To: Shale Gas & LNG Course

From: Professor Sakmar Date: January 08, 2019

Re: 1st Research Assignment - The Role of Natural Gas in the World's Energy Supply Mix

Due Date: January 25, 2019

Overview:

In June 2011, the International Energy Agency (IEA) released a report entitled "Are We Entering a Golden Age of Gas?" In that report, the IEA presented a positive outlook for the future role of natural gas in the world's energy supply mix and projected that natural gas would grow from 21% to 25% of the world's energy mix by 2035.

The question mark in the title of the publication was not accidental and reflected continued uncertainties over the future of natural gas. In particular, the IEA noted that there were uncertainties surrounding the potential for unconventional or shale gas in large due to opposition to fracking. In 2012, the International Energy Agency released a follow-on report called the "Golden Rules for Gas," which noted that natural gas is poised to enter a "golden age," but only if a significant proportion of the world's vast resources of unconventional gas – shale gas, tight gas and coalbed methane – can be developed profitably and in an environmentally acceptable manner.

While a range of factors will affect the pace of energy development over the coming decades, the IEA recognized that unconventional gas did not yet have the degree of societal acceptance that it will require in order to flourish. "Without a general, sustained and successful effort from both governments and operators to address the environmental and social concerns that have arisen, it may be impossible to convince the public that, despite the undoubted potential benefits, the impact and risks of unconventional gas development are acceptably small." The IEA offered the Golden Rules special report as a contribution to the solution of this dilemma and offered a number of suggestions that might help industry maintain or earn a "social license to operate".

Assignment:

Prepare a 2-4-page memo researching the role of natural gas in your home country or state. Each person will direct their research towards a particular country and/or state as follows:

- 1. If you are originally from a country <u>other</u> than the United States, research the role of natural gas in your home country. If there is absolutely no information about natural gas in your home country, then you are free to choose any country.
- 2. If you are originally from the United States, you will need to briefly address the role of natural gas in the U.S. in general as well as a brief overview of the role of natural gas in your home (birth or current) state.

Discussion Points: (Try to very briefly discuss each point. I want you to have a broad understanding about the role of natgas in your particular country/state with a view towards understanding the policy for or against shale gas/fracking.)

- 1. Does your country/state use natural gas? If so, for what?
- 2. What is the natural gas consumption of your country/state?
- 3. Does your country/state produce natural gas? If so, how much?
- 4. How is the natural gas market regulated? Identify Fed/State/Local government agencies.
- 5. Does your country/state import OR export natural gas? If so, from where? Via LNG? Pipeline? How much?
- 6. What is the current policy of your country/state in terms of natural gas? Is the government promoting the use of natural gas? Why or why not? Is the public supportive of natural gas? Why or why not?
- 7. Is your country/state pursuing shale gas? If so, what is the regulatory framework?

Current Event: As part of your research, find one recent news article (from any source) about the role of natural gas in your country or state.

Please print out your memo and article and turn it in at the end of class.

¹ International Energy Agency (IEA), Are We Entering the Golden Age of Gas?, (June 2011), available at https://www.iea.org/newsroom/news/2011/june/iea-special-report-explores-potential-for-golden-age-of-natural-gas.html.

² International Energy Agency (IEA), Golden Rules for Gas (May 2012), available at http://www.worldenergyoutlook.org/goldenrules/.