

# WATER INFRASTRUCTURE CRITERIA

## Climate Bonds Standard



### What are the Climate Bonds Standard Water Criteria?

The Water Criteria lay out the requirements that water infrastructure assets

and/or projects must meet to be eligible for inclusion in a Certified Climate Bond. The bond must also meet the reporting and transparency requirements of the overarching Climate Bonds Standard V3 in order to receive Certification. This document gives an overview of the Criteria; for full details see the Criteria Document.

### What underpins the Criteria?

The guiding principle for the Climate Bonds Standard is that certified assets and projects must be in line with limiting global warming to no more than 2°C, ideally no more than 1.5°C, and support climate resilience of the asset and surrounding environment.

The Criteria embed transformative steps for rapid decarbonisation not incremental improvements.

### Why certify a water infrastructure related bond using the Climate Bonds Standard

Certification allows issuers to demonstrate to the market that their bond meets industry best practice for climate integrity, management of proceeds and transparency.

It indicates to investors that proper environmental due diligence has been done on the assets. This enables them to easily identify and invest in low carbon and climate resilient water infrastructure assets/projects with genuine climate benefits. This is particularly important for water infrastructure, as the climate risks and opportunities are myriad and complex.

Ensuring water infrastructure is climate resilient and does not impinge upon the resource security and availability for all stakeholders is critical. Moreover, evaluation is multi-faceted and simple metrics cannot be used.

Other benefits of issuing a Certified Climate Bond include; investor diversification (water issuers should find they attract new investors by certifying), greater investor engagement, investor stickiness (investors buying Certified Climate

Bonds tend to buy and hold), strengthened reputation (certifying shows commitment to delivering low carbon infrastructure) and a freeing up of balance sheets.

### How will the Criteria assist in growing the green bond market?

The rapid growth in the green bond market over the past 3 years has been met with questions around the environmental claims of the bonds, and about what assets are suitable for inclusion in a green bond.

The Water Criteria indicate to potential issuers and the market what types of water projects should be included in green bonds. They define what low carbon and climate resilient water infrastructure is.

Green bonds invested in water assets or projects reached USD7.4bn outstanding in 2016; the issuance has increased from 9% in 2015 to 14% in 2016, and further growth is expected. So far, around USD9bn worth of green bond issuance has been certified under the Water Criteria.

## Will your project meet the Water Criteria? It's an easy two-step

STEP 1

### Comply with Mitigation Component

Water projects either decrease or do not increase GHG emissions from a business-as-usual baseline over the operational lifetime of the water asset or project. For desalination plants, meet a low carbon energy threshold.

STEP 2

### Comply with Adaptation & Resilience Component

Water infrastructure and its surrounding ecosystem are resilient to climate change, and have sufficient adaptation to address climate change risks.

To demonstrate that, issuers should complete a **scorecard** made up of six sections:

**Section 1. Allocation:** Addressing how water is shared by users within a given basin or aquifer.

**Section 2. Governance:** Addressing how/whether water will be formally, negotiated, and governed.

**Section 3. Technical Diagnostics:** How/whether changes to the hydrologic system are addressed over time.

**Section 4. Nature-based Solutions:** (for nature-based and hybrid infrastructure only) addressing whether issuers have sufficient understanding of ecological impacts at/beyond project site with ongoing monitoring and management capacity.

**Section 5. Desalination Plants:** (for desalination plants only) addressing whether specific A&R issues for desalination have been addressed.

**Section 6. Assessment of the Adaptation Plan:** Checking the completeness of the coping mechanisms to address identified climate vulnerabilities.



**The Criteria apply to a variety of water infrastructure assets and projects**

Modern and developing economies ‘float’ on water resources. Water infrastructure functions and associated assets and projects addressed by the Water Criteria include: water capture and collection, water storage, water treatment, flood defence, drought defence, storm water management, and ecological restoration/management.

The Water Criteria also cover grey, or built water infrastructure such as desalination plants, and nature-based water infrastructure, recognising that ecosystems (including rivers, lakes, natural watersheds, aquifers and groundwater) are the original water infrastructure and are increasingly being integrated within formal water management systems as green and hybrid infrastructure.

**Why the two components: mitigation, and adaptation & resilience?**

Water has a deep connection to carbon emissions and can contribute to accelerating or mitigating climate change. For instance, water often needs to be moved or transferred long distances and pumped from groundwater or from storage sites to consumption points – all of which can be energy intensive. Water treatment such as effluent treatment and desalination can be especially ‘thirsty’ for energy. Therefore, efforts to reduce the energy consumed and/or the amount of water treated or moved can all have very significant impacts on greenhouse gas emissions.

Climate change presents significant challenges for water management, not least because of the diverse and multiple demands made upon freshwater resources, and changing hydrological conditions due to climate change. At the most basic level, climate change means that water quality, quantity, and availability are evolving and will likely continue to do so for decades or centuries. Moreover, the nature, scale and timing of these evolutions is highly uncertain. To ensure an effective adaptation of existing system or building resilient new systems is essential given the fundamental basis of water in modern economies.

**The Mitigation Component: green energy thresholds for desalination, no increase of GHG emissions for everything else**

This intends to provide transparency over the degree of mitigation that will be delivered over the operational lifetime of the project or asset.

Issuers must disclose and justify that their water assets or project do not increase GHG emissions compared to a business-as-usual baseline. Desalination plants differ in having specific thresholds they must meet.

The Water Criteria will be revised and refined over time. The mitigation component will be adjusted as more information becomes available to set emissions threshold or efficiency improvement targets.

**The Adaptation & Resilience Component: assets need to be resilient and responsive to ecosystem and wider stakeholders**

This component assesses how the issuer has ensured the asset’s own resilience to climate change, and addressed its impact on other stakeholders’ resilience to climate change in terms of their access to water in sufficient quantity and quality.

Issuers are required to have assessed the climate risks of their assets and the surrounding system the project is exposed to through a Vulnerability Assessment, and where needed, establish an Adaptation Plan to address any climate vulnerabilities that have been identified.

The efficacy and thoroughness of the issuer’s Vulnerability Assessment and Adaptation Plan are evaluated by a Scorecard, or checklist, consisting of a series of binary questions.

**The Criteria are developed by leaders in the water sector**

We convened a Technical Working Group (TWG) and an Industry Working Group (IWG), to develop the Water Criteria. We worked closely with the TWG to develop these Criteria based on their expertise. The IWG provided feedback on the Criteria proposed.

Current leaders from 50 organisations across the academic, NGO, issuer, investor and verifier worlds were also represented across the two groups. Full membership details can be found on our website.

**Technical Working Group and Industry Working Group members include:**

Full member list can be found on our [website](#).

**Further information sources**

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

- [1. The Water Criteria document](#) full requirements of the Criteria
- [2. The Water Background Paper](#) full details of the TWG and IWG discussions
- [3. Frequently Asked Questions \(FAQs\)](#)
- [4. Water Criteria Guidance to Issuers and Verifiers](#) illustrative examples to assist in demonstrating compliance
- [5. Climate Bonds Standard V3](#) full requirements of the Climate Bonds Standard

Go to [www.climatebonds.net](http://www.climatebonds.net)  
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