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REPORT

on the European Hydrogen Bank
(2023/2123(INI))

Committee on Industry, Research and Energy

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MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on the European Hydrogen Bank (2023/2123(INI))

The European Parliament,

- having regard to the Treaty on the Functioning of the European Union (TFEU), and in particular to Article 194 thereof,
- having regard to the agreement adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change in Paris on 12 December 2015 (the Paris Agreement),
- having regard to the Commission communication of 16 March 2023 on the European Hydrogen Bank (COM(2023)0156),
- having regard to the Commission communication of 1 February 2023 entitled ‘A Green Deal Industrial Plan for the Net-Zero Age’ (COM(2023)0062),
- having regard to the Commission communication of 18 May 2022 entitled ‘REPowerEU Plan’ (COM(2022)0230),
- having regard to the Commission communication of 8 July 2020 entitled ‘A hydrogen strategy for a climate-neutral Europe’ (COM(2020)0301),
- having regard to the Commission communication of 8 July 2020 entitled ‘Powering a climate-neutral economy: An EU Strategy for Energy System Integration’ (COM(2020)0299),
- having regard to the Commission communication of 10 March 2020 entitled ‘A New Industrial Strategy for Europe’ (COM(2020)0102),
- having regard to the Commission communication of 11 December 2019 on the European Green Deal (COM(2019)0640),
- having regard to the Commission proposal of 20 June 2023 for a Council regulation amending Regulation (EU, Euratom) 2020/2093 laying down the multiannual financial framework for the years 2021 to 2027 (COM(2023)0337),
- having regard to the Commission proposal of 20 June 2023 for a regulation of the European Parliament and of the Council establishing the Strategic Technologies for Europe Platform (‘STEP’) and amending Directive 2003/87/EC, Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) No 1303/2013, (EU) No 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 and (EU) 2021/241 (COM(2023)0335),
- having regard to the Commission proposal of 16 March 2023 for a regulation of the European Parliament and of the Council establishing a framework for ensuring a secure

and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020 (Critical Raw Materials Act) (COM(2023)0160),

- having regard to the Commission proposal of 16 March 2023 for a regulation of the European Parliament and of the Council on establishing a framework of measures for strengthening Europe’s net-zero technology products manufacturing ecosystem (Net Zero Industry Act) (COM(2023)0161),
- having regard to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity¹, which is currently being revised,
- having regard to Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU², which is currently being revised,
- having regard to Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources³ (Renewable Energy Directive),
- having regard to Regulation (EU) 2023/1804 of the European Parliament and of the Council of 13 September 2023 on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU⁴,
- having regard to Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC⁵, which is currently being revised,
- having regard to Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005⁶, which is currently being revised,
- having regard to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC⁷,
- 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, which is currently being revised,

¹ OJ L 158, 14.6.2019, p. 54.

² OJ L 158, 14.6.2019, p. 125.

³ OJ L 328, 21.12.2018, p. 82.

⁴ OJ L 234, 22.9.2023, p. 1.

⁵ OJ L 211, 14.8.2009, p. 94.

⁶ OJ L 211, 14.8.2009, p. 36.

⁷ OJ L 275, 25.10.2003, p. 32.

⁸ OJ L 327, 22.12.2000, p. 1.

- having regard to Council Regulation (EU) 2022/2576 of 19 December 2022 enhancing solidarity through better coordination of gas purchases, reliable price benchmarks and exchanges of gas across borders⁹,
- having regard to Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe and repealing Regulations (EC) No 219/2007, (EU) No 557/2014, (EU) No 558/2014, (EU) No 559/2014, (EU) No 560/2014, (EU) No 561/2014 and (EU) No 642/2014¹⁰,
- having regard to Council Regulation (EU) No 559/2014 of 6 May 2014 establishing the Fuel Cells and Hydrogen 2 Joint Undertaking¹¹,
- having regard to Commission Delegated Regulation (EU) 2023/1184 of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin¹²,
- having regard to Commission Delegated Regulation (EU) 2023/1185 of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and by specifying a methodology for assessing greenhouse gas emissions savings from renewable liquid and gaseous transport fuels of non-biological origin and from recycled carbon fuels¹³,
- having regard to Commission Delegated Regulation (EU) 2019/856 of 26 February 2019 supplementing Directive 2003/87/EC of the European Parliament and of the Council with regard to the operation of the Innovation Fund¹⁴,
- having regard to its resolution of 19 May 2021 on a European Strategy for Hydrogen¹⁵,
- having regard to its resolution of 19 May 2021 on a European strategy for energy system integration¹⁶,
- having regard to its resolution of 10 July 2020 on a comprehensive European approach to energy storage¹⁷,
- having regard to its resolution of 15 January 2020 on the European Green Deal¹⁸,
- 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

⁹ OJ L 335, 29.12.2022, p. 1.

¹⁰ OJ L 427, 30.11.2021, p. 17.

¹¹ OJ L 169, 7.6.2014, p. 108.

¹² OJ L 157, 20.6.2023, p. 11.

¹³ OJ L 157, 20.6.2023, p. 20.

¹⁴ OJ L 140, 28.5.2019, p. 6.

¹⁵ OJ C 15, 12.1.2022, p. 56.

¹⁶ OJ C 15, 12.1.2022, p. 45.

¹⁷ OJ C 371, 15.9.2021, p. 58.

¹⁸ OJ C 270, 7.7.2021, p. 2.

- economy in accordance with the Paris Agreement¹⁹,
- having regard to its resolution of 25 October 2018 on deployment of infrastructure for alternative fuels in the European Union: time to act!²⁰,
 - having regard to its resolution of 6 February 2018 on accelerating clean energy innovation²¹,
 - having regard to the opinion of the European Economic and Social Committee of 14 June 2023 on the European Hydrogen Bank²²,
 - having regard to the opinion of the European Committee of the Regions of 30 November 2023 on the European Hydrogen Bank,
 - having regard to Rule 54 of its Rules of Procedure,
 - having regard to the opinion of the Committee on Budgets,
 - having regard to the report of the Committee on Industry, Research and Energy (A9-0379/2023),
- A. whereas the EU is a party to the Paris Agreement and has committed to reducing greenhouse gas emissions by at least 55 % by 2030 compared to 1990 levels and to achieving climate neutrality by 2050;
- B. whereas hydrogen can be used as a feedstock, a fuel or an energy carrier and has the significant potential to decarbonise hard-to-abate industries and heavy transport, for which direct electrification is not technologically possible or competitive;
- C. whereas hydrogen can also be used for last resort energy storage to balance the energy system, thereby contributing to energy system integration;
- D. whereas hydrogen is in itself an indirect greenhouse gas and there is growing awareness of its climate impacts, which should be properly addressed through monitoring, prevention and mitigation measures in close cooperation with industry;
- E. whereas the EU hydrogen strategy has set an objective of installing at least 40 GW of renewable hydrogen electrolyzers and producing 10 million tonnes of renewable hydrogen in the EU by 2030 and the REPowerEU plan has proposed to complement this objective by importing the same amount of renewable hydrogen;
- F. whereas the total investment required to meet this objective is estimated at EUR 335-471 billion, and an additional EUR 500 billion of investment will be required to secure the import of the envisaged amount of renewable hydrogen;
- G. whereas the European electrolyser manufacturing industry has set an objective of

¹⁹ OJ C 23, 21.1.2021, p. 116.

²⁰ OJ C 345, 16.10.2020, p. 80.

²¹ OJ C 463, 21.12.2018, p. 10.

²² OJ C 293, 18.08.2023, p. 127.

installing at least 25 GW of manufacturing capacity by 2025, representing around 120 GW of installed capacity in Europe;

- H. whereas the cost of electrolyzers has already been reduced by 60 % in the last 10 years and is expected, according to the Commission, to be halved in 2030 owing to economies of scale;
 - I. whereas fuel cells and electrolyzers require technology-intensive components and several critical raw materials, in particular platinum-group metals, whose main producers are located outside the EU, often in countries where mining is linked to serious human rights violations, deterioration of governance, conflicts and environmental degradation, while producers located in the EU are faced with uncompetitive operating conditions;
 - J. whereas a market for renewable hydrogen remains to be built and will require appropriate customer protection and significant investments so that decarbonisation is achieved in all hard-to-abate sectors;
 - K. whereas end-use demand for renewable hydrogen needs to be incentivised across all sectors, including those that might use low-carbon hydrogen in their transition to a decarbonised economy;
 - L. whereas price discovery is crucial for consolidating the foundations of the hydrogen market, targeting public financial support and allowing for effective regulatory oversight and public monitoring;
 - M. whereas the Commission estimates the price of renewable hydrogen in the EU to be between EUR 2.5 and 5.5 per kg, which is driven by the price of renewable electricity and electrolyzers, while the price of fossil fuel-based hydrogen is around EUR 1.5 per kg;
 - N. whereas global economic partners and competitors, including the US and China, are providing strong financial support to their domestic production of renewable hydrogen, including the US Inflation Reduction Act which promotes renewable hydrogen with a tax credit up to USD 3 per kg;
1. Welcomes the Commission communication on the European Hydrogen Bank (EHB); notes that the name ‘European Hydrogen Bank’ can be misleading, as this is not a bank but an initiative aiming to act as an efficient and streamlined one-stop-shop for the coordination of activities and financing in support of renewable hydrogen projects along the entire supply chain;
 2. Encourages the Commission to provide more funding and visibility to the initiative, as it will represent an important milestone for kick-starting the European hydrogen market; considers that the EHB should bear clear responsibility for the implementation of the recommendations included in this resolution;
 3. Recalls that the only sustainable form of hydrogen is renewable hydrogen; notes that electrolyzers account for less than 4 % of total hydrogen production in the EU; notes that low-carbon hydrogen will play a role during the transition to a net-zero economy

and the ramp-up of the hydrogen market;

4. Acknowledges that the production of renewable hydrogen is energy intensive; notes that reaching the targets for renewable hydrogen will require ramping up the manufacturing of electrolysers that contain critical raw materials; notes that this would also require a significant expansion of renewable electricity capacity and an upgrade of the power grid;
5. Recalls that the International Energy Agency estimates that 32 % of global electrolyser capacity will be located in Europe by 2030 if all planned projects materialise; stresses the need to maintain and enhance the Union's global leadership on hydrogen by developing an innovative and efficient market that connects producers with consumers, using adequate infrastructures;
6. Welcomes the Commission's proposals for a Net Zero Industry Act, a Critical Raw Materials Act and the revision of the Renewable Energy Directive that would contribute to secure, competitive and resilient value chains serving the increased demand for EU-produced renewable hydrogen and electrolysers; stresses that the EHB should act as a complement to the Net Zero Industry Act;
7. Strongly supports streamlined and faster permitting procedures across the entire value chain in order to ramp up the production of renewable hydrogen and foster innovation; insists on retaining the current high level of environmental protection when assessing permit applications, while streamlining certain environmental-related aspects of the permit-granting procedures and administrative processes for renewable energy projects;
8. Considers that, to secure the EU's industrial sovereignty in a context of open strategic autonomy, the first implementation phase of the EHB should strongly prioritise ramping up domestic production, while subsequent phases could be extended to enabling the ramping-up of competitive imports of renewable hydrogen; recalls that support for both domestic production and imports should fall under the competence of the EHB;
9. Welcomes the role of the EHB in increasing transparency on flows, transactions and prices in the emerging hydrogen market; underlines that this function is crucial for increasing market confidence, strengthening regulatory oversight and public monitoring, and informing the integrated planning of energy infrastructure;
10. Emphasises that private funding will be instrumental in building a European market for renewable hydrogen and that an efficient market, once developed, should not be dependent on public subsidies;
11. Notes that a robust EU market regulatory framework for hydrogen can help establish a properly functioning market; believes that a predictable and less volatile price path is necessary to create investment certainty for indispensable investments in hydrogen production and hydrogen infrastructure;
12. Considers that the delegated acts on renewable liquid and gaseous fuels of non-biological origin have increased predictability and certainty for investors; welcomes the Commission's proposal for a hydrogen and decarbonised gas market package; insists on providing a coherent and stable regulatory environment for the industry;

13. Underlines that, according to the International Renewable Energy Agency, hydrogen production via electrolysis is water-intensive and consumes between 18 and 24 kg of water per kg of hydrogen; highlights that water consumption is even higher when considering the upstream value chain; calls on the Commission and the Member States to pay specific attention to resource efficiency and to the Water Framework Directive²³, in particular for regions at risk of drought; calls for further research into technologies for water desalination that minimise energy consumption and environmental impacts, particularly that of brine pollution;
14. Emphasises that Hydrogen Valleys and related infrastructures play an important role as instruments to support the decarbonisation of industrial districts, foster innovation and contribute to the local economy; notes that Hydrogen Valleys provide secured clusters of hydrogen supply and demand in Europe; considers that the EHB has the responsibility to coordinate and support all relevant consumption centres across Hydrogen Valleys and to upscale large-scale hydrogen flagship projects;

Financial support for the domestic production of renewable hydrogen

15. Welcomes the Commission's decision to launch a first price-based pilot auction to support renewable hydrogen; takes note of the budget of EUR 800 million for supporting the production of renewable hydrogen over 10 years; calls on the Commission to engage rapidly in the assessment of this pilot auction as regards its effectiveness, macroeconomic and industrial consequences;
16. Acknowledges the Commission's choice to provide support in the form of a fixed premium in the first pilot auction, as the difference between the production and consumption of hydrogen will be high, at least at the beginning; insists on setting a fixed premium for future auctions equivalent to or higher than that proposed by the US under the Inflation Reduction Act; asks the Commission to consider complementary mechanisms such as grants, contracts for difference and carbon contracts for difference; considers that these complementary mechanisms could support not only the production but also the demand for renewable hydrogen;
17. Reiterates the importance of geographical and sectoral balance to enable the production of renewable hydrogen across the EU and its use by hard-to-abate sectors; insists on the need to avoid further deepening of the regional divergences that already exist owing to the varying extent of the hydrogen market's development; urges the Commission to develop regional auctions and, for that purpose, define regions that would be sufficiently large to secure adequate competition while ensuring geographical balance; requests that the Commission propose an allocation key with the aim of supporting a regionally even development of the European hydrogen market;
18. Calls on the Commission to provide technical assistance to Member States with a low level of participation, as provided for in the latest revision of the Emissions Trading System Directive²⁴; stresses that such support should encourage the participation of

²³ 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 policy (OJ L 327, 22.12.2000, p. 1).

²⁴ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive

applicants from all Member States in the auctions under the EHB;

19. Emphasises that the EHB should also aim to attract smaller developing projects; suggests to the Commission that it adjust some elements of the auction design, in particular the requirement for the minimum installed electrolyser capacity and the restriction on maximum-volume bid, and that it consider the possibility of pooling applications, in order to facilitate the participation of small and medium-sized enterprises (SMEs);
20. Asks the Commission to reassess and clarify the rules on compatibility between public financial support and funding provided under the EHB, taking into account that there should be no cumulation for the same costs, with the aim of safeguarding fair competition between all applicants;
21. Stresses that the design of future auctions should strongly prioritise the sale of renewable hydrogen to hard-to-abate industries and heavy transport, in particular aviation and shipping; believes, in that regard, that certain restrictions should be included in the eligibility criteria of the auctions;
22. Asks the Commission to not only consider price, but also to include a clear system of bonus points for the ranking of bids; notes that such a system should reward bids that deliver the highest level of sustainability, lead to significant job creation and promote high-quality traineeships, apprenticeships and the reskilling or upskilling of workers;
23. Recognises the urgent need to scale up the production of electrolysers in the EU; proposes differentiating between operating and capital expenditure; considers that potential support for capital expenditure on low-carbon hydrogen should only be directed towards investments that can contribute to the production of renewable hydrogen at a later stage, in particular the purchase of electrolysers, and should not cover operating expenditure on low-carbon hydrogen;

Non-financial support for the EU hydrogen ecosystem

24. Welcomes the Commission's idea of launching the concept of 'auctions as a service'; considers that this could lower the administrative costs for the Member States and promote a genuinely European pathway to energy transition; asks the Commission to evaluate this concept and explore its further development for other renewable energy technologies; stresses that the administrative burdens in the application process should be reduced, as far as possible, so that the award processes can also be handled by SMEs;
25. Suggests that the EHB should be able to provide dedicated advice to private actors concerning the development of renewable and low-carbon hydrogen installations in the EU; believes such a service should be independent from whether an applicant has received funding from the EHB or not; suggests that this advisory service rely on the expertise of the European Investment Bank (EIB); proposes that the activities of the European Clean Hydrogen Alliance be included under the EHB to create a physical forum where producers and consumers of hydrogen could meet to receive advice and

96/61/EC (OJ L 275, 25.10.2003, p. 32).

exchange best practices;

26. Stresses the importance of limiting the fragmentation of EU entities dealing with hydrogen; proposes including the activities of the Clean Hydrogen Joint Undertaking, and particularly the Fuel Cell Hydrogen Observatory, in the framework of the EHB; insists that such inclusion should not reduce public investment for research, development and innovation;
27. Believes that a voluntary joint purchasing mechanism for hydrogen can contribute to developing the domestic hydrogen market and securing imports under the EHB; stresses that joint purchases would also facilitate investments in renewable hydrogen generation capacity, ensure the supply of renewable hydrogen at affordable prices and prevent European consumers from outbidding each other;
28. Notes that AggregateEU can work as a pilot for the hydrogen market's development under the EHB; calls on the Commission to carry out, by 31 December 2026, an impact assessment regarding a permanent mechanism for the joint purchase of hydrogen under the EU Energy Platform; believes that this assessment could be based on an in-depth analysis of the adequate company cooperation models and the possibility to create guarantee schemes allowing for the effective engagement of smaller companies and SMEs;
29. Calls on the Member States to use green public procurement in order to favour goods produced with renewable hydrogen, such as steel used in the construction of public buildings and infrastructure;

Imports of renewable hydrogen

30. Notes that, despite an increase in the domestic production of renewable hydrogen, growing demand may require imports from non-EU countries; stresses that the EHB should exploit synergies on the acceleration of imports of renewable hydrogen, addressing the increasing demand on the European market;
31. Stresses the importance of promoting the infrastructure corridors identified in the Commission communication on the REPowerEU Plan, in order to facilitate the import of up to 10 million tonnes of renewable hydrogen, while supporting decarbonisation in the partner countries;
32. Recalls that the Carbon Border Adjustment Mechanism (CBAM) will apply to hydrogen; emphasises the important role of the EU as a global standard setter and calls on the Commission to deliver a robust common certification scheme by 31 December 2025, in line with the revised Renewable Energy Directive for imports of renewable hydrogen, equivalent to the rules applying to domestic production, in order to ensure a level playing field for reliable international partners;
33. Insists that investment in renewable hydrogen from third countries should be subject to international due diligence principles, including but not limited to the United Nations Guiding Principles on Business and Human Rights, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises and the OECD Due Diligence Guidance for Responsible Business Conduct;

34. Urges the Commission to prepare guidelines with clear and transparent criteria concerning the eligibility for EU support of producers from non-EU countries, based on geopolitical risks and their potential reduction through cooperation, the availability of resources for their domestic energy transition and their alignment with EU values and environmental and social standards, including labour conditions and indigenous rights;
35. Stresses that some regions of the world have much better conditions for the production of renewable hydrogen owing to an abundance of space and renewable electricity; recalls that the EU's energy and hydrogen diplomacy should promote the development of rules-based, transparent and undistorted global hydrogen markets, and should aim to enable partner countries, globally and particularly in the EU's neighbourhood, to achieve their energy transitions and improve their environmental, social and democratic standards;
36. Underlines the importance of diversifying suppliers and maintaining a fair global playing field when providing support for renewable hydrogen production in non-EU countries; proposes requiring the use of the euro for imports of renewable hydrogen receiving EU support, in order to become the global currency of reference for hydrogen exchanges worldwide;

Financial support for the transportation of renewable hydrogen

37. Emphasises that for a successful acceleration of the hydrogen market, it is necessary to ensure sufficient investment to develop adequate hydrogen infrastructure not only to connect supply and demand, but also to store and transport hydrogen across the EU (for example, the European Hydrogen Backbone); insists that bottlenecks and missing links should be avoided so that hydrogen can reach the industries that need it the most; stresses that the development of a hydrogen system should prioritise, where possible, the co-location of production and use, and enable the utmost possible synergies with the existing infrastructure for the transport of natural gas;
38. Calls on the Commission and the Member States to encourage private investment and, where necessary, ensure public funding for new installations for hydrogen and for the repurposing of those currently used for natural gas; considers that both grants and (carbon) contracts for difference with a transport cost component can be suitable instruments to support investments into hydrogen infrastructure; stresses, from the same perspective, that additional resources should be allocated to the Connecting Europe Facility, in order to enhance the funding of the relevant infrastructure, and that alternative EU funding under the Cohesion Policy and the Recovery and Resilience Facility should be mobilised;
39. Calls on the Commission to task the EHB with coordinating the collection of all relevant data issued by the Commission, international organisations or the industry in relation to hydrogen production, storage, transport, distribution and consumption; notes that these data should be made publicly available, whenever possible, and could be used in the decision-making process for the approval of hydrogen-related infrastructure under the revised Trans-European Networks for Energy Regulation²⁵;

²⁵ Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for

Streamlining of EU instruments and financial mechanisms

40. Expresses concern that industries are currently dealing with a patchwork of different financial support instruments for the production of hydrogen; calls on the Commission to make the EHB a one-stop-shop for the financing of hydrogen;
41. Takes note of the overall budget of EUR 3 billion for the EHB that was announced in the 2022 State of the Union address; asks the Commission to clarify the yearly budget available for the next five years under each pillar of the EHB and to prepare a road map of planned auctions; insists that future auctions should be announced at least 12 months in advance in order to provide predictability for the industry;
42. Expresses strong concerns about the overall budget of the EHB compared to the subsidies, incentives and the more attractive investment framework in other regions of the world, in particular China and the US; believes that the current envelope of EUR 800 million for the first pilot auction is too limited; calls on the Commission to propose an appropriate budget for the EHB by significantly increasing it over the coming years with fresh resources;
43. Welcomes the midterm revision of the multiannual financial framework (MFF) where the Commission proposed an additional EUR 5 billion for the Innovation Fund; urges that a significant part of this top-up be allocated to the EHB, so that the Innovation Fund can support more projects; highlights that, in addition to the Innovation Fund, alternative funding should be explored so that the EHB is independent from variations in carbon price;
44. Calls on the Commission to consider inflation indexation for the fixed premium, in order to ensure stability and protect producers – especially small and medium-sized ones – from potential future price increases of energy, raw materials and operational work;
45. Notes that the Commission has so far not come up with a financial instrument to support imports of renewable hydrogen; encourages cooperation between the EHB and programmes set up by Member States when dealing with imports; asks the Commission to make a legislative proposal for a financial instrument targeting imports from non-EU countries under the EHB, where appropriate and compatible with the CBAM;
46. Stresses the need for dedicated staff to pursue the operations of the EHB and asks for adequate funding in this respect; suggests setting up a taskforce for the EHB with staff from all relevant services of the Commission;
47. Welcomes the Commission's intention to streamline the use of EU funding for hydrogen projects, as well as the legislative proposal for a Strategic Technologies for Europe Platform (STEP), where renewable hydrogen is identified as a critical clean technology requiring further support; asks for the highest level of synergy between STEP and the EHB;

trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013 (OJ L 152, 3.6.2022, p. 45).

48. Insists on making the EHB the single point of contact for providing information on available funding at EU and national level for the support of renewable hydrogen projects; proposes merging the Hydrogen Public Funding Compass with the EHB and including information on all relevant financial instruments, including but not limited to the Connecting Europe Facility, Horizon Europe and the Innovation Fund, with updates on a regular basis;
49. Suggests that the EHB set up an online tool allowing the industry and, in particular, SMEs to rapidly assess the possible eligibility of a project related to renewable or low-carbon hydrogen for EU funding, which should be without prejudice to the final decision and should not require the provision of any confidential information;
50. Calls on the EIB to enhance access to finance for renewable hydrogen projects; asks the EIB to provide zero-rate or guaranteed loans, assisting in securing long-term financing and enabling equity and other investments in relevant projects;
51. Supports the introduction of a ceiling price for the fixed premium as proposed by the Commission in order to avoid the overcompensation of successful applicants participating in auctions; insists that EU support should cease once the market price of renewable hydrogen becomes competitive; urges the Commission to continuously monitor the cost of production and the market price for renewable hydrogen and to reassess the fixed premium awarded to winning projects at the end of each contractual arrangement between producers and consumers, or at least every five years;

Transparency, accountability and reporting

52. Stresses the need for an annual report by the Commission assessing progress in the development of the renewable and low-carbon hydrogen market and evaluating the activities of the EHB; asks that this report also evaluate the geographical breakdown of funding, the number of jobs created, changes in supply and demand, the cost of renewable hydrogen compared to other forms of hydrogen, and the development of dedicated hydrogen infrastructures;
53. Requests that the Commission submit a comprehensive evaluation of the EHB before its proposal for a new MFF;
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54. Instructs its President to forward this resolution to all EU institutions and the Member States.

EXPLANATORY STATEMENT

Renewable hydrogen is essential for the decarbonisation of the European economy, in particular in hard-to-abate industries and heavy transport. It can be also used for energy storage, contributing to the integration of energy systems. The European Commission has set an ambitious objective of producing 10 million tonnes of renewable hydrogen by 2030 in the EU. In the REPowerEU communication, the Commission set an additional target of importing 10 million tonnes by 2030.

An EU market for renewable hydrogen still needs to emerge. Creating an efficient and transparent market will require significant investments, primarily from the private sector. The Commission estimates that domestic production of renewable hydrogen will cost between EUR 335 and 471 billion. Imports would require a further EUR 500 billion. Considering the size of those investments, public funding should only serve as a catalyst for the creation of a hydrogen market. Financial support should not continue once the market has been developed.

Renewable hydrogen needs to overcome multiple challenges. First, the production of renewable hydrogen is not at scale; manufacturing fuel cells and electrolyzers requires chemicals, technology-intensive components and several critical raw materials for which the main producers are not located in the EU. Second, markets are price-driven, and consumers are not willing to pay more for renewable hydrogen, which currently has a higher price compared to other forms of hydrogen. Third, infrastructures are yet to be deployed to allow hydrogen to be transported. Last, the production of renewable hydrogen is water-intensive. Therefore, specific attention is required to ensure resource efficiency in line with the Water Framework Directive, in particular in regions at risk of water scarcity.

The Communication on the European Hydrogen Bank (EHB) is a positive step towards ramping up the domestic production of renewable hydrogen and allowing a market to emerge. It also suggests a framework for importing renewable hydrogen in the EU and streamlining existing EU financial instruments to support the production of renewable hydrogen.

This draft report identifies areas where improvement is necessary.

Financial support for the domestic production of renewable hydrogen

The Commission decided to set up a first pilot auction with a budget of EUR 800 million over 10 years with a fixed premium per kilogram of renewable hydrogen. There should be an immediate assessment of this pilot auction, including the possibility of introducing contracts for difference and/or carbon contracts for difference.

Auctions should ensure geographical balance and take into account sustainability and social aspects. In that regard, the Commission should create regional auctions to ensure that renewable hydrogen is produced and used across the EU. It should also create a system rewarding bids that commit to the highest level of sustainability criteria, deliver significant job creation in the EU, and promote skills development.

The first auction does not specify the sectors that would be eligible for using renewable hydrogen. However, renewable hydrogen will only be available in limited quantity.

Therefore, priority should be given to sectors with the highest potential for decarbonisation, namely hard-to-abate industries and heavy transport.

The Commission should not only focus on fixed premium allocated via auctions, but also create grants. Even with regional auctions, there is a risk that auctions would only allocate funding to existing leaders on the market. Grants should help scale up production of renewable hydrogen by SMEs or emerging players.

Non-financial support for the EU hydrogen ecosystem

In its communication on the EHB, the Commission expresses interest in exploring the possibility of including a mechanism for demand aggregation and joint auctioning of renewable hydrogen. The Commission also mentions the transparency provisions of the EU Energy Platform. Before applying aggregation of demand, joint auctioning or transparency requirements, the Commission should prepare a comprehensive evaluation of the effects of those existing measures on natural gas and an impact assessment of the expected effects on hydrogen flows.

As the EU Energy Platform was created under an emergency regulation of the Council based on Article 122 TFEU, its application is only temporary. The Regulation will expire at the end of 2023. Prolonging the EU Energy Platform via another emergency regulation would unfairly exclude Parliament from the decision-making process. If the provisions of the EU Energy Platform are to be implemented also on hydrogen and on a permanent basis, the Commission should immediately start working on a legislative proposal under the ordinary legislative procedure.

Imports of renewable hydrogen

A general principle should be that domestic production of renewable hydrogen remains the priority when discussing potential support for imports. If the cost for production and transportation of renewable hydrogen from third countries is lower compared to that of domestic production, the justification for providing an additional fixed premium or any form of financial support covering non-EU production seems, at best, questionable.

Furthermore, a prerequisite to establish an international market for renewable hydrogen is trust. Protecting consumers and a fair global playing field should be a top priority. Renewable hydrogen from third countries must be fully compliant with the delegated acts on renewable liquid and gaseous fuels of non-biological origin (RFNBOs). Hence, the Commission needs to guarantee a robust certification scheme for imports of renewable hydrogen.

Streamlining of EU instruments and financial implications

The Commission's intention to streamline EU financial instruments to secure coherence is a very positive development. However, the Commission should also focus on providing clarity about the financial envelope of the EHB. The 2022 State of the Union announced a budget of EUR 3 billion. Since then, the only substantial delivery has been the planning of the first pilot auction of EUR 800 million over 10 years. More information is required on the remaining EUR 2.2 billion. The Commission should explain the yearly budget available under each

pillar of the EHB. It should also deliver a roadmap detailing the size and the general features of auctions foreseen in the coming years.

In a situation where global economic partners and competitors provide public investment in clean technologies, the budget of EUR 3 billion needs to be increased. For comparison, the US Inflation Reduction Act creates a general tax credit of up to USD 3 per kilogram. Considering growing competition and the limited size of the current financial envelope compared to the size of needed investments, expanding EU support for hydrogen should be a priority in the midterm review of the current multiannual financial framework and the discussions on an EU Sovereignty Fund.

Accountability and reporting

The EHB operates with funding from the Innovation Fund that derives from the allocation of EU Emissions Trading System allowances. As the Commission is accountable for the execution of the EU budget, it should present an annual report on the activities of the EHB and the progress achieved in creating a market that will eventually not rely on public subsidies.

In addition to the annual report, the Commission should prepare a comprehensive evaluation in time for the discussions on the next multiannual financial framework and in the framework of the debate on possible new sources of funding for renewable hydrogen.

ANNEX: ENTITIES OR PERSONS FROM WHOM THE RAPPORTEUR HAS RECEIVED INPUT

Pursuant to Article 8 of Annex I to the Rules of Procedure, the rapporteur declares that he has received input from the following entities or persons in the preparation of the report, until the adoption thereof in committee:

Entity and/or person
Amprion
BASF
Bundesverband der Energie- und Wasserwirtschaft
CEFIC
CEP - Centre for European Policy
Clean Air Task Force
Commissariat à l'Énergie Atomique
Duslo Šaľa
E.On
ECOS
EnBW Energie Baden-Württemberg
EPICO
ERCST
Eurofer
Eurogas
European Commission
European Committee of the Regions
European Economic and Social Committee
Eustream
EWE
Fertilizers Europe
Gas Grid Europe
Gasunie
GD4S
German Economic Institute
H2Global-Stiftung
Hydrogen Europe
IG Bergbau, Chemie, Energie
Norsk Hydro
P2X Solutions
Redes Energéticas Nacionais (REN)
Renewable Hydrogen Coalition
Rolls Royce
RWE
Sandbag
Slovak National Hydrogen Association

Slovnaft (MOL Group)
SolarPower Europe
SPP – Slovensky plynarensky priemysel
SWM
TenneT
Thyssenkrupp
U.S. Steel Košice
Uniper
Verband Kommunaler Unternehmen
Verbraucherzentrale Bundesverband
Wacker Chemie
Wirtschaftsvereinigung Metalle
Wirtschaftsvereinigung Stahl
Yara International
ZVEI

The list above is drawn up under the exclusive responsibility of the rapporteur.

7.11.2023

OPINION OF THE COMMITTEE ON BUDGETS

for the Committee on Industry, Research and Energy

on the European Hydrogen Bank
(2023/2123(INI))

Rapporteur for opinion: Adam Jarubas

SUGGESTIONS

The Committee on Budgets calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following suggestions into its motion for a resolution:

- A. whereas the EU budget needs to increase its support to the EU objective of achieving climate neutrality by 2050 at the latest and to continue to be a central tool in achieving this objective; whereas larger investments in energy are necessary, given that needs have been magnified by the energy crisis and rising energy poverty;
- B. whereas renewable hydrogen could contribute to achieving the climate neutrality objective such as by playing an important role in the decarbonisation of hard-to-abate sectors, including aviation, where no more energy- or cost-efficient alternatives are available; whereas the EU hydrogen strategy and REPowerEU include an objective of producing 10 million tonnes of renewable hydrogen in the EU by 2030 and importing the same amount; whereas it is necessary to create effective hydrogen market actions addressing both supply and demand;
- C. whereas the Member States can use their national revenues from the emissions trading system and other sources to launch national competitive auctions for renewable hydrogen production; whereas, alongside auctions, other financial instruments that contribute to supporting the European hydrogen market are needed, in particular to promote small-scale breakthrough projects based on the use of green, and renewable hydrogen;
- D. whereas ongoing hydrogen projects, such as Important Project of Common European Interest (IPCEI) projects, are key to creating new hydrogen markets;
 1. Welcomes the European Hydrogen Bank (EHB) initiative; regrets the use of the word 'bank', since the project will not involve investment and lending activities but will rather aim to coordinate activities and financing to support renewable hydrogen projects; calls on the Commission to rename the initiative accordingly and to make it easier for project promoters and the general public to identify the objectives, which

include early market creation and price discovery; stresses the need for dedicated staff to pursue the operations of the EHB and asks for adequate funding in this respect, within the existing institutional framework;

2. Highlights that the Commission estimated the total investment needed to produce, transport and consume 10 million tonnes of renewable hydrogen to be in the range of EUR 335-471 billion, with EUR 200-300 billion needed for additional renewable electricity production, while it estimated that additional investments of EUR 500 billion will be needed in international value chains to enable 10 million tonnes of renewable hydrogen and hydrogen derivatives to be imported; notes that a budget of EUR 3 billion was announced for the EHB in the 2022 State of the European Union address and the opening remarks of the President of the Commission at the Clean Transition Dialogue on Hydrogen, which stressed the role of NextGenerationEU and RepowerEU in investing in ‘hydrogen valleys’, hydrogen trains, and clean-steel factories; expresses its concerns about the overall budget of the EHB compared to the subsidies given by economic partners and competitors, in particular China, India and the United States; expects the Commission to ensure that additional funding will be made available, to elaborate on the yearly budget available under each pillar of the EHB and deliver a roadmap detailing the size and the general features of auctions anticipated in the coming years; stresses its long-standing position that new priorities must be financed with fresh money and therefore that the funding for the EHB should not lead to a reduction in the funding for other priority EU programmes;
3. Highlights that pillars 1 and 4 of the EHB will partly rely on the coordination of the same EU programmes as the Strategic Technologies for Europe Platform in order to support the development of renewable hydrogen production; invites the Commission to clarify the interaction between the two initiatives, in particular as regards the objectives, implementation, financing, coordination and communication; stresses that the approach of overloading existing programmes without adequate additional fresh money risks undermining the fulfilment of their initial objectives;
4. Welcomes the ambition of EHB pillar 1 to spur the development of a domestic market for renewable hydrogen; notes that the Commission estimates the necessary market premium to be up to EUR 5 per kilogram of hydrogen produced; stresses that quick and effective actions are needed to create functioning, competitive markets to drive down this high level of premium; stresses the importance of geographical balance to enable the production and use of renewable hydrogen across the EU and avoid regional consolidation and further widening of the regional disparities within the EU that already exist due to the varying degrees of development of the hydrogen market; calls on the Commission to ensure a level playing field when conducting auctions under the Innovation Fund so as to secure the widest participation from Member States and SMEs, including by considering support for hydrogen based on renewable sources from other bidding zones than the production zone in accordance with the delegated act on Renewable Hydrogen²⁶ and by minimising unnecessary administrative burdens; agrees that a well-functioning domestic market requires cross-border hydrogen infrastructure; notes that the Commission’s proposal for the revision of the multiannual financial framework (MFF) did not include an increase in funding for the Connecting Europe

²⁶ C(2023)1087.

Facility; warns that investments in hydrogen infrastructure should avoid locked-in emissions; notes that Agency for the Cooperation of Energy Regulators (ACER) is not mentioned, and calls on the Commission to assess if EHB activities will have an impact on ACER's resources;

5. Notes that a budget of EUR 800 million is forecast for the first EU pilot auction for renewable hydrogen production; calls for the pricing of the premiums to be reviewed and updated if necessary in each auctioning period, and for the fixed premiums to be updated in each cycle in order to guarantee the premium consistently remains above production costs, so as to establish a predictable clawback mechanism and to ensure maximum production; calls for the Commission not only to take price into account but to include a regional dimension envisaging the development of regional auctions; calls for offers to be selected in a way that ensures excellence, job creation, the retraining or upskilling of workers, the highest level of sustainability, such as by excluding projects potentially jeopardising the availability and purity of the water supply;
6. Takes note of the fact that there is no legal vehicle to support the implementation of EHB pillar 2; regrets the fact that the Commission did not submit a proposal in this regard; calls on the Commission to perform a thorough impact assessment in line with the better regulation toolbox including its impact on non-EU countries and to address this gap as soon as possible; asks the commission to clarify the relationship between pillar 2 and Team Europe Initiatives;
7. Considers that additional skilled workers are needed to develop the hydrogen market, requiring significant financial investment in re-skilling and upskilling the workforce; calls on the Commission to clarify how the EHB will cater for this; stresses also the need to make sure that there are synergies between all available investment funds, programmes, financial instruments and policies including state aid, in order to ensure cooperation between the public and the private sector for investments in a wide range of projects and to support the functioning of the internal market; considers that stability, predictability, transparency and the level playing field give confidence to potential investors and stakeholders and encourages them to commit resources and funds to hydrogen-related projects.

**ANNEX: LIST OF ENTITIES OR PERSONS
FROM WHOM THE RAPPORTEUR HAS RECEIVED INPUT**

The rapporteur declares under his exclusive responsibility that he did not receive input from any entity or person to be mentioned in this Annex pursuant to Article 8 of Annex I to the Rules of Procedure.

INFORMATION ON ADOPTION IN COMMITTEE ASKED FOR OPINION

Date adopted	7.11.2023
Result of final vote	+: 23 -: 1 0: 2
Members present for the final vote	Olivier Chastel, Andor Deli, José Manuel Fernandes, Alexandra Geese, Vlad Gheorghe, Valérie Hayer, Eero Heinäluoma, Hervé Juvin, Moritz Körner, Pierre Larrourou, Janusz Lewandowski, Margarida Marques, Lefteris Nikolaou-Alavanos, Andrey Novakov, Bogdan Rzońca, Eleni Stavrou, Nils Torvalds, Nils Ušakovs, Rainer Wieland, Angelika Winzig
Substitutes present for the final vote	Jan Olbrycht, Mauri Pekkarinen
Substitutes under Rule 209(7) present for the final vote	Lena Düpont, Mónica Silvana González, Catherine Griset, Predrag Fred Matic

FINAL VOTE BY ROLL CALL IN COMMITTEE ASKED FOR OPINION

23	+
ECR	Bogdan Rzońca
ID	Catherine Griset
PPE	Lena Düpont, José Manuel Fernandes, Janusz Lewandowski, Andrey Novakov, Jan Olbrycht, Eleni Stavrou, Rainer Wieland, Angelika Winzig
Renew	Olivier Chastel, Vlad Gheorghe, Valérie Hayer, Moritz Körner, Mauri Pekkarinen, Nils Torvalds
S&D	Mónica Silvana González, Eero Heinäluoma, Pierre Larroustou, Margarida Marques, Predrag Fred Matic, Nils Ušakovs
Verts/ALE	Alexandra Geese

1	-
NI	Lefteris Nikolaou-Alavanos

2	0
NI	Andor Deli, Hervé Juvin

Key to symbols:

+ : in favour

- : against

0 : abstention

INFORMATION ON ADOPTION IN COMMITTEE RESPONSIBLE

Date adopted	28.11.2023
Result of final vote	+: 45 -: 4 0: 6
Members present for the final vote	Nicola Beer, Tom Berendsen, Vasile Blaga, Marc Botenga, Cristian-Silviu Buşoi, Jerzy Buzek, Ignazio Corrao, Beatrice Covassi, Ciarán Cuffé, Josianne Cutajar, Nicola Danti, Valter Flego, Niels Fuglsang, Lina Gálvez Muñoz, Jens Geier, Nicolás González Casares, Bart Groothuis, Christophe Grudler, Robert Hajšel, Ivars Ijabs, Romana Jerković, Izabela-Helena Kloc, Zdzisław Krasnodębski, Georg Mayer, Marina Measure, Iskra Mihaylova, Angelika Niebler, Johan Nissinen, Mauri Pekkarinen, Mikuláš Peksa, Tsvetelina Penkova, Morten Petersen, Clara Ponsatí Obiols, Robert Roos, Sara Skytvedal, Maria Spyraiki, Riho Terras, Patrizia Toia, Henna Virkkunen, Pernille Weiss
Substitutes present for the final vote	Pascal Arimont, Franc Bogovič, Damien Carême, Francesca Donato, Matthias Ecke, Marian-Jean Marinescu, Alin Mituța, Jutta Paulus, Massimiliano Salini, Ernő Schaller-Baross
Substitutes under Rule 209(7) present for the final vote	Carmen Avram, Peter Jahr, Virginie Joron, Ljudmila Novak, Milan Zver

FINAL VOTE BY ROLL CALL IN COMMITTEE RESPONSIBLE

45	+
ECR	Izabela-Helena Kloc, Zdzisław Krasnodębski
NI	Clara Ponsatí Obiols
PPE	Pascal Arimont, Tom Berendsen, Vasile Blaga, Franc Bogovič, Cristian-Silviu Buşoi, Jerzy Buzek, Peter Jahr, Marian-Jean Marinescu, Angelika Niebler, Ljudmila Novak, Massimiliano Salini, Maria Spyrali, Riho Terras, Henna Virkkunen, Pernille Weiss, Milan Zver
Renew	Nicola Danti, Valter Flego, Bart Groothuis, Christophe Grudler, Ivars Ijabs, Iskra Mihaylova, Alin Mituța, Mauri Pekkarinen, Morten Petersen
S&D	Carmen Avram, Beatrice Covassi, Josianne Cutajar, Matthias Ecke, Niels Fuglsang, Lina Gálvez Muñoz, Jens Geier, Nicolás González Casares, Robert Hajšel, Romana Jerković, Tsvetelina Penkova, Patrizia Toia
Verts/ALE	Damien Carême, Ignazio Corrao, Ciarán Cuffe, Jutta Paulus, Mikuláš Peksa

4	-
ECR	Johan Nissinen, Robert Roos
The Left	Marc Botenga, Marina Mesure

6	0
ID	Virginie Joron, Georg Mayer
NI	Francesca Donato, Ernő Schaller-Baross
PPE	Sara Skytvedal
Renew	Nicola Beer

Key to symbols:

+ : in favour

- : against

0 : abstention