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EV batteries drive the energy transition: Roland Berger study shows high potential of decentralized energy in Germany

- Volkswagen Group Charging (Elli) along with 20 additional energy companies present new study on decentralized energy in Germany.
- Roland Berger's analysis shows how decentralized energy solutions (EVs, solar power, home storage and heat pumps) will save the German energy system up to €255 billion by 2045.
- Study forecasts up to 100,000 new jobs in decentralized energy solutions by 2045.

Berlin – September 30, 2025. Elli – a brand of the Volkswagen Group – together with an alliance of leading energy companies presents a new study about decentralized energy solutions. Technologies like electric vehicles, solar power systems, home storage systems, and heat pumps can save the German energy system up to €255 billion by 2045. This corresponds to around €13 billion per year in added value – a key lever for a secure, independent, and cost-efficient energy transition. Roland Berger's analysis shows that Germany can only achieve both energy supply security and overall cost efficiency through the combination of large-scale centralized power plants and decentralized energy technologies.



In Berlin, six energy and automobile companies, together with management consultancy Roland Berger, presented a study on the potential of decentralised energies.

Press photo // Press conference 'New Energy Alliance'

From left to right: Philipp Schröder, Bastian Gierull, Felix Plog, Giovanni Palazzo, Benjamin Merle, Marc Wallraff

The automotive industry and e-mobility will play a central role in the future energy mix. Intelligently controlled, bidirectional charging will turn EVs into mobile storage units that ease pressure on the grid and increase household independence. Combined with solar and heat pumps, they will cut energy costs and boost Germany's energy independence.

Giovanni Palazzo, CEO Elli, explains: "E-mobility is more than climate-friendly transport. It will become an active source of energy for millions of households in Germany. Smart and bidirectional charging solutions unlock enormous potential for our energy system, reduce costs for our customers, and strengthen the national economy. We must fully harness the power of these decentralized approaches before billions flow into new fossil backup capacity."

The study highlights the following potential of decentralized energy solutions:

- Up to 50% lower energy costs for households and SMEs; up to €1,200 in savings per year for private households.
- 100,000 new jobs in the field of distributed energy solutions by 2045.
- 40-50% less grid expansion investments at the low-voltage level thanks to intelligent flexibilities.

For this potential to be realized, the "New Energy Alliance" calls for clear framework conditions: decentralized flexibilities must be treated on an equal footing with large-scale renewable projects and backup capacities. Key measures include strengthening decentralized flexibility through market mechanisms, accelerating the rollout of smart meters and digital grid operator processes, improving the fairness of grid charges for all types of storage systems, and optimizing the legal framework for bidirectional charging.

This initiative includes over 20 companies from the field of distributed energy solutions, including 1KOMMA5°, Enpal, LichtBlick, Octopus Energy, thermondo, and Elli.

The full study is available at: www.new-energy-alliance.de

For more information about Elli, as well as pictures on these topics, visit www.volkswagen-group.com and www.elli.eco.

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About the Volkswagen Group:

The Volkswagen Group is one of the world's leading car makers, headquartered in Wolfsburg, Germany. It operates globally, with 115 production facilities in 17 European countries and 10 countries in the Americas, Asia and Africa. With around 680,000 employees worldwide. The Group's vehicles are sold in over 150 countries.

With a comprehensive portfolio of strong global brands, leading technologies at scale, innovative ideas to tap into future profit pools and an entrepreneurial leadership team, the Volkswagen Group is committed to shaping the future of mobility through investments in electric and autonomous driving vehicles, digitalization and sustainability. The goal: As a "Global Automotive Tech Driver", to make the best automotive technologies accessible to customers worldwide - from entry-level mobility to the luxury segment.

In 2024, the total number of vehicles delivered to customers by the Group globally was 9.0 million (2023: 9.2 million). Group sales revenue in 2024 totaled EUR 324.7 billion (2023: EUR 322.3 billion). The operating result in 2024 amounted to EUR 19.1 billion (2023: EUR 22.5 billion).

About Elli:

The Elli brand, with around 450 employees, takes care of customers' needs at the interface between energy and mobility. Elli, as part of the Volkswagen Group, offers a broad range of energy and charging solutions in Europe and acts as a mobility service provider. The current product portfolio includes charging solutions for private customers and companies - from the company's own home chargers and the flexible fast-charging stations (Flexpoles) to charging services and innovative smart green electricity tariffs. For charging in public spaces, Elli provides digital solutions and services for a seamless charging experience. Elli, which was founded in 2018, has offices in Berlin, Wolfsburg, Munich and Eschborn.

THE GLOBAL AUTOMOTIVE TECH DRIVER.
