

Road - Environmental friendly vehicles: The European Commission approves massive state-aid for electric battery production in the EU

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【概要 : Summary】

The EU aims at decarbonising the transport sector, also in order to meet the EU's commitments under the Paris Agreement. The deployment of low- and zero-emission vehicles will have to increase substantially in order to meet the new passenger cars and vans' CO2 emission standards in the post-2020 period. In this regard, electric vehicles can play an important role for achieving a decarbonised mobility. However, the European automobile manufacturers have started late in changing their focus from combustion engine vehicles to electric vehicles (EVs). Accordingly, this has also delayed the decision on how to deal with the problem of European dependence on battery imports. Since batteries are key to the electric mobility uptake, a continuous dependence on battery imports would create long-term competition disadvantages for the European automobile industry. Therefore, the establishment of a strong battery cell production industry is considered being an essential building block for the mass-market development of new electric vehicles and for playing a strategic role in the future development EVs.

Accordingly, the establishment of a strong battery cell research, innovation and production industry in Europe has become a main political target of the European Commission and EU Member States. The

European Commission's support also includes the approval of massive subsidies of EU Member States to establish their own battery production industry. Accordingly, on 9 December 2019, the European Commission approved a total of EUR 3.2 billion in subsidies for several projects to set up a competitive battery production industry in the EU. While usually, the European Commission strictly sanctions state-aid to European companies, this time, the approval is given on the grounds of and in accordance with the EU rules for Important Projects of Common European Interest (IPCEI), in accordance with the new European Commission president's priorities and the new target to reduce CO2 emissions in the EU by at least 50% by 2030, as explained in the Commission president Ursula Von der Leyen's European Green Deal.

【記事 : Article】

1. Measures to setting up a battery producing industry in the EU

In the past years, Europe has gone through the initial adoption phase of electric mobility with the introduction of EVs, although there are still around 95% of automobiles in the EU using fossil fuels. However, the deployment of low- and zero-emission vehicles will have to increase substantially in order to meet the new passenger cars and vans'

future CO₂ emission standards. The European Commission has already set out an agenda for a transition to clean, competitive, and connected mobility in Europe. Besides fuel cell vehicles, based on hydrogen generated by renewable energies, EVs are the only other type of vehicles, which allows for the transition to zero emission mobility. Therefore, since EVs need batteries that allow for a short charging time and long range, the increase of battery cell production in the EU has been identified as one of the key initiatives under the Energy Union Strategy to achieve the zero emission mobility target. While the automobile manufacturers have started to change their production from combustion engine vehicles to EVs at a greater scale, they are still highly dependent on imports of the latest lithium-ion cells and batteries for EVs. The European automobile manufacturers highly depend on battery imports, since currently only about 3% of batteries for electric cars are produced in the EU. This is mainly due to the fact that the European automobile manufacturers have started the production of EVs with a delay of years and this has also delayed the decision on how to deal with the problem of the European dependence on battery imports. However, a continuous dependence on battery imports would create long-term competition disadvantages for European automobile manufacturers. Therefore, the establishment of a strong battery cell production industry in Europe has become a main political target of the European Commission and the EU Member States. They intend to support the automobile industry in its efforts to maintain a leading position in the worldwide automobile market and to diminish the dependencies from battery production industries in Asia and the US. In order to prevent a further dependence on battery production industries outside Europe, it is estimated that Europe will need at least 10 to 20 large-scale battery cell production facilities (“gigafactories”).

2. Legislative instruments and financial support to European battery production initiatives

The launch of the European Battery Alliance is part of the EU’s Strategy of establishing a battery production and taking measures to reducing dependence from battery cell imports. Therefore, the European Commission supports the European Battery Alliance (EBA) and the set up of the Batteries Europe platform as the Batteries “Research and Innovation” (R&I) pillar of the EBA. The EBA’s objective is to set up a competitive manufacturing industry for producing sustainable battery cells of significant size in Europe. On 25 June 2019, the Commission Vice-President for the Energy Union, Maroš Šefčovič, officially launched the European Technology and Innovation Platform (ETIP) on Batteries in order to identify, prioritise and coordinate the main research and innovation needed to build up a significant sustainable battery industry in Europe.

Regarding the legislative instruments, the Electricity Market Design Directive COM (2016) 864 final/2 is a key instrument to enable new market players and increase competition for electricity and energy storage. The electricity Directive and Regulation, which replace Electricity Directive (2009/72/EC) and the Electricity Regulation (EC/714/2009), are aimed at adapting the rules to new market realities. Furthermore, the establishment of the EBA was followed by the presentation of the Strategic Action Plan for Batteries on 17 May 2018 (COM (2018) 293 final) as part of the Europe on the Move III package. The strategic Action Plan for Batteries comprises of a set of measures, encompassing the extraction and processing of raw materials, the design and manufacturing phase of battery cells and battery packs, and their use, second use, recycling and disposal in a circular economy context, as well as regulatory requirements. As part of the action plan on batteries, the Commission announced the formation of interregional partnerships, under a smart specialisation platform

for industrial modernisation on 8 October 2018.

After the launch of the European Battery Alliance, the European Investment Bank (EIB) approved EUR 52.5 million in financing for Swedish battery cell manufacturer Northvolt, in February 2018. On 9 November 2018, the German government announced to have earmarked EUR 1 billion to support a consortium for producing electric car battery cells and plans to fund a research facility to develop next-generation solid-state batteries. Furthermore, the governments of Germany and France agreed in December 2018 on the elaboration of a strategic approach for the future production of battery cells in Europe. The French President Emmanuel Macron announced that France would invest EUR 700 million over the next five years to boost its production of battery cells for electric cars on 13 February 2019. Under the French-German initiative the two factories will be built, one in France and one in Germany, which was approved by the European Commission on 9 December 2019.

In May 2019, the set up of a consortium on battery production was announced by the French and German finance ministers, including an investment of EUR 5-6 billion for the project to force the development of electric car batteries. EUR 4 billion of this investment is expected to come from European private companies, mostly automobile manufacturers and energy firms.

Furthermore, the European Union allows state aid in certain conditions under its rules for “Important Projects of Common European Interest” (IPCEI) also to increase investment in the area of battery production.

3. European Commission approves state-aid to develop car batteries industry

Under the framework of “Important Projects of Common European Interest” (IPCEI), the European Commission has encouraged national governments to increase their investment. Accordingly, France, Germany and other EU Member States have sent a letter of intent to the European Commission to

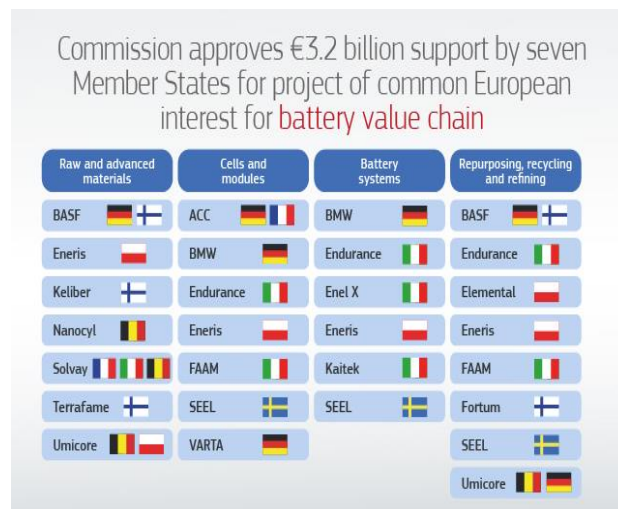
obtain the Commission’s approval for their state subsidies for their battery cell production projects. On 9 December 2019, the European Commission approved EUR 3.2 billion in subsidies of several EU Member States that want to develop the electric battery industry. More precisely, the European Commission’s competition directorate general has decided that the following state aid cases have been granted approval: SA.54809 Summer IPCEI Batteries - Finland, SA.54808 Summer IPCEI Batteries - Poland, SA.54806 Summer IPCEI Batteries - Italy, SA.54801 Summer IPCEI Batteries - Germany, SA.54796 Summer IPCEI Batteries - Sweden, SA.54794 Summer IPCEI Batteries - France - coordinating and SA.54793 Summer IPCEI Batteries - Belgium.

The approximately EUR 3.2 billion in funding is more specifically approved to, Belgium, which has sought approval to grant up to approximately EUR 80 million; Finland, up to approximately EUR 30 million; France, up to approximately EUR 960 million; Germany, up to approximately EUR 1.25 billion; Italy, up to approximately EUR 570 million; Poland, up to approximately EUR 240 million and Sweden, up to approximately EUR 50 million. The project supports the development of highly innovative and sustainable technologies for lithium-ion batteries (liquid electrolyte and solid state) and involves ambitious and risky research and development activities to deliver beyond the state-of-the-art innovation. It includes projects across the batteries value chain, from mining and processing the raw materials, production of advanced chemical materials, the design of battery cells and modules and their integration into smart systems, to the recycling and repurposing of used batteries. In Sweden, France, Germany, Italy and the Czech Republic, battery cells production related consortia have been established, the raw material supply is supported by consortia in Sweden, Finland and Portugal and the chemicals for battery production is organised in cooperation between Belgium and Poland as well as between Germany and Finland. Recycling is considered in Belgium and Germany.

According to the EU Commissioner for competition policy Margrethe Vestager, the battery production in Europe is of strategic interest for the EU's economy and society because of its potential in terms of clean mobility and energy, job creation, sustainability and competitiveness. The emergence of the European battery industry will contribute to the EU's objective of becoming the first carbon-neutral continent by 2050. Since at the moment, about 80% of global battery production takes place in Asia, predominantly China and Europe is lagging behind international competitors in battery production, largely relying on imports, the Commission approved the state-aid plans. The Commissioner for competition policy approved the state aid plans in order to ensure that this important project can go ahead without unduly distorting competition.

The approved state aid will ensure that the IPCEI for setting up a European battery production industry can be realised. In order to qualify for support under the IPCEI Communication, a project has to contribute to strategic EU objectives, involve several Member States, involve private financing by the beneficiaries, generate positive spill-over effects across the EU, and be highly ambitious in terms of research and innovation. It has to go beyond what is regarded as the "state of the art" in the sector concerned. The Commission found that the proposed IPCEI on batteries fulfils all the required conditions. The overall project should be completed by 2031, with differing timelines for each sub-project.

The participants in the project of common European interest for battery value chain



Source: https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6705, 9 December 2019

If the projects turn out to be successful, generating extra net revenues beyond projections, the companies will return the part of the subsidies to the respective Member States. The subsidies will benefit 17 companies in the consortium of the European Battery Alliance. An additional EUR 5 billion in private investment will match public subsidies. The German companies involved in the project include automobile manufacturers BMW and Opel, chemical company BASF, battery maker Varta and the recycling branch of the mineral technology multinational Umicore.

The direct participants will closely cooperate with each other and with over 70 external partners across Europe.

Innovation will also specifically aim at improving the environmental sustainability in all segments of the battery value chain. It aims to reduce the CO2 footprint and the waste generated along the different production processes as well as developing environmentally friendly and sustainable dismantling, recycling and refining in line with circular economy principles.

More specifically, the project participants and their partners will focus on four areas, including raw and advanced materials, cells and modules, battery systems, repurposing, recycling and refining. In parallel to the approval of the subsidies to set up a battery industry in the EU, Commission Vice-

President Maroš Šefčovič pointed out on 9 December 2019 that after the EU has finished its work on environmental standards for batteries it could ban imports of substandard batteries.

4. Conclusion

In the EU, there is a concerted push to achieve European sovereignty in battery cell production, including the establishment of the European Battery Alliance to promote manufacturing, and research and innovation initiatives like “Horizon 2020” and “Battery 2030+”. The institutions involved have announced multi-million euro grants to foster battery production ventures, secure resources, and build mega-factories. However, due to the fact that the European companies involved in the set up of a European battery manufacturing industry will enter a challenging industry environment, in which the lithium-ion battery manufacturing is dominated by Asian players with a share of 89% of global manufacturing capacity, the European projects are entitled to receive subsidies under the IPCEI framework.

The approved state aid will ensure that the Important Projects of Common European Interest can be realised and that public authorities and industries from several Member States can cooperate and invest into ambitious innovation projects with positive spill-over effects across industrial sectors and regions. At the same time, the market entry now will allow the European battery producers to prepare for the upcoming changes in the future lithium-ion battery landscape. While aiming at setting up a battery production in Europe, the experience gained now in catching up with the global battery producers will be an essential lesson for the future developments in the battery producing.

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