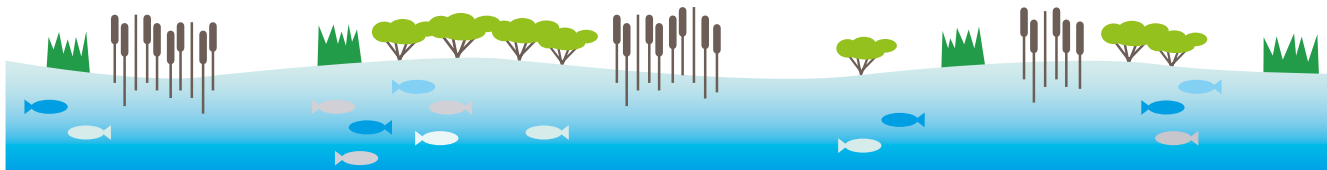


# Climate Bonds Standard & Certification Newsletter

H1 2018 **ISSUE 7**

## Flooding the market with Sector Criteria: Water Criteria expands covering Certification of nature-based assets



The new Water Criteria were launched on [22 May 2018 by the Water Consortium](#); Climate Bonds Initiative, Alliance for Global Water Adaptation (AGWA), CDP, Ceres and the World Resources Institute (WRI).

The Consortium held a webinar to promote the launch of the Criteria, which you can listen to [here](#).

The [Water Criteria](#) have been developed in two phases. Phase 1 covers engineered water infrastructure and Phase 2, that has just been released, covers nature-based and hybrid water infrastructure for water collection, storage, treatment and distribution, flood protection and drought resilience. Phase 2 is fully integrated with Phase 1 into one comprehensive [Water Criteria](#).

The Criteria recognise that ecosystems (including rivers, lakes, natural watersheds, aquifers and groundwater) are essential to meet local, national, and global resilience goals. Nature-based solutions are increasingly being integrated within formal water management systems as green and hybrid infrastructure.

Developed for green bond issuers and investors, the [Water Criteria](#) define and evaluate low carbon and climate resilient water infrastructure projects by encompassing two components: climate mitigation, and climate adaptation & resilience.

The mitigation component requires GHG emissions of water infrastructure to be equal to, or less than business-as-usual. The adaptation & resilience component requires

water infrastructure to be resilient to climate change risks.

Since the launch of Phase 1 in 2016, about USD1.5 billion of green bonds issued by the [San Francisco Public Utilities Commission](#) and the [City of Cape Town](#) have been certified under the [Water Criteria](#).

Our thanks goes to the members of the [Technical Working Group and Industry Working Group](#) for their time and valuable expertise that helped shape these Criteria; and our sincere gratitude to Stockholm International Water Institute (SIWI) for their support; and to the US Department of Agriculture's Natural Resources Conservation Service, the KR Foundation and the Rockefeller Foundation for their funding support.

## Member of the EU TEG to develop Sustainable Finance Taxonomy

Early June brought some eagerly awaited news when the members of the [European Commission's Technical Expert Group \(TEG\) on Sustainable Finance](#) were announced and Sean Kidney, CEO, was awarded a place.

The full list of members can be [found here](#) and the Group has now met twice.

The TEG is tasked with developing:

1. An EU taxonomy of environmentally

sustainable economic activities

2. An EU Green Bond Standard
3. A category of low carbon indices for use by asset and portfolio managers as a benchmark for a low carbon investment strategy
4. Metrics allowing improved disclosure on climate-related information

Sean has been selected to primarily help with the development of the taxonomy. He'll be feeding in the learnings we have gained and

### Read on for:

**Pg. 2 - Climate Bonds Taxonomy**

**Pg. 3 - H1 2018 Certifications**

**Pg. 4 - Financing low-carbon buildings**

**Pg. 5 - Sector Criteria timeline**

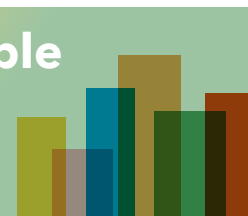
**Pg. 6 - What's happening with TWGs**

**Pg. 7 - Snapshot of Certified Bonds**



**green bond  
pledge**

**Building Sustainable  
Infrastructure  
for Everyone**



Criteria we have from developing the [Climate Bonds Taxonomy](#), the various [Sector Criteria](#) and through our wide engagement with the climate finance world.

Our Taxonomy and the Sector Criteria were developed through multi-stakeholder approaches and are grounded in climate science. They push for a rapid transition to a low carbon economy and this is what we will be advocating in the EU taxonomy development.

The Group is expected to meet regularly until June 2019 and its first deliverable is, the climate mitigation part of the taxonomy, is due March 2019. Climate adaptation and other environmental activities will follow.

Our participation follows the active and pivotal role we played in the High Level Expert Group on Sustainable Finance (HLEG) last year. HLEG's work culminated in January 2018 through the publishing of a [final report comprising strategic recommendations](#) for a financial system that supports sustainable investments.

### Public consultation gathers your opinions on proposed Criteria for Forestry & Bioenergy



The list of sector Criteria developed under the Climate Bonds Standard continues to grow with draft Criteria for [Bioenergy](#) and [Forestry](#) having recently gone through public consultation.

Once the development stage of any Sector Criteria is finished, the Criteria go out for public consultation. This allows anyone to provide their valuable input and insights to the proposed Criteria, helping us to make each set of Criteria as robust and scientifically grounded as possible. It provides extra confidence to investors that their investments contribute to limiting global warming to 2 degrees.

Public consultation for both [Bioenergy Criteria](#) and [Forestry Criteria](#) has now ended but you can still view the Criteria and associated documents online. We are now responding to comments and both Criteria will go to the Climate Bonds Standard Board for final approval imminently.

If you've got a green bond with Bioenergy or Forestry related use of proceeds and would like to find out about getting it [Climate Bonds Certified](#) then [get in touch!](#)

Hydropower will be the next Criteria out for public consultation, which is set to begin in September. Watch the [Climate Bonds Blog](#) for this announcement.

### Updating the Climate Bonds Taxonomy of green investments

The [Climate Bonds Taxonomy](#), which currently lives on our website as a pretty dense excel sheet, is undergoing a revamp and update. It will be published in September.

We're updating both the content, due to new developments in the Climate Bonds Standard Sector Criteria, and the format, to make it much more user friendly.

The Climate Bonds Taxonomy lists asset types and whether they are automatically eligible, eligible under certain conditions or never eligible for inclusion in all types of climate financing.

It's a handbook on green investments for issuers, investors, governments and anyone looking to raise capital for climate friendly assets and projects.

### Mobilising investments in Adaptation and Resilience

The majority of green bonds are for achieving climate change mitigation goals and have largely ignored needs for investment in adaptation and resilience (A&R) to the physical risks climate change poses. Only 92 of the over 2,500 [climate-aligned bonds](#) we've tracked have components dedicated to climate resilience.

As the likelihood of climate-linked disasters goes up, the need to mobilise additional finance to address losses as well as to invest in initiatives that anticipate, plan for, and adapt to the likelihood of growing climate impact is critical.

Recognising the huge investment gap and with the aim to scale up A&R investments, we are convening an Adaptation and Resilience Expert Group (AREG) to discuss and develop high-level guidance for determining when projects and assets are compatible with a climate resilient economy and therefore should be certified under the [Climate Bonds Standard](#).

The AREG will provide a framework under which sector-specific A&R Criteria will be subsequently developed by sectoral Technical Working Groups (TWGs). A&R Criteria have already been developed for Bioenergy, Hydropower, Forestry, and Water sectors and will feed into the approach.

We expect the AREG to begin discussions in early October and will keep you updated of the progress made and points up for discussion.

## Climate Bonds Taxonomy

### Asset types identified as:

- Automatically compatible ●
- Potentially compatible ●
- Not compatible ●
- More work required ●
- Climate Bonds Certification available 
- Climate Bonds Certification coming soon ●

#### Energy



#### Transport



#### Water



#### Buildings



#### Land use & marine



#### Industry



#### Waste

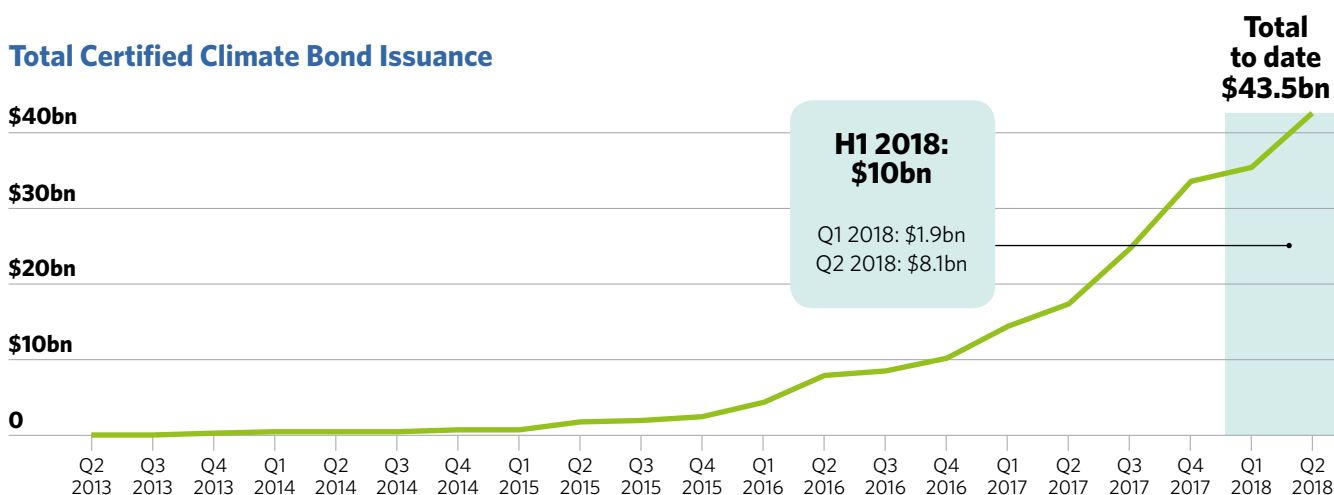


#### ICT



# H1 2018 Climate Bonds Certification up 40% from H1 2017

## Total Certified Climate Bond Issuance



The first half of 2018 closed with [Climate Bonds Certification](#) of \$10bn; a 40% increase on the \$7.2bn issued in the first half of 2017.

H1 2018 saw the first Certified Climate Bonds under the new [Marine Renewable Energy Criteria](#) from ICBC, ABN Amro, NAB, and Bank of China. This issuance shows the clear demand in the market for financing the rapidly growing offshore wind generation assets around the world.

Another exciting development includes the first Certified Climate Bonds from Scandinavia, a leading region for green bond issuance, but which until now had not used Climate Bonds Certification. Both Sparebank 1 Boligkredit and DNB Boligkredit, two of

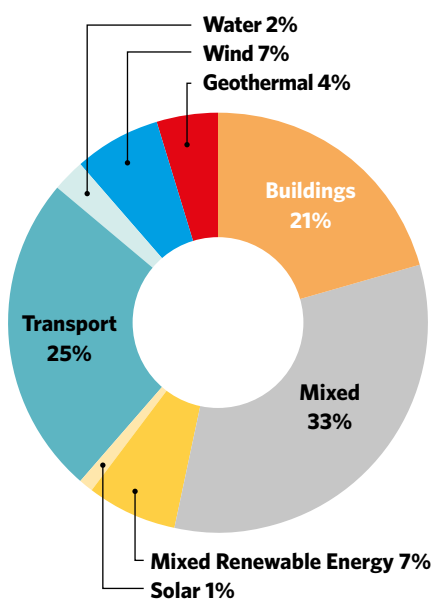
the largest mortgage providers in Norway, issued Certified Climate bonds for low carbon buildings at 1.2 bn USD equivalent and 1.8 bn USD equivalent, respectively. This flagship issuance signals grand Norwegian ambitions. They entered the Certified Climate Bond scene with a bang, by making Norway the leading country during H1 2018.

In fact, over 50% of the value of the Certified Climate Bonds during H1 2018 are linked to [low carbon buildings](#), which is encouraging, as rapid decarbonisation of buildings and ramping up finance to deliver lower emissions buildings are an important part of achieving the Paris goals.

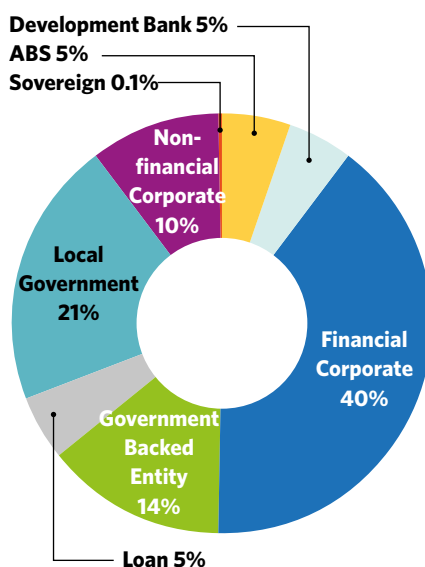
Repeat issuance of Certified Climate Bonds from the Bank of China and Industrial and Commercial Bank of China (ICBC) in June was an excellent signal that they are adhering to best practice. They are two of the most influential banks in China and they support the Chinese government's policies on green bonds. They have seen very clear benefits from Certifying their first bonds in 2017 and were enthusiastic about doing this again.

In June, we also warmly welcomed the first Certified Climate Bonds from Belgium by KBC Group. This means, we have Certified Climate Bonds from 21 countries and we can't wait to add to that list.

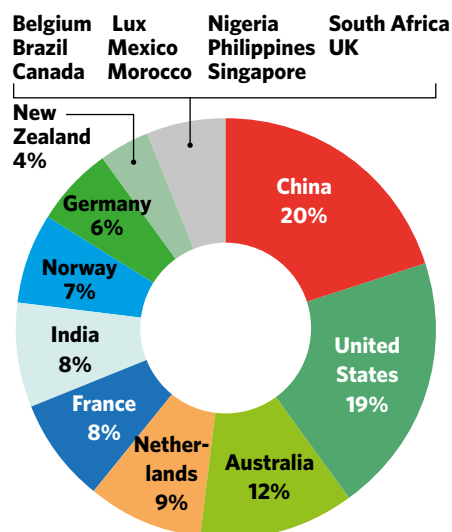
## Seeing Certified Bonds across sectors, mixed UoP for many



## Certified loans starting to take a larger share of Certified market



## First Certified Climate Bonds from Norway & Belgium



# Financing low carbon buildings



Seventy per cent of today's greenhouse gas emissions in cities come from buildings, making the transition to low carbon residential and commercial buildings one of the biggest mitigation opportunities for urban areas.

The [Low Carbon Buildings Criteria](#) sets out what property assets, both residential and commercial, are low carbon and therefore eligible for Climate Bonds Certification.

## Zero carbon buildings by 2050

To ensure commercial and residential projects are committed to zero emissions by 2050, we set benchmarks for specific cities and regions around the world for the Low Carbon Building Criteria.

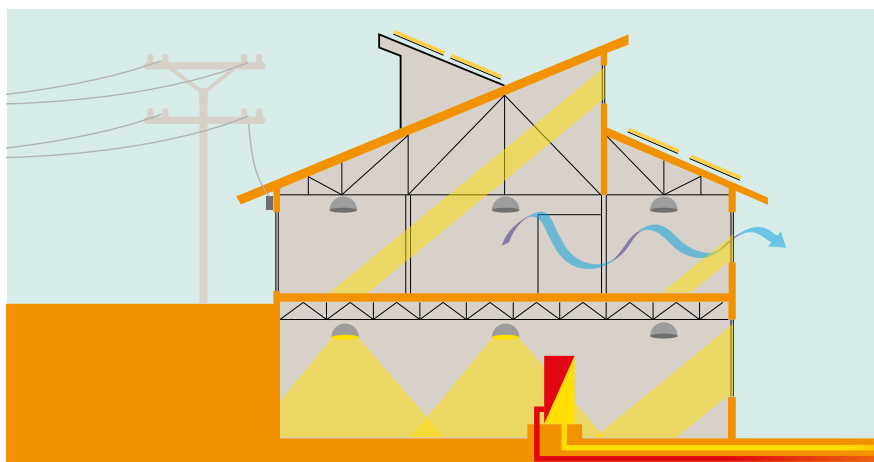
Regional variation in building-based energy and emissions performance and subsequent reporting standards means we must work alongside our Technical Working Group (TWG) to assess buildings performance on a country-by-country basis. As this work is completed, additional regional trajectories and market proxies are released for use.

This allows an issuer to stand by their Certification with certainty, knowing that the assets are third-party verified low carbon. Third-party certification is achieved in one of three ways, a trajectory, a best available proxy, or a significant upgrade.

## Trajectory methodology explained

The Trajectory Methodology sets thresholds that comply with the rapid decarbonisation required to limit warming to 2-degrees.

The trajectory (in  $\text{kgCO}_2\text{e/m}^2$ ) is established by taking the top 15% of buildings in terms of performance in the selected locations and drawing a straight line to hit net-zero carbon by 2050. As mentioned, these trajectories are location specific because emissions intensity will be affected by regional factors, such as construction practices or heating and cooling degree days.



A building or portfolio of buildings can demonstrate eligibility for certification if the assets meet a set emissions intensity target derived from the local low-carbon trajectory.

We have worked to establish several regional trajectories for commercial assets in Europe, Oceania, North America and now LatAm, with the development of the Mexico commercial baseline.

Developed in partnership with Flux Consulting, the Mexico trajectory was established using the Low Carbon Buildings Interpolation methodology. For more information of the trajectory please see the [Mexico Building Brochure](#). To find out more about the methodology used to establish the trajectory, please see the Low Carbon Buildings Trajectory Methodology.

We are also in the process of rolling out additional trajectories with continued development in North America, Europe, Asia and Africa throughout 2018.

## Proxies explained

Where data availability is limited, and a low carbon trajectory cannot be established with confidence, we have to review a range of market-based mechanisms such as building codes, rating schemes and post occupancy performance evaluations to determine the best available proxy in the market. These

act as place holders until enough data to establish a trajectory can be gathered.

We have developed regional trajectories for residential assets in England & Wales, Norway, Germany, Belgium, France and Germany, Australia and now, China.

Developed in partnership with Flux Consulting, the China proxy was established using data from the Evaluation Standard for Green Buildings database provided by the Ministry of Housing and Urban-Rural Development. For more information please see the China Building Brochure.

## Non-residential developments

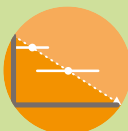
As part of the on-going roll out of the [Low Carbon Building Criteria](#), we have begun developing sub-sector criteria for commercial building such as retail, university laboratories and other non-residential typologies.

Low carbon trajectories have been established for laboratories in several major U.S. cities including San Francisco, California, Houston, Texas and Chicago, Illinois. Others are in the development process for universities in the Australian market. More information on university trajectories can be found on the [Commercial Buildings page](#).

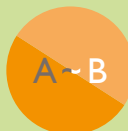
## Complying with the Buildings mitigation requirement

The building asset or portfolio of assets must meet one of the following compliance pathways:

### Pathway 1: Low Carbon Trajectory



**A: Emissions Intensity Target:** The region where the building is located has an established Low Carbon Trajectory



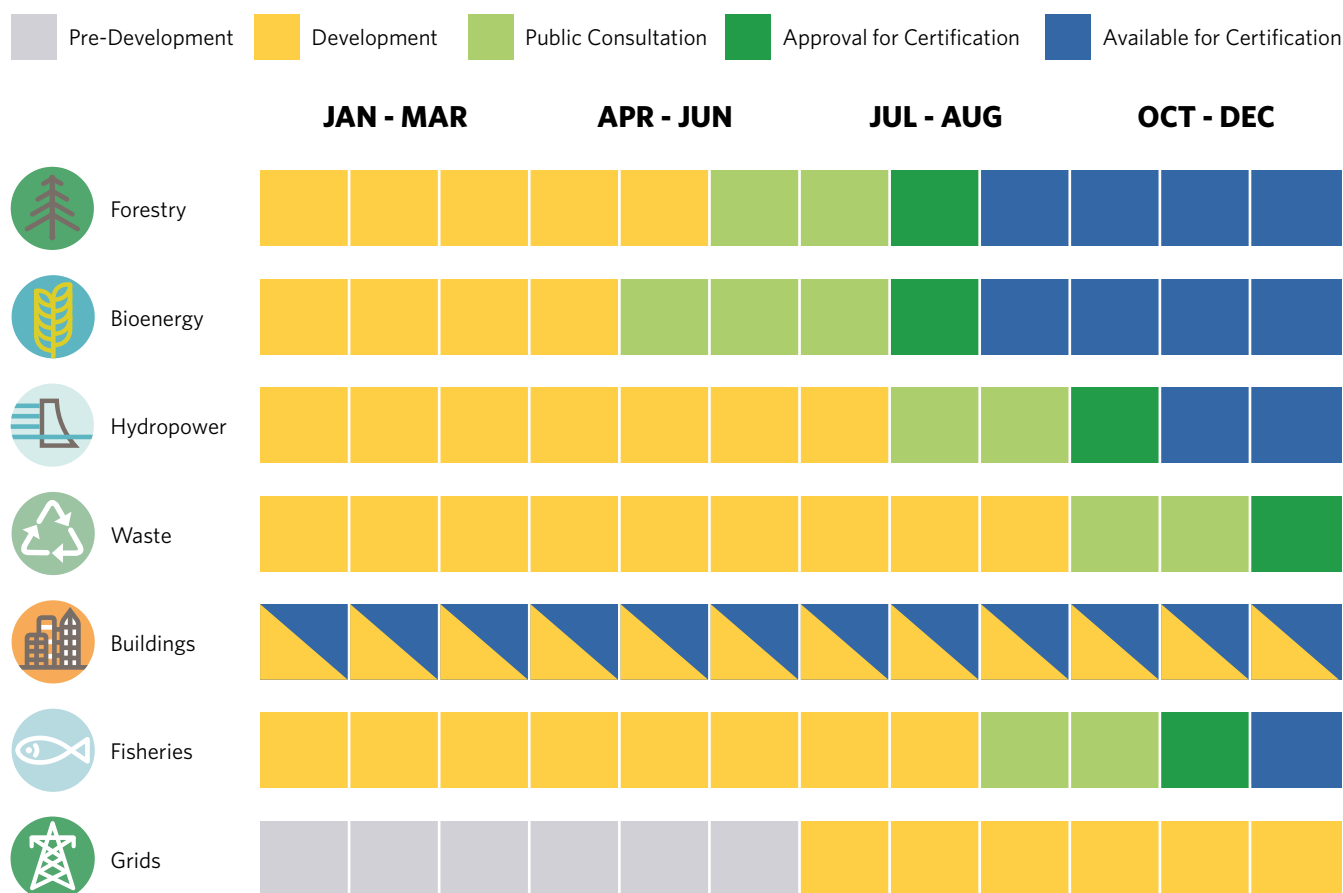
**B: Proxy:** The region has an established Low Carbon Proxy

### Pathway 2: Significant Upgrade



**Emissions Intensity Upgrade:** The asset or portfolio of assets achieves a 30-50% improvement in emissions performance

# Sector Criteria published, launched and developing



## Rollout of Sector Criteria continues apace

The calendar above shows the schedule we've got planned for Sector Criteria rollout in 2018. [Forestry](#) and [Bioenergy](#) Criteria were both released for public consultation in the first half of 2018 and we expect they'll be approved by the Climate Bonds Standard Board shortly. If you are keen to use either of these Criteria to Certify a bond [get in touch](#).

Hydropower Criteria will be released for public consultation in late August and development of Criteria for Waste and Fisheries continues. Criteria development for Electrical Grids commenced in July. Criteria for Agriculture will be launched in September, building on the previous work carried out by our Land Use TWG.

## Development for Electrical Grids Criteria starts



As the development of some Sector Criteria finishes up we're immediately launching new ones and [Electrical Grids Criteria development is the](#)

[latest](#). To kick-start this Criteria development we have formed a Technical Working Group (TWG) and Industry Working Group (IWG).

At present most attention in the electricity sector focuses on the carbon emissions of generation capacity and little information exists for investors on how to avoid grid investments which lock in patterns of fossil fuel dependency.

In addition, methodologies for assessing physical risks to grids appear to be lacking. Developing Sector Criteria sheds light on these issues and will be a valuable contribution to green finance frameworks.

Over the next 6-8 months, the TWG & IWG will develop science-based screening requirements that identify transmission, distribution and storage investments that are low carbon and climate change resilient.

This will help to align the sector with the mitigation targets of the Paris agreement. It will be pivotal in enabling governments, businesses and investors to assess the green credentials of projects and assets in the electrical grid sector, and will allow them to certify with the Climate Bonds Standard.

Once developed, the Criteria will be released for public consultation and finally submitted to the Climate Bonds Standard Board for approval. We'll keep you updated of the progress in these newsletters.

## Join one of our TWGs or IWGs - members sought for agriculture and shipping!



2018 was pipped as being a year of Criteria rollout for the Climate Bonds Standard and it has certainly started that way. Agriculture and Shipping Criteria will be next in the rollout - two potentially massive sectors in the context of climate change.

Shipping is an entirely new sector for us to delve into, but the development of the Agriculture Criteria follows the previous work done by our [Land Use TWG](#).

All Criteria are developed by sector experts in a scientifically robust way that results in strict green requirements in line with limiting warming to no more than 2-degrees.

We are currently seeking members to join our TWGs and IWGs for both agriculture and shipping. If you have technical or industry expertise in either of these sectors, or finance relating to them, please get in touch with [Sergiu](#) for agriculture, or [Katie](#) for shipping!



# What's happening with our TWGs?

## Grids

**Status: TWG developing Criteria**



The new Electrical Grids TWG, convened in June 2018, has begun to develop Criteria. Membership comprises universities, NGOs, consultancies, MDBs and industry associations, with widespread expertise in grids technologies and systems.

Current discussions are on the scope of the Criteria including chemical batteries accommodating bidirectional electrical flows, smart systems and the quintessential transmission and distribution assets.

EV-to-grid applications and pumped storage (hydropower) are out of scope.

## Marine

**Fisheries & Aquaculture: TWG developing Criteria**



In H1 2018 we had the first certifications using the [Marine Renewable Energy Criteria](#). It was a bit of a race to see who would get in there first and ABN AMRO took 1st place with its bond for offshore wind in April 2018. Bank of China, ICBC, NAB and KBC Group followed shortly after. Issuers must comply with mitigation and resilience requirements in order to be Climate Bonds Certified.

Development of Fisheries Criteria has kicked off again – we had a break in development while wrapping up Marine Renewables. We're hoping to push this forward and draft Criteria should be out for public consultation in a few months.

## Forestry

**Status: just closed public consultation**



[Forestry Criteria](#)

were released for public consultation in early June 2018. We've had great engagement with many different organisations. Consultation is now closed but you can still read the Criteria on our website. We're responding to comments at the moment and aim to present the Forestry Criteria to the Climate Bonds Standard Board for final approval in August.

The level of interest that public consultation generated indicates that we'll be seeing certifications in this sector before too long – watch this space!

## Waste Management

**Status: TWG developing Criteria**



The [Criteria development](#) process is nearing completion and we are currently reaching out to experts in the Waste Management sector to join the Industry Working Group. This group will review the draft Criteria and provide their feedback over a series of meetings.

This process is expected to take one month and will be followed by public consultation.

If you or someone from your organisation is interested in joining the Industry Working Group, please contact [Cory](#).

## Bioenergy

**Status: just closed public consultation**



[Bioenergy Criteria](#)

has also recently gone through public consultation. These Criteria cover bioenergy for electricity, heating & cooling, and transport and has two components: mitigation and adaptation & resilience.

The mitigation component requires a GHG threshold, set at a level that indicates the energy produced is aligned with 2°C warming, is met. The adaptation & resilience component checks that issuers have identified and addressed climate risks. Issues such as food security and indirect land use impacts are also covered.

Issuing a bioenergy-related green bond and want to become certified? Find out more on the [Bioenergy Criteria here](#).

## Hydropower

**Status: public consultation imminent**



We will be releasing [Hydropower Criteria](#) for public consultation in Q3 2018. The TWG has been working diligently since June 2016 to develop robust Criteria.

The Hydropower Criteria encompass three types of requirements: Mitigation; Adaptation & Resilience; and Environment, Social and Governance (ESG). The mitigation component sets thresholds and Criteria for net emissions of the facility while the adaptation and resilience component requires hydropower facilities to address resilience to climate change impacts. The third component identifies any significant gaps that the facility demonstrates against international good practice across the full range of ESG topics.

## Buildings

**Status: Criteria published, continually expanding**

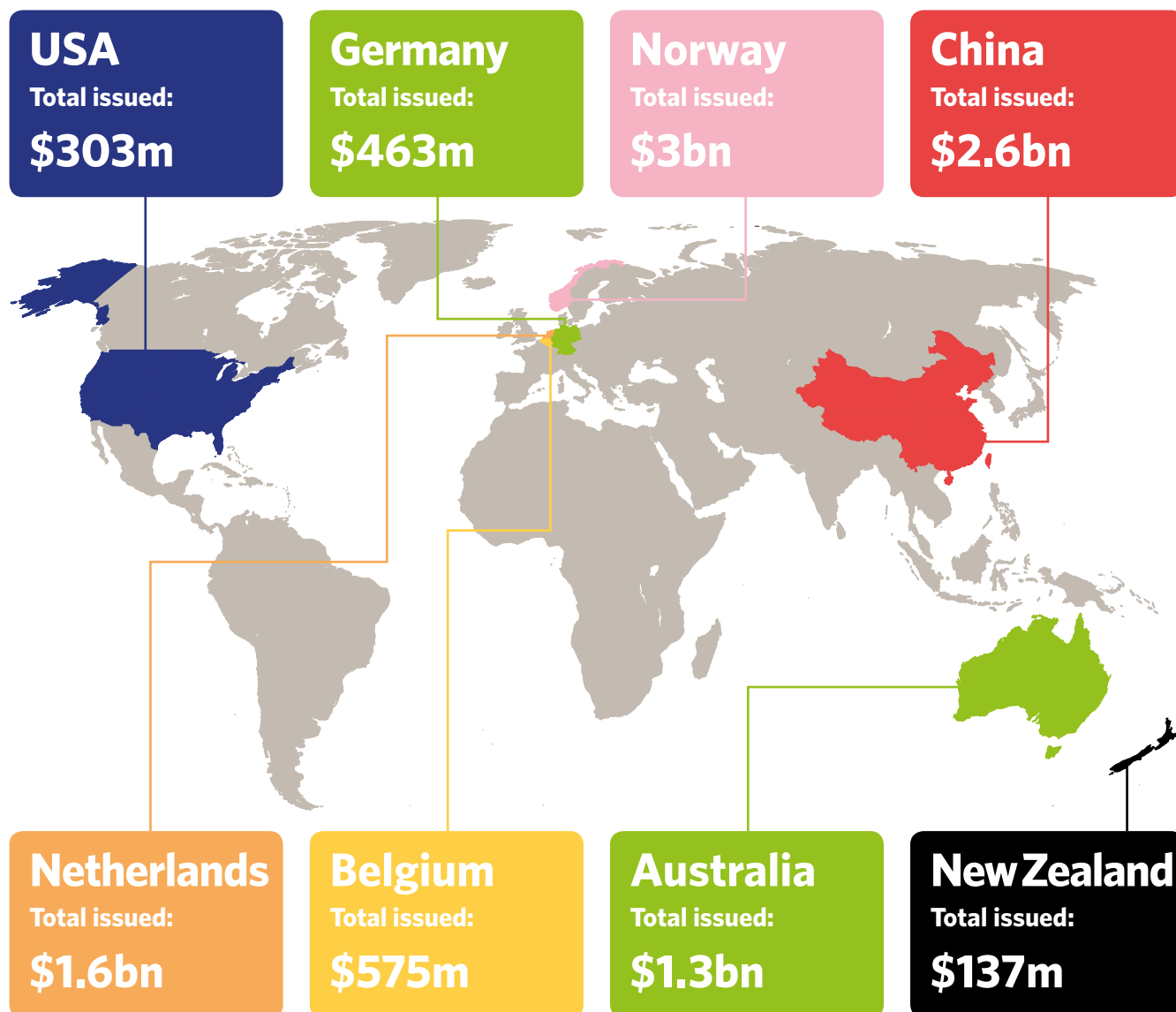


As the [Building Criteria](#) is location specific, it requires ongoing research and development of localised low carbon trajectories and market performance proxies. We are excited to announce several markets have been or are soon to be unlocked using data provided by local governments. These include; China's 3-Star program, Norway, Belgium, South Korea, Mexico City, Tokyo and Seattle. For a full list of trajectories and proxies available, see the relevant criteria page.

In addition to these updates, we're working to provide a range of guidance documents, including easy to read methodologies for establishing new proxies, a Q&A and updated Criteria documents to make issuance as streamlined as possible.

# Snapshot of Certified Climate Bonds

H1 2018: January - June 2018



Full details of all Certified Climate Bonds can be [found on our website](#).

## Meet the Climate Bonds Standard & Certification team



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Head of Standards



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