

The ReedSmith logo is positioned in the top left corner of the page. It features the company name in a white, serif font against a background of cherry blossom branches and leaves. The background image is a low-angle shot of the Eiffel Tower in Paris, France, during a sunset or sunrise. The sky is filled with soft, golden light and scattered clouds. The tower's intricate lattice structure is silhouetted against the bright sky. In the foreground, there are green trees and a street with a few cars. The overall mood is serene and hopeful, reflecting the theme of the document.

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# The Paris agreement – leading the pathway to a low-carbon economy

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# INTRODUCTION

The agreement adopted on 12 December 2015 in Paris by 195 countries, plus the European Union (the “**Paris Agreement**”), aims to limit the adverse effects of climate change. The ink was barely dry before the debate opened up as to whether the Paris Agreement will be meaningful in driving the planet towards a low-carbon future.

Each person’s perspective on this debate turns on his or her expectations of what the Paris Agreement was supposed to provide for. Our expectations for the Paris Agreement (as outlined in our [September 2015 paper](#)) were entirely in line with the eventual outcome but, given how controversial and emotive a subject climate change is, the difference in perspective is hardly surprising. Ultimately, the Paris Agreement is not about what countries are legally obliged to do, but is about the signals it sends to countries, industry and business. On the signals it sends, the Paris Agreement is robust, ambitious, encompassing and enduring.

The purpose of this client paper is to provide commentary on the Paris Agreement and to share our interpretation of some of its key features and provisions. We have concluded by giving some insight on the types of business and industry sectors that may be impacted by the Paris Agreement and the broad nature of those impacts.

# OVERVIEW OF THE PARIS AGREEMENT

The Paris Agreement is a mere 12 pages long but is supported by a 20-page decision of the Conference of Parties (the “**COP**”) to the United Nations Framework Convention on Climate Change (“**UNFCCC**”). A signing ceremony will take place in New York on 22 April 2016 and the agreement will come into force once at least 55 countries accounting for at least 55% of global greenhouse gas emissions in total, deposit their instruments of ratification. Meetings of the Parties to the Paris Agreement (“**CMA**”) will be held at the end of November for the next few years at the same time as the COP meetings.

Although the agreement maintains the divide between developed countries and developing countries that exists under the UNFCCC framework, it is nonetheless different; it recognises that the obligations requiring stringent and speedy implementation under the Paris Agreement, which apply for developed countries at the outset, will also apply to developing countries progressively and over time. This idea is encapsulated in the new principle of “common but differentiated responsibilities and respective capabilities, in the light of different national circumstances”. Therefore, “developed country Parties” are expected to take the lead in tackling climate change, such as by reducing their own emissions and by providing financial assistance to “developing country parties” to aid in their adaptation and mitigation activities. The Ad Hoc Working Group for the Paris Agreement (“**AWGPA**”) has been established, replacing the Ad Hoc Working Group for the Durban Platform for Enhanced Action, to assist with further developing the policy and measures necessary to achieve the objectives of the Paris Agreement.

## *The legal form of the Paris Agreement*

As highlighted in our [September 2015 paper](#) and as seen during the Paris negotiations, one of the largest stumbling blocks was the legal form the agreement would take. The Durban Platform<sup>1</sup> included a mandate that any agreement reached in Paris would have “legal force”, i.e., that it would impose legally binding obligations; the implication being that the agreement would need to take the form of a treaty within the meaning of the Vienna Convention on the Law of Treaties (the “**Vienna Convention**”).





This essentially turns on whether the agreement in question purports to create legally binding obligations and whether the parties to it consent to being bound by those obligations; it does not matter whether the agreement is called a treaty. The concern in the run-up to COP21 was whether the current U.S. administration could deliver on a Paris Agreement that was a treaty, as it might trigger the Treaty Clause<sup>2</sup> under the U.S. Constitution.

As a matter of U.S. constitutional law, although the U.N. Framework Convention on Climate Change is a treaty, the Paris Agreement is unlikely to be classed as a treaty but as a mere agreement with several foreign powers<sup>3</sup>. As such, it falls within scope of the president's executive power. Had a legally binding financial commitment been required or the U.S. NDC been legally enforceable under international law, such features could have taken the Paris Agreement outside the scope of the president's executive powers. By avoiding any binding obligations relating to funding or emission cuts in the Paris Agreement, the need for Congressional approval does not arise.

Putting to one side the U.S. constitutional definition of a treaty, the Paris Agreement satisfies the definition of a treaty under the Vienna Convention. Article 20 provides a procedure for ratification of the agreement by each party, and Article 21 provides that the agreement will only enter into force once 55 parties (who collectively account for at least 55% of the total global greenhouse gas emissions<sup>4</sup>) have ratified it. Further, Article 15 provides a compliance mechanism whereby a committee of experts will be established and will operate under the modalities and procedures adopted by the COP. There is also a binding reporting and review process as part of the enhanced transparency framework, by which all parties will be held accountable under a common set of accounting standards.<sup>5</sup>

Importantly, not all provisions of the Paris Agreement must be legally binding in order for it to meet the criteria of being a treaty. It is clear that every clause of the Adoption Decision and the agreement has been heavily negotiated, the result being that the agreement contains some legally binding obligations and many non-binding aims and resolutions. Most notably, neither the Below 2° Target, nor the achievement of NDCs, is obligatory.<sup>6</sup> This has led some critics to suggest that the Paris Agreement does little to build on the climate change obligations already imposed upon the parties by the 1992 UNFCCC.<sup>7</sup> However, this is to ignore the fundamental difference that the collective political will of over 195 nations is clearly aligned on the issue that something must be done and the time to do it is NOW, which is a major and ground-breaking achievement of the Paris Agreement.



# KEY FEATURES AND PROVISIONS

## *Ambition and the long-term signal (Article 2):*

Article 2 sets out the degree of ambition to be achieved. The Paris Agreement contemplates holding the global average temperature increase to 2°C and (contrary to pre-COP21 expectations) expresses a willingness to pursue efforts to limit the increase to 1.5°C (the “**Below 2° Target**”). Article 2 does not make the target legally binding, but it reflects the level of ambition on which the Paris Agreement rests, as well as the greater-than-expected success in Paris.

## *Delivering on the ambition (Article 4):*

In order to deliver on the Below 2° Target, parties are to aim to peak greenhouse gas emissions as soon as possible; although it is recognised that developing country parties will peak later than developed country parties. However, once that peak occurs, the fall in emissions thereafter must be rapid. The speed of that decline will be based on the best available science but the end result, to be achieved in the second half of this century, is a “*balance between anthropogenic emissions by sources and removals by sinks*”.

This provision reflects the move away from a simple ambition of the 2° target to a more variable outcome of between a 1.5°~2° target. The language in Article 4(1) is, therefore, non-specific in terms of when peaking is to occur or when the rapid falls in emissions commence. At first sight this may appear to be open ended and vague but, on a closer look, it seems that the parties have accepted that on those issues they will be guided by the best available science. This, in turn, provides a reference for when emissions can peak and at what speed rapid reductions must then follow.

The risks from climate change depend on cumulative CO<sub>2</sub> emissions which, in turn, depend on the amount of greenhouse gases emitted every year over the next decades. Scientists estimate that we can only produce a cumulative amount of 2900 GtCO<sub>2</sub> to remain within 2°C. The Intergovernmental Panel on Climate Change (“**IPCC**”) has already indicated that, to have a greater than 66% chance of keeping within the 2°C goal by 2100, only another 1000 GtCO<sub>2</sub> of CO<sub>2</sub> (our global “**Carbon Budget**”) can be emitted between 2011 and 2100 (even less to be within the Below 2° Target). As such, with respect to that remaining Carbon Budget, Article 4 is effectively an “air grab” of each country’s share of that budget via its nationally determined contribution (“**NDC**”).

Going into the negotiations, the parties were certainly aware of the various emissions pathways for both a 1.5°C and 2°C goal as presented to them by the Fifth Assessment Report of the IPCC.<sup>8</sup> This information was further refined by the UNEP Emissions Gap Report published in November 2015. The UNEP report bases its reference for meeting the 1.5°C and 2°C goals on “*modest emissions reductions compared to current policies until 2020 that are in line with the ambition of Cancun pledges. This implies a need for deep and stringent emission reductions over later decades.*”<sup>9</sup>

As summarised by the UNEP Report, “*In scenarios that keep warming to below 2°C with >66 per cent chance*”, the timing to reach net zero CO<sub>2</sub> emissions is “*around 2070 (range: 2060-2075)*”.<sup>10</sup> This gives us an indication of what “*in the second half of the century*” means within Article 4(1).

The UNEP report also makes clear that all of the studies carried out regarding achieving a net zero or negative emissions level rely on the use of (so-called) “negative emission technologies that offset any residual positive emissions. Such negative emissions might be achieved on a large scale, for example, by massive afforestation or by combining bioenergy with capture and storage of CO<sub>2</sub>.”<sup>11</sup> In short, without CCS and forestry preservation and growth, the Below 2° Target seems unlikely to be unachievable.

However, given (i) the revised variable outcome of a between 1.5°~2° target; (ii) the multiple options on pathways; and (iii) the influence of technology, policy structure and degree of overshoot, these all make trying to determine when each country will peak in its emissions difficult. The progressive updating of NDCs is therefore to be guided by the information, at the time available, regarding these various options and scenarios that could all affect when peaking would occur. At best therefore, based on today’s information, one can assume a range of possible reduction targets to achieve the 2° outcome. One such pathway, based on the 2 Target, taken from the UNEP Report, is as follows:<sup>12</sup>

2°C (>66% in 2100)	Pathways limiting warming to below 2°C by 2100 with >66% chance Limited action until 2020 and least-cost mitigation afterwards				
Number of available scenarios: 10; Number of contributing modelling frameworks: 4 Year of global annual emissions becoming net zero† for: Kyoto-GHGs: <b>2085 (2080–2090)</b> ; total CO <sub>2</sub> (including LULUCF <sup>13</sup> ): <b>2070 (2060–2075)</b> ; CO <sub>2</sub> from energy and industry: <b>2070 (2060–2075)</b>					
	<b>Annual emissions of global total greenhouse gases [GtCO<sub>2</sub>e/yr]</b>				
Year	2020	2025	2030	2050	2100
<b>median</b>	<b>* 52</b>	<b>48</b>	<b>42</b>	<b>23</b>	<b>-3</b>
range and spread	49(49/53)55	44(46/50)53	29(31/44)44	17(18/27)29	-11(-9/-1)0

As the table above suggests, fossil-fuel generated CO<sub>2</sub> emissions will have to reach a net zero position under this 2°C scenario by 2070 (and therefore even earlier under the Below 2°C Target). It is worth noting that net zero is not the requirement under Article 4(1) but instead the requirement of that article is that a “balance between anthropogenic emissions by sources and removals by sinks” is achieved (i.e., that some fossil fuels can still be burnt provided that the amount is capable of being absorbed by “sinks”, such as forests). Therefore, the extent of the continued use of fossil fuels, in the longer term, will be linked to the preservation of forests and development of other sinks.

Article 4(2) creates a legally binding obligation on all parties to prepare, communicate and maintain successive NDCs. According to Article 4(3), once a country sets out an NDC, it must undertake domestic measures to achieve the intended outcome. Each successive NDC must be progressive, reflecting its highest possible ambition. Article 4(4) suggests that economy-wide absolute emission targets should be the goal for all parties, with the developed country parties leading and the developing country parties following “over time”.

The timing for communication of such NDCs is to be guided by some common timeframes (to be provided by the CMA) but will be at least every five years. For those parties who have not yet submitted an NDC, they shall do so by the time they submit their instrument of ratification and, if a party has submitted an NDC but it does not extend to 2030, then it shall submit a new NDC by 2020. Otherwise, the first update of an existing NDC can be done at any time, but not later than 2020 and every five years thereafter. Each NDC is required to facilitate clarity, transparency and understanding, and guidance is to be developed on this by the AWGPA. All NDCs will be available for viewing in a public register to be maintained by the UNFCCC Secretariat.

In short, over time, the format for NDCs will likely change into something that follows a common reporting approach, developed under the enhanced transparency framework (see below) that allows for easier comparison of respective effort, and ensures methodological consistency between what is communicated and what is implemented.

### ***The role of markets and private sector participation (Article 6):***


This provision was the very last article of the Paris Agreement to be finalised. Its inclusion was contentious, particularly for several of the Latin American countries, but was ultimately included by providing for market approaches (Article 6 (1–7)), as well as for non-market approaches (Article 6 (8–9)).

The Paris Agreement creates two tracks for the use of market mechanisms (e.g. such as emissions trading).

The first, termed the “cooperative approach”, is a decentralised mechanism that allows voluntary bilateral and multilateral linkages of markets, for example into a “carbon club”. These linked markets will be able to trade units known as “internationally transferred mitigation outcomes” (“ITMOs”), in a manner supported by robust accounting to avoid double counting. It is clear that ITMOs are to be wider than the current Kyoto Protocol concept of “assigned amount units”. It seems likely that the generic nature of an ITMO is aimed at capturing multiple types of emission rights that may be the basis of the linkages established by two or more participating parties. For example, Japan’s current approach of signing up bilateral offset agreements with certain countries may fit within this cooperative approach framework. Ultimately, of course, the test will be whether the accounting approach adopted in the linked markets is consistent with the guidance on such accounting that is adopted by the CMA in its first session.

Within this first track, and in contrast to the approach of parties merely agreeing to cooperate in implementing their respective NDCs envisaged by Article 6(1), countries will also be able to choose to aggregate their respective NDCs and meet those NDCs jointly (as may be the case for the EU member states). Such joint compliance is catered for by Article 4(16-18).

The second track, promoted by Brazil and the EU during the final hours of the negotiations, is a centralised trading mechanism with broad similarities to both the Kyoto Protocol’s Clean Development Mechanism



(“**CDM**”) and the Joint Implementation (“**JI**”) mechanism. This centralised mechanism “*to contribute to the mitigation of greenhouse gas emissions and support sustainable development*” allows for emission reductions achieved to be used by a party to demonstrate achievement of its NDC. With its additional mandate to support sustainable development, this mechanism will be broader in scope than CDM and JI. It does not differentiate between developed or developing countries as host parties for the activity in question. Like the CDM and JI, this new mechanism will also allow for participation in the activity by private entities authorised by the relevant state parties.

It is too early to tell whether this new mechanism is to be entirely distinct from the CDM/JI or whether, in an attempt to avoid reinventing the wheel or to achieve a prompt start, the CMA will merely adopt much of the CDM/JI methodologies, practices, staff, etc. The new mechanism could provide an opportunity to launch a centralised offset mechanism that benefits from all of the knowledge, know-how and experience of CDM/JI, but does not replicate the same mistakes of those mechanisms. The Subsidiary Body for Scientific and Technological Advice (“**SBSTA**”) will develop guidance for the operation of the trading mechanisms under Article 6(2) and 6(4), and these will be adopted by the CMA at its first session.

Finally, Article 6(9) establishes a framework for non-market approaches aimed at promoting mitigation and adaptation, and enhancing public and private sector participation in the implementation of NDCs. SBSTA has been invited to undertake a work programme to consider how best to achieve these aims.

#### *Climate finance (Article 9):*

A key aim of the Paris Agreement is to uncouple greenhouse gas emissions from economic growth in developing countries. Climate financing is rightfully placed by the Paris Agreement at the forefront of achieving this objective by making it a legally binding obligation on developed country parties to provide financial resources to assist developing country parties with both mitigation and adaptation<sup>14</sup>. The agreement also recognises the broader donor base to organisations like the Green Climate Fund (“**GCF**”), by encouraging other parties (i.e., developing country parties) to continue to provide support voluntarily.<sup>15</sup>

A key question was whether the pledge by developed countries to provide US\$100 billion annually by 2020 for mitigation and adaptation projects in the developing world would become legally mandated by the agreement. Ultimately it did not. This was largely due to insistence by the U.S. delegation that there should not be a mandated financial commitment in the agreement. This was a significant concession by the other negotiating parties, but a necessary one given that the success of the Agreement rides on buy-in from all of the global superpowers.

Instead, decision 1/CP.21 (the “**Adoption Decision**”) contains a resolution by the parties to enhance the provision of climate financing and strongly urges developed country parties to put in place a concrete roadmap to achieve this financial target.<sup>16</sup> The Adoption Decision also makes it clear that the \$100 billion goal is a floor, and provides that the parties must meet prior to the 2025 COP to set a new (i.e. higher) collective financial goal taking into account the needs and priorities of developing countries at that time.<sup>17</sup>



The reality is that, for the Paris Agreement to be successful, its full implementation by developing country parties will depend on the level of climate funding raised and, most importantly, distributed to those parties.

### *Transparency*

Another key priority for the EU as well as the U.S. delegation in Paris was to ensure that the bottom-up approach of the NDCs did not lead to confusion or doubt as to the respective contributions of each of the implementing parties, whether developed or developing, towards meeting the Below 2° Target.

Historically, under the Kyoto Protocol, only developed countries were under legal obligations to establish and maintain a national system for the estimation of greenhouse gas emissions and removals using IPCC methodologies and IPCC good practice guidance for inventory management.

As the experiences of the Kyoto Protocol demonstrated, compliance with this requirement was not easy for many of the developed countries. Therefore, any expectation of an accounting or reporting requirement that was of a similar vein for all 195 parties was never on the cards in Paris.

What was instead agreed under Article 13 of the Paris Agreement and further elaborated under the Adoption Decision was considered a significant success by most observers. For the first time ever, all parties to the Paris Agreement will have an obligation to regularly provide a national inventory report of their respective emissions and information necessary to track that party's progress in implementing and achieving its NDC. In addition, information about a party's adaptation impact, as well as information on financial, technology transfer and capacity-building support offered to developing country parties, should also be provided. The information, to be provided by all parties other than least-developed countries and the small island states, must be delivered no less frequently than biennially. The information provided will then undergo a technical expert review and the party in question will be obliged to participate in a facilitative, multilateral consideration of progress with respect to efforts relating to that party's implementation and achievement of its NDC.

In order to ensure each party approaches its inventory and NDC implementation reporting in a consistent manner, an 'enhanced transparency framework' for action and support was established, with a mandate given to the AWGPA to develop modalities, procedures and guidelines. These modalities are meant to recognise the respective national capabilities and circumstances of developing country parties, but more specifically: (i) consider the consistency between the methodology communicated in the NDC and the methodology for reporting on progress made in implementing the NDC; (ii) the need to avoid double counting of emissions and duplication of reporting obligations; and (iii) the need to ensure frequency and quality of reporting.

The framework is intended to be facilitative, non-intrusive, non-punitive and respectful of national sovereignty. As such, no real penalties are provided for under the Paris Agreement for non-compliance. One might argue that this leaves the Paris Agreement with no teeth. However, given the importance of



the information collected towards the process of both the five-year review and the ratcheting of effort contemplated under the Paris Agreement, peer and political pressure, as well as funding for capacity building in developing countries, will be the key to ensuring the success of the intended transparency framework.

***REDD+ and forestry assets (Article 5):***

It is clear from the Paris Agreement text that in the medium to long term, forests have a very important role to play. After all, the Paris Agreement dedicates a whole standalone article to sinks and reservoirs of greenhouse gases, including forests. The precise nature of that role is not yet obvious but the express reference to sinks in achieving the long-term ambition of Article 4(1) clearly highlights its importance. The REDD+<sup>18</sup> policy approach will be based on the Warsaw Framework for REDD+, supplemented by previous and subsequent COP decisions (including social and environmental safeguards, reference levels and national forest monitoring systems).

The Paris Agreement makes reference to the use of results-based payments to reward measures that successfully reduce emissions from deforestation and forest degradation and both market and non-market based mechanisms may be used for effecting such payments.

Even though there was no clear reference to REDD+ falling within the market mechanisms of Article 6, at the same time, it was not explicitly excluded. In fact, the adoption of the language of “long-term” emissions reductions in the Adoption Decision lends further support to the idea that REDD+ activities could in fact be included as market-based mechanisms. With a market-based mechanism, the REDD payments could be in exchange for REDD offset credits traded under the Article 6(4) mechanism.

Article 5 also contemplates the use of a non-market mechanism with the inclusion of the reference to “joint mitigation and adaptation” (“**JMA**”). This JMA mechanism was a proposal by Bolivia as a non-market based alternative, born out of their resistance to market-based solutions based on the view that forests should not be commoditised and reduced to mere reservoirs of carbon. The JMA mechanism possibly links into the non-market mechanism under Article 6(8), which clarifies that non-market approaches shall aim to promote mitigation and adaptation ambition. Article 6(9) then establishes a framework for non-market approaches and therefore provides a process to develop and elaborate guidance for accounting the emissions and removals in future CMAs.

A clear reference to more funding to support forestry-related initiatives is provided in the finance section of the Adoption Decision and encourages the coordination of such support from both private and public sectors, bilateral, and multilateral sources (including the GCF). Currently, the lack of funds from the private sector is especially acute as it accounted for only 10% of all forestry financing provided through 2014. Now that the Paris Agreement recognises the “non-carbon benefits” of forests, it is a signal that parties see value in preserving forests for reasons other than reversing climate change, such as for the protection of biodiversity and the rights of indigenous peoples.



## OTHER PROVISIONS

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Of course, the scope of the Paris Agreement is a lot broader and holistic than just emissions reductions and climate finance. Some of these additional features include:

1. **Global stocktake:** The agreement provides for an assessment of the world's collective progress towards achieving the 2°C goal every five years in a "global stocktake". The first global stocktake will be in 2023, but a facilitative dialogue will take place in 2018 to take stock of collective efforts and to inform the preparation of NDCs.
2. **Adaptation:** The importance of non-market approaches is recognised by the agreement and a framework for non-market approaches to sustainable development is established to promote mitigation and adaptation, and to enhance public and private participation in cutting emissions. Modalities will be developed by the Adaptation Committee and the Least Developed Countries Expert Group to recognize the adaptation efforts of developing country Parties. The Adaptation Committee will also review the work of adaptation-related institutional arrangements in 2017 to look into ways to enhance the consistency of their work.
3. **Technology development and transfer:** The agreement establishes a technology framework which the SBSTA will start developing in May 2016. Their findings will be reported to the COP, which will then make a recommendation on the framework to the CMA for consideration and adoption at its first session.
4. **Capacity-building:** The decision recognises the importance of the provision of capacity-building support by developed country parties to developing country parties to enhance their ability to mitigate and adapt to climate change. The parties are to establish the Paris Committee on Capacity-building to address gaps in implementing capacity-building in developing country Parties.
5. **Loss and damage:** Small island nations succeeded in having a provision in the Paris Agreement which recognises loss and damage associated with climate change, but the decision makes it clear that this does not involve or provide a basis for any liability or compensation.
6. **Financial mechanisms:** The agreement is supported by various mechanisms for the provision of climate finance; namely, the Green Climate Fund, the Global Environment Facility, the Least Developed Countries Fund and the Special Climate Change Fund.

# WHAT DOES THE PARIS AGREEMENT MEAN FOR INDUSTRY AND BUSINESS?

In the short term, the direct effect of the Paris Agreement will be limited. Some immediate indirect effects will, however, be felt and these are, in our view, more likely to be revenue positive than revenue negative, i.e., in the form of new business opportunities.

Over the near and medium term, depending on whether the location of the industry or business in question is in a developed country or a developing country, the effects become increasingly more direct.

In the longer term (i.e., around 2070) the Paris Agreement clearly signals a severe cut in our dependency on fossil fuels, with an increased investment in forestry and other carbon sink assets.

We have sought to provide some examples of the types of business and industry sectors that may be so impacted by using the broad tabular approach below. Please note that for the purposes of this paper, it is not possible to cover all sectors and all geographies in this table. The purpose of the table is merely to illustrate how businesses may wish to assess the Paris Agreement’s impact on it, based on the signals referred to above.

Sector (industry or business)	Opportunity/Liability/Comment Colour Key: immediate (2016-2020); near (2020 – 2035); mid (2035-2050); long (2050-2070)
Capital markets and insurance	New financial and insurance product development to assist with the transition to a low carbon economy, including in renewable energy (e.g., corporate green bonds and project green bonds).
Equity and hybrid investment funds	New hybrid funding vehicles involving public and private finance to leverage public finance to support adaption and mitigation investment (e.g., via the accreditation approach of the GCF). Both public and private investment funds to invest in longer-term activities that have mitigation or other environmental benefit outcomes at their core (e.g., REDD+ investments that recognise results-based payments or sustainable forest management).
Banking regulation and corporate governance	Increasing corporate and financial product disclosure requirements to demonstrate consideration of climate change risk, initially driven by investor pressure, but subsequently under regulatory requirements.

Sector (industry or business)	Opportunity/Liability/Comment Colour Key: <b>immediate</b> (2016-2020); <b>near</b> (2020 – 2035); <b>mid</b> (2035-2050); <b>long</b> (2050-2070)
Carbon trading	New carbon trading markets in countries such as China and other countries, e.g., those that have been supported by the World Bank’s PMR initiative <sup>16</sup> . China’s national ETS launches in 2017 while other countries may be slightly further behind and are more near-term than immediate opportunities. Prompt-start offset projects to support the aviation offset demand from 2020 and the mechanism under Article 6(4).
	Launch of further carbon trading schemes in ex-‘developing countries’ and increased linkages via ‘cooperative measures’ and ‘carbon clubs’ (e.g., China linking with South Korea, further Canadian regional ETS linkages with U.S. regional ETSS).
Mining (e.g., coal)	In some countries such as the UK, a commitment has been expressed to phase out coal-fired power generation by 2025. Similar policy decisions in other countries could lead to a progressive disposal of coal assets in those countries. This is likely to lead to increased M&A activity.
Renewable energy (e.g., wind, solar)	Increased demand for renewable energy will lead to growth in new renewable investment. The policies of the country in question (e.g., solar in Saudi Arabia, North Africa and India, biomass and wind in Brazil, etc.) will determine the type of renewable opportunity and demand in the country. The timing will turn on whether the country is a developed country (e.g., EU member states with a 30% renewables target by 2030) or a developing country (e.g., India, which conditions its investment away from coal on financial support from developed countries).
Transportation (e.g., road, air and sea)	Increased demand for low emissions vehicles and increased fuel emission standards will drive the market to get behind and promote a particular hybrid fuel technology (e.g., lithium-ion or hydrogen fuel cell cars vs hybrid or biofuel mixed cars) mirrored with development in battery technology and infrastructure to support such vehicle type (e.g., vehicle charging points or LNG refilling stations). Aviation emissions offsetting schemes under the ICAO framework may lead to new offset markets to supply to the aviation sector. Increased demand for more fuel efficient aircraft will lead to some developing countries refreshing the older aircraft in their fleet, leading to increased aircraft acquisition and financing work.
Real estate/ construction	Increase usage of energy efficiency and “green buildings” policy measures.
Forestry, conservation and agriculture	With the increase in the number of countries adopting carbon trading mechanisms and the increase in the ambition levels via the ratcheting mechanisms of the Paris Agreement, market mechanisms under Article 6(4) to support REDD+ credits may develop.

# NOTES/REFERENCES

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- <sup>1</sup> The Durban Platform for Enhanced Action, adopted by the UNFCCC parties at the 17th Conference of the Parties in 2011.
- <sup>2</sup> Article II, Section 2, Clause 2.
- <sup>3</sup> Article I, Section 10 of the U.S. Constitution, in describing restrictions upon the states, speaks of “Treat[ies]” and “Agreement[s]...with a foreign Power” as two distinct categories of documents, and under the Treaty Clause only treaties require congressional approval.
- <sup>4</sup> “Total greenhouse gas emissions” means the most up-to-date amount communicated on or before the date of adoption of the agreement by the parties, per Article 21.2.
- <sup>5</sup> Article 13 of the Paris Agreement.
- <sup>6</sup> The Paris Agreement could not set legal obligations beyond the bounds of the UNFCCC or it would require ratification by Congress for the U.S. Therefore, from the standpoint of the U.S., it cannot change or go beyond the UNFCCC obligations.
- <sup>7</sup> Article 4.1(b) of the UNFCCC requires the parties to formulate, implement, publish and regularly update national programmes containing measures to mitigate climate change by addressing emissions by sources and removals by sinks of greenhouse gases.
- <sup>8</sup> IPCC, 2014: Climate Change 2014: Synthesis Report.
- <sup>9</sup> At p. XVII Executive Summary.
- <sup>10</sup> See p.5 of the UNEP Emissions Gap Report 2015.
- <sup>11</sup> See p.5 of the UNEP Emissions Gap Report 2015.
- <sup>12</sup> We note that the table below is not necessarily inconsistent with paragraph 17 of draft Decision -/CP.21.
- <sup>13</sup> Land use, land-use change and forestry.
- <sup>14</sup> Articles 9.1 and 9.3 of the Paris Agreement.
- <sup>15</sup> Articles 9.2 of the Paris Agreement.
- <sup>16</sup> Paragraph 115 of the Adoption Decision.
- <sup>17</sup> Paragraph 54 of the Adoption Decision.
- <sup>18</sup> Reducing Emissions from Deforestation and Forest Degradation (“**REDD**”) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from deforestation and forest degradation. REDD+ goes beyond REDD and includes the conservation and enhancement of forest carbon stocks, as well as the sustainable management of forests.
- <sup>19</sup> These include Brazil, Chile, China, Colombia, Costa Rica, India, Indonesia, Jordan, Mexico, Morocco, Peru, South Africa, Thailand, Tunisia, Turkey, Ukraine and Vietnam.

## OUR CLIMATE CHANGE PRACTICE

At Reed Smith we recognize that differing global perspectives on climate change mean that no one approach or viewpoint can be considered as final or definitive.

We understand that although climate change is an environmental issue, the measures taken to address it, whether adaptation or mitigation, are essentially finance driven.

In some countries, including the UK and the United States, this will require significant capital expenditures. Capital will also be required in the non-industrial sectors in many countries, with increased investment in soil sequestration, avoided deforestation, bio-fuels and bio-diversity initiatives, and others.

A multi-disciplinary approach is needed to manage the complex interplay of assets and liabilities generated by climate change. By turn, the legal support required by a dynamic industry of constant and often mercurial change, must provide skill sets that are cross-border, cross-practice and sector focused.

As a leading international law firm, with a dedicated climate change team, Reed Smith is strongly positioned to advise on the global regulatory framework and risks, together with the associated opportunities linked to climate change.

We assist clients on matters that span the climate change spectrum, whether transactional, environmental, corporate, regulatory, or dispute related.

Our lawyers are available to assist clients throughout our offices in Europe, the United States, the Middle East and Asia.

For further information, visit [www.reedsmith.com/climatechange/](http://www.reedsmith.com/climatechange/).

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# About Reed Smith

Reed Smith is a global relationship law firm with more than 1,800 lawyers in 26 offices throughout the United States, Europe, Asia and the Middle East. Founded in 1877, the firm represents leading international businesses, from Fortune 100 corporations to mid-market and emerging enterprises. Its lawyers provide litigation and other dispute resolution services in multi-jurisdictional and other high-stakes matters; deliver regulatory counsel; and execute the full range of strategic domestic and cross-border transactions. Reed Smith is a preeminent advisor to industries including financial services, life sciences, health care, advertising, entertainment and media, shipping and transport, energy and natural resources, real estate, manufacturing and technology, and education.

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