

# POLICY RECOMMENDATIONS FOR THE SINGAPORE CARBON TAX REVIEW

December 2021

#### **EXECUTIVE SUMMARY**

As the Government of Singapore prepares for the next phase of its carbon pricing policy, by allowing the use of international offsets, including from natural climate solutions (NCS), under the revised carbon tax, Singapore can increase the efficiency and flexibility for meeting its national climate change objectives. Specifically, this policy decision can help Singapore:

- Meet its NDC targets cost-effectively;
- Become a regional hub for carbon services and trading (e.g., project origination, development):
- Incentivise private sector investment into NCS to encourage carbon markets with high integrity; and
- Build capacity and accelerate climate action in region by stimulating Article 6 cooperation and readiness (e.g., facilitating corresponding adjustments).

While there may be limited potential for generating sufficient reductions and removals domestically, Singapore can once again take the lead in the region by building up necessary policies, capabilities and infrastructure to enable the use of international carbon credits for compliance across a wide range of sectors including NCS. This may give potential country partners additional incentives to similarly establish necessary technical and governance capacities to participate in these market opportunities and unlock significant supply potential in the region especially for NCS. Singapore's respected role as an international finance hub would make it a strong model for other countries if it included NCS in its system. The ability to leverage digital technologies would also put Singapore in good stead to ensure the environmental integrity of NCS for example in areas such as transparency and double counting.

#### 1. GLOBAL DEVELOPMENTS IN CARBON PRICING

Carbon pricing has shown to be an effective policy mechanism and will continue to be an important tool for climate action

Since the introduction of the first carbon tax in 1990 by Finland, carbon pricing mechanisms have over the past three decades demonstrated to be efficient policy tools in reducing emissions and spurring investments in clean technologies. To-date, there are 64 carbon pricing instruments in operation covering 21.5% of global GHG emissions representing a significant increase from 2020,

which saw only 15.1% of emissions covered<sup>1</sup>. This is largely due to the launch of China's national emissions trading scheme (ETS) in February 2021. Collectively, over USD 53 billion has been raised in carbon taxes in 2020. While carbon pricing will remain an important tool by governments to meet emissions reduction targets, its effectiveness will depend on how well it balances climate impact with economic competitiveness amid dynamic political and market conditions. Currently, most carbon prices fall below the USD  $40 - 80/tCO_2e$  range needed to meet the  $2^{\circ}C$  goal of the Paris Agreement with only 3.76% of prices at and above this range<sup>2</sup>.

#### 2. COP26 UPDATES

Article 6 provides an enabling framework for carbon markets and the call to action towards nature is more urgent than ever

At the COP26 UN climate negotiations in Glasgow, countries reached an agreement on the rules for international cooperation through market and non-market mechanisms (Article 6), thus finalising the Paris Agreement 'Rulebook' and paving the way for increased climate action and finance flows to mitigation actions. This included guidance on internationally transferred mitigation outcomes (ITMOs) to ensure environmental integrity while promoting flexibility and higher ambition for meeting global mitigation goals. At the same time, there was renewed emphasis on the role of nature in climate action through various declarations and pledges such as the Glasgow Declaration on Forest and Land Use through which countries committed to halt and reverse forest loss by 2030. With the enabling framework of Article 6 in place alongside a spotlight on nature, COP26 has therefore signalled the increasing importance of carbon markets and nature-based solutions in addressing climate change as well as their interlinkages.

#### 3. OPPORTUNITY FOR LINKING CARBON PRICING AND NATURE

Countries can reap a double dividend (economic and environmental) with additional benefits for livelihoods, adaptation and biodiversity

It is widely known that nature can provide at least 30% of cost-effective mitigation needed by 2030 based on a landmark study led by Bronson Griscom, Conservation International's Senior Director of Natural Climate Solutions (NCS). Yet only 3% of international climate funding has been directed towards NCS with the majority towards cutting emissions from energy use. Carbon pricing and NCS can come togethers to accelerate climate mitigation, increase overall ambition and bring additional benefits for livelihoods, adaptation and biodiversity. Cost-effective NCS offer globally significant climate mitigation in the coming decades. In half of the tropical countries, cost-effective NCS (<USD 100/tCO<sub>2</sub>e) could mitigate over half of national emissions and in more than a quarter of tropical countries, cost-effective NCS potential is greater than national emissions<sup>3</sup>. It is worth noting that NCS climate mitigation is not meant to replace decarbonisation and other measures intended to reduce emissions, rather to complement such measures.

<sup>&</sup>lt;sup>3</sup> Griscom, Bronson et al. "National mitigation potential from natural climate solutions in the tropics". Phil. Trans. R. soc. B 375: 20190126. https://royalsocietypublishing.org/doi/pdf/10.1098/rstb.2019.0126.



<sup>&</sup>lt;sup>1</sup> World Bank Group. "State and Trends of Carbon Pricing". Washington DC, May 2021 <a href="https://openknowledge.worldbank.org/handle/10986/35620">https://openknowledge.worldbank.org/handle/10986/35620</a>

<sup>&</sup>lt;sup>2</sup> World Bank Group. "State and Trends of Carbon Pricing". Washington DC, May 2021 https://openknowledge.worldbank.org/handle/10986/35620

The majority of carbon pricing mechanisms are either markets or taxes, or a hybrid system. These mechanisms are designed to shift consumption away from fossil fuels by putting a price on carbon emissions. In regions with significant natural assets, like Asia-Pacific, there is a tremendous opportunity for such systems to be linked to natural climate solutions and simultaneously achieve core climate and conservation goals, promote livelihoods and support economic growth. By doing so, these countries can potentially reap a double dividend (economic and environmental) from carbon pricing.

#### Climate Benefits

- Support the achievement of national climate goals
- Shift away from carbon-intensive industries and goods
- Increase investments in a spectrum of mitigation approaches, including natural climate solutions
- Generate new revenues for natural climate solutions (e.g., tax revenue or civil penalties) – leading to additional emissions reductions

#### **Other Benefits**

- Flexibly lower emissions in the most costeffective way
- Contribute to sustainable livelihoods
- Create new and greener jobs
- Protect and restore threatened ecosystems and biodiversity
- Maintain and enhance ecosystem services and ecosystem-based adaptation

Figure 1. Benefits of including nature in carbon pricing policies

#### 4. BACKGROUND ON SINGAPORE'S CARBON PRICING POLICY

Singapore has built a good foundation through its current tax regime and has since strengthened the enabling conditions for a vibrant carbon market

Singapore has taken the lead in Southeast Asia as the first country in the region to put a price on carbon. The Carbon Pricing Act (CPA), introduced in 2019, laid a good foundation by providing a financial incentive across sectors to transition towards a low-carbon economy. The current review of Singapore's carbon tax rate and trajectory post-2023 presents an opportunity to better support its broader climate strategy and ambition to be a carbon trading and services hub. Since the carbon tax was implemented, there were many developments which have strengthened the enabling conditions for a vibrant carbon market and recognised the value of NCS. These include initiatives in (i) R&D through the set-up of the NUS Centre for Nature-based Climate Solutions, (ii) growing the ecosystem of enterprises with more than 70 carbon services firms, (iii) facilitating supporting infrastructure through the Climate Warehouse project and (iv) the creation of carbon exchanges such as Climate Impact X.

Against this backdrop, it is timely for Singapore to consider the inclusion of NCS and the use of international offsets in the review of its carbon pricing regime. While there may be limited potential for generating sufficient reductions and removals domestically, Singapore can once again take the lead in the region by building up necessary policies, capabilities and infrastructure to enable the use of international carbon credits for compliance across a wide



range of sectors including NCS. This may give potential country partners additional incentives to similarly establish necessary technical and governance capacities to participate in these market opportunities and unlock significant supply potential in the region especially for NCS. Singapore's respected role as an international finance hub would make it a strong model for other countries if it included NCS in its system. The ability to leverage digital technologies would also put Singapore in good stead to ensure the environmental integrity of NCS for example in areas such as transparency and double counting.

#### 5. ASSESSMENT OF NCS IMPLEMENTATION IN ASIA-PACIFIC

There are significant NCS supply opportunities in the region, but countries are at varying stages of developing necessary enabling conditions

Within the Asia-Pacific region, recent research led by Conservation International has shown that key ecosystems across Southeast Asian islands collectively contain 13.1Gt of irrecoverable carbon – equivalent to 1.5 years of global fossil fuel emissions<sup>4</sup>. They also have some of the highest concentrations of irrecoverable carbon worldwide with the islands housing nearly 9% of all irrecoverable carbon on Earth. Understanding where priority ecosystems are located can help governments focus efforts to protect 30% of land by 2030. However, unlocking the supply potential of NCS requires enabling policies and conditions which vary across countries in the region. Several countries have started taking steps to develop the necessary policies and frameworks, yet gaps remain which present opportunities for engagement. A summary of some of these countries are listed here and further detailed analyses can be shared where helpful.

#### Indonesia

Indonesia announced the introduction of a carbon tax from April 2022 at USD 2.10/tCO<sub>2</sub>e with a carbon market expected to be operational by 2025. Concurrently, it is also building up institutional capabilities on REDD+ by participating in a Joint Crediting Mechanism pilot project and updating its Forest Reference Emission Level (FREL) to include soil organic matter from mangroves and peat. However, to start generating high-quality mitigation outcomes the Government of Indonesia should establish further enabling conditions such as REDD+ nesting approaches, benefit sharing with local communities and clarity on carbon rights. As part of the FREL update process, Indonesia should define its process for recognising existing site-scale REDD+ projects under the national REDD+ program. There are also opportunities to engage on blue carbon ecosystems due to the strong focus on coastal resilience in Indonesia's NDC including plans to pursue coastal zone protection and integrated watershed management.

#### **Philippines**

The Philippines has made some progress on establishing domestic carbon pricing mechanisms. In February 2020, a cap-and-trade bill called the Low Carbon Economy Act was approved to establish a cap-and-trade system for the industrial and commercial sectors with the highest greenhouse gas emissions and with the most cost-effective opportunities to reduce emissions. In addition, the country's Department of Environment and Natural Resources (DENR) is working on establishing the Carbon Accounting, Verification and Certification System for Forest Carbon Projects (CAVCS). This is intended to encourage investments in projects that sequester carbon and standardise related

<sup>&</sup>lt;sup>4</sup> Noon, Monica et al. "Mapping the irrecoverable carbon in Earth's ecosystems". Nature Sustainability (2021) https://www.nature.com/articles/s41893-021-00803-6



GHG monitoring and reporting procedures. In terms of REDD+ developments, the country last updated its REDD+ strategy in 2017 and its FREL is expected to be submitted soon. Mangroves are included in the definition of forest. However, the Philippines has not made any formal progress on establishing REDD+ nesting arrangements though efforts to pursue a specifically dedicated legal framework for REDD+ is underway to address issues such as double counting and carbon rights. Six REDD+ projects have also been developed to provide lessons learned to the national REDD+ readiness process.

#### Cambodia

Cambodia endorsed a national Payment for Ecosystem Service (PES) scheme in 2016, through which several feasibility studies and pilot projects have been developed. Yet further work is required to put these PES options into operation including defining institutional arrangements. The country also intends to finance its NDC through a mix of national and international funds in addition to market mechanisms in line with the progress on Article 6 as mentioned in its Climate Change Strategic Action Plan 2014 – 2023. In terms of REDD+ developments, Cambodia submitted its national REDD+ strategy in 2017 and launched their National Forest Monitoring System in the same year. They have also submitted an updated Forest Reference Level (FRL) in January 2021. While the FRL is currently not in alignment with the national GHG inventory but in transition, the next inventory will be aligned with the FRL. Additionally, a REDD+ nested system is being developed with the participation of national stakeholders, including Conservation International. The system will set up the national policy and legal framework to access the voluntary market and results-based payments at project and national levels.

#### 6. CASE STUDIES OF COUNTRIES LINKING CARBON PRICING AND NATURE

Interest and demand for NCS offsets from the private sector have grown significantly over the past years in the voluntary carbon market. However, there is also a growing number of compliance regimes allowing offsets to count against obligations such as California's Cap-and-Trade Program. While these instruments account for only  $18MtCO_2e$  in 2020, it represents a 13% increase on 2019 demand. Below are some examples of carbon pricing instruments which include nature that have been successfully implemented. More details on Costa Rica and Colombia are provided in **Annex A**. Additionally, examples of carbon pricing instruments that allow the use of offsets in general are listed in **Annex B**.

- Costa Rica Fossil Fuel Tax. Generates approximately USD 30 million annually for forest conservation. This model is aimed at providing a sustained finance flow to help conserve and restore natural assets while lowering carbon emissions from fuel use.
- Colombia Carbon Tax. Companies subject to the carbon tax may reduce their tax obligations by purchasing NCS offsets in place of paying the tax. The tax can also be paid with carbon credits from energy efficiency or other energy related projects. Additionally, a portion of the collected tax revenues is invested in nature conservation.
- California Cap-and-Trade Scheme. Covered sectors may use offsets to fulfill a small portion of their emission reduction requirements, including through forest carbon offsets. To-date, nearly 165 million forest credits have been traded, with over 41 million



offset credits issued to projects implemented in partnership with indigenous Native American tribes.

## **Key Recommendations**

- NCS can be included in Singapore's revised carbon pricing mechanism by **allowing the** use of international NCS offsets for companies to meet obligations AND/OR directing a portion of revenue for investment in NCS projects. Where possible there should be clear guidelines on acceptable project types, vintages and alignment with internationally recognised methodologies or standards.
- This will help Singapore achieve several objectives including:
  - ✓ Meeting NDC targets cost-effectively in addition to other emissions reduction measures
  - ✓ Establishing Singapore as a **regional hub for carbon services and trading** (e.g., project origination, development)
  - ✓ Incentivising private sector investment into NCS to drive carbon market uptake
  - ✓ **Building capacity in region** by stimulating Article 6 cooperation and readiness (e.g., facilitating corresponding adjustments)
- There should be a focus on high-quality NCS outcomes that optimise and maximise to the extent possible, both GHG mitigation (carbon benefits) and non-carbon benefits. These projects typically:
  - ✓ Achieve quantifiable and additional net GHG emission reductions or removals
  - ✓ Maximise generation and valuation of co-benefits across various categories:
    - a) **Social:** prioritise local, project-level benefit sharing with indigenous peoples and local communities and all stakeholders
    - b) **Adaptation and resilience:** contribute to adaptation of people and biodiversity to current and expected climate change impacts
    - c) **Environmental:** biodiversity and wildlife conservation as well as the provision of critical ecosystem services
  - ✓ Support and accelerate transition and progression towards the implementation of national policies and processes, including REDD+



- ✓ Endeavour to ensure rigorous and aligned accounting via nesting or jurisdictionalscale implementation
- ✓ Avoid corresponding increases in emissions in other locations (address the risk of leakage)
- ✓ Deliver long-term results (have systems to address the risk of permanence) as well as long-term financial viability
- ✓ Guarantee equity in the distribution of benefit and efforts, including non-monetary and monetary costs
- ✓ Ensure transparency in terms of offset prices and financial flows
- ✓ Consider ways to mitigate risks and unintended consequences.
- High-value NCS credits should also fetch an equitable price that covers the costs of generating, monitoring and verifying high value credits, and fully integrates and fairly values carbon and non-carbon outcomes. They should demonstrate delivery on the desired outcomes by implementing testable theories of change through impact evaluations and generate measurable outcomes.



#### **ANNEX A**

Detailed case studies on the carbon pricing instruments of Costa Rica and Colombia

#### Colombia – Use of tax revenues for NCS and allowing offsets to reduce tax burdens

Colombia's tax of \$5 per tonne of emitted carbon yielded revenues of \$148 million in 2017 and \$91 million in 2018. These go to the Colombian Peace Fund, from which 25% is used to manage coastal erosion, reduce and monitor deforestation, conserve water sources, protect strategic ecosystems and combat climate change. A further 5% is used to strengthen Colombia's National System of Protected Areas. The revenue will be used for conservation projects in the following prioritized areas: flood-plain forests, tropical montane cloud forests, tropical humid forests, tropical savannahs and Andean forests. These projects are in the development phase and are waiting to access the fund. There is also a project to enhance the Colombian Environmental Information System (SIAC), a web-based platform that provides official information on the state of the country's natural resources and which is under development. A mechanism called carbon neutrality allows companies to reduce their tax burdens by buying certified carbon credits from conservation and restoration projects in Colombia that adhere to internationally recognised standards. For example, a company might buy a credit in a region that promotes social initiatives with communities that are involved in managing these projects.

One concern is that if offsets are available at less than \$5 per ton of carbon dioxide, the tax incentive to abate emissions is relaxed. An additional challenge is posed by the need to align project-scale accounting under the domestic scheme with the jurisdictional-scale accounting necessary for environmental integrity and participation in international REDD+ (reducing emissions from deforestation and forest degradation) transactions.

Sources: Barbier, Edward et al. "Adopt a carbon tax to protect tropical forests" Nature (2020), Monge, Camilo "Colombia puts a tax on carbon" Conservation Finance Network (2018)

#### Costa Rica – Use of tax revenues for NCS and transparency of funding

Since 1997, Costa Rica has collected a 3.5% tax on fossil fuels. That now generates \$26.5 million per year. The tax was negotiated in Costa Rica's legislative assembly and supported by research from the non-governmental Tropical Science Center in San José, which examined the benefits of forests to the country's economy. Implementation faced little opposition because the tax was incorporated with other fiscal reforms. Surveys of fossil-fuel users indicated that they did not object if revenues were directed to forest conservation.

To invest the money raised, Costa Rica created its National Forest Fund (FONAFIFO). For example, from 1997 to 2018, the fund paid out to landowners across 23.5% of the country — an area of 1.2 million hectares. They spent the money on projects to protect 1 million hectares of mature forest and 71,000 hectares under reforestation. The fund supports conservation of mature forests, reforestation using native or exotic species, and agroforestry systems that use a mix of trees and crops or grasslands. It has disbursed \$500 million to roughly 18,000 people, including those living across 162,000 hectares of Indigenous lands, such as the Cabécar and Bribri territories. Transparency and accountability of the fund's operations are important to its success and continued popularity, so strategic and operational plans, budgets, financial statements and other details are available online.

Source: Barbier, Edward et al. "Adopt a carbon tax to protect tropical forests" Nature (2020)



### **ANNEX B**

Examples of carbon pricing instruments allowing the use of offsets (Source: <u>Carbon Pricing Dashboard</u>)

Table 1. Examples of carbon tax initiatives allowing the use of offsets

Jurisdiction	Year Implemented	Share of jurisdiction's GHG emissions covered (%)	Price level (US\$ / tCO <sub>2</sub> e)	Use of offsets
Slovenia	1996	50	20	Small emitters that were excluded from the EU ETS can choose to meet their payment obligations with EU emission allowances. These small emitters can also choose to meet up to 11% of their compliance obligations with international credits, i.e., Certified Emission Reductions (CERs) or Emission Reduction Units (ERUs). The same qualitative restrictions of the EU ETS apply to the use of international credits.
Liechtenstein	2008	26	101	Companies with commitments to reduce or compensate GHG emissions can use offsets to a <b>certain extent</b> to fulfil their obligations. Importers of transport fuels need to compensate a part of the CO2 emissions attributed to the use of the fossil fuels with offsets from domestic emission reduction projects.
Mexico	2014	23	0.4 – 3	Companies liable to pay the carbon tax may choose to pay with credits from <b>CDM projects developed in Mexico</b> or <b>CERs</b> that are also eligible for compliance in the EU ETS, equivalent to the market value of the credits at the time of paying the tax.
Colombia	2017	24	5	Emitters can achieve <b>carbon neutrality</b> through the use of offset credits generated from projects in Colombia. Credits have to be verified by auditors accredited by the UNFCCC, Colombia's national accreditation body or a member of the International Accreditation Forum. Until the end of 2017, credits generated by <b>non-CDM projects outside of Colombia</b> are also eligible.
South Africa	2019	80	9	Companies may be eligible for a <b>5 or 10</b> % offset allowance to reduce their carbon tax liability. Only domestic emission reduction projects will be credited, and scheme will rely primarily on existing international offset standards including <b>CDM</b> , <b>VCS</b> and <b>Gold Standard</b> .

Table 2. Examples of ETS initiatives (excluding China) allowing the use of offsets

Jurisdiction	Year Implemented	Share of jurisdiction's GHG emissions covered (%)	Price level (US\$ / tCO <sub>2</sub> e)	Use of offsets
Alberta	2007	56	32	Operators can use offset credits to meet their compliance obligations. Offset credits that have been <b>created in Alberta</b> using protocols approved by the Alberta government can be used for compliance.
Switzerland	2008	11	46	Several quantitative and qualitative restrictions apply to the use of ERUs and CERs. Each operator is restricted in the quantity of international credits it can use to meet its compliance obligations. Credits from GHG emissions reduction projects registered before December 31, 2012, can be used from <b>all countries</b> , except certain project types. For credits from emission reductions after January 1, 2013, only credits from projects hosted by <b>least developed countries (LDCs)</b> are eligible.
US Regional Greenhouse Gas Initiative (RGGI)	2009	23	6	Power plants participating in RGGI are allowed to use offsets to meet up to <b>3.3</b> % of their compliance obligations. Offset credits that have been <b>created in the RGGI region</b> from five project categories can be used.
Tokyo	2010	20	5	Operators can use eligible offsets to meet their compliance obligations. Eligible offsets include credits generated from energy efficiency measures in small and midsize facility <b>generated in Tokyo</b> , emission reduction measures in large facilities <b>outside Tokyo</b> (quantitative limit applies) and renewable energy projects.
Saitama	2011	20	5	Operators can use eligible offsets to meet their compliance obligations. Eligible offset includes credits generated from energy efficiency measures in small and midsize facility <b>generated in Saitama</b> , renewable energy projects, forestry absorption projects and emission reduction measures in large facilities <b>outside Saitama</b> .
California	2012	80	18	Between 2013 – 2020, operators could use eligible offsets to meet up to <b>8</b> % of their compliance obligations. From 2021 – 2025, this will decrease to <b>4</b> % and from 2026-2030 this will be limited to <b>6</b> %. Only offsets generated in the US according to an approved offset protocol are eligible e.g., California Tropical Forest Standard
Quebec	2013	78	18	Operators can use eligible offsets to meet up to <b>8</b> % of their compliance obligations. Only offsets generated in Canada or those from a linked jurisdiction (California) are eligible. Offsets need to meet the requirements of all applicable offset protocols.



Korea	2015	74	17	In March 2021, the government announced changes to ETS rules, including removing distinctions to domestic and internationally generated offsets. Previously, emitters could use up to 2.5% for international offsets, of the total 5% offsets for compliance. The new rules will allow emitters use <b>international credits</b> for the full <b>5</b> % of eligible offset use to cover emissions from 2021 onwards.
British Colombia	2016	NA	20	Operators can use eligible offsets to meet their compliance obligations. Only offsets generated from projects according to an approved offset protocol are eligible.
Canada	2019	9	32	Facilities can use eligible offsets to meet their compliance obligation. Eligible offsets can be generated from voluntary activities that are not subject to carbon pricing regulations and go beyond 'business as usual' practices and meet all offset eligibility requirements established by the federal government for compliance use under the federal OBPS.
Mexico	2020	40	NA	During the pilot phase, participants will be able to meet up to <b>10</b> % of their compliance obligations with offset or early action credits. The Secretariat of Environment and Natural Resources (SEMARNAT) will establish a domestic program for the generation of credits that can be surrendered for compliance in the national ETS.
Washington	2023	67	NA	Operators can use eligible offsets to meet up to their compliance obligation. Only offsets <b>generated in Washington</b> according to an approved offset protocol are eligible.



Table 3. Examples of ETS initiatives (China) allowing the use of offsets

Jurisdiction	Year Implemented	Share of jurisdiction's GHG emissions covered (%)	Price level (US\$ / tCO <sub>2</sub> e)	Use of offsets
Beijing	2013	37	4	Operators can use eligible offsets to meet up to <b>5</b> % of their compliance obligations. Only Chinese project-based carbon offsets (CCERs) generated from certain project types after January 1, 2013, or February 16, 2005, for forestry carbon sequestration projects, are eligible. At least 50% of the surrendered CCERs must come from projects within Beijing.
Shanghai	2013	35	6	Operators can use eligible offsets to meet up to <b>1</b> % of their compliance obligations. Only domestic project-based carbon offsets (CCERs) generated after January 1, 2013, are eligible. CCERs from hydro projects are not allowed.
Shenzhen	2013	29	1	Operators can use eligible offsets to meet up to <b>10</b> % of their compliance obligations. Only domestic project-based carbon offsets (CCERs) generated in specific geographical locations from certain type of projects are eligible. CCERs from hydro projects are not eligible.
Tianjin	2013	33	4	Operators can use eligible offsets to meet up to <b>10</b> % of their compliance obligations. Only domestic project-based carbon offsets (CCERs) from CO2 reduction projects generated after January 1, 2013, are eligible. CCERs from hydropower projects are not eligible.
Guangdong	2013	27	5.7	Operators can use eligible offsets to meet up to <b>10</b> % of their compliance obligations. Only domestic project-based carbon offsets (CCERs) generated from certain project types or locally developed Pu Hui Certified Emission Reductions (PHCER) are eligible. At least 50% of the surrendered CCERs must come from CO2 or CH4 reduction projects and at least 70% from projects in the Guangdong province.
Chongqing	2014	21	3.7	Operators can use eligible offsets to meet up to <b>8</b> % of their compliance obligations. Only Chinese project-based carbon offsets (CCERs) generated after December 31, 2010, except for forestry projects, are eligible. CCERs from hydropower projects are not eligible.



Hubei	2014	30	4	Operators can use up to <b>10</b> % of their annual initial allocation in eligible offsets to meet their compliance obligations. Only domestic project-based carbon offsets (CCERs) generated between 2013 and 2015 from rural biogas and forestry projects are allowed. The projects have to be located in key counties under the national or provincial poverty alleviation plan in urban agglomeration areas of the middle reaches of the Yangtze River (within Hubei).
Fujian	2016	32	1.2	Operators can meet up to <b>5%</b> of their annual compliance obligations with eligible non-forestry offsets or up to <b>10%</b> if both eligible forestry and non-forestry offsets are used. Eligible forestry credits are Fujian Forest Certificated Emission Reduction offsets generated after February 16, 2005, and eligible non-forestry projects are domestic project-based carbon offsets (CCERs) from CO2 and methane reduction projects generated in Fujian. CCERs from hydropower projects are not eligible.
China (national)	2021	30	NA	Up to <b>5</b> % of entities' allowance obligations can be met with offsets from the China CCER mechanism.

