The nuclear industry is in shambles. Reactors and coal plants throughout the country are closing, renewables are expanding and the cost to generate sustainable energy is decreasing substantially. Unable to compete in a competitive market with escalating costs, nukes are being replaced. We are at a tipping point!

With its future in jeopardy, the industry wants the Feds (i.e. you, the taxpayer) to re-regulate the energy sector to bail out its bad decisions. In the late 1990’s, the nuclear industry pressed states to deregulate the power markets. Many states did, including many in New England. Now that their dreams of a nuclear resurgence have been dashed, the industry wants to be protected from competitive market forces. The truth is that nuclear power can’t operate without subsidies—large subsidies. The Department of Energy (DOE) petitioned the Federal Energy Regulatory Commission (FERC) to mandate that nukes and coal plants receive subsidies to ensure the security of the grid. This hearing process is fast tracked—an initial decision is due out in December.

Of course who will pay the price of this bailout? Ratepayers and small businesses will. In New York State, Governor Cuomo’s bailout will give Exelon over $8 billion on the backs of ratepayers. Multiply this $8 billion by at least 30 states and you get a sense of the massive monies needed by this dying industry to stay afloat—billions that will be borne by ratepayers and small businesses for decades to come: Billions that could be utilized to create the energy revolution that is needed to protect the environment.

**Vermont Nuclear Decommissioning Citizens Advisory Panel**

The Vermont Nuclear Decommissioning Citizens Advisory Panel (NDCAP) held a very interesting meeting on Oct 26, 2017. Aside from the sad update about the cost and scope of the ongoing radioactive water intrusion issue, the panel hosted a presentation by GEI Consultants, a New Jersey firm that is advising the Windham Regional Commission to assist in evaluating non-radiological contaminants at the Vermont Yankee site. The clean-up experts expressed concern that NorthStar and Entergy are basing their

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**Cape Downwinders Win 2017 Ballot Campaign**

The final votes are in! A non-binding “Public Advisory” ballot question on the safety of spent fuel storage at the Pilgrim reactor overwhelming passed in all fifteen Cape Cod towns! The will of the people demand public safety!

Join Cape Downwinders as they now take their campaign to the State House in Boston and the Nuclear Decommissioning Citizens Advisory Panel (NDCAP) to push for implementation of secure Hardened On-Site Storage (HOSS) of the dangerous nuclear waste at the Pilgrim Nuclear Power Station.

Cape Downwinders built a successful ballot question campaign to move fuel out of the pool at Pilgrim to dry cask storage. Of the more than 26,000 votes cast in all 15 towns, 91 percent of
Seabrook Contentions by C-10 Group Accepted for Hearing by ASLB

On October 6, the Atomic Safety and Licensing Board (ASLB) accepted for hearing significant parts of the case made by the C-10 Foundation concerning the Seabrook reactor ownership’s License Amendment Request for management of concrete deterioration. This admission of “standing” allows C-10 to make its case before the ASLB in a formal hearing. However, on Halloween, NextEra (owners of Seabrook), filed an appeal of the ASLB’s ruling to the Nuclear Regulatory Commission. This appeal will be decided by the NRC Commissioners themselves, and could take many months.

The basis of C-10’s contentions centers on NextEra’s handling of a structural problem within the concrete at Seabrook known as Alkali-Silica Reaction (ASR). Most often initiated in the presence of water, just the “wrong” chemistry within the concrete’s cement will cause the formation of a gel which expands, causing the concrete to crack. ASR is known as a “non-self-limiting condition,” which means that once it starts it cannot be arrested; it will continue all the way to structural failure. Reactors in other countries have been closed due to the discovery of ASR within their walls. Strangely, although Seabrook is one of the newest commercial reactors in the US, it is the only one acknowledged thus far to have ASR. ASR is an extensively studied and understood phenomenon for which both the American Concrete Institute (ACI) and the American Society for Testing and Materials (ASTM) have developed comprehensive testing standards. However, the NRC never formally adopted any standard by which they can oversee the testing of ASR, not even in the eight years since the discovery of ASR at Seabrook. They have allowed Seabrook a “degraded but operable” status.

Located at the very edge of the salt marsh on the NH seacoast, the base of at least some of Seabrook’s concrete structures have been wet since the plant went on line in 1990. In fact, due to the inundation of certain feed-cable tunnels, the plant has operated outside of its design specifications (so-called “design basis”) for most of its operating life. NRC inspectors discovered ASR in “safety-related structures” at Seabrook Station in 2010, after NextEra applied for an extension to its current operating license a full twenty years ahead of expiration. In 2012, NRC staff disclosed a 22 percent reduction in strength of concrete in some of the tested areas; and because healthy concrete strengthens as it ages, this actually amounted to a greater than 30 percent reduction from the expected strength.

Since that revelation, NextEra was given wide latitude by NRC to develop a means to quantify ASR progression without having to follow existing protocols. Very simplistically: under contract with NextEra, an engineering firm in Texas formed up concrete beam sections purposefully made to develop fast-progressing ASR—which were then subjected to a series of tests from which data were derived. Because those ASR-affected beams in TX are said to be “representative” of Seabrook concrete, NextEra claims it can use that data to monitor key parameters, such as expansion rates, at Seabrook and stay within some margin of safety.

This method of deriving data from a remote site with newly-formed concrete, from which safety-margin determinations will be made about an operating atomic reactor, is unprecedented and has not been peer-reviewed. Yet this is the basis of NextEra’s License Amendment Request. The basis of C-10’s opposition to the LAR is the lack of “representativeness” of the methodology used to derive data that are supposed to apply to Seabrook.

Beginning in 2014, C-10 filed a Petition for Rule Change, calling on NRC to adopt the ACI and/or ASTM standards for analysis of ASR. Action on this petition is pending, and could take many years. C-10 followed up in 2016 with a Petition for Emergency Enforcement Action in an attempt to “jumpstart” the process. That petition request was denied on the basis that NRC cannot enforce what they have not formally adopted and encoded as a NUREG. Stranger than fiction!

- Chris Nord, C-10 Foundation board member
www.C-10.org

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proposal for site remediation on incomplete and inadequate site characterization information. Their conclusions were consistent with previous comments made before the panel by the Agency of Natural Resources.

From the time that the initial proposal to decommission VY was rolled out, numerous parties and organizations have raised the issue of potentially inadequate funding to complete the job should unknown or unexpected contaminants be encountered during the decommissioning process. Both Yankee Rowe and CT Yankee reactors experienced significant cost increases during the demolition and remediation operations. In both cases the additional costs were charged to utility ratepayers. Because Vermont Yankee was a “merchant” generating unit there is no such provision for cost recovery in Vermont. The Vermont Public Utility Commission and the Nuclear Regulatory Commission have to be certain that the current proposal is financially sound before approving the sale of VY from Entergy to NorthStar.

Public Utility Commission technical hearings regarding the proposal are set for the last two weeks of January 2018. A public “field hearing” is currently scheduled for January 4, 2018 in Vernon, VT.

- Chris Williams, VCAN
During Sept of 2017, I was privileged to be part of a speaking tour across the nation of South Africa. The tour was hosted by Earthlife Africa (earthlife.org.za) and included a Russian colleague, Vladimir Sliviak, of EcoDefense (based in Russia). We spoke to groups at multiple venues in Johannesburg, East London, Port Elizabeth, Durban, and Cape Town. The press coverage was impressive.

The purpose of the tour was to convey the Russian and American experiences with commercial nuclear power to the citizens of South Africa. Rosatom, the Russian state nuclear corporation, has been courting a number of nations to purchase Russian power reactors. South Africa signed a non-public agreement with Russia in 2014. That agreement was brought to light and spurred a court challenge by Earthlife Africa. The court found that the agreement did not pass muster because the South African Parliament did not approve the deal. Currently the government of President Zuma is working to resurrect the deal and move to begin construction.

It should be noted that President Zuma and his administration are besieged with charges of corruption on many fronts and So. Africa is confronting a crisis referred to as “state capture.”

South Africa has many large public enterprises, including significant stakes in electricity and energy production. The public control and oversight of these industries has been compromised and effectively taken control of by private entities. The most infamous of these private entities is the Gupta family. It is alleged that the Guptas have effectively seized control of significant government-run enterprises and are working hand in hand with Zuma to bring new atomic power plants to Africa and other nations on the continent. The Guptas have large uranium holdings in their portfolio. My impression was that they are in many ways the South African version of the Koch brothers.

Fortunately, the citizens of South Africa are fighting back and doing so in a way that would make any organizer proud. Our colleagues are waging an effective fight on many fronts. They are organizing citizens across the country to stand up and say no to new nukes! and advocating on the local, provincial, and federal levels for renewables and efficiency. At the same time an effective legal team is using litigation to see to it that the law is working to protect and enhance the lives of ordinary South Africans. Organizing, lobbying, and litigation, that’s what it takes to win!

South Africa, like much of the continent, has a significant problem regarding rural electrification. The enormity of the problem is one that construction of large centralized nuclear generators will not address or solve. Pouring scarce resources into nuclear construction will not electrify the homes and villages of the rural population that has gone without for too long. The South Africans I met and worked with recognize that locally owned renewable generation and storage technology can be readily deployed to serve the rural population virtually overnight if the political will exists and if resources are not squandered.

I am still processing much of what I learned during my tour of South Africa. Being able to spend quality time with activists and citizens from many different backgrounds and regions was a rare and rewarding opportunity. Our comrades in South Africa can teach many of us how to struggle against ferocious and unforgiving forces and win. For many who I met, such struggle is their life history.

- Chris Williams, VCAN (Vermont Citizens Action Network)
100% Renewable Energy for Massachusetts

It is possible and in fact Massachusetts must transition to 100 percent renewable energy by at least 2050. But so far Governor Baker has not even managed to say the words, much less encourage legislation, to move the state towards that necessary goal.

Distributed Solar and Off-shore Wind play major parts in replacing fossil fuels as well as energy efficiency and storage. In Massachusetts, distributed solar is fighting an uphill battle with the utilities and the Associated Industries of Massachusetts. If the utilities were able to own the solar, we would have gobs of solar. But if communities and ratepayers want to own solar, the utilities erect barriers of all sorts from interconnection and engineering exorbitant costs to simple “slow walking” application processes to obstructionist legislative lobbying. The capacity of off-shore wind could easily provide all the electricity for MA and allow us to export electricity to the NE electrical grid. Off-shore wind could be a moneymaker for MA. But the current limits imposed by the statehouse are a drop in the bucket.

Massachusetts still is a leader in energy efficiency but we actually need to ramp those efforts up as well to have a chance for 100 percent renewable energy by 2050. And storage is the big unknown. We have many potential avenues to pursue. And don’t forget we need to raise the Renewable Portfolio Standard to 5 percent per year. It is a meagly 1 percent right now. How will we ever get to 100 percent at that rate?

With the Governor’s seat up in 2018, it is imperative that Gov. Baker starts to feel the heat for not stepping up to the plate and setting a goal of 100 percent renewable energy by 2050. Call Gov. Baker (617-725-4005) and let him know what goal you want, and why you want it. For all the children and grandchildren who are going to inherit this precious earth, for all the other beings who have to live with our actions, for everyone who wants to breathe clean air and drink clean water…… For the chance to live a decent life!

- Claire Chang, Solar Store of Greenfield
  CAN Board Member

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the voters supported the measure! This was a good opportunity to discuss the reality that Plymouth is a nuclear waste dump and citizens have something to say about that.

We are now encouraging other towns to take up this measure. For information on how to get started—and it is easy—e-mail capedownwindersinfo@gmail.com. Find the Cape Downwinders campaign online at: http://capedownwinders.org.

Cape Downwinders have testified at the MA State House on bills related to emergency planning, radiation monitoring, and decommissioning funds. The next hearing will be the Joint Committee on Public Health on December 11.

For live links to the bills, go to: http://bit.ly/2Afx4hr
- Diane Turco Cape Downwinders

Thanks!
We couldn’t have done it without you:
Block Foundation • Nancy Braus • Paul Burton
Charlene Divoky • Rose Gardner
Guacamole Foundation • Robbie Leppzer
Lintilhac Foundation • Rothschild Foundation
Van Itallie Foundation • Deans Beans Coffee • TMTC
Franklin Community Co-op • Lionel Delevigne
Cape Downwinders • C-10 Foundation
VYDA • Safe and Green Campaign

Our vision of Vermont Yankee
Together we can make it happen!