

Eighty one years, retired, spent a year looking at climate science, and issues.
On Fossil Fuel Transition

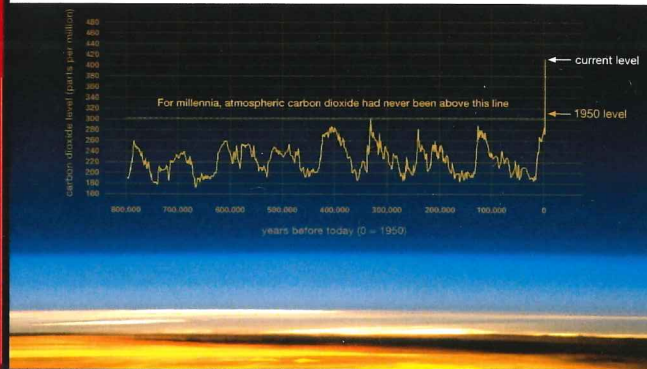


Carbon emissions continue to grow

Looking at this chart remembering 1978 and the Arab oil embargo with President Jimmy Carter wearing a sweater in the Whitehouse. His gesture to encourage us all to scale back our use of fossil fuels in home and travel.

Today, I am wondering if consumer driven conservation efforts are futile without transition from fossil fuels to renewable energy.

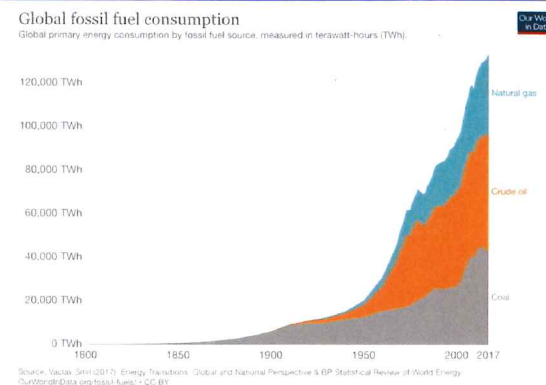
Looking at this chart below, historical global carbon emissions compared with global fossil fuel utilization, we should by now, understand that conservation with unregulated fossil fuel production has not been the solution from the problem.



I've concluded:

Consumers of energy, together with their local governments should now direct their efforts towards requesting our governments upstream to begin phase out of fossil fuels by the year 2030 as a part of a unified global effort.

To start immediately to create a 50 year energy plan for every level of our society



Here are some of my thoughts,
In my own voice



This is my statement concerning the Climate Crisis to this city council.

First of all I thank you for allowing me to stand before to speak for a few minutes. For myself, the Climate Crisis element that concerns me is the use of fossil carbon as a global energy source and the government policy that facilitates extraction and marketing

I understand that neither a village council nor individuals can change national energy policy or negotiate international cooperation. But we can speak out.

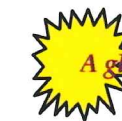
I took the last year to study the climate science myself and to learn how others view this climate crisis. I am very encouraged by the grassroots actions taking place across a broad sector of our society. The school children and an alliance of scientists are speaking with countries, states and local governments responding.

This climate crisis problem is complex and solutions will be difficult. The upstream governments are managing an economic system specifically designed to facilitate fossil fuel utilization in order to support our fossil fuel dependent economy. Citizens and governments downstream are receiving efficiencies, mandated mitigations as solution when they could be viewed a baksheesh, a form of bribery that trickles down from above. It is this relentless production of fossil fuels however that is driving this Climate Crisis.

Our problem is the difficulty of communications with governments upstream in the face of the powerful economic interests of the fossil fuel industry.

I have come to understand that fear of complete energy transition to renewables is primary among many people. I think that now most people already understand that atmospheric pollution by carbon is a threat.

I think now that **communications** is a key to our climate future.

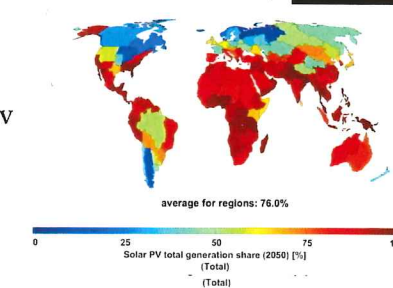


**A global transition to 100% renewable energy is:
not a question of technical feasibility or economic viability but one of political will**

A macroeconomic model is an analytical tool used to clarify and illustrate basic theoretical principles. Here a model has been constructed to evaluate a global energy strategy for a socially and environmentally sound solution to atmospheric

**GLOBAL ENERGY SYSTEM
BASED ON 100% RENEWABLE ENERGY**
Power, Heat, Transport and Desalination Sectors

This image illustrates a global analysis of solar PV potential



Reference a study by Lat University, Energy Watch Group, Lappeenranta University of Technology Reports 91285/2213-3576

Climate crisis threat and the voice of youth

I listened to voices of youth
I listened to voices of native people
They speak truth to power



In September and October 2019 I attended Climate Crisis events in British Columbia and Washington State. Here I am walking with estimated 100 to 200,000 people attending this student Climate Strike. This was a peaceful walk across Cambie Street bridge with like-minded people

During another event at Peace Arch International border crossing, I conducted an informal survey of motorists queued for border crossing, as they approached our warning sign, Extinction Ahead'. Everyone I spoke with understood this sign referred to the climate crisis.

Calling For A global, 50 year Energy Plan Fully established within 30 years

I have a story from 1978, I can tell about a naive analyst with a non profit, when our client, Charles, Etok Edwardson, Jr. said: 'Richard, we need a 50 year energy plan for Barrow' I really did not understand the double meaning of the word 'we' and took it as an assignment. About 3 months later I turned in Barrows' 50 year energy plan written with the help of local planner, ecologist.

To me, this was another of the many proposal and analysis I've thrown to the wind for years. About 5 years later, in Anchorage, I was taken into an office, shown the planning and engineering underway for the city, started with the initial seed I had sown. In that moment I was thanked and compared to Bucky fuller who designed Brazilia and never paid. I never went back to Barrow since 1978 when they had a water truck and froze their sewage. Recently I attended his funeral and his brother showed me Utiagvik and the public infrastructure of a modern arctic community.

I'm thinking again, over the horizon, remembering the intense intelligent focus of my friend and mentor, Etok.