A RESILIENT AND COMPETITIVE RENEWABLE ENERGY INDUSTRY IN THE EU

GREEN POWER DENMARK

Green Power Denmark's recommendations for a resilient and competitive renewable energy industry in the EU

The geopolitical tensions between China, the US and the EU have resulted in a greater focus on strategic autonomy, robust value chains, and an ambition to reduce strategic dependencies on certain external suppliers. These developments cause significant challenges to the renewable energy sector in Europe. Within the framework of current industrial, security and energy policies adopted, we must strive to maintain our strongholds within renewables in Europe to stay competitive. As a result, the European industry will have to comply with various EU-regulation including the objectives in Net-Zero Industry Act (NZIA), Foreign Subsidies Regulation (FSR), Carbon Border Adjustment Mechanism (CBAM), Critical Raw Materials Act (CRAM), Network & Information Security Directive 2 (NIS2) and new policy initiatives under the Clean Industrial Deal.

While uncertainty remains prior to implementing this range of new legislation, it will be essential for the European Commission to ensure the right balance between competitiveness, resilience, and security. The main objective is to build a resilient and competitive renewable energy industry in the EU while at the same time allowing global sourcing strategies to avoid project delays and unproportional cost increases. It must be translated into market volume in Europe in a way that leads to economically viable projects for future prosperity and energy security to ensure that the EU retains domestic capabilities and reduces strategic dependencies on external suppliers.

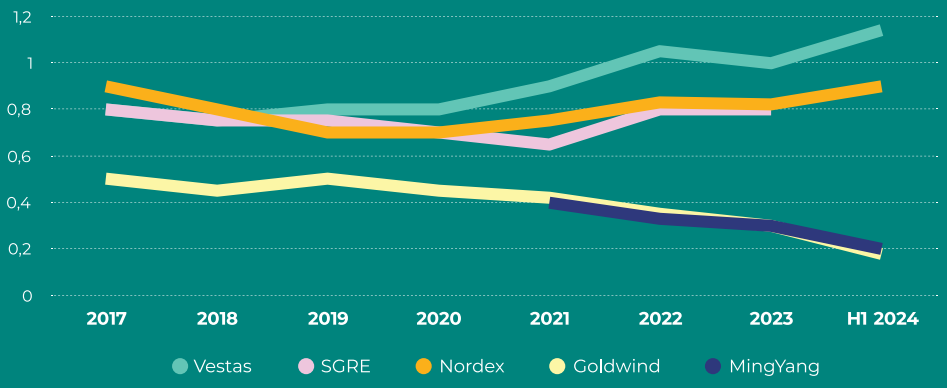
Introduction

Meeting European climate- and energy targets will require a substantial build-out of renewable energy. The EU target of at least 42.5 % of renewables by 2030 will require the installed wind capacity to grow from 204 GW in 2022 to more than 500 GW in 2030[1]. It is estimated that the wind energy sector provides between 240 000 and 300 000 direct and indirect jobs in the EU – and will be providing over 500 000 jobs across Europe by 2030[2].

Being a global frontrunner in energy, Europe is well placed to reap economic, technological, socio-economic, and labour related benefits from the global demand for renewable energy. In combination with a roadmap for energy projects and a robust order outlook, the renewable energy industry in Europe has the potential to remain competitive globally in the long term.

A resilient and competitive renewable energy industry in the EU requires political will and, above all, action. In her inaugural address to the European Parliament, European Commission President Ursula Von der Leyen said that the choices we make over the next five years in the EU will define our position in the world for the next five decades.

Average onshore turbine selling price (ASP) per OEM EUR mn/MW



Source: Wood MacKenzie, wind turbine OEMs financial analysis 2024 H1

1 EUv Wind Power Action Plan: EUR-Lex - 52023DC0669 - EN - EUR-Lex

2 Jobs, nature protection, energy security, local communities, WindEurope. Jobs, nature protection, energy security, local communities – WindEurope Annual Event in Bilbao showcases the 'value of wind' | WindEurope

This means taking action to secure European autonomy within strategic technologies and avoid European dependence on Russian gas being replaced by European overreliance on technology from certain unreliable suppliers.

However, in recent years, global competition within the renewable industry has intensified. As an example, the latest report from the European Commission on state-induced distortions in China's economy states that the wind sector and other renewable industries in China continue to benefit from the distortionary policies that apply horizontally across the Chinese economy[3]. Further, the US has significantly increased state support for renewable technologies with the Inflation Reduction Act (IRA). This is evident in the widening price gap between European and Chinese wind turbine manufacturers (Figure from Wood Mackenzie, H1 2024) and is echoed by WindEurope that estimates Chinese wind turbines are sold up to 50 % below prices on European made turbines[4].

While Europe's focus on a resilient and competitive renewable energy industry is increasing, there is still much to be done for Europe to avoid falling behind globally in the technological and geopolitical race. We have to ensure that we are in control of Europe's energy supply and that our energy consumption is based on renewables. The EU needs to build better incentives to increase demand for European energy technology suppliers and be able to produce both green power and renewable energy technologies in Europe to build resilience and growth.

EU Industrial Policy recommendations from Green Power Denmark

On the backdrop of recent years' geopolitical developments and building on reports from Mario Draghi and Enrico Letta, Green Power Denmark presents its policy recommendations for a resilient and competitive renewable energy industry in the European Union and as input for the European Commission's Clean Industrial Deal.

The following policy recommendations are thematically divided as follows: European financing and investments, implementation of adopted industrial policies, cutting red tape and speeding up permitting, security of energy supply in EU, trade policy and accelerated electrification.

3 European Commission staff working document on significant distortions in the economy of the people's republic of China for the purposes of trade defence investigations, 2024: Register of Commission Documents - SWD(2024)91

4 Wind Europe, April 2023: EU starts investigation into Chinese wind turbines under new Foreign Subsidies Regulation | WindEurope

European funding, financing and investments

A prerequisite for scaling production of net-zero technologies in Europe is substantial build-out of renewable energy projects. Otherwise, no amount of funding and financing will get the industry to scale up. The attractiveness of the American IRA and massive Chinese subsidies has made it difficult to find a common and sufficient European response. The solution will require massive private investment, public support and firm demand to incentivize company investments. To meet the objectives laid out in the Draghi report, a minimum annual additional investment of EUR 750 to 800 billion is needed for the EU to be competitive, based on the latest Commission estimates, corresponding to 4.4-4.7 % of EU GDP in 2023[1].

RECOMMENDATION 1

Prolong the state aid rules under the Temporary Crisis and Transition Framework (TCTF) if pan-European financing solutions are not implemented.

One of the European Commission's most important tasks will be to ensure that the EU avoids an internal state aid race and distortion on the single market. It should be the most competitive renewable energy projects or projects of strategic importance that are awarded support. The European Commission is encouraged to propose an ambitious Competitiveness Fund which should promote the most competitive projects in Europe.

1 Mario Draghi, The Future of European Competitiveness, p. 59. (Draghi report: ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en)

However, it may be necessary to extend the state aid rules under the TCTF beyond the 31st of December 2025 if an agreement cannot be reached on pan-European financing solutions. If this is the case, Article 2.8 of the TCTF (scope of technologies eligible for state aid) should be expanded so that funds can be more broadly linked to the net-zero technologies in the NZIA.

Finally, the less developed regions in the EU could be encouraged to make use of the Structural Funds to finance competitive renewable energy projects or production facilities for technologies of strategic importance as defined in NZIA.

RECOMMENDATION 2

Revision of state aid rules focusing on strategically important sectors.

State aid is currently necessary to keep the EU competitive in the global technological race. Therefore, state aid rules should be revised to better support strategic sectors such as renewable energy and technologies that are in line with the net-zero technologies and thus crucial for EU competitiveness and security of energy supply. The revision may also involve a greater focus on support for operations and not just on construction, deployment and expansion of facilities as well as raising the level of support to be more competitive with the support levels in the IRA.

RECOMMENDATION 3

The European Investment Bank should reduce financial risks in renewable energy projects.

The European Investment Bank (EIB) and/or national export credit facilities (ECAs) should offer financial (counter) guarantees to creditors as an instrument to lower the cost of capital, attract private capital, and reduce uncertainty about the business case for investments in renewable energy projects, including covering technology risk. The EIB or national banks can provide guarantees to enable lending in the absence of sufficient credit ratings. For example, the EIB initiative (EUR 5 billion) to improve access to finance for wind turbine manufacturers and grid investments, providing them with the support they need to help boost Europe's energy security and competitiveness, should be replicated and expanded.

RECOMMENDATION 4

A joint EU guarantee credit facility for major investments in renewables.

The EU should use the EU budget to help guarantee investments in, for example, renewable energy infrastructure projects. This will attract private investors and channel private funds into the projects. The EU budget should be leveraged to remove some of the risk from private investors when they enter the projects. The initiative can take inspiration from Denmark's Export and Investment Fund (EIFO) which supports export activities directly with guarantees that reduce investment risks for private actors.

RECOMMENDATION 5

Improve and strengthen the EU Innovation Fund to continue substantial support for the renewable energy industry to scale-up.

This includes keeping separate calls for renewable energy tech manufacturing and rewarding projects that contribute to resilience of the renewable energy industry in Europe. The Innovation Fund design should also be further improved to better support renewable technologies manufacturing (including new supply chain capability developments) and energy efficiency technology on the demand side. E.g., The Hydrogen Bank should continue to support RFNBO-compliant hydrogen and hydrogen-based fuels and should have an increased budget for future rounds.

However, naturally, the industry would not move ahead with manufacturing and sale of its main products if its business case were negative. Therefore, manufacturing projects have no 'cost gap' and this is not an optimal basis for determining grant eligibility. Instead, public funding rates should be determined as a certain percentage of the private investment. The European Commission should allow for cumulation of national state aid and EU Innovation Fund support to a larger extent than present.

Implementation of adopted industrial policies in EU

The implementation of the Net-Zero Industry Act (NZIA) will strengthen the EU's renewable energy industry with a production capacity target of at least 40% of the Union's annual deployment needs to reach the 2030 climate and energy targets. While it is positive that the NZIA has been adopted to strengthen the strategically important technologies in the EU, it requires a simple and standardized implementation by the European Commission and national authorities to ensure continued development of the renewable energy industry in Europe. However, when considering limiting imports on specific components and materials, it is essential to have a clear and realistic plan for developing alternative supply routes.

RECOMMENDATION 1

A standardized EU approach to the resilience criterion[1] under NZIA articles 25 and 26 is paramount.

This entails a similar list of components, realistic implementation practices, and similar methods for tracking dependencies and for assessing compliance across member states. Up to 27 different member states' sets of rules will increase

1 When applying the resilience criterion, public authorities should take into account that the supply should at least be deemed insufficiently diversified where more than 50 % of the demand within the Union for a specific net-zero technology or for its main specific components originates from a single third country. (NZIA Regulation Regulation - EU - 2024/1735 - EN - EUR-Lex).

administrative burdens, transaction costs, and challenge the viability of the European supply chain for net-zero technologies. This is the opposite of what needs to be done to quickly ramp up the manufacturing capacity in Europe. We must avoid separate interpretations of the resilience criteria by member states.

RECOMMENDATION 2

Improve, simplify and create consistency in the design of energy projects.

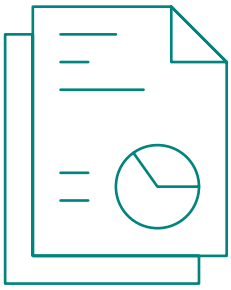
Implementation of the Net-Zero Industry Act should translate into actionable pre-qualification and non-price award criteria in a way that is aligned across EU markets. Non-price criteria in energy projects should be technology-specific, quantifiable and objective. Guidance from the Commission – designed in close collaboration with industry – will be essential to help Member States define and apply clear, transparent and comparable criteria that are easy to implement and measure. E.g., robust cybersecurity prequalification criteria, such as the NIS2 Directive, are essential to protect the integrity and security of energy infrastructure.

RECOMMENDATION 3

Clarification on the assessment of the resilience criteria.

It is still unclear how the resilience criteria will be assessed – and therefore unclear how it can affect companies' actual sourcing strategies. When it comes to restrictions on individual components, it must be taken into account that for instance in offshore wind: 1) A winning bid is awarded up to 10 years ahead of project realization, 2) The firm order to the OEM is placed about 2 years ahead of project realization, and 3) The OEM places firm orders to own manufacturing facilities or external suppliers some months up to weeks ahead of delivery.

If the production of a component would furthermore be concentrated in one country, alternative suppliers won't get enough orders in time to justify expansion of existing or creation of new facilities as no industry invests in production without having sufficiently filled order books and a robust long-term demand outlook. The European Commission should carefully consider how import restrictions are applied in the best possible way for the renewable energy industry - and how the resilience criterion should be interpreted. Companies need flexibility to make sourcing decisions shortly before the construction phase, to adapt to external changes, such as interest rates or geopolitical circumstances. Import restrictions on specific products should be combined with support and investments e.g., if the EU want to have a % of a given product or component coming from EU Member States or other reliable sources, they need to support setting up the required supply chain roadmap.



Cutting red tape and speeding up permitting

Bureaucratic processes and complex schemes when applying for EU funding are some of the key causes why the EU is currently losing momentum in net-zero technologies. This undermines Europe's competitiveness against China and the US. When filing a European funding application, a company was asked to fill out over 250 pages detailing, among other things, their communication strategy. In the US, the same company only had to fill out a 36 page-application[1]. Europe needs to cut red tape to stay competitive.

RECOMMENDATION 1

Reduce complex application processes and administrative burdens when applying for EU funding.

Inspiration should, to the extent possible, be sought from the IRA to design EU funding programs that are less administratively burdensome. Application for funding in the EU is challenged by fragmented processes between different types of funding schemes, complex application forms, and restrictive conditions for the applier to be eligible. Revised application processes, application forms, and eligibility criteria should also seek inspiration from the existing European Hydrogen Bank Auction. The European Commission should take urgent action to:

a. reduce the complexity of application forms,

b. simplify the EU Innovation Fund Relevant Costs Calculation methodology,

c. design and align the application review phase to enable applicants' better opportunities for planning submissions according to maturity levels of key projects for the different instruments under EU Innovation Fund – especially 'Pilots' and 'Manufacturing',

1 Børsen, februar 2024: "EU-bureaukrati koster os grønne arbejdspladser og vækst"

d. support Member States in proposal screening, and

e. improve the EU Innovation Fund design and award process to reduce the time from application to award.

RECOMMENDATION 2

Simplification, standardization and strengthening of CBAM across the EU is essential given the complexity of the system and to stay competitive.

The Carbon Border Adjustment Mechanism (CBAM) imposes a heavy administrative burden in terms of reporting and calculating product-level carbon footprints for companies and their suppliers. It should be simplified and standardized across the EU to reduce the administrative burden and ensure clear application of the regulation.

Furthermore, the Commission must enact CBAM to ensure European companies remain competitive and the regulation does not cause harmful supply chain disruptions. In this regard, **it is essential that the European Commission thoroughly assess readiness to move to full CBAM implementation before the end of the transition period, carry out a comprehensive impact assessment together with impacted industries to identify the real impact of CBAM on European manufacturers' competitiveness** (including their imports) and if found damaging, postpone transposition of the regulation rather than expand the scope to downstream products.

However, CBAM's focus on certain products and sectors may lead to a significant competitive disadvantage for EU produced goods that contain a high proportion of CBAM-covered raw materials. For example, grid technologies, particularly power cables, are a particular case in point, as they contain up to 80 percent of CBAM-covered raw materials, in this case aluminium components. Thus, there is a risk that CBAM inhabits a significant competitive disadvantage. The European Commission needs to propose amendments to CBAM where an evaluation has proven significant unintended competitive disadvantages vis a vis non-EU renewable energy manufacturers to avoid that the mechanism incentivizes production of renewable technologies and its components outside of Europe.

The default values set for CO_2 emissions under CBAM should be retained beyond the transition period rather than demanding the actual emissions of companies and their suppliers, as it is difficult for companies to calculate the actual value of CO_2 emissions without available data from 3rd country suppliers. Finally, the de minimis value threshold for consignments should be increased so that small import consignments remain outside the scope of CBAM and monitor the reliability, integrity and affordability of CBAM-related services offered by private providers e.g. auditors.

Security of energy infrastructure in Europe

Energy policy is also foreign and security policy. The Russian war of aggression in Ukraine and the energy crisis in Europe has highlighted the need to put energy at the heart of European security priorities, including ensuring control of critical infrastructure, defense against cyber threats and foiling sabotage attempts that can threaten European security of supply and public order. Digitalization of the energy sector is also increasing the sector's vulnerability. An effective monitoring by national authorities and the European Commission, and practical and risk-based NIS2 implementation will be critical for the security of supply. In Europe, we need to be in control of our energy supply and critical infrastructure.

RECOMMENDATION 1

Mandatory implementation and enforcement of the Foreign Direct Investment (FDI) screening mechanism in all member states.

This will ensure harmonization and prevent those EU countries that do not have a screening mechanism from acting as a gateway to the European market. The minimum harmonization includes expanding the scope of investments to be screened to include wind energy infrastructure (including cables) and turbine suppliers, clarity on the screening procedure's essential features and assessment criteria, and defined interaction between the national mechanism and the proposed Union cooperation mechanism.

RECOMMENDATION 2

Involve energy- and defence industry actors when discussing technical requirements on the security of critical energy infrastructure.

While militarizing critical energy infrastructure should be avoided, commercial actors could play a key role in enhancing the synergies between the energy sector and the security and defense sector. Currently, a lack of legislation, requirements, and frameworks hamper a serious dialogue between commercial actors and relevant authorities. Such a discussion must be initiated by governments and commercial stakeholders. We recommend discussing these issues in the North Seas Energy Cooperation (NSEC) and/or the newly established WindEurope Defence Task Force to prepare recommendations for an action plan to guide future policies, strategies, legislation and good practices for critical energy infrastructure protection. This could help manage and deliver contributions to programs and projects through a network of stakeholders and decision-making frameworks in Europe (e.g. defence and CEI sectors, government officials and other stakeholders).

RECOMMENDATION 3

Swift implementation of the revised Gas Directive to accelerate infrastructure buildout for renewable energy.

Achieving the objectives of the REPowerEU to reduce the dependence of Russian fossil fuels will require a faster switch from fossil fuels to renewable energy. A swift implementation of the revised Gas Directive will lead to clarity on regulation for TSO's and users of energy infrastructure. At the same time, acceleration zones for renewable energy and its supporting infrastructure should be applied in Member States' infrastructure planning, including for hydrogen.

Trade policy

The European Commission is responsible for EU trade relations and trade agreements with countries outside the EU. It is essential that the European Commission strikes the right balance in massively boosting European manufacturing capacity and ensuring a level playing field while at the same time maintaining global sourcing opportunities for the industrial supply chain and project developers. Trade policy will be critical in combining companies' competitiveness, ensuring robust supply chains, and mitigating state-subsidized competition. Trade policy must be based on careful and data-based case-by-case studies rather than on general positions.

RECOMMENDATION 1

Active enforcement and strengthening of the Foreign Subsidies Regulation (FSR).

The European Commission should, in collaboration with the industry and national authorities, use the Foreign Subsidies Regulation to ensure a level playing field with third countries and their companies that operate or intend to operate in the European market. The European Commission should make active use of FSR investigations if it is suspected that an applicant or tenderer may have received foreign subsidies in an economic activity in the EU - including the option to start investigations on its own (ex officio investigations).

We encourage the European Commission to strengthen FSR to ensure thresholds for investigations are equal to state aid control of EU companies, so that European companies do not have a higher risk of being subject to a state aid investigation than third country companies, which are subject to an FSR investigation.

Finally, FSR processes in public procurements should be shortened from 8-12 months to 3-4 months. In the current market conditions, commitment periods of more than 3-4 months are not durable for e.g., wind turbines.

RECOMMENDATION 2

Align trade defence instruments with the EU's overall industrial policy priorities.

Trade barriers and other protectionist measures should, when possible, be avoided. However, global trade is challenged by more and more protectionism and state aid. It's important the European Commission monitor this development and, if needed, use trade defensive instruments to protect European companies and combat imports of dumped price products and products benefitting from distorting state aid.

The European Commission and Member States should pay particular attention to products in the strategically important sectors defined in NZIA that will help ensure the green transition in Europe and create long-term security of supply. The EU Commission's enforcement of trade defence instruments and focus on strategic autonomy supports European energy and technology independence, thus maintaining the ability to quickly respond to market disruptions.

RECOMMENDATION 3

Set realistic targets for diversifying imports of solar, wind and electrolysis technology.

Ensuring diversification of supply chains will be consistent with the objectives of both the Net-Zero Industry Act and the Critical Raw Materials Act. These targets could focus on a few raw materials and products within the technologies where there is significant dependence on third countries and where the EU supply is highly concentrated. These should be assessed and aligned with the European Commission's market assessment of global supply chains of net-zero technologies and state which technologies are resilient. The targets should be balanced with an availability and cost analysis by the European Commission showing the economic impact of diversification on European industry. Too strict and far-reaching diversification targets risk hampering the development of renewable energy in Europe and in some cases increase the cost of the energy transition. A diversifying target should be combined with support and investments e.g., if the EU want to have a % of a given product or component coming from EU Member States or other reliable sources, they need to support setting up the required supply chain in mining and processing.

RECOMMENDATION 4

Use the EU's International Procurement Instrument (IPI) when European companies are restricted access to public procurement tenders in third countries.

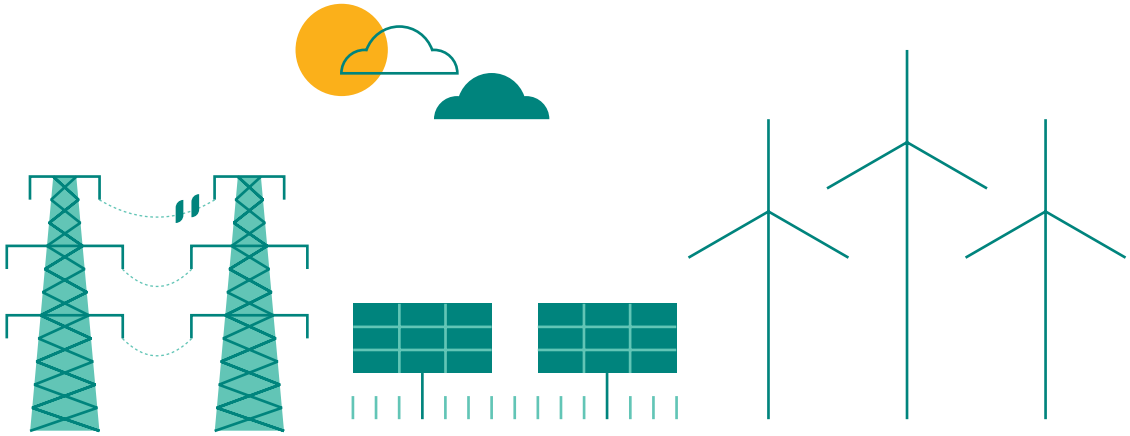
If there are substantiated allegations from EU industry of restricted access to goods and services related to energy in a third country for public procurement, the Commission can launch an IPI investigation to open this market to EU entities through discussions with the third country concerned. IPI also allows the EU to restrict access to the internal market for public procurement by imposing reciprocal IPI measures if the above consultation does not lead to market opening of the third country market.

RECOMMENDATION 5

Invest in recycling technologies, foster strategic partnerships, and build open trade relations.

Net-zero technologies rely heavily on critical raw materials such as some rare earth elements, aluminium, and steel, which are vital for manufacturing turbines and generators, or copper for key components such as cables. Open trade and strategic partnerships will be key to cut the dependency on external sources and strengthen the resilience of Europe's renewable energy sector.

Enable accelerated electrification



While electrification of the final energy use in the EU is increasing, the pace of this transition is inadequate to meet EU decarbonization targets. Of particular importance is the electrification of industrial processes which has stagnated around 33 % since 2010[1]. Increased electrification is the best way to ensure firmness of demand which improves the business case for renewable energy projects in Europe. Combined with the efforts retaining EU domestic capabilities and reducing strategic dependencies on certain external suppliers, accelerated electrification will be pivotal for the European renewable energy industry.

1 EurElectric - Electrification Action Plan Final p. 5 (electrification-action-plan-final.pdf)

RECOMMENDATION 1

Ensure a level playing field between levies on electricity and levies on fossil fuels.

It is important that national taxes are not counterproductive to climate objectives. To streamline tax polices across Europe, Member states should eliminate non-energy-related taxes and levies from electricity bills and ensure equal treatment compared to those applied to fossil fuels. Unlike competing regions like China and the US, taxes and levies represent a substantial portion of the final electricity prices consumers pay in the EU. Most of these extra costs do not stem from the supply of electricity and thereby hinder progress toward increased electrification.

RECOMMENDATION 2

Reduce the grid build-out bottleneck.

Restricted pace in the expansion of a secure transmission and distribution grid constitutes a considerable and well-known challenge for rapid electrification. European legislation must support national frameworks that enable anticipatory investments to be carried out and financed. Investments in more and larger interconnectors are particularly acute as they allow for greater investment in and distribution of electricity across Europe.

RECOMMENDATION 3

Incentivize Power Purchase Agreements.

The European Investment Bank and member states should offer specific PPA offtake guarantees and reduce investment risks. To further integrate the internal European electricity market, frameworks for competitive cross-border PPAs must be developed. Currently, cross border PPA's are challenged, for example by the fact that developers can only book interconnector capacity one year ahead while offtakers typically demand 10-15 year certainty of delivery.

RECOMMENDATION 4

Establish a European Electrification Bank.

The EU should create a dedicated entity to support the electrification of industrial processes. This Electrification Bank should offer financial incentives covering both CAPEX and OPEX for industries to electrify, helping industries adopt electrification technologies more effectively. It could also centralize funding by coordinating resources from various sources, provide lending for renewables at lower interest rates, leveraging the European Investment Bank to attract private investments, and serving as a "one-stop shop" for technical guidance and progress monitoring.

GREEN
POWER
DENMARK

Green Power Denmark
+45 35 30 04 00
info@greenpowerdenmark.dk

greenpowerdenmark.dk
Green Power Denmark
greenpowerdenmark
@GreenPowerDK