SCALING UP RENEWABLE ENERGY INVESTMENT IN **COLOMBIA**

Colombia is a key player in the Latin American energy market. Rich with energy resources, it has one of the world's cleanest electricity mixes, with hydropower currently accounting for 70% of electricity generation. Looking ahead, the goverment seeks to strengthen the resilience of Colombia's generation matrix, ensuring secure, efficient supply and reducing exposure to climate phenomena, including seasonal *El Niño* impact.

Plans call for boosting variable renewable energy (VRE) generation capacity to 17% by 2030, compared to less than 1% in 2017. This presents tremendous opportunities for solar and wind investment, as well as pumped hydro storage to enable VRE integration. On top of national targets, the Colombian-led RELAC initiative calls for 70% electricity generation from renewable energy sources across Latin America and the Caribbean by 2030.[1]

The IRENA Coalition for Action Business and Investors Group, which brings together leading renewable energy businesses and investors, sees great potential for investments in Colombia. The group represents significant renewable energy assets worldwide and is in the coming years planning to contribute substantial additional investment needed for a green economic recovery post covid-19 and to reach global climate objectives. From an industry point of view and based on its engagement in the Colombian market, the Business and Investors Group has put together the following key recommendations that the government may consider to reach higher shares of renewable energy:

1 The Renewable Energy for Latin America and the Caribbean (RELAC) Initiative is a commitment of so far ten countries of the LAC region to achieve a regional goal of 70% electricity generation from renewable energy by 2030. It was launched at the United Nations Framework Convention on Climate Change (UNFCCC) COP 25 Conference in Madrid.

- **Enhance clarity on renewable energy plans beyond 2022**

  Colombia's National Development Plan provides certainty and transparency on the increase of renewable energy up to 2022, with 1500 megawatts of new installed VRE capacity allocated through long-term power purchase agreements (PPAs) in the current auction process. To foresee and plan long-term investments, a specific implementation plan looking beyond 2022 would send a continued strong investment signal to both local and international investors.

- **Consider reviewing electricity market design and regulatory framework for higher shares of VRE**

  The Business and Investors Group would welcome revisions to Colombia's current electricity market design to facilitate further VRE integration. This may include dedicated features for an intraday market, auxiliary services market, binding dispatch and complementarity charges, and facilitate alternative power trading mechanisms such as bilateral contracts among VRE generators and end users. A comprehensive review of the current regulatory framework may also be needed, including adjustments of grid access rights (distribution and transmission).

- **Consider developing the auction design further for balanced risk allocation among stakeholders and adapting PPAs according to international standards**

  Colombia has proven willing and able to hold auctions with simpler requirements and innovative design elements. Going forward, the government should consider examining how its auction design can be refined to support further deployment and integration of VRE. To that end, an auction design that balances risk allocation among various stakeholders is crucial. Notable risks include curtailment (varying by location and time), along with financial trade-offs (i.e., inflation and currency exchange); Ultimately, to mobilise investments and increase bankability, PPAs must meet international standards or be adapted accordingly.

- **Strengthen grid development strategy**

  Long-term planning on increasing the share of renewables requires coherent grid planning and connection – particularly important in the region of La Guajira. In addition, it could be beneficial to outline a specific transmission grid infrastructure plan for future renewable energy developments, particularly looking to the Central American electricity market to interconnect with the regional SIEPAC transmission line. To accommodate higher shares of VRE, a review of current grid codes is also highly recommended. Finally, any efforts to improve grid planning and connection should take local variations in grid quality into account (e.g. in Northern Colombia) and aim to provide clarity on grid development costs.

- **Strengthen socio-economic considerations of renewable energy projects, with a focus on local communities**

  The development of a renewable energy sector offers the potential for significant socio-economic benefits. Auctions, for instance, can be designed to maximize these benefits by fostering the development of local industries, maximizing the creation of local jobs, encouraging the participation of small and new players, and contributing to subnational development and engaging local communities. In this context, the development of renewable assets in Colombia requires a considerate approach involving environmental and socio-economic impact assessments on local communities. About 90% of the projects from the completed renewable auction are in La Guajira, where indigenous communities reside. To enhance transparency for all involved parties and ensure the transition is just and fair, a standardised approach is recommended to foster local community participation, including consultation on project permitting and development. The Business and Investors Group is fully committed to supporting the government in such efforts.

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About the IRENA Coalition for Action

The IRENA Coalition for Action brings together leading renewable energy players from around the world. The Coalition facilitates global dialogues between public and private sectors to develop actions to increase the share of renewables in the global energy mix and accelerate the global energy transition. Within the Coalition, the Business and Investors Working Group is chaired by the Global Wind Energy Council (GWEC) and SolarPower Europe. The Group puts forward analysis and recommendations based on on-the-ground experiences of some of the leading private sector players in the renewable energy field. IRENA acts as the Secretariat of the Coalition. **https://coalition.irena.org**