Strategic Outlook for the Netherlands: Climate Agreement

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By 2030, the Netherlands aims to reduce its greenhouse gas emissions by 49% compared to 1990 levels. More than a hundred Dutch parties (a mixture of government, businesses, and NGO's) have jointly worked on a cohesive set of proposals which are laid down in the national Climate Agreement. For the built environment sector, it means that roughly 1.5 million existing homes and 1 million utility buildings will have to be made more sustainable by 2030. With the present phasing-out of natural gas policy, a big role is foreseen for heat pumping technologies. A large number of commitments have been set or are being announced to make all of this possible.

National Climate agreement

The main goal of the National Climate Agreement of the Netherlands (see links at the end of the article) is to achieve a 49% reduction in national greenhouse gas emissions by 2030, compared to 1990 levels. The consultations on how to achieve this target took place within five sector platforms (Built environment, Mobility, Industry, Agriculture and land use and Electricity) and issues that affect multiple sectors (innovation, labour, finance, and spatial planning). Each sector platform was assigned a sector-specific target regarding the reduction in Mton CO_2-equivalent emissions, which would have to be realised by 2030 (48.7 Mton in total).

Built environment

In order to achieve the emissions reduction target for 2030 of 3.4 Mt worth of cuts in the built environment, the main focus is to increase the pace of sustainability efforts to over 50,000 existing homes per year by 2021, and by 2030 this should have accelerated to 200,000 homes per year. A structured approach has been selected, tackling one district at a time. The municipalities play a crucial role in this regard by drawing up a transition vision for heat in consultation with stakeholders and end-users by the end of 2021, in which they will establish the timetable for a step-by-step approach to phasing out natural gas. The potential alternative energy infrastructures (all-electric, heat, green or possibly hydrogen gas in the future) will be set out for districts planned for transition ahead of 2030, and municipal authorities will provide insight into the social costs and benefits and the integral costs for the end-users.

The preferred solutions may vary from one district to another. If the area has been densely developed, contains many high-rise buildings or has homes that were built before 1995, then a district heating grid could be the most suitable solution. If the area contains new homes set out in a spacious district, then an all-electric solution may be better. For many districts, the natural gas network will remain in place beyond 2030 and may even be used for green gas. Insulating and burning less gas, sustainable or otherwise, with a boiler in combination with a hybrid heat pump might offer a sensible temporary solution. However, the condition of the homes is not the only relevant factor; the wishes of the residents in the district, other than energy supply, will equally determine the pace and the outcome. Housing associations also play an important role in making their homes more sustainable, and to connect them to a different heating supply than natural gas in the years to come, under the condition that the monthly costs for rent and energy bills do not rise.

A large number of commitments have already been made and are required to enable all of this: commitments on how significant cost reductions can be achieved with the construction of heating grids, the fitting of insulation solutions, or the installation of heat pumps. Commitments on an amendment of the energy tax, which would involve lower taxation of the commodity we need more of – electricity – and higher taxation of the commodity we want to use less – natural gas. Commitments regarding more renewable heating from the ground beneath our feet, or from the large bodies of surface water in the Netherlands. Commitments regarding an opportunity for all home buyers to insulate their homes, if renovation work anyway is taking place, with attractive loan conditions. These commitments have been laid down in the Climate Agreement. They form an integrated approach between the sectors, to achieve the 2030 target, and to realise the vision for 2050.

The built environment sector platform has proposed a phased and pragmatic approach that, on the one hand, will seek to achieve a good head-start and, on the other, will develop the conditions and requirements for the scale-up and roll-out of measures for the future. Regarding homes, an approach of incentivisation and district-oriented management has been opted for. At an individual level, building owners can also be offered incentives to make their properties more sustainable. This approach will be successful if the sustainability efforts can be recouped through tenants' lower energy bills. Numerous innovations and significant cost savings will be required in order to fund these investments and make them affordable by means of energy savings and cost reduction. To this end, Test Beds for Natural Gas-Free

Districts (Proeftuinen Aardgasvrije Wijken) and an innovation programme have been launched, which will allow us to experiment systematically, to learn, and to move forward with cost-effective up-scaling and implementation beyond the current government's term of office.

The development of heating devices that do not use gas (or do so to a lower extent) is in full swing. A Mission-Driven Innovation Programme (MMIP) focuses on technical and socio-economic innovation for the rapid growth of sustainable heating systems. The objective is to improve existing types of devices and systems (available <5 years), the development of new concepts (available >5 years) and corresponding services. Further, the Programme is intended to promote user interest and enthusiasm regarding scope, comfort (noise, thermal), integration capacity and affordability (housing costs). The innovations will primarily be focused on applicability in existing inhabited situations, a lower overall cost at the systems level, and acceleration towards natural gas-free solutions. Providing access to new sustainable heating and cooling sources and thermal storage is required to meet the sharply growing demand for sustainable heat.

A large number of commitments are required to make this possible. The following mix of pricing and subsidy instruments have already been set or are being announced:

- ISDE subsidy scheme (small-scale heat pumps), 100 million euros/year;
- Landlord charge, 100 million euros/year discount ;
- Energy Investment Allowance for landlords, 50 million euros/year from 2020 to 2023;
- The neighbourhood approach and the renovation accelerator from the climate budget funds, 100 million euros/year up to 2021 and 70 million euros/year from 2020, respectively;
- Non-revolving heat fund for private property owners, 50 to 80 million euros/year;
- Multi-year Mission-driven Innovation Programme (built environment), > 40 million euros;
- Changes will be made to the energy tax to provide a stronger incentive to improve sustainability, by ensuring that investments in sustainability are recouped within a shorter time period. The government has opted for the budget-neutral version, which will see the energy tax rate for the first bracket for natural gas increase by 4 cents per m^3 in 2020 and +1 cent per m^3 during the following six years. Households benefit more from this change than businesses.
- 300 000 euro - Green deal education installers heat pumps (education centers).

Conclusions

EHPA statistics already show that the Netherlands belong to the top three countries in Europe in heat pump sales growth. At the same time there are concerns about the affordability and quality of installation (noise, comfort) of the heat pumps. With the proposed balanced package of commitments from the Dutch Climate agreement innovative consortia are invited to come up with affordable and robust solutions. The projects (referred to as "Annexes") within the framework of the IEA Technology Collaboration Programme (TCP) network are very useful in this perspective and will be even more so in coming years.

Links

[1] https://www.government.nl/documents/parliamentary-documents/2019/06/28/letter-to-the-house-of-representatives-about-the-proposal-for-a-national-climate-agreement

[2] https://www.government.nl/topics/climate-change/climate-policy

[3] https://www.bakermckenzie.com/en/insight/publications/2019/07/highlights-of-the-dutch-climate-agreement

Table 1: Emission reduction targets by 2030, per sector.

Sector	Indicative CO_2-equivalents reduction target by 2030. Mton.
Industry	14.3
Transport	7.3
Buildings	3.4
Electricity	20.2
Agriculture & Land-use	3.5
Total	48.7

Fig. 1: Dutch Minister of Economic Affairs and Climate Policy Eric Wiebes (left) receives the Dutch Climate agreement report, specifying CO_2 targets per sector.

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