The Scenario Bundle Method and the Security of Gas Supply for Greece

Konstantinos G. GKONIS*, Harilaos N. PSARAFTIS

Laboratory for Maritime Transport
School of Naval Architecture and Marine Engineering
National Technical University of Athens
Web: www.martrans.org

**corresponding author, email: cgonis@naval.ntua.gr*

Abstract:

The Liquefied Natural Gas (LNG) trade is without doubt one of the most interesting areas in energy shipping. Its role in the formulation of a national energy strategy, and in relation to the security of gas supply more specifically, is of concern in this paper. The "scenario bundle method" is applied to examine the Greek market. This approach is a semi-formal, rather than mathematical, game theoretic modelling approach. Scenario bundles are simple game structures and a systematic way of using qualitative judgments as a basis for the construction and evaluation of scenarios regarding possible future developments. This methodology allows strategy formulation by taking into account the commercial objectives of the involved players, and considering geopolitical interaction, regional conflicts and crisis situations. The scenario bundle approach helps in identifying critical parameters, as a result of concrete logical steps. The present analysis concludes with some interesting strategic suggestions for the security of gas supply for the Greek market, however the main purpose of the paper is to suggest a tool for national energy planning through a schematic illustration with considerable multi-level extensions.

Keywords:
Game Theory, Scenario Bundle Method, National Energy Strategy, Security of Gas Supply, LNG