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A second wind for the president

A lack of leadership has hampered progress against global warming. If Barack Obama earns a second term as US president, will he have the energy to tackle climate?

Barack Obama entered the White House on a wave of hope that was every bit as real for scientists as for voters. Early optimism gave way before often-nasty political realities, but Obama mostly made good on his promises by appointing top-flight researchers to his administration, elevating science within federal agencies and making research and development the foundation of a broader vision of innovation. As he makes his pitch for another four years, there can be little doubt that he intends to continue supporting science. But the vision that he laid out four years ago remains a work in progress.

Nowhere is this clearer than with energy and climate. As discussed on page 488, the president has increased investments in research and development that may one day help to reduce the cost of clean energy technologies and hasten progress on fighting global warming. Regulations that aim to clean up the atmosphere and protect public health are already encouraging a transition towards cleaner energy. Obama also deserves credit for staking out a centrist position on energy issues, leaving room for both renewables and the smart development of domestic fossil-fuel resources. But as the political discussion about climate has degenerated to a frightening degree during the past four years, he has offered too little leadership on these issues.

The polarization has its roots in both the politics of the economic crisis and the dearth of quick, cheap solutions. Curbing emissions on the scale required to avert dangerous warming is a daunting challenge, but it is feasible and will be cost-effective in the long term. Shifting to cleaner energy would bring benefits not just to climate, but also to air quality, infrastructure and public health. But the cleanest sources of power cost more up front, and politicians are loath to increase energy prices when the economy is struggling. And although the number of green-energy jobs is increasing, shutting down old coal-fired power plants means job losses — and political protests — on a local scale. This has fuelled angry opposition to the modest pollution regulations that Obama's administration has rolled out during his first term.

Given the toxic political atmosphere surrounding the November elections, it is perhaps understandable that the administration, Democrats and even some environmentalists are saying little about global warming. But by failing to speak out, they have often ceded the airwaves to deniers. Although polling shows that almost two-thirds of US citizens support some kind of action on global warming, law-makers in Washington DC are back to debating the validity of climate science. The United States needs leadership that is willing and able to uphold and act on the science.

If Obama wins a second term, he will need to take on the political opposition and bring apparently disparate interests together. This means laying out a clear vision for the future, and making the immediate steps clear. Fortunately, Obama might find it easier to do this during a second term, when he would be free

to think about his legacy instead of about re-election.

His opponent, Mitt Romney, has a record on global warming that is spotty at best. As governor of Massachusetts from 2003 to 2007, Romney initially supported, then backed out of, the Regional Greenhouse Gas Initiative, a cap-and-trade programme to reduce emissions from electricity generation across New England. Last year, he broke with Republican ranks and declared global warming a threat, but more recently he has questioned its severity. He is now proposing to roll back the government's regulatory powers. If he wins the election, scientists will have to work with the new administration and hope that the president will muster the courage to take on his own party and govern as the centrist he was in Massachusetts, where he introduced a state health-care initiative that was the model for Obama's national effort.

The next round of greenhouse-gas policies is likely to consist of targeted measures, unlike the economy-wide cap-and-trade approach that failed in 2010. The Obama administration has regulated emissions from vehicles and required sharp increases in fuel economy; the next big target is electricity generation. Like the car industry, utility companies want economic certainty. Environmentalists want emissions reductions. Is there a way to ensure both without over-burdening consumers? Or could a carbon tax make a comeback as a way to increase revenues and lower income taxes?

Whatever the next steps, they will require bringing the business community together with scientists, environmentalists, workers and others. A clever leader might yet be able to build support for viable political solutions where seemingly narrow interests converge. ■

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Therapy deficit

Studies to enhance psychological treatments are scandalously under-supported.

Depression takes many forms, and it is not always easy to diagnose. There is no doubt, however, that it represents a colossal health burden. According to the World Health Organization, it is one of the leading illnesses when ranked by impact on productivity, and directly affects 121 million people worldwide.

As has been discussed in *Nature's* pages, the standard research-based model of therapy development for psychiatric disorders — target identification, drug discovery and clinical investigation — is imploding as biologists grapple with the complexities and drug companies see too



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