

## **CURRENT PROBLEMS OF GLOBAL ENERGY SECURITY**

### **in Light of the Caspian Sea Region's Recent Experience<sup>1</sup>**

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Three related questions are: (1) if the energy crisis is real, then what should our future energy plans be; (2) what is the impact of energy on the world's geo-political scenario today; and (3) what policies should be considered to ensure energy security. The third of these questions is the least variable. The answer to it should not change much, whether the energy crisis is real or not, whether we recognize such a crisis or not, and regardless of energy's impact on global geo-politics. The first and second questions are far from unimportant. I have addressed them elsewhere, especially in relation to the development of energy resources of the Caspian Sea basin. However, in a short paper one has to choose, so here the third question will be at issue. Also, this approach allows previous work on the first and second questions to be brought into pragmatic and more generalized focus.

#### **The Present Situation**

For 2002, the last year for which complete statistics are available, world energy production was concentrated in oil (35 per cent), coal (21 per cent) and gas (19 per cent). Combustibles, renewables and waste comprised nine per cent, while nuclear energy was five per cent and all other categories of sources under five per cent each. Since 2002, expert estimates have projected strongly increasing consumption especially in Asia. Some estimates see world energy consumption in 2020 rising to 40 per cent above its current level. Carbon emissions may increase correspondingly, limited by the Kyoto Protocol and the alternative U.S.-led multilateral initiative. Meanwhile, hydrocarbon prices have reached a new and higher plateau, with increasing price volatility upwards over time.

Energy security was one of the motive forces of the 1975 Rambouillet meeting that turned into the G-7 (and later G-8), even though this was subsequently disguised as macroeconomic management. A perusal of the Commitments adopted at successive G-8 summits reveals repetition of the same energy themes, as nothing much was really ever done to realize earlier promises. Today, the IEA estimates necessary investment to maintain and expand energy supply \$16 trillion over the next three decades. Yet despite repeated declarations at G-7/8 summits since the mid-1970s, the members of the Group cannot be said to have developed a long-term common energy strategy, or even to have implemented

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to any significant degree the various and many quasi-official Commitments about energy policy enunciated in periodic Summit communiqués.<sup>3</sup> Yet the significance of such concerns has only increased over time, not only with increasing public attention to environment and climate change as well as local pollution and safety, but also as political volatility in sensitive energy-strategic regions has increased.

The problems faced by government decision-makers in this issue-area in the twenty-first century more and more approach those faced by business executives over the last decade: the combination of the rapidly changing business environment, information overload and constant constraints upon resource availability stretching them ever thinner. Yet around the Caspian Sea basin, in an energy and political environment of extreme complexity and uncertainty, international energy consortia have successfully defined pipeline projects, obtained financing and brought the construction projects to completion in tandem with the paced development of the newly accessible energy resources in the region. In what must be one of the most complex and uncertain sectors of global industrial development, they managed to succeed. But how?

### **“Public-Private Partnership” or “Tripartite Strategic Alliance”?**

Much attention has been recently given, in debate over these issues, to so-called “public-private partnership.” Such a partnership, it is argued, could not only assist the development of existing and new crude oil resources but also, in view of the exhaustion of such resources in coming decades, manage political pressures for long-run transition to gas and alternatives/renewables while investigating their potential and also determine under what conditions alternative/renewable energy sources are a wise long-term investment. “Public-private partnership” is, however, a misnomer; it would often be more accurate to refer to “government-industry partnership”. As such, the phenomenon is fundamentally nothing new.

What has made it possible for the energy industry to succeed today in historically the most difficult of circumstances is not any “public-private partnership”, but rather the qualitatively new phenomenon of strategic alliances amongst industry leaders that has emerged from the need to reply to the incredibly complex engineering tasks combining economic, political and social elements in a manner impossible to disentangle. In a management context, strategic alliances between firms allow profound knowledge of the market to be combined with the best technical practices. Forming such alliances is not a choice but a necessity for achieving an appropriate pace of development. To be successful, alliances must share goals, risk, control and decision making, through clearly defined processes. Strategic alliances are extremely difficult to put together. They encompass much more than partnerships, which are of limited duration with specific objectives; also, they are more open-ended.

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<sup>3</sup> See the official documents compiled at “University of Toronto G8 Information Centre” <<http://www.g7.utoronto.ca/>>.

Yet this notion of “strategic alliance” also describes, in the political realm, the traditional relationship conceived in democratic theory between a civil society and its government. In this paper, I do not refer to “civil society” but rather to “the publics” that constitute a political state, which latter includes its government. This is not only because the notion of civil society has become disputed in its application to non-Western polities, but also because in fact a government has multiple publics. For example, one may consider the general voluntary associations of a population to represent one public, the more specialized and better-organized interest groups of society to represent another public and the still more specialized groups of technical experts in scientific disciplines and fields as yet another public. These publics are differentiated by the *qualities of information* that they may transmit to the state’s political leadership.<sup>4</sup>

The greatest unmet need in co-operative energy security for sustainable development is the need for political co-ordination of the many complex technical aspects. These include the integration of production plans with pipeline construction timetables, an emphasis on multilateralism, expanded participation including intercultural dialogue, explicit concern with ecological issues, and project development to meet specific logistical goals within a strategic framework. The nature and variety of technical and geophysical obstacles require pooling of financial resources and transport facilities. The complexity of these technical problems has already required new forms of organization and decision-making.<sup>5</sup> More explicitly multilateral political engineering is required, with wider participation. The experience of the 1990s has taught that technical problems of constructing the pipelines are inseparable from the political issues of who will build and control the pipelines, who will finance and manage them, and where will they be built. Many of these desiderata cannot be accomplished without the participation of the different publics enumerated above. Therefore, no “public-private partnership” but rather a **tripartite strategic alliance**—amongst governments, industry *and publics*—is necessary today.

### The Complexity of Energy Security Today

The new methods of energy development that have been successful in the Caspian Sea region reveal the need not for better “public-private partnership” but rather for better three-way co-operation amongst the energy consortia, the governments and the relevant publics. The environmental, social and industrial catastrophes in Nigeria and elsewhere demonstrate the need for some kind of “checks and balances” amongst these three branches of energy development projects. Today, international energy consortia in the Caspian Sea basin and elsewhere acknowledge the positive contributions that environmental NGOs can make to the development of energy projects. The EBRD conditions loan guarantees upon social sustainability. It recognizes that NGOs provide “virtual representation” for civil society to complement governmental oversight, knowledge of local conditions where this is

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<sup>4</sup> David E. Apter, *Choice and the Politics of Allocation: A Developmental Theory* (New Haven, Conn.: Yale University Press, 1971).

<sup>5</sup> See, e.g., Sue Conning, “‘Be Willing To Improvise,’” *Systems 3X/400*, vol. 21, no. 12 (December 1993). pp. 50-54.

Reproduced from *Oil, Gas, and Energy Law* vol. 4, no.1 (May 2006). Copyright © Robert M. Cutler, 2006 especially crucial, and also a means for implementing “environmental monitoring” to verify the proper execution of energy development projects.

During the 1990s, unprecedented problems emerged around the projects to develop and bring to market the hydrocarbon energy resources of the Caspian Sea basin. Moreover, these problems were in significant cases solved. Here I summarize those problems and the lessons to which they give rise. For each problem/lesson pair, there is also a need that emerges for energy development, but which was first identified by research on the effectiveness of international environmental institutions. It becomes clear, in this manner, that to move in the direction of co-operative energy security (“tripartite strategic alliance”) represents nothing less than a constructive and synergistic rapprochement between the international environmental agenda and the international energy agenda.

- What companies learned. The first problem was that transnational corporations (TNCs) cannot do it alone. The lesson solving this problem, is that they need assistance; moreover, and they know it. The need that follows from this, is to enhance the contractual environment, promoting the transparency and clarity of rules, thus helping to satisfy those needs.
- What governments learned. The second problem was that coercive unilateralism fails. The lesson solving this problem, is that states need more information and better evaluation of it. The need that follows from this, is to increase governmental concern, which in turn requires the strengthening of communities, not only of the state but also of social sub-units.
- What publics learned. The third problem was that intragovernmental politics do not always help. The lesson solving this problem, is that human resources must be better integrated into the policy process. The need that follows from this, is to build national capacity, which means *inter alia* increasing citizen participation and incorporating of specialized expertise into decisions, including, for example, but not only, environmental monitoring by local NGOs.<sup>6</sup>

In order to see how industry, governments and publics must co-operate together, we can distinguish political-economic and social-economic desiderata for the future of global energy security, on the basis of the Caspian Sea experience, and enumerate some of their components so as to illustrate their interdependence. This is only an indicative and far from exhaustive list. It draws on the strong points offered respectively by industry, governments and publics: industry’s strong point is to determine under what conditions alternative/renewable energy sources are a wise long-term investment; governments’ strong point is to manage political pressures for long-run transition to gas and

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<sup>6</sup> Robert M. Cutler, “Cooperative Energy Security in the Caspian Region: A New Paradigm for Sustainable Development?” *Global Governance*, vol. 5, no. 2 (April–June): 251–271. The conclusions are based on a comparison of the experiences of the Caspian Pipeline Consortium and the Baku-Tbilisi-Ceyhan pipeline effort in the mid- and late 1990s. As set out in the article, the three necessary components for co-operative energy security are an investment-friendly financial climate, guarantees of secure transport and political stability. See <<http://www.robertcutler.org/ar99gg.htm>>.

alternatives/renewables while investigating their potential, and in the meantime to increase the political and strategic security of transport routes and of energy provinces; and publics' strong point is to motivate revenue transparency so as to reduce corruption and abuse while ameliorating decision-making procedures by bringing additional high-quality expert information to the table. It is convenient here to indicate just some of the issues illustrating why such strategic co-operation is necessary. These are drawn from the Caspian Sea region's experience over the last decade and a half, and it is easy to find them in other parts of the world today, in connection with other energy projects and provinces. The following enumeration is only suggestive.

- 1) Some issues requiring strategic co-operation between industry and government include:
  - Facilitating development and transport of energy resources through appropriate investment climate.
  - Finding new sources of fossil fuels, increasing the yield from existing reservoirs and managing hydrocarbon investment in view of price volatility.
- 2) Some issues requiring strategic co-operation between industry and publics include:
  - Meeting the local population's basic needs so as to provide a reliable work force, supply chain and market for products.
  - Increasing relevant attention to environmental concerns, not limited to climate change but also local pollution and safety.
- 3) Some issues requiring strategic co-operation between publics and governments include:
  - Designing policies to optimize diversification of energy use across different fuels.
  - Controlling political volatility in sensitive energy-strategic regions, and attenuating the potential conflict over access to or control of resources in internationally disputed regions.
- 4) Moreover, a few issues requiring **TRIPARTITE STRATEGIC ALLIANCE FOR CO-OPERATIVE ENERGY SECURITY** amongst publics, government and industry can also be indicated:
  - Assessing what technology advancements are possible and how quickly will they penetrate, including alternative and unconventional fuels (e.g., tar sands, LNG, solar, wind, geothermal).
  - Structuring power generation markets and electricity distribution networks through regulation complementary to social needs and market forces, while ensuring that all companies meet minimum public expectations.

- Defining and introducing policies to increase conservation, expand and diversify energy supply, and also to improve energy efficiency, including cogeneration (the simultaneous production of power/electricity, hot water and/or steam from one fuel) in the manufacturing sector and hybrid vehicles in transportation.

### **Conclusion: What To Do About It All**

It is appropriate now to conclude on why there is an economic and social need for co-operative security energy, and how this can be realized only through the complementary Tripartite Alliance amongst industry, governments and publics.

### **The Economic and Social Need for Co-operative Energy Security**

In many places in the world today, oil and gas development hold the key to assuring food, shelter and access to medical care for the broad population. However, unbalanced development threatens geopolitical and geo-economic conflict that would benefit no one. To take the example of Central and southwest Asia, these two regions together have a population today equal to that of the United States and a land area greater than that of all Europe. (Note that the population figure does not even include Pakistan and India.) It is an extremely young population that will see an inevitable demographic explosion; some estimates project the population to double over the next quarter-century.

To this demographic fact we must add geographic facts. There is already an evident shortage of water, whether for drinking or for agriculture, and there is little if any currently uncultivated arable land on which to raise more food for that exploding population. While people will migrate to the cities, an increasingly educated middle class the world over will seek a greater voice in the political process.<sup>7</sup> Resolving the issues set out above, and others just as pressing, requires the synergistic integration in practice, of specialized knowledge from fields as different but integrated as enterprise management, political engineering, and financial settlement. Only a framework allowing capabilities to be pooled, costs shared, and benefits distributed, enables resource-holding countries to harness the driving dynamic of foreign investment to develop existing energy resources.

Sustainable development has acquired a legitimate place in discussions of energy since the U.N.-sponsored Johannesburg Summit on Sustainable Development (September 2002).<sup>8</sup> It has been adopted not only by governments and civil-society groups but also by major petrochemical corporations. Yet as a conceptual approach, “sustainable development” has only recently begun to take energy into account. It has done so through

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<sup>7</sup> Zbigniew Brzezinski, “The Dilemma of the Last Sovereign,” *The American Interest*, vol. 1, no. 1 (Autumn 2005): 37-46.

<sup>8</sup> *N.b.*, at Gleneagles the G-8 endorsed the industry-government-public Extractive Industries Transparency Initiative (EITI, at <http://www.eitransparency.org>) announced at Johannesburg by U.K. Prime Minister Tony Blair.



the locutions of “energy for sustainable development” and “sustainable energy”. However, sustainable development itself requires broad participation, enhanced by open value-laden discourse.<sup>9</sup>

Beginning with a focus on co-operative energy security, a move to sustainable development encourages a longer-term perspective that also expands the picture to include regional and local ecosystems as well as other aspects of development such as the varieties of cultural ideas about nature, community and identity. Since development depends on the products of many ecosystems, co-operative energy security for sustainable development implies a long-term balancing of energy, environment and economic development. Only a tripartite strategic alliance embracing publics as well as governments and industry can bring to bear the distributed knowledge required to accomplish these tasks.

### **The Political Need for the Tripartite Alliance**

Under any Production-Sharing Agreement, industry operates in a country as government contractor. When internationally organized groups cannot challenge a tough government, they naturally evolve a strategy seeking to challenge the private companies as a means towards that end. When domestically organized groups cannot challenge a tough government, they naturally evolve a single-issue strategy to scrutinize an important economic project so as to promote general political debate.

Thus it happens that the international dimension of a project supersedes local issues. As a result, debate shifts from the domestic dynamics of debates between governments and NGOs to forums engaging intergovernmental organizations (e.g., European Bank for Reconstruction and Development, World Bank including International Finance Corporation, etc.) and international NGOs that may not even be represented in the particular geographic locales where industry is undertaking the energy project.

In this manner, the constituency of scrutiny is disconnected with the constituency of concern. This globalization of scrutiny is an important reason why industry engages with publics. The Baku-Tbilisi-Ceyhan project, for example, attracted worldwide attention not just because local NGOs were addressing local concerns on technical aspects of the project, but especially because NGOs raised concerns to BP's listed markets in London and New York. The natural consequence is then a tripartite alliance as described above, since what is to be negotiated is a framework of behaviours and issues that need to be addressed on a global scale. That need exists, because there is otherwise an intolerable risk that the independent influence mechanisms of the three parties in the Tripartite Alliance will jeopardize the realization of the project.

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<sup>9</sup> For example, the Energy Security and Sustainable Development in Northeast Asia project of the Economic Research Institute for Northeast Asia (Niigata, Japan) appears, from the language of its various reports and conference documents, to have taken up some of these basic ideas first set out together in the characterization of “co-operative energy security” (see note 6).