EDORA, ODE and BOP's Feedback on the

Belgian National Energy and Climate Plan (NECP)

March 27, 2019

Preliminary remarks:

- This constitutes the contribution of the Belgian renewable energy federations (hereafter: BREF) ODE (Flanders), EDORA (Wallonia and Brussels) and BOP (Belgian offshore platform) to the draft Belgian NECP published on December 31, 2018.
- The messages of this contribution are common for the three federations. More specific contributions to the regional plans will be delivered later separately to Flanders, Wallonia and Brussels.
- This contribution is based on the objectives and content of the Clean energy package for all Europeans. No specific consideration is made about the sufficiency of European climate, RES and Energy efficiency targets with respect to the Paris agreement. BREF has already questioned the European renewable energy target for 2030 as insufficient to comply with the Paris climate agreement.

1. Structure of the plan and procedure

Belgium has published its National Energy and Climate Plan together with 9 attachments which add more details to the plans and policy measures of the different regions. In order to be more coherent and complete, the main measures and details should be added into the general plan.

In general, there should be more transparency on the whole timeline and procedure. Even though there have been negotiations and consultations on different plans that have in one way or another contributed to the draft NECP, the different steps towards the NECP should be clearer.

At federal level there is the "Federal Energy- and Climate plan", the "Interfederal Energy pact" and the "Federal Energy Strategy" (p. 10-11). Currently it is not clear how these plans are linked to each other. In order to get clarity on this, more explanation on the federal energy and climate plan is needed.

The plan lists a series of regional cooperation agreements. The content of some these agreements such as the pentalateral forum and Talanoa dialogue remains very vague and general. Instead of only indicating that "topics were identified for further cooperation", it should be added what exactly these topics are and what type of cooperation will take place.

2. Renewable energy targets

The NECP claims (p. 44) that the potential for renewable energy in Belgium is limited in comparison to other EU countries referring only to one study at EU level. According to the EU impact assessment for the RED II from November 20161 and the hypotheses of the considered model, the Belgian contribution to an overall EU RES target of min 27 % could be in the range 16-19% of the gross final Belgian energy consumption. Since the agreed EU RES target increased to 32%, these shares per member states should be adapted. According to the Ecofys study with national benchmarks for a more ambitious EU 2030 renewables target2, Belgium should set a target between 22,5 and 27,2% to achieve the EU wide target of 32% RES shares.3 Belgium should therefore adapt its overall RES target to at least 25% of final energy consumption.

We regret that there are no annual trajectories mentioned in the draft NECP, nor globally, nor per technology. This must be improved for the final NECP, at least for the intermediate years mentioned in the European package (2020, 2023, 2025, 2027, 2030). This is particularly important in the context of the short-term security of supply challenge Belgium is facing with the nuclear phasing-out by 2025. In addition, the offshore wind sector needs a guarantee of timely grid connection for the new capacity of offshore wind energy in order to be able to deploy the new carbon neutral capacity in line with the nuclear exit as foreseen in the 2003 Act.

The ambition for renewable heat in 2030 is too weak: 12,7% of RES heat consumption, whereas the level in 2015 was already 7,8%. This low level of ambition is difficult to understand, as the NECP rightly mentions the fact that renewable heat is most of the time a very cost-effective option in the energy transition, combining it with energy efficiency. It is also weak in comparison with the ambition level in renewable transport which seems relatively high with 20,6% in 2030 (14% biofuels + 6,6% electric vehicles), whereas the level in 2015 was merely 3,8%. The NECP doesn't give any explanation or economic assessment of these sub-targets.

As for renewable electricity, the sub-target of 40,4% in 2030 is a step in the good direction towards a fully renewable energy mix on the longer term, starting from 15,5% in 2015. We think this target could be further improved to 50% by increasing the ambition for PV from 500 MW/year to 1.000 MW/year, and for wind on-shore from 150 MW/year to 250 MW/year (or in production equivalent). We understand the political willingness to decrease the use of biomass only for power, but a substitution plan towards efficient cogeneration of biomass and use of sustainable biomass for heat is missing. The target of 4 GW for total wind offshore capacity should be accelerated, since the deployment of minimum 1.700 MW new offshore capacity by 2024 is feasible and will ease the low carbon transition towards a non-nuclear power system. BREF would also like that the NECP clarifies the impact of the electrification of the economy (with sector coupling) in the current assumption of a 3% decrease of electricity consumption by 2030.

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[1] Commission Staff working document, impact assessment accompanying the proposal for a Directive on the promotion of the use of energy from renewable sources, p. 172 https://eur-lex.europa.eu/resource.html?uri=cellar:1bdc63bd-b7e9-11e6-9e3c-01aa75ed71a1.0001.02/DOC_2&format=PDF

[2] Ecofys study, national benchmarks for a more ambitious EU 2030 renewables target https://www.bee-ev.de/fileadmin/Publikationen/Positionspapiere_Stellungnahmen/Englisch_Website/National_benchmarks_for_a_more_ambitious_EU_2030_renewables_target_21Jun2017.pdf

[3] According tot he Ecofys studie, the Belgian target should be 22,5% RES share in gross final energy demand to reach an EU wide target of 30% RES in 2030. To reach an EU wide target of 35% RES in 2030, Belgium should set a target of 27,2% RES.

3. Renewable energy measures

The NEPC does not provide any commitment nor timeframe for a carbon tax, despite the comprehensive study made by the FPS Environment and the conclusions of the National debate on carbon pricing which give enough information about the feasibility and the process. We ask for a rapid implementation of a socially fair carbon tax in the framework of a general tax shift which applies the 'the polluter pays' principle by, i.a. eliminating uncompetitive subsidies to fossil fuels, while providing the necessary flanking measures for energy renovation and the prevention of energy poverty. This measure will ease the need for further support schemes of renewable energy, especially in the heating and transport sectors.

The NECP is not clear about the desired level of energy dependency until 2030, nor about the necessity to build new interconnections above those already launched by Elia (allowing for 6.500 MW cumulative import capacity). As explained in the NECP, Belgium is already a highly connected country (both for electricity and gas). BREF estimates that any new investments in additional interconnections should be supported by a clear cost and benefit analysis. Investments must be in priority directed to adapting existing grids (both at TSO as at DSO level) in Belgium and storage and flexibility measures. We refer to our comprehensive point of view about the Elia development plan 2020-2030 (see websites EDORA, ODE and BOP).

The key support mechanism for renewable electricity remains the green certificates system for the three regions in Belgium. We appreciate the continuation of the existing schemes, giving investors visibility and confidence in the future of the support systems in the present regulatory context. As renewable energy federations, we think that these support systems could be gradually improved in parallel with the following policies:

1. Effective phasing out of must-run power units and nuclear power by 2025 in Belgium and coal power in the neighboring countries in order to increase the investment confidence in renewable installations;
2. Avoiding any undue subsidy for natural gas fired power stations, and making any eventual capacity support mechanism for energy security complementary with renewable energy generation.

PV and wind developments are essential pillars for the achievement of renewable electricity (and energy) targets. The NECP correctly recognizes this, but the plan lacks ambitious measures in both sectors to exploit their full potential at the lowest cost. Hereafter are our main demands:

1. Strengthen the legal and juridical certainty for new on-shore wind developments, especially providing closed deadlines of max 1 year in case of appeal to the Council of State;
2. Create extra-spaces for wind developments, by releasing some installation constraints and creating more opportunities for projects in agricultural area (including revision of distance calculation rules to residential areas and individual houses and of environment criteria) and easing unnecessary aeronautical restrictions;
3. Develop a robust legal framework and a timely grid connection for the new capacity of offshore wind energy;
4. Make rapid use of the new directive opportunities concerning energy sharing (renewable energy communities) and providing PV deployment on the roofs of multi-apartments buildings;

5. Consider a specific framework for non-roof PV systems, which can deliver multi-MW PV sites;
6. Introduce clear system flexibility measures (see chapter hereafter)

The measures for green heat are not sufficient in the NECP. To develop substantially green heat in Belgium we recommend the following overarching measures:

1. A substantial shift in the tax burden from electricity to natural gas and fuel oil: charges and levies should support the energy transition and not slow it down[4]. By shifting the burden from electricity to natural gas and fuel oil, renewable heat will be valued more correctly and fossil fuels will be discouraged.
2. A clear rollout calendar in favor of sustainable heating applications, starting in 2021 with a progressive phase out for oil boilers installation and leading to exclusive sales and placement of sustainable alternatives by 2030. There is no room for fossil fuels in a sustainable heating system. To enable the complete conversion from fossil sources to green heat, there is a need for detailed heat zoning plans and heat policy plans, in all municipalities by 2025.
3. Extend the obligation of a minimum renewable energy share in new buildings to all regions (at present time, only Flanders[5]). Exploit the largest potential for green heat and heat pumps in the renovation market; at the notary handover of a residential buildings, make a compulsary implementation of the best proposed measures of the audit within 5 years, combining energy efficiency measures with only renewable heating options.
4. Adapting the primary energy factor: the actual primary energy factor of 2.5 no longer reflects the reality of electricity production in Belgium. We propose to apply the new European reference of 2.1, so that heating based on electricity will be evaluated in a more correct proportion in EPB compared to heating based on fossil fuels. For heat networks[6], the current fixed primary energy factor penalizes the inclusion of some renewable energy technologies as a source of heat networks. Therefore, a differentiated primary energy factor per heat source based on the European standards per source (up to 0.5) would be the ideal solution.

As for renewable transport the focus of the NECP seems to be on the promotion of biofuels (first and second generation). We ask for a better consideration of biogas and renewable electric vehicles (see also 'system flexibility' measures hereafter), with clear sub-targets and support measures which are not sufficient or absent in the NECP (although a good step forward is proposed by the Walloon region creating a quota system for biogas). The renewable transport target is also depending on the overall energy efficiency of transport, including spatial planning policy and modal shift. We support the measures proposed therefore in the NECP, but question their efficiency to reach the targets of about -25% GHG compared to 2005. A narrower focus should also be made on vans and heavy vehicles for freight transport, whose number is foreseen to explode in Belgium. The NECP lacks concrete measures

4 More than 70% of the electricity price consists of distribution and transmission grid tariffs, taxes and VAT. For natural gas this is only 47%. In the case of heating oil, the private individual pays as little as 25% in taxes and duties. According to the "polluter pays" principle, this distribution should be reversed.
5 In 2016, a heat pump was installed in 20% of the new residential buildings thanks to this obligation.
6 A recent study of the European Heat Road Map Europe 46 project calculates for 2050 a share for heat networks for Belgium of at least 37% of the heat demand in buildings (residential and non-residential, excluding industrial heat demand, see p. 25). The economically viable share is estimated at 54%. S. Paardekooper, Heat Roadmap Belgium; Quantifying the Impact of Low-Carbon Heating and Cooling Roadmaps, Aalborg Universitet, 2018, http://vbn.aau.dk/files/287929422/Country_Roadmap_Belgium_20181005.pdf

to mitigate the climate impact of this growth: the role of bio-CNG and green hydrogen for transport should be clearly defined for this purpose.

4. System Flexibility

The NECP does not contain a quantified target for system flexibility nor concrete measures to increase system flexibility. The current draft NECP only indicates that system flexibility is important and that the federal government and the regions will unlock the needed potential for system flexibility. (p. 45, 49-50-51) Targets and measures for system flexibility should be developed specifically concerning[7]:

- Demand response: volumes of DSR currently delivered and objectives for increasing DSR measures should be added. The NECP mentions that the MIG6 and Atrias will allow demand response. But the plan still mentions that the new clearing house and market communication standard should be operative in April 2020. According to our sources, this deadline will certainly not be met. The NECP should adapt this and add a clear and realistic date for implementation as soon as possible.
- Self-consumption: volumes of self-consumption per kind of clients and targets and measures for increasing self-consumption in each of these groups should be added. The NECP mentions only very vaguely that prosumers in the future will be able to inject their own production into the grid at peak moments to add to grid stability. This plan should be developed in detail by explaining how this will be enabled and by when.
- Heating: objectives should be added for developing flexibility and system efficiency from cleaner heating systems including supporting measures, also the number of heat pumps ready for demand side flexibility and dynamic pricing should be mentioned in the NECP.
- Smart grids: a clear timeline for the roll out of smart meters is mentioned for Flanders but should be added for Wallonia and Brussels. In addition, objectives and measures should be developed to seize the opportunities created by the smart meter: consumers and prosumers should be able to participate in the energy system in a user-friendly way, prosumers should be rewarded for flexibility. Objectives for improving grid smartness should also be developed in this framework.
- Storage: the NECP indicates that a regulatory framework will be developed to implement individual storage or at district level and that "there is attention for" large scale storage. These ideas are too vague and should be developed into detail including supporting measures such as incentive tariff structures and other financially based incentives. The measures should be accompanied by clear objectives and a clear timeframe. Next to specific future targets, a clear strategy should be added for the installed capacity of energy storage resources connected to the electricity grid and volumes delivered to all relevant markets per type of technologies.
- Transport: objectives are lacking for developing vehicles to grid flexibility including supporting measures. The number of electric vehicles and recharging stations and the availability of network tariff structures that incentivize smart charging should also be added to the NECP.

[7] Based on the letter of a group of EU energy associations to the European Commission "addressing demand-side flexibility and system efficiency in the national energy and climate plans"