Environment, Energy, and Democracy: The Case for Complexity

Kathleen A. McGinty,
Secretary,Pennsylvania Department of Environmental Protection

Kathleen A. McGinty became the first woman to head the Pennsylvania Department of Environmental Protection in 2003. Previously, she created and headed the first-ever White House Office on Environmental Policy and acted as deputy assistant to President Bill Clinton. She was and remains the only woman to chair the White House Council on Environmental Quality, an office established by law in 1969.

Most recently, McGinty served as vice president for asset management at Natsource LLC, a financial services firm specializing in energy transactions. She also served as director of Proton Energy Systems, a leading fuel cell infrastructure company, and as an advisor for a European venture capital firm interested in clean energy.

A native of Philadelphia, McGinty earned a chemistry degree from Saint Joseph's University and a law degree from Columbia University School of Law. The ninth of ten children, McGinty and her husband, Dr. Karl Hausker, reside in Cumberland County with their three daughters.

Energy and the environment are not often fields in which women emerge as leaders. As the first woman to head the White House Council on Environmental Quality and the first woman to head Pennsylvania's Department of Environmental Protection, McGinty defies the odds. The Women's Policy Journal is committed to giving women like McGinty a place where their voice can be heard. We asked her to discuss her leadership role in the development of progressive alternative energy programs and the political approach that has made her such a successful advocate of alternative energy sources and the environment.

Leadership is often equated with making decisions between starkly painted poles. That polarization is even more pronounced today with 24-hour news cycles, rushed reporting, and a general short shrift regarding complexity.

Indeed, the public's appetite for stridency has been on the increase. Witness how President George W. Bush's "you're with us or you're against us" assertion with respect to the war in Iraq was received by many as indicative of strong political leadership, of "backbone," and, even further, of moral fortitude—no matter that such overdrawn lines alienate nations long and faithfully our allies and discourage investigation into a case for war that patently deserved scrutiny.

By contrast, recall the press treatment of and public reaction to the "Third Way" policies championed by former President Bill Clinton. During my service in the Clinton administration, where I was the first and to this day the only woman to head the White House Council on Environmental Quality, I learned that the best way to approach problems is to allow for all perspectives of an issue to be represented at the table. It was not always easy, but it was the only way to achieve real, lasting solutions. This is exactly what the Third Way is all about.

Aimed at finding and building a common ground on issues long thought to be hopeless battlegrounds, the Third Way approach to policy making is premised on the principle that the most difficult issues do not lend themselves to resolution through "yes/no," "Black/White," "win/lose" prescriptions. Practitioners of Third Way thinking believe such "either/or" policies present seductive slogans but not sustainable solutions. Far from extolling the virtues of this approach, the public and press often derided it as cloying, an attempt to be "all things to all people," and a descent into "moral relativism."

Today, compromise is infrequently understood as the essence of democracy. Instead, interest groups and the press have effectively castigated compromise as capitulation or abandonment of principle.

Polarities certainly have dominated the discourse on energy and environmental policy in America. Many environmentalists consider approaches that promise profit or fail to punish as counterfeit. Much of the business lobby sector vigorously resists meaningful efforts to tackle environmental problems, criticizing such efforts as recipes for financial cataclysm.

Vice President Dick Cheney's outlook on energy security is demonstrative of this polarized perspective. Belittling conservation as at best a sign of "personal virtue" and single-mindedly pushing drilling in ecologically sensitive areas as the only promising path, the vice president seems steeped in a mindset that demands environmental sacrifice for energy gain.

In Pennsylvania, we are working to create a different reality, an approach that identifies environmental problems as economic opportunities in disguise. On energy, we are embracing challenges not as occasions to *impair* our environment but rather to *repair* it.

Pennsylvania is home to one of the nation's most progressive alternative energy portfolio standards, ensuring that 18 percent of all energy generated by 2020 comes from clean, efficient, advanced resources—not just traditional renewables like wind and solar, but also coal mine methane, waste coal, and coal gasification. Some groups were unwilling to move toward real environmental progress and were determined to kill legislation that suggested new energy technologies such as wind and solar be utilized along with the more traditional coal energy source. Fortunately, progress won the day—and so did the environment.

Besides diversifying our energy sources, Pennsylvania is also addressing water quality. The number one water quality problem in our commonwealth is highly acidic water, which is due to the large quantities of water that burst forth from centuries-old abandoned mines and the rainwater coursing over the mountains of waste coal left behind by old mining operations. To date, this water and that refuse coal were seen only as a liability—a $15 billion remediation responsibility that the state was unable to handle. Further, these problems were a drag on our economy. As we competed to have new companies make Pennsylvania their corporate home, many CEOs were turned off by the scarred landscape in our coal towns. Additionally, recreational fishing, a multibillion dollar annual revenue producer for the commonwealth, has been seriously hurt by the 2,000 miles of streams that are dead from the acid discharge.

But today a new perspective is taking hold. Responding recently to questions about whether technology had changed to enable the progress we are making, it became apparent that technology was the same but our attitude had profoundly changed.

The water? It doesn't drip from mountainsides; it gushes out at thousands of gallons per minute. With the support of very modest amounts from our new Pennsylvania Energy Harvest Grant Program, a $15.9 million award, and another $43.7 million leveraged in private funds over three years for clean energy projects, we are installing microturbines at these discharges and making clean hydropower. In several projects, the electricity generated is being used to power the treatment facility that removes the acid from the water—rendering economic reclamation projects that otherwise were too expensive to undertake. In other cases, hydropower is helping the bottom line of important employers in the state who have been hard hit by escalating energy prices.

And consider what makes the water acidic in the first place: iron and other valuable minerals and metals. Previously, Pennsylvania would spend millions disposing of the iron sludges produced by the plants treating the polluted water. Today, we see these materials as valuable commodities. One business now uses them as a pigment to make popular paints. Others now put the iron sludge directly into their metalworking processes, making precision ball bearings, for example, or high-quality steel. Previously only a harm to our competitiveness, we now see that combating acid mine drainage can deliver substantial economic benefits.

And what of those massive piles of waste coal? We've learned that clean, cheap energy lurks in the heaps. Waste coal boilers, using circulating fluidized bed (CFB) combustion technology, are also inherently cleaner than pulverized coal-fired boilers. For more than thirty years, the Pennsylvania Department of Environmental Protection has collected company-specific information necessary to obtain estimates for all toxic pollutants. This data demonstrates that dioxin levels are four times lower, whereas most metals are ten times lower per gigawatt hour than pulverized coal-fired generation. Further, CFBs achieve very high levels of mercury control, up to 95 percent, for very low relative costs. Similarly, emissions of nitrogen oxide and sulfur dioxide also are lower than pulverized coal-fired boilers. Moreover, since the fuel essentially is free, our newest such plant produces power more cheaply than any other coal plant in the state. With just this one plant, some 100 million tons of waste coal will disappear from our landscape, leaving reclaimed land and clean water behind.

Waste coal also can be gasified. In this kind of process, all of the sulfur, mercury, and other problem pollutants are removed. If the gas is liquefied, then zero-sulfur fuels are produced. As the U.S. Environmental Protection Agency works to cut sulfur in diesel fuels, and traditional refineries struggle to meet the mandate, the ecological advantage of liquefied waste coal becomes apparent. Carbon and other greenhouse gases also can be sequestered from these gasification plants, thus producing fuels that power our vehicles and warm our homes without dangerously warming the planet.

We are very proud that the nation's very first coal gasification-liquefaction plant is being built in Schuylkill County in northeastern Pennsylvania. The

commonwealth is stepping up to ensure its success. We will be a customer for this plant, buying all of our diesel and heating needs for at least a decade to come. The price? Again, since the waste coal feedstock is free, we will pay a fraction of the price we currently pay for conventional diesel, even as we enjoy the benefit of some tens of millions of tons of waste coal cleaned up from our communities.

Old power plants are the leading producer of toxic pollution in Pennsylvania. This problem requires regulation, and we are insisting on controls that go beyond the new suite of federal requirements soon to be in place. But we are taking less obvious steps, too. Specifically, we are diversifying our electricity mix and putting clean, renewable resources to work for us as well. Our new Alternative Energy Portfolio Standard secures our commonwealth's current standing as the leading state east of the Mississippi in the deployment of wind energy, while catapulting us to the head of the line with respect to solar energy. Requiring nearly 700 megawatts of electricity from solar photovoltaics in fifteen years, our law's solar mandate is three times more demanding than that of any other state, though it is encouraging to note that New Jersey and California may put in place more ambitious mandates still.

Has our focus on renewable energy been a drain on our economy? Hardly. Our lead in wind enabled us to compete successfully to become the U.S. home of Gamesa Corp., a Spanish company that is the second-largest and most profitable wind energy company in the world. In these days of hand-wringing over the outsourcing of jobs and loss of manufacturing to overseas rivals, Gamesa will create 1,000 jobs in our state and invest tens of millions in capital plant and equipment. We also are now in the running for a major investment opportunity from a German company that makes solar technologies. If successful in this bid, the commonwealth will gain still more manufacturing jobs and millions of dollars worth of state-of-the-art equipment.

Wind, solar, and biomass energy are helping our economy in an indirect way too. Agriculture is still the biggest revenue producer in our state. And the rural landscapes that grace our state continue to make Pennsylvania a beautiful place to live and work. But our farmers, like farmers everywhere, are hard-pressed. Escalating energy costs, competition from abroad, and sprawling development combine to threaten the viability of many farming operations. But in renewable energy our farmers are finding a way to shave their own energy costs, develop a new "crop" as they deploy biomass digesters, or host wind farms or site solar arrays on their extensive barn roofs. New revenue streams and mitigated costs brought about by renewable energy are helping to keep our farmers on the land and our landscape verdant and productive.

Pennsylvania has a storied industrial history. We are determined that industry and manufacturing will also be part of our future. Unfortunately there is a legacy of polluted land and abandoned factories to deal with. Where there are still viable parties to pursue, we (will) ensure they pick up the remediation tab. Our new compliance and enforcement policies ensure we are not tolerating scofflaws and cheats—those who would "pollute and scoot."

But a broader effort is needed. We have launched a concerted campaign to clean up and revitalize used, polluted places. At 2,000 cleanups and counting, our "land

recycling" program has relieved communities of toxic menaces, brought light and productive activity back to places that were dark and enabling of crime, lured business back to these sites, and effectively created or retained some 40,000 jobs. Precious open space is also preserved as development is spurred in our older cities, towns, and boroughs.

Other examples abound demonstrating that the most effective approaches to environmental problems stimulate economic growth. Concerned about methane pollution? Yes, we all should be since methane is some twenty-one times more potent as a greenhouse gas pollutant than carbon dioxide on a per-molecule basis. In Pennsylvania, we now insist that landfills put the methane generated by decomposing trash to work for our economy. We tolerate flaring only as a last resort.

Now, much of that methane is being used to generate electricity. Even more promising, the gas is cleaned and piped to manufacturers who are using it as a low-cost substitute for natural gas. One project supported by the commonwealth supplies gas to four major employers, enabling them to stay in business even as soaring gas costs drive many businesses overseas. The volume of gas captured from the landfill in this project is of a volume sufficient to heat 34,000 homes.

Similarly, methane escapes from coal seams that are being or have been mined. To date, methane gas has been seen only as a pollutant and a threat to the safety of miners. But new technology enables capture of the gas, which then can be used for heat, as a feedstock in the chemical industry, or to generate electricity. Just one of the potentially thousands of such projects that could be supported in Pennsylvania captures a volume of gas sufficient to heat 15,000 homes and is providing free gas to a local school district otherwise pressed for resources.

There is one danger in sharing these examples: in retrospect they seem easy and therefore not the "stuff" required to tackle the most serious of issues. But the truth is that this kind of innovation is arrived at only after the most careful and exacting of processes, where very different perspectives are welcomed, where old assumptions and preconceived notions meet with rigorous challenge, where longer-term perspectives take precedence over short-term (and usually short-lived) gain, where it is understood that the details matter, and where most often no single interest group emerges triumphant.

This is as it should be. Democracy, as Winston Churchill said, is messy. The U.S. Senate has been vaunted not for rendering quick or facile judgments, but rather for being the "greatest deliberative body in the world."

"My way or the highway" and "I'm right, and you're wrong" types of thinking are the hallmarks of dictatorship, not democracy. Such haughty, self-righteous exercise of power is not ennobling of our country or demonstrative of moral resolve. It is instead something foreign to democracy and deeply threatening to our system of governance and our very way of life.

Today, it is imperative that we embrace the complex and resist the allure of the simplistic. The future of our environment, the prospect of energy security, and indeed the very possibility of continued democratic self-governance demand that we meet this challenge.