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Consultation response: European Commission's proposal on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem – Net Zero Industry Act COM(2023)161

Executive Summary

Northvolt is positive to the ambitions of the proposal: The EU's net-zero transition will require secure access to technologies powering resilient future energy systems, including battery cells, batteries and and battery systems. Securing significant parts of this new market within the EU means contributing to the security of supply of energy, sustainable production and economic growth and public security.

Northvolt supports streamlining administrative and permit-granting processes as an important part of enabling green investments and the transition to a more sustainable society in the timeframe necessary. The criteria for recognizing net-zero strategic projects ought to be clearer and recognize, without the need for formal application under NZIA, the manufacturing projects benefitting from funding under the Temporary Crisis and Transition Framework's section 2.8. Furthermore, Northvolt strongly supports the ambition to enhance skills in the NZI sectors, as neither these nor other industrial sectors will enable the climate transition without the necessary workforce.

The proposal does not mention EU-level funding, however for the strengthening of net-zero industry manufacturing capacity of the nascent battery industry in the EU, public finance is key to de-risk and accelerate private investment decisions along the entire value chain. In view of support schemes in other regions, urgent rebalancing measures are needed at pan-EU level, for example through the foreseen EU Sovereignty Fund.

Comments

Northvolt AB is a Swedish producer of lithium-ion batteries for electric vehicles, industry and energy storage systems. Northvolt's business concept is to develop and mass-produce the world's greenest lithium-ion battery with a minimal carbon footprint, and as part of this, Northvolt also conducts recycling

of lithium batteries. The company currently has over 4000 employees and operations in Västerås, Skellefteå, Stockholm, Solna and Gdansk, as part of an expanding presence in Europe.

General comments

The EU's transition to a climate neutral economy will require secure access to technologies which will power resilient future energy systems, including batteries and other. Securing significant parts of this new market within the EU means contributing to the security of supply of energy, sustainable production and economic growth and public security. Considering the rising energy and input costs faced by the European battery industry, the heavy investments and support measures rolled out in other world regions to strengthen their production capabilities, and the risk of too heavy dependencies and supply chain disruptions, Northvolt supports the Net Zero Industry Act's (NZIA) ambition of strengthening the European manufacturing capacity of net-zero technologies such as batteries. Batteries have a high technology readiness level, contribute significantly to decarbonization across industries, are commercially available with a good potential for rapid scale up, and the buildup of EU manufacturing capacity mitigates security of supply risks. Therefore, any focus on net-zero industry technologies such as battery technologies in the short term will benefit European competitiveness and growth by extension, through technological and industrial resilience. In addition, any focus on improved administrative and permit granting procedures for net-zero industries will also mean that such improvements can later be of benefit to the full system and thereby all industries in a second step.

For the strengthening of net-zero industry manufacturing capacity of the nascent battery industry in the EU, the availability of public finance is key to de-risk and accelerate private investment decisions along the entire value chain. In view of support schemes in other regions, urgent rebalancing measures are needed at pan-EU level, for example through the foreseen EU Sovereignty Fund. Early de-risking through public finance would substantially shorten the timelines for the set-up of strategic European battery projects. Article 19's considerations relating to sustainability and resilience contributions of the net-zero technologies could also be used for EU-level funding for the net-zero industry, either through adding an NZI fund to the NZIA, or with the upcoming EU Sovereignty Fund becoming the vehicle for NZI funding. Dedicated EU-level funding will significantly improve predictability for the NZI as well as improve the functioning of the internal market, in comparison with the current only tool for new battery manufacturing investments being state aid under section 2.8 of the Temporary Crisis and Transition Framework.

To increase NZI manufacturing capacity, there needs to be regulatory coherence, so that NZIA ambitions are also supported through other legislative objectives, and regulatory certainty is provided based on the EU Green Deal climate neutrality objective. For fast deployment of NZI technologies, the NZIA needs to also be swiftly agreed and implemented.

Specific comments

Chapter I – Subject matter, scope and definitions: based on Annex I listing in point 3 "Battery/storage technologies", we interpret that the full supply chain is meant, but strongly suggest that that this be clarified in either Article 3 (1) on definitions or in Annex I. Battery/storage technologies should mean all of the manufacturing activities ranging from battery cathode and anode active material production, through battery electrode manufacturing, battery cell assembly, to battery module and pack assembly, including for final battery packs for energy storage systems, for electric vehicles as well as for other applications such as industrial, aviation or light means of transport. We interpret that the raw materials supply chain, including processed materials and recycling of batteries, fall under the scope of the Critical Raw Materials Act (NZIA, Article 2), but clarification is needed on which "components" belong under the CRMA according to that same article, rather than under the NZIA.

Regarding the general objective in Article 1(1), the sector-specific ambition of almost 90% of the Union's battery annual demand, equivalent to an estimate of 550 GWh annually, being met by the Union's battery manufacturers by 2030 ought to be moved from Recital 17 to Article 1(2). This should replace the annual benchmark ambition of 40% for all strategic net-zero technologies listed in Annex I, as a general 40% ambition will be too low for some and too high for others, reducing its validity.

Chapter II – Enabling conditions for net-zero technology manufacturing / Section I – Streamlining administrative and permit-granting processes: with the massive manufacturing of net-zero technology needed for the energy transition, Northvolt supports this proposal as a good step in the right direction. Crucial NZI manufacturing projects need to be prioritized, without compromising on protective measures for human health and the environment, based on the requirement for high-quality application processes. Such prioritization constantly takes place in social planning and climate change. The objective of Section I will however only be reached through a significant increase of human resources and competence development, and as proposed, it is best done while adapting to national best practice.

In general, it is positive with a 'sole point of contact' (Article 4) and Northvolt supports assigning the responsibility of designating one national competent authority for this in the most appropriate way. In the current Swedish model, the municipality has the best knowledge of the planning stage including building permits etc. related to the local environment, also as part of the municipal self-government.

In general, it is positive to limit the time required for the permitting processes to promote a green transition and increased competitiveness, Article 6. At the same time, it is important that environmental standards are upheld, as well as that the local influence and management of legitimate interests, local conditions, and considerations. The proposed timeline of 12/18 months is good, and in practise there are no differences in permitting for facilities with output of less than 1 GW or more, so the timelines could be the same and be split into the phases Zoning/Operation to have a tracking system in place as well. One good example is from Germany where an 'Early Beginning' process exists and could be included here as well. It implies that at a certain point of the process (e.g. after zoning) a possibility is given to start with foundation work/sewer systems etc. but on own accountability (see BImSchG § 8a(1)). This excludes the operational permit, which will follow later.

An idea for an addition is the creation of a special "climate group" connected to the main authority early in the project to shorten the processing lead times and not focus on increasing the amount of complementary information that may be needed during one or more rounds of supplementation.

A successful permitting process is partly based on the public acceptance, which is why a permitting process with enough space for opinions and adaption of solutions needs to be sufficient and not too strictly limited. (Article 7)

Chapter II / Section II – Net-zero strategic projects: the selection criteria in Article 10 need to be clarified further and the application requirements in Article 11 should be made as straight-forward as possible, for example through a simple centralised form that can serve as application:

Annex I technology projects such as battery/storage technology projects (Annex I(3)) can be recognized as net-zero strategic projects without the project promoter having to submit a formal application under Article 11(2) either by fulfilling the criteria of Article 10(3) or 10(4). Projects under the Temporary Crisis and Transition Mechanism's Section 2.8 should also be included under 10(4). In addition, paragraph 10(3) would benefit from further clarification since a project can be in the targeted regions but without there being appropriate NZI funding under cohesion policy rules.

In case of non-fulfilment of Article 10(3) or 10(4), a battery/storage technology project will need to fulfil Article 10(1)(b) and will then also have to submit an application (Article 11(2)). The requirements in Article 11(2) should be made as simple as possible to avoid unnecessary delays for the European manufacturing capacity build-out of net-zero technologies such as batteries. In Article 10(1)(b), the criteria (iii) and (iv) ought also to be further clarified.

Chapter IV – Access to markets: Northvolt supports Article 19's introduction of considerations relating to the sustainability and resilience contributions. Cost considerations in Article 19(4), these should relate to the lifetime *cost* of the net-zero technology rather than the upfront cost, to value best-value technology correctly. These products, unlike automotive applications, typically have a lifetime of more than 20 years, and a significant portion of the total cost of ownership is associated with the performance, as well as cost of maintenance and repair, of the product over time.

Chapter V – Enhancing skills for quality job creation: Northvolt strongly supports the ambition to enhance skills in the NZI sectors, as neither these nor other industrial sectors will enable the climate transition without the necessary workforce. In general, it is essential to have improved coordination between universities and industries on European priorities in view of the major skills enhancements needed for the net-zero transition.

The objective of Article 23(1) might be particularly helpful to start new educational programs or specializations within existing programs, and the seed funding can help these programs through initial years of development and scale-up as it will be difficult for actors to dare to invest otherwise. In addition to new education programs, the educational sector and academies will need support in preparing for the green transition: EU funding could be deployed to support universities in re-creating entire new

syllabuses, where skills related to circularity and digitalisation are fully integrated into all educations. Once that is achieved, specific "net zero" courses can be added for specialisation.

When it comes to learning programs and materials (Article 23(2)), it is important that programs have access to practical equipment such as control systems, robots, etc. to match the equipment as the NZI uses, both for relevance and attractiveness. Here, funding can play an important role also, as many educational actors need to upgrade equipment. Northvolt also strongly supports that the paragraph mentions training trainers, as the other educational objectives will not be reached without them.

While facilitating the transparency of skills (Article 23(3)) is valuable, there are other barriers to cross-border mobility, such as compensation during the period of training, especially for EU citizens who come to Sweden for training but are not eligible for student finance through the Swedish Board of Student Finance (CSN), or strict rules regarding grants for housing during education, for example not applicable for students at upper secondary vocational courses ('yrkesvux').