



**technology resources  
international, inc.**

## **ENERGY TODAY - FACTS & FICTION**

More than 40 years ago, in 1977, the US Department of Energy was created and charged with managing US energy interests. While large financial and human resources have supported this organization over four decades under many different administrations, it is truly remarkable that this country has yet to establish a comprehensive energy policy acceptable to both political parties. During this period we have seen oil shortages and surpluses, large fluctuations in oil prices, the emergence of new energy sources from tar sands and shale formations, as well as the birth of the biofuels industry. Much has changed in the regulatory landscape with mandates on emissions, consumption and the use of biofuels. During this time, the public has been exposed to a barrage of countless soundbites and politically-biased rhetoric. TRI Seminars present objective information based on current industry and government reports, supplemented by international as well as domestic news and scientific media coverage, as well as personal expertise gained over 40 years of work in the energy industry.

Below is a general outline of various topics covering the energy sector. Presentations may cover specific current issues, are tailored to the interests of the audience and highlight the impact of current mandates and/or the political climate. Seminars may be organized to provide an overview of the most important topics to in-depth coverage of any one topic and may be tailored to most schedules between 45 minutes to a full day, or multiple days.

### **Transportation Fuels**

Environmental Mandates  
Consumption & Emissions  
Usage, Outlook, Pricing  
Unconventional Oil: Fracking, Tar Sands  
Pipelines, Rail & Truck Transport

### **Biofuels**

Mandates  
Current Biofuels  
Compatibility Issues  
Transportation Issues  
Future Biofuels

### **Natural Gas Utilization**

Usage, Outlook, Pricing  
Compressed Natural Gas (CNG)  
Liquefied Natural Gas (LNG)  
Methane Hydrates

### **Alternative Energy**

Solar: Outlook, Availability, Cost  
Wind: Outlook, Availability, Cost

### **Coal Utilization**

### **Climate Change**

**Wolf Koch** has been providing presentations and seminars on energy topics for over a decade. His experience in the energy industries spans more than 40 years, starting with petrochemicals process development, moving to corporate strategic planning at a major oil company and managing process development and strategic planning for alternative fuels, including shale oil, tar sands, as well as processes for generating liquids from coal and natural gas. He managed the technology support function for a large fuels marketing organization for a decade, introducing automated payment systems and inventory reconciliation, implementing environmental mandates, developing and commercializing the first assisted refueling vapor recovery system and supporting the construction of 50 CNG dispensing facilities. Dr. Koch founded Technology Resources International, Inc. in 1995. He has developed, tested and commercialized new products for clients, has provided technology evaluation services to investors in energy related areas and has worked with regulatory agencies at the Federal, State and local levels and with industry associations. He participates in Standards Technical Panels for 24 Underwriters Laboratories safety standards, setting national standards for the safety testing and certification of most equipment used in fuels distribution. During the last several years, Dr. Koch has assisted Butamax (a BP and DuPont joint venture) in obtaining regulatory approvals for using biobutanol for fuels blending; he has worked with national organizations on materials compatibility testing resulting in co-authoring three recent refereed publications, and authored two trade journal articles on the subject. He has been granted 30 patents and has published more than 50 papers covering topics in biomedical engineering, catalysis, environmental engineering, biofuels and intellectual properties. Dr. Koch holds Ph.D. and bachelor degrees in chemical engineering and a master's degree in biomedical engineering and has been a Professor of Chemical Engineering.