EGEC Summer Statement 2020

Is past prologue? A review of the first half of 2020 and what it means for EU energy and climate policy

This is the first in a series of annual perspectives on the orientation and effectiveness of EU energy and climate policy.

Crisis, what crisis?

It feels like a decade was wrapped up in the first half of the 2020.

The first semester has seen a haltering of the global economy. The COVID-19 pandemic combined with melting Siberian permafrost and heatwaves in the Arctic Circle continue to reshape our lives. They are both part of the same systemic problem - the inability for our energy systems and economic models to operate within finite planetary boundaries. This has to change immediately. There are only two optimal actions to address this – the first is to stop putting CO2e into the atmosphere from the energy system, which still accounts for 75% of the EU's climate pollution. The second is to accelerate the energy transition to renewable heating, cooling and electricity with local jobs creation and economic development. This is a long way from the policy noise surrounding the EU Green Deal.

Covid-19 highlighted the importance of a resilient energy system and that conventional definitions of infrastructure are no longer relevant. Confinement to homes meant that households became part of the EU’s energy infrastructure. The Commission’s inability to include the changed paradigms during its consultation on energy systems and Trans-European Networks for Energy indicates that it is still shackled to solving the past than preparing for the future.

In the last mandate, there was clear recognition that the energy system needed transformative change to solve the climate crisis. The Junker mandate championed the Energy Union.¹ The narrative was transparent and appropriate – putting consumers at the heart of energy market; improving security of supply; enhancing efforts on research & innovation, strengthening energy efficiency and renewable energy targets as well as making the EU the global leader in renewable energy. The Energy Union was a very powerful concept bringing together all the different streams of the EU energy and climate policy. Legislation did not live up to this mantra. In fact, both renewables and energy efficiency targets firstly proposed by the Commission were replaced by much higher targets by governments, EC and MEPs.

The Climate and Energy package for 2030, adopted in 2019, was supposed to have set in stone targets to address the climate crisis. With each passing moment, it becomes clear that these targets were insufficient to deliver zero-carbon by or before 2050. The 2019 UN Emission Gap report stated that at least 7.6% emission reductions per year are required from now on to give humanity a reasonable chance to avoiding the worse of the coming climatic, social, economic and environmental catastrophes. This was the challenge thrown down to the Commission and the EU Green Deal. It was and is vital that all policy initiatives issued by the Commission undergo a climate ‘scrutiny’ to see if they fit into a Paris Agreement-compliant world.

The 'climate parliament', which declared a climate emergency in its first sitting after the May 2019 European Parliamentary elections and the new Von der Leyen Commission knew from the outset that they need to deliver transformative change within their mandates.

**Running with your eyes closed**

The Commission launched its Climate Law proposal with much fanfare but the decision to delay the increased 2030 targets was the first indication that something was brewing. Whilst it is important to fix the EU’s 2050 zero-carbon target, it is essential to prepare the EU to attain this target which meant an early change to the 2030 framework. After all, time is important. We don’t have much time so every second really does count.

This may be due to the fact that this mandate is less about meeting the climate target and more about protecting some interests. Executive Vice-President constantly stresses that there is a role for fossil gas. Instead it should ensure that the remaining investment cycle introduces clean technologies that are already available yet locked out by direct and indirect fossil-fuel subsidies. Even at the launch of the Energy System Integration Communication he talked about the need to transition from coal to gas rather than coal to renewable heating and electricity. The former locks these countries into a high-cost high-carbon pathway, impacting EU citizens’ health, the environment and clean air, whilst the latter is not only the most cost-effective solution it is best at addressing the socio-economic aspects of energy transition through targeted investments in local communities and regions.

The European Parliament has also had a difficult time. Its Own Initiative Reports on Energy Storage and Energy Efficiency in buildings are a sign that the new cohort of MEPs really have grasped the scale of the challenge and the need for radical interventions to make up for lost time on a plethora of short, medium and long-term electricity and thermal storage as well as the need for transformative change in the energy systems used in buildings. Disappointing votes on the 4th Projects of Common Interest List and the Just Transition Fund highlight, much to its detriment, that the climate parliament needs to live up to the challenges we face.

**The primacy of silver bullets**

The EU Green Deal has to deliver better than the Energy Union. The Climate Law is central to it but without a clear focus on the increased penetration of energy efficiency to cut out energy waste and renewables to displace fossils, 2050 becomes a distant dream. Instead of an informed conversation about the required renewable and energy efficiency targets, enabling conditions to ensure delivery and problems with the models used to assess different scenarios, the airways were gobbled up by simplified silver bullet solutions which sought to postpone and divert attention from the urgent need to decarbonise heating, electricity and cooling.

The recognition by the EC\(^2\) that a one-size-fits-all approach is impossible in the EU, is an important element, as the starting point is so diverse in the national energy mix.

The upcoming EC Communication on the Renovation wave must reflect this approach.

More than ever, it is essential to achieve the European internal energy market. This means going beyond the harmful limitations of an internal market for electricity and one for gas. Instead, the objective should be to create a resilient, efficient, secure and renewable internal market based on heat and electricity.

This is why EGEC called for the creation of an internal market for Heat. The internal market for gas legislation is the largest indirect fossil fuel subsidy within the EU. It continues to distort dialogue on meeting climate

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targets as well as speeding up the energy transition. This is why the TEN-E framework continues to be one of the largest fossil fuel subsidies for system costs and importantly, ignores the role of indigenous renewable heat basins and reservoirs.

The hydrogen hype and Clean Hydrogen Alliance are different this time around. The original High Level Group on Hydrogen established in 2002 by the Commission President Romano Prodi failed to deliver. The danger now is that hydrogen focuses on amortising existing gas infrastructures rather than supporting electrolysis, and disturbing the internal energy market. Considerable public subsidies could be given to fossil gas infrastructure to allow about 10% blended hydrogen rather than going into baseload renewable electricity from geothermal, Concentrated Solar Power and ocean energy solutions combined with other RES. Moreover, this renewable energy capacity must be in addition to that needed for power sector decarbonisation.

Originally, the Commission was looking into Smart Sector Integration. However, the increased inclusion of fossil fuels at the expense of increased usage of electricity and heat sector turned this initiative into merely Energy System Integration. There is time for Council and the Parliament to reinsert aspects that would make this 'smart' again.

**Built to win**

Energy efficiency and renewable energy continue to face institutional discrimination. The EU’s Long Term Strategy needs to be urgently reassessed to finally be able to forecast the whole energy sector. This includes recognising that 50% of the EU’s final energy demand comes from heating & cooling.

The PRIMES model’s obvious limitations need to be acknowledged to avoid the false impression that this is the perfect model to draw out decarbonisation pathways. It isn’t. Distortions in heat appliances, discount rates, technology learning, costs reductions, non-energy benefits have dogged it for over a decade. It has also led to many policy blind alleys.

Solutions that decarbonise, provide additional revenue streams and tackle key socio-economic solutions must be prioritised. The RES allow a “made in Europe” manufacturing and production of the electricity and h&c supply with local RES such as geothermal. Geothermal can supply power and heat, thermal storage but also lithium! The geothermal technologies will then faster the decarbonization with a dedicated strategy.

To decarbonize the transport sector, the energy efficiency first principle must be applied. Electric vehicles are crucial. Even parts of the fossil gas industry recognise its inevitability. British Gas placed an order for 1,000 full battery electric vans on 7 July 2020. This is the largest order from a fleet manager so far in the country and indication of the direction of travel for mobility. Yet the EU remains perilously exposed to lithium imports, which is often mined unsustainably. The race for geothermal lithium, which is sourced sustainably from geothermal plants which meet stringent EU environmental regulations, ensures that EU electric battery manufacturing has access to reliable supplies on its doorstep. Large-scale geothermal energy plants used to decarbonise heat demand in industrial sectors such as chemicals, paper and pulp, and cement, would be able to benefit from this moneymaking trade. Geothermal lithium is the only climate mitigation solution providing an additional revenue stream to decarbonisation.

Renewable energy and energy efficiencies are one of the best policy-driven EU industrial strategy success stories. Renewable energy technologies, business model innovation, even the hydrogen made from renewable electrolysis are part of this success story, part of manufacturing excellence which is “made in Europe”.

**Leaving no one behind**

Energy poverty, which afflicts between 50 and 125 million EU citizens, who are unable to afford adequate heating, must be treated as a priority issue. It occurs due to a mix of energy inefficient buildings and
appliances, high energy expenses and low incomes. But energy poverty is also related to the energy sources used in buildings. Installing renewables systems – such as geothermal heat pumps and geothermal district heating & cooling – could greatly contribute to tackle this serious issue. The reasons are multiple. Renewables technologies for heating and cooling have low operational costs in the long run. They improve air quality and cut pollution coming from fossil sources. They are secure as they do not have to be imported from third countries. They are available all year around. The current focus on installing electric vehicle charging capacity rather than eradicating energy poverty is both misguided and despicable. The Renovation Wave should reflect this aspect.

All this and much more are the reason why 2020 is the start of the geothermal decade.

We hope you enjoy these thoughts and are able to recharge your batteries over summer. Comments and observations are welcome.

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