



**華美化學與化工學會**  
**Chinese-American Chemical Society**  
**(CACCS)**

**Chinese-American Chemical Society Event**  
**at**  
**American Institute of Chemical Engineers Meeting**  
**(2012 AIChE Spring Meeting)**

**Monday, April 2, 2012**

**Social Hours**  
6:30 - 7:00 PM

Open to all CACS members and AIChE meeting Attendees  
(Same location as banquet. Free of charge)

**Banquet and Keynote**  
7:00 - 9:00 PM

Fung's Kitchen, 7320 Southwest Fwy #115, Houston, TX 77074, (p) 713-779-2288

Tickets Available at AIChE Spring Meeting Registration, \$35/Person

**Keynote Speech**

**Energy Geopolitics**

**Prof. Michael J. Economides**

Professor of University of Houston  
Managing Partner of Dr. Michael J. Economides Consultants, Inc.  
Editor-in-Chief of the JNGSE and Energy Tribune

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# Keynote Speech

## Energy Geopolitics

Prof. Michael J. Economides, University of Houston

### Abstract

The past few years have been eventful in the world of energy.

In 2008 oil prices climbed to almost \$150 per barrel and then completely unexpectedly suddenly dropped to around \$40, prompted by the “credit crisis” and then compounded by economic recession. As should be clearly expected prices have been climbing recently. While the calculated by us world break-even price of oil should hover around \$75, geopolitical headlines rule the price and the world is constantly one headline away from far larger oil prices. In March 2010 I predicted that oil would top \$100 around the end of the year. The Middle East turmoil provided the exclamation mark.

There is a substantial imbalance in the location of energy producers and consumers, an imbalance that has precipitated world conflicts and one that will likely cause future upheavals. Prominent among these areas is the Middle East where five of the six countries with 75 billion barrels of reserves are located. The Straits of Hormuz through which one third of all trans-national oil trade passes is a geopolitical choke point.

Energy militant nations such as Iran, Venezuela and, over the last few years, Russia hold a considerable sway over the energy trade. Iran’s nuclear enrichment program has had a measurable impact on oil prices. In Venezuela Hugo Chávez has led a Latin American populist insurgency, has totally re-nationalized his country’s oil industry and has taken a very militant and hard-line position towards the biggest consumer of them all, the United States. Russia’s energy ascendancy over the past decade has been an important counterbalance to the power of OPEC. However, re-centralization of Russia’s energy industry by Vladimir Putin, amounting to what we have called re-Sovietization, has given rise to what can easily be described as energy imperialism.

One obvious bright spot for the future is that energy consumption in the generation of wealth and the forms of primary energy sources have not been constant throughout the last two centuries. Of considerable significance is the change of fuels from wood to coal to oil and now to natural gas and, eventually, hydrogen will play a role. Wide use of electricity in transportation is the only obvious long-term, decades away, future.

Distorting the economically sane path to the future is the confusion deriving from the current lack of overlap between primary energy sources such as oil and natural gas and improbable ideas for alternative energy sources such as the practically energy-negative bio-fuels, headed by ethanol or, even more impractical alternatives such as solar electricity.

Compounding the issue even further is the entire rhetoric of global climate change, its presumed anthropogenic component, and the proposed solutions, bound to add to energy costs and energy availability.

### **Biographical sketch**

Prof. Michael J. Economides is a chemical and petroleum engineer and an expert on energy geopolitics. He is a professor at the Cullen College of Engineering, University of Houston and Managing Partner of Dr. Michael J. Economides Consultants, Inc. with a wide range of industrial consulting, including major retainers by several Fortune 500 companies and national oil companies. He is the Editor-in-Chief of *Energy Tribune* ([www.energytribune.com](http://www.energytribune.com)) and Editor-in-Chief of the peer-reviewed *Journal of Natural Gas Science and Engineering*.

Technically, he casts a commanding figure in petroleum and natural gas reservoir and production engineering. With 15 textbooks and almost 300 journal papers and articles, his works are referenced by almost all practitioners in the field. In the relatively recent past he has served as Senior Technical Advisor to China's CNOOC and subsidiary COSL, to ENI, Italy's main petroleum multinational company and for more than 5 years to Yukos and Sibneft, Russia's major petroleum companies. During 1997 and 1998 Economides was in Venezuela as the Senior Advisor on Production Technology for PDVSA, the national oil company of Venezuela.

Following his 2000 best seller *The Color Of Oil* and a large number of publications in international magazines, he is considered by many as the premier world expert on the geopolitics of energy, giving about 50 speeches per year to groups from many large professional societies, organizations and corporations. He is a frequent guest on national and international media. He writes for the editorial pages of major newspapers, magazines and internet news organizations.

His latest wide appeal books are *From Soviet to Putin and Back: The Dominance of Energy in Today's Russia* (2008), *Energy: China's Choke Point* (2009), *Energy and Climate Wars* (2010), *The Energy Imperative* (2010) and *America's Blind Spot* (2012).