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RPIA VIEWS ON THE DRAFTED ROMANIAN CLIMATE AND ENERGY PLAN

Policy Recommendations for the Romanian Energy Transition

The Romanian Photovoltaic Industry Association (RPIA) is a non-profit association, founded in March 2012, by a team of professionals with in mind the vision that in the future Romania will provide a stable and productive environment allowing the photovoltaic industry development. Our main purpose is to create a networking environment and know-how exchange for potential investors. In only three years, RPIA has been joined by many national and international companies active in the photovoltaic market in Romania.

RPIA is fully committed to actively participating in the process of defining the Romanian Energy and Climate Plan, as it represents a unique opportunity to define a stable, transparent and predictable framework able to encourage new investments in the country. Below we present our view on the drafted plan submitted to the European Commission at the end of 2018.

The Romanian Climate and Energy Plan performs well over a number of pre-set criteria, but lacks the needed ambition to better place the country vis-à-vis the achievement of the long term decarbonization target, also in consideration of its vast potential and the reduction in RES technologies costs. RPIA believes that by 2050 Romania can significantly decarbonize its energy sector by fostering a predominantly carbon free generation mix, investing in infrastructure and powering final uses with fossil fuel-free electricity. The 2030 plan should consider updated assumptions on the cost of renewable technologies and focus more on the multiple benefits of decarbonization both on the supply side with PV and on the demand side through increased electrification of final uses. Such benefits go beyond the fight against climate change and include local air quality improvements, security of supply and green growth. In terms of ambition, the 28% renewable target by 2030 and the 38% energy efficiency target seem only moderately challenging. Higher ambition levels may be pursued, being compatible and synergic with sustained economic growth and country potential. Also, the plan does not foresee any RES capacity addition which is incompatible with the evidence that some projects are already economically viable under current market conditions and the possibility of signing a Power Purchasing Agreement (PPA) already exists.

Romania has the potential of reaching a 35% RES share of gross final energy consumption by 2030 and 63% by 2050, the main contributions coming from the power and transport sectors. Moreover higher Energy Efficiency and GHG emission reduction targets may be pursued leveraging on electrification of final uses. By 2030, renewable sources could account for over 70% of gross final electricity consumption (RES-E), while by 2050 the same indicator could reach over 97%. The transport sector will increasingly rely on electricity, with the penetration of about 485 thousands of fully electric private cars (7.5% of the vehicle stock) by 2030 and 5.4 million by 2050 (75% of the vehicle stock). In the heating and cooling sector, electricity has the potential to at least partially replace the current heavy use of biomass. Energy efficiency, especially through electrification of the transport sector and increased efforts in the building sector could be higher than the current 38%, reaching a target of up to 42% by 2030.

Electricity generation will face significant changes, with renewable energy gaining more importance and conventional fuels reducing their contribution. In 2015, 53% of the net installed power capacity was renewable (including large hydro power plants). For the rest, 23% was represented by solids-fired power plants, 6% by nuclear and 18% by gas. Solids-fired power plants (mostly coal) are expected to be gradually phased-out by 2035 as they reach the end of their lifetime; gas-fired power capacity will decline slightly for the same reason. Additional wind, solar and nuclear power plants are expected to compensate for the retirement of conventional power plants as well as the increased electricity demand. Thus, by 2030 solar capacities could amount to almost 5.5 GW (vs 1.4 GW in 2015), while wind capacities will develop to almost 9.3 GW (vs. 3 GW in 2015). By 2050, total net installed capacity could increase by more than 100%, reaching almost 55 GW, with over 20 GW of solar and over 20 GW of wind capacities installed.

A strengthened and digitalized grid and the active participation of demand are key to integrate renewables and guarantee the efficient, reliable and secure operation of the electricty system. The

Romanian plan should better highlight the key role of the grids to enable the paradigm shift to a new and smart energy system having active consumers at the center. In this sense, it should define a policy and regulatory framework able to encourage the much needed investments for the strengthening and digitalization of the grid.

In order to achieve a successful energy transition, a set of mid-term policy and regulatory actions have been identified within three selected areas:

Power mix

- **Promote a Market fit for RES through legislation and enable Corporate PPAs in order to speed up the deployment of renewable energy projects by securing revenue streams for generated electricity and by easing access to project finance.** Furthermore, promote pilot projects on storage (e.g. batteries) and flexibility (demand management) in order to provide opportunities to explore market based solutions to managing intermittent renewable energy sources
- **Avoid the risk of further locking in carbon emitting assets and enable consumers' active participation into the market by developing a framework for demand response implementation.** New fossil fueled power assets could delay for up to 20 years the much needed increased penetration of renewable energy. The regulation should design market mechanisms that ensure financial viability of the existing thermal power plants still needed for system adequacy and flexibility and allow to leverage on demand response potential
- **Support a just, fair energy transition for workers and communities by ensuring a greater integration of the social dimension in energy policy**. Enhance social dialogue with local stakeholders as carbon intensive industrial sites are repurposed, promote dedicated training to ensure qualification and employability of workers leaving brown jobs and looking for green ones

Networks

- **Strengthen grids and streamline the interaction between DSOs and TSO** considering the increasing need to integrate distributed renewables plants and to enhance smart grids management. Furthermore, identify grid infrastructures vulnerable to extreme weather events and design an adaptation plan for reinforcing them and the broader network
- **Promote specific 'smart' regulation** in order to give the right signals to DSOs for investing in innovation and be fairly rewarded for developing smart grid solutions
- **Promote a well-designed interaction between DSOs and new stakeholders** as it is central to optimizing resource allocation within local communities (e.g. synergies between electricity and Telco). Network digitalization plays a crucial role within such context enabling cross-sectoral synergies

Energy Efficiency through Electrification

- **Promote the efficient use of energy as an opportunity for sustainable development for the country**. Define an Energy Efficiency Law that consolidates advanced works focused on improving the country's productivity and sustainability. Such measures could consist in the implementation of educational programs on Energy and Climate Change integrated in the curriculums of formal education
- **Promote a higher electrification of final uses** as a mean to gain energy savings and transfer downstream to end use sectors the benefits of the decarbonization of the power sector. **Accelerate the adoption of private and public e-mobility** as an immediate solution to abate GHG emissions and address air pollution in cities. Enhance access to public information on the multiple benefits of e-mobility. Promote energy efficiency standards
- **Deploy distributed generation solutions.** Reduce the economic barriers to include photovoltaic projects in the B2C segment and develop alternative business models for financing the network cost. Other actions such as tax reduction or guarantees of green origin could further accelerate the deployment