

**FIRST JOINT REPORT  
TO  
THE PRESIDENT OF THE UNITED STATES OF AMERICA AND THE  
PRESIDENT OF THE FEDERATIVE REPUBLIC OF BRAZIL  
ON  
THE U.S.-BRAZIL STRATEGIC ENERGY DIALOGUE**



The Honorable Daniel B. Poneman  
Deputy Secretary of Energy  
United States of America

The Honorable Márcio Zimmermann  
Deputy Minister of Mines and Energy  
Federative Republic of Brazil

**April 2012**

# United States – Brazil Strategic Energy Dialogue

*First Joint Report*

*to*

*The President of the United States of America and the President of the Federative Republic of Brazil*

*on*

*The U.S.-Brazil Strategic Energy Dialogue*

## **President Obama and President Rousseff:**

We are pleased to submit the first joint progress report on the U.S.-Brazil Strategic Energy Dialogue (SED), which you announced jointly in March 2011 in Brazil. We also are pleased to include the critical next steps of our bilateral energy engagement.

### ***SED Goals***

The underlying objective of the SED is to grow the bilateral technical, policy, and private sector energy cooperation that will strengthen our energy relationship, increase bilateral trade in energy-related goods and services, and enhance energy security in both countries and our shared region. To this end, the specific goals of the SED include advancing:

- *Safe, responsible, and efficient oil and natural gas development*
- *Safe and secure civil nuclear energy development*
- *Advanced biofuels cooperation, aviation biofuels development and standards, and third country outreach*
- *Renewable energy, smart grid, and energy efficiency technology deployment*

To date, the U.S. and Brazilian Governments have mounted a multi-agency effort to: exchange information and ideas across strategic energy technologies; share unique experiences in order to address challenges that face both our Nations; engage in substantive dialogue to advance shared energy and climate objectives; and explore cooperative efforts that accelerate the development and deployment of critical energy technologies in support of economic growth.

### ***SED Launch***

Since the formal launch of the SED in Brasilia in August 2011, our Governments, led by the U.S. Department of Energy and the Ministry of Mines and Energy of Brazil, have adopted technical action plans to support the achievement of SED goals in the areas of:

- **Oil and Gas**
- **Civil Nuclear Energy Cooperation**
- **Biofuels**
- **Renewable Energy and Energy Efficiency**

Our governments are committed to working closely under the SED to ensure a comprehensive, whole-of-government approach to addressing our common interests.

In addition, at your March 2011 meeting, you both recognized the importance of the private sector in growing our economies by developing and deploying cutting-edge, transformative energy technologies. We are working in a manner that recognizes our diverse cultures related to public and private partnerships, and to identify areas where our governments can reinforce existing commercial linkages between our Nations and spur additional growth in bilateral commercial energy activities.

### ***Accomplishments and Commitments***

On the occasion of President Rousseff's official visit to Washington, D.C. in April 2012, and to mark the one year anniversary of your announcement, we are happy to report concrete progress under the SED. Our accomplishments include:

- Sponsoring jointly in 2011 and 2012 workshops and meetings, including with public and private sector stakeholders, to address critical energy technology issues:
  - Industrial Energy Efficiency (August 2011, *Rio de Janeiro, Brazil*)
  - Civil Nuclear Energy (August 2011, *Washington, D.C.*)
  - Deepwater Oil and Gas Development (October 2011, *Rio de Janeiro, Brazil*)
  - Building Energy Efficiency (November 2011, *São Paulo, Brazil*)
  - Commercial Aviation Alternative Fuels Initiative (December 2011, *Washington, D.C.*)
  - Dispersants and Disaster Response (February 2012, *Brasília, D.F./Washington, D.C.*)
  - Subsea Well Containment and Contingency Planning (April 2012, *Rio de Janeiro, Brazil*)
  - Unconventional Gas (May 2012, *Houston, TX*)
- Continuing bilateral engagement and information sharing in 2012 through workshops on oil and gas environmental, regulatory and safety issues; unconventional natural gas development and resource assessments; wind project development; smart grid technology deployment; roadmapping to identify research and development (R&D) needs for flex-fuel vehicle engines; biofuels deployment in third-party countries, and the Global Bioenergy Partnership.
- Deepening our commercial energy cooperation, the U.S.-Brazil Commercial Dialogue has broadened the agenda to include an energy component, allowing for greater engagement with the private sector.

In 2012, we anticipate further expansion of Brazil-U.S. cooperation in the energy sector. Greater detail on our ambitious vision for the SED, along with concluded and planned activities to support our goals, is provided below.

### ***Oil and Natural Gas Cooperation***

Our Nations' energy security, national security, and economic growth depend on reliable, affordable, and secure supplies of oil and natural gas. As two of the global leaders in deepwater oil and natural gas exploration and production, there are many areas in which we can expand our partnership to support the safe and efficient development of these resources in both Nations.

The enormous challenges of deepwater oil and gas exploration have contributed to an unprecedented development of knowledge by the best centers of research in both our countries. Brazilian and U.S. industry are working together in numerous research and development facilities, many associated with the Federal University of Rio de Janeiro. Our governments continue to seek areas of opportunity for further growth in technical and commercial cooperation. In the United States, Petrobras has become the first oil company to utilize a Floating Production, Storage, and Offloading (FPSO) facility for oil and gas production in the Gulf of Mexico, paving the way for other companies to take advantage of this technology in U.S. waters.

Through information sharing and exchange of best practices, the United States and Brazil can enhance the safe and environmentally responsible development of deepwater oil and gas resources. Specific areas of focus in our collaboration include environmental management, oil spill prevention and response, deepwater technologies, and safety measures. To initiate our work, we jointly conducted two technical workshops in Rio de Janeiro: one in early October 2011, which focused on deepwater technologies and environmental protection; and one in April 2012, which focused on subsea well containment and oil spill contingency planning.

**Next Steps:** Under the SED, the U.S. and Brazilian Governments plan to continue to conduct joint workshops involving public and private sector stakeholders on environmental, regulatory and safety issues as well as on unconventional natural gas development in 2012, including sharing the results of the U.S. Geological Survey (USGS) conventional and unconventional resource assessments on a bilateral basis. We strive to maximize the impact of these efforts by involving multiple agencies and stakeholders, and linking these efforts to related multilateral partnerships.

### ***Civil Nuclear Energy Cooperation***

As the United States and Brazil implement policies to meet growing energy demands and combat the effects of climate change, civil nuclear energy presents great opportunities for bilateral partnerships – both in the public and the private sectors – that will contribute to nuclear power development.

Importantly, our technical and regulatory agencies continue collaborating through technical and information exchanges, and joint workshops to help assure that nuclear power for peaceful purposes is generated safely, securely, and responsibly. The first of these civil nuclear technical workshops was held in Washington, D.C. in August 2011. It served to strengthen the U.S.-Brazil partnership through the exploration of key issues of mutual interest and provided the opportunity for Brazilian and U.S. participants to meet with counterparts from the public and private sectors to discuss potential commercial opportunities and available technologies.

**Next Steps:** Brazil and the United States have adopted an Action Plan and are now in the process of identifying specific areas for technical and information exchanges. The key areas range from licensing, technology certification, and site selection to reactor long-term sustainability, reactor life extension, and radioactive waste management.

### ***Biofuels Cooperation***

As global leaders in biofuels research, development, and production, the United States and Brazil look to build upon our robust bilateral and multilateral cooperation to expand domestic and global biofuels markets. This expansion can provide a low carbon means of increasing energy security,

strengthening trade, and contributing to the sustainable growth of our economies. Our cooperation builds on our work initiated under the 2007 U.S.-Brazil Memorandum of Understanding to Advance Cooperation on Biofuels with a focus on development of standards and promotion of biofuels technology R&D, outreach to third-party countries, and multilateral engagement. You also announced the addition of cooperation on aviation biofuels in 2011.

Under the SED, we are working to enhance current methods for modeling the sustainability of biofuels throughout their entire life cycle, including greenhouse gases and land-use change. We are exploring avenues to better gauge the applicability of these analyses in Brazil, the United States, and possibly other regions of the world. We also are exchanging information on how to improve the efficiency of ethanol-optimized engines by allowing flex-fuel vehicles to maximize fuel economy. We also collaborate under the Bioenergy Working Group – one of the multilateral clean energy initiatives of the Clean Energy Ministerial (CEM) process.

We have also made significant progress in our biofuels outreach to third countries. U.S. and Brazilian teams, with the support of our implementing partners, are providing technical assistance to the governments of El Salvador, Honduras, Guatemala, Jamaica, the Dominican Republic, Haiti and Senegal to strengthen policy frameworks, implement blending laws, and develop domestic biofuels production capabilities. Two policy frameworks, one pilot demonstration plant, and two pilot ethanol validation studies are slated to be completed during 2012. The United States and Brazil also collaborate multilaterally in the Global Bioenergy Partnership (GBEP), which held a capacity building regional forum in Bamako, Mali in March of 2012 for the 15 members of the Economic Community of West African States (ECOWAS) to develop sustainable bioenergy.

Our governments are expanding and deepening efforts in advanced and aviation biofuels to support their commercial-scale development and deployment. This work is being carried out under the Partnership for the Development of Biofuels for Aviation that you announced jointly in March 2011. In December 2011, our teams met in Washington, along with key private sector and other relevant stakeholders, to discuss technical objectives for 2012.

Finally, regarding biofuels trade, a significant milestone was reached on January 1, 2012, when the United States Congress allowed the import surcharge for ethanol to expire. At the same time, the suspension of Brazil's ethanol tariff was extended for the next four years. Accordingly, the United States and Brazil are strongly positioned to work together to promote a larger global market for biofuels trade, both bilaterally and beyond.

**Next Steps:** In third countries, the United States and Brazil plan to continue to provide technical support on the legal framework, technical assistance, biofuels production capacity in selected countries. Future meetings are to include the sharing of regional lessons learned and best practices, and develop national strategies that attract public and private investment. The U.S. and Brazil also collaborate multilaterally as leading voices in the Global Bioenergy Partnership (GBEP), which held a joint capacity building forum in Bamako, Mali in March 2012 with the Economic Community of West African States to develop and deploy sustainable bioenergy throughout the region.

On biofuels for aviation, through a series of meetings and workshops throughout 2012, collaboration is planned on the development of biofuel standards and specifications for

aviation. This partnership includes collaboration with research experts, academia, and the private sectors of both countries to optimize its effectiveness.

### ***Renewable Energy Cooperation***

Brazil and the United States are global leaders in renewable energy technology development and deployment. The first area identified for increased partnership is related to sustainable development of hydropower. Both countries plan to work together through the Sustainable Development of Hydropower Initiative under the CEM process to promote the sustainable development of hydropower.

Another area identified for increased partnership is wind power development. Currently, our governments and private-sector stakeholders are exploring the technical aspects, benefits, and market opportunities related to distributed and community wind project development in Brazil. Distributed wind energy development has the potential to expand energy access to more rural areas as well as reduce the need to generate electricity from fossil fuel sources – in both Brazil and the United States.

**Next Steps:** The U.S. and Brazilian Governments plan to work jointly to develop and execute a workshop on wind energy that allows government officials and stakeholders to gain a better understanding of small and midsize turbine technology, while working to quantify market opportunities.

### ***Energy Efficiency Cooperation***

Buildings and industrial processes account for the majority of our energy consumption. Therefore, we are focusing our work in this area on the major efficiency gains possible through effective public policies and compatible standards. As our first step, a U.S.-Brazil workshop on industrial energy efficiency and demonstration energy assessment of a textile plant were held in Rio de Janeiro in August 2011. It served to strengthen the U.S.-Brazil partnership through the identification of key opportunities of mutual interest.

Building on a workshop held in Sao Paulo in November 2011, we also decided to share technical information to support the establishment of an independent testing facility in Brazil to provide efficiency ratings that accurately reflect the real-world performance of building materials, including high-efficiency windows, cool roofs, and advanced insulation. These efficiency ratings are expected to drive greater utilization of efficiency technologies in the construction market by supporting enforcement of country-specific standardized building codes and providing greater opportunities for commercial partnerships in the creation and use of energy-efficient building products.

**Next Steps:** The United States and Brazil intend to explore the signing of a Memorandum of Understanding between the Electric Energy Research Center (CEPEL) and the Oak Ridge National Laboratory (ORNL) regarding cooperation in the field of industrial energy efficiency. Additionally, as Brazil considers the establishment of a building material testing and rating organization, the United States stands ready to provide technical support to develop a business plan.

### ***Smart Grid Cooperation***

Brazil and the United States are pursuing smart grid technology deployment within our respective electricity sectors. We are working together to identify opportunities for greater private-sector partnerships. We also plan to exchange experiences and best practices in policy-making, and in

technology development and deployment. One example is our cooperation under the International Smart Grid Action Network (ISGAN) – one of the multilateral clean energy initiatives of the Clean Energy Ministerial process. The ISGAN provides major economies an opportunity to access information and share experiences and strategies in creating a smarter, cleaner, and greener electricity grid.

The U.S. Trade and Development Agency also has an active program in Brazil, including funding of a smart grid pilot implementation strategy for a major Brazilian electrical utility. Additionally, as smart grid investment and deployment advance in both countries, information exchanges and workshops focused on the regulatory and business environments will be invaluable.

**Next Steps:** Brazil and the United States currently are exploring a smart grid workshop to be held in 2012 to share technical information to help in the development and deployment of smart grid technologies, standards, and analysis.

### ***Path Forward for the Strategic Energy Dialogue***

As noted previously, we have planned workshops and other collaborative activities under each of the energy areas defined above for the coming year. We are committed to working with both the public and private sectors to bring about substantive technology advancements and deployment in the energy sector to support our economic growth. We also intend to continue to explore avenues to increase research and development cooperation between Strategic Research Institutions in areas such as oil and natural gas; nuclear energy; and renewable energy and energy efficiency technologies.

Our various government ministries and departments that have roles and responsibilities in the energy sector are committed to work together to leverage the vast expertise and capabilities they possess. Our work presents opportunities for each of our countries to become more aware of what we, as strategic partners, can do together to meet the growing energy challenges of the future.