EASE
European Association for Storage of Energy

Activity Report 2021

Acknowledgment

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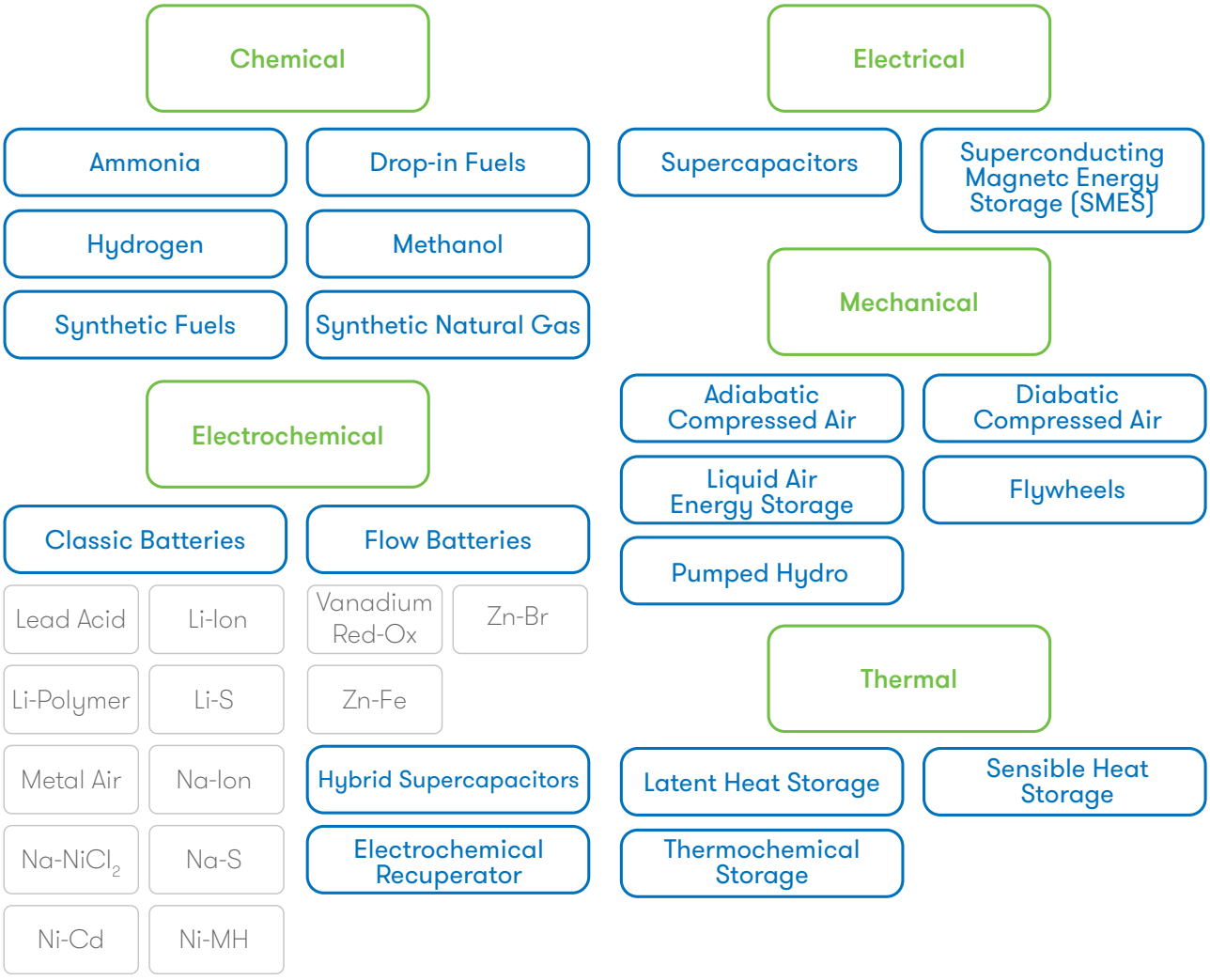
Energy Storage Technologies

Energy storage devices are “charged” when they absorb energy, either directly from renewable generation sources or indirectly from the electricity grid. They “discharge” when they deliver the stored energy back into the grid. Charge and discharge normally require power conversion devices, to transform electrical energy (AC or DC) into a different form of energy e.g. chemical, electrochemical, electrical, mechanical, or thermal.

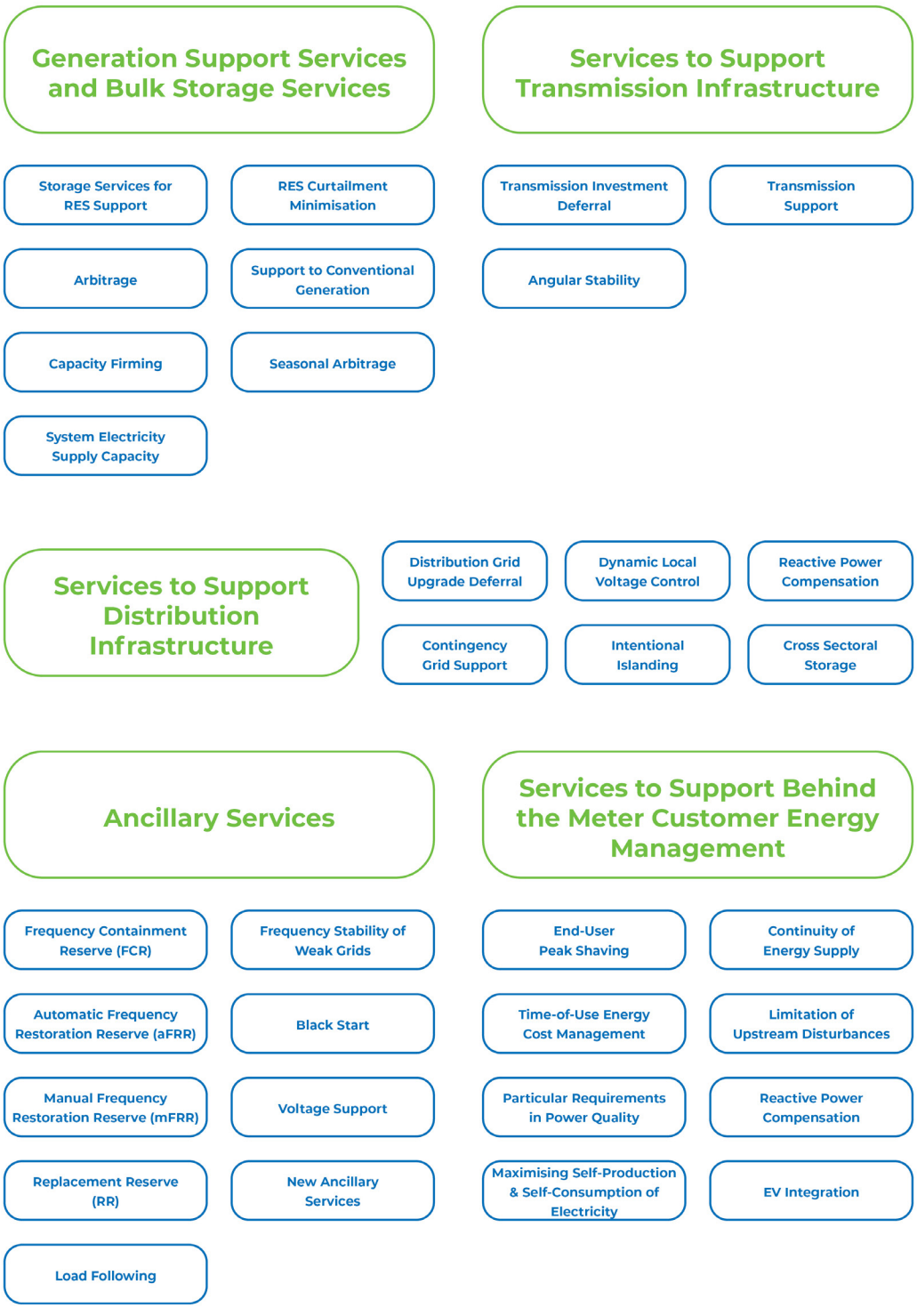
Energy storage allows surplus energy generated by intermittent renewable sources, such as solar PV and wind power, to be stored until it is required – therefore playing an essential role in the integration of renewables into the energy system.

Energy storage technologies are separated into different categories based on the form in which energy is stored. EASE organises energy storage into 5 categories: chemical, electrochemical, electrical, mechanical and thermal.



Energy Storage Applications

Energy storage has many valuable applications across the energy system. The range of applications which energy storage devices can fulfil is constantly evolving, both because of the ongoing development of new energy storage technologies, but also the evolving flexibility needs of the energy system. It is expected that the list of storage applications will continue to grow over the next few years. Most storage facilities will need to provide several services in order to have a robust business case.



Foreword by Maroš Šefčovič

Maroš Šefčovič
Vice-President of the European Commission in charge of Interinstitutional Relations and Foresight

EASE, which represents utilities, technology suppliers, research institutes, as well as distribution and transmission system operators, is one of the engines of decarbonisation in Europe. And your role is set to become even more prominent, as energy storage and batteries will be key enablers in achieving climate neutrality by 2050. The "Fit for 55" package, adopted by the European Commission in July, will drive rollout of renewable energy and further accelerate the e-mobility revolution in Europe. The new targets for renewable energy and car emissions standards will further push-up demand for smart and sustainable energy storage and battery solutions at home and at industrial sites. It is essential, therefore, that we develop our own vertically-integrated energy storage ecosystem in Europe and strive towards open strategic autonomy in this critical sector of the economy.

We must make our supply chain more resilient to future disruptions while taking advantage of the sector's enormous potential for green growth and job creation. By 2025, for example, the EU's battery market is set to be worth 250 billion euros and sustain up to four million jobs. The European Battery Alliance, which I created in 2017 with the support of Member States, European industrial champions and stakeholders - serves this purpose. The Alliance, with 700 members, brings a "make it, don't buy it" approach to the battery sector. The past four years have seen Europe becoming a genuine focal point of the global battery industry with investment outpacing China and the U.S. With some 70 major industrial battery projects across Europe promoted by the Alliance, we are well on track to achieve open strategic autonomy in this critical sector. The outlook is positive, and there are three things I want to highlight.

First, the link between innovation and competitiveness is now more important than ever. We will need more sustainable storage with higher energy density and better performance, using advanced new materials. Europe must invest not only in improving existing solutions, but also to develop next-generation, breakthrough technologies. The EU is strongly supporting industry to this effect. Under the Batt4EU Partnership on Batteries, part of Horizon Europe, we will inject 925 million euros over the next seven years. This funding will be matched by private partners.

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Second, the development of a new, future-proof regulatory framework for batteries is our top priority. The proposal for a batteries regulation, adopted last December by the Commission, is set to ensure that any batteries on the European market – regardless of origin – are sustainable, circular, high performing and safe along their entire life cycle.

It will also require that they be repurposed, collected and recycled, becoming a valuable source of secondary raw materials. By creating competition centred around sustainability and circularity, the regulation will have an immediate impact on a market that until now has largely been driven by price. Time is of the essence, and I hope that Member States and the European Parliament will adopt this Regulation by 2022.

My third point is on re- and upskilling. We must ensure that our future labour market matches the needs of the rapidly expanding energy storage and battery ecosystem. InnoEnergy estimates that 800,000 workers will need to be trained by 2025. To help make this happen, InnoEnergy - with the support of the Commission - is establishing the "EBA 250 Academy", which will train workers on the ground. I am pleased that the first Memoranda of Understanding on re- and up-skilling of workers have already been signed in Portugal, Spain and France. Further agreements are being prepared.

Acceleration of our green transition constitutes the only effective response to repetitive energy shocks triggered by soaring global fossil fuel prices. It will also help end Europe's dependence on external energy suppliers. I count on EASE with its members to continue leading our concerted efforts in the storage area, contributing to decarbonisation of our energy and transport sectors.

"I count on EASE with its members to continue leading our concerted efforts in the storage area, contributing to decarbonisation of our energy and transport sectors.

Welcome by EASE President Mr David Post

David Post
EASE President

In 2021 we celebrated the 10th anniversary of the creation of EASE – The European Association for Storage of Energy, and we were glad to celebrate it during the first hybrid edition of the Energy Storage Global Conference.

Ten years ago, the energy storage industry started as an idea, maybe a dream, but after a lot of progress, today it's fair to say that energy storage is a reality. If we look at where energy storage stands today many achievements come to mind.

Although most of the installations today are still built with lithium-ion batteries, energy storage has become a vetted technology. We see more and more innovative efforts leading to longer duration solutions, which are expected to become economically viable in the next years.

European and national regulation is being enacted to facilitate the roll-out of energy storage projects

From a regulatory perspective, both at the European level and at the Member State level regulation is being enacted to facilitate the roll-out of energy storage projects. In fact, many EU countries consider energy storage as a key-element of the energy transition and have incorporated specific targets for energy storage roll-out.

Increasingly, we see tenders being held either for storage specifically or for storage paired with renewables, almost always with a high level of oversubscription.

Not only the utilities, but also C&I customers, start now seeing the benefit of energy storage as a key element to optimise their energy bill and become more sustainable.

Banking and value optimisation is becoming mainstream

Large financial institutions are getting more and more comfortable with the business models energy storage can provide, and have started to fund important project portfolios.

Additionally, the software that runs energy storage projects to optimise

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its value, are becoming increasingly more sophisticated thanks to AI and advanced algorithms.

All these elements show us how energy storage has been put on the map and is becoming a key element of the energy transition, not only to provide more flexibility to the system, but also to shift energy to when it is really needed. Energy storage provides zero emission flexibility and backup power without adding CO2 to the atmosphere, which is why its rapid deployment is so important.

What can we expect for the next decade?

Massive scaling will start any moment now with energy storage capacity roll-out in the EU, worldwide, at utility, C&I and residential level, everywhere. Also, new technologies will soon become economically viable, ranging from more energy dense and safer batteries, to longer duration solutions allowing shifting of large energy quantities to be stored and used when needed. Storage will be paired more and more with other key elements of the energy value chain, empowering consumers to integrate renewables, electric cars and heating systems at their homes, while selling electricity and services to the grid. Storage will support the roll-out of micro-grids and energy communities as never before.

To support this exciting outlook, the energy storage industry counts on a legislation that continues to facilitate its roll-out, for example by allowing for longer term contracts for balancing services or by defining price signals or incentives to accelerate the roll-out of the technology in line with the system needs.

Also, the technology neutral implementation of the Clean Energy Package is a major driver for energy storage. Using the sustainable finance mechanisms for all energy storage technologies is vital, as well as implementing common standards for safety requirements. Finally, the permitting procedures, including the technical requirements, need to be streamlined to allow for a fast roll-out.

> “Ten years ago, the energy storage industry started as an idea, maybe a dream, but after a lot of progress, today it’s fair to say that energy storage is a reality.

2021 in Circles

January

EASE issues a **Reply to the Public Consultation of the Guidelines on State Aid for Environmental Protection and Energy**.

February

EASE issues a **Reply to the European Commission Public Consultation on the Revision of the Directive on Intelligent Transport Systems**.

EASE publishes a response to **The Revision of the Renewable Energy Directive: An Opportunity to Increase the EU's Renewables Ambitions and Accelerate Energy Storage Deployment**.

EASE issues a **Reply to the European Commission's Public Consultation on the TEN-E Regulation Revision**.

EASE and Batteries Europe organises a webinar on **The Batteries of the Future, Actions to Take Today**.

EASE organises an online workshop **Energy Storage: New Technical Tools for a Changing Market**.

APREN joined EASE.

March

EASE issues a **Reply to the Public Consultation on the Batteries Regulation Proposal**.

EASE submits a report on **Power-to-Gas: Policies and Actions in Europe**.

April

EASE and Delta-EE publish the **fifth edition of the European Market Monitor on Energy Storage (EMMES)**.

TLT Turbo, **Sungrow** and **Piritium** joined EASE.

EASE publishes a **Position Paper on the Batteries Regulation Proposal**.

EASE organises an online workshop on **The Role of Energy Storage in the Renovation Wave**.

May

EASE organises a webinar on **Distributed Solar and Storage Outlook: Methodology and Scenarios Using the Distributed Generation Market Demand Model**.

EASE organises the **Final Event from the ASSET project**.

EASE and SMARTSPEND organise the **European Conference on Risk Access Finance for the Clean Tech Sector**.

Freyr Batteries and **Malta Inc** joined EASE.

June

EASE releases an **Open Letter on Energy Storage in the National Recovery and Resilience Plans** sent to the European Commission.

EASE issues a **Reply to the revision of the Energy Performance of Buildings Directive**.

July

EASE issues a **Reply to the Revision of the Hydrogen and Gas Market Decarbonisation Package**.

EASE publishes a **Position Paper on the Renewable Energy Directive III**.

EASE shares an **Analysis of the National Recovery and Resilience Plans: What Opportunities for Storage?**

August

EASE issues a **Reply to the Public consultation on the revised Climate, Energy and Environmental Aid Guidelines**.

September

EASE publishes a **position paper on the Third Gas Package Revision**.

EASE hosts a series of **EU Funding Explained** webinar covering topics on: **Horizon Europe, Recovery and Resilience Facility, Innovation Fund, Storage and Sustainable Finance and Just Transition Fund**.

EASE and HYDROPOWER EUROPE organise a dissemination event: **HYDRO-ES 2021**.

October

EASE organises the 4th ESGC in Brussels, Belgium. The three-day event focused on energy storage technologies, policy, and markets. During the event **EASE celebrates its 10th anniversary**.

November

EASE and SMARTSPEND organise the **Risk Finance Conference** as SMARTSPEND's closing event.

EASE publishes **Reports on Energy Storage Application Segments**.

EASE issues a **Reply to the European Commission's Request for Feedback for the Energy Taxation Directive to Support EU Decarbonisation Targets**.

Corre Energy joins EASE.

corre.energy
hydrogen based energy storage

EASE attends and presents and **gave a presentation at the Wind Europe: Electric City 2021** in Copenhagen, Denmark.

EASE attends and presents at the Enlit Europe 2021 in Milan, Italy.

December

EASE together with LDES Council, co-hosts a **webinar on the Future of Long Duration Energy Storage Technologies and Their Applications**.

Policy Developments: Ten Years of EASE

To celebrate EASE's tenth anniversary, we took the "WayBack Machine" and looked at what has been featured on our website during the past ten years. The result is a series of screenshots of how energy storage and EASE became more and more important for both industry and policymakers.

There is a website, quite popular among nostalgics, that archives internet pages. It's called "WayBack Machine": it takes a screenshot, from time to time, of all the existing websites in the world; and allows users to check how a certain website looked in the past. It can be fun.

Looking at EASE's archived pages in the Wayback Machine, it is clear that in 2011 and for a good share of 2012, most of the focus of EASE was on establishing the association and its work. Energy storage really was something novel – for both industry and policymakers.

By 2012, the EASE website started resembling what it is today. There is a section for EASE members – many of whom are still with us today, ten years later. There are sections for news, publications and so on. If we look at the position papers, however we can see how much has changed between then and now. Was energy storage on the European policymakers' radars?

EASE's position paper from April 2012 states that the European Commission has recognised "the vital role of storage technologies for a progressively decarbonised European energy system". That's a good start, for sure. But if we dig deeper and consult the 2012 and 2013 public consultation responses, we notice that even a consensus among all stakeholders on the definition of energy storage had not yet been reached.

The WayBack Archive shows that EASE hosted the first Energy Storage Global Conference in 2014. That same year EASE co-organised a session on "Are the 2030 RES Targets achievable without Energy Storage?" as part of the European Union Sustainable Energy Week. EASE was building, one brick at a time, its advocacy strategy, its communications and activities.
From 2015, a headline from the website: "EASE members have agreed upon a definition of Energy Storage for the Electricity Vector". Some of the policy focus has not changed:

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Network Codes and State Aid are still amongst EASE's focus points.

In 2016, finally: the Clean Energy Package, with its proposal issued by the European Commission in November. The Clean Energy Package's importance cannot be overstated: the Third Energy Package which preceded it made no mention of energy storage. The proposal from the Commission will be discussed and adopted in the following years, but this was an incredible milestone. That year also saw EASE working on the Ten-Year Network Development Plan and its cost-benefit analysis methodology, among many other topics.

The period between 2017 and 2019 was extremely busy. The Wayback Archive of the EASE website shows it. The concept of "sector integration" became increasingly popular among policymakers and it was EASE's job to show how energy storage enables it. Grid charges, which exemplify how a fragmented regulatory framework hampers energy storage competitiveness was also brought into the conversation. Slowly, the European Commission has started giving energy storage the attention it warrants.

Over the last couple years, the number of policies related to energy storage has increased dramatically. Policymakers are eager to untap the sector's potential. In a European Union that aims for a Green Deal and sound Post-Covid Recovery, energy storage is now seen as a key sector.

Not only has policy (and the EASE website) changed; it's also the people. EASE member representatives, the EASE Staff – they have largely changed, but some pilars are still active today.. If EASE today is so different from what it was ten years ago; but at the same time, so similar, it's because of the individuals who have made EASE a space for discussion, promotion, discovery, and growth. Here's to those who have made these ten years possible; and here's to the next 10 years.

EASE Activities in Policy

2021 was a pivotal year for energy storage: while the pandemic was striking, the market kept growing steadily. European institutions as well as national governments drafted several proposals and plans that will influence energy markets regulation and the energy storage business case for years to come.

The publication of the Fit for 55 package is surely the highlight of the year: from the key Renewable Energy Directive review, to energy efficiency, taxation, alternative fuels infrastructure, to the ETS review and the proposal for a Carbon Border Adjustment Mechanism. Several dossiers of paramount importance are now under discussion in the European Parliament, and others (such as the revised Gas Package) are expected soon.

Renewables, taxation, efficiency, mobility, carbon markets – energy storage can help the EU reach new 2030 targets

The Fit for 55 Package, laying out implementation measures for the announced European Green Deal, was the most-awaited energy policy news of the year: on 14 July, European Cncommission Vice-President Frans Timmermans unveiled a comprehensive set of dossiers that cover a variety of sectors where energy storage can be a key player This included renewable energy sources, energy efficiency, carbon markets and transport. EASE has been working closely with the Commission and other stakeholders to recommend apt frameworks that would empower energy storage to provide support to decarbonisation. A variety of publications and activities, from public consultation replies to recommendations to policymakers, have supported the advocacy work of the Secretariat and will continue in the European Parliament.

The Recovery and Resilience Facility was also a pressing topic: Member States have submitted their plans to the European Commission in order to receive funds up to €672.5 billion. EASE, alongside ENESA (the European National Energy Storage Associations), published an analysis of all Recovery and Resilience Plans, assessing the amount of energy related spending and energy storage projects envisioned. Moreover, an open letter was co-signed with ENESA members to request highlighting the role of energy storage in the post-pandemic economic recovery.

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The Batteries Regulation proposal, presented at the end of 2020, has been discussed at parliamentary committee level for the most of 2021. Considering the reports by ENVI and ITRE, it's now clear that the controversial points of the dossier are not solved - issues such as recovered materials share in new batteries, second-hand batteries, the battery passport and others are still being debated by MEPs. EASE engaged European Parliament representatives across the political spectrum and published a position paper in January 2021, which greatly supported the work of clarifying the industry's concerns on key provisions.

The draft Climate, Environment and Energy Aid Guidelines were also published in 2021. In this proposal, energy has taken its deserved position amongst key technologies that would help ensure security of supply, decarbonise the transport and building sector, and support the integration of renewables. EASE, in a position paper, highlighted the **possible support scheme frameworks** that would help foster both the storage market and R&D, and discussed with DG ENER the implications that the new rules would have on the energy storage business case.

EASE's work on **hydrogen and Power-to-Gas** was finalised in a position paper delineating not only EASE's high-level messages for the establishment of a new gas market, but specific recommendations to be implemented in order to achieve a competitive, decarbonised and storage-supportive framework. The final proposal is expected to be a keystone in understanding how to face the new challenges for the gas market.

After the Renovation Wave strategy was announced in 2020, the European institutions have pushed for the decarbonisation of buildings in different energy and climate dossiers: from the Renewable Energy Directive to the Energy Efficiency Directive, to the inclusion of the building sector under a new ETS. EASE's work on the Renovation Wave has sparked great interest in stakeholders: energy storage has been greatly represented amongst possible solutions to decarbonise the building sector.

This (very summarised) overview of EASE activities shows that the energy policy world was very busy in 2021. More is expected in 2022, proving that energy storage has become an essential technology in the energy system, gaining momentum in Europe and globally.

Fit for 55 Policies Supportive for Energy Storage

2021 has been another important year for energy storage policy, as the European Commission's Fit for 55 Package unleashes a wave of proposals. Following last year's successful negotiations, the European Climate Law was agreed upon, as part of the European Green Deal, setting a target of a 55% reduction in greenhouse gas emissions by 2030. As ambition is scaled up, the roll out of renewable energy technologies in the next decade needs to be higher than previously forecasted, putting further importance on energy storage to support a balanced and efficient energy system.

Fit for 55

To implement this increased ambition, the Commission published, in the summer of 2021, the first series of revisions and initiatives under the umbrella of the 'Fit for 55' package. Aiming to revise the entire European climate and energy framework, the legislation sets to tackle topics such as renewable energy, energy efficiency, emissions standards for new vehicles, maritime and aviation fuels, emissions trading, emissions on imported goods, and energy taxes.

One of the most anticipated proposals was the Commission's revision of the Renewable Energy Directive II. EU policymakers have set out to accelerate the deployment of renewable energy sources, which is essential to meet the new ambitious goals of a 55% GHG emissions reduction 2030 target and carbon neutrality by 2050. Under the draft directive, renewables would need to make up at least 40% of the overall energy mix by 2030; home batteries would be empowered to play a role using real-time data and the bidirectional charging of electric vehicles would be encouraged.

The recast of the Energy Efficiency Directive includes higher targets for reducing EU primary energy consumption by 39% and final energy consumption 36% by 2030, binding at the EU level and reinforced in Member States. With the Energy Efficiency First principle running throughout the legislation, energy storage has an important role to play in the efficient use of energy, balancing demand and supply through energy shifting and facilitating self-consumption.

To ensure tax rates on energy products can support decarbonisation targets,

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the European Commission has adopted a recast of the Energy Taxation Directive. The directive goes in the right direction to label energy storage facilities as redistributors, avoiding double taxation which can hamper a robust storage business case.

On the agenda for early 2022 are the start of negotiations within the European Parliament and the Council of the European Union on the Fit for 55 policies. The Energy Performance in Buildings Directive and the Hydrogen and Gas Decarbonisation Package will also be discussed in European institutions later into next year.

Post-recovery funding available for energy storage

Furthered ambition is welcomed to accelerate the energy transition, but public funding remains crucial to actualise energy storage projects. In February 2021, the European Commission set up the Recovery and Resilience Facility to finance Member States' national recovery programmes under NextGenerationEU to mitigate the economic and social impact of the coronavirus pandemic. Estonia and Lithuania are examples of countries who are using this money to invest directly in energy storage technologies; from using empty mines under the seafloor and to supporting farmers and energy communities.

Furthermore, the Innovation and Modernisation funds, established in 2020, have been increased, both of which support investment in energy storage technologies.

The recognised importance of Energy Storage

The Fit for 55 Package, as part of the European Green Deal, sets out both the vision and direction of Europe's future society and economy. Energy storage is no longer left as an afterthought, but rather is now recognised for its essential role in the energy system. To meet these new emissions targets, a faster deployment of variable renewable energy sources is required. This further highlights the importance energy storage can play through energy shifting, where energy is set aside during periods of high production for later use when less energy is available. Going forward, the mission is to ensure these policies and their implementation allow storage to fulfil its vital part, leading to a smooth transition.

Developments in Funding for Energy Storage and EASE Involvement in EU-funded Projects

This was a year of new beginnings for EU funding on research and innovation for the energy transition. The start of the European Innovation Council and Horizon Europe mark an exciting era for the efforts for decarbonising Europe, fuelled by excellence and competitiveness.

In 2021, EASE continued to work hand in hand with the European Commission to shape R&I funding schemes. EASE pursued its involvement in the expert group of the Innovation Fund and participated in the several rounds of consultation about Horizon Europe.

Horizon Europe is up and running today and provides many opportunities for the energy storage sector: not only for new technologies, but also for applications and services.

Moreover, with the new European Innovation Council of the European Commission, organisations across Europe will have the unique opportunity to develop and scale up breakthrough energy storage technologies, allowing European players to unlock their innovative potential.

If Horizon Europe was full of opportunity for energy storage players, the first results of the large-scale call of the Innovation Fund represented a disappointment for the sector. The evaluation criteria put in place created an imbalance between storage projects and others when it came to awarding the winners. Over 310 applications were submitted, of which 12% were on energy storage, none, however, were amongst the selected seven projects sharing the planned billion. In this context, 2022 will represent a unique opportunity to recognise the true role and value of energy storage, by financing large-scale projects that can contribute to the decarbonisation of the European economy.

And the future looks bright for one more reason: the awareness that EASE continues to deliver quality work when it comes to its ongoing projects. Here are a few highlights of our activities this year.

A year of closures: SMARTSPEND, ASSET, TSO2020, Hydropower Europe, Batteries Europe

This year has seen the conclusion of five projects EASE was involved in. The first one was ASSET, which dealt with education and training for energy transition targeting dif-

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ferent energy stakeholders, its closing event was organised by EASE in April. SMARTSPEND, which dealt with another crucial topic – wider and improved public and private funding for clean technology innovations – had its main activity, the Access to Risk Finance Conference organised in May with a closure event in November; both activities were led by EASE.

TSO2020, which was the biggest action financed under the Connecting Europe Facility also concluded its activities this year, focused on the wide-scale deployment of green hydrogen. The project has stimulated important policy discussions at EU and national level which EASE has facilitated.

European research platforms represent a reliable point of reference to shape priorities in the EU, involving both industry and academia. EASE encourages the participation of its members to such platforms, ensuring they can make their voice heard and contribute to the discussion. The two research platforms EASE was involved in, Hydropower Europe and Batteries Europe have both finished their first contracts this year, closing their work with outstanding publications by their experts. Both platforms are set to continue for a second contract starting in 2022.

…And new beginnings: HEROES and StoRIES

When one door closes, another one opens: EASE is also proud to count two new additions its project portfolio this year. The first one is HEROES, a project that aims to facilitate the widespread deployment of electric vehicles, thanks to a cost-effective fast-charging technology for low-voltage grids. StoRIES is the second arrival to the EASE projects list: a Consortium of world-class research infrastructures from across Europe who will focus on hybrid storage solutions for energy systems of the future, enabling researchers in such ecosystem to exchange and establish synergies among them.

Overall, if the place of storage is growing, some work is still needed to unleash the true potential of a key sector to achieve the 2050 targets. The upcoming 2022 should be the year in which R&I will focus on bringing down costs for technologies providing shorter term storage, helping companies to reach the market for longer duration storage. It should be the year to improve sustainability, as well as ensuring that prosumers have access to different storage technologies.

Energy Storage Global Conference 2021

Attention towards energy storage is currently on the rise as more and more actors recognise the key role it plays in achieving the decarbonisation targets and keeping electricity prices low. The Energy Storage Global Conference (ESGC) is a unique opportunity for representatives of industry, research and policy fields to exchange views on key issues for the energy storage sector.

This year, the Energy Storage Global Conference (ESGC) counted its fourth edition and took place on 19 – 21 October 2021. The conference was organised for the first time ever as a hybrid event, allowing participants, sponsors and exhibitors the unique opportunity to engage both in online and on-site activities. The event was organised by EASE, with the support of the European Commission. The Joint Research Centre also shaped actively the technology day. The event gathered 350 participants including top-level European energy professionals and representatives from European Institutions. Representing utilities, DSOs, TSOs, suppliers, consultancies, the research community, policymakers, and National Regulatory Authorities, 130 speakers shared inputs on their activities in the energy storage sector. The ESGC 2021 gained support from 5 sponsors – EDF, CellCube, Iberdrola, NGK and Uniper; there were 11 exhibitors, all-together, engaging with participants in virtual and on-site booths. Representatives from around the world came together for three days to discuss the latest developments on energy storage technologies, regulatory and policy frameworks, and the future energy storage market. Mr. Maroš Šefčovič, Vice-President of the European Commission in charge of Interinstitutional Relations and Foresight, opened the conference highlighting that energy storage will be a crucial enabler for achieving climate neutrality by 2050.

The first day continued with an overview on how energy storage markets are evolving. Speakers and attendees discussed investments trends, new revenue streams and emerging business models and applications. The second day of the conference provided insights into policy and regulations affecting energy storage. Ms Paula Pinho, Director of the Just Transition, Consumers, Energy Efficiency and Innovation Directorate at the European Commission, stressed how energy storage is central for the achievement of the EU Green Deal and EU's decarbonisation objectives. Lastly, the third day focused on energy storage technologies and the importance of competitive, green and safe solutions. Participants were able to discuss innovative energy storage technologies. The value of storage not only for flexibility, but importantly its role in energy shifting, resilience, reliability and capacity provision to the energy system was a key takeaway.

This edition of the Energy Storage Global Conference provided valuable insights on energy storage and showcased itself as a leading event for the industry giving access to current knowledge and fantastic contacts in the field. Moreover, it was an honour to celebrate EASE's ten-year anniversary and work achieved during this time.

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POLICY
TECHNOLOGY
MARKET

ENERGY STORAGE
Global Conference

BRUSSELS, 11 — 13 OCTOBER 2022

Originally planned in 2020, the fourth edition of the ESGC had to be postponed to 2021 due to the pandemic. The ESGC, being a biyearly event, is ready to get its schedule back on track and will therefore organise its fifth edition on 11 – 13 October 2022.

DAY 1 - MARKET
Hear about innovative business cases, investments, emerging markets, trends, and storage applications.

DAY 2 - POLICY
Discuss energy storage market design and regulatory frameworks with policymakers, National Regulatory Authorities, and speakers from around the globe.

DAY 3 - TECHNOLOGY
Discover the latest cutting-edge energy storage technologies and engage in discussions with leading experts driving storage technology development.

As a result of the reduction of thermal generation capacity, electricity prices soared in 2021. This conference will demonstrate how energy storage can avoid dependency on fossil fuels in order to balance the electricity system.

The three-day conference will cover three topics representing the whole value chain of energy storage offering great opportunities to industry, researchers, and policymakers to exchange views on key issues for the storage sector.

Sponsors and exhibitors

Increase the visibility of your company before, during and after the conference. Contact us and choose the promotion package that better suits your needs.

#ESGC2022

For more information visit
www.esgc.org

What to Expect in 2022

EASE has great ambitions for energy storage in 2022. With the renewable energy directive being revised, it is time to set energy storage targets for 2030 and 2050 that align with the climate targets.

EASE considers 2022 to be an important year for the energy storage sector. Building a strong foundation to transcend the post-pandemic recession will be the focus of the EU going forward. This relies heavily on the green transition as is outlined in the Commission's work programme 2022. Building on the work of the "Fit for 55" Package, 2022 will bring even more activity on the implementation of Energy Storage projects, including funding. This will help further cement trust in the capabilities of Energy Storage.

"Fit for 55" Package

The increased EU decarbonisation targets will enhance the role of energy storage technologies as key enablers of the energy transition. EASE will be intensely engaged in advocating and sharing information, through dedicated webinars and communications on the importance of storage.
Throughout 2022, many activities will address the policies in the "Fit for 55" Package published in July by the European Commission. EASE will call for lowering barriers for the participation in energy markets for energy storage solutions and for developing a methodology to assess flexibility needs in the revision of the Renewable Energy Directive. In addition, we will advocate for clarifying the role of energy storage in the new State Aid Guidelines. 2022 will bring a new regulation on Alternative Fuels Infrastructure that offers the opportunity to enhance the role of energy storage, enabling the deployment of recharging infrastructure. EASE will continue its work to make energy storage an essential element in the "Fit for 55" Package and other policies, like the Batteries Regulation and the revision of the Energy Taxation Directive and Energy Efficiency Directive which is a huge opportunity to have a market pull for Storage.

Upcoming initiatives for 2022

The Revision of the end-of-life vehicles Directive and the Directive on the type approval of motor vehicles as well as the EU framework for harmonised measurement of transport and logistics emissions are interesting for electric vehicles and vehicles running on alternative fuels e.g. Hydrogen. The Action plan for an accelerated digital transformation of the energy sector will deal with digital measures

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allowing more flexible energy generation and consumption and better inclusion of 'prosumers'. This will be important for improving the usage of energy storage technologies in general and specifically for vehicle-to-grid and smart charging.

Energy Storage Targets for 2030 and 2050

EASE will finalise the important work on defining energy storage targets for 2030 and 2050. This is especially important for supporting the Climate Targets and achieving significant GHG reductions in the next decade. Fixed targets will be a guiding light for the storage industry to work towards, accelerating storage uptake in the short-term and driving down technology costs. Only if massive storage roll-out starts now will it be possible to achieve the critical energy shifting capacities needed to support a high renewable energy system.

EASE will continue to focus on market intelligence, highlighting barriers and opportunities for building a business case for storage now and in the future. This goes in hand with establishing a clear and fair product-based market, where technologies compete on a level playing field, renumerated based on the services they provide.

2022 - Looking to the Future

The next year is already looking busy and full of important and exciting work to be done for the energy storage industry. We hope that 2022 will allow more in-person collaborations and we look forward to welcoming everyone to the Energy Storage Global Conference 2022, building on the success of the 2021 edition. As energy storage establishes its critical place in the energy transition, EASE is eager to continue its contribution to building an even brighter future for the Energy Storage sector.

Closing by EASE Secretary General

Patrick Clerens
EASE Secretary General

Ten years of dedication! The year 2021 is a prime example of the resilience of EASE, just like its journey over the last ten years. Despite long lasting effects from the COVID-19 pandemic, energy storage is on the table for discussion more often than ever before.

Ten years ago, EASE started its journey to contribute to the green energy transition at the European level by leading the discussion on energy storage. EASE has grown along with its unique experience every year; 2021 benefited EASE the most by allowing it to be resilient through the new normal. The sanitary crisis changed a number of our plans, but with the lessons learned last year, EASE took it as an opportunity to be creative and adaptable.

Active & fruitful interaction

Throughout 2021, EASE reached out to members and stakeholders both online and offline. The Energy Storage Global Conference (ESGC) 2021 was successfully held in a hybrid format. The ESGC 2021 welcomed more than 350 participants, the highest number in its history. The number of participants and reviews prove that the hybrid ESGC encouraged flexible but in-depth discussions. Diverse participation from all over the world was possible thanks to the hybrid format.
EASE has kept actively interacting with policymakers via different channels; this includes publishing position papers, analyses and sending letters to institutions. Members vigorously engaged in different EU funding projects in 2021.

Thanks to the active contribution and interaction of and with members, EASE could broaden its perspective and make itself heard when policy was being discussed. Seven new members joined the EASE membership; 55 members now represent various stakeholders throughout the energy storage supply chain.

Policy focus going forward

To achieve carbon neutrality by 2050, EU policymakers have produced a number of related legislative measures. EASE has closely followed and welcomed the 'Fit for 55' package, which aligns with the 'Clean Energy Package'. EASE emphasises its support of the overall Union target for 40% renewable energy by 2030.

We have analysed the related policies in-depth, inter alia, the revised Renewable Energy Directive (RED III), the revised Energy Taxation Directive and the revised Energy Efficiency Directive (EED). There is still a lot more to be done and discussed, however, many of us are happy to see how the flow of the revised policies is recognising the potential of energy storage.

Mr Patrick Clerens, EASE Secretary General, at the Energy Storage Global Conference 2021

One step further in 2022

In order to face both the "new normal" and the new targets, EASE has set up a list of priorities for the coming year. Since the revised targets demand a substantial (40%) growth of renewables, an extensive increase in energy storage deployment is inevitable. EASE has concluded that establishing a target for energy storage deployment, which will be one of our primary goals in 2022, is of absolute necessity. Having a set milestone will stimulate the expansion of the market and further the technological advancement of energy storage gradually and steadily.

Furthermore, EASE will keep an eye on up-and-coming energy storage technologies, such as Long Duration Energy Storage (LDES), which are expected to be key enablers for the growth of renewables in the energy mix. This year EASE co-hosted a webinar about Long Duration Energy Storage with the LDES Council for European Stakeholders.

EASE will continue advocating for information exchange and will continue communicating with stakeholders about noteworthy storage technologies.

Looking back on 2021, we should not forget we were all fighting our own battles in this challenging time. This year was only fruitful because of the hard work of the Secretariat, actively participating members and EASE's president, Mr David Post. EASE began as a resilient, ever-growing community in 2011 and 2021 was no different. I am confident in another rewarding year for the energy storage community in 2022.

> "Only through energy storage, electricity can be brought to the right moment of use, avoiding fossil backup generation

EASE Structure and Organisation

2021 - 2023

General Assembly

Executive Board

President
David Post (Enel X)

Vice-Presidents
Corneliu Barbu (Aarhus University)
Michael Lippert (Saft)
Holger Wolfschmidt (Siemens Energy)

Treasurer
Etienne Briere (EDF)

Secretary General
Patrick Clerens

As a non-profit association, EASE is governed by an Executive Board elected by the members of the General Assembly and has several bodies dedicated to the various aspects of energy storage and the associated challenges and opportunities.

The **EASE presidency** is currently held by Mr David Post, Head of Energy Storage Solutions at Enel X and former EASE Vice-President. This was his first year in office and we're looking forward to the years to come. He is supported in his function by three Vice-Presidents: Mr Michael Lippert (Saft), Mr Corneliu Barbu (Aarhus University) and Mr Holger Wolfschmidt (Siemens Energy). Additionally, Mr Etienne Briere (EDF) will cover the position of Treasurer.

The of the EASE presidency is supported by three Committees:

The **Technology and Value Assessment Committee (TVAC)**, chaired by Mr Karim Sidi-Ali-Chérif (CEA), aims to deliver the necessary data for supporting all EASE positions and interactions with external stakeholders.

The **Strategy Committee (STC)**, chaired by Mr Miguel Garagorri (Iberdrola), advises and supports the Executive Board on policy-strategic issues affecting the storage industry, defines and promotes a fair market design for all the services provided by energy storage. It also contributes to the issue management process, including the representation on identified topics, as well as, to the advocacy processes in the specific field of responsibility.

The **Communications Committee (COMC)**, chaired by Mr Luca Camuncoli (EDF), defines and implements the EASE communication strategy in terms of target audience, content, and media.

The **General Assembly** and the **Executive Board** are responsible for all association-wide decisions, whereas the Committees and the underlying Coordination Group, Working Groups and Task Forces are involved in topic-specific decisions and tasks.

EASE Secretariat

Patrick Clerens
EASE Secretary General

Policy Team

Jacopo Tosoni
Policy Officer

Thomas Lewis
Policy Officer

Susan Taylor
Energy Storage Analyst

Lidia Tamellini
Junior Policy Officer

Hyeonji Hwang
Junior Policy Officer

Communication Team

Doriana Forleo
Communications and Events Manager

Elina Cirule
Junior Communications Officer

Project Management Team

Emin Aliyev
Innovation Project Manager

Thomas Otuszewski
Project Officer

EASE Members

Become a Member

EASE was established in 2011 and currently represents over 50 members including utilities, technology suppliers, research institutes, distribution system operators, and transmission system operators. Together, EASE members have significant expertise across all major storage technologies and applications.

Members' benefits

Advocacy

EASE is actively shaping the legal and R&D funding framework for energy storage at EU level. Members gain direct influence in the EU decision-making process.

Market intelligence

Members receive timely information and data about future market developments that can help them adapt to the changing business environment.

R&D and EU-funded projects

Members benefit from EASE's expertise and technical know-how, and they can participate in EU-funded research projects.

Visibility and networking

Featuring in EASE's publications and events, such as the Energy Storage Global Conference, gives members the opportunity to gain visibility and to strengthen their network among storage experts.

Get connected
Become a member

Membership Categories

Regular
Organisations involved in energy storage activities in Eaurope such as utilities, grid operators (TSOs and DSOs), equipment and technology manufacturers, and R&D organisations.

Consultancies
Consultancies involved in energy storage activities.

Start-ups
Start-ups developing energy storage technologies are allowed to join EASE at a discounted rate compared to regular members.

Associations
Associations involved in energy storage, directly or indirectly, at EU national or European level. Only secretariat personnel can be directly involved in EASE.

Associate
Any organisation that does not fulfil the requirements to become a Regular Member with activities relevant to energy storage.

Members Benefits

	Executive Board*	General Assembly	Committees	Working Group
Regular	✓	✓	✓	✓
Regular-R&D	✓	✓	✓	✓
Consultancy	✗	✓	✓	✓
Start-up	✗	✓ **	✓	✓
Association	✗	✓	✓	✓
Associate	✗	✓ **	✗	Upon Invitation

Upon joining, EASE members pay a one-off contribution to the working capital of EASE, which amounts for 10% of the of the annual membership fee. Associate members and consultancies must commit to joining EASE for a minimum of 3 years, with a one-time payment of all registration fees. More details on the EASE Statutes available on the EASE website.

* Elective position

** No voting rights

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