1161-62-188 **Jinwung Jung***, CRG-NJ, Cresskill, NJ , and **Richard Kyung**, CRG-NJ, Cresskill, NJ. *Study on the Forecasting of Natural Gas Economy Using Statistical and Computational Analysis.*

In this paper, statistical and computational analyses of the forecasting of the natural gas economy were performed. As evident in our observations, lower gas price values have much shorter return periods. In other words, they are more likely to reoccur; however, as the values increase for higher gas price values, the length of the return periods increase exponentially. Therefore, there is a tendency for gas price values to remain in lower ranges. The higher the gas price value, the more over-speculation and overestimation in the stock market. As a result, it is natural for the gas price values to eventually decrease. Since stock market bubbles are bound to pop at any given point, this trend is expected to repeat in the future and bring high gas price values down to normalcy. For the analysis, the extreme value theory was utilized to assess extreme events within probability distributions by quantifying tail behavior. By analyzing the minimum and maximum values of samples, it was possible to determine probabilities for extreme events. A comparison was made with events previously observed and analyzed for authenticity. (Received August 19, 2020)