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Testimony on "Creating American Jobs by Harnessing Our Resources: U.S. Offshore and Renewable Energy Production," before the House Committee on Natural Resources

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Chairman Hastings, Ranking Member Markey, and members of the committee, thank you for inviting me to testify before you today. The question of how we can best harness our natural resources to generate sustainable, secure energy and create high-quality jobs is critical in light of the triple crises America now faces: an economic crisis that has left 14 million people unemployed; an energy security crisis that leaves us vulnerable to every international incident and natural or man-made disaster; and a climate crisis that threatens the very planet we live on. In true American entrepreneurial spirit, we at the Center for American Progress Action Fund believe that these crises bring enormous opportunity, but only if the United States decides to get off the bench and join the green jobs race already being run by most of the other developed countries in the world. I am glad to share my and the Center for American Progress Action Fund's perspective on how green jobs can contribute—and in fact are already contributing—to our long-term economic and environmental health, and I look forward to your comments and questions.

In my testimony I will discuss the vast potential of our natural resource base to spur clean energy production, as well as the many jobs and businesses that have already been created in the clean technology sector. I will also highlight the increasingly vulnerable position of the U.S. in the global clean energy marketplace, and specifically the work other countries are doing to become innovation leaders while creating clean energy jobs. I will conclude by recommending several specific steps this Congress and administration can take to protect our land and water while putting America back on track to lead the clean tech revolution, just as we led the Industrial and high tech revolutions that came before.

These recommendations include:

- Ensuring consistent demand, financing, and infrastructure for clean energy projects by:
    - Stabilizing the market for green technologies by passing a national Clean Energy Standard.
    - Creating certainty for clean energy businesses by extending the Production and Investment Tax Credits; extending the Section 1603 Treasury cash grant program providing grants in lieu of tax credits for renewable energy generation; and extending the 48C program providing tax credits for renewable energy manufacturing.
    - Supporting FERC Order 1000, which will clear the way for new transmission line development across America.
- Ensuring that America maintains an innovation edge by creating a Clean Energy Deployment Administration to help commercialize America's most promising

innovations in clean energy technology, and by adequately funding the Department of Energy's loan guarantee programs.

- Leveling the playing field for clean energy by ending the more than $4 billion in annual subsidies and loopholes for oil and gas companies.
- Ensuring the Department of Interior's "Smart From the Start" initiative promoting offshore wind energy remains "smart through the finish" by:
    - Promoting interagency coordination of effort where jurisdictions overlap;
    - Incentivizing development in areas that combine the highest energy generation potential with the lowest likelihood of conflicts over other values and uses; and
    - Expanding the program to encompass renewable energy on public lands as well as the outer continental shelf.
- Ensuring that our current energy economy is as stable and secure as possible by enacting offshore drilling safety standards and raising the oil spill liability cap.
- Passing a House version of the Senate's RESTORE Act, which would use Clean Water Act fines paid by BP after the Deepwater Horizon disaster to carry out coastal restoration activities and create long-term employment opportunities to diversify the Gulf Coast's economy.

I recognize that some of these items are not under the jurisdiction of this committee, but urge committee members to take them to heart nonetheless, as critical pieces of a broad strategy to create jobs and strengthen our economy through clean energy policies and programs.

The Clean Energy Transition: Jobs, Security, and American Competitiveness

Amidst the Great Recession that swept the United States in 2007 and the high unemployment that we are still experiencing today, the set of industries and occupations often referred to as "green jobs" continues to hold the key to unlocking a better, stronger, clean energy economy for the country.

I want to emphasize that the phrase "green jobs" stands for much more than the jobs themselves—it also stands for a whole new set of industries and investments that will make our nation more competitive and our economy more secure and sustainable. We are currently in the process of switching our entire energy infrastructure over from capital-intensive, risky, and often highly polluting energy sources to clean, labor intensive energy sources. This is an economic transformation on the scale of the transition from horse-drawn carriages to engine-driven vehicles, or the Industrial Revolution, or the more recent high-tech revolution. In each of those eras, we talked about economic transformation, competitiveness, and overall job growth. We talked about the need to transition away from industries on the decline into the industries of the future. Only a small group of Americans committed to moving the country backward rather than forward—our version of the British Luddites—insisted on counting exactly how many jobs might be lost in agriculture if people moved to the cities to work in factories, or how many blacksmiths might be out of work with the advent of the automobile.

But for the vast majority of Americans, these were transformative moments in our nation's history, where we had the chance to move forward toward a more advanced age defined by stronger industries, better infrastructure, and a steadily growing middle class. And in fact, in each

of these revolutions we saw workers applying current skills to new industries—blacksmiths using welding expertise to become auto mechanics, for example—along with new workers, especially women and immigrants, finding opportunities where before there had been none. Many of these workers ultimately enjoyed higher wages, longer-term job prospects, and a shot at the middle class as a result.

And the move to a greener economy has important added benefits, beyond the jobs and businesses it will create. We will ultimately become more secure as a nation as we depend less and less on inherently volatile commodities like oil, whose price is set by a global market that is increasingly vulnerable to extreme weather events, political unrest, and price spikes caused by rampant speculation. And we will finally begin to chip away at the threat of climate change, with all the economic, environmental, and national security nightmares that come along with rising global temperatures.

The green jobs revolution has the potential to move us into yet another stage of American leadership. But we can only harness these benefits with strong political leadership and progressive action.

Harnessing the Power of our National Resources to Move to a Clean Energy Economy

Any conversation about American energy production starts with our land and water. We Americans are fortunate to live in a country so rich in natural resources. For over a century we have prospered by mining these resources, from pulling coal from the plains of Wyoming and mountains of West Virginia, to bringing oil up from miles beneath the surface of the ocean. But as these commodities become harder, more expensive, and more destructive to extract, and as we continue to understand the reality of the impact of global warming on our economy, it is time for us to look for new solutions.

We simply cannot keep doing more of the same and expect our economy to grow, our businesses to prosper, and America to remain a leader in the global marketplace. We must turn our ingenuity and entrepreneurial spirit toward solutions that rely on resources we can reap without destroying the very country that gives us those resources, a country we all love and cherish.

Renewable Energy is Stable, Secure, and Increasingly Cost-Effective

Contrary to critics intent on maintaining the carbon-intensive, fossil-fuel dependent status quo, we already know today that investing in the green economy produces results, and that these investments are critical if America is to get back on the path to global leadership.

Jobs in the renewable and efficient energy sectors are no myth. The Brookings Institute released a report this summer finding that 2.7 million Americans are already employed in the "clean economy," making this sector already larger than the fossil fuels sector. Moreover, several renewable energy industries grew at a "torrid pace" from 2003-2010: solar thermal expanded by 18.4 percent annually in this period, wind power by 14.9 percent, solar PV by 10.7 percent, and biofuels by 8.9 percent. Overall, the clean energy sector grew an average of 8.3 percent annually during this period, nearly double the growth rate of the overall economy during that time.

And these aren't just any jobs; they are high quality, family-supporting jobs that are helping to slowly rebuild an American middle class decimated by the housing industry collapse and recession. Brookings finds that median wages among clean economy jobs are 13 percent higher than the economy average. The median salary for clean energy jobs is $46,343, or about $7,727 more than the median wage across the broader economy. The study also found that the clean economy pays well even for the 70 percent of our workforce that lack a Bachelor's degree: "Almost half of all jobs in the clean economy are held by workers with a high school diploma or less, compared to only 37.2 percent of U.S. jobs." In addition, about 26 percent of clean economy jobs are in manufacturing, and a clean economy job on average produces twice as many exports as a typical American job.

These manufacturing jobs are critical to our long-term competitiveness, because our global leadership depends in part on whether we still make things in America. According to Harvard economist Gary Pisano, when manufacturing moves overseas, America not only loses solid middle-class jobs and production prowess; we also lose the process innovation that comes from co-locating R&D, design, engineering and manufacturing. Pisano calls this combination of related skills and industries the "industrial commons." He writes, "In addition to undermining the ability of the United States to manufacture high-tech products, the erosion of the industrial commons has seriously damaged the country's ability to invent new ones."

The upshot is that if we lose our ability to make things, we may well also lose our ability to invent them. Though it is difficult to measure the precise impact advanced manufacturing has on innovation, we know anecdotally that if we cede production on a process invented in the United States, we may lose future iterations of innovation in that process.

Luckily some key renewable energy components are still made in America. Consider these impressive statistics from the wind industry:

- The U.S. wind industry built 2,900 turbines in 2010 to bring the nation's total to 35,600 turbines.
- The U.S. wind industry added 14 new manufacturing facilities in 2010, bringing its total to 400, spread across 44 states.
- The U.S. now has 22 tower manufacturing plants, 11 blade plants and 12 nacelle plants, including several plants, like the former Maytag factory in Newton, Iowa, that have shifted from traditional manufacturing to the manufacture of wind components.

The solar story is even more impressive. A recent report from the Solar Energy Industry Association and GTM Research shows that the U.S. actually has a positive trade balance of $1.9 billion in the solar energy sector, and that we are in fact a net exporter of components to China. Contrast this with the oil industry, where in 2010 alone we imported over $250 billion in petroleum-related products.

These successes have come in part because of critical funds from the American Reinvestment and Recovery Act, or ARRA. The largest single domestic investment in clean energy in U.S. history, ARRA jumpstarted our economy, saving and creating millions of jobs and providing successful clean energy incentives to spur business investment and help consumers lower their

electricity bills. According to CBO scoring, ARRA has saved and created more than 3 million American jobs. Its clean energy provisions alone have directly saved or created 63,000 jobs and are expected to create more than 700,000 jobs by 2012.

But success has also come from a number of states and cities that have been forward-thinking enough to implement the policies and programs necessary to assure businesses that there will be a long-term local market for their technologies. These state efforts include Renewable Electricity Standards in place in 30 states, multiple building codes and energy efficiency investments, and creative "cluster-based" approaches combining research and development with regionally specific natural resources and competitive industries.

California's green economy in particular has shown high returns on investment. In the recent report "Many Shades of Green," by the California-based nonprofit Next 10, researchers found using state employment data that from 2008 to 2009, California's "core green economy" grew over three times faster than its traditional 'brown economy.' The report found that "between 1995 to 2008, green businesses increased 45 percent, and green jobs grew 36 percent while total jobs in the state grew only 13 percent." Green manufacturing jobs alone grew by 10 percent in 2009 in California. Partly as a result of this expansion, 24 percent of green jobs were in manufacturing in California as opposed to 11 percent for the economy as a whole. And in November 2010, California voters overwhelmingly voted to continue growing this green economy, defeating the Big Oil-funded Proposition 23, which would have indefinitely stalled implementation of California's landmark Global Warming Solutions Act, A.B. 32.

Michigan, too, is a striking example of how the clean energy economy can bring opportunity to one of the hardest hit regions of the U.S. In Michigan, total private employment dropped 5.4 percent from 2005 to 2008, while during the same period employment increased by 7.7 percent among 358 green-related firms counted in the study. As Michigan continues to struggle with devastatingly high unemployment rates, the green jobs sector remains both a growing source of jobs and a bright spot on the horizon.

In Ohio, new Governor Kasich famously reversed his campaign promise to roll back the state's Renewable Energy Standard after multiple business leaders contacted him to tell him how important green industries have been in the Toledo area in particular. The city, which ranked in the bottom 10 by per capita income in 2000, has seen a renaissance as a hub for solar innovation and production. More than 6000 individuals are employed in these industries in Toledo today, and the city is home to several major solar panel exporters including First Solar and Xunlight. Building on its existing manufacturing infrastructure and workforce skills in glass and auto parts, both industries that were on the decline, as well as its world-class universities and strong economic development agencies, Toledo managed to turn itself into a serious player in the global solar marketplace. The city stands as a testament both to the promise of new clean tech industries to revitalize aging industrial cities, and to the innovative spirit of America's existing businesses and communities.

The policies and investments put in place by ARRA and multiple states and cities have not just created jobs today, they have created new low-carbon infrastructure that will help our nation become more energy independent, cleaner, and healthier well into the future. Every million

dollars invested in building a wind farm creates 5.7 permanent, direct jobs, to be sure—but it also creates a wind farm that will be in place for at least 30 years.

Lately it has become popular for critics, many funded by the oil and gas industry, to insist that green jobs are a myth. In the past week some of these commentators have gone so far as to rejoice in the failure of individual renewable energy companies, because they see these failures as helping to make a political point about the need to stick to the status quo and discontinue support for the clean energy economy.

Make no mistake: jobs in the renewable energy sector still make up only a very small percent of our overall economy. But they are a bright spot in an otherwise stagnant jobs picture. These are real jobs, held by real people, thrilled to have a paycheck and a chance to do something that moves our economy forward and keeps us competitive. It is truly shocking that anyone would deny the existence and contribution of these jobs and companies, or celebrate their occasional failures, at a time when so many are out of work.

The Status Quo is Risky

Meanwhile, the fact that our current path is unsustainable becomes clearer every day. This summer's events in Libya, where oil production has plummeted since violence first erupted last February, underscore our basic energy insecurity. The country's oil infrastructure, normally capable of producing 1.6 billion barrels of high quality crude oil a day, only produced 60.000 barrels last month. Oil is traded on a global market, and shortfalls mean oil prices go up. They also mean that the U.S. becomes ever-more dependent on OPEC countries, in particular Saudi Arabia, to make up the difference. Ironically, Saudi Arabia itself has become concerned about its over-dependence on oil for its own economic growth, and has begun to seriously invest in renewable energy, in particular solar power, to become more secure.

In addition, we face continual price shocks and economic disruption any time there is a manmade or natural disaster affecting our domestic oil supplies. Last year's Deepwater Horizon disaster underscored that so long as we stay dependent on oil as a foundation for economic growth, the economy as a whole will suffer every time there is a natural or manmade event that disrupts our oil supply. The impacts of that spill were felt most keenly in the Gulf Coast states and its residents, who have worked tirelessly for generations to serve the oil industry. While the ultimate toll of the Deepwater Horizon catastrophe won't be known for several years, there is no denying the worst environmental disaster in U.S. history had a calamitous impact on the Gulf Coast economy. For instance, an NRDC report found that the Gulf of Mexico saw a 39 percent decline in commercial fishing catches overall between 2009 and 2010, representing a $62 million loss in dockside sales.

Onshore oil and gas drilling poses many of the same risks as offshore drilling, such as spills, pipeline and rig explosions, and seepage. This summer's spill in Montana's Yellowstone River is just one example of how our natural resources continue to bear the brunt of fossil fuels impacts. Forty-two thousand gallons of crude were spilled into one of America's "last best rivers" in July. Last week the Billings Gazette reported that two months later, 700 workers remain cleaning up the remnants of oil on the river.

Is the risk of increased, and increasingly dangerous, offshore and onshore drilling worth the reward? It is hard to answer yes when we know that increased drilling will neither lower gas prices nor lead to greater energy independence. Several studies, including a recent analysis conducted by the non-partisan Energy Information Agency found that whether we dramatically expand offshore drilling or stop selling offshore leases entirely, it will have virtually no effect on gas prices, and will in fact lower gas prices by 3 cents by 2030.

Furthermore, for a country that consumes approximately 22 percent of the world's oil but has only 1.4 percent of the world's proven oil reserves, no matter how much of our oceans we open to offshore drilling, it will never be enough. In 2009, the EIA estimated that even if the Pacific and Atlantic coasts and the eastern Gulf of Mexico were all opened up to drilling, the U.S. would still need to import 41 percent of the oil we use in 2030.

Even those who support more domestic drilling have urged the oil and gas industry to look to where they already own offshore leases, rather than agitating to open more of our waters to increased drilling. According to a recent report issued by the Department of Interior, "more than 70 percent of the tens of millions of offshore acres under lease are inactive, neither producing nor currently subject to approved or pending exploration or development plans." Drilling under these leases would free up the new Bureau of Ocean Management, Regulation and Enforcement, or BOEMRE, from investing its already-strained resources in reviewing and permitting new leases.

Renewable Energy Investments: A Better Bet than Fossil Fuels

Despite the demonstrated success of the renewable and efficient energy sectors, and the demonstrated risks of sticking to our current energy path, there are those who still believe we should turn our backs on the clean energy future and continue to support and subsidize the status quo. But recent data show that investments in new energy solutions are actually better for the economy than similar investments in fossil fuel industries. Offshore energy provides a good example: A 2010 study commissioned by Oceana analyzed the wind power potential of offshore wind on the Atlantic coast from Massachusetts to South Carolina. It found that between 133,000 and 212,000 jobs could be created if offshore wind power was fully exploited. This is "more than three times the jobs estimate from proposed future expansion of offshore oil and gas drilling," according to the report.

This 3-to-1 ratio is consistent with studies conducted by the Political Economy Research Institute and the Center for American Progress, which found that clean energy investments create about 16.7 jobs for every $1 million in spending. Spending on fossil fuels, by contrast, generates just 5.3 jobs per $1 million in spending.

The Oceana study also found that offshore wind power up and down the Atlantic coast could generate 30 percent more electricity than "economically recoverable offshore oil and gas in the same region" and would cost about $36 billion less than offshore oil and gas production combined.

Renewable energy is also coming down in cost relative to traditional fossil fuels. The price of solar energy has seen a dramatic decrease, falling 35 percent in the last twelve years, according to data from the National Renewable Energy Laboratory's Open PV Project.

Wind energy today costs only about one-sixth as it did in the 1980's. It helps that after installation and maintenance, renewable energy sources such as the wind, sun, and waves are free. In contrast, oil prices today are higher in real dollars than they were at the peak of the OPEC oil embargo, and are subject to wild swings that create uncertainty for American families and businesses.

One would think, after reviewing the data and looking at existing clean energy businesses and jobs, that the decision to move forward toward a cleaner energy future would be an easy one. My colleagues at Climate Progress sum up the situation like this:

> So investment in green jobs provides more jobs. It provides better jobs. It stimulates the hardest hit sectors of the economy in construction, manufacturing, and small businesses. It increases U.S. competitiveness and improves our balance of trade, even during recession. If you were trying to run the government like a forward-thinking business, where would you put your money?

Unfortunately this logic has not yet reached Washington. As ARRA programs, including some critical tax credits for renewable energy, come to an end, U.S.-based clean energy companies are beginning to worry that the United States will not make any further real commitment to moving America toward the green economic transformation already happening throughout the rest of the developed world.

Unless we Act, America Risks Falling Behind

America may be hesitant to embrace the clean energy economy, but other countries are not. Countries such as China and the European Union members are now investing in many of the building blocks of innovation-driven economic growth that the United States has all but abandoned over the past several decades, and are focusing on clean tech industries as a critical part of their economic growth strategies. In a recent Center for American Progress report "Rising to the Challenge," I and my co-authors argued that China in particular is actively and methodically building up the basic foundations for future economic growth while also ensuring a market for its current and future products and services at home and abroad.

China's green push is already transforming global competition. In August 2010 China surpassed the United States for the first time in the Ernst and Young renewable energy investment attractiveness index, and the gap keeps getting wider. In 2010 China brought in $48.9 billion in new renewable energy investments – over one third the global total – while the U.S. lagged behind at $25.1 billion. Investors report that China's feed-in tariffs, renewable power generation targets, preferential tax rates, and other supportive policies create a stable investment environment and make China a much better bet than the United States, where federal policy is still geared toward fossil fuels rather than green energy.

As of 2009, China has also surpassed the U.S. in installed renewable energy capacity. China had 103 gigawatts of combined renewable capacity in 2010 (including wind, solar, small-hydro, biomass, waste-to-energy, geothermal, and marine), almost double the U.S. total of 58 gigawatts.

This Sino-U.S. market dynamic is unprecedented, and it has convinced the Chinese that green energy is their "historic opportunity" to finally surpass the United States, to move up the value chain and to finally dominate a strategic and technology-intensive market sector. Chinese leaders envision a new tier of higher-wage "green collar" jobs that will boost many of their current low-cost, "blue collar" manufacturing workers up into the middle class. That China is serious about this push is clear from its most recent Five Year Plan, which emphasizes renewable energy generation, manufacturing, export, and consumption as key components of its overall economic growth strategy.

Europe is also seeing impressive job creation in its renewable energy sectors. This committee may be particularly interested in Europe's success in building offshore wind projects that have both created jobs and provided significant power to the European power grid. The 150 MW Ormonde Wind Farm off the coast of Great Britain provided about 800 job-years in just the direct installation phase. And France, the most recent entrant into the business of offshore wind development, just announced a plan for five offshore wind projects with a combined capacity of three GW—an endeavor they project will support more than 10,000 jobs in the first round of bidding.

Nations embracing wind energy

Current offshore wind capacity in megawatts, Europe, China, and the United States

Offshore wind capacity in megawatts (MW)	Europe (United Kingdom, Denmark, The Netherlands, Belgium, Germany, Sweden, Ireland, Finland, Norway)[1]	China	United States
Installed	2,946	102[2]	0
Under construction	3,000	2,300[3]	0
Permitted	19,000	13,600[4]	488[5]
Total	**24,946 MW**	**16,002 MW**	**488 MW**

Note: One megawatt roughly equates to the amount of electricity needed to power 300 American homes.

Source: Center for American Progress

While China and Europe move ahead, some of America's political leaders seem intent on crippling us before we have even fully entered the global green jobs race. The proposed budgets we have seen these past few months would slash clean-tech and energy investments right as many clean tech industries are getting up and running, devastating this growing but immature industry that struggled during the Great Recession.

The decision not to invest in the clean energy economy comes at a cost. In August 2011, three U.S. solar firms filed for bankruptcy – Solyndra Inc. in California, Evergreen Solar in

Massachusetts and Spectra Watt in New York. These companies suffered from a lack of consistent demand for their products in the U.S. as well as the difficulty in getting financing for these projects. In contrast, countries like China have set clear policies prioritizing clean energy development. While the U.S. firms were closing their doors, their Chinese rivals were announcing record profits – sales for China's Suntech Power, Yingli Green Energy and Trina Solar grew 30-60% over the past year. Not surprisingly, all three firms also recently received massive loans from China Development Bank: at least $7.33 billion to Suntech, $5.3 billion to Yingli, and $4.4 billion to Trina. According to David B. Sandalow, the Assistant Secretary for Policy and International Affairs at the Department of Energy, it is this access to cheap capital in China, combined with supportive policies such as China's Feed-In Tariff and the dearth of any similar policies or investments in the U.S., that is making it so hard for our firms to compete. That inability to compete has in turn led to bankruptcies and lost jobs at a time when America can scarcely afford that outcome.

It has also led global investors to turn their backs on the U.S. Last year, leading global financier Deutsche Bank decided to move billions of investment dollars out of the U.S. clean energy market, and into China and Europe as soon as it was clear there would be no comprehensive climate and energy legislation coming out of the 111th Congress. China and our other economic competitors in Asia, Europe, and emerging markets are not waiting for America to regroup.

All this points to one key question: Do we really want to be in the business of inventing the green technologies of the future, only to end up buying those technologies back from countries that have successfully commercialized, manufactured, and exported those technologies—and come up with successive waves of innovation that they can then also sell back to the United States? Do we want to be the world's great clean technology consumer, while the rest of the world prospers? Is this the way to strengthen the American economy?

Conclusion and Recommendations

America has long depended on our natural resources for our energy production, and we have prospered as a result. But the fossil fuels we are used to relying on have become increasingly risky, expensive, and destructive to acquire. At the same time, new innovations are happening every day that will allow us to turn to truly renewable resources like the sun, wind, waves, and biomass crops for our energy needs. Americans have stepped up, as we always do, to provide the entrepreneurial spirit that will grow the clean energy economy, and we are already seeing major gains in this sector, which is one of the only real bright spots in the American economy today.

But without a strong signal from the U.S. government that we are taking the clean energy transition seriously, we cannot hope to lead, or even to keep pace with, the global clean energy marketplace. While other countries step up to rebuild their economies on a more sustainable and secure energy footing, we are spending our time squabbling while Rome burns, by continuing to subsidize and support fossil fuel companies at the same time that we ignore our crumbling infrastructure, chop away at research and development funds, and fail to take the necessary steps to put America into the global race to lead the green economy.

These are some of the progressive proposals that Congress dearly needs to take to heart to strengthen our economy:

- Ensure consistent demand, financing, and infrastructure for clean energy projects by:
    - Stabilizing the market for green technologies by passing a national Clean Energy Standard, one that would set a target of 35 percent renewable and efficient energy by 2035, and a second target of up to 80 percent including a broader range of clean energy technologies;
    - Creating certainty for clean energy businesses by extending the Production and Investment Tax Credits; extending the Section 1603 Treasury cash grant program providing grants in lieu of tax credits for renewable energy generation; and extending the 48C program providing tax credits for renewable energy manufacturing;
    - Supporting FERC Order 1000, which will clear the way for new transmission line development across America.
- Ensure America maintains an innovation edge by creating a Clean Energy Deployment Administration to help commercialize America's most promising innovations in clean energy technology, and by adequately funding the Department of Energy's loan guarantee programs.
- Level the playing field for clean energy by ending the more than $4 billion in annual subsidies and loopholes for oil and gas companies.
- Ensure the Department of Interior's "Smart From the Start" initiative promoting offshore wind energy remains "smart through the finish" by:
    - Promoting interagency coordination of effort where jurisdictions overlap;
    - Incentivizing development in areas that combine the highest energy generation potential with the lowest likelihood of conflicts over other values and uses; and
    - Expanding the program to encompass renewable energy on public lands as well as the outer continental shelf.
- Ensure our current energy economy is as stable and secure as possible by enacting offshore drilling safety standards and raising the oil spill liability cap:
    - Pass a House version of the Senate's RESTORE Act, which would use Clean Water Act fines paid by BP after the Deepwater Horizon disaster to carry out coastal restoration activities and create long-term employment opportunities to diversify the Gulf Coast's economy.

The Center for American Progress has fleshed out many of these recommendations in a number of white papers and reports that are available on the CAP website at www.americanprogress.org. These include: "Helping America Win the Clean Energy Race," "Rising to the Challenge," "Cutting the Cost of Clean Energy," "The Green Bank," "Beyond Recovery: Moving the Gulf Coast Toward a Sustainable Future," and "Clean Energy From America's Oceans."

These steps would make great strides in boosting our national competitiveness and jobs growth in the short run and ensure our once-dominant position in science and technology, innovation and entrepreneurship, and job creation is not eclipsed by China in the 21st century. Government cannot do everything, but it can spur the private sector by ensuring a market for emerging technologies, and by creating incentives and evening the playing field for rising industries with

great job potential. This will revitalize our entire economic engine and change how we are innovating new ideas, products, goods, and services.

We believe it is time that America fully join in the global green economic transformation. In fact, we want America to lead this transformation and to turn it into the great economic engine of future growth—much as we did during the Industrial and high tech revolutions. If we do not embrace a more sustainable growth strategy, we risk seeing jobs move overseas and our middle class decimated, even as we become more and more vulnerable to volatile energy and financial markets. If we do not lead in this green revolution, we risk becoming the great consumers of the 21st century, rather than its great innovators.

Investments in clean energy will do more than help some specific sectors add and maintain green jobs, though it has and certainly will continue to do so. Rather, by realigning America's thinking toward a strong clean energy economy, we can strengthen the entire economy and ensure U.S. global competitiveness in decades to come.

President Obama reminded Congress during his most recent State of the Union address that the United States faces a real innovation challenge from China, Germany and other nations, much as it did in 1957 as the Soviet Union rocketed ahead of us in space exploration:

> When the Soviets beat us into space with the launch of a satellite called Sputnik, we had no idea how we would beat them to the moon. The science wasn't even there yet. NASA didn't exist. But after investing in better research and education, we didn't just surpass the Soviets; we unleashed a wave of innovation that created new industries and millions of new jobs.
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> This is our generation's Sputnik moment. Two years ago, I said that we needed to reach a level of research and development we haven't seen since the height of the Space Race. And in a few weeks, I will be sending a budget to Congress that helps us meet that goal. We'll invest in biomedical research, information technology, and especially clean energy technology—an investment that will strengthen our security, protect our planet, and create countless new jobs for our people.

Our country needs a truly comprehensive clean energy investment agenda centered on groundbreaking policies and programs that reduce carbon emissions, increase public and private investments in clean and efficient energy technologies, and ensure broadly shared prosperity and sustainable economic growth. As President Obama said, this our Sputnik moment and we must seize the opportunity it presents.

Thank you very much.