started construction on any new nuclear plant in 30 years in the United States.

The 104 we currently have in operation will begin to grow too old to operate in 20 years. That is why I believe the United States should build 100 new nuclear plants in 20 years. All 40 Republican Senators support that goal, and a number of Democratic Senators also are strong supporters of nuclear power.

Building 100 plants in 20 years would bring our nuclear-produced electricity to more than 40 percent of our total generation and it would all be carbon free. Add another 10 percent for hydroelectric dams—that is carbon free; 7 or 8 percent for wind and solar, now about 2.5 percent—that is carbon free; 25 percent for natural gas—that is low carbon; and you begin to get a very clean and low-cost electricity policy.

According to the National Academy of Sciences, construction costs for 100 nuclear plants are about the same as they would be for 186,000 wind turbines. New reactors could be located mostly on sites with existing reactors. There would be little need for new transmission lines. Taxpayer subsidies for nuclear would be one-tenth what taxpayers would pay wind developers over 10 years. And for so-called green jobs, building 100 nuclear plants would provide 4 times as many construction jobs as building 186,000 wind turbines. And, of course, nuclear is a base load source of power operating 90 percent of the time—the kind of reliable power a country like the United States, which uses 25 percent of the energy in the world, must have. Wind and solar are useful supplements, but they are only available, on average, about one-third of the time, and they can't be stored in large amounts.

What about the lingering fears of nuclear? Well, the Obama administration Energy Secretary, Dr. Steven Chu, the Nobel Prize-winning physicist, says nuclear plants are safe and he wouldn't mind living near one. That view is echoed by thousands of U.S. Navy personnel who have lived literally on top of nuclear reactors in submarines and Navy ships for more than 50 years without incident. The Nuclear Regulatory Commission agrees, and its painstaking supervision and application process is intended to do everything humanly possible to keep our commercial fleet of reactors safe.

On the issue of waste, Dr. CHU says there is a two-step solution. Step 1 is, store the spent nuclear fuel on site for 40 to 60 years. The Nuclear Regulatory Commission agrees this can be done safely, maybe for 100 years. Step 2 is research and development, to find the best way to recycle fuel so that its mass is reduced by 97 percent, pure plutonium is never created, and the waste is only radioactive for 300 years instead of 1 million years. That kind of recycling would take care of both the waste and the third fear of nuclear power—the threat that other countries might somehow use plutonium to build a bomb.

One could argue that because the United States failed to lead in developing the safe use of nuclear technology for the last 30 years, we may have made it easier for North Korea and Pakistan to steal or buy nuclear secrets from rogue countries.

I concluded with this prediction: Taking into account these energy sprawl concerns, I believe the best way to reach the necessary carbon reduction goals for climate change, with the least damage to our environment and to our economy, will prove to be, No. 1, building 100 new nuclear plants in 20 years; No. 2, electrifying half the cars and trucks in 20 years—we probably have enough unused electricity to plug these vehicles in at night without building one new power plant—and No. 3, putting solar panels on rooftops. To make this happen, the government should launch mini-Manhattan Projects, like the one we had in World War II, for recycling used nuclear fuel, for better batteries, for electric vehicles, to make solar panels cost competitive, and, in addition, to recapture carbon from coal plants. This plan I have just described should produce the largest amount of electricity with the smallest amount of carbon at the lowest possible cost, thereby avoiding the pain and suffering that comes when high-cost energy pushes jobs overseas and makes it hard for low-income Americans to afford their heating and cooling bills.

My fellow Tennessean Al Gore won a Nobel Prize for arguing that global warming is the inconvenient problem. For those who believe he is right—and if you are also concerned about energy sprawl—then I would suggest nuclear power is the inconvenient solution.

Mr. President, I yield the floor. I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. DORGAN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

AUTHORITY TO SIGN DULY ENROLLED BILLS AND JOINT RESOLUTIONS

Mr. DORGAN. Mr. President, I ask unanimous consent that the majority leader be authorized to sign any duly enrolled bills and joint resolutions during today's session, Monday, October 5.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

FREEDOM TO TRAVEL

Mr. DORGAN. Mr. President, last Friday the New York Times had an article which caught my eye, and the headline was the following: ''October New York Philharmonic Trip to Cuba is Off.'' I want to talk for a moment about this. I was extraordinarily disappointed to read this because this is an issue of the freedom to travel by the American people, specifically, the freedom to travel to Cuba.

This country has had an embargo against the country of Cuba for a long while. Cuba is a Communist country. Fidel Castro has poked his finger in the eye of America for a long time, so we have had an embargo for a long time. Part of the way to injure the Castro regime, presumably, as a part of this embargo is to prevent the American people from traveling to Cuba. The American people can travel to Communist China, to Communist Vietnam, to North Korea, but the American people are considered taking a criminal act if they travel to Cuba. There are some exceptions; the U.S. Treasury Department gives licenses to travel for certain kinds of educational and cultural things, and for trade.

So the New York Philharmonic orchestra was going to Cuba, but had to cancel the trip. Daniel Wakin wrote about it in the New York Times last Friday October 1, 2009. The reason I wanted to mention this is because it is almost unbelievable what we are still doing with respect to our travel policy with Cuba.

Senator ENZI and I have a piece of legislation that removes all travel restrictions with respect to travel to Cuba. We have over 30 Senators who are cosponsors of that legislation, but while we are waiting to pass our legislation, we are going through this nonsense of having the Federal Government and the Treasury Department tell us who can and who cannot travel, restricting the liberty and the freedom of the American people. It is outrageous, in my judgment.

Trips like the one the New York Philharmonic planned to Havana are not unusual. These kinds of trips happen all of the time. In 1959, at the height of the Cold War with the Soviet Union, the New York Philharmonic played in Moscow. It is a reasonably good thing, in my judgment, to be able to extend our culture and the hand of friendship through music.

One of the reasons I was especially interested in this is that the New York Philharmonic visited North Korea last year, and I asked conductor Loren Maazel and Zarin Mehta, President of the Philharmonic's board, to come and speak to our caucus. They described to us their performances in North Korea. They said the applause went on and on, even after they left the stage. What a great way to exchange with another country, to extend cultural enlightenment and to share with other countries. Again, the New York Philharmonic orchestra played in North Korea last year, but cannot play in Cuba without a special license.

The New York Philharmonic is going to Communist Vietnam this month.