

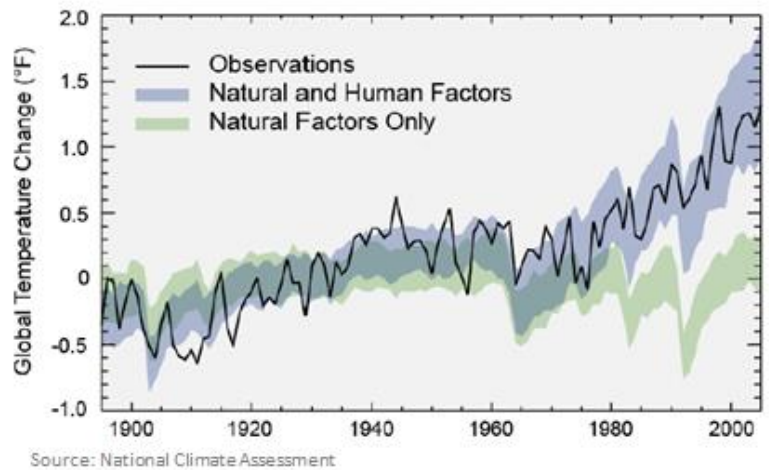
## KEY FACTS FOR BUSINESSES ABOUT CLIMATE CHANGE

In the past few months, the U.S. and U.N. have each issued reports outlining the near- and long-term costs of climate change on America's agriculture and energy sectors, our transportation infrastructure, and public health. Next month, Risky Business, a study led by three of America's most successful business leaders, will report on the business costs associated with warmer temperatures, widespread droughts, extreme weather and rising sea levels.

Approximately one-third of the greenhouse gases the U.S. produces each year come from power plants. This month, the Environmental Protection Agency (EPA) proposed standards to reduce carbon pollution from *existing* power plants 30 percent from 2005 levels by 2030. Each state will have its own target and develop an individual plan to achieve the reduction. One state could rely primarily on shifting a portion of its power from coal to natural gas, while another could rely on a mix of natural gas, renewable energy and efficiency improvements.

State governments, power companies and local businesses can provide feedback on the proposal over the next two years. After the initial rule is published in the Federal Register, the public will have 120 days to comment. The EPA is also holding public hearings in Atlanta, Denver, Pittsburgh, and Washington the last week of July. After reviewing the public comments, the EPA is expected to propose a final rule by June 2015. Each state will have until to June 2016 to develop its own implementation plan.

This document describes the new regulations; outlines findings of the National Climate Assessment, produced this month; examines how severe weather has impacted businesses; and summarizes promising state and local initiatives to reduce greenhouse gas emissions.



### CLIMATE CHANGE RESEARCH SHOWS ECONOMIC RISKS

The nation's third National Climate Assessment (NCA), released on May 6, is the result of a three-year effort from over 300 experts and 13 federal agencies on changes in the climate and the economic and societal implications. The report revealed the stark consequences of an already-changed climate. Rising sea levels would increase storm surge risk to 13 of the country's largest airports, including those in the San Francisco Bay Area, New York, Miami, and Washington DC. Precipitation levels have risen dramatically in the Northeast and Midwest, increasing the risk of flooding, a risk that will continue to grow as climate change intensifies. Flooding has cost an average of \$8 billion per year in crop and property damage since 1980.

The UN's Intergovernmental Panel on Climate Change (IPCC) is a periodic study developed from voluntary contributions from thousands of scientists around the world, offering a consensus on climate change. This year's report showed climate change would have a significant economic effect on agriculture, fishing, and other industries around the world. Fishing and agriculture will be particularly affected in the developing world, which may heighten the risks of unrest and threaten global supply chains.

### **RISKY BUSINESS TO BE RELEASED THIS SUMMER**

Michael Bloomberg, Hank Paulson, and Tom Steyer have applied existing insurance-based models to measure the potential future costs of the climate change. Their report, "Risky Business," will quantify the impact on our nation's health, economy, and agricultural yields, energy usage, labor productivity, and other business metrics.

### **WHITE HOUSE'S CLIMATE ACTION PLAN**

President Obama has set a goal of bringing the United States into compliance with the Kyoto Protocol by 2020, which calls for reducing America's greenhouse gas emissions to 83 percent of their 2005 level over the next six years. This is part of the President's Climate Action Plan, announced last year, which will cut carbon pollution in America, prepare the United States for the impacts of climate change, and make America a leader in international efforts to combat global climate change.

### **RECENT PROGRESS**

Over the past four years, the U.S. has:

- Doubled its electrical generation from renewable sources;
- Enacted tougher fuel standards for passenger vehicles and the first standards for trucks, buses, and vans; and
- Become the world's leading producer of natural gas, the cleanest burning fossil fuel.

However, more is needed to reach the goal of reducing carbon pollution to 17 percent below 2005 levels. Approximately 40 percent of all carbon pollution is emitted from power plants. To help reduce those emissions, the EPA proposed rules limiting carbon pollution from new power plants last fall and released regulations this month to reduce carbon emissions from existing power plants by 30 percent by 2030.

In addition, the federal government has promoted many new resilience programs to prepare for the effects of climate change and is working to ensure international cooperation in reducing pollutants.

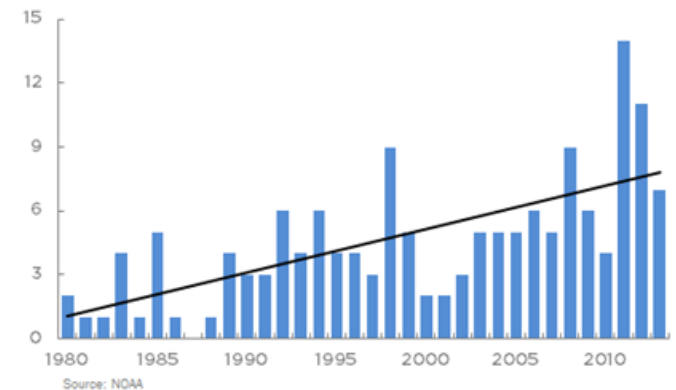
## RECENT EFFECTS OF SEVERE WEATHER ON BUSINESS

*Hurricanes:* Hurricane Sandy caused nearly \$65 billion in damages in 2012, but climate change could increase the damages the storms cause through higher sea levels and storm surge levels. On the current trajectory, sea levels will increase two feet by 2050. At that level, hurricane on the scale of Sandy would have caused nearly 4.5 times the damage as the 2012 storm.

*Snow and Cold Weather:* This past winter was particularly cold for businesses in Midwest and Northeast. Cold and snowy weather depressed sales with customers staying at home, disrupted supply chains and operations, and added many other weather-related costs. Economic growth slowed to just 0.1 percent in the first quarter this year from 2.6 percent in the previous quarter.

*Drought:* About 10 percent of the acreage in California is expected to fall idle this summer, causing billions in crop losses and wider economic damages to connected industries. California grows 99 percent of the nation's almonds, over 90 percent of the broccoli, 80 percent of the lettuce, and 90 percent of tomatoes. The three year drought in California is a continuation of a larger drought in 2012 that caused \$30 billion in agricultural damages.

**Number of Weather Events with \$1 Billion in Damages**  
(measured in constant 2013 dollars)



## OPPORTUNITIES TO LEAD

While climate change brings severe risk to America's economic and national security, efforts to reduce climate change present innovation opportunity for American businesses. Some states have already implemented programs that helped their energy consumers get ahead of the curve in their efforts to reduce carbon emissions.

The Regional Greenhouse Gas Initiative is the largest state collaboration to reduce carbon emissions in nine Northeastern and Mid-Atlantic participating states (CT, DE, ME, MD, MA, NH, NY, RI, VT). The nine states have agreed to an overall carbon pollution cap that will decline by 2.5 percent each year until 2020. Revenues from the auctions have been heavily invested in energy-efficiency programs for consumers and businesses. These programs are having a real effect – six RGGI states ranked in the top ten in energy efficiency.

Iowa is another leader that is making investments to reduce its dependence on fossil fuels. Iowa led the nation in generating over 27 percent of its electricity from wind power. MidAmerican Energy, the state's major electric utility primarily owned by Berkshire Hathaway Inc., has committed to invest \$1.9 billion in 448 wind turbines. Siemens will produce the blades for the turbines in Fort Madison, Iowa and assemble the turbines in Hutchinson, Kansas. Iowa remains the leader in the region, but North Dakota, South Dakota, and Minnesota also generate a substantial proportion of their energy consumption from wind.