

Shift happens: Movement towards sustainability

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Change. Change is inevitable in almost every aspect of life and society but our natural tendency is to resist change for fear that it will irrevocably alter our comfort zone. It does not matter whether our comfort zone will be enhanced or degraded; we will resist change. This is especially true when it comes to major paradigm realignments. The way we generate electricity is a perfect example.

The fact that burning fossil fuels pollutes the air we breathe has been evident since the beginning of the Industrial Revolution. At the beginning, however, there was so little industry that the sacrifice of some clean air seemed warranted, given the benefits of increased productivity. As more industry developed, more air pollution ensued but voices calling for clean air were either mute or drowned out by the drumbeat marking the increasing pace to industrialization.

By the time those voices were loud enough to be heard, more than 50 years ago, industry and fossil fuels were ensconced. Electricity was generated primarily by burning coal, using nuclear fission, and large hydroelectric projects. Little attention was paid to the long term consequences; the paradigm was entrenched. Even today, nuclear fission and hydroelectric power are still considered “green”, in spite of the very long term problems of nuclear waste storage and ecosystem degradation caused by hydroelectric dams.

In the 1970’s, some grassroots organizations, often populated earthy hippie types, began a rallying cry for cleaner, greener energy production, mainly using solar, wind, and geothermal resources. In the last 40 years, these generators grew slowly. No one noticed their presence because their contribution to the national grid was miniscule.

Growing faster, however, were the use of coal and the cry for cleaner energy, as our air, water, and soil became progressively more polluted, in large part due to our fossil fuel consumption, particularly coal. Slow change to a cleaner energy future remained the product of a few granola-eating folks who disconnected themselves from the grid and groups of environmental activists.

After years of near-static complacency, our electrical generation paradigm hit a small bump about three weeks ago, and then another, and then a few more: six in all, and still counting. Let’s review them:

1. On April 12, the public advocate for North

Carolina utilities customers reversed position and began to oppose — at least for now — any proposal to make it easier for utilities to recover some costs for nuclear plant construction before plants are built. This means that CWIP (Construction Work in Progress) costs will not be tacked on to our monthly electrical bills during construction of two new reactor that were to be added to the nuclear power facility in Gaffney, SC. We would have paid higher rates throughout the 10-20 year construction time of the new units—before a watt of power was delivered. Since private and corporate investors will not touch nuclear power generation facilities because they are “too high risk”, this essentially puts future construction in Gaffney on indefinite hold, if not killing the project altogether.

2. On April 14, the Board of Directors of the Tennessee Valley Authority agreed “to phase out 18 units at dirty, coal-fired power plants and install modern pollution controls on three dozen additional units.” Most of these plants are in Tennessee and most of the pollution they generate blows over Western North Carolina. Breathing is going to get easier in Western North Carolina and the view from Great Smoky Mountains National Park should return to its former glory.

3. Also on April 14, the 4th Circuit Court of Appeals affirmed victory in the citizen enforcement action against Duke Energy for its construction of Cliffside Unit 6 without a hazardous air pollutant determination. Cliffside is located ~50 miles upwind of Charlotte. The plant must now conform to state-of-the-art technology to reduce emissions.

4. On April 18, New York’s Attorney General “challenged the Federal Government to prove hydraulic fracturing (fracking) is safe.” Fracking will be prohibited in the Delaware River and Hudson River watersheds until it is proven to be safe. Fracking fluids, injected into shale to enhance natural gas recovery, contain dozens of toxic and carcinogenic chemicals that can contaminate groundwater and surface water supplies.

5. On April 19, Senators Hartsell (R), Stein (D), and Bingham (R) introduced the Offshore Wind Jobs and Economic Development Act in the NC Senate, which is aimed at attracting thousands of jobs while enabling the development of North Carolina’s abundant offshore wind resources. The bipartisan bill, proposes the following:

Creating a state-managed competitive request for proposal (RFP) for development of 2,500 MW of offshore wind energy starting in 2017

and spread over a 7-10 year period. Sets a state goal of 5,000 MW by 2030.

The state would receive competitive bids from industry and the Department of Commerce would analyze those proposals to determine the net economic impacts of each. If proposals are not in the best interest of the state (i.e. they must result in a net economic benefit), then no contracts would be awarded.

Investor Owned Utilities are required to participate but Co-ops and Municipals may opt-in at their discretion. Participating utilities have the option to co-invest or purchase ownership interest in the projects.

6. Also on April 19, Pennsylvania’s new Republican administration called on drillers to stop using riverside treatment plants to get rid of the millions of barrels of ultra-salty, chemically tainted wastewater that gush annually from gas wells and into groundwater and surface water reserves.

Perhaps you didn’t feel these bumps but they were real and they signal a paradigm shift that promises to accelerate in the coming years. They couldn’t come at a better moment. At a time when our economy is in the doldrums and jobs are scarce, here is a way to grow ourselves out of the hole we’ve dug by relying on the old ways of doing things.

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