



1. *America's Next Step Toward Sustainable Energy*
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America's Next Step Toward Sustainable Energy

By PHILIP GOW
STAFF WRITER

Looking beyond the largely political arguments over why average global temperatures are increasing, the fact remains that greenhouse gases are filling our atmosphere at an unsustainable rate. You might be surprised to learn that electricity production is responsible for only 27 percent of greenhouse gases that humans produce today. Still, solving this one quarter of the problem is pivotal to reducing other major sources of greenhouse gases. "Electrifying" these other gas sources—like autos and cement factories—is necessary in order to achieve net-zero carbon emissions. Given the energy options we have today, the United States would be remiss not to

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pursue nuclear power as a key next step toward environmentally friendly energy production.

Coal and natural gas now produce 59 percent of the U.S.'s electricity. Nuclear energy accounts for 20 percent. The reasons are myriad, but they mainly involve government subsidies for fossil fuels and the relatively cheap cost of excavating and processing these non-renewable sources. To be clear, similar subsidies exist in countries throughout the developed and developing worlds. These factors make the economic landscape unfavorable for competing clean energy solutions.

Solar and wind, despite our hopes, are not the large-scale answers to our clean electricity deficit. We have largely maximized the efficiency of solar cells, yet solar panels remain a high-cost, low-yield commodity. Windmills are nice, but contingent on regular winds and could never satisfy

a large percentage of our national energy appetite either. But the larger problem with these two energy sources pertains to *how* their energy is stored. If we were to construct the battery facilities needed to store solar or wind energy for entire cities, it would be inefficient and a net detriment to the environment. Just think about the amount of lithium required!

When many in the United States think about nuclear energy, the 2011 Fukushima nuclear plant accident likely comes to mind, generating unease. People are usually not interested in creating new facilities capable of accidentally irradiating their backyards. However, the reason for Fukushima's failure had not so much to do with the plant's science or intended design, but rather with corruption. Nuclear plants contain an array of emergency backup generators, designed to keep the reactors cool in a plant failure or power outage. But one of the conditions for these generators to operate as intended is that they be located well above sea level. Instead, the builders of Fukushima determined that it was less expensive to place the emergency generators below sea level. Due to this poor decision, a tsunami flooded the generators and caused the nuclear chaos we all remember today.

Bear in mind, though, that Fukushima's construction began in 1971. Since then, scientists and engineers have come a long way in

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developing nuclear facilities that will not have reactor meltdowns. Bill Gates, Warren Buffett, and others have invested considerably in the design of far safer, eco-friendly nuclear plants. Some new plant designs use nuclear waste as an energy source, which makes

An Inflammatory Opinion: on Inflammatory Food

By EMILY HALL
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Does your stomach hurt after eating at the dining halls? That orange ooze, those oily roasted veggies, PAM cooking spray on every grill, and the giant vats of yellow oil on the counter in Commons are likely causing you more problems than you realize. Inflammatory corn, soy, and canola oils are in nearly every food cooked in our dining halls.

Dr. David Heber of UCLA criticizes modern medicine's focus on treating symptoms rather than "addressing the root cause" of health issues, "which in many cases is inflammation." Most of the human immune system resides in the digestive tract. A diet high in processed oils "trigger[s] an inflammatory response," like a food allergen does, compromising our immune system and often leading to the development of disease. During a global pandemic, attention to the health of our immune systems should be a paramount concern for the college, which has taken so many other dramatic measures to reduce transmission of the virus while serving us food that isn't good for immune-system health.

Canola oil is "caustically refined, bleached, and degummed," processes that involve "high temperatures or chemicals that are damaging to the human body." It is then subjected to "deodorization," a process of heating that oxidizes the product. "Canola oil is extremely unstable under heat, light and pressure, which causes oxidation and releases free radicals inside the body." When heated in refining and cooking "it produces high levels of butadiene, benzene, acrolein, formaldehyde and other nasty compounds," which "when combined with increased free radicals, create the perfect environment for cancer growth." Ingesting this kind of oil exposes body tissues to "oxidized or rancid products," which "contributes to degenerative diseases and chronic inflammation."

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steam the only notable by-product. In short, safe and environmentally friendly nuclear technology exists today, and it's pretty neat.

If we look past the public unease about nuclear plants and wish to proceed with adding more nuclear power to our energy sector, how many plants should we be building? The best answer is as many as we can—seriously. The United States cannot possibly build too many, as we would require approximately 306 new reactors to provide 75 percent of our current energy needs. We only have 94 functioning reactors today, all but five

of which were operational before 2000.

Perhaps even more interesting, *every reactor currently operational was contracted by the U.S. government during the 1960s and 70s*. Each reactor costs approximately 7.5 billion dollars to build, meaning that the construction costs alone required to nuclear-power 75 percent of today's American energy production would be between 2 and 2.5 trillion dollars. This is an expensive goal, but demonstrates the cost of edging out fossil fuels in the most cost-efficient way possible.

In 2019 and 2020, the U.S. produced more energy than it consumed

for the first time since 1957. We are unfortunately about to reverse this trend in 2021, already importing non-renewable energy predominantly from the Middle East. Maybe the scientific discovery for a quantum leap in energy production technology happens tomorrow, but that remains unlikely. If we are truly interested in a more sustainable future, the American people and government must work toward implementing more attainable energy options, almost inevitably including the one proposed here.

AN INFLAMMATORY OPINION . . . cont.

The genetic modification of canola and corn causes further inflammation, and creates new allergies with corresponding inflammatory responses. Ninety percent of canola and corn is genetically modified, and because non-genetically modified corn and canola oil are specialty products, it seems likely that all of those oils in our dining halls are genetically modified. Monsanto nearly monopolizes the agricultural industry and produces genetically modified organisms (GMOs), altering their canola and corn with Bt endotoxin derived from

treated in the same way. The problem is this: . . . What biotechnology allows us to do is to take [an] organism and move it horizontally into a totally unrelated species, to switch genes from one to the other without regard to the biological constraints. It's very, very bad science. [The FDA assumes] that the principles governing the inheritance of genes vertically, applies when you move genes laterally or horizontally. There's absolutely no reason to make that conclusion."

Because of Monsanto's political involvement, the ability to test the

an ignorance that is convenient for corporate financial interests.

In 2016, Monsanto merged with Bayer, one of the world's largest antacid, anti-inflammatory, and allergen medication-producing pharmaceutical companies. This \$66 billion alliance enables Bayer to cheaply engineer drugs using GM agriculture. With numerous lawsuits against Monsanto that accuse it of failing to disclose the cancer-causing effects of its glyphosate pesticides and with evidence supporting the allergen-creating effects of Bt genes in its seeds,

If Hamilton tries to care for students' health in other ways, perhaps it would be willing to follow the science and change this unhealthy aspect of our diets.

bacteria that are designed to burst bugs' stomachs. A group of French scientists found evidence that Monsanto corn produced tumors in rats and impaired digestion. Another study suggested that Bt corn creates allergies by perforating the intestinal wall. Sources unassociated with Monsanto say that Bt crops have caused digestive issues in rats, mice, and corn-fed cattle.

If GMOs are so bad, why aren't they adequately regulated? There is a revolving door between Monsanto and the U.S. Department of Agriculture and the Food and Drug Administration. One of Monsanto's attorneys, for example, became policy chief of the FDA, later returning to Monsanto to become its vice president and chief lobbyist. Geneticist David Suzuki summarizes the problem:

"The FDA has said that genetically modified organisms are not much different from regular food, so they'll be

safety and health hazards of GMOs in North America is limited. It's the biotechnology industry itself that tests almost all FDA-approved GM food. In Europe, many scientists suggest the harmful effects of GMOs, and 26 countries have banned them. President Biden has appointed Tom Vilsack, nicknamed "Mr. Monsanto," to oversee the USDA as Secretary of Agriculture after holding the same position during the Obama presidency. He has reportedly approved more new GMOs than any other Agriculture Secretary, and he continues to serve the corporate interests of Monsanto. Regardless of what you think about any other aspect of the Obama or Biden presidency, the appointment of Vilsack is detrimental to the health of the country, which remains uninformed about the long-term detriments of GMOs and their inflammatory qualities,

the union of Bayer and Monsanto even creates suspicions of collusion between the pharmaceutical industry and the GMO industry, since the ingestion of more Monsanto products means a greater market for allergy and symptom-suppressing medication.

With an endowment approaching 1.5 billion dollars, Hamilton could easily prevent long-term mental and physical health effects for its students by requiring the dining halls to use anti-inflammatory non-GMO oils, such as 100 percent extra virgin olive oil or coconut oil. At the very least, it could provide labeled alternatives that are free of such products at each meal. If Hamilton tries to care for students' health in other ways, perhaps it would be willing to follow the science and change this unhealthy aspect of our diets.

ENQUIRY

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CONTINUE THE CONVERSATION

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