

New International Energy Order: a reapproach to the concept, por Duilio Calcagno

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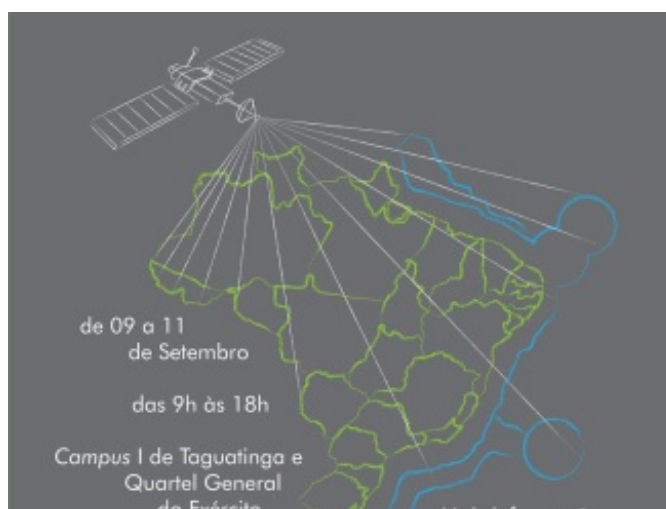
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This essay is oriented in order to propose a redefinition of the New International Energy Order (NIEO) and the challenges that the States are facing in this new environment from a systemic approach.

There already exist definitions on NIEO, such as those of Michael Klare (2008), which focuses on the increasing competition for natural resources (and thus energy resources), especially among big powers, and Victor and Yueh (2010), which focuses on price instability and its impact in long-term investments, process that according to them is affecting energy security worldwide. They particularly emphasise on the post 2000's drop in oil prices and on its international political consequences, such as the empowerment of energy exporter countries or the low attractive environment to invest in oil supply chain.

By NIEO, we understand a new milieu in which energy affairs have changed substantially, especially since the 2000's. In doing so, we follow Stoddard (2013) and Kuzemko et al (2012) proposals about transcending both realist-geopolitical and liberal-institutionalist excluding approaches and in doing so, trying to integrate their contributions. Ontologically, epistemologically and disciplinary we suggest to broaden the focus in order to include not only States' interactions among each other and with energy sources and supply chains but also other international, regional and domestic stakeholders, some of which will be studied here.

Here we suggest to broaden the perspective in order not only to include shifting in prices as the centre of the definition but also to adopt a systemic perspective to address NIEO: that is, to focus on the increasing phenomena of interdependence of international energy



affairs.

In other words, it is clear that oil price variation is of fundamental relevance for international (and thus national) energy affairs. But the concept of NIEO tries to explain an even more challenging situation, that is the increasing impact of what we may call systemic conditions, according to a more complex and complete approach (Yergin, 2011) in socio-energy systems. By socio-energy systems, we understand the complex interrelation of energy, individuals and society (Miller et al, 2015). So, NIEO is about the increasing integration between socio-energy systems and between them and other complex systems.

Apart from strong oil price shifting, we propose here several domains in which NIEO can be tested. Firstly, we will present some of the most important variations regarding energy sources that are causing major shifts in socio-energy systems (Yergin, 2006).

There is a remarkable trend towards an intensive use of hydrocarbons, or at least a stabilization in its utilization. The increasing relevance of its consumption is due to the economic growth in the so called emerging countries, especially China and the current cheap price of oil. Gas is not an exception, since it is increasingly used through gas pipelines and also through intercontinental trade of liquefied natural gas (LNG), especially from Qatar, Indonesia and Malaysia. LNG is creating a truly global gas market.

On the other hand, renewable energy sources are benefitting from great support, especially in countries like United States and China. Though it is not realistic considering that renewables will substitute hydrocarbons in the short term, they will be a substantial energy supplying sector. Biofuels deserve a special mention, since they represent a relevant part of renewables and in some countries are benefitting from strong research and development.

All this on-going trends are also shaped by the unconventional hydrocarbons revolution, which is the possibility to drill crude and gas from reservoirs impossible to develop so far, thanks to fracking and horizontal drilling technologies. Especially, international oil companies are devoting their efforts to these fields, since national oil companies have established a solid control over conventional resources.

Moreover, electric systems are suffering from mayor pressures to improve its performance and production efficiency. With unprecedented processes of urbanization, and rising living standards especially in developing countries, electricity will see an increase in its relevance in energy matrixes. The immediate consequences will be a rise in hydrocarbons consumption and the necessity of massive investments in renewable sources of energy.

We presented a succinct summary of the main energy sources lately trends. However, we state NIEO accounts not only for the shifting in specific areas of energy, but in other systems that impact directly in socio-energy systems.

Firstly, the overwhelming dependence of energy physical infrastructure along its supply chain on software networks. In this regard, it must be highlighted the fact that while it integrates domestic and transnational energy systems and improves public capabilities over them in a technical sense, it also makes energy infrastructures more vulnerable to potential non volunteer shortcomings or even on purpose action, such as terrorist attacks.

Secondly, global climate change put energy systems on the spot, since energy supply chains and their externalities represent a major contribution to greenhouse gases emissions. Research and political action from international organizations and NGOs put pressure on stakeholders in order to improve energy systems and switch them to lower greenhouse gases emitters and more environmental friendly.

Thirdly, the emergence of public/private transnational global governance in the energy field, with the intervention of not only public actors and regional and global organizations, but also international energy companies (and internationalized national energy companies), NGOs, multilevel stakeholders and so on.

Finally, energy is crucially attached to social and economic development. This could be considered as a classic domestic issue addressed through sovereignty, but having a sustainable and efficient energy system is a key input in order to foster competitiveness and assure an advanced position of a country in global value chains. That is why having a sustainable and cost-efficient energy system is of enormous importance.

All the described phenomena have challenged socio-energy systems in a way that has no precedents in the energy field. This is manifesting up to what point State capacities are (or are not) ready to face multilevel and complex problems. Nevertheless, it must be stated that these phenomena impacts significantly differently among States and societies, since not all of them are equally affected and principally not have the same tools and capacities to answer back to inside and outside problems.

Within this framework, we suggest some fruitful fields of research can be explored in the future, following some of the trends recently opened in energy investigation in social sciences. Regarding poverty and inequality, we may suggest going deep in the consequences of the changes that NIEO represents, foremost for developing countries.

Besides, it must be studied how and up to what point States are capable to answer to such challenges and the differences that they are presenting, from developed to failed States. We encourage fundamentally studying Brazil and Argentina as our closer examples of countries with abundant resources but daunting current and future trouble.

As mentioned, it would be also important to study the new way in which public and private sector are interacting locally, regionally and internationally in energy areas and how it is impacting on socio-energy systems.

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