

# UNITED STATES BRIEFING MEMO

## Background

The United States is an industrialized country in North America with a population of 316 million people who speak primarily English. It has an average per capita income of \$28,000 and average household income of \$53,000.<sup>1</sup> However, it also has the highest rate of income inequality in the developed world, with the top 1% of income earners receiving 23% of all pre-tax income in 2012.<sup>2</sup> Almost 15% of U.S. citizens live below the poverty line of \$23,850 for a family of four.<sup>3</sup>

In terms of jobs, the most important economic sector in the United States in 2012 was the service industry, especially retail trade (14.8 million jobs), professional and business services (17.9 million jobs), health care (16.9 million jobs), hospitality (13.7 million jobs), and state and local government (19.1 million jobs). In goods-producing industries, manufacturing accounted for 11.9 million jobs, and agriculture for 2.1 million jobs.<sup>4</sup> The highest-grossing U.S. corporations in 2012 were ExxonMobil (\$454 billion), Walmart (\$446 billion), Chevron (\$245 billion), ConocoPhillips (\$245 billion), and General Motors (\$150 billion).<sup>5</sup>

## Energy use

Energy consumption per capita in the United States was 6,794 kg of oil equivalent in 2012, fourth behind Canada, Luxembourg and Iceland (18,775 kg).<sup>6</sup> In 2013, the U.S. produced 81.7 quadrillion BTU of energy, including 64.2 quadrillion BTU from fossil fuels and 9.3 quadrillion BTU from renewables. Of fossil fuels, coal accounted for 19.9 quadrillion BTU (24% of total energy produced), natural gas 24.8 quadrillion BTU (30%), and oil 15.6 quadrillion BTU (19%). Of renewables, wind accounted for 1.6 quadrillion BTU (0.2% of total produced), solar .307 quadrillion BTU (0.003%) and biomass 4.6 quadrillion BTU (0.6%). Nuclear energy accounted for 8.3 quadrillion BTU produced in the United States (10.2% of the total).

In 2013, the U.S. consumed 97.6 quadrillion BTU of energy, with 79.9 quadrillion BTU from fossil fuels, including coal at 18.1 quadrillion BTU (18.5% of total consumption), natural gas at 26.6 quadrillion BTU (27%), and oil at 35.2 quadrillion BTU (36%). Consumption of renewable energy and nuclear energy was the same as production – all energy produced here was used here.<sup>7</sup>

## Greenhouse gas emissions

The United States emitted 5,490 million metric tons of carbon dioxide, or 17.62 metric tons per person, in 2011, making it second behind China for total CO<sub>2</sub> emissions and third behind Saudi Arabia and Australia for per capita emissions.<sup>8</sup> In cumulative emissions since 1850 the United States is first at 500 gigatons of CO<sub>2</sub> equivalent, followed by the EU at 450 Gt and China at 300 Gt. However, China's emissions have been increasing exponentially since 2000, and by 2030 all three countries are expected to have cumulative emissions of around 600 Gt CO<sub>2</sub> equivalent.<sup>9</sup>

For all greenhouse gasses, U.S. emissions totaled 6,526 million metric tons of carbon dioxide equivalents in 2012. Carbon dioxide made up 82% of greenhouse gas emissions, followed by methane (9%) and nitrous oxide (6%). Sources of emissions by economic sector were electricity production (32%), transportation (28%), industry (20%), commercial and residential use (10%), and agriculture (10%). Greenhouse gas emissions in 2012 were 10% below 2005 levels, meaning the United States reduced carbon pollution more than any other nation on earth.<sup>10</sup>

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## Energy Outlook

The outlook for energy use in the United States is shaped by two main forces: shale oil and gas and renewables. Oil production from shale (“tight oil”) is expected to double between 2010 and 2020, then taper off. Imports of petroleum began falling in 2008 and are expected to continue falling, making the U.S. a net exporter of oil. Increased fuel efficiency is expected to lead to a sharp reduction in gasoline consumption. Abundant and cheap natural gas could become the top source of energy for electricity production as well as being used in transportation. The cost of renewables will come down, making them competitive and possibly tripling their use. This move away from carbon-intensive fuels is expected to stabilize carbon emissions; however, unless a price on carbon is enacted, carbon emissions will not fall overall due to increased demand.<sup>11</sup>

## Negotiating position

Leading up to the COP 20 summit in Lima, the United States has made a number of ambitious pledges to cut greenhouse gas emissions at home. These pledges include:

- Automakers to increase fuel efficiency standards for cars to 54.5 mpg by 2025
- EPA to enact standards for power plants that will cut emissions in the electricity sector – responsible for the most emissions – 30% from 2005 levels by 2030.
- DOE to develop new energy standards for appliances and equipment that reduce carbon pollution by 3 billion metric tons cumulatively through 2030
- Federal government will buy 20% of electricity from renewable energy by 2020.
- Overall the United States has pledged to reduce emissions 26-28% from 2005 levels by 2020, on top of the EPA Clean Power Plan.

The United States is in a strong position to make good on these pledges. However, it will not be without challenges, as our country like all countries has interests resistant to change. The recent election put Republicans who are threatening to derail climate action in charge of the Senate. Even so, we believe we can forge ahead. In our system of government, many actions can be taken by the executive branch alone, and the president still has veto power over bills that would gut climate progress. Climate initiatives have been passed as part of larger spending bills, and there is discussion on both sides of the aisle of enacting a price on carbon, which would bring down emissions markedly.

The only thing that must have ratification of the Senate is a binding treaty, but that would likely come up after the 2016 elections, which could sweep Democrats back into office. However, regardless of which political party wins in 2016, in order for the United States to move forward with a binding climate commitment, we must also have binding commitments from developing nations, especially the emerging economies of China and India whose emissions are increasing rapidly.

## Draft resolution

The United States will reduce emissions 26-28% from 2005 levels by 2020, on a path to reducing emissions 42% by 2030 and 83% by 2050. This pledge is on the condition that developing countries also take on binding emissions targets, including peak and reduction of emissions in emerging economies by 2030, on the path to zero emissions by the end of the century.

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### REFERENCES

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<sup>1</sup> U.S. Census Quick Facts 2013

<sup>2</sup> Wiseman, Paul (September 10, 2013). "Richest 1 percent earn biggest share since '20s". AP News.

<sup>3</sup> US Department of Health and Human Services, 2014 Poverty Guidelines

<sup>4</sup> Bureau of Labor Statistics, Employment by Major Sector

<sup>5</sup> Fortune 500 2013: Annual ranking of America's largest corporations

<sup>6</sup> World Bank Data: Energy Use

<sup>7</sup> U.S. Energy Information Administration, Total Energy, Primary Energy Overview

<sup>8</sup> Union of Concerned Scientists, Each Country's Share of CO2 Emissions

<sup>9</sup> PBL Netherlands Environmental Assessment Agency

<sup>10</sup> EPA, National Greenhouse Gas Emissions Data

<sup>11</sup> U.S. Energy Information Administration, Annual Energy Outlook 2014