PRESS RELEASE

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"JUST E-VOLUTION 2030" STUDY BY ENEL AND THE EUROPEAN HOUSE - AMBROSETTI: POSITIVE SOCIO-ECONOMIC IMPACT FROM THE ENERGY TRANSITION IN EUROPE

- *Through an innovative econometric model, the study estimates the impacts of the ongoing energy transition - sustained by growing electrification, digitalisation and renewable generation - on industrial production, employment and health in the European Union, with a particular focus on Italy, Spain and Romania*
- *The study estimates the net impact of the transition on the value of industrial production through 2030. Through the energy transition, industrial production will show a net gain of up to 145 billion euros in Europe by 2030*
- *Employment is expected to increase by up to 1.4 million new jobs in the European Union by 2030*
- *The substitution of thermal technologies with electric ones in transport and in the residential sector will enable air quality improvement, reducing costs related to pollution by some 3 billion euros by 2030.*

Cernobbio, September 6th, 2019 – The growth of industrial production, an increase in employment and positive effects on health, accompanied by a sharp reduction in the associated socio-economic costs: Europe is moving towards an increasingly sustainable future driven by the energy transition. This is the picture that emerges from the **Just E-Volution 2030** study, produced by **The European House - Ambrosetti** in collaboration with **Enel** and the **Enel Foundation** and announced today, within the framework of The European House - Ambrosetti Forum, at a press conference with the participation of **Valerio De Molli**, Managing Partner & CEO of The European House - Ambrosetti and **Francesco Starace**, CEO of Enel. The event was attended by the Chairman of Enel, **Patrizia Grieco**.

"Decarbonisation represents a great opportunity to modernise the European economy, revitalise the industrial sector and ensure sustainable and lasting growth," said Enel CEO **Francesco Starace**. *"With an increasingly renewable generation base, the gradual penetration of electricity in the energy system will enable us to decarbonise the historically most polluting sectors of the economy, while also creating value in new ways, offering new services to consumers, who are increasingly key players in the electricity system. It is therefore essential that the benefits of the energy transition be shared, coupling it with broad measures addressing climatic, energy, environmental, industrial and social aspects."*

"*If there is a project capable of developing a positive vision for the future of the European Union, it is undoubtedly the energy transition. The message delivered by European citizens is loud and clear: they are asking for concrete action to combat climate change and they want Europe to lead the way*," said **Valerio De Molli**, Managing Partner & CEO of The European House - Ambrosetti. "*The quantitative assessment of the socio-economic impacts that derive from the energy transition is a necessary condition for the definition of policy-makers' agendas with the aim to guarantee a transition that is not 'just a transition' but a 'just transition for all'. For this reason, The European House - Ambrosetti has designed a new, one-of-a-kind econometric model to measure the socio-economic impacts of the energy transition. This model uniquely combines a 'macro' approach with a 'micro' one, starting from the analysis of 3,745 products and technologies that characterise European industrial production and estimating the effects through 2030 of the energy transition on industrial production and employment in the European Union, with a particular focus on Italy, Spain and Romania.*"

The study was carried out by **The European House - Ambrosetti**, **Enel** and the **Enel Foundation,** which as scientific partner helped develop an innovative econometric model that estimates the socio-economic impacts of the energy transition, characterised by the gradual shift towards renewable generation, such as hydro, wind, solar and geothermal from fossil fuels, such as coal and gas. This evolution is enabled by technological development, digitalisation and electrification of end-use, including mobility, heating, cooking and other domestic uses. The energy transition will secure major environmental benefits through the sharp decrease in CO_2 emissions and major opportunities for countries that are the first to seize the economic and social benefits related to this evolution. The study highlights the impacts on industrial production and employment in the EU as well as in Italy, Spain and Romania that derive from the spread of electricity as an enabling factor for the reduction of CO_2 emissions and the achievement of the EU's 2030 decarbonisation targets: a 40% reduction of greenhouse gas emissions compared with 1990 levels; a 32% share of renewable energy sources in final consumption and a 32.5% improvement in energy efficiency.

According to the study, by 2030, through the energy transition and therefore the gradual replacement of fossil fuels by renewables, the growth in the economic value of the electricity sector in the various scenarios (up to 199 billion euros for the EU as a whole) will generate an estimated net increase in industrial output of between 113 billion and 145 billion euros for the Union, of which 14-23 billion euros in Italy, 7-8 billion euros in Spain and 2-3 billion euros in Romania.

The energy transition will enable new digital services characterised by high development potential in the coming years. In particular, the forecast for the value of industrial production by 2030 considers solutions such as energy storage technologies/batteries, Smart Network Management, Demand Response, Sharing platform, Home-to-Grid, Vehicle-Grid integration, domotics and sensor systems for mobility, with a value in Europe estimated at around 65 billion euros, of which 6 billion euros in Italy, 4 billion euros in Spain and 1 billion euros in Romania.

At the same time, the study estimates that the energy transition will have a net positive impact on employment, forecasting an increase by 2030 of up to 1.4 million new jobs in the EU (up to 173 thousand in Italy, up to 97 thousand in Spain and up to 52 thousand in Romania).

The study estimates an additional positive effect of the electrification of transport and the residential sector in a 3 billion euro reduction of costs related to air pollution by 2030 in the EU.

The analysis is founded on the observation of the changes under way in the energy sector: the reduction of technology costs and new modes of production, distribution and consumption are being accompanied by increasingly virtuous behaviour on the part of the public, who is ever more conscious of environmental issues: for 67% of participants in a survey carried out by the European Commission, combatting climate change and protecting the environment should be at the top of policy-makers' agenda.

The response to this scenario, which calls for an acceleration of the decarbonisation process as a priority for the global agenda, can be found in electricity for at least seven reasons. If electricity is generated by a balanced mix with a significant proportion of renewables, it allows for the reduction of CO_2 emissions; it strengthens the resilience and security of supply of the energy system; it offers higher levels of energy efficiency; it integrates easily with digitalisation, thereby facilitating demand management; it stimulates innovation and the sustainability of lifestyles and industrial processes, leading to better products; it fosters the development of solutions within the circular economy; and, finally, it reduces noise pollution.

The Report therefore suggests four areas of intervention for policy-makers so that all the actors and social groups involved can seize the benefits associated with the energy transition: support the deployment of electric technologies by promoting the effective conversion of value chains to those technologies; manage change in nature and expertise at the workplace, increasing employment opportunities and addressing the issue of re-skilling and up-skilling; address the issue of energy poverty; and promote the fair redistribution of the costs associated to the energy transition.

In this context, the energy transition is an essential part of sustainable development, in which costs and benefits are shared fairly among all social groups (a “just for all” approach). For countries that embrace the transition first, this evolution can be a source of innovation and competitive advantage with the opportunity to export their more virtuous experience.