

## RI flooding not WV's fault

Whitehouse is misguided on sea level rise: seacoasts won't be flooded due to coal burning

Tom Harris & Bob Carter

It must have taken the patience of Job for West Virginia Senator Joe Manchin to participate in Rhode Island Senator Sheldon Whitehouse's climate change tour of the Ocean State on October 10. Whitehouse promised Manchin that he would go to West Virginia to learn about the coal industry if Manchin would come to Rhode Island to view the supposed effects of global warming on sea-level.

It is important to put the concerns of the two senators in perspective.

On the one hand, Manchin is fighting for the survival of West Virginia's coal sector, his state's most important industry, the source of 95% of its electricity, and the foundation for thousands of jobs in dozens of communities. The state's use of abundant, domestically mined coal gives West Virginia the *7th lowest* electricity costs in America – at about one-half the price in California, New York, Rhode Island and several other states.

But West Virginia's coal sector is under siege from increasingly damaging Environmental Protection Agency (EPA) rules. Those rules have meant total coal production in West Virginia declined 9% between 2012 and 2013, a period during which 17% of the Mountain State's coal mines closed, and coal employment decreased 6.4% for a loss of 3,457 jobs already. Even before the EPA's new Clean Power Plan regulations, which Whitehouse promotes, come into force, the EPA and Obama Administration's "war on coal" has already cost West Virginia billions of dollars.

Senator Manchin, in other words, is concerned about the immediate, real-world impacts of climate change regulations on real people, families and businesses in his state.

Senator Whitehouse has a different perspective and is apparently not concerned about the cost of EPA emission regulations. Rhode Island gets none of its electricity from coal, having chosen less-carbon-intensive natural gas as its preferred source of power.

As a result, the state has the *7th highest* electricity prices in the continental United States. The impact of these high prices on hospitals, schools, churches, businesses and families is significant.

The White House, of course, shares Senator Whitehouse's perspective. Neither seems worried that, under the EPA rules, electricity prices will "necessarily skyrocket," as Obama put it when describing his energy plans as Democratic candidate for president in 2008.

Mr. Whitehouse is, however, worried about the hypothetical future impact of carbon dioxide (CO<sub>2</sub>) emissions from coal-fired power stations on "global temperatures." He believes this will cause "dangerous" sea-level rise along Rhode Island's coast. Mr. Whitehouse does not hide the fact that, because of these beliefs, he sees his mission as "more or less" to put the coal industry out of business.

If it were known with a high degree of probability that dangerous human-caused sea-level rise was right around the corner, then Mr. Manchin might have reason to sacrifice his constituents' livelihoods to help save Rhode Islanders from being submerged. But this is not the case.

The September 2013 report of the Nongovernmental International Panel on Climate Change states: "Sea-level rise is not accelerating. The global average sea-level continues to increase at its long-term rate of 1–2 mm/year [0.04-0.08 inches/year] globally" – or four to eight inches over the next century.

As it happens, sea-level rise on the coast of Rhode Island is slightly faster than the global rate – about a tenth of an inch per year in Newport, for example – or ten inches over the next 100 years. Nonetheless, such a slow rate of rise is relatively easy to adapt to, and certainly not worth ruining West Virginia's economy on the off-chance that it would make any difference to coastal conditions in Rhode Island.

Bear in mind that sea levels have already risen nearly *400 feet* since the end of the last Pleistocene Era ice age some 12,000 years ago.

The conflict between the two senators arises because of Mr. Whitehouse's outmoded belief that rapid CO<sub>2</sub>-driven global warming is occurring. This, he believes, will cause accelerated glacial melting, the ocean volume to expand, and global sea-level to rise quickly. That in turn would subject low-lying coastal areas of Rhode Island to increasingly intense peak-tide or storm-surge flooding.

Drastically reducing our CO<sub>2</sub> emissions is necessary to avoid this looming crisis, he asserts.

However, every step in Whitehouse's chain of reasoning is either wrong or misleading and based on computer models that falsely assume rising atmospheric CO<sub>2</sub> levels will cause rapid global warming. In reality, no global (atmospheric) warming has occurred for the last 18 years, even though CO<sub>2</sub> levels have risen 9% during this time.

Neither has there been significant ocean warming since at least 2003. As a consequence, the ocean is not expanding and cannot be causing extra sea-level rise. In fact, the global rate of sea-level rise has actually decreased over the last decade.

The only way the sort of sea-level rise feared by Mr. Whitehouse is possible is if massive quantities of the Antarctic and Greenland ice-caps melted. Not only did that not happen even during the two-degree warmer Holocene Optimum, five to nine thousands years ago, but both the Greenland and Antarctic ice fields have been expanding in recent years.

Moreover, rates of modern sea-level change are controlled by the volume of water in the ocean (which is dependant on worldwide volumes of land ice at any given time), by dynamic oceanographic features such as movements in major ocean currents, and by the uplift or subsidence of the solid earth beneath any measuring station. Humans control none of these factors.

Senator Whitehouse should recognize that Rhode Island's coastal management problems are his own state's responsibility, not those of West Virginians. As sea-level continues its natural slow rise along Rhode Island's coast, flooding due to peak tides and storm surges will continue much as it has for the past century. The way to cope with any small increase in the magnitude of these events is to apply and strengthen current strategies that increase coastal resilience.

In his June 4, 2008 speech on winning the Democratic primaries, President Obama said, "If we are willing to work for it, and fight for it, and believe in it, then I am absolutely certain that, generations from now, we will be able to look back and tell our children that this was the moment ...when the rise of the oceans began to slow and our planet began to heal."

Senator Whitehouse may still believe this pious dream. However, Senator Manchin must resist the nonsensical demand that West Virginians sacrifice their livelihoods and living standards in a vain and King Canute-like attempt to stop the seas from rising.

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