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Here in New England in foliage season, it seems fitting to begin with the words of Robert Frost, who knew a thing or two about the rhythm of the seasons in this beautiful part of our nation.

“Nature is always hinting at us,” he said. “It hints over and over again. And suddenly we take the hint.”

Today, nature is giving us more than one small hint. It is telling us loud and clear there is only so much carbon dioxide, methane and other greenhouse gases that it can bear without the gravest consequences to the environment and life.

Will we be wise enough to take the hint – and take action?

We don't have forever. Over the next 40 years or so, we need to cut greenhouse gas emissions by 80 percent.

Virtually everything we do produces carbon, even breathing. We cannot change the breathing part. But we need to change so much else: how we heat our homes, drive our cars, power our businesses, farm our land and even how we buy our food. If we do not redefine our future, climate change will redefine it for us.

Today, I will focus on one key aspect of the climate challenge: the way we use and provide energy.

This is not the first time our nation has dealt with difficult energy issues.

Many of us can remember the energy crisis of the 1970s. It was a time of long lines at gas stations...and wearing sweaters in our homes in places much farther south than New Hampshire. Indeed, for a few

years, our nation focused on reducing energy demand and improving fuel efficiency. When conditions eased, however, we slipped back into old ways. Conservation was forgotten. We put the sweaters back in the closet. Our vehicles got larger – much larger. We guzzled more gas and became more dependent on foreign oil.

How can we ensure things will be different this time? Especially since, we have heard all the excuses for delay: 'The science isn't exact.' 'What's the use unless China and India do something, too?' Amazing when you think about it...The reasons for delay vary from 'there is no problem' to 'the problem is too big.'

Despite the naysayers, despite the doubters, I don't despair: There is another way of looking at this issue. Climate change is not only a threat, ignored at our peril. It is an opportunity to apply the enormous capacity of this nation to innovate and chart a new path of sustainable growth.

Frankly, we see this as an opportunity for utilities like PSEG to strengthen relationships with customers by saving them time, energy and money. The ultimate source of value for our shareholders is doing what is best for our customers, so accepting this challenge makes good business sense.

But what will it take to move beyond the challenge and seize the opportunity? There is no single solution. It will take a broad, multi-dimensional effort to lower greenhouse gases and ultimately stabilize them at levels that protect the environment. New investment, and new business and regulatory models, will be indispensable.

We have proposed one model for doing this. It is not the only possible answer. But we see it as a credible way for power generation and delivery utilities like PSEG to contribute solutions on the road to a healthier, greener and more prosperous future. We developed it specifically to help New Jersey reach aggressive greenhouse gas reduction goals, but believe it has broader relevance.

Our strategy uses three main tools:

- First and foremost, conservation and energy-efficiency improvements;
- Second, renewable energy such as solar and wind; and
- Third, central-station power plants, whether nuclear, clean coal or natural gas, with an eye to a lower carbon footprint.

Our top priority is conservation and energy efficiency. Nothing can compete with conservation in cleaning the air – and saving dollars, too. The power plant that doesn't need to be built is the cleanest of all.

Energy-efficiency improvements in air conditioners, water heaters, refrigerators and other appliances have been proven to pay back, time and again. Some studies indicate that about a quarter of the carbon-emission reductions needed to protect the climate can be accomplished through energy-efficiency improvements that produce net economic gains. These improvements can be made right now, using existing technology.

Unfortunately, our nation isn't capturing the vast bulk of these energy and cost savings. In too many cases, economically sensible conservation decisions aren't been made.

Let's look at a decision we all face in the home improvement store: On one shelf are \$1 light bulbs – in a size and shape that would be recognizable to our grandparents. On the next shelf are these short, squiggly and coiled things with a name that doesn't trip so easily off the tongue – compact fluorescents. They cost \$4 a piece, last several years and produce \$30 in energy savings, according to the information on the package (and require some extra care when disposing).

Which to buy? Most people put the \$1 bulb in their cart and save the \$3 for an ice-cream cone or a couple of sodas – missing out on an investment that pays better than virtually anything Wall Street has to offer.

Businesses are passing up energy-wise investments, too. Take the facility manager who says to management, "We can save energy by investing \$2 million in a boiler upgrade, producing a 15 percent return." To which management will respond, "What, are you crazy? We need that \$2 million for a new product line, and you want us to spend it on...boilers? We're not in the boiler business." Indeed, it's not their core business, but it is for my company.

Right now, it is hard for people and businesses to get beyond the upfront cost and risk, let alone trust claims of savings down the road. They may recognize energy efficiency as a good thing, but that doesn't mean they are changing their behavior.

We need to find ways to help consumers and businesses over this hurdle. Let me suggest a way this could be done that leverages our experience, our customer relationships and resources in the energy-utility industry.

Indeed, I believe utilities can be one of society's most powerful allies in the quest for efficiency for a number of reasons:

First, it is the responsibility of utilities like Public Service Electric and Gas to think about energy – whether our customers are thinking about it or not. That's our job: to provide energy – safely, reliably and as cost-effectively as possible – around the clock and year. Helping customers make better energy choices is a job that flows naturally from what we do.

Second, utilities are part of the community. We have a highly skilled and dedicated workforce living in the same communities we serve. Our customers are neighbors. We are New Jersey's largest and oldest utility, serving the state's six largest cities, including Newark, where our company was founded 104 years ago. And our electric generation facilities in New Jersey and elsewhere are important in the life of the community. That is why our employees proudly refer to our company as Public Service.

This experience puts us in a unique position to promote energy efficiency, house by house, neighborhood by neighborhood. And do so in ways that include urban residents, low-income customers and renters. The benefits of energy efficiency need to be accessible to all.

Third, utilities can deploy capital over the long term to ensure conservation and energy-efficiency gains are sustained. In this way, we can help society achieve a different outcome than when conservation was tried a generation ago. We need to stick with it, even if we happen to have a couple of colder-than-average winters in a row, or if oil prices dramatically drop.

Utilities have staying power, as our century-plus history shows. Just as we made universal access to energy a reality in the 20th century, so too, we can make universal access to energy efficiency a reality in the 21st.

But to do this, a new business and regulatory model is needed – one that encourages utilities to invest in efficiency, in the same way we

invest in pipes and wires to maintain the energy delivery infrastructure, or the boilers and turbines of power plants.

California has pioneered incentive regulation allowing utilities to be compensated when they meet tough conservation targets that result in less electricity being sold. In my view, these are the very opportunities we need to build a low-carbon future.

We want to make it easier for our customers to invest in energy efficiency – to create a dynamic where even if rates go up, bills go down.

Turning to energy supply, there is room to expand the role of renewables such as solar, wind or geothermal power. This needs to be our second priority.

In New Jersey, we have proposed investing \$100 million to help finance the installation of solar systems on homes, businesses and municipal buildings. This would add up to about 30 megawatts of new solar capacity and should be expanded from there.

Our proposal is intended to overcome one of the biggest hurdles faced by solar developers, as they have told us: namely, the lack of financing. We would provide loans to developers to cover approximately 40 to 50 percent of the cost of a solar installation. Our goal is to make solar energy a more affordable option for a wide variety of customers, not simply the affluent.

Ours is only one formula for solar development. Others have been put forward that may be helpful as well. But I would urge regulators, the environmental community and the public not to overlook the constructive role that utilities can play in driving the investment and mobilizing the effort needed to build a greener economy.

There is another important point to be made here. While the sun and wind are free, converting them into electricity is not. Generating electricity from traditional sources is less expensive. Costs will go up for customers as we deploy renewable sources of electricity. But the environmental benefits are compelling.

We need to confront the cost issue head on if we expect to protect our highly valued credibility with customers. Sometimes you have to pay more to get something better.

The third part of our strategy is clean central-station power.

Even with aggressive efforts to promote conservation, energy efficiency and renewables, our nation will still need large power stations that can supply electricity with zero- or low-carbon emissions.

One option is clean coal technology with carbon storage. However, this technology is still in an early stage of development, and some parts of the country (including New Jersey and most of the Northeast) do not have geology suited to carbon storage.

The other main option is nuclear energy. Currently, nuclear plants provide about one-fifth of the nation's electricity, but their role in certain parts of the country is considerably larger: About one-third of the electricity consumed in the Northeast is nuclear generated, and in New Jersey, about one-half.

It is hard to see how we can get to where we need to go in terms of reducing carbon emissions without nuclear remaining a key and even growing part of the energy mix. However, in my mind, there remain serious questions regarding the social acceptance and cost of future nuclear plants. We believe nuclear energy will be in our long-term future, but these issues, along with issues surrounding nuclear waste storage, need to be resolved.

To sum up, we believe a combination of conservation, energy efficiency, renewable energy and clean central-station power plants will contribute meaningfully to a low-carbon future.

Other sectors need to do their part, too. Electric power stations generate about 40 percent of the nation's greenhouse gas emissions. Transportation accounts for roughly one third. Clearly, we need to promote more energy-efficient cars, mass transit, do better land-use planning and a host of other things to reduce the impact of transportation on the environment.

At PSEG we want to do our part. Over the next several years we will replace our auto fleet with hybrids. And we have introduced the nation's first hybrid bucket trucks.

We are determined to lead in other ways as well. We strongly support federal cap-and-trade legislation that will require mandatory greenhouse gas reductions. The time has come for Congress to act. And I have testified twice to that effect in the past six months.

In the meantime, the states are leading the way. All of us in the Northeast can be proud that our region is out front in addressing climate change.

The Regional Greenhouse Gas Initiative of northeastern states points in the direction our nation needs to go. We will continue to advocate that a national program must be at least as stringent as our region's requirements.

To conclude, climate change is not just a huge problem to be surmounted, but an unmatched opportunity to grow the economy and protect the environment for future generations.

For our company, it is the defining issue, but not the only issue. The energy infrastructure of the 21st century must continue to be about meeting our customers' needs for safe, reliable, affordable energy. Nature's hint, now approaching a clarion call, is that we must develop new ways to provide these very same things to meet the challenge of a carbon-constrained world.

At PSEG, we are ready to step up to this challenge. Indeed, we embrace it.

This December 3rd will mark the 100th anniversary of President Theodore Roosevelt's groundbreaking message to Congress on the environment. Its essence was a novel idea: America must not exploit its natural resources as if they would always be there, but must learn how to conserve, preserve and protect them, too.

President Roosevelt's words had an impact. We have an extraordinary system of national parks and forests covering hundreds of millions of acres – a testament to his leadership.

Today our challenge is not only to protect wilderness and open space. We need bold leadership to support a new national effort with conservation as its foundation to build a 21st century low-carbon economy that provides good jobs for people and protects the health of the planet we share.

Our nation has met many extraordinary challenges in the past. I am confident we can do so again.