Tobón-Orozco, D., Barrientos, J., Villada, F., Velilla, E., & López-Lezama, J.M. (2018). Long-term seasonal forwards in electricity generation markets: An application to Colombia. *Cuadernos de Economía*, *37*(74), 287-314.

Seasonal components have been found in the price of most commodities, where prices are largely determined by the anticipation of seasonal demand and/or supply. This paper presents a methodology to determine seasonal forward prices in the electricity generation markets. A Cournot competition to characterize this market is assumed. Forward prices are calculated in accordance with the demand elasticity of the forwards and spot price through a differential or "gap" that represents the risk premium for the current forwards, plus some non-observable heterogeneities. The distribution of the given quantities in seasonal contracts is carried out through the classic portfolio theory. This methodology is applied to the Colombian case, and shows that it will be more profitable for generators to sell the proposed seasonal hydric forwards.

Keywords : Electricity markets, seasonal forwards, Cournot equilibrium, portfolio theory, game theory.

JEL: D43, D61, L13, L43.