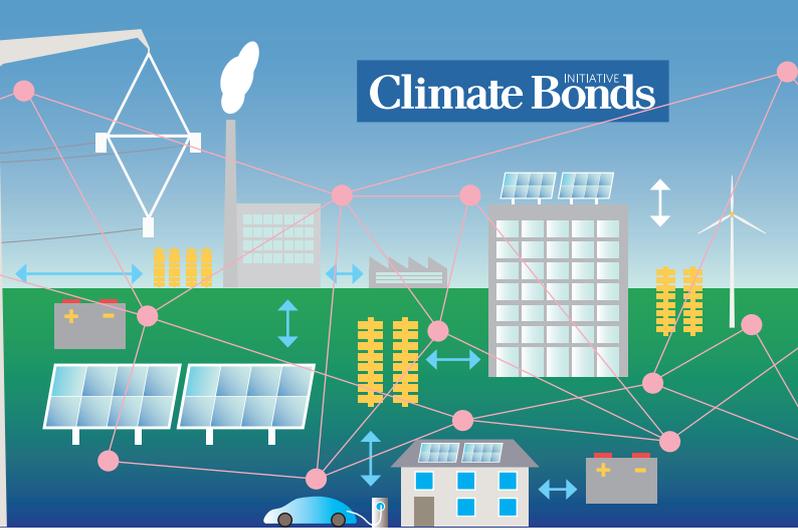


ELECTRICAL GRIDS AND STORAGE CRITERIA

Climate Bonds Standard



Why have Grids and Storage Criteria?

Enablers to decarbonisation

Expanding and upgrading electricity grid and storage infrastructure is crucial to meeting the steep decarbonisation goals for energy systems. More flexible and distributed systems are needed to bring about clean electricity. It is crucial to ensure this infrastructure is not supporting continued fossil fuel electricity generation.

At the same time, this infrastructure is vital for the decarbonisation of other sectors. For industrial sectors or buildings, electrification is a key means to achieving decarbonisation.

This is all while ensuring this infrastructure is adapted to changes in climate. The dependence of so many sectors and societies on stable electricity provision makes grid resilience essential.

Investment need

Annual spending of USD 820 billion on electrical grids will be needed by 2030 to reach net zero by 2050.

However, global investment has been falling for the past several years, down from USD 306 billion in 2016 to USD 248 billion in 2020.

Eligible Use of Proceeds

Eligible use-of-proceeds relating to grid and storage infrastructure can include capital and operating expenditure relating to:

1. Transmission and distribution lines
2. Interconnectors
3. Transformers
4. Advanced metering infrastructure
5. Grid flexibility measures

6. Electricity storage facilities, and:

7. Dedicated supporting infrastructure to all the above.

For grid infrastructure, this means any assets and activities are potentially eligible use-of-proceeds, if they meet the necessary requirements.

A dynamic approach to criteria development

This is the first version of the Grids and Storage Criteria. However, all Climate Bonds criteria aim to improve in line with industry best practice and evolving scientific understanding. They will thus be reviewed after 3 years. These Criteria may be subject to change sooner if future industry standards are underpinned by differing criteria. This will depend on the Technical Working Group deciding that such criteria are robust and workable enough to be adopted. Examples might look like the tightening of thresholds, or new ways of determining what an eligible grid system looks like.

Will your project meet the Grids and Storage Criteria? It's as easy as 1 2 3

STEP 1

Comply with Overarching Climate Bonds Standard (V3)

Any bond issuance seeking Climate Bonds Certification must meet the requirements of the Climate Bonds Standard. This underlines all Climate Bonds Sector Criteria, including the Grids and Storage Criteria. The Climate Bonds Standard contains disclosure, management and reporting requirements.

STEP 2

Comply with mitigation component

The mitigation component applies to all grid and storage assets and activities. However, the requirements differ depending on the asset or activity being practiced. This is explained in the diagram overleaf. Certain assets and activities are automatically eligible in any system. The rest are eligible if the system in which they're located is on a pathway to decarbonisation.

STEP 3

Comply with Adaptation & Resilience Component

Complete checklist to:

1. Identify clear boundaries and critical interdependencies between the infrastructure and the system it operates within
2. Undertake a risk assessment to identify the key physical climate hazards to which the infrastructure will be exposed and vulnerable to over its operating life
3. Sufficiently mitigate risks identified that the infrastructure is resilient to climate change conditions over its operational life
4. Assess the resilience benefits of the infrastructure and ensure it does no harm to the resilience of the defined system it operates within
5. Ongoing monitoring and evaluation

TWG Organisations

- Element Energy
- EIB
- EBRD
- University College London
- Rochester Institute of Technology
- Globalfields
- European Commission
- Inter-american Development Bank



Summary of the criteria

1. Do the proceeds relate to infrastructure dedicated to creating a direct connection, or expanding an existing direct connection between a power production plant that meets the requirements of the relevant Climate Bonds Standard Sector Criteria, and a substation, network or storage facility?

Yes

No

2. Do the proceeds relate to infrastructure dedicated to creating a direct connection, or expanding an existing direct connection between a power production plant that is less CO₂ intensive than 100 gCO₂e/kWh, measured on a LCE basis, and a substation, network or storage facility?

Yes

No

3. Are the Use of Proceeds being used to finance any of the automatically eligible assets and activities listed in section 3.2 on page 13?

Yes

No

4. Is the system on a sufficient pathway to decarbonisation?

This means either:

The average System grid emissions factor in which the infrastructure is located below the threshold value of 100 gCO₂e/kWh measured on a PCF basis, over a rolling five-year average period?

Or:

More than 67% of newly connected generation capacity in the System in which the infrastructure is located is below the generation threshold value of 100 gCO₂e/kWh measured on a PCF basis, over a rolling five-year period?

Yes

No

5. Has the issuer fulfilled the requirements as part of the Adaptation & Resilience Checklist? This includes:

- Identifying clear boundaries and critical interdependencies between the infrastructure and the system it operates within
- Undertaking a risk assessment to identify the key physical climate hazards to which the infrastructure will be exposed and vulnerable to over its operating life
- Risks identified are sufficiently mitigated that the infrastructure is resilient to climate change conditions over its operational life
- The resilience benefits of the infrastructure are assessed and do no harm to the resilience of the defined system they operate within
- Ongoing monitoring and evaluation

See Appendix 1 for the full Adaptation & Resilience Checklist

No

Not Certifiable

Yes

Certifiable

Assets and activities which automatically meet the mitigation component

- Installation of T&D transformers that correspond to or comply with the Tier 2 (2021) EU Regulation requirements on transformer eco-design.
- Equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation
- Equipment to increase the controllability and observability of the electricity system and enable the development and integration of renewable energy sources. This includes:
 - Sensors and measurement tools (including meteorological sensors for forecasting renewable production)
 - Communication and control (including advanced software and control rooms, automation of substations or feeders, and voltage control capabilities to adapt to more decentralised renewable infeed)
- Equipment to carry information to users for remotely acting on consumption
- Interconnectors between transmission systems are eligible, provided that one of the systems on a sufficient decarbonisation trajectory
- Equipment to allow for exchange of renewable electricity between users

Further information sources

Want to Certify, or just know more? Take a look at these documents:

- 1. Grids and Storage Criteria Document:** Summary of the Criteria for issuers and verifiers
- 2. Grids and Storage Criteria Background Document:** Technical Background and summary of Criteria development process
- 3. Climate Bonds Standard V3.0:** CBI's Certification process, Pre- and Post-issuance requirements and a suite of sector eligibility and guidance documents

For more information:

Go to www.climatebonds.net

Email chris.moore@climatebonds.net

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