



Denmark in slow motion

There is something rotten in the State of Denmark.

Shakespeare's famous quote from Hamlet, written in 1601, is as relevant today as it was back then. "Nature is bankrupt" declared Shakespeare in Sonnet 67 at a time when people increasingly started worrying about polluted waters.

This very much reflects the current state of Danish aquifer.

We are paying the price for nature's bankruptcy today: Danish aquifer has been a slow motion disaster. It took several years before we the Danes realised that our aquifer is threatened by pollution from the sins of the past. By the time we discovered it, the first damage had been done, and the outlook was at least 50 years of increasing pollution.

"Aquifer is not simply a gift from nature. It is the result of generations of interaction with the earth."

The pollution we find in the aquifer is not from Shakespeare's time, however much of the water we drink fell when Shakespeare appeared. We have been examining the water for years. The simple explanation is that seepage from ground to aquifer takes time. Depending on the type of soil seepage time varies, however 50 years of seepage time is a good rule of thumb. Consequently, this means that we continuously discover new contamination resulting from what we did 50 years ago. For example, recently we have found that sewage sludge spread on fields has added residues of epilepsy medication to the aquifer.

In today's Denmark, the realisation is spreading that we will need to purify aquifer to have enough drinking water in the future. Also, we will need to build more modern waterworks. The consequence is that drinking water substantially will increase in price in the years ahead.

Water is the cathedrals of our time. When cathedrals were built, construction began in one generation and was only completed several generations later. That gave the cathedrals their grandeur and their sense of divine. The respect that cathedrals have commanded through time is the respect we must have for water. Some of the water we drink today fell 1,000 years ago while the cathedrals were being constructed. Some fell in Shakespeare's days. And some fell recently. Aquifer is not simply a gift from nature. It is the result of generations of interaction with the earth.

A power grid in crisis

It has not taken 1,000 years to build the Danish power grid. However, at times it feels like it has taken 1,000 years to understand that electrification requires more grid. When Denmark realised this, the first damage had already been done.

The damage is significant.

The power grid is the network that connects the production of electricity with its consumption. On one side of the grid, solar panels and wind turbines are piling up. They can produce more. However, because the grid is not sufficient, electricity cannot reach the consumers. The consequence is that prices for electricity produced by wind turbines and especially photovoltaics are falling dramatically. That removes any incentive to invest in more wind turbines and photovoltaics and hits some capital interests hard.

EWII is one of the companies affected. This is visible in our annual accounts.

On the other side of the grid are electricity consumers who want to start new businesses, expand existing ones or transition their consumption away



from large CO₂ emitters such as wood, oil and gas to wind and solar.

Those who want to start a business cannot begin without access to electricity. Those who want to expand cannot expand because of insufficient grid capacity. Those who want to serve the planet by switching to climate-friendly solutions cannot do so because of grid limitations.

In modern society, we will not get more cathedrals without a well-functioning power grid. EWII's customers and consumers are affected. The climate is affected. Society grinds to a halt.

We are experiencing a disaster in slow motion.

Already, solutions are there

This description of Denmark in 2026 is more accurate than most people realise. One can choose to

become angry, complain and lament all the miseries the world has produced. Alternatively, one can take a constructive approach and contribute to how we can untie the knot. Contribute to how we can conjure more grid capacity here and now.

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While water moves through soil layers over 50 years, electrons are so fast that when there is a clear path, there is power. Only, we need to find the way.

EWII has worked for several years to create the data basis for having the best possible insight into the load on the grid. That knowledge is valuable because it shows where the needs for expansion and the risks of damage are greatest. Also, it is valuable because it creates awareness that some developments move so quickly that it is physically impossible to build the grid at the required pace. In that occurrence, it is good to be able to use other tools.

The fact is that the power grid historically has been built on a principle of abundance. Simply, there had to be plenty of capacity available. Society must never come to a halt because of lack of access to electricity.

This makes very good sense. However, also it means that we have plenty of grid capacity available. The problem right now is not the amount of grid capacity. It is the simultaneity of the times when we want to consume and produce electricity that is the problem. This is why consumption flexibility – i.e., flexibility regarding when electricity is used – and production flexibility – i.e., flexibility regarding when electricity is supplied to the grid – never have been more important.

Does that sound complicated? It really isn't.

The electric car simply needs to be told that there are times when it should avoid consuming – and other preferred times when it should consume. Wind turbines and photovoltaics can store their production throughout the day in batteries, which then deliver electricity to the grid when there is demand and capacity in the grid. These solutions already exist. There are many more. We simply do not talk about them.

In a Denmark in slow motion, there is much we do not talk about. Instead, there is a great deal we dream about without acknowledging that the world is moving on.

While the grid is overburdened, politicians and experts have been busy dreaming and creating visions of everything we do not have. Green hydrogen, small nuclear reactors, energy islands, CO₂ capture plants, etc. These dreams have been created without regard for what is happening in the rest of the world. Whereas green hydrogen is absurdly expensive, white (naturally occurring underground) hydrogen has been found and is available at substantially lower cost. Small modular reactors (SMR) may be a charming idea, but still the technology is 15–20 years away from being ready for use at bigger scale. Many electric alternatives to high-temperature heat now exist, making CO₂ capture unnecessary. For the heating of households, electric alternatives have been there for years now. On-shore wind and photovoltaics already are competitive without incomprehensibly large amounts of state subsidy. In these years where CO₂ emissions are slowly destroying the planet, our primary “renewable” energy source should not be the highly CO₂-emitting wood combustion as the case is. The fact that we pretend in the statistics that it does not emit CO₂ does not



change the real-life fact that wood combustion adds CO₂ to the atmosphere.

My criticism is well-founded, but not entirely fair when it comes to the energy islands. While on the one hand it is sheer madness to throw state money at a more expensive form of energy, the world has changed in terms of security policy. Not only Denmark, but all of Europe needs to free itself from both the USA and Russia. This requires us to become energy self-sufficient and stop importing gas, wood and oil from the USA. Energy islands are an alternative for those who do not want or are unable to produce energy on land. However, why Denmark should pay for this and destroy a well-functioning onshore wind and photovoltaics sector is incomprehensible and unnecessary. The problems we experience on land are about better utilisation of the grid and a lack of flexibility in consumption times.

Even today, there is something rotten in the State of Denmark.

This remains true for our aquifer. The good news, though, is that still nature has services to offer. Be it wind, solar or underground hydrogen.

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