



Updated May 26, 2020

EU Climate Action and Implications for the United States

European Union: A Key Actor

The European Union (EU) has sought to play a leading role on international climate action for decades. The EU and the United States worked closely to negotiate the 2015 Paris Agreement (PA) to combat greenhouse gas (GHG)-induced climate change. The EU opposed President Trump's 2017 decision to withdraw the United States from the PA. The current 27-member EU and the United Kingdom (UK)—which withdrew from the EU in January 2020—remain committed to the PA and to more robust climate action. Although the U.S. withdrawal is scheduled to take effect in November 2020, some Members of Congress are interested in the possible geostrategic and economic implications of climate change and mitigation efforts. (Table 1 compares selected U.S. and EU GHG emissions indicators.)

Table 1. Selected GHG Emissions Indicators (EU data for 2016 and 2017 include the United Kingdom)

	EU	U.S.
Total GHG Emissions (2016)	3.6 Gt CO₂e	5.8 Gt CO ₂ e
GHG Emissions per Capita (2016)	7.1 t CO ₂ e	18.1 t CO ₂ e
GHG Emissions per Million \$ GDP (2016)	220 t CO ₂ e	310 t CO ₂ e
Share of Global GDP Based on Purchasing Power Parities (2016)	16.8%	15.6%
Share of Global CO ₂ Energy- Related Emissions (2017)	10%	14.5%

Sources: World Resources Institute, Climate Watch 2020; International Monetary Fund, World Economic Outlook 2016; International Energy Agency, Key World Energy Statistics 2019. **Notes:** CO_2 = carbon dioxide; CO_2 e = carbon dioxide-equivalent: the tons of CO_2 that would have the equivalent effect of I ton of the GHG on forcing global average temperature. Units used are metric: t = metric ton; Gt = gigaton, or I billion metric tons.

EU Climate Policies and Challenges

In the EU context, environmental policy—including climate action—is an area of *shared competency* in which both the EU and its member states may adopt legally binding acts. All EU members must abide by agreed EU laws and regulations on climate action, and national laws or policies must not conflict with or undercut common EU measures. European public demands for stronger climate action are growing, as seen by gains for pro-environment "green" parties in recent European elections (including those in 2019 for the European Parliament, the EU's only directly elected institution). Still, reaching consensus on more ambitious EU-wide measures poses challenges, and the

economic consequences of the Coronavirus Disease 2019 (COVID-19) pandemic could complicate EU policymaking.

EU Greenhouse Gas Mitigation Efforts

The EU negotiates on behalf of its member states in the U.N. Framework Convention on Climate Change, including the Kyoto Protocol (KP) and the PA. Under the KP, the EU met its 2008-2012 obligations and is on track to meet its 2013-2020 obligations (**Figure 1**). In the PA, the EU made an aggregate GHG-reduction pledge in its Nationally Determined Contribution (NDC), in which the EU and its member states commit to a "binding target of at least a 40% domestic reduction in GHG emissions by 2030 compared to 1990." To fulfill the EU's NDC, each EU member agreed to a distinct target that is legally binding within the EU context. The EU's NDC target covers all GHG not controlled by the Montreal Protocol on Substances That Deplete the Ozone Layer, including carbon dioxide (CO₂), from the energy sector, industrial processes, product use, agriculture, waste, and net removals by land use, land-use change, and forestry (LULUCF).

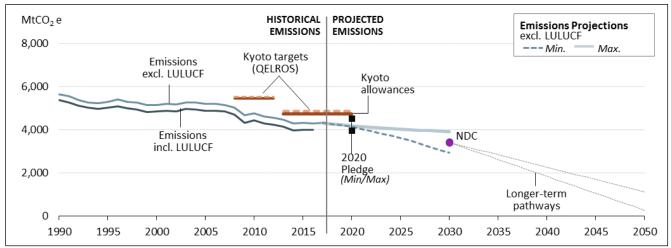
The EU's NDC target is the same as the binding target agreed in 2014 in the EU's 2030 Climate and Energy Framework. To help achieve this target, the EU adopted legislation in 2018 to reform and strengthen its Emissions Trading System (ETS), which limits CO₂ emissions from energy-intensive companies and installations. Also in 2018, the EU updated legislation to curb emissions in sectors not covered by ETS (including buildings, transport, waste, and agriculture) and legislation to ensure no net emissions from the land use and forestry sectors.

The EU also views transitioning to "cleaner" energy as crucial to reducing emissions. In 2018 and 2019, the EU finalized several measures to promote clean energy, including setting stricter energy efficiency and renewable goals for 2030. EU officials estimate that, once fully implemented, these new policies will lead to steeper emission reductions than previously anticipated.

EU leaders have endorsed the goal of achieving a climateneutral economy (no net GHG emissions) by 2050 and adopted this objective in March 2020 as the bloc's longterm emissions-reduction strategy, consistent with the PA. However, Germany and several other EU members face challenges in meeting existing GHG targets through domestic efforts alone. These countries may meet their EU obligation by acquiring extra GHG reductions from other EU member states. In Belgium and Germany, reducing GHG emissions is made more difficult by cutbacks in nuclear power generation. Reflecting concerns about the costs of expected and anticipated climate policies, certain business sectors and some member state governments have expressed a degree of resistance to setting more ambitious EU climate goals. Poland remains reluctant to commit to a GHG-neutral EU by 2050 given its reliance on coal.

Figure I. EU Historical GHG Emissions and Emissions Projections

(based on targets and pledges for the EU-27 and the United Kingdom)



Source: Graphic created by CRS, based on data from Climate Action Tracker, at https://climateactiontracker.org/methodology. **Notes:** LULUCF = Land Use, Land-Use Change, and Forestry; NDC = Nationally Determined Contribution; QELROS = Quantified Emission Limit or Reduction Objectives.

The **EU's Kyoto targets** were 8% below 1990 emissions levels (average 2008-2012) and 20% below 1990 levels (average 2013-2020). The **EU's 2020 pledge** (from 2009) is a 20%-30% reduction below 1990 emissions levels by 2020, conditional on developed countries committing to comparable efforts and developing countries contributing according to capabilities. The **EU's 2030 unconditional target** (in its NDC from 2015) is to reduce GHG emissions at least 40% below 1990 levels by 2030. In projections to 2030, the higher trajectory reflects biennial reporting by EU member states and policies adopted as of 2017. The lower bound assumes full implementation of existing EU directives on renewable energy and energy efficiency.

The European Green Deal

In December 2019, the European Commission (the EU's executive) proposed a new European Green Deal. It sets out a multipronged approach to climate change and other environmental challenges, while promoting resourceefficient economic growth and innovation. Key elements include increasing the EU's 2030 emissions reduction target from 40% to at least 50% (and possibly to 55%) from 1990 levels and adopting in EU law the goal of a GHG-neutral EU by 2050. The deal also pledges a "just and inclusive transition" in which no segments of EU society are "left behind" economically. The European Commission plans to mobilize at least €1 trillion (about \$1.08 trillion) over the next decade from the EU budget and financial institutions, member states, and private investors. This funding is expected to include a €100 billion (about \$108 billion) Just Transition Mechanism for regions dependent on carbonintensive activities and fossil fuels (for example, in Central Europe and the Baltic states).

As part of the European Green Deal, the EU is considering implementing a future "carbon border adjustment mechanism"—such as a carbon border tax—to reduce risks to competitiveness and of carbon emission shifts to countries with less ambitious climate policies. The European Green Deal also calls for a more robust EU strategy on adaptation to climate change (in recognition that many European regions will remain vulnerable despite mitigation efforts) and new EU strategies on biodiversity, industrial policy, sustainable food, and a circular (wasteminimizing) economy. Specific legislation proposed as part

of the European Green Deal must be approved by the member states (acting in the Council of the EU) and the European Parliament to become EU law, a process that is often contentious and can take two years or more. In January 2020, the European Parliament passed a nonbinding resolution supporting the European Green Deal.

Some experts contend that COVID-19's negative economic effects could stymie momentum on the European Green Deal, especially as some industry interests exert pressure to prioritize economic recovery. Others see an opportunity to put environmentally sustainable economic policies at the center of the EU's post-pandemic recovery plans. The EU asserts that it remains committed to the European Green Deal, but implementing some aspects could face delays.

Implications for U.S.-EU Relations

EU efforts to step up its climate action policies and elements of the proposed European Green Deal may exacerbate tensions in broader U.S.-EU relations. The EU has pledged that it will not conclude future free-trade agreements with countries that are not parties to the PA, creating another potential friction point in already fraught U.S.-EU trade talks. Some analysts suggest that possible EU carbon border adjustments could increase costs for U.S. firms doing business in Europe. U.S.-EU frictions also may mount if a perceived lack of U.S. engagement and cooperation on climate issues impedes the EU's ability to convince other countries to pursue more robust GHG-mitigation measures. (Also see CRS In Focus IF10668, Potential Implications of U.S. Withdrawal from the Paris Agreement on Climate Change, by Jane A. Leggett.)

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IF11431

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