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DISCUSSION-OPINION-EDITORIAL

Energy transition from conventional to renewable

Why and where Europe is still failing and shall continue to fail in the future?

The world features 142 firms worth more than \$100bn. 43 were spawned during the last 50 years. 27 in the US and 10 in China. Only one of them is European. Merely a few decades ago, the Old World was the dominant economic center of the world. How things have changed. There are many reasons for this state of relative decline and we can't hope to cover them all in one short article. But one of those reasons sticks out like a big sore thumb that won't heal - energy. North America has cheap and clean gas. Asia doubles down on cheap coal. And Europe has the European Green Deal.

What are the objectives of European Energy and Environmental policy?

Europe wants to go carbon-free until 2050. This would mean that all sources of CO_2 emissions would need to be discontinued. This plan will produce very discernable impacts on the daily lives of Europeans.

Europe is one of the 3 naturally dominant economic blocs of the planet. Its fate will impact even those on the outside, in positive as well as negative ways.

Europe also competes with the other economic powers. Its competitiveness will impact its own economic fortunes and as a result those of its population to a very large degree. Especially so for economies primarily oriented towards exports such as Germany. A successful and developed economy needs many ingredients. Affordable energy looms very large on that list. But, the different sources of energy don't co-exist on a level playing field.

What a big, developed nation or economic block needs is stable, reliable, on-demand energy. The energy that will do what it is supposed to do at the moment when it's needed. Not when the forces of nature will give it to us. Yet, wind and solar energy, the two poster-children of the renewable energy movement, are unable to do any of this. By their very nature, they are intermittent as they depend on weather and

time of day or year. Wind and solar energy are more comparable to a pouty child, that will never do what we need them to do.

Any energy system that relies mostly on those inputs constantly has two challenges on its hand:

- fill the gaps that the intermittency of those sources creates with backup energy generation and storage;
- get rid of power overproduction that results in renewable energy assets producing energy when no one needs it;

Unsurprisingly, all this comes in very expensive. We have become very proficient in hiding those costs from anyone. Regardless, the economic performance of the whole continent will have to absorb it. A small child thinks that the problem of the broken vase goes away by hiding the pieces. European policymakers hide the consequences of the mismatch between production and demand like a child. They know it won't go away but they hope the subterfuge will hold during their term in office.

Meanwhile, it continues to fester in the background sapping precious competitive juices the economy would need. When I say the consequences are being hidden from our eyes, I really mean the cost. And we have become very inventive when doing so. The most insidious tool has been throwing free grid services at unreliable energy.

As long as renewables, electric vehicles, and hydrogen represented no more than an infinitesimal piece of the market. The might of conventional energy was capable of yanking it along. And it could do so at comparatively little cost.

Now, unreliable energy becomes a significant share in the total energy market. The pain factor hidden within them now becomes too much to bear by the legacy energy system and hence obvious. Thence, the effect of those gimmicks wears off ever faster. Now we need to spend real money to bring infrastructure up to speed. We need to pay the price of enabling the injection of massive amounts of unreliable energy. The true costs become apparent.

And to add insult to injury, Europe also embarks on a frantic Electric Vehicle and gydrogen transformation. Policymakers profess that they believe the resulting technology push will make Europe prosperous again. But not one of those technologies is mature enough to make it a competitive option for anything. As soon as the subsidies end, they shrivel away. As they have always done when the free money from politicians dried up.

And subsidies must necessarily dry up when the economies become uncompetitive. When the money printing ends, politicians will have to take care of restless populations. And those populations won't be assuaged with balmy words anymore. There will be a choice – throwing money at virtue signaling projects or using it to smooth over social misery.

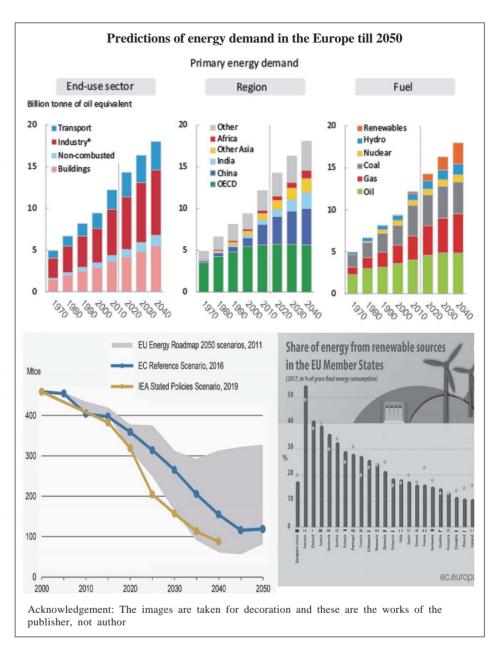
In the short run, politicians come back to Natural Gas and even coal to ensure that cities don't go dark. This defeats the very objectives set out in the European Green Deal. But worry not – politicians are quick to remind us that those stopgaps are just temporary and that everything will be fine. We would just have to trust them.

And thats exactly where things start to fail. Because there is very little trust when it comes to

politicians solving our problems. People are very jaded from experience. And their lives have turned significantly worse over the last years.

Some smart politicians have recognized this swell of discontent. They start to push for policies that limit or even stop the energy transition. We are not talking about fringe parties anymore. Even representatives of a few ruling parties have admitted so in personal conversations. When the Covid shock wears off, this will be the defining issue of European policies.

Don't count on the European Green Deal to be cast in stone. It was made by mere humans – and it can be undone by them. Expect a few European nations to wiggle out of the European Green Deal at first. A string of upcoming elections



will show us how fast this will proceed. Evermore extreme demands from green groups help foster a climate of rejection among the mainstream. Politicians - true to their form - will turn around on their heels as soon as they recognize that their careers and fortunes go down if they stick to ever more extreme green policies.

Saving the environment is an important issue but destroyed economies where people look at a bleak future tend to produce worse than only some CO_2 emissions. Most of Europe is not ready for this. When that happens, Europe will have destroyed much of its coal and nuclear capacity. A fast replacement will be needed and nothing is faster up and running than natural gas. In a sense, the green policies of Europe made it more dependent on natural gas.

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