

CLIMATE CRISIS – WHAT’S PLASTIC GOT TO DO WITH IT? A WHOLE LOT ...

Although we were successful in preventing fracking in Haudenosaunee territory and in NY State, it has exploded elsewhere, in other states; and the result is that far too much gas is being extracted. Too much supply has driven the price so low that frackers are losing massive amounts of money. So they need to find new markets and ways to sell gas.

The fossil fuels industry has developed three outlets for this excess gas: (1) massive increased production of plastics and petrochemicals; (2) export of methane and other gases; and (3) increased burning of gas in electricity production. The future of the fossil fuel industry depends on plastics.

Most of the gas that comes out of fracked wells is methane, which is called “unnatural gas” and is used to heat homes and produce electricity primarily. Methane is 100 times worse for climate change than CO₂, over a 20 year period. However, the Marcellus and Utica shale formations also produce a significant amount of another gas – Ethane. This is the feed stock for plastic production.

The shale that is being fracked contains methane, propane, butane, and ethane but ethane cannot be sold as a fuel and has been a waste product of fracking. Finding a use for this excess ethane solves two problems for the fossil fuel industry: (a) solves a waste problem; and (b) creates an additional line of sales of plastics and profits. Without this huge increase in plastics production from fracked ethane, the fracking would be even less profitable.¹

Plastic pollution and climate crisis are two, inseparable parts of the same problem – the fossil fuel, plastic and petrochemical industries are destroying the earth, its waters and the atmosphere in multiple inter-related ways; and we must understand this connection and treat them as such – one, over-arching threat.

The petrochemical industry also has plans to make even more plastic from oil to offset the reduced burning of fossil fuels. Currently, plastic accounts for 14% of oil use, but plastic is expected to drive half of the oil demand between now and 2050.

HUGE INCREASE IN PLASTIC PRODUCTION:

Between 2011 and 2020, the plastics industry will have added 28 million tons of plastics, and more than \$202 billion has been invested in 333 new facilities to convert gas into plastics.²

This build out includes 20 new ethane “crackers”, where heat or steam is used to convert ethane into ethylene, which then has to be further processed into polyethylene.³ Every step of these industrial processes produces greenhouse gases, and other dangerous toxic gases and particle pollution. Every step of plastic production fuels the climate crisis even further.

Petrochemicals [primary plastic] are rapidly becoming the largest driver of global oil consumption.

Fires and explosions are another problem in plastic production. The day before Thanksgiving in 2019, a blaze at the Texas Petroleum Chemical plant in Port Neches, TX set off two explosions, forcing 50,000 people to evacuate their homes. It was the state’s fourth major petrochemical fire that year.

MASSIVE OCEAN POLLUTION:

We continue to learn more about the massive pollution of our oceans with plastics. Since 1950, 18.3 trillion tons of plastics have been produced and only 9% of this has been recycled. Colossal masses of plastic have now accumulated in the oceans, with the largest being the “Great Pacific Garbage Patch” that is 4 times the size of California. Plastic wastes entangle, choke or are consumed by wildlife causing terrible damage – which includes fisheries collapse and species extinction. If current trends continue, our oceans could contain more plastic than fish by 2050.

LOCALIZED LAND AND WATER POLLUTION:

If plastic does not end up in the oceans, it is accumulating in our dumps, which are not sustainable. To understand this looming problem, all one has to do is travel to Cayuga territory and observe [and smell] the massive mountain of garbage that is called the “Seneca Meadows’ dump.

Far too much plastic ends up in municipal waste streams that feed garbage burning incinerators, which also produce extremely negative environmental impacts. The Onondaga Nation’s currently recognized territory is located just downwind from Onondaga County’s garbage-burning incinerator; and recently, citizen activism prevented the construction of another massive incinerator that had been promoted between Cayuga and Seneca Lakes.

Incinerators produce significant amounts of CO₂ and toxins in their air emissions which are extremely harmful to human health and to fish and other wildlife. These air emissions include heavy metals such as mercury, lead, cadmium, arsenic and chromium; and extremely toxic volatile organic compounds (VOCs), such as dioxin, furans, PCBs, benzene, toluene and many others.

Additionally, incinerators do not eliminate the need for dumps, aka: “landfills”, because they also produce large volumes of toxic ash, which contains many of the same toxins as the air pollution and the ash is then trucked to dumps [producing more CO₂], where it causes fine particle pollution and where it’s toxins eventually leach out to pollute surface and ground waters.

The volume of plastic going into dumps and incinerators is increasing drastically due to the collapse of the world-wide “plastic recycling industry.” As noted below more fully, this myth was sustained not by actual recycling, but by simply shipping most of our plastic waste to China – until recently, when China stopped taking U.S. plastic waste, signifying a trend of countries that are simply overwhelmed with our plastic discards. We simply must reduce the amounts of wastes that we throw away every day.

MICRO PLASTICS:

We are also learning about the dangers of “micro plastics”, which are used in far too many products, such as toothpaste and skin “cleansing” products and which are formed when plastic waste breaks down. As plastic breaks down into smaller pieces, more greenhouse gases [methane and ethylene] are produced.

Micro plastic particles are consumed by wildlife and are accumulating in each of our bodies.

THE MYTH OF PLASTIC RECYCLING:

In September of 2020, NPR published a major article exposing the myth of plastic recycling, under the headline: “How Big Oil Misled The Public Into Believing Plastic Would Be Recycled.”⁶ In this

well researched and documented expose, NPR draws upon industry records of meetings going back to the 1970s and extensive interviews with former industry officials, to demonstrate that:

The makers of plastic – the nation’s largest oil and gas companies – have know [that plastic recycling is not economically feasible] all along, even as they spent millions of dollars telling the American public the opposite.

NPR ... found that the industry sold the public on an idea it knew wouldn’t work – that the majority of plastic could be, and would be, recycled – all while making billions of dollars selling the world new plastic.

Big oil and gas have known since the 1970s: one industry leader wrote in a speech in 1974: “There is serious doubt that [recycling plastic] can ever be viable on an economic basis.”

The NPR article goes on to explain:

Here’s the basic problem: All plastic can be turned into new things, but picking it up, sorting it out and melting it down is expensive. Plastic also degrades each time it is reused, meaning it can’t be reused more than once or twice. On the other hand, new plastic is cheap. It’s made from oil and gas, and it always less expensive and of better quality to just start fresh.

In the late 1980s, the industry was facing a major problem, and so in 1989 executives from Exxon, Chevron, Amoco, Dow, DuPont, Proctor & Gamble and others held a private meeting in Washington, D.C. where a consultant told them: “The image of plastics is deteriorating at an alarming rate. We are approaching a point of no return. The viability of the industry and the profitability of your company is at stake.”

So, the plastic industry launched a \$50 million-a-year ad campaign promoting the benefits of plastic and telling the public that it could be recycled. The industry launched a number of feel-good projects, telling the public to recycle plastics.

All of these shuttered or failed by the mid-1990s ... none of them was able to get past the economics: Making new plastic out of oil is cheaper and easier than making it out of plastic trash.

By now, we are all familiar with the numbered, recycling symbols on all plastic but these are merely another scam – to make us think that plastic can be and is being recycled. Industry documents show that ... oil and plastic executives began a quiet campaign to lobby almost 40 states to mandate that the symbols appear on all plastic – even if there was no way to economically recycle it ... [W]hat it did was make all plastic look recyclable ...

But the lobbying group in D.C. knew the truth ... [and a] report given to top officials at the Society of the Plastic Industry in 1993 told them about the problems: “The code is being

misused. Companies are using it as a 'green' marketing tool. The code is creating 'unrealistic expectations' about how much plastic can actually be recycled."

As with most issues involving U.S. corporations, the bottom line is profits: The oil industry makes more than \$400 billion a year making plastics, and as demand for oil for cars and trucks declines, the industry is telling shareholders that future profits will increasingly come from plastic.

THE SOLUTION: CHANGING OUR HABITS TO PROTECT MOTHER EARTH:

Everyone of us can make a difference in helping to break this reckless and dangerous cycle of fracking, petrochemical and plastic production and pollution, by changing our habits so that we stop using single-use plastic bags, plastic straws, plastic lined coffee cups, and as many other plastic products as possible. We should stop buying and drinking bottled water; and carry water bottles instead. We should use cloth bags for shopping, reusable coffee mugs, and metal or paper straws. We can avoid restaurants that still use Styrofoam, or talk with them about changing. Please share other ideas for reducing the use of plastic.

In addition to changing our personal use and habits, it is even more critical that we continue to build coalitions to fundamentally alter the fossil fuel, profit and greed driven model. We need to move towards a much more sustainable system, which does not destroy Mother Earth's eco system and which protects all forms of life for the future generations. We have one planet; we are one people and we have one future.

Here are some links and websites to educate on ways to reduce plastic use in your community and to purchase products that are plastic free:

- www.epa.gov/recycle
- www3.epa.gov/recyclecity
- www.ecavo.com/recycle-benefits
- www.netzerocompany.com
- www.blueband.com