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The Speech I'd Like to Hear from a Presidential Candidate on Energy and Climate Change

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This is a guest post by Eugene Linden. Eugene's most recent book is Winds of Change: Climate, Weather, and the Destruction of Civilizations. Prior books include The Future in Plain Sight: Nine Clues to the Coming Instability. Over the years, Eugene has written for publications ranging from Parade to Foreign Affairs (for more complete list, please visit Eugene's site). In recent years Eugene has been publishing more and more on the web. Apart from his writing, he does a good deal of speaking, and also serves as chief investment strategist for Bennett Management, a family of hedge funds.

"The Speech I'd Like to Hear from a Presidential Candidate on Energy and Climate Change" by Eugene Linden

> "As I stand here today on the shore of Lake Lanier in Georgia, I'm sure that many of you are wondering why I've chosen to talk about climate change when we face so many immediate problems. Climate change seems far away while the housing and credit crisis, unprecedented oil prices, expensive healthcare, a global food crisis, and the never-ending war in Iraq are right upon us.
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> These are all urgent issues, and the American people have every right to demand that a Presidential candidate address these problems with leadership and credible programs. Indeed, I've spent the great majority of my time in this campaign trying to lay out the way I would confront such issues should the voters entrust me with the Presidency.
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> But many of these problems, particularly energy prices, our national security and soaring food prices cannot be addressed in isolation. Moreover, changing climate feeds into a number of these immediate issues, and the threat of climate chaos may not be as far off as we might hope.

> Let me explain.
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> Let's look at Lake Lanier. The lake level is about 9 feet below normal; indeed it is about 5 feet below the previous record low level for this time of year. The lake is the principal water supply for Atlanta, and if the lake continues to drop, the drought will first disrupt

power generation and then increasingly impact the economy of this great city. Part of the reason for these low levels is that the region has experienced explosive growth and is putting more demands on the water supply. But part of the reason is also that the Southeast has suffered severe droughts on and off over the past decade.

Ordinarily, this would not be much cause for worry. Drought is a regular feature of life, and droughts always end. But some droughts linger a while, so scientists tell us.

There are other disquieting signs. At the same time drought is afflicting parts of the Southeast, it is also been affecting the Southwest, northern Mexico, parts of Spain, and Greece. In the southern hemisphere, Australia is still suffering the worst drought in its history, New Zealand has suffered cuts in hydroelectric power because of lack of water, and Chile is in its worst drought in 50 years. In fact an entire swath around the world in subtropical and Mediterranean latitudes has been in various stages of drought since the late 1990s.

The impacts of this drought extend far beyond the question of watering lawns and keeping golf fairways green. For instance, one significant contributing factor to soaring wheat prices has been the ongoing drought in Australia, which is one of the world's breadbaskets. A factor putting upwards pressure on copper prices has been the drought in Chile, which has reduced hydroelectric power generation and imposed limits on mine operations in one of the world's largest copper producing regions.

So questions arise: Is there a connection between these dots of drought around the world? Is this some regularly occurring phenomenon that will break of its own accord and soon be forgotten? Or does this have something to do with global warming?

It turns out that a number of scientists have been asking the same questions. One of these is Richard Seager, an oceanographer at Columbia University's Lamont Doherty Earth Observatory.

Dr. Seager and his colleagues wondered how a warming world might affect precipitation patterns. Last year they published the results of their research in Science Magazine, the nation's most distinguished scientific journal. In their study they took 19 climate models used by the Intergovernmental Panel on Climate Change – the international group that shared the 2007 Nobel Peace prize with Al Gore, -- and ran those models from the late 19th century to the present to see whether they would reproduce the precipitation patterns we've seen over the past 125 years. They focused on the subtropics and Mediterranean regions of the world – a band of latitude that includes the drought-stricken regions I ticked off.

The models accurately reproduced precipitation patterns as evident from the historical record. So far so good.

They then ran the climate models forward to see what might lie ahead. What they discovered is that a drying began around 1998 in those latitudes that, if the models are accurate, will likely deepen over the next several decades to drier than Dust Bowl levels before stabilizing as deep drought sometime in the next century. They used the phrase "perpetual drought" to describe conditions in the Southwest and elsewhere if their analysis bears up.

Seager proposes two factors as likely factors that could produce this perpetual drought.

One is that a warming globe tends to make dry areas drier and wet areas wetter, and secondly, that warming will tend to shift the atmospheric circulation that distributes moisture further away from the equator and towards the poles. Evaporation from the topics will still fall as rain in the mid-latitudes, it will just fall further north in the case of the United States.

We will only know in retrospect whether Seager is right, but can we afford to wait and see?

I'm not going to burden you with statistics today, nor am I going to lay out the science of climate change. Twenty years after the world first mobilized to address this threat, the case should be familiar. Rather, I'm going to explain why I am going to make the threat of human-caused climate change a central issue in my presidential campaign.

Drought is just one of the impacts of climate change, and while we will only definitively know in retrospect whether the droughts I mentioned are connected by coincidence or linked to global warming, we do know is that the global food system rests on a knife edge. Global food stocks are near all-time lows, and protracted drought threatens to topple this delicate balance between demand and supply. (And, as we've seen in the midwest in recent days, too much rain can threaten that balance as well.)

We also know that an extraordinary scientific consensus holds that human emissions of greenhouse gasses from the use of fossil fuels are already affecting climate. While understanding whether these droughts represent one of these impacts on climate is an important question for science, it is an absolutely crucial question for governments around the world.

These droughts may represent a warning that we don't have the luxury of time to ponder whether climate change is a threat. Even now there are food riots around the world because of scarcity and high prices. If Seager and his colleagues are correct these scarcities are likely to worsen, and if these droughts are harbingers of a rapidly changing climate then a host of other miseries will soon be unfolding as well.

Notice I said, "may represent a warning..." That's the fix we are in. From melting sea ice and permafrost, to daffodils growing in New York's Central Park in January, climate is changing more rapidly than our ability to understand the changes. No one will ring a bell when greenhouse gasses push the climate system past some tipping point. At the moment we don't even know what the tipping points are. In this respect we are all like the fugitive holed up In a hotel room wondering whether every knock at the door Is the FBI, or, In our case, whether every megastorm or protracted drought Is a sign that major climate change is upon us. And, with climate already changing, we are going to have to take precautions with less than perfect information.

As we debate whether we have enough information to act, it's important to keep in mind that nature doesn't give points for good intentions, and that we can't expect climate to meet us half way. The geophysics and chemistry that govern climate are indifferent to our conveniences and needs. And yet even today, we act as though nature is going to wait while we figure things out.

As societies and individuals we have a long history of taking precautions amid uncertainty, notably during the Cold War when we had less than perfect knowledge about the intent of the Soviets and the nature of the threat. At the individual level, we do this every time we buy fire insurance for our house. As the Stanford University

climate scientist Steve Schneider points out, we don't demand certainty that our house is going to burn down before buying insurance.

This brings us to all the ballyhoo about the costs of dealing with climate change. You hear figures thrown around that if we impose limits on emissions of carbon dioxide that it will ruin the American economy, that it's going to cost the U.S. hundreds of billions, even trillions of dollars in economic damage.

Really?

Let's think about this.

About fifteen years ago, Al Gore tried to muster support for a gas tax to discourage wasteful use of fossil fuels and thereby help limit greenhouse gasses. When Gore was pushing for this, a barrel of crude oil traded between the high teens and low twenties in dollars. Gas was selling for a bit more than a buck a gallon back then. Under withering criticism he scaled back his proposal to 25 cents a gallon, and even that didn't get through. No one has seriously proposed a gas tax since.

Now let's put this in perspective. Then as now the U.S. had some of the lowest gasoline prices in the world. More to the point, almost all the countries that had lower gas prices than us were net exporters of oil. Back then we imported about 44% of the oil we used. So even though we were massively dependent on foreign oil, we kept prices low and effectively encouraged wasteful use of oil. Oh, and we did this even though U.S. oil production had been declining for well over a decade.

The result of our bargain basement pricing of oil was that both American automobile manufacturers and consumers assumed that cheap gasoline was an American right, and the roads were flooded with gas guzzling SUVs.

And so in 2008 we still rank among the lowest gas prices in the world -- even at $3.80 for a gallon of regular. Only now, our consumption of oil has risen by 20%, our domestic production has fallen by 11.5%, and we import over 60% of our oil. Worse, the amount of oil exported by oil producing nations has actually been declining the last couple of years, meaning that we (and booming China and India) are now competing for a pool of exports that has begun to shrink.

There are those who argue that the world is fast approaching a plateau in the amount of oil we can get from wells each year, that global production is approaching a "peak," and that it will level off and decline as depletion of existing wells matches and then exceeds oil from new finds. This is a vigorous debate, with others arguing that there is plenty of oil underground and that the only impediments to increasing production are so-called "above ground" risks like government regulations that limit drilling, terrorist disruption of Nigerian production, or attacks on pipelines in Iraq.

Regardless of which side is right in this debate – and I'd feel better if global production hadn't essentially stalled over the last two years – there is no question that even before the world realizes accepts that peak oil is at hand, the U.S. faces the more near term threat of peak exports.

In other words, at some point a cap on the use of at least one fossil fuel – oil – is coming whether or not we limit carbon emissions to combat global warming. And while Congress

might have helped manage that transition fifteen years ago, today politicians have far less room to maneuver.

So let's rewind the tape and consider whether we would be in our present fix if we had imposed an increase in the gas tax and taken other measures to address global warming in 1993 (or 30 years ago when scientists first warned that greenhouse gas emissions would likely alter climate).

If we'd gradually increased the price of oil starting 15 years ago, presumably people would try to use if more efficiently as they do in Europe and other nations where gas prices are high, and as we are doing today in the U.S. at the point of a gun.

While today a good portion of the profits generated by high oil prices go overseas (often to nations unfriendly to the U.S. and its values), a U.S. gas tax would at least have kept some of that money at home, where it could help advance the development of alternatives, or, through tax credits, helped the poor deal with their disproportionate burden of high prices. Higher oil prices fifteen years ago would have lowered the bar for profitability in alternative energy, creating incentives for entrepreneurs and advancing the date for deployment of solar, wind, and other technologies.

It's arguable that if we'd taken action to address the threat of climate change when the scientific consensus gelled in the 1990s, that the threat of supply disruptions, whether through peak oil or peak exports, would be further off in the future. It's arguable that if we'd followed through on developing a more diversified energy portfolio in the 1970s, or even the 1980s or 1990s, that oil prices would be lower than they are now. (Even adjusted for inflation, gas prices have risen ten times the amount of Gore's proposed gas tax.)

Instead, we find ourselves today with very high gas prices and alternatives still in their infancy. Other than hydroelectric and nuclear (which take many years to deploy), alternatives account for only 3% of the energy delivered by oil each year. To meet increasing energy demand, wind, solar, tidal and other alternative energies would have to grow twice as fast as they ever have in the past.

Some argue that we should open up fragile wilderness areas like the Arctic National Wildlife Reserve (ANWR) or presently off-limits parts of the continental shelf for oil drilling. But even if we did do that, they would not produce oil for several years, and once we had despoiled those areas, what then? Where would we turn for new supplies? Are we willing to subordinate every American value to maintain our allegiance to one fossil fuel?

One source of energy waiting in the wings is coal, which is still cheap and relatively plentiful. But coal carries heavy environmental costs, both during mining and in its emissions, and swap coal for oil would contribute to a dramatic upsurge in greenhouse gasses even as we are trying to reduce the threat of climate change.

There is a way out of this pickle. A first step is to dramatically increase our commitment to energy efficiency, by far the most cost efficient way to extend oil supplies. Big corporations like DuPont and General Electric have been doing this for years –not to combat climate change but to improve profits. There is plenty more to do – improving gas mileage comes to mind.

For all the very real pain that $4 a gallon gas inflicts, Americans are finally adjusting their lives to conserve oil. Improving energy efficiency with off-the-shelf products and technologies and help buy us time to ramp up sound alternatives to fossil fuels.

The government can nudge this along with tax incentives, but to the degree that egregious waste of oil jeopardizes our economic health, our national security, and the stability of the climate, tax penalties should be part of this mix as well.

Since consumer spending accounts for roughly 70% of the nation's GDP, ordinary Americans, through their purchases can do much to address the threat of climate change, and also help spur wiser use of scarce, expensive oil. Let me ask you this question: if when shopping you could see a clearly marked label identifying a product as climate friendly, how many of you would make that choice?

Precedents show that most people would do that as well. For years now green groups have been certifying wood products that are harvested in environmentally friendly ways, and as a result of consumer interest in these products, major companies such as Home Depot and Lowe's have been shifting to sourcing wood products from certified sources.

It shouldn't be too difficult to establish a standards center to vet and certify climate friendly products, and you can bet that if consumers begin making such choices, manufacturers and retailers will respond.

Voluntary actions such as these can help reduce the growth of greenhouse gas emissions, but the cold math is that such actions alone will not be enough to head off a further build up in the atmosphere, particularly since giant nations such as India and China are only just now ramping up their use of fossil fuels.

Carbon dioxide in the atmosphere rose 3.1% in 2007, and for the first time ever, China surpassed the U.S. as the world's largest emitter of this greenhouse gas. China's dubious honor as the world's biggest contributor of climate changing emissions shows you what happens when a large developing economy turns to coal to fuel its growth.

We already have more greenhouse gasses in the atmosphere than there have been since we evolved as a species. As greenhouse gas concentrations continue to rise, we are entering unknown territory as far as the consequences for climate.

Given population growth and the quest for material betterment around the world, it will take extraordinary action simply to stabilize greenhouse gas emissions somewhere above their present levels, much less reduce them to the degree that would relieve some of the pressure on the climate system.

That means that we need more than just tax incentives and penalties to encourage efficiency. We need to reach agreement to cap emissions. With agreement on a cap, we can then use markets to trade carbon allocations, which, if properly structured would have the effect of channeling resources to where they would do the most good.

My proposal would be to create the cap at the global level and then set subtargets for three vertical slices of the globe: the Americas, Europe, the Middle East, India and Africa, and Asia, and the Pacific nations. How each region reached its target would be up to them, and both the target and subtargets would be the product of negotiation, but

such a design would at the least bring both developed and emerging economies together and working towards a common goal.

I offer this design as one way forward. If someone has a better idea I'm open to that as well, but I'm committed to providing leadership on this issue. One thing that has become clear in the 20 years since the threat of global warming emerged as an issue of international concern, is that there will be no progress unless the U.S., the world's largest economy, takes the issue seriously and offers leadership in coming to grips with the threat. It is also clear that the U.S. will not lead unless its President makes this threat a key issue of his or her administration.

And this brings me back to why I'm standing here today on the shores of Lake Lanier talking about climate change rather than jobs, the credit crunch, health care, terrorism of any of the many other issues that press upon Americans today.

Just as it has become clear that the world will not take action on climate change without leadership provided by a U.S. president, it is also clear that a U.S. President cannot call upon the American people to address this issue unless it is an issue in a Presidential campaign.

We cannot give mere lip service to climate change during the long march of a campaign, and then once in office tell Americans that it is one of the most consequential issues of our time. To do so would beg the question, "if it's so important, why didn't you bother to mention it while you were running for office?"

At least this is the conclusion we can draw from the past four Presidential elections. Regardless of expressions of concern voiced when we suffer heat waves, floods, hurricanes, or some other climate related catastrophe, every national election cycle, the issue has gone onto the back burner. I suspect that this is one reason that we have failed to take action on this threat. No Presidential candidate has made dealing with the threat of climate change a central issue of his or her campaign.

I'm here to tell you that this ends today. The job of a President is to offer vision and leadership on all the matters of concern to Americans, but it is also the job of a President to rouse Americans to deal with grave threats to our security that may not have the hot-button immediacy of rising unemployment, falling home prices, food and gas prices.

In the final analysis, how we respond to the challenge of climate change will offer a glimpse of the real meaning of the fantastic material progress of the past 100 years. If we push to the side concerns about global warming and environment, and simply open every acre for oil drilling and dig up every available car load of coal, we are in effect saying that the great wealth and progress of the so-called American century was really nothing more than the lucky discovery of fossil fuels, and that it will continue only so long as we have fossil fuels to burn.

On the other hand, if we recognize the steeply mounting costs that accompany fossil fuels, and begin to move towards their successor, we are making a very different statement about American progress. Recognizing that we need to develop alternatives is an affirmation of American ingenuity.
Fossil fuels have played a huge role in our history. President Bush has said that we are "addicted to oil." I would substitute the word "entranced" for addicted because once we fell under oil's spell, we put aside all plans to develop alternatives, some of which date

> back over 100 years. We need to snap out of this trance and recognize that they are just one form of energy, and when one form of energy becomes too scarce or costly, an ingenious society finds a new source of energy to replace. That is the America I believe in, and it is the America the world needs today."

The views expressed in my publications are purely my own.