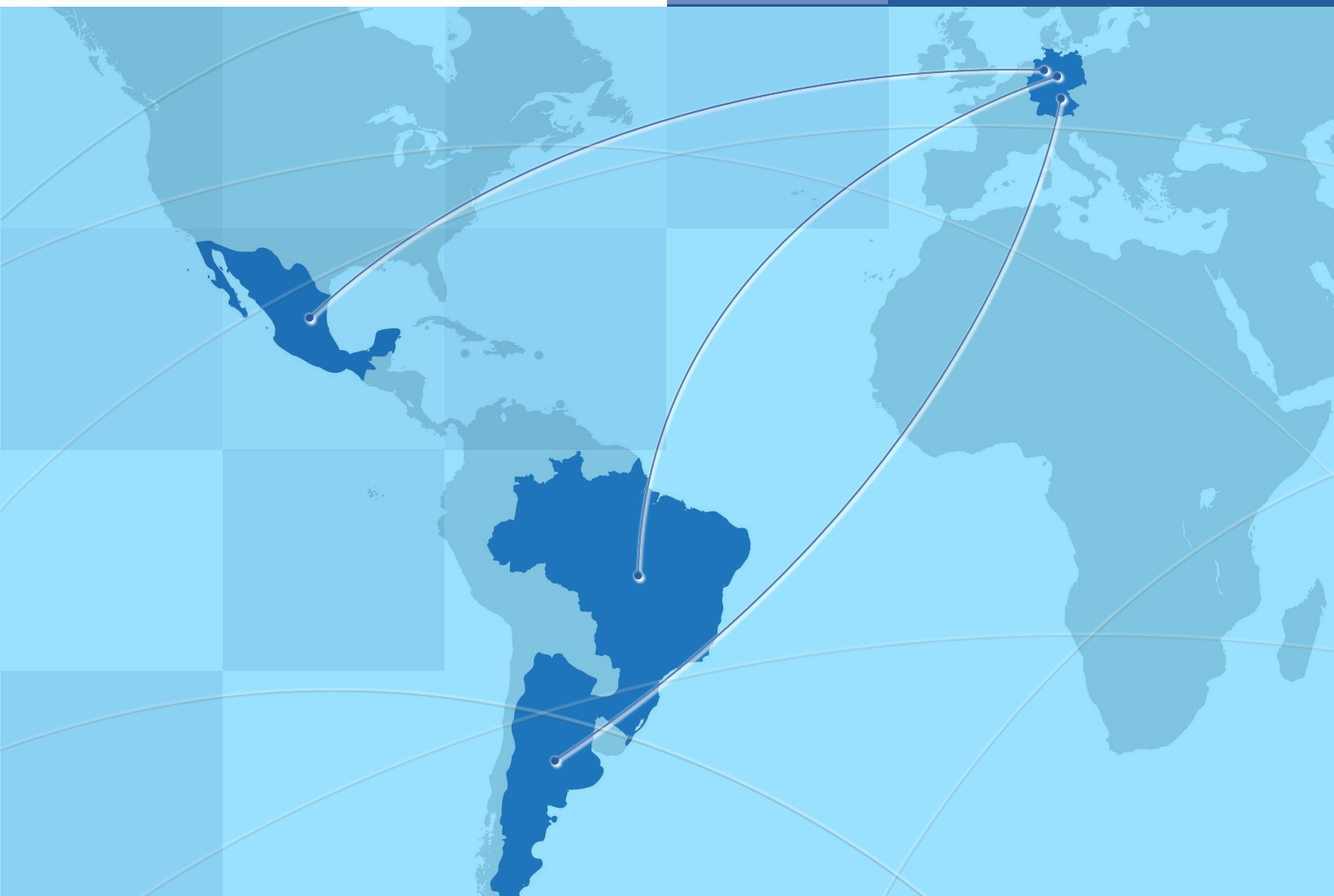


Germany–Latin America: Fostering Strategic Alliances for a Global Energy Transition

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INDEX

Introduction	1
Brazil: A renewable energy frontrunner with strong cooperation ties	2
Mexico: Record low solar and wind prices, and recently intensified cooperation	3
Argentina: Reduction of fossil fuel subsidies, shale gas and the G20 presidency	4
Recommendations for strong partnerships towards sustainable energy	5

Introduction

Germany is internationally renowned for its *Energiewende*. The country has been an early adopter of new renewable energy technologies such as wind and solar, which are now fundamentally transforming its electricity system. Germany is, moreover, a large, industrialised country that is globally acknowledged as a ‘green power’ with a high level of technological expertise. Therefore, German efforts to replace conventional energy sources with renewable alternatives have received considerable international attention. At the same time, Germany has many challenges ahead, with its economy still highly dependent on fossil fuels, and difficulties in transforming its heating and transport sectors.

Germany has a strong track record of promoting renewable energy and energy efficiency through international cooperation. Already in the aftermath of the oil price shocks of the 1970s, German development cooperation began promoting non-exhaustible energy sources. Nowadays, Germany is the world’s second-largest provider of energy-related development cooperation, after Japan. It has established bilateral energy partnerships with countries that are of strategic value for a global energy transition, and has taken key steps to foster multilateral cooperation for the promotion of sustainable energy. Germany initiated the founding of the International Renewable Energy Agency (IRENA) and has used its past two presidencies of the G7/G8, and of the G20 in 2017, to enhance climate protection within the global energy system.

Under Germany’s presidency in 2017, the G20 made important steps toward fostering a global energy transition. The G20 issued the Hamburg Climate and Energy Action Plan for Growth, which argues for a reliable and secure framework for energy sector transitions consistent with the Paris Climate Agreement. This action plan, however, was not supported by the US, as President Trump had just announced the intention to withdraw

from the Paris Agreement. Renewable energies can play a decisive role in global efforts to reduce greenhouse gas emissions: As these technologies bring along important economic and social benefits, they also open up options for political dialogue on the basis of global opportunity sharing.

Latin America is of strategic importance for Germany’s international sustainable energy policies. Sustainable energy technologies not only have a large potential market in Latin America but also offer opportunities to address some of the region’s pressing issues. Moreover, Latin America offers interesting learning opportunities. In several Latin American countries, electricity supply has traditionally been based on renewable energies – namely hydropower. In some Latin American countries, bioenergy has become an important pillar of electricity and fuel supply. New renewable energy technologies such as wind and solar energy have recently gained ground. However, the region also has large oil and gas reserves. With growing energy demand, the expansion of new renewable energies goes hand in hand with rising demand for conventional energy. Moreover, Latin America is a strong voice in global efforts to mitigate climate change. The region is exposed to some of the most severe effects of climate change in the form of droughts, glacial retreat and rising sea levels. Droughts increasingly pose an energy security challenge in Latin American countries that are highly reliant on hydropower.

Three Latin American countries are of particular relevance for German efforts to build alliances for a global energy transition: Germany has established bilateral energy partnerships with the regional heavyweights Brazil and Mexico, while Argentina has taken over the G20 presidency from Germany in 2018 and will thus play a central role in shaping the global energy agenda throughout its presidency.

Brazil: A renewable energy frontrunner with strong cooperation ties

Brazil's large geographic and economic size make it largest energy consumer in Latin America. Renewable energy accounts for a very high share of Brazil's electricity sector (74% in 2015), far exceeding that of Germany and the global average. The emissions intensity of the Brazilian electricity supply is therefore very low by international comparison. Furthermore, Brazil has pioneered the deployment of biofuels in the transport sector, and readily refers to its widespread use of renewable energies in the context of climate negotiations. In contrast to many emerging economies, Brazil has announced an absolute emissions reduction target – unconditional on the provision of international financial support – as part of its nationally determined contribution (NDC) to the Paris Climate Agreement. However, the discovery of oil and gas deposits in the deep sea (pre-salt) off Rio de Janeiro in 2006 has led Brazil to gradually evolve from an importer to an exporter of oil and gas. Recent political developments are promoting this process.

The succession of Michel Temer to the Brazilian presidency in 2016 has brought far-reaching changes to the Brazilian energy sector. While his predecessors from the Labour Party PT followed a protectionist energy policy, President Temer has pushed for broad opening of the Brazilian energy industry: Local content requirements, which aimed to boost domestic added value, were dismantled. International energy companies are now allowed to bid in auctions on the pre-salt market without engaging with the Brazilian energy company Petrobras, and further privatisation of state-owned energy companies, such as Eletrobras, is expected. As a result, investment in the Brazilian energy sector has increased despite the economic turmoil of recent years. Liberalisation of the energy sector has become a contentious issue in the campaign for the

upcoming presidential election of October 2018. Even the privatisation of Petrobras – traditionally considered taboo due to concerns of national sovereignty – is set to become a hot campaign topic as Brazil struggles to control its budget deficit.

Brazil and Germany have long-standing ties in the energy sector. Brazil was one of the first countries chosen by the German government as a strategic partner for its international efforts to promote sustainable energy. In 2008, both countries signed a memorandum of understanding on a bilateral energy partnership. Brazil has long been an important partner country of German development cooperation. From 2012 to 2016, it received 23 percent of German official development aid (ODA) commitments to the Latin American energy sector (465 million USD). German development cooperation has been instrumental in several steps toward fostering new renewable energies in Brazil, such as the establishment of net-metering, renewable energy auctions and the deployment of decentralised solar energy. In future, Brazil will increasingly engage in international energy organisations. In 2017, it became an associated member of the International Energy Agency (IEA), and at the beginning of 2018 Brazil announced that it will finally seek membership of IRENA.

The German–Brazilian energy partnership stalled for several years, due to controversies concerning biofuels among other issues, but has recently been revived. Both countries now engage in political dialogues on topics of common interest with regard to the promotion of energy efficiency and renewables. A promising topic here is renewable energy auctions. Brazil had already established renewable energy auctions in 2005, while implementation in Germany just started in 2017.

Mexico: Record low solar and wind prices, and recently intensified cooperation

Mexico is going through a comprehensive energy policy transformation. As a consequence of the energy market reform adopted by President Enrique Peña Nieto (Partido Revolucionario Institucional, PRI) with congressional help from the Partido Acción Nacional (PAN) in 2013, Mexico allowed major international investment in its energy infrastructure. Those investments were mainly enabled by the breakup of Pemex, the state-owned energy monopoly. Besides modernisation, especially in the field of oil production, the energy reform also aims to reduce greenhouse gas emissions. This is fostered by an increasing share of gas in the country's energy consumption, imported from the US. Mexico underlined its climate ambitions by being the first developing country to present its NDC. It includes a goal to reduce greenhouse gas emissions by 22 percent (relative to business-as-usual levels) by 2030, independent of international financial support. It has pledged to reduce emissions by a further 14 percent, conditional on international resources.

The energy policy reform has also opened up an investment window for renewable energies such as wind and solar, for which the prices in Mexico are among the lowest in the world. While solar energy is still nascent, wind energy capacity has surged in recent years. On the other hand, the energy market reform also reduced public subsidies for the energy sector, resulting in a surge in gasoline prices and triggering violent protests. As in Brazil, energy sector reforms are subject to political struggles. However, it is unlikely that the presidential elections of July 2018 will lead to withdrawal of the 2013 energy reforms.

German–Mexican cooperation has intensified in recent years, with the establishment of a bilateral

energy partnership in 2016. Both countries use this format to exchange best practice and to create learning opportunities on topics such as power market liberalisation, the integration of variable renewable energy sources and transparency in the fossil fuel sector. Through this partnership, Germany also seeks to create entry points for German businesses to the growing Mexican renewable energy and energy efficiency markets. At the same time, Mexico has become the largest Latin American destination for German energy-related development cooperation, accounting for 612 million USD (31%) between 2012 and 2016. Cooperation between Germany and Mexico on climate-related matters was formalised in 2010. Through the Mexican–German Climate Change Alliance, Germany seeks to support Mexico in achieving its emission reduction targets. The portfolio of this bilateral cooperation format was recently expanded, with the aim of mobilising the social and economic benefits of renewable energies for ambitious and effective climate action.

Mexico has also become an important cooperation partner for Germany in global fora. Mexico plays an active role in the UNFCCC, and in 2010 it pushed for the establishment of the Green Climate Fund at the COP in Cancún. The fund seeks to support developing countries in their climate adaptation and emission mitigation activities. Mexico recently joined the IEA as a full member. During its G20 presidency, Germany asked Mexico to co-chair the energy and climate working groups. Moreover, Mexico and Germany jointly published a voluntary peer review of fossil subsidies in 2017 as a step towards the stated G20 goal of “eliminating inefficient fossil fuel subsidies”.

Argentina: Reduction of fossil fuel subsidies, shale gas and the G20 presidency

Since the election of Mauricio Macri as president at the end of 2015, Argentina has engaged in energy market liberalisation. Energy supply security is an urgent political issue, especially in rural Argentina. In order to improve international competitiveness in the energy sector, subsidies for the use of domestic fossil energy sources such as gas and oil have been drastically reduced. Energy price increases caused public protests. At the same time, Argentina is strengthening its efforts to exploit its huge shale gas resources, e.g., through international investment in the *Vaca Muerta Formation*.

One of the Macri government's first actions was to express its clear commitment to the Paris Climate Agreement. For this purpose, Argentina clearly specified and increased its NDC ambitions. Even more important, however, are the associated institutional reforms. For example, a ministerial climate cabinet has been set up to coordinate the implementation of climate protection goals between government ministries. This is accompanied by clear responsibilities and structures for the use of international climate finance, which the Argentine government intends to use primarily to expand renewable energies. This should not only improve the country's climate record, but also diversify its energy mix.

Argentinian resource policies limit the national government's scope of action with regard to oil and gas extraction. The provinces have complete control over resource-extraction concessions. The Macri government is attempting to reach a Federal Energy Agreement with the provinces, to improve resource coordination. A Federal Energy Council attached to the Ministry of Energy and Mining has been assigned the task of coordinating better-integrated cooperation in the future. The government formed by the Cambiemos coalition faced its first political

test, concerning acceptance of the reforms, during the midterm elections at the end of 2017. The election results showed strong support for Macri's political course.

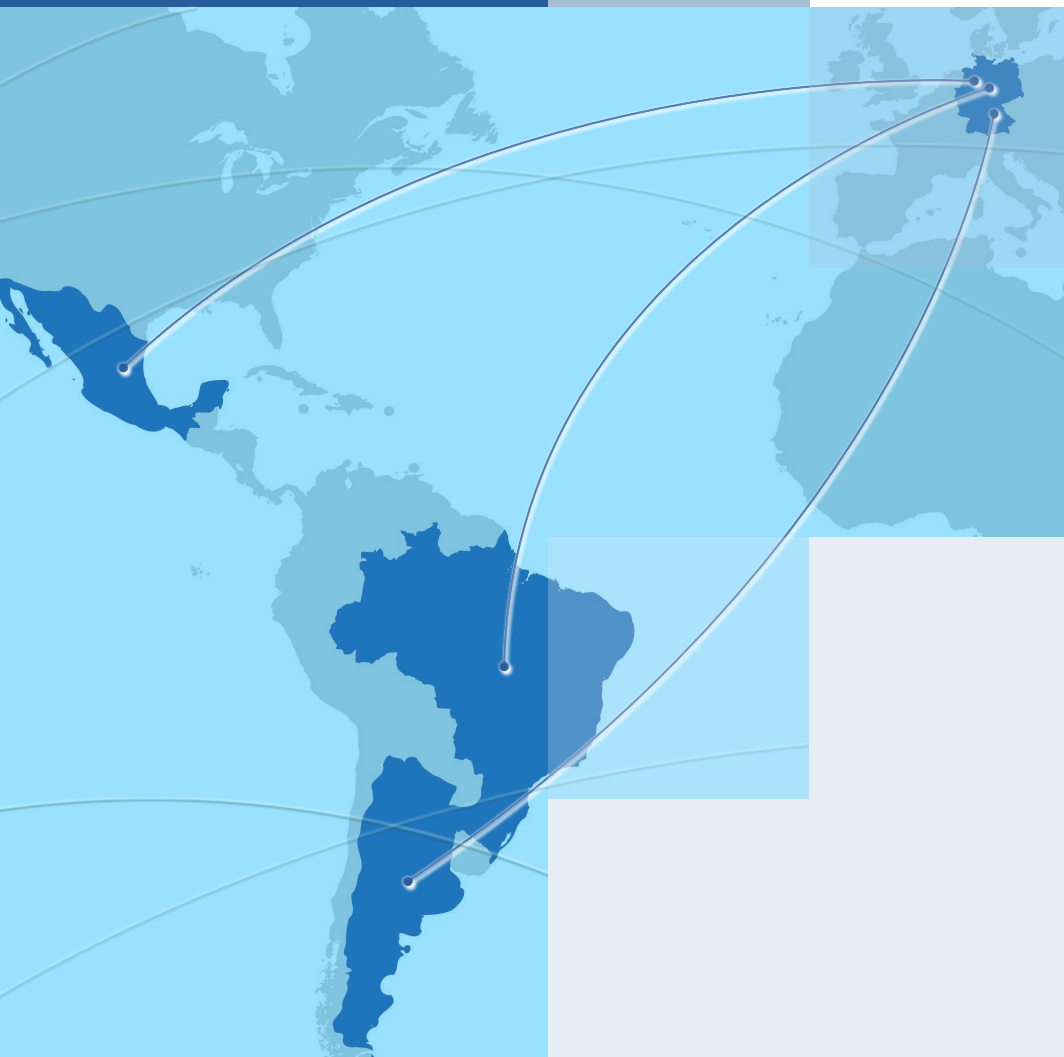
It is unlikely that Argentina's G20 presidency will continue to foster the sustainable energy agenda of the 2017 German presidency and its predecessors. Germany made climate protection a key focus of its G20 presidency, but failed to achieve agreement with the US on the Hamburg Climate and Energy Action Plan. Argentina's G20 presidency seeks unity once again: Climate protection and energy are not among the presidency's priorities, and Argentina has decoupled the G20 energy and climate work streams once again. The energy agenda will focus on energy efficiency, and argue for "energy transitions towards cleaner, more flexible and transparent systems". The Argentinian presidency introduces the term energy transitions in plural, to emphasize that each country may choose a different trajectory, depending on its endowment with natural resources, the availability of technologies and capital and further national context factors. The G20 climate agenda will cover non-contentious issues such as adaptation and infrastructural resilience. Bilateral cooperation between Germany and Argentina in the energy sector is only weakly developed. So far, Argentina has not been identified as a strategic partner by the German government, nor is Argentina a partner country of German development cooperation. However, initial steps to foster cooperation have been taken in recent years. A trilateral cooperation project between Germany, Mexico and Argentina develops energy efficiency learning networks in Argentina's industrial sector. In addition, the Environment Ministries of Germany and Argentina signed a Memorandum of Understanding in 2017, to cooperate in different areas related to climate change.

Recommendations for strong partnerships towards sustainable energy

Clear political commitments to the Paris Agreement and recent energy market reforms in Brazil, Mexico, and Argentina present a promising environment for fostering German–Latin American alliances on sustainable energy. Furthermore, the liberalisation of energy markets opens up new business opportunities for the German export sector. However, it is important to note that all three countries are currently experiencing booming demand not only for new renewable energies but also for fossil fuels. Furthermore, Argentina and Brazil have clear economic interests in exploiting their gas and oil reserves, which poses a threat to the global fight against climate change. While Germany presently has only weak cooperative links with Argentina in the energy sector, the bilateral energy partnerships with Brazil and Mexico provide a strong basis for enhanced cooperation – not only bilaterally, but also in global fora.

To strengthen such cooperative endeavours, the German government should consider the following steps:

- 1) **Adjust *Energiewende* communication to the domestic contexts of partner countries, dropping the term “energy transition”, if inadequate.** It is important to recognise that in countries such as Brazil, electricity supply has traditionally been based on renewable energies. In this context, “energy transition” is a misleading term, as the challenge is not to transform an electricity system that has traditionally been based on conventional energy sources – as it is in Germany. Rather, in those countries, it is important to avoid increasing the share of fossil fuels during efforts to expand and diversify electricity supply. Especially in cooperation with Brazil (a country with a very high renewables share in its electricity supply and that pioneered efforts to substitute fossil fuels in the transport sector), it is important to explicitly recognise that Germany is not the only frontrunner in global efforts to foster renewable energies.
- 2) **Mobilise socioeconomic benefits of renewable energies to foster an opportunity-oriented narrative in climate policies.** In most countries worldwide, climate concerns are not the primary driver for the expansion of renewable energies. Particularly in countries with high solar radiation and strong winds (as in Mexico, for example), the costs of wind and solar energy are very low, resulting in a strong business case for these renewable energy technologies. In addition, the deployment of renewable energies can entail important social benefits, such as improved air quality. Mobilising the socioeconomic benefits of renewable energies can therefore play an important role in fostering an opportunity-oriented narrative in climate policies, and thus contribute to raising mitigation ambitions at both the national and global scales.
- 3) **Leverage partner countries’ expertise for international cooperation on sustainable energy.** Argentina, Brazil and Mexico have acquired important expertise in energy sector transformation, which should be leveraged at the global level. German–Mexican cooperation on reducing fossil fuel subsidies in the context of the G20 has been a very important step in this regard. Both Mexico and Argentina have substantially reduced their fossil fuel subsidies. Their lessons learned – both positive and negative – could be of strategic relevance to other emerging economies aiming to tackle this central barrier to a sustainable energy supply. Brazil, on the other hand, was one of the first countries worldwide to implement renewable energy auctions. Its lessons might provide important insights – not only for the design of German auctions, but also for global knowledge sharing in international fora such as the G20, IRENA and IEA.



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