Green Web Foundation feedback on Sustainability Rating Scheme for Datacentres

April 23, 2025

The Green Web Foundation welcomes the opportunity to respond to the European Commission's consultation on establishing a sustainability rating scheme for datacentres.

Please see our response below, grouped by KPI and topic.

Renewable Energy Factor (REF)

In the label, we welcome the clear distinction between different kinds of energy powering datacentres, separating out "unbundled" certificates in GOOs from those linked to an existing power purchase agreement via a PPA. However, the treatment of certificates bundled into a PPA and procured separately as 'unbundled' GOOs should be harmonised.

These changes would reduce the reliance on fossil fuels by the sector, particularly fossil gas, which is cited by the European Central bank as one the critical vulnerabilities of the European economy[1].

Remove the conditionality clause on granular guarantees of origin for ERES-GOO

Recognising the physical realities on the grid by requiring temporal and geographic matching is a welcome step forward, but the clause making this conditional on the availability of granular guarantees of origin in the member state undermines this addition.

This also makes it inconsistent with already-existing regulations that also rely on temporal or geographic matching, like the EU Carbon Border Adjustment Mechanism (CBAM) and EU Renewable Fuel of Non-Biological Origin (RFNBO) delegated acts. These rely on metered generation data and monthly GOs where more granular guarantees of origin are not yet available, and would be a better fallback than making the requirement conditional.

In all member states, data exists to verify temporal matching at 15 minute resolution, and commercially available products exist in the form of time-matched energy tariffs[2] and services to convert annual GOs to more granular GOs suitable[3] for this datapoint.

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[1] See European Central bank website - link
[2] The granular energy website maintains a growing list of tariffs globally that provide matching information at an hourly resolution. link
[3] Companies like Flexidao offer commercial services for converting annual GO certificates to more granular, hourly certificates link, by following a scheme standardised by EnergyTag.

Recommendation for ERES-GOO - in Annex III
Total renewable energy consumption from guarantees of origin ('ERES-GOO', in kWh) shall be determined as the sum of the guarantees of origin purchased and retired by the reporting data centre. These guarantees of origin shall be related to the 15-minute production periods that coincide with the data centre consumption periods and to production located in the same bidding zone as the data centre, ~~conditional to the availability of such granular guarantees of origin in the relevant Member State~~. ***Where granular guarantees of origin are not yet available in the relevant Member State, compliance shall be demonstrated using metered generation data and monthly guarantees of origin matched to the relevant consumption periods***

Defining Power Purchase Agreements in the ERES-PPA KPI

Because power purchase agreements have no standardised definition, there is no guarantee that a power purchase agreement delivers meaningful decarbonisation of the power actually being consumed by the datacentre facility, by supporting new, additional clean generation or storage. For example, a solar-only PPA is likely the cheapest way to achieve a high ERES-PPA figure, but will only cover a small share of the power consumed by the datacentre on an hourly basis, meaning the rest will need to come from sources that include fossil generation.

Requiring clearer links between the time, location and additionality of the power generated and the power used would incentivise clean storage, or 'hybrid' PPAs that use a mix of generation forms to more accurately match the facility's demand profile.

We propose tightening the PPA definition used to be more consistent with the ERES-GOO criteria, and a clause for grandfathering in existing projects.

Recommendation for ERES-PPA - in Annex III
Total renewable energy consumption from power purchase agreements ('ERES-PPA', in kWh) shall be determined as the amount of energy from Power Purchasing Agreements made by the reporting data centre. ***Qualifying volumes shall be related to the 15-minute production periods that coincide with the data centre consumption periods and to production located in the same bidding zone as the data centre. Volumes shall be purchased from assets, commissioned not more than 10 years prior to the reporting year. Long-term PPAs that are in place by 15 May 2026 are exempted from the requirement of this subparagraph, the exemption applying until the end or renewal date of the contract.***

Water Usage Effectiveness (WUE)

Making WUE visible is welcome, with one caveat.

Taking into account local water stress

Having a low WUE value matters more for a datacentre in an arid climate in Spain, than a datacentre served by a glacial river in Norway. The WUE KPI is currently blind to this difference, that can create unintended consequences.

Given that there is frequently a tradeoff between PUE and WUE, not taking into account local water stress could have the effect of incentivising the use of cooling technology that may use less water, but uses much more energy to support the same amount of compute, leading to much greater energy use in absolute terms, and depending on who it was generated greater pollution.

We are not aware of a defined EU-wide metric that adequately captures localised water stress, but for future versions of the rating scheme, an alternative metric that takes into account water depletion would be Adjusted Water Impact (AWI)[4], described in a research paper last year Not All Water Consumption Is Equal: A Water Stress Weighted Metric for Sustainable Computing.This figure is derived from the WUE value for a datacentre and a set of local water stress indicators.

AWI uses data available from the Aqueduct 4.0 Water Risk dataset[5] from the WRI, available under permissive license. If the coverage of the dataset is at a high enough resolution, it may mean AWI is a better future candidate metric for accounting for water footprint in future.

Flexibility Services KPI

Datacentres often have latent flexibility assets — like software-controlled workloads, battery storage, thermal inertia, and hardware power management — that can transform them from passive consumers into active grid participants.

Datacentres acting as active grid participants like this can help smooth peaks in demand on the surrounding grid, reduce the number of hours where expensive fossil generation meets demand on the grid, and defer expensive grid upgrades that are frequently socialised across society. Doing this can reduce Europe's reliance on fossil fuels for power generation, and lower bills.

However classification of capabilities beyond a binary “yes / no” is needed to both represent this capability and incentivise meaningful clean flexibility.

One potential classification system with a degree of industry buy-in is EPRI’s DC Flex MOSAIC framework[6], with a grading system from “A” through to “E” . See the sample diagram below:

[4] Not All Water Consumption Is Equal: A Water Stress Weighted Metric for Sustainable Computing - link
[5]WRI Aqueduct dataset link
[6] EPRI DC Flex Mosaic - link

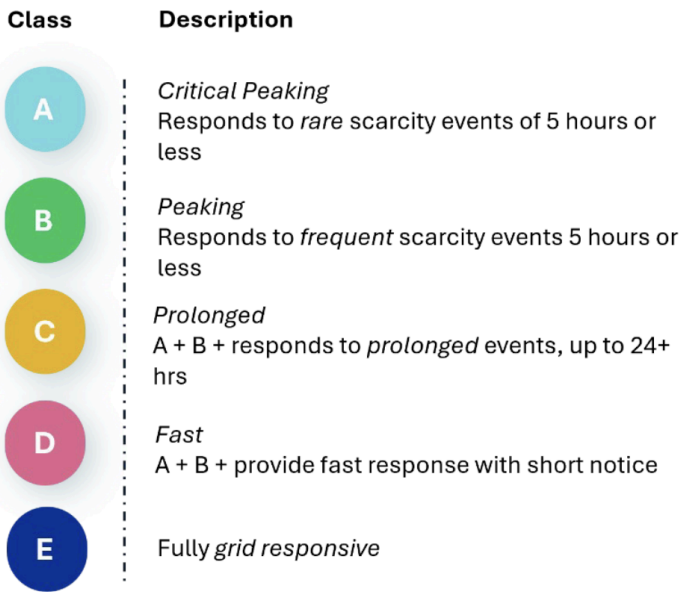

Figure 1: Simplified overview of flexibility framework

However, this technology-neutral scheme has no guardrails against on-site fossil generation, nor says anything about how much of a datacentre's demand can be flexed.

This matters because to deliver these benefits, datacentres need to be able to avoid adding to peak grid demand a minimum number of hours of the year. Research from the IEA's Energy and AI report[7], and the Nicholas Institute for Energy, Environment & Sustainability[8], refer to around 1% of uptime - around 100 hours of flex during the year. These classes of flexibility would need further quantification, to clear up ambiguity about how many events a year "*rare*" counts as, versus "*frequent*". A future revision of the label could include a classification based on EPRI's DC Flex Mosaic, with specific, explicit minimum performance requirements associated with each grade.

However if flexibility comes from on-site fossil generation, then the benefits of cleaner air, reduced exposure to fossil fuel markets, and lower prices are much less likely materialise; the fossil fuel generation simply moves from the grid to the datacentre operators, meaning continued reliance on fossil fuels, and datacentres will be incentivised to pass along higher the prices in the services they offer, making Europe's offerings less competitive.

Recommendation for Grid functions in Annex III
Electrical grid functions is the information on whether ~~any functions that support the stability, reliability, and resilience of the electrical grid are provided by the data centre, such as peak demand shifting, flexibility, or firm frequency response (FFR);';~~ ***the data centre avoids adding to net peak grid demand during the 100 hours of highest system load in the reporting year. Sources of flexibility created onsite fossil fuel generation are not recognised as eligible grid functions.***

[7] IEA: Energy and AI - see page 100 for suggested amounts of datacentre flexibilty to deliver grid benefits - link

[8] Rethinking Load Growth Assessing the Potential for Integration of Large Flexible Loads in US Power Systems link

Data Disclosure

The presumption of confidentiality in the datacentre register, contradicts article 6 of an existing, later regulation, the Aarhus Regulation , which presumes disclosure:

As regards Article 4(2), first and third indents, of Regulation (EC) No 1049/2001, with the exception of investigations, in particular those concerning possible infringements of Union law, an overriding public interest in disclosure shall be deemed to exist where the information requested relates to emissions into the environment.[9]

A sustainability label for datacentres *by definition* refers to information that relates to emissions into the environment. This information is likely to be used as a basis for allocating subsidies and other financial support in coming legislation like the Cloud and AI Development Act - shrouding all information under secrecy is undemocratic and not in the public interest.

That this inclusion of confidentiality made front page news in national newspapers across Europe[10], in mid April 2026 is a clear indication of public interest.

This does not mean there should be ***no*** confidentiality - but instead means that confidentiality should be the exception:

As regards the other exceptions set out in Article 4 of Regulation (EC) No 1049/2001, the grounds for refusal shall be interpreted in a restrictive way, taking into account the public interest served by disclosure and whether the information requested relates to emissions into the environment.[11]

While we welcome some clarity that information included in the label can not ever be considered confidential, this assumption that every datapoint uploaded should be considered confidential is too broad.

Moreover there are multiple examples of large, well known companies voluntarily disclosing data that would be covered by this confidentiality presumption, like absolute energy consumption at a per site level. Meta do so with the Environmental Data Index[12], and Wikimedia, creators of Wikipedia, do so too in their equivalent report[13].

Recommendation for Article 5 paragraph 5
5. The Commission and Member States concerned shall treat as confidential ~~all~~ ***limited*** information and key performance indicators for individual data centres that are communicated to the database pursuant to Article 3 ~~. With the exception of the information that is part of the label defined in Commission Delegated Regulation (EU) 2026/xx44 and in the form in which it appears on the label, such information shall be considered confidential~~

[9] Taken from the consolidated text Consolidated text: Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Union institutions and bodies link

[10] Coverage about this introduction of a confidentiality clause appeared in the Guardian (link), El Pais (link), Le Monde (link)

[11] Taken from the same Consolidated text: Regulation (EC) No 1367/2006

[12] Meta's has published per-site energy consumption figures in MWh for its datacentres for the last 5 years. Link to 2025 version.

[13] Wikimedia, creators of Wikipedia also report per-site energy consumption and have done so since at least 2022. Link to 2024 report, published in 2025

~~information affecting the commercial interests of operators and owners of data centres~~ in accordance with Article 4(2) of Regulation (EC) 1049/2001 of the European Parliament and of the Council regarding public access to European Parliament, Council and Commission documents and Article 4(2)(d) of Directive 2003/4/EC of the European Parliament and of the Council on public access to environmental information, ***and Article 6(1)(d) of Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Union institutions and bodies***'

About the Green Web Foundation

The Green Web Foundation is a Dutch non-profit focused on a fossil free internet by 2030, that has been tracking the transition of the internet away from fossil fuels for more than 15 years. We publish open data and software that helps organisations understand the environmental impact of digital service, and we support movement leaders and policy makers to effectively frame the conversation and advocate for a sustainable and just internet.

For further questions about this response, please contact Chris Adams, Director of Policy and Technology - chris@greenweb.org