

An agreement at COP21 in Paris this December is likely to have profound implications for business. What actions should companies take today to prepare for the significant changes to come?

COP21 in Paris is the culmination of six years of international negotiations since Copenhagen. **Most signals, including the recent Joint Presidential Statement between the United States and China, point to an agreement in Paris.** This agreement would, for the first time, provide:

- A high-level framework to drive forward national actions on climate change in all of the world's major economies;
- A robust process to monitor the implementation of national actions;
- A timetable for nations to review and strengthen those actions; and
- International mechanisms to promote climatefriendly finance, technology transfer and adaptation to climate change impacts.

Background

All parties to the United Nations Framework Convention on Climate Change (UNFCCC) were asked to submit a document before the COP21 negotiations, outlining their national plans for limiting greenhouse gas (GHG) emissions and adapting to the effects of climate change.

These documents are known as Intended Nationally Determined Contributions (INDCs). They set out national GHG emissions targets and summarize the policy measures that are planned to deliver those targets. More than 150 countries, comprising more than 80 percent of global GHG emissions, have now submitted their INDCs to the United Nations. The developed economies are typically setting absolute targets against a base year, either 1990 or 2005 (e.g., the EU has committed to a 40 percent reduction by 2030; the US target is a 26 to 28 percent reduction by 2025). The large developing economies are typically setting GHG intensity targets (China will lower emissions per unit of gross domestic product (GDP) by 60 to 65 percent, and India by 33 to 35 percent per unit of GDP, both by 2030). Large middle-income economies, such as South Korea and Mexico, are setting significant reduction targets against "business as usual" (BAU) scenarios.

The INDCs show that all of the world's major economies are planning to significantly transition away from BAU emissions between now and 2030, and all developed economies are planning to reduce emissions by at least 25 percent over the period from 2005 to 2030. This will be achieved through a combination of policy and regulatory measures that will impact on business practices and investment into the future.

This raises some important questions for you:

- What will COP21 mean for your company?
- How are you planning to manage the business risks and opportunities that will result from the transition to a global economy with substantially lower GHG emissions?
- Will you be able to respond effectively to the myriad carbon-related regulations, costs and incentives that are being introduced in each of the countries where you operate?



What makes the COP21 implications real for business when past efforts like Copenhagen in 2009 faltered?

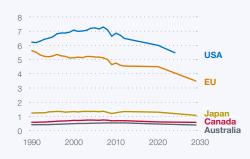
Based on analysis by the United Nations, the total sum of pledges made in the national plans submitted to date will not be sufficient to reverse the upward trend of global emissions by 2030 nor limit global warming to the stated 2°C goal. Nonetheless, significant progress will be made in limiting emissions growth.

In ERM's view, this shortfall does not mean COP21 will fail, nor does it reduce pressure on business to

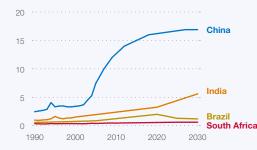
address GHGs. In fact, by shining a spotlight on COP21 pledges being inadequate to limit warming to 2°C, this will likely reinforce the need for the "Paris Agreement" to require robust monitoring of national pledges to ensure each nation delivers promised outcomes. It will also generate pressure for an early review date in the 2020s to introduce additional national commitments, rather than waiting until 2030 for countries to strengthen their COP21 pledges.

Emissions and INDC commitments from developed and developing countries

Emission levels, select developed countries gigatons CO₂e per annum







Emissions from developed countries will fall significantly as a result of INDC commitments. The EU's emissions have been on a downward trajectory since the early nineties as a result of policies implemented in light of the Kyoto Protocol. US emissions started their downward trend during the recession and have continued to reduce due to the switch from coal to gas and are projected to decrease even further due to the Clean Power Plan.

Major developing economies will also contribute, albeit within the context of development. China and India have committed to significant reductions in the GHG intensity per unit of GDP, which will see emissions grow at a much slower rate than business as usual. China, Brazil and South Africa will see emissions plateau and begin to decline from 2025–2030 onwards.

Source: ERM analysis of data from UNFCCC INDC Portal and other sources

Bottom-up approach will make a difference

COP21 negotiators will not debate the content of commitments submitted by each nation. Each national contribution will be taken as given because COP21 "pledge and review" involves each nation volunteering the level of effort on climate change it can commit to under national circumstances. ERM believes this will bolster the likelihood of proposed actions being implemented on the ground. Each nation has chosen what it would do voluntarily instead of being pressured to act by an externally imposed United Nations mandate.

It remains to be seen what role market mechanisms, such as emissions trading or tradable credits from

project-based carbon reductions, may have in contributing to post-2020 GHG reduction goals.

For the majority of businesses operating internationally, it is the voluntary emissions reduction contributions that countries are proposing that shine a light on how policy and regulation will change between now and 2030.

Both absolute and intensity-based GHG pledges are likely to make industry bear much of the responsibility for fulfilling national pledges in their operations and for their customers.

What it means for you

National pledges are creating an international patchwork of regulations

It is crucial to remember that the United Nations process already has established a global objective of limiting emissions to 2°C warming. A mix of differing approaches has emerged in each of the major economies, which shifts the status quo towards a lower-carbon future.

ERM already sees implications for business:

- Multinational firms must comply with widely varying approaches to GHG mitigation and climate adaptation put forth in national proposals. Differences across countries in areas of emphasis, as well as approaches to achieve GHG goals, will require business to tailor actions to meet each nation's unique requirements.
- Firms that produce, transform and deliver energy or raw materials to end users will feel increased pressure to reduce the carbon intensity of the fuels, power, commodities and feedstocks they deliver and to provide higher levels of carbonfree or lower-carbon energy and power or carbonneutral feedstocks and commodities (or lose market share to those who can).
- Firms that consume energy, power, commodities and feedstocks to produce and deliver materials, goods and services to end users will feel increased pressure to reduce the carbon intensity in their own operations and in their value chains, from the carbon footprint of upstream suppliers or downstream customers (or lose market share to those who can).
- Service firms (e.g., transport, wholesale/retail, information/communications technology, finance, leisure and other service provider sectors) will feel increased pressure to reduce the carbon content and the carbon intensity of activities (or lose market share to those who can).

ERM anticipates business pressures being real and imminent because of the national pledges to COP21.

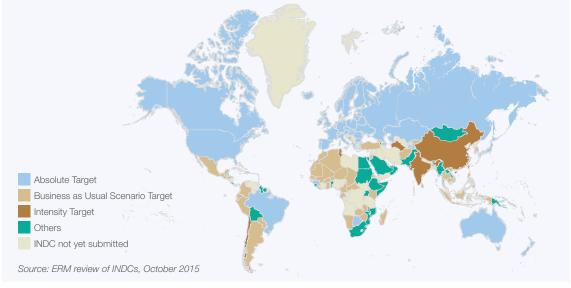
A global transition to a low-carbon world has already begun. An agreement in Paris will confirm the speed and spread of the transition.

We anticipate a decade of transition in the 2020s:

- Carbon pricing regimes will spread across the world.
- The cost of carbon emissions will become increasingly material through the 2020s.
- The focus on energy efficiency will be reinforced, through mandates and taxes, as a critical enabler of the transition towards a lower-emission economy – helping to make the transition both economically affordable and politically achievable.

Change will center on the energy sector:

- **Renewables** will become a growing source of power, backed by quotas and targets.
- **Coal power** will become increasingly marginalized in the 34 member nations of the Organization for Economic Co-operation and Development (OECD), with new unabated coal power banned by regulations.
- **Gas** will become the default source of power, with policy forcing greater controls on upstream methane leakage.
- **Government funding** will be needed for early carbon dioxide capture and storage (CCS) demonstrators in some countries and regions, particularly those with fossil fuel reserves. The speed of roll-out will depend on the extent to which these demonstrations deliver cost reductions and economies of scale.



National pledges ahead of COP21 suggest business will face political pressure to act

What it means for you

Businesses across the economic spectrum will feel the impact:

- GHG accounting and reporting will become **mandatory** for all major industries, in all major economies.
- Pricing on carbon emissions will drive up the profitability and value of low-carbon, efficient assets and negatively impact high-carbon, less efficient assets.
- Grid electricity will decarbonize in many regions of the world, at different rates in different countries, helping electricity users to lower their emissions, albeit at a cost.
- The transport sector will come under increasing focus, driving efficiency improvements and the prospect of major technological shifts.
- The cost of carbon in value chains will become increasingly material, creating opportunities for

low-carbon innovation across product and service chains in many sectors of the economy.

- The market for innovative, energy-efficient products and services will be stimulated.
- As carbon pricing and other forms of climate change regulation take hold, the financial sector increasingly will need to manage the carbon risk and opportunity associated with the companies and projects in which it invests and to which it lends.
- Forestry and land use will be in the spotlight to halt deforestation a major source of GHG emissions.

Political and regulatory risks will abound:

- The transition to a low-carbon economy is unlikely to be smooth and predictable.
- Policies will be introduced, amended, reversed, reintroduced, weakened and tightened along the way.

ERM can help you manage your business in a carbon-constrained environment

As a leader in sustainability consulting, ERM is committed to playing an active role in the response to climate change. We have the scientific, technical and regulatory expertise to help clients tackle the risks and opportunities presented by a low-carbon business environment. Among our services, we can assist you to:

- Translate the "post-Paris" landscape of national policy commitments into an assessment of risk and opportunity across the value chain for your business.
- Develop, measure and support the implementation of practical GHG emissions reduction plans and actions, across facilities, supply chains and product lines.
- Help you to cost-effectively manage compliance with climate change regulation and policy measures.

- Support your engagement with stakeholders on climate change and sustainability, including public reporting on your policies, programs, targets and performance.
- Understand and manage physical risks from extreme weather and climate change and develop adaptation strategies and plans.

Many of the management tools already exist for business to manage the low-carbon transition. The key to success will be gauging the scope of carbon risk in each country and developing a systematic means to factor that into business planning.

For more information on how ERM can help, please visit our website.

About ERM

ERM is a leading global provider of environmental, health, safety, risk, social and sustainability consulting services. ERM has more than 5,000 people in over 40 countries and territories working out of more than 160 offices. Over the past three years ERM has worked for more than 50 percent of the Global Fortune 500 delivering innovative solutions for business and selected government clients helping them understand and manage the sustainability challenges that the world is increasingly facing.



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