

leadership and make significant and strategic investments in this region.

Third, the United States must sustain its leadership on international ocean issues. The problems facing our oceans are global in their severity and scope and require global solutions. The United States has the world's largest Exclusive Economic Zone—one that touches the Arctic, Pacific and Atlantic Oceans—and is uniquely positioned to assume a leadership role on ocean issues. Recently, we have demonstrated significant leadership on ocean issues. For example, the U.S. Department of State convened the first Our Ocean Conference in 2014, which brought unprecedented attention to ocean issues. At the most recent conference in 2016, the United States launched the Safe Ocean Network to coordinate international partners to combat illegal, unreported and unregulated fishing. Sustained leadership is needed to protect ocean ecosystems and build a brighter future for coastal communities globally.

Fourth, the Trump Administration and Congress should close the critical gap in ocean science, research and observing. The United States continues to suffer from a serious

shortage of fiscal support for ocean science, research, exploration and observing. As the oceans undergo significant changes in their chemistry due to climate change, including ocean acidification, substantial investments in ocean science are critical to understand the complex relationship between oceans and climate. Furthermore, investments in ocean science and research spur innovation, address important national and global challenges, create jobs, and lead to the development and implementation of advanced technologies that save lives, protect property and support our economy.

Oceans are integral to our health, our economy and our national identity. And yet, at no time in our history have our coasts and oceans been more vulnerable. If our ecosystems, economies and livelihoods are to be sustained for future generations, it will take a visionary president willing to follow the lead of states and regions to integrate the health of our oceans into our national dialog. We owe it to the country and the world to achieve this vision, one in which our oceans and coasts are clean, safe, sustainably managed and preserved for the benefit of future generations. **ST**

## Review & Forecast

### The New Congress Must Support Our National Ocean Policy

By Rep. Eddie Bernice Johnson (D-Texas)  
Ranking Member, U.S. House Committee on Science, Space, and Technology

The fight for the long-term health of the oceans, Great Lakes and coasts is one of the most significant public policy challenges facing our nation.

The outcome of this fight matters, not only to surfers and fisherman, but to all Americans. Nearly half of the American population lives in coastal communities. Millions more flock to our beaches each year to enjoy the sights, the food and the recreational experiences unique to these locales. It is important to realize, however, that regardless of our zip code, marine ecosystems and resources benefit all of our lives.

The oceans are a vital driver of our economy. In 2013 alone, the ocean economy provided 3 million American jobs in 149,000 businesses that produced goods and services contributing \$360 billion to the nation's GDP. The oceans are one of our most valuable natural resources—supplying us with fish to feed our families, global trade routes to import and export goods, and potentially significant energy to power homes from wave (and other renewable) energy technology.

It is clear that the ocean enriches all of our lives, and because of that we are all responsible for its stewardship. Unfortunately, environmental pressures linked to global warming—excess carbon dioxide emissions, warming ocean temperatures and sea level rise—are already inflicting devastating damage to the health and biological diversity of our fragile ocean, coastal and Great Lakes ecosystems.



The absorption of excess carbon dioxide emissions into the ocean has increased the acidity of the water to the point that shellfish, corals and oysters are struggling to build and maintain their protective shells. Entire species of fish are vulnerable to predators and erosion. While we cannot predict the full impact of these changes, seafood supply chains will almost certainly be affected. We urgently need to learn more about the impact of ocean acidity on marine life and what we can do to mitigate and hopefully reverse the damage we've observed.

Warming ocean temperatures are also imposing stresses on our marine ecosystems. The ocean absorbs more than 90 percent of the heating caused by climate change. This warming is thought to trigger rapid growth of algae populations in the oceans and Great Lakes. These so-called harmful algal blooms spread out to cover vast swaths of ocean, blocking out sunlight and depleting oxygen levels in the water below. Some harmful algal blooms also produce toxins that kill fish and contaminate seafood. We need to study these populations of algae to better understand what triggers them to bloom and how to mitigate their effect on the environment. The potential implications for public health, tourism and the seafood industry are concerning.

Heat from global warming that doesn't get stored in the oceans contributes to melting sea ice and glaciers. The resulting sea level rise is threatening the local infrastructure and livelihoods of millions of Americans who live along our coasts. Sea level rise puts additional Americans at risk for flooding as deadly storm surges are able to push farther inland.

I'm not telling you something you don't already know. Polling shows that the majority of Americans are concerned about the quality of the environment and think the U.S. government should be doing more to protect it.

As ranking member of the House Committee on Science, Space, and Technology, I am a passionate supporter of the research programs led by agencies such as NOAA, NASA and the National Science Foundation (NSF). The science and technology developments these agencies produce are crucial inputs to an efficient and sustainable approach to

our most pressing environmental challenges. I was supportive of President Barack Obama when he established the National Ocean Policy (NOP) by executive order back in 2010. The *Deepwater Horizon* oil spill that year severely stressed a number of our Gulf Coast communities and stiffened our resolve to take action. An environmental crisis of this magnitude was a harsh lesson about just how fragile our marine environments are and how much we depend on them. It was time to roll up our sleeves, and I was thrilled to see the president put forth the nation's first ever comprehensive ocean policy.

The NOP is a necessary first step toward developing an effective approach to the long-term management and stewardship of the oceans, Great Lakes and coasts—one that is driven by the science and the input of stakeholders. Building on recommendations of two bipartisan blue-ribbon commissions, the NOP coordinates the roles of 27

federal agencies through the establishment of a National Ocean Council. The council works with key stakeholders to create an integrated framework for tackling issues related to coastal and marine spatial planning, conservation, economic activity and sustainable use of resources.

Some have expressed concern that the NOP increases regulatory burden on business. While I am sensitive to the concerns of those in the seafood and energy production sectors, that's simply not the case.

The NOP streamlines and harmonizes efforts at the federal, state and local level so resources are targeted where they are most needed. This will decrease redundancy and ease the regulatory burden.

The new Congress that will convene this January must unite behind the NOP because time is running out to stem the tide of destruction to the invaluable resources and ecosystems under our care. **ST**

## Review & Forecast

### A New Administration Brings Hopes of Balanced Energy Policies

By **Randall Luthi**  
President, National Ocean Industries Association (NOIA)

The 2016 election was certainly one for the ages. Traditional political pundits couldn't have been more wrong and both campaigns emphasized the negative to energize voters. Policies seemed to take a back seat throughout the discord, but now will be front and center. One of the policies that should thankfully return to the forefront is energy.

Despite being the bastion of American energy security and productivity, the oil and gas industry took an unprecedented beating in 2016. Early in the year, oil prices fell to \$28 per barrel, the lowest price in 14 years. Tighter budgets and smaller payrolls prompted the loss of nearly 118,000 oil and gas jobs in the United States. Unfortunately, low commodity prices are only one part of 2016's legacy.

The outgoing Obama Administration released an unrelenting tide of costly regulations, some of which are constricting oil and gas exploration and development without increasing safety or environmental protection. While other industries are facing similar challenging situations, and sometimes receive federal bailouts, the oil and gas industry not only trudged on unaided, but was targeted through a regulatory fiat.

#### Oil and Gas Regulations Impact

The health of the oil and gas industry impacts each American. The industry safely produces reliable and affordable energy that helps keep businesses operating, vehicles running and homes heated and powered. The Obama Administration put all of this at risk when it appar-



ently bowed to the unrealistic demands of the "keep it in the ground movement" and issued many regulations and policies that limit access to offshore oil and natural gas. The onslaught of costly and highly prescriptive regulations at the hands of the Obama Administration was unprecedented. Industry estimates place the combined industry costs of three of the largest offshore rules—well control, Arctic drilling and air quality—at more than \$55 billion over a 10-year period.

The impact could be more devastating for the rest of the economy, potentially reducing U.S. GDP by a cumulative total in the hundreds of billions of dollars. What's more, these rules do not improve safety or provide increased environmental protections. The well control rule's provisions on drilling margins may actually increase risk, the Arctic drilling rule does not accurately reflect current industry capabilities, and the air quality rule was proposed before government studies meant to inform the rule were even completed. Beyond the regulatory fiat, the Obama Administration took steps to directly limit offshore access. Sixteen percent of total U.S. crude oil production and 5 percent of total U.S. natural gas production comes from federal offshore areas, despite federal policies keeping over 85 percent of the U.S. Outer Continental Shelf (OCS) closed to oil and gas exploration and development for over three decades.

#### Atlantic, Alaska Lease Sales

Last March, the Obama Administration removed Atlantic Lease Sale 260 from the 2017 to 2022 OCS Oil and Gas Leasing Program, effectively keeping the entire Atlantic OCS off-limits for oil and gas development. A majority of the residents of the states bordering the initially proposed lease sale, as well as their governors, various other state and local elected officials and stakeholder groups from other industries, supported the Atlantic lease sale.

Much of the Atlantic debate was informed by seismic survey data collected over three decades ago. Those data are practically ancient given the tremendous science and technology advances made over the past 30 years.

Without the permits required to conduct safe and modern seismic surveys, which the administration has delayed for years, there is no telling how much more recoverable oil and gas might be found in the Atlantic. After success-