

Effectively tackling and preventing heatwaves:

Beyond isolated measures, Luxembourg finally needs a coherent and socially oriented climate protection and climate adaptation policy



The unbearable heatwave is leading to increased discussion across Europe – and in Luxembourg too – about the effects of the climate crisis.

It is truly alarming just how ill-prepared our country was for this heatwave. It is difficult to understand why measures to protect against such heatwaves were not taken long ago by the public authorities at all levels.

The fact that even hospitals, schools, retirement and care homes ... were left

virtually helpless in the face of this situation is unacceptable.

At the very latest following the recent hot summers, climate protection policy should have been pursued more consistently, and climate adaptation – that is, adapting to climate change, including, amongst other things, looming water shortages – should have been systematically implemented.

Unfortunately, as is so often the case in Luxembourg, initiatives are certainly being taken in the field of climate protection, but they fall far short of meeting the requirements of a truly effective climate protection policy. The mere fact that, as part of the Google project in Bissen, there are plans to release large quantities of waste heat into the atmosphere rather than using it sensibly for heating purposes speaks volumes about the state of policy in this area in Luxembourg.

As regards climate adaptation, a new version of a climate adaptation strategy, complete with a catalogue of measures, was drawn up during the first few years of this legislative term. Even though this new version certainly includes additional instruments compared to the previous one, the key measures have been known for years ... and are still awaiting implementation. Furthermore, this second version also risks failing to be an effective instrument: insufficiently clarified responsibilities and a lack of deadlines for implementing the individual measures, unclear funding arrangements, and so on: all these shortcomings demonstrate that the necessary energy is not being devoted to implementing the second climate strategy.

If one were to look for something positive in the current situation, it would surely be that everyone is once again being made acutely aware of just how essential it is to take decisive action. We can hope that, in politics and society, climate protection and climate adaptation will finally be given the priority they need in order to protect us humans as well.

We can still mitigate the effects of the climate crisis! To achieve this, politicians and individuals alike must now do everything in their power.

1. Climate protection and climate adaptation must go hand in hand!

However, following the current discussions, one gets the impression that the debates are currently dominated too much by technical, and in some cases piecemeal, adaptations to climate change.

In the short term, it is certainly necessary to do everything possible to mitigate the now unavoidable global warming as much as possible. In this respect, it is also legitimate and important to take specific technical measures, such as installing air-conditioning where it is essential.

However, the absolute primary objective must continue to be to tackle the causes of the climate crisis itself far more consistently and to curb them as effectively as possible.

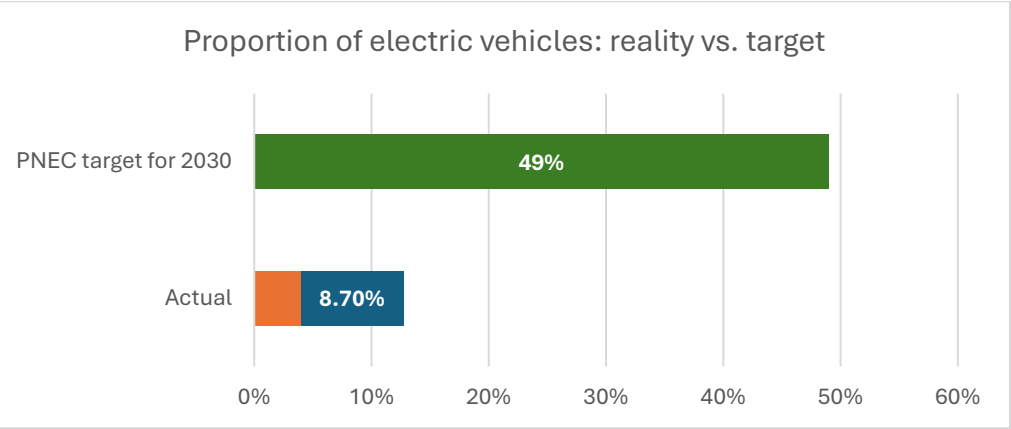
It also continues to feature very prominently among people's concerns and fears. In a recent ILRES survey on the main concerns of people in Luxembourg – which was actually carried out before the heatwave – it ranked third (after the housing crisis and the geopolitical situation, which is entirely understandable).

Climate adaptation without climate protection is like sticking a plaster on a gaping, life-threatening wound. The causes of global warming must be tackled, as this is the only way to limit a further rise that is becoming increasingly problematic . With rising temperatures and extreme weather events, adaptation is becoming ever more complicated and expensive, and ecosystems are also coming under increasing strain.

And in this regard, Luxembourg unfortunately continues to lag far behind its set targets.

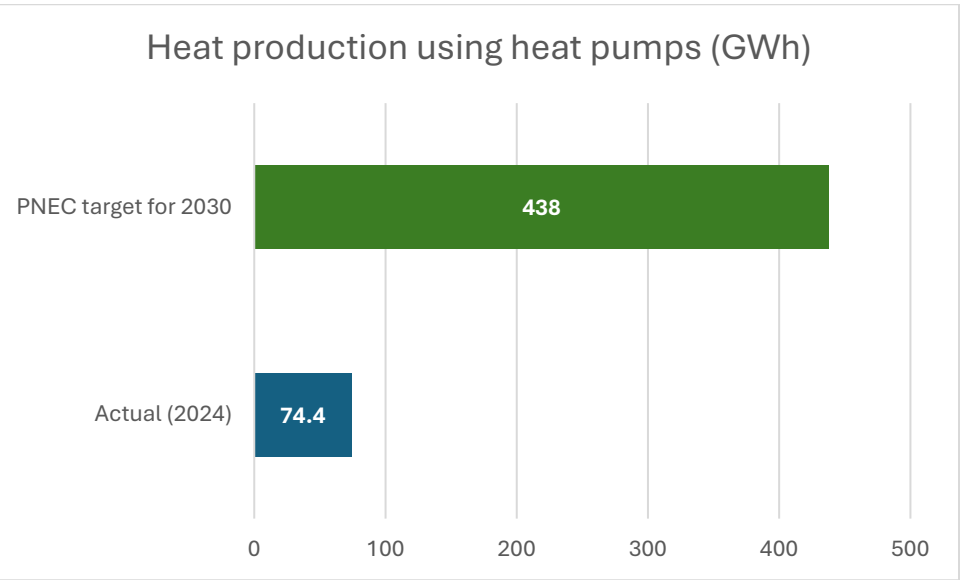
Four facts speak volumes:

Fact 1: The 2030 expansion targets for electric mobility set out in the National Climate and Energy Plan can no longer be achieved:



Caption: According to figures from the SNCA, only 12.7 per cent of Luxembourg’s ‘vehicle fleet’ is currently electric, of which 4 per cent are hybrid (orange) and the rest (blue) are fully electric.

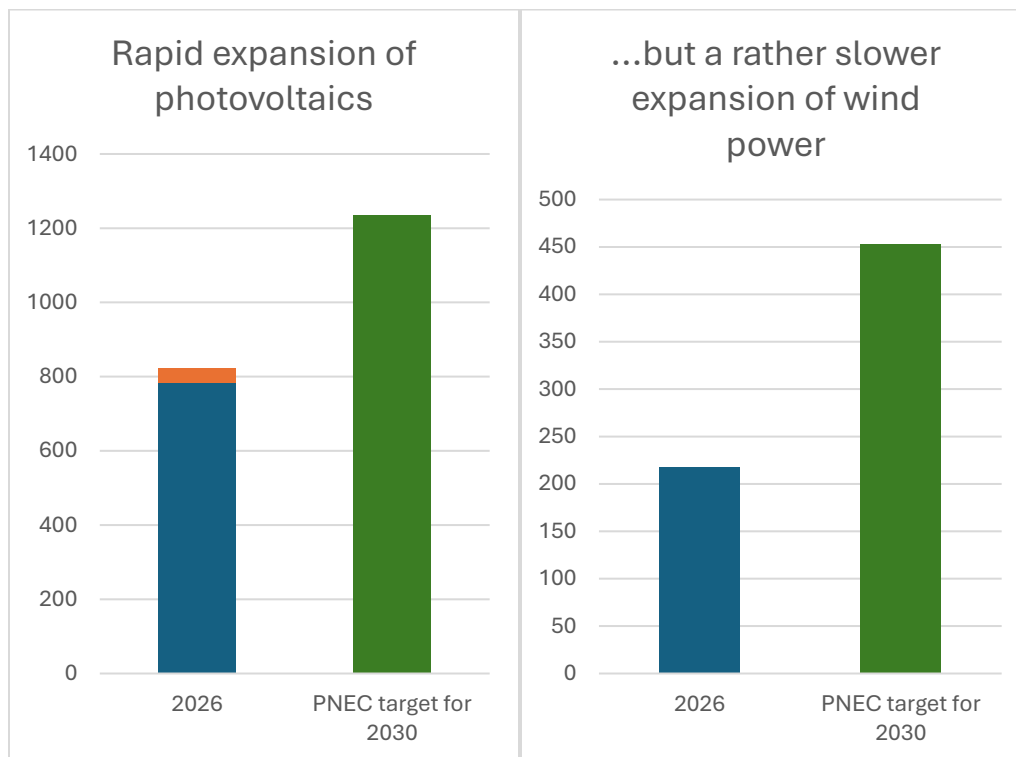
Fact 2: Whilst other countries have concrete scenarios for the energy transition in heating (which accounts for 80 per cent of household energy consumption), both planning and the switch to heat pumps are languishing in Luxembourg.



Caption: According to STATEC’s calculations, heat production from heat pumps would amount to less than 20% of the PNEC’s projections for 2030.

Fact 3: Renovation is not really making headway: the current rate of renovation of residential buildings in Luxembourg, however, is just 0.7 to 1 per cent, which is well below the national target of 3 per cent per year.

Fact 4: The expansion targets for solar energy still appear to be achievable, but those for energy production from wind turbines are now barely within reach:



(Figures in MW)

Caption: The expansion of photovoltaics is progressing: by June 2026, an additional 42 MW of capacity (orange) had been added.

Once again this year, the government must submit **an interim emissions report** by 31 July at the latest. In recent years, the national targets have been narrowly met, thanks in particular to a decline in fuel tourism due to the CO₂ tax, as well as the crisis in the construction sector. However, fuel tourism has already picked up again at the start of the year, and the tripartite decisions – subsidies for diesel and petrol, resulting in particularly low prices even compared with neighbouring countries – are likely to contribute further to ensuring that it does not decrease to the extent required. Falling emission quotas and inadequate measures in structural sectors such as the building sector, as well as the ‘ ’ of ‘smaller’ industry, could further jeopardise compliance with climate targets. This, too, demonstrates the urgent need for action and how important it is to implement effective measures swiftly.

It is therefore essential that Luxembourg tackles the climate crisis far more consistently.

It is this government's responsibility to play its part in shaping the transition of the economy and society at national level in such a way that we fulfil our climate commitments and prevent even more serious consequences than those we are already facing today!

We do not need a policy of what is 'easily achievable', but rather of what is 'necessary'.

After all, there is a huge difference between temperatures rising by 2 degrees and by 4–5 degrees. If temperatures continue to rise unchecked, we as a society will never 'manage' to implement all the necessary technical measures. We will be able to limit the consequences to some extent, but never to the extent required to ensure that a good life for everyone on this planet remains possible.

2. Selective technical measures, yes – but what is needed is a climate-resilient design for our settlements and buildings!

At present, discussions on coping with the heat include, amongst other things, 'cooling islands in schools', additional air-conditioning systems and so on. These are, in other words, tools that attempt to improve the situation in specific areas through individual measures.

As important as such initiatives are for making the heat at least somewhat more bearable, it is equally well known that we will only make real progress if we rethink and fundamentally redesign the way we build, live and coexist. What is needed is a holistic approach that brings together all relevant planning aspects.

For the design of cities and towns focused on people's quality of life and biodiversity – a forward-looking approach to urbanism.

Even though there are green spaces in some parts of all towns and villages, public spaces are still dominated too much by sealed surfaces and car-friendly design!

The result is overheating in our towns and villages, a decline in biodiversity, and problems with water management ('too much' water at certain times – that is, heavy rainfall and flooding – as well as extreme drought at others). In many cases, streets and squares are far from being places where people can socialise.

In recent years, this situation has increasingly come to the attention of both the public and politicians. It is therefore high time to refocus planning – both for existing areas and new neighbourhoods – on people.

Only a consistent redesign of our towns and villages will enable us to protect the people living there from heatwaves, improve the quality of life and social interaction, and promote the conservation of biodiversity. This is essential for the future – because when it's hot, every degree

counts, and water retention and infiltration protect against flooding and are vital for preserving green spaces in our towns and villages.

This is not primarily about parks, but rather about footpaths and squares that are heavily used on a daily basis, where shade makes a big difference to residents and could greatly improve their quality of life.

A faster and more systematic redesign and greening of residential areas must be driven forward:

- Every local authority needs a **coherent green space strategy** – that is, a **plan** for how, where and when more green spaces can be created to adapt to climate change, improve quality of life (particularly in towns and cities) and counteract the loss of biodiversity: **Integrated planning at (inter-)municipal level** – going beyond priority measures for heat islands that are limited in scope – requires a comprehensive package of measures: extensive de-sealing, the greening of public spaces and streets, the greening of façades and roof surfaces, including in the private sector, and so on. In addition, areas where fresh and cool air is generated should be preserved or, if insufficiently available, created.
- In this context, **water management** at local level will take on greater importance in the future: the integration of **‘blue-green’ infrastructure** at neighbourhood level can lead to microclimatic improvements through evaporation effects and also serve to water plants and trees during periods of low rainfall (the ‘sponge city’ principle); this also includes the prevention of flooding caused by heavy rainfall.
- **In addition, swift and effective concrete measures** must be taken **in the short term**, such as the planting and maintenance of healthy, site-appropriate urban trees; the establishment of guidelines, including for greening within activity zones; and far more consistent support and advice for private households wishing to take action on their own property,
- The **implementation** by the Ministry of the Interior **of national building regulations** that promote the energy transition, greening and rainwater management is an essential component for the future;
- The **reform of the Nature Conservation Act** must therefore not be carried out as planned, as it would lead to a further loss of green spaces in local communities.

To ensure these green spaces can be effective in the (near) future, when heatwaves become even more frequent, they must be created now!

A similarly consistent shift in thinking is required in the field of building policy: guidelines on greening, support for measures such as green facades and green roofs, the orientation of buildings to counteract overheating; external shading for windows; better insulation and options for passive cooling using heat pumps ... are key concepts in this context.

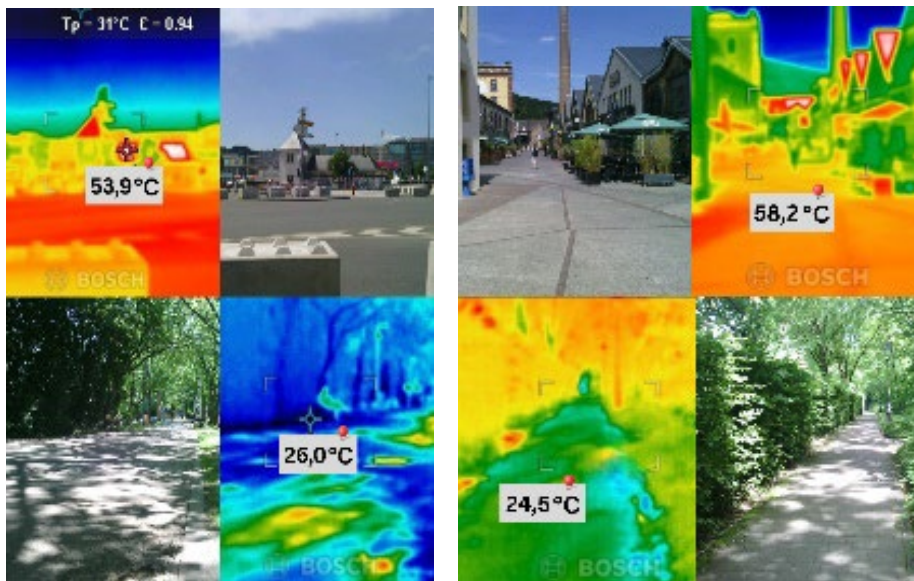
All these measures (which have, in fact, been known for some time) must be reflected in a legal and regulatory framework, targeted funding programmes, guidelines and advisory services.

The 3-30-300 rule for green cities

3 trees visible from every house

30 per cent tree cover in every neighbourhood

300 metres to the nearest park or larger green space



At the start of the heatwave, Mouvement Ecologique visited several locations in Luxembourg City using a thermal imaging camera. This technology clearly demonstrates just how much concrete and tarmac heat up, and how, in contrast, shaded greenery can help to reduce these temperatures.

Conclusions

As Minister of State Luc Frieden said in his State of the Nation address:

“* Do we want to enjoy the sun in summer, or suffer through a heatwave?

** Do we want a normal daily life, or extreme weather?*

** Do we want fresh air, clean water and healthy forests?”*

His answer was:

“For the government, the priorities are clear: we want to protect the environment and tackle climate change.”

Anyone who harbours this desire must finally implement genuine policies on climate protection, energy, climate adaptation and biodiversity. We are currently still a long way from that. We need to ‘turn the ship around’ and finally ‘get down to brass tacks’.

We must move away from a ‘don’t bother us’ and ‘pragmatic’ approach towards a structured, scientifically sound, effective, targeted and socially responsible policy, for which the necessary funding is also available.

Mouvement Ecologique asbl, 6, rue Vauban, L-2663 Luxembourg, tel: 439030-1, meco@oeko.lu , meco.lu