

# NEW ERA ACTIONS FOR THE ERA POLICY AGENDA 2025-2027

## EXPLANATORY DOCUMENT

01.12.2023

<b>Action title:</b> <i>(Please use as a maximum two lines.)</i>	Promoting renewable energy valleys (REVs)
<b>Description of the action</b> <i>(Please explain the proposed action in a simple, clear and communicable narrative).</i>	<p>REVs are decentralised energy systems based on local renewable energy sources, with production, storage, and use of multiple energy carriers (electricity, heat, fuels), covering the local energy needs on an annual basis and guaranteeing energy security. In a REV the production of energy carriers can take place in one site or in multiple locations connected among them in an integrated system. To increase acceptability, citizens are involved in the design, implementation, and exploitation of the REV approach. The involvement in exploitation supports the dissemination of skills and knowledge in a local or regional community, including academia.</p> <p>The action is concerned with support to and exchange of best practices about the implementation of the REV approach. This can also focus on remote territories and on the regions most affected by the transition to climate-neutrality. Best practices may be used to assess the remaining obstacles and provide useful feedback to regulators, for instance for connecting local ecosystems to grids, both technically and economically.</p>
<b>Actors</b> <i>(Please explain who would take part in the action and who would benefit from it).</i>	<p>Member States and their local and regional communities are expected to take part in the support to the REV approach and exchange of best practises, and benefit from the outcomes. REV variants do exist in some Member States, however under different names and diverse structures. The exchange of knowledge and information would increase the capacity of Member States and regions to improve or develop more REVs.</p>
<b>Expected impact</b> <i>(Please describe the expected impact of the action (including outside the scientific community), paying attention to the fact that it needs to focus on concrete results and reachable deliverables).</i>	<p>The measure will accelerate the dissemination of knowledge about renewable energy across the EU and will mobilise academia and educational institutes to offer more training and education.</p> <p>As REVs rely significantly on social science and humanities (SSH) on the one hand to investigate the social acceptance and engagement for applying renewable energy technologies at large scale, and on the other hand to avoid misconceptions and motivate commitments to this approach, there will be positive impact also in terms of widening the participation of SSH researchers and spreading excellence in the ERA.</p> <p>REVs will enhance the security and autonomy of energy supply in Europe. They will increase the reliability, performance, and affordability of local and regional energy systems, and they will foster the acceptance of innovative energy solutions.</p> <p>REVs could be particularly beneficial when applied in territories expected to be the most negatively impacted by the transition towards climate-neutrality. REVs can provide cost-effective solutions in line with the just transition approach.</p>

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	Citizens will be involved in the design and implementation of the REVs, therefore accelerating permitting procedures.
<p><b>Why do we need this action?</b></p> <p><i>(Please indicate the need for this action in view of implementing the <u>Pact for R&amp;I</u> and <u>achieving the ERA objectives</u> and explain why its <u>objective cannot be reached through existing programmes/ activities</u>. What is the action's <u>added value</u> at national and European level as well as for stakeholders? How does it <u>make a change</u> and how is <u>co-creation</u> ensured?)</i></p>	<p>In line with the Pact for R&amp;I, the action takes up the challenge posed by the twin green and digital transition ('Challenge-based ERA actions') and builds on the contribution of several disciplines, allowing the challenge to be addressed comprehensively.</p> <p>Including the exchange of best practises about the REV approach as an action in the ERA Policy Agenda will contribute on the one hand to accelerating collaborative R&amp;I towards early market deployment of clean energy solutions, and on the other hand to capacity building across the EU on renewable energy. This will leverage technology solutions for integrated energy generation and distribution, and citizens participation.</p> <p>Applying REVs in regions in Central and Eastern Europe will improve the clean energy R&amp;I capacity across Member States in a harmonious and most impactful way.</p> <p>ERA will provide a favourable framework for the REV approach to be discussed with national, regional, and local authorities.</p> <p>ERA will also offer an efficient forum to connect to other relevant ERA actions, on clean energy (SET Plan, Action 11.2), as well as on education (Action 13), citizen engagement (Action 14) and support to research (Action 15).</p>
<p><b>Timing and milestones</b></p> <p><i>Please indicate the tentative timing throughout the implementation period, including all major milestones</i></p>	<p>REVs are a new approach that is now being tested with two projects funded under a topic included in the work programme of Horizon Europe's Cluster 5 (topic HORIZON-CL5-2023-D3-01-01). The projects <a href="#">CRETE VALLEY</a> and <a href="#">REFORMERS</a> started on 1 December 2023 and 1 November 2023 respectively. CRETE VALLEY will have its demonstration activities in Greece (island of Crete). REFORMERS will have its demonstration activities in the Netherlands (Boekelermeer next to the city of Alkmaar).</p> <p>After one year from the start, the projects will be requested to report to the ERA Forum about the status of their activities and the main challenges in the development of their respective REVs. This will feed into a first exchange of ideas among the Member States.</p> <p>In subsequent phases, local and regional authorities will be invited to join the discussion.</p>
<b>Funding</b>	At this stage, no additional funding under Horizon Europe is envisaged for the proposed action, pending the first results of the

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<i>Please indicate what funding is needed and where it is supposed to come from</i>	REV projects. However, synergies with ERDF and Innovation Fund (for instance) should be further explored.
<b>Additional information</b> <i>e.g., communication activities. Links to other actions or relevant programmes</i>	REVs, together with hydrogen valleys, were the subject of a high-level session during the 2023 SET Plan Conference.