

ACTIVITY REPORT

2021

Jerzy Buzek

MEP - EPP, Poland

President of the EEF

European Parliament



This is the second year in a row when the annual European Energy Forum's Activity Report - instead of being filled with photos from physical meetings, study visits, lunch and dinner debates in Brussels or Strasbourg - is full of screenshots from numerous online events. The reason is very simple: unfortunately, despite all our expectations and hopes, COVID-19 has still not given up - and this is certainly bad news.

However, there is also at least one good news related to it: as EEF family we are also not giving up. And we never will! We managed to adjust to new, difficult realities and to change working methods. What we have not changed is our general attitude: we are still together, open to each other, willing to cooperate and discuss, ready for new topics and challenges.

This approach helped us to organize in 2021, despite unfavorable epidemiological circumstances, 16 meetings - including one with Maroš Šefčovič, European Commission Vice-President for Interinstitutional Relations and Better Regulation, as well as 5 briefing sessions for MEP's advisers and assistants. It would never be possible without contribution and real commitment of Active EEF Members - my fellow colleagues, Members of the

European Parliament - as well as our Associate Members - representatives of the European energy sector and industry. And for that I would like to sincerely thank all of them!

Let us keep this unique spirit of mutual understanding and friendship for each and every day of the New Year. It is all the more important knowing that 2022 is going to be - in fact - the "year of delivery" of the European Green Deal with the "Fit for 55" Package as well as the Gas Package currently on the working tables in the Parliament and in the Council. I am convinced that, as usually, the European Energy Forum community will help to shape these important 18 legislative proposals in an optimal way - for the sake of European citizens and customers, European business and last but definitely not least - for climate and the environment.

I wish you all the very best for every day of the new year 2022.

Tudor Constantinescu

**Principal Adviser to the
Director-General for energy
European Commission**



2021 was one of the richest years in terms of energy and climate policies at EU level. Although not an easy year, as the health crisis continued, with waves that challenged not only the sanitary system and our daily lives, but also the economy, the energy projects and the energy prices. Creating a framework for a sustainable energy transition and starting the financing necessary for economic recovery has become therefore more important and urgent than ever before.

The Fit for 55 package marked the future of the energy transition in Europe and put us on track to achieve the objectives of the Green Deal. It is perhaps the most comprehensive package of legislative initiatives in this field. It creates the most advanced legal and regulatory framework worldwide for an integrated energy system by addressing pricing aspects, policies, targets and norms. There are new proposed targets for energy efficiency and for renewable energy sources (40 % in 2030 compared to 20% in 2020), new targets for renewable gases and hydrogen in industry (half of the consumption to be renewable based) and transport, new priorities and milestones for developing the energy and transport infrastructure and new approaches in protecting the vulnerable consumers.

In addition, cross-cutting provisions on the broadening and deepening of the ETS, on a new state aid regime, on a differentiated energy taxation based on the carbon footprint, on a new carbon border adjustment mechanism to share our goals with third countries. All these proposals are amongst the key enablers for the future energy system, greener but also more integrated and resilient.

The EU's recovery instrument NextGenerationEU, alongside the EU's Multiannual Financial Framework has made available an unprecedented volume of resources. I would like to mention here the actions undertaken by the majority of Member States in using European funds for steering the energy transition through the Recovery and Resilience Plans. And these actions are continued through the use of structural funds and of other centrally managed European funds, where DG ENER is fully engaging to ensure a clean and just energy transition. Equally here I would like to underline the importance of partnerships and alliances of stakeholders (such as in the case of hydrogen for example) that engaged in developing plans and concrete projects to materialise our policy objectives and targets for 2030 and beyond.

At global level, we marked progress in addressing climate change issues at the Conference of the Parties and the new Glasgow Climate Pact. Multilateral initiatives being on innovation or on deployment of clean energy technologies and on steering cooperation and investments in the neighbourhood areas and in developing regions will accelerate the establishment of a framework for sustainable energy investments, for modernising economies and for climate minded development and trade. Equally important, is the bilateral cooperation with third countries to support each other in the energy transition. Let's not forget that our climate and energy objectives can only be reached if we work together.

The European Energy Forum, under the leadership of Honourable Member of Parliament, President Buzek, continued to offer a prominent platform and to be a valuable partner in all these actions, despite the difficulties to organise the exchanges online or in a hybrid format.

Building up on years of successful cooperation, benefitting of the reinforced commitment of our Commissioner and Director General, discussions on energy efficiency, on offshore renewables, on hydrogen, on nuclear energy and on CCS, on finance, to mention just a few, helped to build bridges not only in the energy system, but also amongst policy makers, politicians, industry and other stakeholders.

With the last part of the Fit for 55 package released in December, and covering hydrogen, decarbonised gas, reduction of methane emissions and energy performance of buildings, the formal dialogue with the European Parliament and the Council will enter into a new decisive phase. The support and engagement of the European Energy Forum will be even more important in the years to come.

Pascale Verheust

Director General of the EEF



2020 was adaptation time, 2021 was confirmation time. Confirmation that the online format of EEF discussions is working well, gathering knowledgeable experts from the industry, key MEPs in the files discussed in the European Parliament and several officials from different Units of the European Commission.

Although we all very much want to go back to in-person events, one must admit that the flexibility offered by the online meetings guarantees that the most appropriate persons can take part in our discussions. It also offers excellent discussions among the panellists and our audience is always invited to react and be heard. Let's take the most from it until we finally can meet again, for real.

The new reality has also afforded our development of a new series of events dedicated particularly to MEP assistants and advisors. This is a service that we have offered over several years and the new reality has helped us to fine tune the service.

We have worked tirelessly to propose a variety of stimulating discussions in 2021. All this was possible thanks to the support of our members. Thanks a lot to all of you!

With the many dossiers of the "Fit for 55" and the new gas packages, no doubt that 2022 will bring us lots of opportunities to inform, share, discuss, debate, sometimes disagree, all with the aim of getting the EU on the right track for its climate targets.

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THANK YOU! 71

The logo of the European Energy Forum (EEF) is located in the top left corner. It consists of a stylized 'E' formed by three curved lines: a thick blue line on the left, a thinner blue line on the right, and a yellow line at the top. Below the logo, the words 'European E' are visible in a light blue, sans-serif font.

European E

THE EEF NETWORK

As a membership-driven association, the EEF works for the benefit of its members, whose cooperation is fundamental to the organisation and success of the Forum's activities.

The EEF also includes a large network of experts and institutional representatives: the diversity of viewpoints ensures the exchange of information is valuable and stimulating.

"The transparent exchange of information and opinions on all political, economic, and technological aspects of energy policy is crucial in the legislative process.

The European Energy Forum is the place, open to all MEPs, private and public stakeholders, where this fruitful exchange happens".

Jerzy Buzek - MEP, President of the EEF

EEF MEMBERS

Active Members

Elected Members of the European Parliament (MEPs) have always been the leading force of the EEF.

They govern the organisation and support its activities through all stages: they help build the programme of the year, actively participate in the discussions and chair all events.

Their strong commitment testifies the value they see in the EEF as an important platform for getting informed and exchanging views with several stakeholders.

The EEF Active Members come from different political parties, parliamentary committees and Member States. They all share an interest in energy-related fields and they are all convinced that transparent, inclusive and open discussions between all involved parties are a key pillar of policy making.

The EEF currently counts 26 Active Members.

The Bureau - President, MEP Jerzy Buzek, the Treasurer, MEP Inese Vaidere, and the Vice-Presidents MEPs Miapetra Kumpula-Natri and Pilar del Castillo Vera - meets during the year to discuss the EEF activity. The Association is administered on a voluntary basis by a Board of Directors.

The Board of Directors is elected every five years by the Active Members during the General Assembly which follows the European Parliamentary elections. It is composed of Active Members from different political groups and of various nationalities.

All Active Members are invited every year to the General Assembly.

In 2021, the EEF General Assembly appointed MEPs Ondřej Knotek (RE, Czechia), Tsvetelina Penkova (S&D, Bulgaria) and Maria Spyraiki (EPP, Greece) as Directors of the EEF.



Jerzy Buzek
President



Inese Vaidere
Treasurer
and Vice-President



**Pilar del Castillo
Vera**
Vice-President



**Miapetra
Kumpula-Natri**
Vice-President



Franc Bogovič
Director



Seán Kelly
Director



Ondřej Knotek
Director



**Tsvetelina
Penkova**
Director



**Morten Helveg
Petersen**
Director



**Massimiliano
Salini**
Director



Maria Spyraiki
Director



Evžen Tošenovský
Director



**Cristian-Silviu
Bușoi**
Active Member



Daniel Caspary
Active Member



András Gyürk
Active Member



Radan Kanev
Active Member



**Zdzisław
Krasnodębski**
Active Member



Liudas Mažylis
Active Member



Iskra Mihaylova
Active Member



Csaba Molnár
Active Member



Angelika Niebler
Active Member



Juozas Olekas
Active Member



Mauri Pekkarinen
Active Member



Sven Schulze
Active Member



Henna Virkkunen
Active Member



Pernille Weiss
Active Member

Quotes



Inese Vaidere
Treasurer
and Vice-President
EPP, Latvia

«Although in 2021 the circumstances were challenging due to the pandemic, the EEF still managed to organise many high-quality activities – online debates, briefings for assistants and a physical event to re-connect – thanks to the support of its members and the great work of the EEF team.

I have been a member of the EEF since 2004 and am happy to observe how important and influential the association has become in EU policy-making.

The European Green Deal, including the 'Fit for 55' package, brings many difficult issues to the table. The EEF will be central to discussing them and finding the best way forward.»

«At this point last year we all may have hoped that we would be speaking of the pandemic in the past tense. Alas, we find ourselves in a similar, yet completely different, situation as we continue the embrace of a flexible and digital working life.

These are times of great change, not just the effects of Covid 19 on the global economy and the health of our populations, but also because of the clear need to address the climate. The European Union is currently undergoing an ambitious systemic change in how we produce, consume and store energy.

The 'Fit for 55' Package is the largest single batch of legislation to tackle climate change proposed by any government, anywhere. Working through this vast array of legislation will be a big challenge for Parliament, and will take a level of coordination and communication that many MEPs may not be used to. This makes the work of EEF all the more important, to provide a link between industry, academia, officials and politicians to create a mutually beneficial dialogue. I look forward to 2022.»



Sean Kelly
Director
EPP, Ireland



Ondřej Knotek
Director
RE, Czech Republic

«I feel highly honoured by the trust European Energy Forum presented me, becoming an EEF Director in 2021. Fellow members of the forum are true professionals, and I am glad to be part of this community.

Looking back at the past year, I believe we managed to create fruitful discussions that will shape the upcoming European legislations. While the EEF focuses on modernisation and sustainability of the overall European energy sector, I am glad that scientific neutrality is upheld in every discussion. Open dialogues based on facts are imperative for the well-being of European energy sector. With the EEF navigating discussions behind the energy transition, I am more confident in EU competence to deliver on the climate transitions goals.»

«The past year was marked by further lockdowns, cyclical economic recovery and the rise of energy prices across Europe. However, the latter was caused primarily due to logistical issues and the disruption of the global supply chains of energy carriers.

Once again we were faced with the reality that the energy transition in the EU is necessary more than ever if we want to assure the security of supply needed for our citizens and SMEs. The main aspect of this transition should be focused on providing affordable energy prices for the most vulnerable members of our society.

We need to invest in the most cost-effective technologies that can decarbonise the energy sector. Nuclear power plants have the necessary technology that can help us quickly reach the goals of the Green Deal. On top of being the most affordable long-term baseload power plants, they can also be used for the production of carbon-free hydrogen.

This is the reason why at the end of November alongside with several other MEPs we formed a dedicated nuclear club at the European Parliament. We believe that nuclear power should be included in the EU's green finance taxonomy and we will focus our work on promoting the strategic leadership of European companies in the field of research and innovation.

I hope that in 2022 we will see the normalisation of the economic cycle and the continuation of a more sustainable recovery in all sectors. I am sure that the European Energy Forum will provide once again a great platform to exchange ideas and discuss the path forward for Europe's energy transition.»



Tsvetelina Penkova
Director
S&D, Bulgaria



Morten Helveg Petersen
Director
RE, Denmark

«Energy issues are all over place, right at the centre of the world's attention. Energy was the whole agenda of the already famed climate summit in Glasgow. Energy is the star of EU's 'Fit for 55', our gigantic legislative framework, which the whole world will begin to copy anytime from now. Yet, it is important to keep momentum because the green transition in front of is long and full of complications, and in order to maintain citizens' support it is necessary to provide solid, transparent information and debate the issues along the way. The European Energy Forum can play an important role in this area in the years to come.»

«2021 represented an extremely challenging year for energy related matters. The ambitions of the EU Green Deal and the 'Fit for 55' Package have been confronted with a dramatic reality: the surge of energy prices all over Europe showed the complexity of the energy system and our dependency on energy imports, and therefore the importance of granting investments in gas in order to be able to keep a solid energy market.

Besides the objective of decarbonisation of our economy, EU policy makers' action should be oriented at guaranteeing the security of energy supply, an objective that risks not being pursued effectively if we exclude sources other than renewables, such as gas.

Even under the current circumstances, the European Energy Forum proved to be a useful platform where decision makers and energy experts can have fruitful exchanges over these important topics, and I consider myself honoured to be part of it.»



Massimiliano Salini
Director
EPP, Italy



Maria Spyraiki
Director
EPP, Greece

«First of all, I would like to congratulate EEF for delivering successfully its mission on the transparent exchange of information and opinions on all political, economic, and technological aspects of energy policy that is crucial in the EU legislative process.

In this regard, I am very proud that in the year 2021 I have been appointed as EEF Director/Member of the Board, and contributed in delivering its purpose. This year, with regards to the EU legislative process, and under my capacity as the rapporteur of the Parliament on "The EU Strategy to reduce methane emissions", I would like to underline the European leadership on tackling methane emissions. The EU has a coherent and implementable strategy to reduce methane emissions which is engaging all the relevant sectors, including energy.

The good news is that now we have the Global Methane Pledge where more than 100 countries are on board, including the US, Japan and Canada. This is a significant step forward to tackle climate crisis. These countries have committed to reduce their overall emissions by 30% by 2030, compared with 2020 levels during COP26 in Glasgow.

The number one issue we have to address is the collection of reliable data from all relevant sectors starting from the energy sector. Even though the voluntary pledge is backed by 15 of the world's biggest methane emitters including of course the European Union, Indonesia and Iraq,

Some of the most vital countries to the methane effort have not indicated support for the initiative. That includes the world's top three methane emitters China, Russia and India. In the framework of EEF it is important to raise awareness about the role of methane, the technologies available and the relevant costs.

It is time to act now! Different policy approaches can push companies to act through broadening regulations, adapting existing safety and market regulations to address the climate change impacts of methane, or developing entirely new strategies tailored to the downstream segment. By reducing methane emissions, we can get a quick win for protecting our people and the environment.

Let's start changing the game!»

Associate Members

The EEF Associate Members are private and public stakeholders, regulators as well as research organisations active in all sectors related to energy.

Their cooperation and involvement are key to the well-functioning of the EEF activities: they offer their expertise, join all energy events and share suggestions on topics to address.

Associate Members recognise the importance of having all sides of energy present in the debate. They are committed to helping our Active Members have access to factual and comprehensive information by sharing their knowledge and always being open to answer questions, listen to different viewpoints and exchange with panellists and the audience.

On 31 December 2021, the EEF counted 79 Associate Members from inside and outside the EU geographical borders.



Quotes



«In such challenging times, the EEF has provided a great platform to discuss the most important issues on energy and climate policy. Cooperation between the policymakers and the energy sector stakeholders is crucial for implementing the objectives of the European Green Deal. Central Europe Energy Partners (CEEP) is willing to provide support in the EEF activities and get the best out of the debate to ensure a fair and just energy transition.»

«The year 2021 for CEER was driven by dynamic regulation as per our overall "3D Strategy" from 2019 until 2021. As energy regulators, we believe that the regulation must adapt to market evolution, including a growing diversity and number of participants. Europe's energy regulators are determined to make regulation coherent with the fast-changing environment that digitalisation and decarbonisation bring about whilst effectively protecting the energy consumers' interests. CEER's coming strategy for the period from 2022 to 2025 «Empowering Consumers for the Energy Transition», emphasises the importance of the energy transition and already in 2021 an important focus of CEER was European proposals and legislation related to it.»



«The European chemical industry has the ambition to become climate neutral by 2050, thus contributing to realizing a climate neutral society. The EEF is the ideal place to meet and discuss, ultimately contributing in more informed decisions on EU energy and climate change policies.»



«Cepi advocates for renewable and recyclable wood-based fibre solutions to fully contribute to tackling the climate emergency. Therefore, we appreciate the efforts of the EEF team to bring policymakers and industry stakeholders together. The debates organised by the EEF gave Cepi a welcome opportunity to discuss with the key MEPs and their advisors the challenges stemming from the "Fit for 55" package. We hope to continue valuable exchanges on the enabling policy framework as the negotiations progress in 2022.»



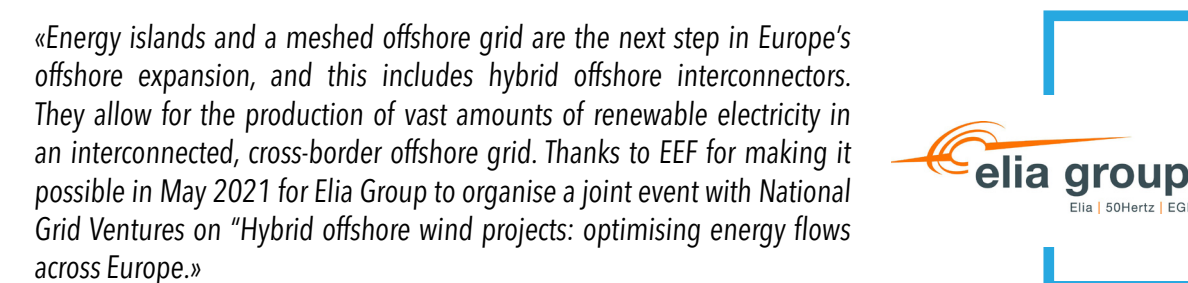
«Since decades the EEF is here to bridge the gap by bringing the EEF Active Members as well as the Commission representatives in contact with the thoughts of the industry. The vision of its leadership has allowed the EEF to adapt to the changing times and as EASE Representative I am very happy that the role of Energy Storage in the energy system is enjoying a growing visibility.»

Patrick Clerens - Secretary General, EASE

«As strong supporters of the ambitious European proposal to make the bloc climate neutral by 2050, and as leaders in low-carbon and renewable energy, we find it very useful to be part of the European Energy Forum. This year, we have taken part in various discussions and briefings on the future EU legislative framework, in particular on the Fit for 55 package (EU ETS, hydrogen). We are eager to participate in next year's events and bring our expertise on some key and sometimes technical legislative provisions. We believe that the dialogue and exchange of views on energy solutions between industry stakeholders and policy makers, as promoted by EEF, are essential to make the EU's climate ambition a reality.»



«Created for an effective and transparent exchange of views on energy issues and European energy policy, the EEF is a perfect platform for a fruitful dialogue among various stakeholders - from politicians to private associations. EFET is happy to have been a part of EEF for all these years and is keen to continue supporting its mission.»



«Energy islands and a meshed offshore grid are the next step in Europe's offshore expansion, and this includes hybrid offshore interconnectors. They allow for the production of vast amounts of renewable electricity in an interconnected, cross-border offshore grid. Thanks to EEF for making it possible in May 2021 for Elia Group to organise a joint event with National Grid Ventures on "Hybrid offshore wind projects: optimising energy flows across Europe.»

«CEWEP - The Confederation of European Waste-to-Energy Plants is the umbrella association of the operators of Waste-to-Energy plants, representing about 400 plants from 23 countries. Our members are committed to ensuring high environmental standards, achieving low emissions and maintaining state of the art energy production from remaining waste that cannot be recycled. CEWEP has gladly attended different EEF online events throughout this year, as a valuable opportunity of enrichment and exchange in the European energy policies' discussions. We look forward to continuous interesting debates that the EEF will organise next year.»



«COGEN Europe is proud to be an Associate Member of the EEF and we very much appreciate the opportunities that the Forum creates for stakeholders to provide relevant information to MEPs and their advisors. During the past year we were especially pleased to participate in the Debate on Energy Efficiency and the Briefing on Heating and Cooling Technologies. 2022 will be a very important year with debates on various elements of the 'Fit for 55' package, the Energy Performance of Buildings, the Sustainable Finance Taxonomy and the Green Gas Package, as well as Ecodesign and Energy Labelling of Space Heaters. We look forward to taking part in many more EEF events in the coming months!»

Hans Korteweg - Managing Director, COGEN Europe



«We are very pleased to be a member of EEF and have an opportunity to participate events you've organized. They're very interesting and give members of our company possibility to develop knowledge, to obtain cognisance in many new fields. The range of topics you've proposed to us is so wide that everybody might find something valuable, especially when it's going about meeting the objectives of the EU climate and energy policy i.e. reducing greenhouse gas emissions, increasing the share of renewable energy sources and others.»

«Despite the pandemic the EEF team continued to deliver a high-quality service to its members, driving the institutional debate on energy by involving the top-tier decision-makers in virtual debates and workshops. We hope to go back to EEF signature in-person event in the Parliament as soon as possible.»



«With the European Green Deal the energy sector is facing unprecedented transformation. Recent market events show the importance of a just and responsible transition as we set course for recovery from a pandemic. In such testing times the need for open discussions between policy-makers and industry has become even more essential than before, and the online debates organised by EEF and chaired by MEP Buzek have provided a unique platform to exchange views on the most relevant aspects of EU energy policy despite the pandemic restrictions impacting possibilities to meet and exchange.»

«The EEF has successfully hosted virtual events, some with a twist. Its online presentations and debates always inform, while the challenges of socialising online have led to some memorable moments for EEF supporters.»



«The EEF keeps providing a valuable platform for us as industry representatives to interact and exchange views with the policy makers, especially now with the challenging combination of the increasing amount of Fit for 55 package legislative proposals and the covid restrictions. While the online energy debates have certainly been successful, hopefully soon we can all meet physically again, have a toast for the new year and continue the great discussions!»

Adolfo Aiello - Climate & Energy Director, EUROFER

«The European Energy Forum events are a highlight in our calendars. EEF provides a necessary platform for the exchange of views on decarbonised energy systems. The Forum allows participants to better understand the challenges at stake so that we can find solutions that work for everyone.»



«EEF events are always in sync with the legislative agenda and a good mix of informative material and genuine debate. EEF have recently expanded their offering to organise briefing sessions targeted at policymakers and their surrounding, which is useful for the sometimes complex topics of energy and emissions markets. We look forward to working with them on multiple files of the 'Fit for 55' package and beyond.»

«Participating in the EEF is an excellent opportunity to discuss how to best meet society's continuing need for energy in a reliable and sustainable manner. This year's events on Europe's energy efficiency ambitions and the deployment of hydrogen highlighted the importance of a regulatory framework that could enable a successful energy transition, while setting the EU on the path to lead in low-carbon technologies. As we help develop and deploy solutions in areas such as carbon capture and storage, low carbon liquid fuels, hydrogen and energy-efficient process technology, it is valuable to participate in a forum that welcomes constructive, open discussion between MEPs, Commission officials and members of industry.»





«Over the course of this year, and in spite of the restrictions caused by the pandemic, EEF has been instrumental in continuing to enable an open and transparent debate between key stakeholders. We have much appreciated the opportunity to participate and intervene in key events in order to bring across our perspective on the different topics discussed. For example, the current energy crisis which has highlighted the risk of import dependence and which has led more and more to call on the EU to support ALL low carbon technologies particularly those which, like nuclear, can reduce our dependence on carbon intensive imports.»

Yves Desbazeille - Director-General, FORATOM

«For GEODE, EEF's events provide timely insights on key topics in line with the EU energy legislative agenda, policy trends and technological developments by bringing together key policy-makers and stakeholders from across the energy value chain. As representatives of local energy distributors, GEODE has benefited from EEF's events in particular on energy infrastructure, energy efficiency, hydrogen, the EU ETS, and the TEN-E regulation and in general on energy legislation related to network system operation.»



«As Associate Member of the European Energy Forum, GRDF is thrilled to be able to take part in high-quality and comprehensive debates around the energy sector. Being part of the EEF community is an opportunity to exchange with experts of the industry coming from all Member States, as well as a way to confront us with different and insightful points of view. Sharing our experience and making our activities better understood are key to meet the highest climate ambition.»

«EEF kept on delivering quality conferences and events despite the challenges arising from the COVID-19 pandemic. This has been all the more important given the major transition the energy sector is undergoing and the need for all stakeholders to sit down at the same table, share views and build, when possible, shared visions. We will be happy to continue our journey with EEF.»



«IOGP values very high EEF as the most active and efficient European parliament informal intragroup. To reach out to MEPs and have a true dialogue with them, no one could be compared with EEF.»

«The EEF events add to the understanding of the complex energy situation that Europe is faced with, and it is a good opportunity for an association like ours to understand better how European politicians and other stakeholders see the challenges.»



«The EEF allows the debate to take place on crucial topics linked to climate and energy issues in an open minded way. Orano has been delighted to host an EEF event in May 2021, gathering several key decision-makers, including the European Commission as well as members from the European Parliament. This event was a great opportunity to discuss the decisive role nuclear plays in providing low carbon and reliable energy supply for the EU in order to achieve its climate objectives. Our wish is that those debates continue and grow!»

«EEF in a new online formula - due to pandemic COVID-19 - has proved its value to Brussels debates on energy issues. The Green Deal objectives and observed in 2021 dynamics of the internal energy market requires even more debates to find affordable and sustainable pathways towards the EU climate neutrality. EEF - gathering various stakeholders who exchange views and share best practice - is perfectly placed to continue playing its pivotal role in the energy transition debates.»



Aneta Wilmanska - Director of PGNiG S.A. Representative Office in Brussels



«2021 marked an important year for Europe's energy policy. The ambitions of the EU Green Deal turned into policy proposals that can make them a reality. Similarly, at PPC we have been advancing our business plan, running the fastest lignite phase-out program in Europe. The EEF is for us a unique forum that brings together industry and policy partners to exchange on the challenges and opportunities for our sector. In 2021, we had the chance to share our experience and policy recommendations on pressing topics, such as the EU ETS reform. We look forward to a year full of energizing debates and innovative ideas, in our joint journey towards a more sustainable and inclusive energy future.»

«Renewables are now around 40% of the electricity we consume in Europe. But electricity is still only one quarter of all the energy we consume. If we want to decarbonise our economies we have to increase the share of electricity in our energy mix. Electric cars. Electric heat pumps in our homes and offices. Electric boilers in our heating systems. And manufacturing powered by electricity. The EU wants half of this electricity to come from wind. This gives us huge opportunities and a huge responsibility. The EU want a huge increase in offshore wind. And an even bigger increase in onshore wind. WindEurope is proud to work with the European Energy Forum on these topics.»

Giles Dickson - CEO, WindEurope



Extended Network

Exchanging with a large and ever-expanding network is key to a better understanding of the needs of the European energy sector.

Gathering ideas, understanding the reality, seeing the best practices on a large scale are important in every discussion and definitely so in the many fields related to energy.

The EEF has a long history of welcoming as speakers to its events senior officials and high-level institutional personalities from the European Commission.

MEPs are always invited to the energy discussions. Key policymakers participate

actively, sharing thoughts and exchanging with the other private as well as public stakeholders present.

The Council, the Permanent Representations and Missions to the EU, as well as other public authorities inside and outside the European Union are also invited to take part in energy debates relevant to their field of work.

All of this offers the EEF Members a unique possibility of liaising with a broad network of people interested in energy topics, while those participants can learn a lot from the EEF Members.

The EEF key partners are:

- European Parliament
- European Commission
- Council of the European Union
- Permanent Representations and Missions to the EU
- but also other institutions from the EU or outside involved or interested in the EU energy dimension.

Team

The Brussels-based small Team is headed by a Director General who acts under the responsibility of the Bureau and directs the EEF daily work, activities and events.

Cooperation, efficiency, adaptability and eagerness to take up new challenges are the core values underpinning the Team's daily work.

The last two years have been challenging and the combined qualities of the team has allowed the EEF to reinvent itself and to succeed in continuing offering valuable high-level energy discussions.

The Team works in close contact with the Forum political leadership, liaises with Members and maintains relations with the broader EEF network. It carries out legislative research, keeps an eye on the latest development in energy-related fields, takes care of internal and external communication and manages the events that will allow the key topics to be discussed and the EEF Members to have visibility.

The different backgrounds of the Team as well as a continued adaptation enable them to successfully take care of the many tasks of the secretariat



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EEF MEETINGS

The switch to the online format has offered more flexibility, particularly in terms of speakers: the EEF succeeded in having key personalities and MEPs on board for every discussion!

And 2021 has seen the successful development of online briefing sessions alongside our usual energy debates.

Energy Debates

High-level energy debates are the most traditional EEF activity. During these debates, the very essence of the EEF as a cross-party, cross-sectoral and multi-stakeholder platform for constructive discussion materializes at its best.

The EEF Active and Associate Members meet to discuss energy-related topics together with representatives of the European Commission, MEPs outside the EEF Membership, as well as other key institutional personalities.

Energy debates closely follow the EU legislative timeline, which ensures all discussions are timely and able to respond to information needs right when needed.

The EEF has a long tradition of organising dinner-debates at the premises of the European Parliament, both in Brussels and Strasbourg. For almost two years now, as a consequence of the pandemic, dinner-debates have given way to Online Energy Debates.

The digital format is no less valuable than the original in-person one: the switch to online debates has indeed offered more flexibility in terms of speakers, allowing to have different key personalities and MEPs on board for every discussion!

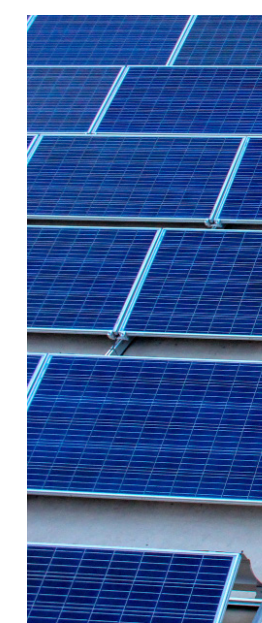
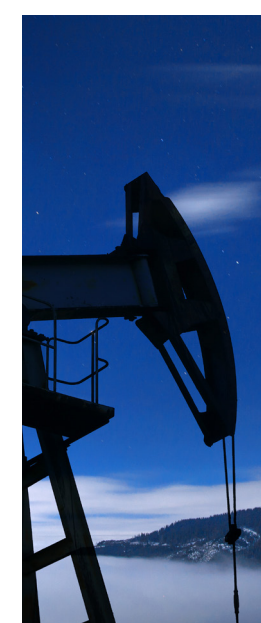
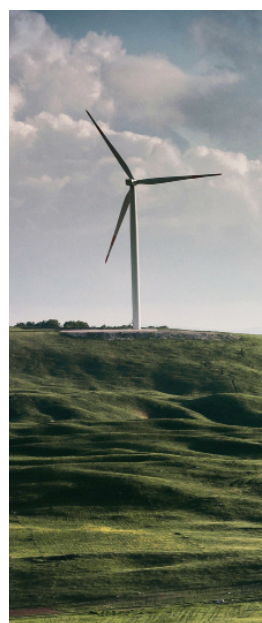
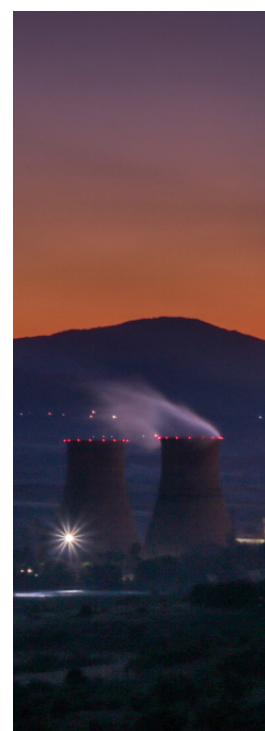
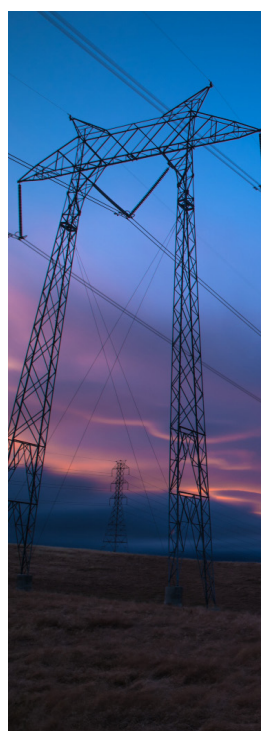
Briefing Sessions

In line with its mission of favouring access to energy information, the EEF also organises briefing sessions to help MEPs as well as Political Groups' Advisers and Assistants enhance their knowledge on energy technologies and realities.

These sessions are the result of a close cooperation between the EEF Team and Associate Members. The EEF Team draws the initial guidelines aimed at ensuring the information provided is comprehensive, factual and purely educative. The EEF Associate Members then complete the picture: their availability to share expertise and willingness to prepare informative lectures is what make these briefings possible.

A representative of the European Commission is also always invited to speak, offering explanations on the legislative work relating to the technology discussed.

The digital format works very well for this kind of events: the EEF Team thus seized the opportunity to develop the format further, organising 5 successful briefing sessions in 2021.



EEF Energy Events in 2021

Energy-intensive industries: an outline of different needs for different industries

Online Briefing Session
22 January 34

TEN-E Regulation: effectively aligning Europe's energy infrastructure and climate goals

Online Energy Debate
3 March 36

How to make Europe a leading force in sustainable batteries?

Online Energy Debate
15 March 38

The new EU ETS: how to ensure a just transition towards a more sustainable future?

Online Energy Debate
28 September 54

How does the EU meet its hydrogen demand?

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How to support the EU energy efficiency ambitions?

Online Energy Debate
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Mainstreaming renewable energy in industry

Online Energy Debate
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Energy-Intensive Industries: an outline of different needs for different industries

Online Briefing Session
22 January

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Cilian O'Donoghue, Energy & Climate Change Director, Eurometaux

Aiello Adolfo, Director Climate and Energy, EUROFER

Malgosia Rybak, Climate Change & Energy Director, Cepi

Antoine Hoxha, Technical Director, Fertilizers Europe

Titas Anuskevicius, Policy Officer "Energy Intensive Industries and Raw Materials", DG GROW, European Commission

Moderator: Pascale Verheust, Director General of the EEF

2021 started with an Online Briefing Session on Energy-Intensive Industries (EIs) dedicated to Advisers and Assistants.

The EEF Associate Members from several EIs – non-ferrous metals industry, steel industry, pulp & paper industry, and fertilizers industry – joined forces to educate participants about this industrial sector and its needs.

While introducing the topic, **MEP and EEF President Jerzy Buzek** underlined the strategic value of energy-intensive industries as enablers of the transition through their goods, as well as the urgent need for EU policymakers to ensure those industries can reach climate-neutrality while remaining competitive.

The very meaning of "energy-intensity" was first elucidated: where does this intensity come from? Those industries differ in terms of production process,

source of energy intensity, emissions produced, as well as possible future technological evolutions. The speakers delved deep into all these points to offer participants a clear image of the EIs reality.

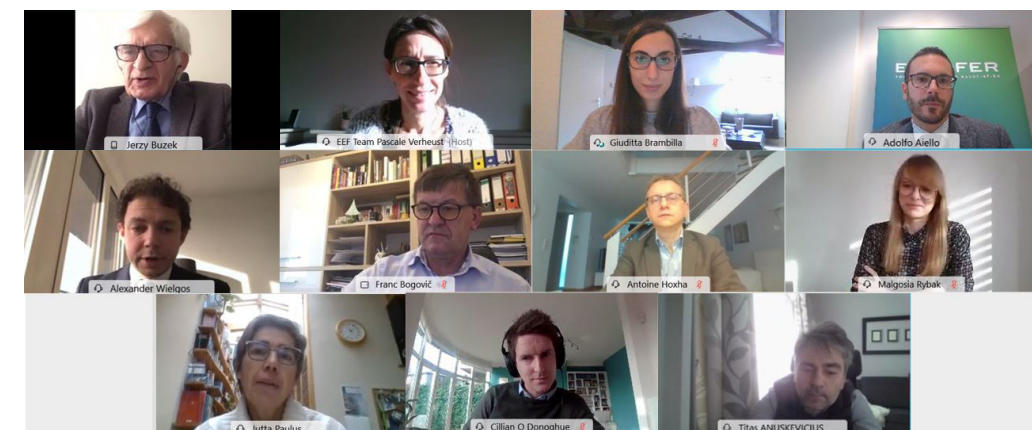
Yet, EIs also share some points. They have been working – and with success – to reduce their emissions and are willing to continue in this direction. For further steps to be undertaken, access to abundant and affordable green energy – be it green electricity or hydrogen – is strongly required.

Ensuring competitive green energy prices should go hand in hand with the creation of a level playing field at the global level, as well as of actual demand for these industries' low-carbon products within the EU borders. Otherwise, the risk is having the EIs delocalizing outside the EU.

The development of new, breakthrough technologies able to reduce or avoid GHG emissions is another important objective EIs are all striving to achieve. Each energy-intensive industry's potential in this regard varies based on the limits of what is physically and chemically possible. Yet, adequate research and investments are equally needed, and the support offered by different EU funding mechanisms is key. The industry's presentations were complemented by **Titas Anuskevicius, Policy Officer "Energy Intensive Industries and Raw Materials", DG GROW**. The European Commission understands the close link between energy and industry, and it is aware of the need to preserve EIs competitiveness, among other by ensuring their access to critical raw materials, affordable green energy, and a market

where a clear distinction is made between products that are sustainable and those that are not. When it comes to innovation, demonstration of technologies at industrial scale, risk sharing and business cases shall be at the basis of private and public investments in the short to the long term.

This timely event, initially dedicated to assistants, turned up to be of interest to MEPs as well, who joined in and participated actively by raising questions throughout the session, kicking off an open discussion between the panelists and the audience.



TEN-E Regulation: effectively aligning Europe's energy infrastructure and climate goals

Online Energy Debate
3 March

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Jan Ingwersen, General Director, ENTSG

Dimitrios Chaniotis, Chairman System Development Committee, ENTSO-E

Joachim Balke, Head of Unit «Infrastructure and Regional Cooperation» DG ENER, European Commission

Panellist MEPs:

Maria Spyra (EPP, Greece), Director of the EEF

Tsvetelina Penkova (S&D, Bulgaria), Director of the EEF

Zdzisław Krasnodębski (ECR, Poland), Active Member of the EEF

Paolo Borchia (ID, Italy)

Claudia Gamon (RE, Austria)

Nicolás González Casares (S&D, Spain)

Marie Toussaint (Greens/EFA, France)

Moderator: Pascale Verheust, Director General of the EEF

The EEF Active and Associate Members, the European Commission and many MEPs virtually met for a timely energy debate on the revision of the Trans-European Networks for Energy (TEN-E) Regulation. The discussion was launched by the EEF Associate Members ENTSG and ENTSO-E.

Jan Ingwersen, General Director of ENTSG, first presented the ENTSG's common work: to ensure Europe's energy infrastructure is robust and able to play its role correctly. They cooperate closely on the joint scenarios for possible energy future, the creation of the Ten-Year Network Development Plans (TYNDP) for gas and electricity cross-border infrastructure and the methodology to assess infrastructure projects.

He recalled that the ENTSGs provide assistance to the work of the EC and the EP who are deciding on the PCIs. One of the TYNDP scenario is based on the Member States' National Energy and Climate Plans, whereas the 2 others are compliant with the Paris Agreement and they all create a robust environment for testing sustainability, security of supply and market aspects of the energy infrastructure. Moving on to ENTSG's key topic, gas, he mentioned the key points to address in the TEN-E Revision concern hydrogen infrastructure projects inclusion in the next PCI list (Hydrogen being already included in TYNDP 2022), the role of hydrogen-ready gas infrastructure in the transition and the need for clarity on the framework guidelines for scenario developments.

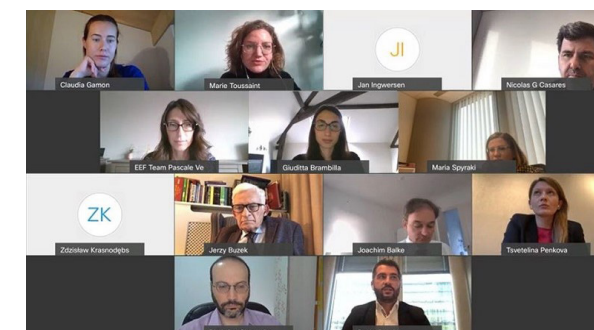
Dimitrios Chaniotis, Chairman of the System Development Committee of ENTSO-E, explained Europe's energy system is facing a complete remake requiring a "one energy system vision" with a holistic approach across borders and sectors. Electricity Transmission System Operators (TSOs) play a central role as integrators of the system. He insisted on the need to work with the 42 TSOs, taking national particularities into account, to build the scenarios. The inclusion in the TEN-E Revision of offshore hybrid projects, energy system integration, support for innovation and the recognition of the importance of interconnection with third countries is all positive. Still, improvements are needed on the governance of the TYNDP processes as well as the offshore and onshore grid planning, that need to be strongly aligned. It is key not to neglect sectors like heating - critical in providing flexibility -, and to ensure the right conditions to raise the necessary financial support and a level-playing field for all solutions - including non-infrastructure ones.

Joachim Balke, Head of Unit for Infrastructure and Regional Cooperation, DG ENER, European Commission, clarified that the EU must succeed in setting the right incentives for the right energy infrastructure to be in place on time to achieve net-zero by 2050. He first touched upon challenges that differ from those faced by the first TEN-E Regulation, requiring the introduction of new infrastructure categories: cross border hydrogen infrastructures, electrolyzers for system integration—if they make the relation between energy and gas—and smart gas grids. Secondly, the integration of more variable energy means more grid. To efficiently integrate increasing offshore renewable electricity capacity, specific integrated planning instruments and the

development of a cost-sharing model are proposed. Thirdly, to ensure the planning process identifies the right PCIs and increases transparency, the TEN-E revision envisages additional control mechanisms exercised by the Commission or the ACER, depending on their political or technical nature. Mr Balke concluded that the compliance with the efficiency first and sustainability principles remains central.

These initial remarks were complemented by interventions from key MEPs. The first intervention came from **EEF Active Member Prof. Zdzisław Krasnodębski** who is **Rapporteur on this file** and launched an interesting discussion with other members of the panel: **EEF President Jerzy Buzek**; **EEF Directors Maria Spyra** and **Tsvetelina Penkova**; **MEP Nicolás González Casares** as well as **shadow rapporteurs MEPs Paolo Borchia, Claudia Gamon** and **Marie Toussaint**.

They touched upon many key points, providing great food for thought and different questions. This, coupled with the reactivity of the EEF industry Members in the audience, led to a very open and fruitful exchange.



How to make Europe a leading force in sustainable batteries?

Online Energy Debate
15 March

Guest of Honour: Maroš Šefčovič, European Commission Vice-President for Interinstitutional Relations and Foresight

Co-Chairs:

MEP Jerzy Buzek (EPP, Poland), President of the EEF

MEP Maria Spyraiki (EPP, Greece), Director of the EEF

Speakers:

Diego Pavia, CEO, EIT InnoEnergy

Patrick Clerens, Secretary General, EASE

Panellist MEPs:

Miapetra Kumpula-Natri (S&D, Finland), Vice-President of the EEF

Mauri Pekkarinen (RE, Finland), Active Member of the EEF

Ismail Ertug (S&D, Germany)

Moderator: Pascale Verheust, Director General of the EEF

March offered the EEF Members a unique opportunity to discuss with **Maroš Šefčovič, European Commission Vice-President for Interinstitutional Relations and Foresight**, a topic very high on the political agenda: the development of a sustainable and competitive EU battery sector.

This timely discussion was co-chaired by **MEP Jerzy Buzek, President of the EEF** and **MEP Maria Spyraiki, Director of the EEF** and **Shadow Rapporteur on behalf of the EPP in ITRE on the Proposal for a Regulation concerning batteries and waste batteries**.

In his introductory remarks, Vice-President Šefčovič said how pleased he was that so much has been

achieved since the launch of the European Battery Alliance in 2017. The new industrial spirit developed across the whole battery value chain, coupled with close cooperation between 600 industrial players, has led to more than 70 industrial projects across Europe. Record-level investments of 60 billion EUR have been registered in the sector in 2019, which means Europe has invested three times more than China in the same period. The EU is catching up and advancing fast, becoming the global battery hub. This greatly contributes to building its strategic autonomy in sensitive sectors like energy storage and the automotive industry.

The automotive industry has been evolving fast: in a short amount of time, the same volume of electric

vehicles has been sold in Europe and China. Once delivered, the aforementioned battery cells projects should be able to produce batteries for 7 to 8 million electric vehicles per year by 2025. This would enable Europe to satisfy its domestic car battery demand and potentially become exporter. At the EU level, the work on batteries is accompanied by flagship initiatives – e.g. the smart and sustainable mobility strategy – that also require the mastering of these technologies.

Vice-President Šefčovič has a clear vision on the EU priorities for the next months and years. First, the timely adoption of the Battery Regulation proposal. This would put the EU battery sector on a completely different level compared to any other sector in the world. As an example of concrete measures proposed in the regulation, all e-mobility batteries placed on the European market will have a digital passport proving that the raw materials have been ethically sourced and a clear indication of their carbon footprint, the recycling and the energy sources used for their production. When buying an electric car, people will get its whole story. For this, the proposal needs to be adopted as soon as possible. Vice-President thus appealed to the MEPs to accelerate decisions in the EP, explaining the common goal should be to start trilogues by the end of the year and have the regulation approved by co-legislators in 2022. This would allow the battery industry to know exactly what to do and the rules to follow when, as of 2023, the production of batteries is expected to ramp up.

Second comes the issue of raw materials. The EC is aware of the importance of secure access to sustainable raw materials for the Union's decarbonisation and digital agendas. That is why it has created the European Raw Material Alliance. While developing strategic relations with key

suppliers (such as Ukraine and Serbia) is crucial to securing supply, it is important to look for domestic sources as well as to focus on urban mining, recycling and reuse of batteries. Europe also needs to invest in R&I to become strong in raw but also active raw materials such as cathodes and anodes.

The third point concerns skills: by 2025, the EU needs 800,000 people upskilled or reskilled to accommodate the demand coming from the battery industry. This cannot be done by the private sector alone. The EU Funds should be used to establish re-/up-skilling programs enabling the creation of these green jobs in the EU. In this regard, a good example is the "EBA250 Academy" developed by KIC InnoEnergy. Overall, the battery industry could employ 4 to 5 million people by 2025, which is quite significant.

Vice-President's last point concerns R&I. The level of money coming into R&I could be a highly decisive factor for the future and should support the beyond the state of art research. Two big Important Projects of Common European Interest (IPCEIs) in the battery ecosystem, led by France and Germany, were approved by the Commission in 2019 and 2021 that would bring in total value over c.a. 20 billion EUR. The EC will also support the partnership on batteries under Horizon Europe, with a funding of c.a. 900 million EUR. Vice-President concluded reiterating his request to the MEPs to speed up work on the proposed Regulation in the EP.

This request was well received by the MEPs on the panel – **Jerzy Buzek, Maria Spyraiki, Miapetra Kumpula-Natri, Mauri Pekkarinen and Ismail Ertug** –, who in turn took the opportunity to share some insights with the Vice-President.

The MEPs shared a common belief that the EU should set standards for minimizing the carbon footprint of the whole battery value chain, adopt a full life-cycle approach and set high ambitions for recycling and reuse of batteries, so as to increase circularity of materials. The funding of climate related projects was also touched upon.

As for critical raw materials, the MEPs agree the EU should both insist on responsible sourcing and increase efforts to develop its own sourcing whether from EU countries that have a lot of raw material or from urban mining. In this regard, slowness of permit processes and cost level difference compared to China and Congo are among the key challenges to address.

Panellist MEPs finally shared some thoughts on the importance of providing stability and predictability to the market by creating a framework favourable to investments as well as ensuring markets are fair. The EU can create a new industry and big companies are already working in that sense by transforming their products and manufacturing lines. This very insightful discussion was followed by two presentations from **Diego Pavia, CEO of EIT InnoEnergy**, and **Patrick Clerens, Secretary General of EASE**.

Diego Pavia showed how the development of the EU battery sector has been a success story of the whole EU. Europe can play a leadership role. The new proposed Regulation will be key in putting Europe at the forefront in terms of how to structure the battery world and should thus be supported.

He explained the EU has most of the needed raw materials on its ground, but it needs to fasten permit processes and make citizens understand that mining can also be sustainable. As for skills, the upskilling and reskilling present a huge growth opportunity, especially if one thinks of coal regions in transition.

Patrick Clerens explained the 2030 landscape will require new battery types and production methods. Batteries are an important type of storage technology, but other storage technologies are equally needed to achieve the EU climate targets. He called for a comprehensive energy storage strategy clearly defining energy storage targets and setting a roadmap, to create investment security and trust in where the EU wants to go. This is essential to achieve the needs for storage for 2030 and 2050. The event concluded with an exchange of views among the speakers and the MEPs on waste batteries, recycling and batteries' second life.



The EU Emissions Trading System: from understanding its design to discussing its revision

Online Briefing Session
26 March

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Nerea Cabarcos Ibañez, European regulatory analysis and positioning expert, Iberdrola

Florent Le Strat, Climate policy Expert, EDF

Lorenzo Esposito Caserta, Climate Policy & Market Mechanisms, Eni

Hans Bergman, Head of Unit "ETS Policy Development and Auctioning", DG CLIMA, European Commission

Michiel Cornelissen, Chair Working Party Climate and Efficiency and Working Party Green Deal, Ifiee

Marco Mensink, Director General, Cefic

Adolfo Aiello, Director Climate & Energy, Eurofer

Antoine Hoxha, Technical Director, Fertilizers Europe

Cillian O'Donoghue, Energy & Climate Change Director, Eurometaux

Mikael Ohlström, Head of EU Affairs, Neste

Michiel Van Dessel, Policy Planning Executive, ExxonMobil

Solène Charpentier, Policy Advisor Climate, Renewable Energies and Environment, EDF

Yves Desbazeille, Director General, FORATOM

Tomasz Dąbrowski, Director, PKEE

Moderator: Pascale Verheust, Director General of the EEF

The EEF organised an online briefing session for MEP Advisers on the EU Emissions Trading System (EU ETS) ahead of the revision that is foreseen later this year. An introduction to our briefing was given by our **President MEP Jerzy Buzek**, who insisted on the institutional memory, that is of utmost importance in the legislative process.

The briefings are an occasion to come back to the basics of topics and this one was no exception as our experts started with the polluter pays principle introduced in 1972, with carbon pricing as an

economic signal to either reduce emissions or continue polluting and paying for it. The choice of a EU ETS instead of a carbon tax is now well known and the briefing offered an opportunity to specify why it was chosen, to situate it among the numerous carbon pricing instruments around the world, to explain how the reduction of GHG (now 55% by 2030) is divided into two sub targets to be achieved by ETS and non-ETS sectors, and to point out that some EU countries have also introduced additional national measures. How allowances can be obtained is key for the industry, whether it is through free allocation,

auctioning or on the secondary market. In order to make sure the CO2 emissions are not just relocated instead of being reduced, it is crucial that carbon leakage protection is put in place, especially for the EU energy intensive industries. Understanding the evolution of the EU ETS through its 4 different phases since 2005 as well as how backloading and the Market Stability Reserve (MSR) did influence the price of CO2 is of great importance to understand how best to review the system for the future.

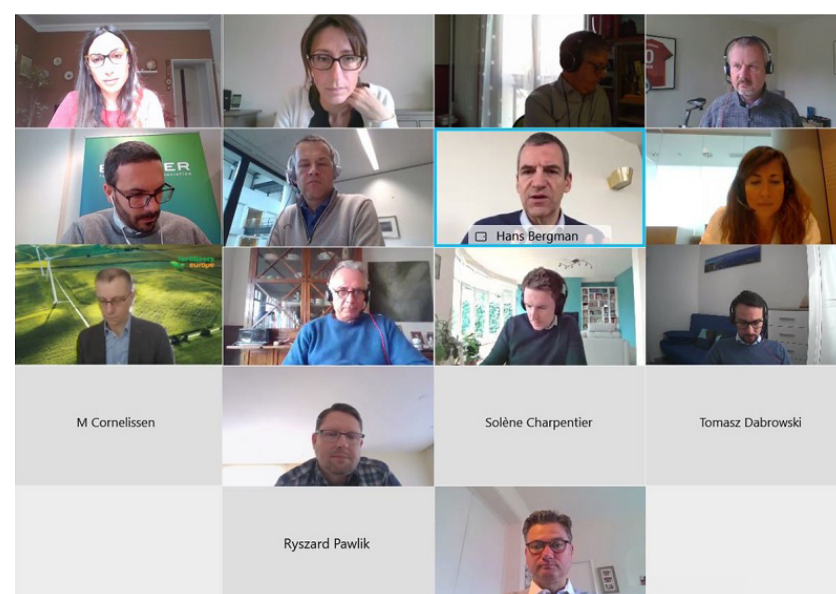
This three-hour session dived deep in the topic with our experts excelling in bringing their knowledge to educate or refresh the memories of our audience. The participation of the European Commission is key in the discussion. **Hans Bergman, Head of Unit “ETS Policy Development and Auctioning”, DG Clima**, explained what the Commission has been done in view of the “Fit for 55” package. This includes work on the EU ETS, the Climate law, the Effort Sharing Legislation, the Energy Efficiency and Renewable Energy Regulations, the Energy Taxation Directive, as well as the reinforcement of EU solidarity instruments, e.g. the Modernisation and Innovation Funds. Competitiveness has always been key in the EU ETS discussions and it will continue to be so; to

succeed, the Green Deal needs to lead to a fair system and a competitive EU.

He explained the potential extension of the EU ETS to other sectors such as transport and building is currently being discussed. Although it is a relatively new instrument, the European Commission is also reviewing the MSR. The Commission is also considering a Carbon Border Adjustment Mechanism, whose proposal should come in June, to address the competitive pressure on the EU industry.

Mr Bergman insisted on the cooperation with the different DGs, DG FISMA and DG ENER, depending on the topic discussed. He concluded by saying that this huge “Fit for 55” package must be coherent and well prepared. Different sectors of the industry have different points of view as their sectors are affected differently by the price of CO2 and not all are equal when it comes to possibilities of reducing their CO2 emissions.

The EEF prides itself in having a broad range of industry members who could, in the last part of the session, give a wide overview of the different wishes, worries and hopes when it comes to revising the EU ETS Directive.



The functioning of Europe's Wholesale Energy Markets and the EU carbon market: how do they enable a cost-efficient transition to a carbon neutral economy?

Online Briefing Session
23 April

Chairwoman: MEP Maria Spyra (EPP, Greece), Director of the EEF

Speakers:

Jérôme Le Page, Electricity Committee Chair and Board Member, EFET

Paweł Lont, Manager for European Gas Markets, EFET

Helene Robaye, Head of the Regulation & Market Design, ENGIE

Elaine O'Connell, Policy Coordinator “Internal Energy Market”, DG ENER, European Commission

Mark Copley, CEO, EFET

Guido Pasternack, Senior Policy Advisor, Uniper

Moderator: Pascale Verheust, Director General of the EEF

Our speakers from the industry brilliantly managed to explain highly technical subjects related to wholesale markets. This event was very timely as Belgium had, just two days before, seen an increase in the price of electricity to 3000euros/MW over the course of a few hours.

MEP Maria Spyra, Director of the EEF, introduced the event by reiterating how essential competitive markets are. Over the last 2 decades, Europe has been working on an open, competitive, transparent and liquid market in power and gas and has one of the most mature carbon markets in the world. She nevertheless mentioned that in parallel to developing a market for gas and for hydrogen, work is still needed on the integration of the electricity market, which has developed at a different pace in different parts of the EU: market coupling and day ahead between Greece and Italy has been launched

only in December 2020, while market coupling with Bulgaria is planned for May 2021. The development of healthy competition in liquid markets in energy commodities has a key role in enabling Europe's transition to carbon neutrality.

Jerome Lepage, Electricity Committee Chair and Board Member, EFET, situated the different steps of the internal market legislation and the key principles for liberalised markets in Europe mentioning that internal market legislation is only part of the picture of the energy market. The rules of the market are surrounded by many policies and legislation that affect the market.

Paweł Lont, Manager for European Gas Markets, EFET, dived deep into the gas market, a success story. Liberalisation and competition were made possible on the gas market and a very reliable price signal for

gas as a commodity has developed. With flexibility and trust in the market, it was possible to evolve from long term inflexible arrangements to short term transactions that reflect the actual price of the commodity. The framework is ready, yet it has not been applied smoothly across the EU: some barriers remain and the scale of development in hubs varies. The market provides a tool for cost-efficient decarbonisation.

Helene Robaye, Head of the Regulation & Market Design, ENGIE, explained the trading horizons - day-ahead, intraday and forward markets - with numerous illustrations. With the unpredictability of renewables, intraday market has developed in the recent years. She took us from bidding zones to scarcity market, hedging, shipping rights and portfolio management. It is important to utilities and small companies to secure the revenue for their assets at every moment in time and she gave clear examples to illustrate her points.

Elaine O'Connell, Policy Coordinator "Internal Energy Market" at DG ENER, spoke on the market design's importance in ensuring that there is a level playing field for incentivising the right technologies and that there is fair access for the technologies of the transition. It is important to take the whole picture into account and to make sure that renewable energy, storage and demand response have full access if they are technologically able to. She reiterated that shorter term markets are key for renewable electricity. The market needs to be fit for renewables, but renewables also need to be fit for the market. She touched upon network investments, cross border trading, consumers, bidding zones, congestion rules among others.

Mark Copley, CEO of EFET, explained how market gives strong incentive for the right investments in innovation which have a beneficial impact for society and set the scene for his colleague speakers.

Guido Pasternack, Senior Policy Advisor, Uniper, touched upon the EU ETS and made a good transition by explaining more in details some of the aspects seen in our previous briefing session. He explained the market dynamics that are part of the climate policy, the effect of the price of CO2 on power generation and the transparency of auctioning calendars in the regulated market.

The question on the integration of greater volumes of renewables into the wholesale market was presented by Jerome Lepage. Forward, spot and balancing markets contribute to financing renewables, to give dispatch signals to make sure they are well integrated in the market. He touched upon guarantees of origin, power purchase agreements and the need to make sure that the way the market is designed allows RES developers and producers to use the market. RES should coexist with the development of competitive flexible assets and services.

The briefing couldn't be complete without a discussion on hydrogen. Pawel Lont offered some insights on how the experience from the gas market could serve as basis when developing a hydrogen system.

He touched upon the gas quality, investment and guarantees of origin and made a distinction between the physical part of hydrogen trading and the green value attached to hydrogen.



Low carbon secure supply in a climate-neutral Europe: how can nuclear contribute?

Online Energy Debate
12 May

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Hugues Hinterlang, Head of EU Public Affairs, Orano

Peter Claes, Vice-President, IFIEC Europe

Yves Desbazeille, Director General, FORATOM

Massimo Garribba, Deputy Director-General responsible for the coordination of EURATOM policies, DG ENER, European Commission

Panellist MEPs:

Franco Bogovič (EPP, Slovenia), Director of the EEF

Tsvetelina Penkova (S&D, Bulgaria) Director of the EEF

Ondřej Knotek (RE, Czechia), Director of the EEF

Radan Kanev (EPP, Bulgaria), Active Member of the EEF

Jutta Paulus (Greens/EFA, Germany)

Christophe Grudler (RE, France)

Moderator: Pascale Verheust, Director General of the EEF

The transition towards climate-neutrality represents a unique opportunity for the EU, but it comes along with some challenges, among which the need for secure low-carbon energy supply at affordable prices.

Hugues Hinterlang, Head of EU Public Affairs at Orano, explained nuclear energy could help meet the growing need for significant and uninterrupted access to carbon free electricity and support security of supply by complementing renewables, ensuring system reliability and competitiveness of prices. He touched upon the circularity of the nuclear cycle through the recycling of nuclear fuel to minimise the impact on the environment and to protect resources.

He also mentioned the work done in nuclear medicine and R&D. Nuclear today accounts for half of the EU low-carbon electricity generation. The EU nuclear industry is resilient, creates jobs and growth and already masters the whole value chain. Further upgrading of research will be essential to support innovation and the development of new nuclear technologies as well as to maintain the EU strategic autonomy.

Peter Claes, Vice-President of IFIEC Europe, brought in the perspective of industrial consumers, who firmly support the Green Deal and a carbon-neutral EU by 2050.

Alongside carbon neutrality lay competitiveness and security of supply. Energy prices should remain affordable for households but also competitive for industries so that they keep production in the EU. Access to energy should always be guaranteed. With growing electricity demand, all technologies will have a role to play: technology neutrality is key. While supporting further renewables roll out is of crucial importance, other technologies will also be needed, like carbon capture and storage and nuclear energy. The ageing of the EU nuclear fleet currently in operation calls for the development of new breakthrough technologies in third and fourth generation plants as well as Small Modular Reactors (SMR).

Reiterating the importance of technology neutrality, **Yves Desbazeille, Director General of FORATOM**, concentrated on how the Long-Term Operation (LTO) of existing nuclear power plants could help achieve the reviewed 2030 targets. According to the FORATOM high LTO scenario, nearly 85% of the additional GHG emission reduction required to achieve -55% by 2030 could be supported through the LTO of EU existing nuclear fleet, going up to 90% if new built capacity is added in. LTO has potential benefits on emission savings, consumer costs, EU energy security and system resilience, as well as advantages given the timely implementation of reasonably practicable safety improvements. Mr Desbazeille underlined nuclear industry's strategic value is not limited to power production: with 1.1M of generally high-skilled workers, the industry also contributes to the EU economic growth.

Massimo Garribba, Deputy Director-General responsible for the coordination of EURATOM policies at DG ENER, European Commission, reminded our audience that it is Member States' right to decide whether to include nuclear energy in

their mix. As of today, there are clear divisions among them, which may create difficulties in accompanying actions. When it comes to the EC, its role is to set the framework conditions under which nuclear should be operated. This has been done through the revision of the nuclear safety directive, the legislation on waste and fuel, on radiation protection as well as on non-proliferation and decommissioning, while the decision on nuclear inclusion in the taxonomy regulation is expected for June. In the future, technologies like SMR will be in the radar of the EC, as they likely bring about challenges related to the safety standards to apply and the need for coordinated licensing. Mr. Garribba finally called on the nuclear industry to speed up the completion of projects underway as recent delays risk tarnishing the image of the EU industry's success.

EEF President MEP Jerzy Buzek, EEF Directors MEPs Franc Bogovič, Ondřej Knotek and Tsvetelina Penkova, EEF Active Member MEP Radan Kanev and MEPs Christophe Grudler and Jutta Paulus also took part in the discussion. While some of them openly shared their support to this technology and its active role in the EU future energy mix, others underlined the limits and disadvantages of nuclear stating that other options should be preferred.

Besides providing opinions, our panellist MEPs also raised questions on radioactive waste and nuclear fuels recycling, on how to facilitate the uptake of innovative technologies, on the role of nuclear for heat production, as well as on nuclear power plants capital costs and nuclear energy prices profitability.



Hybrid offshore wind projects: optimising energy flows across Europe

Online Energy Debate
27 May

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Bernard De Clercq, Head of EU Affairs, Elia Group

Nicola Medalova, Managing Director Interconnectors, National Grid Ventures

Giles Dickson, CEO, WindEurope

Joachim Balke, Head of Unit «Networks & Regional Initiative», DG ENER, European Commission

Panellist MEPs:

Morten Helveg Petersen, Director of the EEF

Pernille Weiss, Active Member of the EEF

Moderator: Pascale Verheust, Director General of the EEF

This event presented an opportunity to learn and exchange on hybrid offshore wind projects, an evolving reality offering important benefits and advantages yet requiring to overcome some key challenges to be fully scaled up.

Bernard De Clercq, Head of EU Affairs at Elia Group, first suggested a clear framework covering permitting, the use of maritime space and an indication of specific zones for energy generation and transmission grids are required to develop the EU offshore wind potential. The TEN-E revision and the Fit for 55 package will also be key in getting all actors contribute to achieving the EU offshore wind targets. He zoomed in on hybrid offshore projects, which evolve from typical radial point-to-point solutions and represent a first step towards a meshed grid combining several wind farms and interconnectors. EU legislation should favour these projects based on

international collaboration, incentivising countries with high offshore potential to develop them and supply their capacity in excess to countries with short renewable potential, to the benefit of the EU energy transition as a whole.

Nicola Medalova, Managing Director Interconnectors at National Grid Ventures, explained in the North Sea up to 220GW of offshore wind capacity could be installed. Offshore hybrid projects reduce the amount of infrastructure required, the overall investments needed and the number of landing points on the shores, with a positive effect on coastal communities, the maritime environment and the speed of the energy transition. Cooperation between the UK and the EU is essential, together with a compatible regulatory framework for market arrangements enabling coordination on infrastructure planning. The EU-UK trading

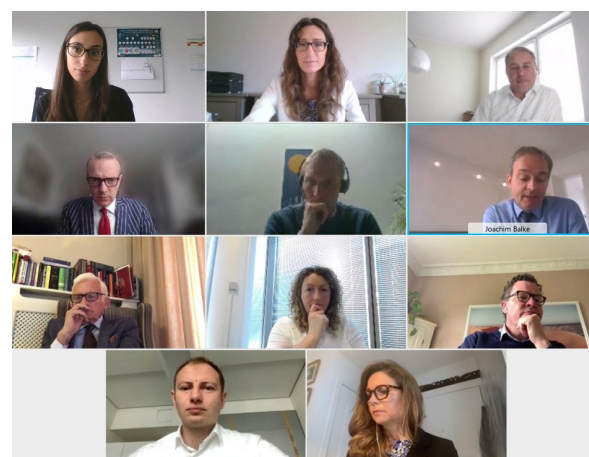
cooperation agreement and the new class of Projects of Mutual Interest (PMIs) as foreseen in the TEN-E revision can serve as a good basis, while COP26 offers an opportunity to show Europe's leadership in these offshore wind technologies.

Giles Dickson, CEO of WindEurope, presented 5 types of hybrid offshore wind farms: combined grid solution, modular grid, interconnector tie-in, offshore hub, neighbour OWF, explaining how they help save money, space in the sea and improve energy flows across Europe. Being defined as Projects of Common Interest (PCIs) would be important for them to receive money via the Connecting Europe Facility to support the necessary network investments. Cooperation and coordination between countries as well as governments and TSOs, regulators and the wind industry on regional planning of grid infrastructure - better if done at a sea basin level and through a top-down approach - will also be key. Mr. Dickson finally suggested the introduction of a provision on the joint planning of the generation assets should as well be part of the TEN-E revision.

Joachim Balke, Head of Unit Networks & Regional Initiative at DG ENER, European Commission, clarified that the role of legislators - both in the Parliament and the Commission - is to identify the regulatory obstacles to hybrid projects' scaling up while finding the best solutions. There are currently 4 main issues to be addressed via the TEN-E revision, which concern the development of an integrated vision on grid planning, the fair distribution of these projects' costs and benefits between TSOs and consumers, the setting of the right incentive structures for the anticipatory investments required, the need to ensure coordination between different

permitting timelines and procedures and the necessity to offer solutions remaining relevant for all EU Member States. Mr. Balke finally returned to one major point: nowhere more than here is cooperation a necessity for any objective to be achieved.

The speakers' interventions were followed by remarks and questions from panellist **MEPs Jerzy Buzek, President of the EEF, Morten Helveg Petersen, Director of the EEF** and **Pernille Weiss, Active Member of the EEF** on permitting, market design, coordination between Member States' NECPs and the Directive on maritime spatial planning. These many points opened a broader discussion with questions from the audience, adding the point of view of the regulators to the discussion and discussing the possibilities for hybrid offshore wind projects to also benefit EU Members States without access to sea.



Heating and cooling technologies: an overview of energy efficient solutions to do more with less

Online Briefing Session
18 June

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Jeremy Harrison, representative COGEN Europe/Principal Analyst Delta-EE

Hans Korteweg, Managing Director, COGEN Europe

Karl Goldstein, Member of Commissioner Simson's cabinet responsible for energy efficiency, European Commission

Carl-Johan Falk, Head of Asset Performance, E.ON

Malgosia Rybak, Climate Change & Energy Director, Cepi

Fabio Poretti, Technical & Scientific Officer, CEWEP

Moderator: Pascale Verheust, Director General of the EEF

The EEF organised another briefing session for MEP Advisers and Assistants on Heating and Cooling and energy efficiency.

As usual, we brought several actors together to show the synergies and to educate our audience on aspects that are sometimes less known. It was an honour to have with us Karl Goldstein, from Commissioner Simson's cabinet on that occasion.

After an introduction from our **EEF President MEP Jerzy Buzek**, **Jeremy Harrison, representative of COGEN Europe and Principal Analyst at Delta-EE** stated that we need different technologies and applications. It's important we understand both how different technologies support each other and how, on the contrary, some of them do not work together at all. He gave us a brief overview of different heating and cooling technologies and insisted that we focus

on starting where we are now instead of where we want to go, acknowledging different situations in different regions.

Hans Korteweg, Managing Director at Cogen Europe, explained how cogeneration (CHP) technologies work, how flexible they are to run on different fuels (H₂, biomethane, biogas, LPG for offgrid and remote areas), as well as how the technologies use one input fuel to generate two useful products - electricity and heat. In a conventional power plant, nearly 2/3 of the energy used gets wasted in the form of heat and it is important to push for this to be avoided in the first place. When CHP is installed more at the point of consumption, it allows to decentralise the energy production and is key for local integration of energy systems linking electrons, heat and gas. As electricity is produced where needed, CHP also avoids long distance grid losses.

The PACE project is funding the development of micro-CHP all over Europe. Being extremely interested in this technology and, one has to say, committed to his job, Mr Korteweg organised a small virtual visit of his basement where he installed a micro-CHP unit producing electricity and hot water for the family. The natural gas from the grid is converted into H₂, which is then fed into a fuel cell, producing heat and electricity with an efficiency of up to 95%. In the future, other gases or H₂ could be fed directly into the system, thus avoiding the need to reform natural gas. Let's hope we can soon resume technical visits and discover how the EC, EP and Council use CHP on their premises!

Karlis Goldstein, Member of Commissioner Simson's cabinet responsible for energy efficiency, reiterated the words of Mr Buzek: decarbonisation will not be possible without decarbonising heating and cooling supply. There is no single technology solution. Energy is a system matter where all the pieces – problems and solutions – are connected to each other.

We need a switch in generation as the fuel should not be fossil anymore. We need to make sure, with smart appliances, that consumption happens when congestion on the grid is the lowest using smart grids. Thermal energy can be stored in thermal storage to use it when there is high demand on the grid. As for the sufficiency, it is important to use the energy needed and not waste it.

Energy efficiency contributes to resilient energy supply – we aim to be producing energy more locally and CHP can be part of it. The establishment of local and regional plans will be important and the engagement of the consumer is key.

Mr Goldstein also shared with us some thoughts on low temperature heating and the importance of Waste-to-Energy and of not wasting energy.

Carl-Johan Falk, Head of Asset Performance at E.ON, explained how, to meet targets, we need to address heat and cooling sector as the carbon footprint of this sector is significant. He explained how the temperature of the heat in district heating gradually diminished over the last century as technologies evolved. The reduction of temperature supports the energy trilemma: it enables us to recycle heat that has not been profitable to use before and therefore use the heat sources of tomorrow (geothermal excess industry heat,...); without combustion to produce heat, the carbon footprint is reduced and more customers can take part in their heating solution given its decentralised approach. The existing infrastructure will have to evolve, step by step by developing online monitoring, smartening the grid, and accepting a more diverse portfolio of heat sources (why not catch the energy from data centres, supermarkets, shopping centres, indoor arenas, etc?).

The energy-intensive paper industry also had a place in this briefing as it uses a lot of heat in its process to dry the paper. 95 % of electricity on site in the sector comes from CHP. 60 % of the fuel is biomass so the paper industry is already generating clean electricity and heat. **Malgosia Rybak, Climate Change & Energy Director at Cepi**, gave us many examples of relevant innovations that are emerging and are key in the industry to improving energy efficiency and therefore using less heat, switching to renewable energy, preventing waste heat, reusing heat internally and using heat externally.

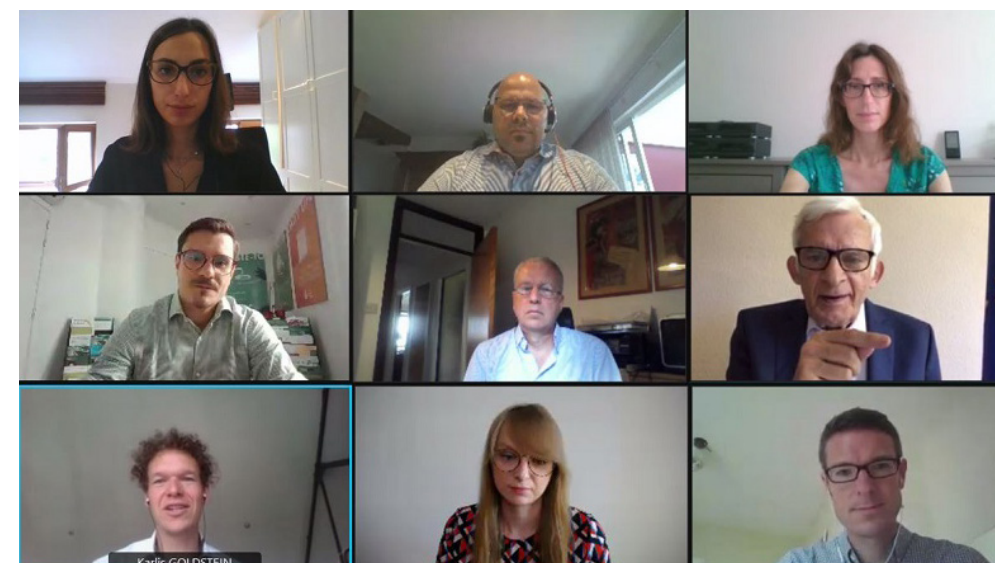
Our last intervener was **Fabio Poretti, Technical & Scientific Officer at CEWEP**, from the Waste-to-Energy (WtE) sector.

Not much is known about this sector whose primary role is to give a hygienic service to society by dealing with our waste and his intervention came very timely in our debate. By recovering the energy content of the waste, it is possible to produce electricity and heat thus substituting fossil fuels. There are 500 plants in Europe that treat residual nonrecyclable waste. 2/3 of EU's waste to energy plants are using

CHP technologies and 10 % of district heating comes from WtE. Landfilling the waste is still a big issue in the EU and diverting waste from landfill would also mitigate methane emissions.

Through many examples, he illustrated how this sector is using innovations.

Once again, this briefing proved that there's a lot to learn from new technologies and that there are many promises for the future.



How to support the EU Energy Efficiency ambitions?

Online Energy Debate
1 July

Co-Chairs:

MEP Jerzy Buzek (EPP, Poland), President of the EEF
MEP Tsvetelina Penkova (S&D, Bulgaria), Director of the EEF

Speakers:

Hans Korteweg, Managing Director, COGEN Europe
Malgosia Rybak, Climate Change & Energy Director, Cepi
Karlis Goldstein, Member of Commissioner Simson's cabinet responsible for energy efficiency, European Commission

Panellist MEPs:

Franc Bogovič (EPP, Slovenia), Director of the EEF
Seán Kelly (EPP, Ireland), Director of the EEF
Ondrej Knotek (RE, Czechia), Director of the EEF
Jutta Paulus (Greens/EFA, Germany)

Moderator: Pascale Verheust, Director General of the EEF

Before taking a summer break, the EEF had the pleasure to welcome **Karlis Goldstein, member of Commissioner Simson's cabinet responsible for energy efficiency**, for a debate on energy efficiency co-chaired by the **EEF President MEP Jerzy Buzek** and the **EEF Director MEP Tsvetelina Penkova**.

Hans Korteweg, Managing Director of COGEN Europe, focused on the importance of energy efficiency technologies in avoiding energy wastes, which remain significant today in the EU. Cogeneration is one solution for all sectors – including cities (district heating), buildings and industry – enabling to reduce heat waste and CO2 emissions, to deliver system and consumer level efficiency, to

integrate the energy system locally and to reduce the costs of the energy system across the entire value chain. Being fuel agnostic, CHP has an equal role to play in today's and tomorrow's energy systems and should be considered as a complement to both fuel switch to renewables and direct electrification.

Malgosia Rybak, Climate Change & Energy Director at Cepi, explained how the pulp and paper industry can help the EU reach climate-neutrality through emissions reduction, forest management and product substitution. Many are the projects on energy efficiency, e.g. the development of innovative drying technologies allowing efficient heat recovery, internal reuse and external use of waste heat.

To further progress, the industry calls for an enabling framework ensuring re-risking, awarding and promotion of energy efficiency investments as well as access to funding and affordable clean energy. A local and system integration approach and carbon leakage protection also remain key.

Karlis Goldstein, Member of Commissioner Simson's cabinet responsible for energy efficiency, pointed out decarbonization is a system matter requiring all technologies to be considered. Energy efficiency is about doing more with less and this remains the cheapest option to decarbonise. While the EC pushes for direct electrification of all end-uses, it agrees CHP represents a cost-effective investment where demand for both heat and electricity is present. CHP major contribution would be in sectors with no alternative to fuel combustion

and no significant ramp up of renewable electricity envisaged in the short term. Yet in the future, the EC expects combustion-based energy transformation to only account for roughly 15% of installed generation capacity.

The co-chairs and speakers were joined by the **EEF Directors MEPs Franc Bogovic** and **Seán Kelly** as well as **MEP Jutta Paulus**. Panellist MEPs see quite few priorities going forward, among which solving some of the old aspects of energy consumption and production, increasing the speed and scale of buildings renovation, ensuring the energy efficiency first principle is central in all aspects of the upcoming legislative package, including knowledge and innovation while excluding ideology and reflecting cautiously on the role today's investments will have in a climate-neutral Europe.



The new EU ETS: how to ensure a just transition towards a more sustainable future?

Online Energy Debate
28 September

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:
Wanda Buk, Vice-President for Regulatory Affairs, PGE Polish Energy Group
Elena Giannakopoulou, Director of Strategy, Public Power Corporation S.A
Beatriz Yordi Aguirre, Director « European & International Carbon Markets», DG CLIMA, European Commission

Panellist MEPs:
Pernille Weiss (EPP, Denmark), Active Member of the EEF
Jytte Guteland (S&D, Sweden)

Moderator: Pascale Verheust, Director General of the EEF

How a privilege it was to see prominent energy players willing to debate so broadly and what an honor to know they recognize the EEF as a key platform where to do so!

Wanda Buk, Vice-President for Regulatory Affairs of PGE Polish Energy Group, explained how PGE is committed to increasing the share of renewables in its portfolio to 50% by 2030 and 100% by 2050. This represents a huge investment challenge and increasing carbon prices risk making it more difficult: still largely based on fossil fuels, PGE nowadays dedicates a large share of its budget to cover CO2 emission allowances' costs. Since higher carbon prices also mean higher electricity prices for consumers, any further price shock should be avoided through additional preventing mechanisms as well as a revision of both the EU ETS parameters and the Market Stability Reserve. PGE welcomes the "Fit for 55" Package, yet it insists the different starting points

and expenditure capacities of EU Member States should be accurately considered in all legislative initiatives.

Elena Giannakopoulou, Director of Strategy at Public Power Corporation S.A., offered a slightly different perspective, underling how the EU ETS – coupled with renewables' increasing cost-competitiveness – has been positively incentivizing the company's generation fleet reconfiguration away from lignite and towards renewables. Now as decarbonization deepens, there is a crescent need to address the transition-related complexities beyond market dynamics, e.g. the inclusion of local societies, the re-skilling of workers and the decarbonization of islands. PPC appreciates the ambition of the EU ETS revision and the proposed extension to new sectors, which would facilitate cost-effective emission reduction and hedging.

Complementary policies are needed as well, ensuring the EU ETS revenues are directed where needed and finance just transition plans.

Beatriz Yordi Aguirre, Director "European & International Carbon Markets" at DG CLIMA, European Commission, agreed that a just transition is a priority, which the EC proposes to address via an increased Modernisation Fund and the Social Climate Fund, to be added to other existing instruments. The EU ETS revenues are also meant to address transition-related social impact and to foster investments in clean technologies. Shifting expenditure away from this and towards CO2 allowances should not be an option. On energy prices, Ms. Yordi reminded of what was said by the IEA – that their increase largely depends on higher gas prices, which is a supply problem not linked to the penetration of new clean technologies. The EC is sure the new package is based on a well-balanced approach combining ambition, a mix of regulatory and carbon pricing measures, and fairness.

The EEF President MEP Jerzy Buzek, EEF Active Member MEP Pernille Weiss and MEP Jytte Guteland also offered remarks.

They all shared positive thoughts on the level of ambition of the legislative package, but also remarked that accuracy is needed when modifying the EU ETS, particularly with reference to its likely impact on energy-intensive and energy-complex sectors. They added that the Social Climate Fund should primarily benefit lower-income EU households and that preventing any financial speculation in the EU ETS system is also a key priority.

EEF Associate Members in the audience were quite active as well, raising questions on the use of the EU ETS revenues and on how to defend the system's credibility by avoiding having Member States take extraordinary measures to mitigate carbon prices increase, as well as asking to set a right balance between the proposed changes on free allowances phase-out and benchmark rules and ensuring predictabilities to companies.



How does the EU meet its hydrogen demand?

Online Energy Debate
26 October

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Adolfo Aiello, Director Energy and Climate, EUROFER

Jacob Hansen, Director General, Fertilizers Europe

Holger Kreetz, COO Asset Management, Uniper

Tudor Constantinescu, Principal Adviser to Director-General for Energy, European Commission

Panellist MEPs:

Franc Bogovič (EPP, Slovenia), Director of the EEF

Ondřej Knotek (RE, Czechia), Director of the EEF

Maria Spyrali (EPP, Greece), Director of the EEF

Radan Kanev (EPP, Bulgaria), Active Member of the EEF

Moderator: Pascale Verheust, Director General of the EEF

The EEF held an interesting discussion on the EU hydrogen demand.

Holger Kreetz, COO Asset Management at Uniper, first shared his company's ambitious target of becoming carbon neutral by 2035. Hydrogen is a highly strategic pillar of the process and that is why the company is investing across its entire value chain. Focusing on the EU level, in the future it is possible that there will not be enough domestically produced hydrogen and imports will also be needed to meet the EU demand. Mr. Kreetz explained that a cost gap persists between renewable and non-renewable hydrogen: investing in low-carbon blue hydrogen – at least in this transition phase – could help bridge this gap and it is thus worth it. Looking at the

future, facilitating imports and setting a worldwide certification system would be key to ensuring a well-functioning hydrogen market is in place facilitating transport and imports when required.

The strategic value of hydrogen was confirmed by our speakers from the energy-intensive industries.

Adolfo Aiello, Director Energy and Climate at EUROFER, explained this transition is not only about unprecedented changes in the industrial processes, but it involves the upstream and downstream levels alike. Access to affordable low-carbon energy and the existence of markets for green steel are both preconditions of the steel industry's successful decarbonization.

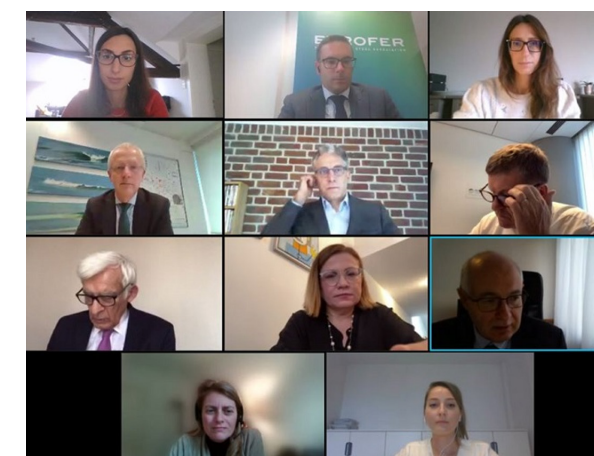
Being a key source of energy, hydrogen – and the energy it is produced from – represents a key component of the industry's production costs: ensuring its availability at large-scale and at affordable costs is crucial to safeguard the sector's competitiveness at the global level. The sector believes the technology neutrality principle is essential to allow to have more hydrogen available at lower costs and it is convinced measures rewarding renewable hydrogen consumption should also be envisaged.

Jacob Hansen, Director General of Fertilizers Europe, explained the fertilizer's industry is both one of the biggest producers and consumers of hydrogen and that the H₂ the industry itself produces goes into ammonia. Ammonia is denser in hydrogen and easier to transport and store, being able to play a key role in the decarbonization process being an H₂ carrier in addition to its other uses. Investments to develop ammonia infrastructure are thus necessary. Mr. Hansen believes pragmatism is needed: it will take time before the EU has enough renewables and electrolyzers to satisfy its H₂ demand. To avoid relying too heavily on imports, blue ammonia and hydrogen should be accepted at least in the transition phase. He also agreed on the need to create a market for green products and stressed the importance of developing standard of certification for green hydrogen and ammonia.

The European Commission is aware of the contribution hydrogen can offer to the energy transition. As said by **Tudor Constantinescu, Principal Adviser to Director-General for Energy**, last year's hydrogen strategy intends to set an investment agenda to boost H₂ demand and supply.

The Commission is working to get the right technologies, definitions, support schemes and policies on end use in place. The importance attached to H₂ is reflected by its presence in virtually all recent legislation: from the TEN-E and TEN-T regulations to the Fit for 55 Package and upcoming initiatives on the hydrogen and gas markets decarbonization. Mr. Constantinescu highlighted the importance of international cooperation with countries with potential for renewable H₂ production as well as the necessity of creating a global market for renewable hydrogen, also stating that the EU should provide leadership in terms of H₂ certification.

These initial interventions were followed by an open discussion with panelist MEPs – **EEF President Jerzy Buzek, EEF Directors Franc Bogovič, Maria Spyrali and EEF Active Member Radan Kanev** – and energy industry representatives in the audience, mainly focusing on how to bridge the cost gap between non-renewable and green hydrogen, how to scale up hydrogen technologies and infrastructure, as well as on the necessity of ensuring that the energy system transformation goes hand in hand with affordability of energy prices and security of supply.



The EU gas infrastructure: fostering a secure, safe, and affordable hydrogen economy

Online Energy Debate
9 November

Chairman: MEP Jerzy Buzek (EPP, Poland), President of the EEF

Speakers:

Torben Brabo, President, Gas Infrastructure Europe (GIE)

Thierry Trouvé, CEO, GRTgaz

Camilla Palladino, Executive Vice-President Strategy & Investor Relations, Snam

Panellist MEPs:

Ondřej Knotek (RE, Czechia), Director of the EEF

Massimiliano Salini (EPP, Italy), Director of the EEF

Radan Kanev (EPP, Bulgaria), Active Member of the EEF

Moderator: Pascale Verheust, Director General of the EEF

After exchanging on the EU demand for hydrogen in our October event, the EEF Members met virtually to discuss how to design a safe, secure, and cost-effective pan-European hydrogen Market.

Torben Brabo, President of Gas Infrastructure Europe (GIE), told us existing European gas infrastructure's readiness to contribute to creating an EU hydrogen market can help save money and time. GIE members are doing their best to get their infrastructure ready, although different European areas move at different speed. A coherent and dynamic legislative framework, flexibility for Member States, guarantees of origin, networking planning between gas and electricity and a level playing field are all key elements to proceeding even faster. On the legislative framework, Mr Brabo suggested in the first phase it could rely on existing natural gas regulation, taking the best parts of roles and responsibilities from the existing markets, with a view to making the

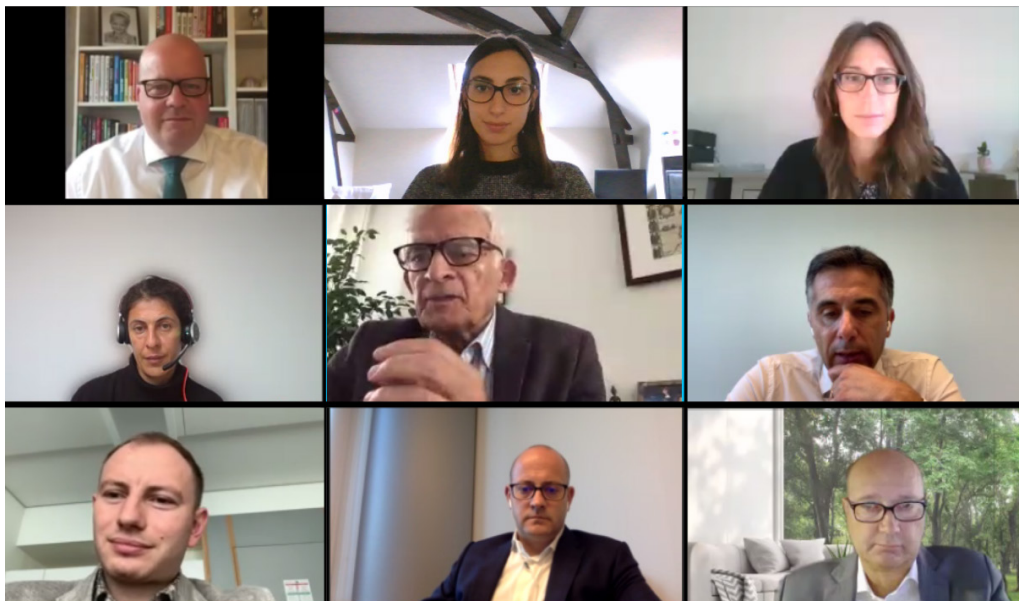
necessary adjustments as the new hydrogen market develops.

Thierry Trouvé, CEO of GRTgaz, first shared insights on the French hydrogen strategy for 2030, which aims to make France a frontrunner in green hydrogen. The H2 market is expected to develop in three phases: from local ecosystems to hydrogen valleys via a regional pipeline transport network, to an interconnected network at EU scale for pipeline transport integrating storage infrastructures. Massifying hydrogen production capacity and connecting industrial basins would bring down costs, while the development of the H2 market would benefit security of supply, competitiveness and the energy system's resilience. Mr. Trouvé finally shared expectations that the upcoming Hydrogen and Gas markets Decarbonisation Package will bring clarity and visibility to interested stakeholders.

Camilla Palladino, Executive Vice-President Strategy & Investor Relations at Snam, explained Italy is ideally suited to become a hydrogen hub as it has good production potential, access to excellent resources, an extensive network connecting it to North Africa – expected driver of H2 production globally – and a good export potential. While hydrogen development will start from pilot projects, the long-term expectation is a centralized model where green H2 production is done at scale in the best suited areas and transport and storage are central, similarly to what is now the case for gas. According to Ms. Palladino, to encourage the system to develop, there is a need to define hydrogen standards, facilitate hydrogen transport and imports, promote the increase of demand, clarify the regulatory environment and make sure desirable investments are not precluded.

After listening to these initial remarks, panelist **MEPs Jerzy Buzek - EEF President, Massimiliano Salini and Ondřej Knotek - EEF Directors**, and **Radan Kanev - EEF Active Member**, in turn shared some personal thoughts and asked several questions to the industry representatives, particularly focusing on the need of ensuring hydrogen access to all EU countries, the technical adaptations required for the gas infrastructure to accommodate hydrogen, the potential and limits of blending, as well as the cost-efficiency of retrofitted vs newly built H2 infrastructure.

The discussion they had with the speakers also touched upon many different legislative initiatives – either already on the table or foreseen in the future – and the contribution they could bring to designing a well-functioning and well-integrated hydrogen market.



Understanding Carbon Capture and Storage: what's its role in getting us to net-zero?

Online Briefing Session
19 November

Chairman: MEP Radan Kanev (EPP, Bulgaria), Active Member of the EEF

Speakers:

Lucie Boost, EU Affairs Manager, Equinor

Hugues Foucault, CO2 Capture R&D Manager, TotalEnergies

Alistair Tucker, General Manager CCUS Europe, Shell

Andrew Lightfoot, Strategy and Advocacy Advisor, Low Carbon Solutions, ExxonMobil

Peter Zweigel, R&D Task Lead CO2 storage integrity and monitoring, Equinor

Luke Warren, H2 & CCUS External Advisor, bp

Chris Bolesta, CCUS Policy Lead, DG ENER, European Commission

Moderator: Pascale Verheust, Director General of the EEF

In her speech at the Carbon Capture, Utilisation and Storage Forum, launched in October, Commissioner for Energy Kadri Simson underlined, among other things, the need to step up awareness raising on Carbon Capture Storage (CCS) and Utilisation (CCU), one key technology to help us get to net-zero which still suffers from myths and misconceptions.

Building on that, the EEF decided to offer a technical online briefing session aimed to provide MEP Advisers and Assistants with an opportunity to get to know more on different technical aspects of carbon capture, transport and storage, with another session dedicated to carbon utilization to follow.

In welcoming our participants, the chair **MEP Radan Kanev, Active Member of the EEF**, said that when discussing EU climate and industrial policies, among which all new provisions under the Fit for 55 Package, a "technology-first" approach is the best to adopt. Making sure the right, affordable and

viable technologies are in place is necessary for a successful transition. When it comes to CCS, this is key to allowing for emission reduction, especially in hard-to-abate sectors, which are very vulnerable to global competition yet extremely important for the EU economy.

Studying, assessing and understanding this technology is thus a priority and MEP Kanev said it was very glad to see EEF Associate Members' experts willing to share their knowledge on that.

Lucie Boost, EU Affairs Manager at Equinor, offered a comprehensive overview on the story and state of play of CCS, explaining how the business case has evolved over time. When the CCS Directive was created in 2009, there was one single value chain: carbon capture was applied to a plant and transported via a dedicated pipeline to a dedicated storage, yet projects based on this model failed to reach mature stage.

Today, different emission sources as well as transport and storage options have emerged, along with different operators. Concerning the CCS legal framework, Ms Boost explained there is quite a bit already available, yet the change in the business case should be reflected in new legislation as well.

Hugues Foucault, CO2 Capture R&D Manager at TotalEnergies, presented different capture technologies, starting from clarifying the difference between post-combustion, pre-combustion and oxy-fuel combustion technologies. He then explained that any fuel burning produces a limited amount of CO2, with a first challenge consisting in getting to high purity CO2 in order for that CO2 to be captured; the lower the CO2 content, the more the energy required to capture it – he specified. Mr. Foucault then offered an overview of what CO2 capture cost depends on, adding the cost issue remains one of the key hurdles to CO2 capture development. New solvents and technologies are currently being either studied or developed, which could enable CO2 capture uptake at lower costs.

Once captured, CO2 needs to be transported and this may happen through different modalities, as we were told by **Alistair Tucker, General Manager CCUS Europe at Shell**. In Europe, CO2 transport is only at an early stage. CO2 first needs to be compressed to be transported and work in terms of pressure management is required before injecting it into storage reservoirs. While pipelines are best suited for large volumes, shipping is more flexible: a combination of both is thus the preferable option. Mr Tucker presented two projects being good examples of CO2 transport development: the Northern Lights - where CO2 from capture sites is transported by ship to a terminal in western Norway for intermediate storage – and the Aramis project in the Netherlands,

based on the development of integration between pipeline and shipping transport solutions.

Andrew Lightfoot, Strategy and Advocacy Advisor, Low Carbon Solutions at ExxonMobil and **Peter Zweigel, R&D Task Lead CO2 storage integrity and monitoring at Equinor** focused on CO2 storage options.

Injecting CO2 deep into the ground is the only way of permanently storing it. Today, there are two possible storage options, both under development in Europe: depleted former oil and gas reservoirs and deep saline formations. If the first enable to reuse existing infrastructure and facilities, saline formations can store much larger volumes. Europe has enough storage capacity to satisfy future demand, but as this is not evenly distributed, a good transport network will be key. Mr Lightfoot also told us injected CO2 can be monitored through seismic data, which helps ensure storage safety and increase confidence in the system.

Following up on storage theory, Mr Zweigel exemplified some aspects of storage – namely monitoring and safety – by presenting the Sleipner and Snøhvit CCS projects in Norway. The Sleipner is the longest ongoing project in history (25 years) and was the first offshore project globally. Storage is monitored through time-lapse seismic data, that Mr Zweigel shared with us explaining how it confirms CO2 is safely stored in the Sleipner gas reservoir. In the Snøhvit CCS project, CO2 is stored at greater depth – around 2,5 km beneath the sea. Even if the rock is much harder over there, image monitoring is still possible to investigate where CO2 is distributed: the data shared with us showed more standard storage conditions and confirmed storage safety.

Luke Warren, H2 & CCUS External Advisor at bp offered some insights on CCS in the UK, where the technology is perceived as being key not only to reaching climate goals, but also for economic growth and industrial competitive transformation. After telling us about the UK approach to CCS, he presented us with two projects where many emitters forming industrial clusters are tied together to common CO2 infrastructure. The UK government has put forward different regulated economic instruments and targeted mechanisms to support the development of the technology and our speaker gave us a snapshot of some of them. This has enabled much to happen in a relatively short period of time, yet substantial further developments are required to meet the UK climate ambitions.

Last but not least to share insightful remarks was **Chris Bolesta, CCUS Policy Lead at DG ENER, European Commission**. Starting from the very first mention of CCS in official EC papers in 2006, he guided us through the evolution of the Commission's vision on and support to this technology.

Back at the beginning, several tools were put in place by the EC to foster CCS projects development, but eventually no project materialized as expected.

Mr Bolesta shared some thoughts on why this was the case, saying many were the lessons learned. Today, he is confident that conditions are there for a second CCS dawn: a strong push from the market with a high carbon price, a climate neutrality objective, a better funding mechanism and a focus on small, viable projects. What is important is to realise where the EC sees CCS having an impact – in hard-to-decarbonise industrial processes, in generating net carbon removals when combined with biomass and in some power generation cases before 2050. He concluded by saying research continues on the topic, as well as work on new tools and measures to come next.



Clean Maritime Transport: what role for LNG?

Online Energy Debate
1 December

Co-Chairs:

MEP Jerzy Buzek (EPP, Poland), President of the EEF

MEP Henna Virkkunen (EPP, Finland), Active Member of the EEF

Speakers:

James Watson, Secretary General, Eurogas

Kari Hietanen, Executive Vice President, Corporate Relations and Legal Affairs, Wärtsilä

Sandro Santamato, Head of Unit "Maritime Transport and Logistics", DG MOVE, European Commission

Panellist MEPs:

Rasmus Andresen (Greens/EFA, Germany)

Elsi Katainen (RE, Finland)

Jutta Paulus (Greens/EFA, Germany)

Moderator: Pascale Verheust, Director General of the EEF

The event was co-chaired by the **EEF President MEP Jerzy Buzek** and the **EEF Active Member MEP Henna Virkkunen, EPP shadow rapporteur for the FuelEU Maritime file in the ITRE Committee**.

In their introductory remarks, the co-chairs underlined the importance of maritime transport both globally and in the EU. As of today, shipping relies entirely on fossil fuels, meaning transformative changes are needed for the sector to play its part in reducing emissions. Because of the sector's global dimension, particularly attention is required to ensure the decarbonization does not negatively affect the EU maritime transport competitiveness at international level.

James Watson, Secretary General of Eurogas, explained why the association believes LNG has a role to play in decarbonizing the maritime transport, starting from the absence of any other economically viable zero-emission powertrain technology, as recognized by the Alternative Fuels Infrastructure Regulation proposal. Since LNG can be decarbonised through blending or substituted with liquefied biomethane, renewable and low-carbon synthetic gaseous e-fuels, it can allow for a gradual shift towards decarbonised fuels without causing any carbon lock-in effects. The switch to LNG would also offer immediate environmental benefits, namely a reduction in GHG, NOx, SOx and particulates emissions: if the entire global maritime sector was to switch to LNG, this would already lead to a 15% GHG emissions reduction, Mr Watson told us.

According to him, the FuelEU Maritime proposal is a good means to foster the sector's decarbonization. What is key is ensuring it is consistent with the rest of the Fit for 55 Package, particularly the Alternative Fuel Infrastructure Regulation proposal and the proposed review of REDII.

Kari Hietanen, Executive Vice President, Corporate Relations and Legal Affairs of Wärtsilä, offered an overview of the current technology landscape and shared some thoughts on how it is likely to evolve in the future. Today, available traditional options are diesel and heavy fuel oils, with solutions like LNG, bio- and synthetic methane being only limitedly available. Hydrogen blending is due to become more and more common, while 100% green hydrogen and ammonia concepts still need to be developed, hopefully soon. Having a clear understanding of fuel availability is crucial when making an investment decision: not only do different fuels have different costs; they also impact the vessel structure as the tank size varies based on the fuel used. In the future, Mr. Hietanen believes instead of one single solution, there will be many. Fuel flexibility and dual fuel solutions will be important and the sector's decarbonization should be underpinned by a technology neutrality approach. Mr. Hietanen finally presented one of the most environmentally friendly ship in use, showing that by integrating different technologies, reducing shipping emissions is indeed possible.

Sandro Santamato, Head of Unit "Maritime Transport and Logistics" at DG MOVE, European Commission, said the maritime transport must reduce its emissions by up to 90% by 2050 to be in line with the climate-neutrality objective: big efforts are required in using both less and cleaner energy. The EU already had measures in place to foster low-carbon and renewable fuel production and distribution –

the REDII and the Alternative Fuels Infrastructure Directive. The FuelEU Maritime is the missing piece targeting demand, whose increase is key to creating a business case for investments in production and distribution. Based on technology neutrality, the legislative proposal aims at guaranteeing a fair comparison between different fuel solutions by accounting for CO₂, methane and NO_x emissions, as well as by adopting a life-cycle approach. The clear targets set in time, the compliance with them being calculated on average through the years and possible to be achieved in a pool are also important aspects, as they provide both predictability and flexibility to operators.

Key MEPs personally working on the file also shared their views: **MEPs Rasmus Andresen, Rapporteur for opinion in ITRE, Elsi Katainen, Shadow rapporteur in TRAN Committee and Jutta Paulus, Shadow rapporteur in TRAN and ENVI Committees**. They agreed that several fuel options will be required, but offered different perspectives on which these should be, some welcoming the transition role of LNG and bioLNG, others bringing in more scepticism. They also recognised the need of putting in place clear measures to support research and innovation, incentivise investments and safeguard the EU shipping competitiveness, as well as the importance of continued discussions with and among all involved stakeholders.



Time to Re-Connect!

Gathering
1 December

Hosted by MEP Inese Vaidere (EPP, Latvia), EEF Treasurer and Vice-President

The EEF members had the occasion to meet in person after one year and a half of online meetings. The gathering was the opportunity for the EEF family to discuss the future perspective of the energy world.



Mainstreaming renewable energy in industry

Online Energy Debate
7 December

Co-Chairs:

MEP Jerzy Buzek (EPP, Poland), President of the EEF

MEP Seán Kelly (EPP, Ireland), Director of the EEF

Speakers:

Nicola Rega, Energy Director, Cefic

Estanislao Rey-Baltar Boogen, Board Member, WindEurope

Domenico Franceschino, Head Origination West & Eastern Europe, Axpo Holding AG

Lukasz Kolinski, Head of Unit «Renewables and Energy System Integration Policy», DG ENER, European Commission

Panellist MEPs: Christophe Grudler (RE, France)

Moderator: Pascale Verheust, Director General of the EEF

Our last discussion in 2021 was an online Energy Debate discussing the promotion of renewable energy in industry, co-chaired by the **EEF President MEP Jerzy Buzek** and the **EEF Director MEP Seán Kelly**.

In opening the event, the co-chairs stated a rapid and optimal deployment of renewable energy technologies is of crucial importance to reach climate neutrality, along with other key solutions such as storage and carbon capture technologies. The increase in RES consumption represents quite a tough challenge when it comes to energy intensive industries. Yet if well managed, the MEPs are confident it can be overcome successfully.

Nicola Rega, Energy Director of Cefic, explained the importance of the chemical industry for the

EU economy, both per se and as provider of decarbonization solutions. The sector has succeeded in decoupling production from GHG emissions, but this has recently slowed down. Renewables' uptake will be crucial in relaunching the process. Access to cost-competitive renewable electricity and renewable hydrogen will be key. Mr. Rega said there are limits to the possibility of deploying RES onsite in the industry. As the volumes of cost-competitive and dispatchable RES currently available are far from sufficient, measures to increase them are very much needed. When it comes to green H2, there are some issues in terms of availability and cost-efficiency still to be addressed to ensure the 50% RES H2 target is achieved and the industry's competitiveness safeguarded. Mr. Rega finally called on the Commission to clarify how to consider H2 produced as by-product in the final share of H2 used by industry, as well as to define the

methodology to calculate renewable energy used for H2 production.

After an overview of wind energy's contribution to the EU economy and energy transition, **Estanislao Rey-Baltar Boogen, Board Member of WindEurope**, shared some figures on the current and foreseen role of renewable electricity in the EU energy system. He explained 76% of European industry's power and heat demand can be electrified already with today's technology and that 75% of energy demand by 2050 will be met through direct and indirect electrification. According to him, electrification is the most competitive and cost-efficient way of decarbonising our economy. The cost of a fully-electrified energy system will not necessarily be higher: it would rather remain the same or even decrease if external costs – e.g. climate, health, pollution – are also factored in. Mr. Rey-Baltar finally shared some thoughts on what's needed to mainstream RES in industry, insisting on the importance of facilitating the development of corporate renewable Power Purchase Agreements (PPAs), speeding up permitting procedures of RES projects as well as approving a unique and clear definition of renewable hydrogen.

Domenico Franceschino, Head Origination West & Eastern Europe at Axpo Holding AG, offered a comprehensive explanation of corporate renewable PPAs and how they can be seen as one of the most efficient and affordable ways of delivering RES to industry, allowing the industry to progress towards its carbon reduction goals. Their main advantages lie in them being able to reduce both price volatilities – providing certainty of future energy costs – and market and operational risks for industrial off-takers. Yet there are also challenges to be considered, the

first being the discussion on how the different risks – e.g. price cannibalization, regulatory risks, liquidity risks... – should be allocated between the RES provider, the off-taker and the utility. Mr. Franceschino finally shared an example of a corporate renewable PPA between Axpo and a chemical factory in Belgium enabling the factory to have guaranteed green energy supplied from onshore windmills for the period 2022-2030, achieving the target of meeting 50% of electricity consumption with RES.

Lukasz Kolinski, Head of Unit Renewables and Energy System Integration Policy at DG ENER, European Commission, underlined the importance of promoting renewable energy in industry. The sector accounts for 1/4 of the EU energy consumption, but still relies mainly on fossil fuels. The proposed review of REDII aims to change this by supporting renewables uptake in industry both through direct electrification and green hydrogen consumption. Mr. Kolinski explained the introduction of specific sub targets for green H2 in industry is aimed at creating a market where needed, i.e. where electrification is not possible. The REDII is only one of all set of proposals to promote green hydrogen and will thus work consistently with the Hydrogen Strategy, the other pieces of the Fit for 55 package, the taxonomy and the upcoming package on the decarbonisation of the gas market.

The European Commission recognises the role played by renewable corporate PPAs believing SMEs should also be brought into this market, so that they can also benefit from them. Mr. Kolinski finally made some reflections on permitting procedures, also clarifying Member States' responsibility in correctly transposing all provision of REDII well on time.

MEP Christophe Grudler, who is shadow rapporteur on the revision of RED II, and EEF Director MEP Ondrej Knotek also joined our chairs and speakers, offering their views on key points to address, among which permitting procedures, costs of renewable energy, differences in Member States' potential for RES development and the need for clarifications of some key terms such as RNFBOs (renewable fuels of non-biological origin).





THANK YOU!

All the energy meetings organised throughout this year would not have been possible without the contribution and cooperation of our EEF Active and Associate Members.

Thank you all for your trust and continued support!

The EEF Team



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