



EnR Presidency 2023 Workshop Series

Strengthening European value chains of Strategic Net Zero Industries – the Net Zero Industry Act in practice

May 23, 2023

Chaired by dena, EnR Presidency 2023

1. Official welcome and presentation of the agenda – Christoph Jugel

- Official Welcome by Christoph Jugel. Christoph Jugel pointed out the challenges of the current energy crisis. One of the major challenges is to make our European value chains more resilient to future crisis.
- Today's workshop will focus on the Zero Net Industry Act and on the **key question: What role can European Energy Agencies take in implementing the Net Zero Industry Act?**

2. Introductory remarks: European Energy Agencies and the Net Zero Industry Act – Stefano Soro

- Net Zero Industry act is not about production or deployment of industry. The scope of the conversation is manufacturing of equipment for the production and storage of decarbonized energy
- First driver: overcoming dependencies (Russian gas) – Question: What do we want to replace and how do we want to replace it?
- The second driver is overcoming barriers to the manufacturing scale up of products and technologies that are needed to produce decarbonized energy.
- The third driver is seizing opportunities: These estimations go up to tripling of the market until 2030, worth around 600 billion €
- Europe has to be part of that race because of sustainability, dependencies, social sustainability, prosperity, decarbonization, etc.
- Last but not least reaching our climate targets
- Giving a brief overview of the contents of the proposal
- Difficulties to find skilled staff – up to 180.000 new jobs estimated to be needed for hydrogens only.
- The final form of the proposal is not certain yet, although the proposal is not far away in terms of time. The ambition is to finish it within this parliamentary cycle.



- **Potential interactions between the Net Zero Industry Act and the European energy agencies are:**
 - Design of government schemes
 - Permission procedures
 - Implementation of provisions and sharing best practices with other agencies
 - Building international partnerships to promote the adoption of new technologies globally

3. Setting the scene: Inflation Reduction Act and Net Zero Industry Act competing for investment in transformational industries – Dr. Nils Redeker & Philipp Jäger – Comment by Dr. Rainer Quitzow

- Why, where and how should the EU respond to the Inflation Reduction Act
- What the US is investing to make a sector competitive that they think is crucial for the green transition
- Aspects that have raised concerns in Europe:
 1. The subsidies the US offers are very easily accessible
 2. Protectionism – some of the subsidies are especially generous if the production is in the US
 3. Estimated Volume of USD 370 billion
 4. Uncertainty about the scope of the issue and the best response
- Which EU sectors stand to lose competitiveness?
 1. Leveled cost of clean electricity already cheaper in US – IRA widens the gap
 2. The price of clean hydrogen in the US can drop under \$0 until 2030 with \$3 subsidy
 3. The prices of Batteries in the US, that is already cheaper compared to EU, will even be slightly below Chinese prices post IRA
- If Europe matched IRA subsidies it would cost approx. €264 billion over 10 year, just for wind, solar, hydrogen and batteries
- EU doesn't have to match US IRA subsidies everywhere (because of ETS / other climate policies)
- The Net Zero Industry Act (NZIA) aims to increase manufacturing capacity of strategic net-zero industries to 40% of EU deployment needs in 2030
- Problem: the NZIA does not take into account EU strengths and weaknesses – it needs more focus
- Divergence risk:



- Problem of EU level support: lack of common resources for joint industrial policy
- Problem of national support: solo efforts risk unfair competition and economic divergence
- Main response so far:
 - Extension of Temporary Crisis Framework until 2026
 - New “Matching Clause” for investments in assisted regions
- For a coherent strategy the EU needs:
 - A clear debate on economic case for green industrial policy
 - Common instruments with common financing
 - Better governance for EU industrial policy

Comment by Dr. Rainer Quitzow

- The EU needs to be clear about what our emerging industries are and which ones are critical. The response on the IRA should depend from sector to sector
- We have seen too much ad hoc kind of policy making in the last months and years and need to be more systematic
- We need to reduce complexity of EU industrial policy instruments
- Demand side instruments could be an additional way – create demand but also bring financing from the customer
- Question to Philipp: Does Hydrogen from the US compete directly with EU

Answer Mr. Jäger: Cheap US Hydrogen does not compete directly with EU hydrogen – but indirectly it might do so, as it promotes US technological leadership in hydrogen – all related investments might take place in the US instead of EU

4. StiPE – Recommendations for an Industrial Policy Strategy for Renewable Energy and Power Grids – Joscha Müller

- The expansion targets for renewable energies by 2030 require enormous industrial capacities and the value chains of the industries need to be scaled at least in line with these targets:
 - 2.3-fold increase in onshore wind energy
 - 3.5-fold increase in offshore wind energy
 - 4.5-fold for photovoltaics
- China, India and US have targeted industrial policy strategies, the support is so attractive that European manufacturing locations often appear economically uncompetitive



- PV industry – No integrated production of PV modules in Europe – mainly comes from China
- Some remainders of Industry left – focus mostly only on individual parts of the supply chain
- The 10 StiPE dialog events with representatives from wind energy, PV, and power grid sectors identified policy recommendations for technology availability and supply chain resilience
- Competitive Situation of European Manufacturers of PV Modules and Wind Turbines:
 - There is no integrated production of PV modules in Europe today
 - China dominates the value chain
 - US and India reduce dependency on China (IRA and production-linked incentives)
 - Europe is currently structurally unattractive due to high energy costs, no sufficient investment capital, and inability to realize economies of scale
 - The EU wind industry is competitive but under pressure by stagnating demand and sharp rise in costs
- A viable industrial policy combines supply-side and demand-side impulses – Recommendations:
 1. Steady demand by planning certainty, land availability, and streamlined approval procedures
 2. Examine qualitative criteria in tenders for the support of European products
 3. Adjust EEG tenders to price development
 4. Establish a PPA industry consortium to supply industry with electricity from Europe
 5. Provide investment capital through a hybrid capital participation program
 6. Create strategic support for infrastructure investments
 7. Introduce state guarantees to secure production
 8. Enabling OPEX subsidies
 9. Maintain excellence in technology development through further IPCEI
 10. Provide targeted support in the acquisition of skilled workers
 11. Establish a strategic approach to raw materials management

5. Industrial policy in action in Germany: policy instruments and corporate strategies to cope with changing value chains – Katharina Norpoth

- Factors that currently shape the transformation of the German industry



- Restructuring in industrial value chains
- Changing processes, implementing new technologies, and using green energy and raw materials
- By this, international trade relations and competitive conditions are changing
- New challenges: industrial locations in Germany face less favorable conditions while new locational advantages arise, in reaction the German industry has to make strategic and investment decisions – How and whether value creation can be kept in Germany?
- Industrial sector is far from achieving 2030 target
- Future energy demand of industry will mainly be covered by hydrogen and electricity based on renewable energy sources
- Key elements of a climate neutral industry
 - Key cross-sectional elements: electrification, hydrogen, recycling and circular economy, energy and resource efficiency, CCU/S
- German policies and plans
 - Measures along entire value chain are required to enable transition to “green products” – by providing prerequisites, supporting carbon-neutral production, and enabling market integration
 - Key policy instruments in Germany – Complementary to EU instruments EU-ETS, CBAM, etc.: Federal and European funding, Green Lead markets, Industrial electricity price, Carbon Contracts for Difference (CCfD)
- Corporate strategies of German industry players examples:
 - BASF
 - Strategy Salzgitter AG 2030 (SALCOS)
 - Strategy ArcelorMittal

6. Discussion of experiences and lessons learned from the implementation of industrial policies in EU member states

Questions by Dr. Redeker:

1. How much would it actually cost to transform the solar industry in Germany?
2. What is the skill profile of people working in the wind and solar industry?
3. Is it realistic that the energy prices will go down to around 6 cents until 2030?

Answer by Mr. Müller:

1. No specific numbers but the idea is to provide industrial players with hybrid capital that they can leverage.



2. That has not really been our project. However, we have heard from many industry representatives about it as a present problem.
3. We know that the industry wants a price around 4 cents but it's not sure if even the 6 cents will be implemented. It needs to go through government process and will probably be stopped because there is no money for it.

Further questions about the role of dena in the NZIA process, how to prioritize producers, how far away European producers are from environmental and social criteria, and about emission criteria.

Comment that in a federal state like Germany it would probably need one actor per state.

7. Wrap-Up and closing the meeting

- Conclusion of the workshop by Tim Banning
- Next event will be focused on the building sector and minimum energy standards. It will take place in Paris this summer.