A comprehensive European approach to energy storage

European Parliament resolution of 10 July 2020 on a comprehensive European approach to energy storage (2019/2189(INI))

The European Parliament,

– having regard to the Treaty on the Functioning of the European Union, and in particular to Article 194 thereof,
– having regard to the Paris Agreement,
– having regard to the United Nations Sustainable Development Goal 7 ‘Ensure access to affordable, reliable, sustainable and modern energy for all’,
– having regard to the Commission communication of 11 December 2019 on the European Green Deal (COM(2019)0640),
– having regard to the Commission communication of 28 November 2018 entitled ‘A Clean Planet for all – A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy’ (COM(2018)0773),
– having regard to the Commission communication of 19 February 2020 entitled ‘A European strategy for data’ (COM(2020)0066),
– having regard to the European Council conclusions of 12 December 2019,
– having regard to the Council conclusions of 25 June 2019 on the future of energy systems in the Energy Union to ensure the energy transition and the achievement of energy and climate objectives towards 2030 and beyond,
– having regard to the Sustainable and Smart Gas Infrastructure for Europe Initiative launched by the Romanian Presidency of the Council in Bucharest on 1 and 2 April 2019,
having regard to the Hydrogen Initiative launched by the Austrian Presidency of the Council in Linz on 17 and 18 September 2018,


having regard to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity2,


having regard to Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity6,


having regard to Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy8,


having regard to the briefing paper of the European Court of Auditors of 1 April 2019 entitled ‘Review No 04/2019: EU support for energy storage’,

having regard to its resolution of 15 January 2020 on the European Green Deal10,

having regard to its resolution of 28 November 2019 on the climate and environment emergency11,

having regard to its resolution of 28 November 2019 on the 2019 UN Climate Change Conference in Madrid, Spain (COP 25)¹,

having regard to its resolution of 14 March 2019 on ‘Climate change – a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy in accordance with the Paris Agreement’²,

having regard to its resolution of 25 October 2018 on ‘Deployment of infrastructure for alternative fuels in the European Union: time to act!’³,

having regard to its resolution of 6 February 2018 on accelerating clean energy innovation⁴,

having regard to its resolution of 13 September 2016 entitled ‘Towards a New Energy Market Design’⁵,

having regard to its resolution of 13 September 2016 on an EU Strategy on Heating and Cooling⁶,

having regard to Rule 54 of its Rules of Procedure,

having regard to the report of the Committee on Industry, Research and Energy (A9-0130/2020),

A. whereas Parliament, the European Council and the Commission have endorsed the objective of net-zero greenhouse gas emissions in the EU by 2050, in line with the objectives of the Paris Agreement;

B. whereas the transition to a net-zero greenhouse gas economy requires an affordable and cost-efficient energy transition away from a system based largely on fossil fuels towards a highly energy-efficient climate-neutral and renewable-based system;

C. whereas renewable energy sources, such as geothermal energy, hydro and biomass can deliver some baseload capacity while others such as wind and solar are intermittent and variable; whereas the integration of variable renewable energy sources into the electricity system requires increased flexibility regarding supply and demand in order to stabilise the electricity grid, prevent extreme price fluctuations and maintain security of supply and affordability of energy; whereas this increased flexibility requires increased energy storage facilities in the EU;

D. whereas the principle of unbundling shall be maintained at all times;

E. whereas in 2017 only 22.7 % of EU-28 final energy consumption was electricity-based; whereas in 2018 over 60 % of the EU-28 electricity mix still had to become renewable; whereas further electrification is expected; whereas the Commission estimates that the EU will need to be able to store six times more energy than today to achieve net-zero greenhouse gas emissions by 2050;

F. whereas sector integration will play a crucial role in enhancing the flexibility and efficiency of the energy sector and decreasing its carbon footprint;

G. whereas green gases, such as gases produced through electrolysis using electricity from renewable energy sources, provide large storage capacities on a seasonal scale;

H. whereas the Commission should study how the existing gas infrastructure can play a role in the decarbonisation of the energy system, especially with regard to energy storage capacity for green gases, for instance transmission and distribution pipelines or underground storage as a seasonal storage, in order to decide what dedicated infrastructure or optimised and retrofitted use of existing capacities are needed;

I. whereas in 2018, only 3% of the global manufacturing capacity for lithium-ion battery cells was located in the EU, with 85% in the Asia-Pacific region;

J. whereas batteries and other decentralised storage facilities, such as flywheels, do not only serve security of supply, but also serve as economically feasible fast charging infrastructures for electric vehicles;

K. whereas pumped storage has accounted for more than 90% of the EU energy storage capacity; whereas it currently plays an important role for balancing electricity demand with supply, large-scale storage with a high round-trip efficiency, and short- and medium-term flexibility with a high range of capacity;

L. whereas thermal storage technologies can provide significant opportunities for the decarbonisation of the energy sector by making it possible to store heat or cold for several months, by absorbing renewable energy via industrial-scale heat pumps and using biomass, biogas or geothermal energy, as well as by providing flexibility services for e.g. a renewable dominated electricity system; whereas well-insulated buildings, district heating networks and dedicated storage facilities can be used as storage for different time periods;

M. whereas the energy modelling used by the Commission for assessing decarbonisation pathways and associated policy options is key as it determines future legislation and market design; whereas the current modelling significantly underestimates the positive impact of energy storage and therefore needs improvement;

1. Calls on the Member States to fully explore their energy storage potential;

2. Calls on the Commission to develop a comprehensive strategy on energy storage to enable the transformation to a highly energy-efficient and renewables-based economy taking into account all available technologies as well as close-to-market technologies and keeping a technology-neutral approach to ensure a level playing field;

3. Calls on the Commission to establish a task force involving all relevant Directorates-General to develop this strategy, which shall be based on a comprehensive analysis of:

(a) the carbon footprint and life cycle, taking into account at least the extraction and/or production of raw materials, including the human rights and labour standards aspects, the sourcing of components, the manufacturing process, transport and the recycling process, where applicable;

(b) the technology’s energy capacity, power capacity, storage duration, Capex, Opex, roundtrip efficiency and conversion efficiency;

(c) the energy system modelling, which shall incorporate the relevant data mentioned in (b) to assess policy options, while including intra-hour effects so as to correctly estimate current and future system flexibility needs and the contribution of storage to such modelling;

(d) energy demand in industry, transport and homes; and
(e) the potential of small-scale storage and flexibility potential at district level, as well as cross-border connections and sector integration;

(f) the contribution of energy storage technologies to fighting energy poverty.

4. Believes, in particular, that such a strategy should identify necessary measures to improve cross-border connections and coordination, reduce regulatory burdens for market entry, and improve access to capital, skills and raw materials for storage technologies, with a view to boosting the competitiveness of the European market and industry;

5. Notes that a cost-efficient energy transition towards a highly energy-efficient and renewable-based energy system for a climate-neutral economy requires a well-developed and smart energy grid, advanced storage and flexibility technologies, backup generation and demand response in order to secure a constant, affordable and sustainable power supply, as well as the application of the ‘energy efficiency first’ principle, massive renewables expansion, consumer empowerment and undistorted price signals; therefore calls on the Commission to continue providing support for research on storage, including on new and emerging alternative technologies, in the framework of Horizon Europe;

6. Recognises the crucial role of digitalisation in developing a more decentralised and integrated energy system and, ultimately, delivering the energy transition;

7. Underlines that the transition to a climate-neutral economy must not endanger security of supply or access to energy; underlines the role of storage especially for energy isolated or island Member States; stresses that reliable energy supply, cost-efficiency and the energy transition must go hand in hand; stresses furthermore that energy efficiency, smart grids, participation and distributed flexibility options, including storage, strengthen energy security;

8. Underlines that it is important to ensure a level playing field for all energy storage solutions, in line with the technology neutrality principle, in order to allow market forces to drive the best choices of technology and foster innovation, and that the main factors having an impact on the development of different technological solutions should be indicators of energy consumption, carbon footprint and costs of production, exploitation, recycling and decommissioning;

9. Deeply regrets that infrastructure or larger storage projects which are crucial to the energy transition often face strong resistance and delays at local level; calls on the Member States to actively encourage public support at local level, for instance through early public participation, by enabling local communities to engage, participate financially or be compensated, and close cooperation between sectors;

10. Emphasises the potential of storage as an alternative to traditional grid expansion; underlines the importance of coordinated infrastructure planning as part of the upcoming Energy System Integration Strategy in order to achieve a climate-neutral and competitive European economy;

11. Calls for the timely implementation of the Electricity Market Directive (EU) 2019/944 and the Electricity Market Regulation (EU) 2019/943; emphasises that energy storage should be coherently defined across the national legal frameworks; points to uncertainties related to its scope, particularly on inclusion of different Power-to-X technologies, and calls, therefore, on the Commission to provide urgent guidance in this matter;
12. Requests the Commission, in the context of the Energy System Integration Strategy, to provide a sound legal basis for gas infrastructure transmission and distribution system operators with the aim of providing energy storage solutions in line with the Union’s climate goals and the Paris Agreement;

**Regulatory barriers**

13. Calls on the Commission and Member States to ensure coherence and avoid overlaps in legislation on European, national or regional level;

14. Points out that most Member States require operators of storage facilities, including active consumers, to pay network charges or energy taxes and other levies twice; is convinced that the elimination of this burden would lead to more energy storage projects being deployed; calls on the Commission to differentiate between end use and storage or conversion and to develop an efficient taxation system prohibiting double taxation related to energy storage projects in its upcoming proposal for a revised Energy Taxation Directive; calls on the Member States to abolish double taxation of whatever kind by developing efficient taxation schemes and redesigning charges related to energy storage in such a way that the societal benefit from storage is reflected and barriers to storage projects accessing the market are removed;

15. Emphasises the need for a comparable treatment of storage in all different energy carriers and of storage located before and after the meter, in order to avoid creating a cross-subsidisation issue by eluding grid tariffs or system charges, taxes and levies; notes that at present electricity consumers are bearing most of the financial decarbonisation effort and therefore electricity storage is indirectly penalised;

16. Notes that, with the exception of pumped hydro, the EU network codes usually do not address energy storage facilities, which results in their unequal treatment in different Member States, particularly when it comes to requirements for the grid connection; is of the opinion that this constitutes unequal conditions of competition which hinder the development of viable business cases for energy storage facilities; calls on the Commission to facilitate work on establishing common requirements for grid connection and to address other barriers preventing the integration of storage into electricity markets;

17. Calls as a matter of urgency for the revision of the TEN-E Regulation\(^1\) with regard to eligibility criteria and electricity infrastructure categories, in order to better address the development of energy storage facilities before the adoption of the next list of projects of common interest (PCIs); calls for a thorough reform of the process of drawing up the Ten Year Network Development Plan (TYNDP) in order to integrate the ‘energy efficiency first’ principle into infrastructure planning, as well as flexibility, sector integration and cross-border connections; calls for the criteria for granting PCI status to be aligned with the Paris Agreement long-term temperature goal and the EU’s goal of climate neutrality in 2050 through a systematic climate assessment of all candidate projects for the PCI list;

18. Calls on the Commission to acknowledge the crucial role of all flexibility and storage technologies in order to ensure an efficient energy transition and to further provide high

levels of security of supply and system stability; highlights the public interest in developing new storage projects and upgrading existing ones, which should be reflected in a swift, prioritised and streamlined permitting process in the Member States;

19. Notes with concern that approval procedures at national level take considerably longer than the maximum periods for PCI projects provided for by the TEN-E Regulation; calls on the Commission to address this issue in its upcoming review, through an effective and synchronised enforcement mechanism recognising the overriding public interest of PCI storage projects;

20. Regrets the lack of market deployment of research projects under Horizon 2020 and the lack of systematic follow-up on completed projects and of dissemination of research results, and welcomes the planned greater focus on close-to-market activities while keeping fundamental research ambitions to create a pipeline of close-to-market technologies and projects in the future under Horizon Europe, in particular through the creation of the European Innovation Council; calls for greater use of pre-commercial procurement; underlines that research on clean, sustainable and low-carbon technology needs to be stepped up, including on energy storage;

21. Emphasises that more research is needed concerning chemical substances used for energy storage, as well as fundamental research on superconductivity, which should be reflected in the upcoming Horizon programme;

22. Notes with concern that there is only an indirect reference to energy storage projects in the Commission’s Guidelines on State aid for environmental protection and energy 2014-2020; notes, furthermore, that astonishingly few State aid measures for storage projects have been notified in the past;

23. Calls on the Commission to take into account the important role of storage in the energy transition and to address it accordingly when reviewing the State aid guidelines; also calls on the Commission to make sure that the new guidelines take into account the sustainability and efficiency, the contribution to grid stability and the contribution to climate neutrality of different storage technologies; furthermore stresses that non-commercial projects (e.g. for research) could be granted an exemption from state aid rules, so that inefficient funding and distortion of competition are avoided; underlines that operation of storage assets by non-market players is limited to those cases where there is no market interest and the national regulatory authority has granted an exemption;

24. Calls on the Commission to make sure that the new guidelines take into account the efficiency and the contribution to grid stability of different storage technologies, so that inefficient funding is avoided and the participation of non-market players is limited to the cases and circumstances referred to in Articles 36 and 54 of the Electricity Market Directive (EU) 2019/944;

Chemical Storage (Power to X)

25. Underlines the important role of Power to X technology as a key enabler of energy system integration and the linking of the electricity and gas sectors; emphasises in this regard the high potential of hydrogen, especially green hydrogen, and of synthetic methane and biomethane for seasonal energy storage in high volumes and as an energy carrier, as fuel and feedstock for energy-intensive industries, and as a sustainable fuel for several modes of transport; calls on the Commission to continue supporting R&D related to the development of a hydrogen economy, and urges the Commission and the
Member States to support the further upscaling of Power to X technology, in particular through the support of a hydrogen initiative as an Important Project of Common European Interest (IPCEI);

26. Notes that the use of hydrogen for energy storage is not competitive yet due to high production costs; further notes the great cost difference between green and blue hydrogen; points out the importance of support measures leading to a cost reduction for green hydrogen in order to make a viable business case;

27. Notes that there are varying standards in the Member States as regards the blending of hydrogen with natural gas; calls on the Commission to assess and develop a clear taxonomy and standards for hydrogen, for both the gas grid and end users; points out that these standards will have to be adapted to the end users’ quality needs and technological capacities, considering each country’s specificities;

28. Notes that hydrogen produced by power to gas can be further transformed into other types of gas, such as methanol and ammonia, which can be used as fuel for the maritime and aviation sector, as well as for heavy transport;

29. Highlights that large energy storage capacity is provided by the existing gas infrastructure and that these assets and those accommodating new sources of gas, in particular green hydrogen, would facilitate the integration of renewable electricity; notes in this regard the need to address the issue of the new role of gas Transmission Systems Operators (TSOs) in the light of unbundling rules;

30. Calls on the Commission to conduct a comprehensive impact assessment, a cost-benefit analysis and an availability analysis of retrofitting gas infrastructure or building dedicated new infrastructure, which is important for the use of green hydrogen, for its transport in large quantities and for the roll-out of hydrogen mobility; acknowledges the potential of underground gas storage such as empty caverns or pore storage;

31. Considers that the EU’s policies should specifically enhance innovation and the deployment of sustainable energy storage and green hydrogen; stresses the need to ensure that the use of energy sources such as natural gas is only of a transitional nature, considering the objective of achieving climate neutrality by 2050 at the latest; acknowledges that the EU will require increasing quantities of hydrogen; stresses that in order to ensure sufficient volumes of energy and the competitiveness of European industry, hydrogen pathways need to be supported;

32. Calls on the Commission to develop a harmonised definition of green hydrogen based on a transparent methodology; calls furthermore for a system of mutual recognition of Guarantees of Origin for these gases, proposing the development of a common certification scheme and a documentation system throughout the value chain, for example by issuing a green label; encourages Member States to minimise administrative barriers to the certification of green and/or low-carbon hydrogen; calls on the Commission to ensure fair and effective competition between technologies and energy carriers and between imported hydrogen and hydrogen produced in the EU;

33. Notes that under current internal gas market rules, EU gas infrastructure transmission and distribution system operators are only authorised to transport natural gas as a regulated activity; calls on the Commission, in the context of the Energy System Integration Strategy, to enable operators to transport low-carbon gases such as hydrogen, biomethane, and synthetic methane;

34. Underlines that all market actors should have access to the advantages and incentives
created in pilot projects or real world laboratories to demonstrate renewable energy-based hydrogen production;

35. Recalls that production of synthetic chemical carriers is only reasonable when renewable energy is used; calls for an increase in renewable energy targets for 2030 based on a thorough impact assessment;

Electrochemical storage

36. Is convinced that a range of battery technologies, including those with already well-established value chains in the EU, will play an important role in ensuring a stable and flexible electricity supply; stresses that battery technologies are of crucial importance to guarantee the EU’s strategic autonomy and resilience as regards electricity supply;

37. Welcomes the Commission’s efforts to create standards for European batteries;

38. Acknowledges that well-functioning collection and recycling schemes as well as closed-loop processes, in line with the circular economy principles, are already in place for a range of battery technologies, especially in EU-based automotive and industrial battery value chains, e.g. lead-based starter batteries, and believes that those schemes could be considered as a blueprint for battery recycling;

39. Notes that access to electricity and flexibility markets will be key to realising the potential of batteries storage;

40. Is concerned that the EU has a very low lithium-ion battery manufacturing capacity and relies on production sourced outside Europe with limited transparency; welcomes, therefore, the European Battery Alliance and the Strategic Action Plan on Batteries; calls for their expansion to cover all available battery technologies; calls for continuous support for them and for the implementation of the Strategic Action Plan to be strengthened, in line with broader objectives in terms of the circular economy, industrial strategy and chemicals management; welcomes, in this respect, the Commission’s announcement that it will propose legislation on batteries in support of the Strategic Action Plan and the circular economy; calls, in this regard, for life cycle analysis of batteries, the introduction of circular design, safe management and handling during the treatment of hazardous substances in cell manufacturing, and the introduction of a carbon footprint label declaring the environmental impact of all battery value chains placed on the European market; stresses the importance of creating ecosystems around the battery value chain in order to foster the competitiveness and sustainability of the industry;

41. Calls on the Commission to propose eco-design requirements for batteries in order to enhance their recyclability by design;

42. Is concerned about the EU’s heavy dependence on imports of raw materials for battery production, including from sources where their extraction involves environmental degradation, violation of labour standards and local conflicts over natural resources; urges the Commission to address this dependence in the relevant EU strategies; highlights the role of sustainable sourcing of raw materials and the potential of domestic raw material sources in EU; is convinced that enhanced recycling schemes for batteries could deliver a significant share of the raw materials required for battery production within the EU;

43. Acknowledges the potential for used electric vehicle batteries to be reused for energy storage in private homes or in larger battery units; is concerned that the classification of
used batteries as waste in the Batteries Directive, independently of reuse, can act as a barrier to such reuse; recognises that reused batteries are not returned for recycling and that safety standards are not controlled when a battery is repurposed for uses with different characteristics than originally designed for; calls on the Commission to apply producer responsibility, with performance and safety guarantees, to the remanufacturer reintroducing the battery to the market; calls on the Commission to clarify the extended producer responsibility schemes (EPR) related to reused batteries;

44. Acknowledges the potential of electric vehicles and their batteries to provide, via smart electric vehicle charging infrastructure, flexibility to the grid as part of dispatchable demand response, thereby reducing the need for backup plants in the power system;

45. Calls on the Commission to propose ambitious collection and recycling targets for batteries based on critical metal fractions when revising the Batteries Directive and after conducting an impact assessment; underlines the need to further promote research and innovation for recycling processes and technologies under Horizon Europe;

46. Calls on the Commission to develop guidelines and/or standards for repurposing batteries from electric vehicles, including testing and grading processes, as well as safety guidelines;

47. Highlights the need to support research, know-how and skills in order to foster battery production in the EU;

48. Acknowledges the potential of the global battery passport in developing a sustainable battery value chain, taking account of human rights and environmental impact; considers mineral certification as an important tool to ensure sustainable battery value chains;

Mechanical storage

49. Notes that pumped storage plays a crucial role in energy storage; is concerned that the EU is not exploiting the full potential of this carbon-neutral and highly efficient way of storing energy;

50. Considers that the Member States should seek further ways to enhance pumped storage capacity while taking into account the multi-purpose use of existing and new reservoirs; calls on the Member States to remove any administrative obstacles that are delaying these projects and to provide regulatory support for innovative approaches in this field; calls on the Commission to prioritise the necessary energy transition, to conduct a comprehensive review of the relevant legislation, and to propose changes where necessary, minimising environmental impact;

51. Points out that in the interests of environmental protection, upgrades of existing facilities and higher capacity projects might be better than new projects;

52. Acknowledges the contribution of storage technologies such as compressed air, supercapacitors and flywheels to the provision of flexibility; recognises the importance of a European flywheel technology for energy storage and for frequency regulation; underlines the fact that this technology is a relevant storage and regulation device for smart grids or strategic grid development;

Thermal storage

53. Considers thermal storage (such as large-scale boilers) and district heating in densely populated areas to be a very efficient tool for energy storage providing the necessary
flexibility to integrate a greater share of intermittent renewables and waste heat from industrial processes and the tertiary sector; calls on the Commission and the Member States to support and develop highly energy-efficient district heating networks; moreover, calls on the Commission to take heat infrastructure and thermal storage into account when developing the Ten-Year Network Development Plans for both the European Network of Transmission System Operators for Electricity (ENTSO-E) and the European Network of Transmission System Operators for Gas (ENTSO-G);

54. Believes that thermal storage in aquifers, especially in connection with the use of geothermal sources, could represent an innovative tool in non-urbanised and industrial areas; calls on the Commission and the Member States to support research and development for these solutions and to implement large-scale pilot plants;

55. Acknowledges that flexible cogeneration provides a forward-looking integrated energy storage solution for flexibility of electricity grids and efficiency of heat supply thanks to heat storage decoupling electricity production from heat consumption; calls on the Member States to further explore sector integration, smart energy systems and use of excess heat, for example from data centres, industrial sites or metro systems; calls on the Commission to promote innovative thermal storage concepts such as heat-to-electricity storage and ice storage;

56. Welcomes the fact that district heating and cooling networks will be eligible for funding under the revised CEF Regulation, and calls for their inclusion as potential PCIs under the TEN-E Regulation;

57. Believes that, in line with technology neutrality, thermal energy storage technologies should be promoted in order to improve their performance, reliability and integration into existing systems for dispatchable power; believes that thermal storage technology development and market deployment can provide opportunities for joint projects in order to encourage energy partnerships between countries;

58. Acknowledges the storage potential of energy-efficient buildings through storage-effective masses, thermal or massive building components or storage of cold or hot water; calls on the Commission to spur energy efficiency renovations in its upcoming renovation wave strategy and urges Member States to deliver on their long-term renovation strategies while considering the storage potential of buildings;

59. Calls on the Commission to consider the role of thermal storage and heating infrastructure in bringing flexibility to the energy system in the upcoming Energy System Integration Strategy;

60. Calls on Member States to consider all sustainable and cost-efficient storage technologies and flexibility options, including those on heat, as part of an integrated energy systems approach when redesigning their energy systems into highly energy-efficient and renewables-based economies in their national energy and climate plans (NECPs);

**Decentralised storage - the role of active consumers**

61. Believes that home batteries, domestic heat storage, vehicle-to-grid technology, smart home energy systems, demand response and sector integration help to cut consumption peaks, provide flexibility, and are playing an increasingly important role in ensuring that the energy grid is efficient and integrated; believes that early standardisation of new devices, consumer information and transparency of consumer data and well-functioning electricity markets providing easy access for consumers will be key to achieving this;
moreover, stresses the role of active customers and citizens’ energy communities in the energy transition process, and believes they should be adequately promoted;

62. Notes the reluctance of private users to provide their vehicle batteries for storage services, even if technically feasible; welcomes in this regard the incentives for flexibility provided to consumers by Directive (EU) 2019/944 (the Electricity Market Directive), and calls on the Member States to ensure the swift and strong implementation of the relevant provisions; stresses that the broad market introduction of vehicle-to-grid technology will require greater interoperability and, therefore, uniform EU-wide regulations or standards eliminating a number of barriers, including administrative, legal and tax barriers;

63. Recognises the contribution of active consumers to providing flexibility to the system, for instance through decentralised and small-scale energy storage solutions, and ultimately to the achievement of climate and energy targets; calls on the Member States to support citizens' participation in the energy system (e.g. through tax incentives for battery storage technologies) and to remove those obstacles that prevent consumers from self-generating electricity or from consuming or storing self-generated electricity or selling it on the market; calls on the Commission to properly monitor the correct implementation of the Electricity Market Directive and of Directive (EU) 2018/2001 (the Renewable Energy Directive) as regards those articles establishing a regulatory framework for self-consumers and energy communities;

64. Underlines that decentralised storage is a crucial part of demand-side management; highlights the role of EV batteries in providing grid flexibility through smart charging and vehicle-to-x services; calls on the Commission to create an enabling framework ensuring that the functionality to provide such services is enabled by EV producers, the charging software and the charging station, and to achieve full interoperability in the framework of a revised Alternative Fuels Directive;

65. Instructs its President to forward this resolution to the Council and the Commission.