be recognized based on other contractual instruments.

**RE100 will value feedback with examples of RE purchasing from the grid in markets with established EAC systems, that does not use EACs to track the purchasing, and cannot possibly require EACs to be issued to the underlying generation in the future.**

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<sup>1</sup> [GHG Protocol Scope 2 guidance \(Table 6.3\)](#)

## Justification

This technical criteria change would increase both the transparency and credibility of claims made by RE100 companies in markets with established EAC systems. It would also be expected to produce more detailed reporting by RE100 companies: EACs are a tool to increase companies' access to information to disclose. For example, RE100 could expect to associate more RE purchasing done by RE100 companies with a commissioning date.

The change is also one which directly advances one of the six RE100 Global Policy Messages.

It is possible the transparency benefits of the change could be somewhat negated by the portfolio approach used by energy suppliers or consultants that redeem or retire EACs on behalf of broad customer groups without forwarding the information tracked by the EACs to customers. This limits the data available to the energy user, which might only be told it has used 'renewable' energy and therefore cannot disclose in detail.

## Impact

Reporting by RE100 companies in 2023 indicates that at least 82% of the volume of RE they purchased was issued with an EAC. Up to 18% of the volume of RE purchased was not issued with an EAC.

See overleaf for more detailed analysis on non-EAC claims in markets that do offer EACs (which would stop being recognized by the technical criteria).

## Implementation

A change to the technical criteria would be implemented immediately, with RE100 companies held to account on it in the first reporting period they disclose on following the publication of the new criteria, and without grandfathering. This is reasonable because RE100 expects any impacted supplies should quickly be able to register the generators in those supplies with EACs. For example, it typically takes around five weeks for a generator to apply to join an I-RECs registry before certificates start being issued.

## Changes to RE100 company disclosures

No changes to disclosure would be needed to implement this proposal.

## RE100 companies' use of EACs for their claims

Across 220 TWh of RE purchasing reported by RE100 companies to CDP in 2023, 82% mentioned an EAC, and up to 18% did not. Cells highlighted in yellow below show the share of purchasing in each of the top 24 largest RE100 markets that could stop being recognized by the technical criteria.

Market	Total RE purchasing (GWh)	Uses an EAC	Does not use an EAC	Unclear if EAC was issued	EAC system available
North American single market	88,725	96%	3%	1%	US-REC
European single market	65,053	81%	17%	2%	GO, REGO
China	21,678	63%	37%	0%	GEC, I-REC
Japan	8,089	64%	34%	2%	J-Credit, NFC, GEC, I-REC
Brazil	5,775	45%	42%	12%	I-REC
Republic of Korea	5,209	22%	49%	29%	Korean national EAC system, TIGR
Mexico	5,113	53%	43%	4%	I-REC, CEL
India	3,082	62%	24%	14%	Indian REC, I-REC
Vietnam	2,681	100%	0%	0%	I-REC
Australia	1,912	95%	4%	0%	LGC, I-REC
Malaysia	1,531	98%	2%	0%	I-REC
Thailand	1,335	92%	8%	0%	I-REC
Turkey	1,288	96%	3%	1%	I-REC
Israel	1,247	100%	0%	0%	I-REC
Chile	1,077	42%	29%	29%	I-REC
Taiwan, China	1,067	99%	1%	0%	T-REC
Indonesia	730	95%	4%	2%	I-REC
Philippines	681	38%	62%	0%	I-REC
Argentina	549	32%	59%	9%	I-REC
South Africa	532	91%	7%	1%	I-REC, zaREC
Colombia	459	95%	5%	0%	I-REC
Peru	390	91%	2%	6%	I-REC
Singapore	225	64%	25%	10%	I-REC
United Arab Emirates	153	80%	20%	0%	I-REC



### 3. A call for evidence to relax the original off-taker exemption to the facility age limit

#### Introduction

The RE100 technical criteria specify a fifteen-year commissioning/re-powering date limit on RE purchasing from the grid. Some purchasing is exempt from the limit, including purchasing done through ‘long-term, project-specific contracts held by corporate buyers as the original off-taker’.

The exemption recognizes that some companies sign long-term agreements with new projects which are instrumental to the financing of those projects.

RE100 has not defined ‘original off-taker’ more precisely than:

*“The first company to buy and use the renewable electricity generated by a project upon its commissioning or re-powering.”*

RE100 has been approached with hypothetical procurement arrangements and been asked whether companies using them could qualify as original off-takers. Common elements in these proposals include:

- Off-take agreements that start after a project has operated as a merchant power plant
- Off-take agreements that are not signed before project commissioning

These conditions imply that the corporate buyer is not the original off-taker, since another company could potentially claim to be using RE from the project first. However, RE100 is open to receiving evidence that long-term off-take agreements signed after project commissioning, or which start after a merchant period, are important enough to the financial viability of the project to qualify for exemption from the commissioning/re-powering date limit.

#### Proposal

RE100 is proposing to define ‘original off-taker’ as follows:

*The first company to buy and use the renewable electricity generated by a project upon its commissioning or re-powering (the first vintages of generation after the commercial operations date – COD), where the off-take agreement was signed before commissioning or re-powering, and where the project did not operate as a merchant power plant for any time prior to the start of the company’s off-take.*

RE100 is inviting feedback from energy users, developers, energy suppliers, or other stakeholders around whether the commissioning/re-powering date limit exemption should include project-specific contracts which start after projects have been operating as merchant power plants or which are not signed before project commissioning.

#### Justification

A more complete definition of an original off-taker will reduce uncertainty in interpreting the technical criteria and ensure that any claims exempted from the commissioning or re-powering date limit are made exclusively through high-impact contracts.

#### Impact

The proposed clarification will not have any impact on RE100 companies’ procurement. RE100 has already deferred to the strictest interpretation of the existing original off-taker definition in its technical support since publication of the 2022 criteria (meaning that a merchant period disqualifies a company from being the original off-taker).

However, if a consultation reveals that the original off-taker should be defined differently and include a wider range of procurement scenarios, a new definition could result in an additive change to the technical criteria, with more procurement exempt from the commissioning/re-powering date limit.

### Implementation

- If the outcome is a confirmation that merchant periods disqualify original off-taker claims: No change to the technical criteria.
- If the outcome is that a limited merchant period should be allowed before off-take: The revised facility age limit exemption will replace the existing one immediately.

### Changes to RE100 company disclosures

- **If the outcome is a confirmation that merchant periods disqualify original off-taker claims:** No change to the technical criteria and no changes to disclosure needed.
- **If the outcome is that a limited merchant period should be allowed before off-take:** New disclosures would be required for exempted supplies to be identified. These disclosures would be identified based on the consultation feedback.

## 4. Inviting proposals to change Section Four of the technical criteria

### Introduction

RE procurement types recognized by RE100 are defined in Section Four of the [RE100 technical criteria](#). These are broad, globally relevant categorizations for RE procurement.

RE100 companies use these categories in their annual reporting to the initiative through CDP. It has been RE100's experience in past disclosure cycles that whenever companies use a write-in option to classify their procurement, a standard option from the technical criteria could have instead been chosen.

However, RE procurement evolves quickly. RE100 is open to the possibility that some credible RE procurement might not be able to be assigned to one of the existing RE100 procurement types, or that existing procurement type definitions could be improved.

### Proposal

RE100 is inviting proposals for modifications or additions to Section Four in the technical criteria. Proposals must:

Include a detailed definition of the new or revised procurement type, with distinctive defining characteristics which make it unique from other procurement types;

- If a modification to an existing one or a proposal to separate an existing one into multiple types, justify why the existing one is not suitable;
- If new, justify why it does not fall under an existing definition;

Provide specific example(s), by market, with all necessary information to review the proposed procurement type.

**Proposals that redefine what is [credible](#) (e.g., removal of market boundaries) will not be considered.**

### Justification

Changes to the procurement types recognized by RE100 could allow more useful study and characterisation of RE procurement and associated impact.

### Impact

Neither additive nor subtractive. This is not a 'change' to the technical criteria that impacts RE100's recognition of claims, but only how claims should be classified and reported on. No existing or future procurement is expected to be impacted.

### Implementation

Immediate, with new procurement types available to choose from in the next CDP disclosure cycle after publication of revised criteria.

### Changes to RE100 company disclosures

New or reclassified disclosures may be required if procurement types are redefined.

## Section Four of RE100 technical criteria

Please see the [technical criteria](#) for detailed definitions and supporting guidance for each procurement type.

### **1 Self-generation from facilities owned by the company**

### **2 Direct procurement (contracts with generators)**

2.1 *Physical power purchase agreement (physical PPA)*

2.2 *Financial power purchase agreement (financial/virtual PPA)*

### **3 Contracts with electricity suppliers**

3.1 *Project-specific supply contract with electricity supplier*

3.2 *Retail supply contract with electricity supplier*

### **4 Unbundled procurement of energy attribute certificates (EACs)**

### **5 Passive procurement**

5.1 *Default delivered renewable electricity from the grid, supported by EACs*

5.2 *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*

## Summary of town hall feedback

The position papers presented in this consultation brief are revised from their original forms which were presented in the February 2024 technical criteria town halls.

	19 Feb 2024	20 Feb 2024
RE100 companies that attended	94	63
RE100 companies that gave proposal feedback	7	7

### Criteria on co-firing or mixing of renewable and non-renewable fuels

- Four members spoke in the town halls on this proposal.
- One member raised concern that this would penalize on-site CHP.
  - **Initial comment from RE100:** The rules now being consulted on only cover RE purchasing from the grid (not self-generation or on-site/private wire purchasing). **Realize, however, that the RE100 target in itself already requires you to decarbonize your consumption from on-site CHP.**
- One member proposed a minimum co-firing share as an alternative.
- One member mentioned some biomass plants use fossil fuels to start combustion.
- One member suggested requiring third-party certification of sustainable hydropower and biomass as an alternative.
  - **Initial comment from RE100:** It is unclear to us whether third-party certified sustainable biomass is any less likely to subsequently be co-fired with a fossil fuel.
  - **Initial comment from RE100:** Third-party biomass sustainability certification is also widely unavailable.

### Requiring EACs for all RE purchasing from the grid in markets where EACs are available

- Eight members spoke in the town halls on this proposal.
- Some members raised concerns around the increased admin burden and suggested a "trusted region" system as an alternative.
  - **Initial comment from RE100:** It is unclear what is meant by a trusted region system. It is evident that in some of the largest markets, where EAC registries have existed for decades, high volumes of claims are made without certification through EACs.
- One member stated that while they agreed in concept with the proposal, they often don't have visibility on the EACs underpinning their retail supply contracts.
  - **Initial comment from RE100:** This proposal does imply a data collection effort. However, this effort is already required by the existing facility age limit. The work done by RE100 companies to disclose on facility age will likely already yield the information about whether a purchase was tracked with EACs or not.

- One member questioned whether this requirement would extend to companies making claims to use of renewable electricity generated by projects which they own.
  - **Initial comment from RE100:** The proposal is only to apply the rule to RE purchasing from the grid (not self-generation).
- A number of members noted that in India many supply companies offer retail green tariffs with generators that do not receive EACs. Requiring EACs could reduce to size of the voluntary market in India.
  - **Initial comment from RE100:** We would seek information why these tariffs cannot be expected to start certifying the supplies with EACs.
- One company raised the view that as suppliers in Japan are mandated to be at a certain RE % under legislation, EACs should not be required as corporate buyer have assurance of their claims through their contracts.
  - **Initial comment from RE100:** This feedback does not address the transparency benefits for the end-user that requiring EACs seeks to bring.
  - **Initial comment from RE100:** Voluntary green tariffs (contracts with suppliers) in Japan are surplus to compliance obligations. The compliance obligations are not proof that a voluntary green tariff has delivered RE. RE supplied through a compliance obligation can be claimed under the 'default delivered RE, supported by EACs' procurement type, which already requires claims to be backed by EACs.
  - **Initial comment from RE100:** To clarify, the proposal is not to require EAC cancellation by the end-user. A supplier can cancel EACs on behalf of the end-user. See #55 in the [RE100 FAQs](#).
- One member raised concerns that in the scenario where a landlord is procuring electricity on behalf of a tenant, this proposal could push companies to purchase unbundled EACs rather than engage with the landlord to secure a direct renewable supply.
  - **Initial comment from RE100:** It should be possible to engage with a landlord to understand if EACs have been cancelled on your behalf so that you can make a claim, and not have to double purchase.
- One member queried whether RE100 could review and approve certain types of EAC by market.
  - **Initial comment from RE100:** The initiative is not resourced or organized to evaluate or endorse individual EAC systems.

## **A call for evidence on whether the original off-taker exemption to the facility age limit should be relaxed**

- Three members spoke in the town halls on this proposal.
- Two members raised concerns that this proposal could discourage PPA consortiums which they say are necessary for the delivery of new projects.
- One company raised the view that the original off-taker should be defined as the first company to commit to a long term contract with a project, irrespective of whether they are the first company to purchase renewable electricity from it.
  - **Initial comment from RE100:** There needs to be a depth of evidence submitted to support this assertion. The evidence should also define what counts as 'long-term'.

## **Inviting proposals to change Section Four of the technical criteria**

- No RE100 members gave initial feedback on this proposal.

## Annex: RE100 competing interest guidelines

Disclosure of interests provides a complete and transparent process and helps reviewers and readers to make their own judgments of potential bias.

For the purposes of these guidelines, competing interests are defined as financial and non-financial interests that could directly undermine, or be perceived to undermine the objectivity, integrity and value of the evidence submitted. Note that this does not imply that a relationship with an organization that sponsored or conducted the research or a compensation received for consultancy work is inappropriate.

Interests that should be considered and disclosed include, but are not limited to:

**Financial interests** such as:

- **Funding:** research grants from funding agencies or research support by organizations that might gain or lose financially through the publication of this work.
- **Employment:** Recent (while engaged in the research project), present or anticipated employment by any organization that may gain or lose financially through publication of this work. This includes multiple affiliations (if applicable).
- **Personal financial interests:** Stock or shares in companies that may gain or lose financially through publication of this work. consultation fees or other forms of remuneration (including reimbursements for attending symposia) from organizations that may gain or lose financially; patents or patent applications (awarded or pending) filed by the authors or their institutions whose value may be affected by publication of this work.

**Non-financial interests** can take different forms, including personal or professional relations with organizations and individuals. We encourage authors to declare any unpaid roles or relationships that could impart bias on the submission. Examples of non-financial competing interests include, but are not limited to:

- Unpaid membership in a government or non-governmental organization
- Unpaid membership in an advocacy or lobbying organization
- Unpaid advisory position in a commercial organization
- Writing or consulting for an educational company
- Acting as an expert witness
- Mentoring relationship

**Examples of statements to be used in the competing interest declaration:**

Please see the various examples of wording below and revise/customize the sample statements according to your own needs.

**Examples of statements to be used when there are interests to declare:**

**Financial interests:** Author xx has received research support from Company A and/or has received a speaker honorarium from Company A and/or owns stock in Company A. and/or is a consultant to company A and/or receives a salary from association X where s/he is the [indicate position held].

**Non-financial interests:** Author xx is an unpaid member of committee Z and/or is on the board of directors of Y and receives no compensation as a member of the board of directors and/or has served on advisory boards for Company M, Company N and Company O.



**Examples of statements to be used when authors have nothing to declare:**

All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this work.