

AIR POLLUTION

CARBON DIOXIDE EMISSIONS
FROM NEW YORK STATE POWER PLANTS

- 2004: **62,612,353 tons**
- 2007: **55,717,157 tons**
- **11 percent decrease***

SOURCE: New York State Department of Environmental Conservation
* Decline attributed to cooler summers with lower power consumption, and power plants that can switch between natural gas and oil (more expensive and higher in CO₂ than gas).



CLEAN CARS

HYBRID VEHICLES
REGISTERED
ON LONG ISLAND

- January 2005: **1,025**
- January 2008: **8,856**
- **764 percent increase**

SOURCE: New York State
Department of Motor Vehicles



A call to action

ON LONG ISLAND

Economy, not climate, is his worry

BY JENNIFER SMITH

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Richard Carvell knows what happens when the ocean rises up and knocks on your door.

Awakened by barks during the 1991 Halloween Storm, the Freeport resident came downstairs to find his dog treading water. "The tide came through the house," he said.

Still, like many Long Islanders, Carvell says he finds it difficult to see how climate change and its predicted effects — heightened storms, faster-rising seas — will affect his daily life. And he wonders if plans to cut greenhouse gas emissions like those advanced by both presidential candidates are too risky, given the current economic turmoil.

"By the time the ice melts up in the polar cap and the ocean levels come up here, I'll be dead and gone," said Carvell, a 59-year-old retired Nassau County social services worker who lives on a canal. "It's not anything we're going to see in our face. Not like watching the stock market dive 600 points."

That feeling is evident in results of a Long Island Index survey on climate change atti-

tudes earlier this year. While 72 percent of residents polled said the effects of global warming had already begun, less than half believed it would pose a personal threat in their lifetime.

That could be linked to the relatively slow pace of climate change thus far. Temperatures in the Northeast have risen about .5 degrees per decade since 1970, with precipitation increasing by between 5 and 10 percent in the past 100 years, according to a 2007 report by the Northeast Climate Impacts Assessment.

Far more dramatic results are expected by this century's end. Global sea levels are projected to rise between 7 and 23 inches, depending on our ability to rein in greenhouse gas emissions, the report said. Those projections don't factor in melting polar ice sheets.

On Long Island, "most of the impact is going to take place further down the line," said Jay Tanksi, a coastal processes and facilities specialist with New York Sea Grant, a joint marine research program of the state university system and Cornell University. The biggest problem will be "inundation of low-lying areas on the bayside... We have to be more worried about nor'easters."

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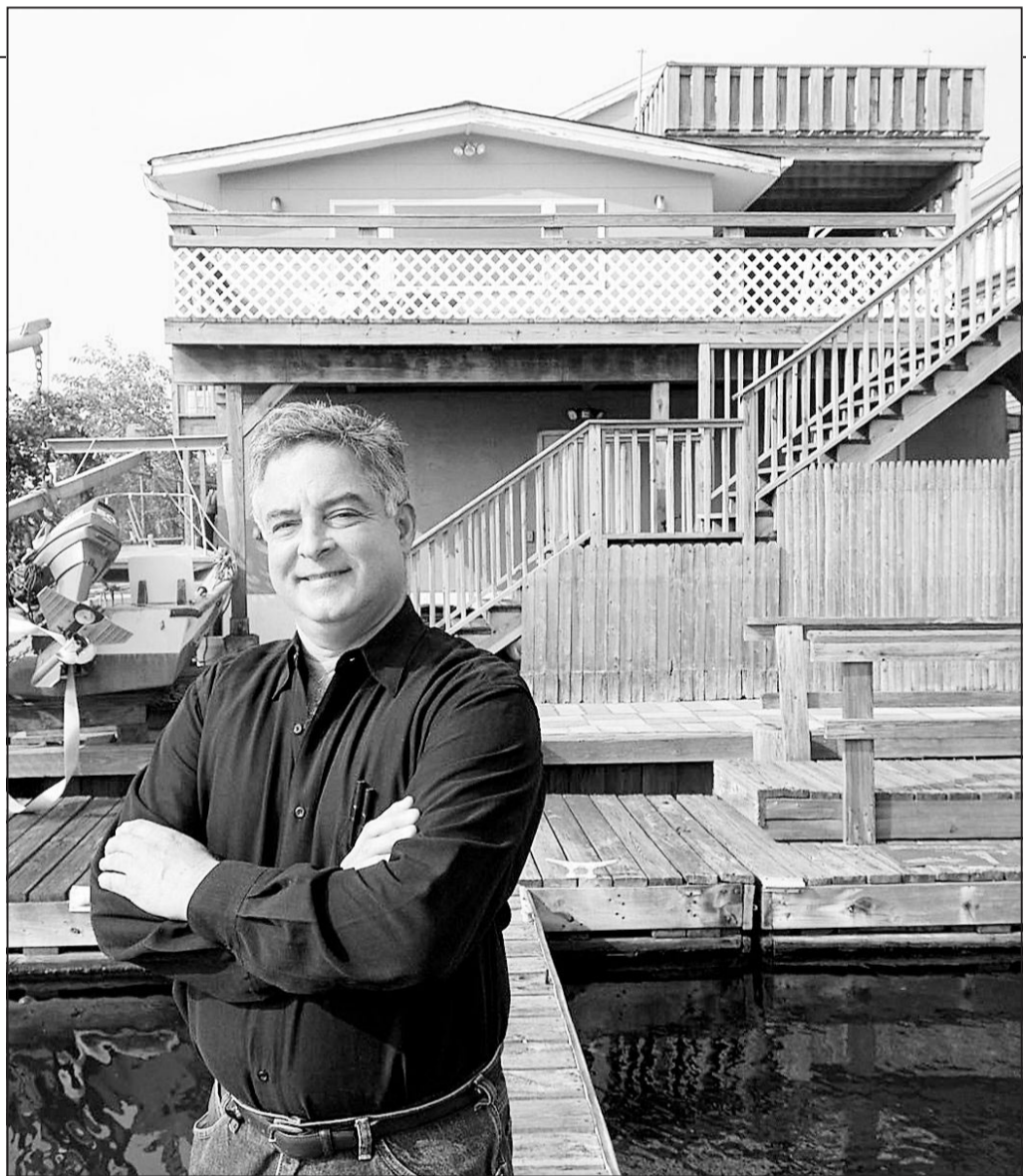


PHOTO BY FRANK KOESTER

Freeport homeowner Richard Carvell doesn't feel threatened by climate change just yet.

An angler who owns a clamboat and a condo in Montauk, Carvell is fully aware of the hazards of coastal living. Ten years ago, he and about 30 village homeowners decided to elevate their houses above the floodline with the help of grants from the Federal Emergency Management Agency.

Most houses were raised about 5 feet, Carvell said. He paid extra, and got his Sportsman Drive home jacked up 13 feet out of harm's way.

"We're going to have a hurricane here one day that is going to be unbelievable," he said. "If

it happens, it happens. Where do you move to, upstate?"

For now, high fuel costs are a more immediate concern for Carvell, who has a county pension but is not yet eligible for Social Security benefits.

"I don't think many people think about climate, they think about pocketbook," Carvell said. "You're heating your house, filling up your car."

He blames the energy crisis on the federal government and automakers for not doing more to lessen American dependence on fossil fuels. That failure has forced him to recon-

sider energy options he would ordinarily reject, such as offshore oil drilling or building more nuclear power plants.

Carvell would like to see more alternative energy sources developed, such as wind farms, although he draws the line at turbines along the South Shore.

But he fears federal efforts to limit greenhouse gas emissions right now could further derail the country's already shaky finances. "The economy is so bad, you can't even get a car loan," he said. "If it gets good in three years, spend the money."

CLIMATE CHANGE

LONG ISLAND ATTITUDES TOWARD CLIMATE CHANGE

- **72%** think effects of global warming have already begun
- **51%** do not think global warming poses a threat in their lifetime to them or their way of life

The two groups Long Islanders think have the most power to impact climate change

- **28%:** Federal government
- **27%:** General public

SOURCE: 2008 Long Island Index survey on climate change and energy issues

election 2008

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THE ISSUE

ENVIRONMENT

they can't ignore

■ McCain, Obama both offer agenda to tackle energy and climate issues

BY JENNIFER SMITH

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After years of federal inaction on global warming, presidential candidates John McCain and Barack Obama have made confronting climate change the focus of their environmental and energy plans.

Their ambitious proposals to cut greenhouse gas emissions and lessen American dependence on fossil fuels are a sharp turn away from the policies of the Bush administration. While that reflects a growing call for action from many voters and business leaders, the candidates' plans also come at a time of considerable economic uncertainty that some say could sideline climate goals.

The financial crisis has overshadowed climate in recent weeks. At this week's debate at Hofstra University, the candidates passed over the emissions issue to stress the need for energy independence, and placed greater emphasis on domestic drilling for oil and gas. Still, both have made speeches in the past month repeating their commitments to slow global warming.

"Addressing this problem is going to be cheaper than just letting it go," said Manik Roy of Pew Center on Global Climate Change, an independent research and advocacy group.

Scientists first warned Congress in 1983 that the atmospheric buildup of carbon dioxide and other heat-trapping gases could have potentially devastating consequences for the world's climate, agriculture and economy. Since then, carbon dioxide levels have risen, regulatory efforts by federal lawmakers have stalled and the United States has largely withdrawn from international efforts to address the problem. U.S. greenhouse gas emissions rose by 14.7 percent between 1990 and 2006, the federal Environmental Protection Agency said.

This year's presidential race comes as melting glaciers, heightened storms and scorching droughts have made the consequences of a warming planet increasingly visible. By

The series

This is the fourth in a continuing series examining where the presidential candidates stand on key campaign issues — and how those issues affect Long Islanders.

The series will examine:

- Immigration
- The wars in Iraq and Afghanistan
- Homeland security

now, most researchers believe the main driver of climate change is human activity, particularly the use of fossil fuels.

New York is among those states that in recent years have formed regional climate change pacts to limit greenhouse gas emissions. At the federal level, House Democrats are drafting a bill that seeks to cut emissions to pre-1990 levels with a cap-and-trade system where polluters buy and sell carbon credits.

Still, some say efforts to curb emissions could be too costly as the country teeters on the brink of recession. Oil, coal and natural gas provide more than 85 percent of U.S. energy, nearly two-thirds of electricity and most transportation fuels, the federal Department of Energy said.

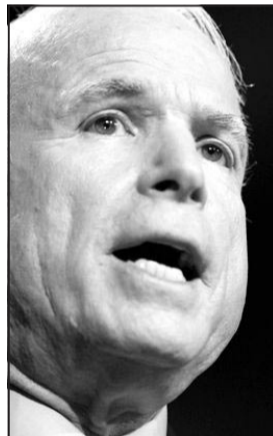
"Cap-and-trade is essentially an economic cap that will raise the cost of energy and everything associated with it," said Kenneth Green, a resident scholar with the American Enterprise Institute in Washington, D.C.

World leaders will meet in December 2009 on a climate change agreement to succeed the Kyoto Protocol, the first legally-binding international agreement to curb emissions. Both candidates agree the United States must play a leading role in international climate negotiations. Experts say that cannot happen without a vigorous domestic climate change program to restore American credibility.

THE CANDIDATES

MCCAIN

CLIMATE CHANGE. Backs a cap-and-trade system to scale back greenhouse gas emissions by 2050 to 60 percent below 1990 levels. Plan excludes small business but would require others to buy pollution credits. Would use tax credits to encourage research and development of alternative energy and fuels. Calls for adaptation to effects of climate change on infrastructure, ecosystems and emergency preparation. Says United States must re-engage with international negotiations; supports incentives for participation by India and China.



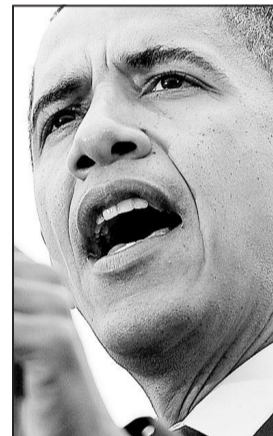
FOSSIL FUELS. Supports new offshore oil drilling and expanded domestic exploration for oil and natural gas. Would spend \$2 billion to develop "clean coal" technology that would capture carbon emissions from coal-burning smokestacks and store it underground.

BIOFUELS. Would eliminate mandates, subsidies and other policies favoring only corn-based ethanol. Wants continued development of alternative fuels, including more energy-efficient types made from switchgrass or other non-food sources.

THE GREAT OUTDOORS. Wants more money to maintain national parks, seashore and wildlife refuges. Supports protection and better management of wetlands.

OBAMA

CLIMATE CHANGE. His cap-and-trade system would cut emissions by 2050 to 80 percent below 1990 levels. Sets targets for increased energy efficiency and use of renewables. Would use \$250 billion from carbon credit sales to develop low-emission technologies. Leading U.S. role in global climate agreements must include working with developing countries to reduce demand for oil and confront deforestation.



FOSSIL FUELS. Once opposed new offshore oil drilling, but now says he is open to it to help spur passage of a major energy bill. Wants to maximize domestic oil and gas production through "enhanced oil recovery" and turning over undeveloped leases. Would work with private sector to develop five commercial-scale "clean coal" plants.

BIOFUELS. Backs federal money, tax credits and contracts for biofuel development. Has favored subsidies for corn-based ethanol and tariffs that inflate the cost of imported sugar-based ethanol.

THE GREAT OUTDOORS. Would restore Gulf Coast and other wetlands to improve storm protection and wildlife habitat. Backs more money for national parks and increased protection and restoration of national forests.

WHAT THE NEXT PRESIDENT WILL FACE

- Lowering greenhouse gas emissions without dampening economic growth
- Restoring American credibility in international efforts to slow global warming
- Leading the United States away from fossil fuels while speeding development of low-carbon alternatives
- Adapting to effects of climate change: rising sea levels, altered rain and snowfalls, species loss and higher storm intensity