



Gulf Research Centre Cambridge
Knowledge for All

Workshop 16

The Political Economy of Clean Energy Solutions in the GCC

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Abstract

Providing for energy has long been seen as a fundamental task of the state, which has, in most cases, initially taken this upon itself directly, setting up a state-owned electricity company to provide for generation, transmission and distribution. Progressively, the state has abandoned its direct involvement and opted for indirect governance, responding to technological developments that have allowed for separation of generation from transmission, and greater competition in generation. The clean energy revolution further accentuates the pluralism in the sector and empowers the private sector – in contrast, for example, from nuclear energy, which is intrinsically centralized and securitized. At the same time, renewable sources create challenges in the management of the grid and of other sources, and it is not clear whether the state is up to the task of managing well a system in which renewables play a large role. Thus the question of the future of energy in the Gulf raises issues of centralization/decentralization and the relationship between the state and private investors, issues that are of broader significance than just for energy.

Workshop Description and Rationale

The GCC countries display some of the highest energy consumption per capita, energy intensity per unit of GDP, and emissions per capita or per unit of GDP. Although they are collectively the world's primary source of oil and gas, their excessive dependence on these two sources for satisfying domestic energy requirements has led to multiple expressions of

preoccupation and inspired policies and institutions aiming at achieving greater diversification.

Clean Energy Solutions (CES) include both measures aiming at reducing specific consumption (energy consumption per capita, or energy input per unit of GDP) and measures aiming at improving the uptake of renewable energy sources. We do not wish to include nuclear energy in the scope of the proposed workshop, because a lively debate on the political economy of the latter has already developed and led to several publications. In contrast, the field of political economy of clean energy solutions is relatively virgin.

The workshop will focus on political economy aspects rather than technology. The GRM is primarily a gathering of social scientists rather than technologists. Furthermore, the technological aspects are the focus of continuous debate in the context of the EU-GCC Clean Energy Network that is in the process of being formed thanks to support from the European Commission and the GCC Secretariat.

With respect to the uptake of CES, social and political variables are as important as technological ones. In fact, CES require acceptance and convergent behavior on the part of the vast majority of the population and economic actors. The distinguishing feature of CES is that they require a large number of highly decentralized decisions, while traditional energy solutions can normally be implemented on the basis of few, large-scale investment decisions – in fact they mostly display significant scale economies, favoring large-scale over small-scale solutions.

Anticipated Papers

The workshop will encourage the presentation of papers on either one or more of the following specific aspects:

1. Economic incentives for CES and subsidization policies

Containing energy consumption frequently requires investment or acceptance of change in consumer behavior. The investment may be very small – replacing an incandescent light bulb with an efficient one – or quite substantial – insulating one’s home or office building. Consumer behavior is paramount with respect to elimination of waste – turning lights off when not in a room – or containing excessive consumption – accepting a somewhat higher temperature to limit air conditioning, opting for a smaller, more efficient car, etc.

Diffuse consumer behavior change can be encouraged through education and awareness campaigns, but should normally be supported by price signals. In other words, as long as the cost of electricity and fuels remains very low in the GCC countries (although significant differences exist between the GCC countries: comparative papers would be welcome) it is very difficult that the vast majority of consumers will be willing to accept sacrifices – albeit small – to save energy.

The uptake of solar energy also is very closely linked to diffuse consumer behavior. Whether we think of the potential for rooftop PV panels, or, even more so, rooftop thermal solar panels for air conditioning and managing water temperature, the required investment must have a positive, if small, return.

Thus, we welcome papers on the state of current tariffs and prices for energy and how they might be reformed. Which forces oppose reform? What economic and political costs would be envisaged? What has been the record of reform attempts and implementation in neighboring countries?

Other forms of incentivization of diffuse investment are access to special credit opportunities or tax rebates. The latter are made difficult by the absence of income taxes, but the former might be envisaged. How could a scheme to offer credit at very low cost (or partial cash rebates) be structured? What relevant precedent exists in the region or elsewhere in the world?

2. Environmental awareness, education/information campaigns, role of civil society vs. state institutions, consumer products standards

Consumer education is fundamentally important for the uptake of CES. This ranges from public awareness campaigns to discourage unnecessary waste to establishing a system to inform the consumer about the energy properties of goods that he may purchase (energy labeling). Papers on the obstacles or successes that such campaigns have encountered are welcome. Also: who has initiated such campaigns? Has it always been a state institution? Have there been initiatives taken at the local level or by civil society entities?

Beyond education, one may consider adjusting product standards to eliminate altogether from the market products that are especially energy-inefficient. Establishing minimum standards of energy efficiency may be done from the top, but may result in a measure of higher cost for the consumer, which might be resisted.

From the point of view of energy consumption, the most relevant set of standards is probably the building code. Does the building code incorporate parameters that favor energy efficiency? How do local preferences and mores interact with the need to move towards more energy-efficient housing? Here historical papers might also be of interest, as the traditional pattern of housing was markedly different from that which has prevailed in the last 40 or 50 years. Can/should traditional patterns be revived?

Do we have examples of building code reform – achieved or in the making? Which forces resist reform? What are the prospects of overcoming resistance?

3. Regulatory institutions

Renewable sources of energy most relevant to the region – solar and wind – require rules regulating access to the grid and an adaptation of dispatching of traditional power plants. Although it is not to be excluded that large-scale renewables installations may be pursued by the state-owned electricity companies, the potential for economies of scale is limited, and renewables are best pursued by small private investors. This requires the creation of an appropriate investment climate, notably attributing priority access to the grid to renewable energy projects, under guaranteed economic terms (feed-in tariffs). The extent to which the latter need to be set above the comparable cost of electricity from traditional sources in order to incentivize renewable sources is an issue for debate.

The required economic environment may be created through legislation or through regulation from an independent regulatory authority. Such authorities have been established in some GCC member countries, but do they enjoy the necessary autonomy? Is their record such that

private sector entities will be encouraged to invest in renewable energy projects? How does the existing legislation/regulation compare with that of other countries having succeeded in promoting renewable sources?

4. Clean energy in the GCC's international relations

Issues related to climate change and to the necessary uptake of CES figure prominently in international relations and are likely to figure even more prominently in the future, notably in relations between the GCC and the EU.

There are several aspects well worth analysis and on which we would welcome paper proposals:

- a. The evolution of the negotiating position of the GCC countries in international fora concerning climate and energy affairs. Has there been an evolution, is there a common GCC approach, what developments might be expected in the near future?
- b. The participation and engagement of the GCC countries in international organizations dealing with CES (e.g., but not exclusively, IRENA)
- c. The participation and use of existing mechanisms such as the Clean Energy Mechanism to support CES projects in the GCC: experiences, obstacles, prospects
- d. The record and potential for bilateral or interregional (e.g. EU-GCC) cooperation in the promotion and uptake of CES: lessons from the past and indications for the future
- e. How a much increased reliance on CES might affect the geoeconomic position of the GCC in the global division of labor

Eventually, the workshop directors would like to publish the best papers from the workshop in a collective volume.

Workshop Director Profiles

Rabia Ferroukhi has recently joined the International Renewable Energy Agency (IRENA) as Senior Policy Advisor after four years at Masdar Carbon as Department Manager of carbon project development. Dr. Ferroukhi has been working on energy and development-related issues for over 15 years with different governments in the Middle East and North Africa, energy companies in the Mediterranean region, and international institutions. She holds a Masters in Applied Economics and a Ph.D. in Economics from the American University in Washington D.C.

Giacomo Luciani is Scientific Director of the Master in International Energy of the Paris School of International Affairs at Sciences Po and a Princeton University Global Scholar attached to the Woodrow Wilson School and the Department of Near Eastern Studies. He is also a visiting professor at the Graduate Institute of International and Development Studies in Geneva and co-director of the Executive Master in Oil and Gas Leadership. He is Senior Advisor to the Gulf Research Center and in this context serves as the Team Leader in the EU-GCC Clean Energy Network Project. He is also actively involved in the POLINARES FP7 research project. From 2007-10, he was Director of the Gulf Research Center Foundation, Geneva. In 1997-2010, he was Adjunct Professor of International Relations at the SAIS Johns Hopkins University Bologna Centre. From 2000-06, he was Professor of Political Economy and co-director of the Mediterranean Programme of the Robert Schuman Centre for Advanced Studies at the European University Institute. In this time, he directed the EUROGULF project

within the SYNERGY program and participated in several other EU-supported projects (INDES, ENCOURAGED, MEDSUPPLY, EUROGULFHCT). His research interests include the political economy of the Middle East and North Africa and the geopolitics of energy. His work has focused primarily on the economic and political dynamics of rentier states and issues of development in the GCC countries. He is a member of the Oxford Energy Policy Club, the Geneva Petroleum Club, and the Energy, Oil and Gas Club of the Institut Français du Pétrole (IFP). He is a frequent speaker at conferences and events organized by leading institutions in the field of energy affairs.

Manfred Hafner has focused on the energy sector in his international career of almost 25 years, specializing mainly on Europe, MENA and Russia/CIS. He presently coordinates energy policy activities at the Fondazione Eni Enrico Mattei (FEEM); is President of International Energy Consultants (IEC); and is Professor for energy economics, markets and geo-policy teaching among others at the Johns Hopkins University (SAIS) in Bologna and the Paris School of International Relations (Sciences Po). He has consulted extensively on energy issues for industry, governments and international organizations and was for many years the Scientific Director of the Observatoire Méditerranéen de l'Énergie (OME).

Director Papers:

Energy and Power in the GCC in the Light of Global Experience

Giacomo Luciani

I will argue that providing for energy has long been seen as a fundamental task of the state, which has, in most cases, initially taken this upon itself directly, setting up a state-owned electricity company to provide for generation, transmission and distribution. Progressively, the state has abandoned its direct involvement and opted for indirect governance, responding to technological developments that have allowed for separation of generation from transmission and greater competition in generation. The clean energy revolution further accentuates the pluralism in the sector and empowers the private sector – in contrast, for example, from nuclear energy, which is intrinsically centralized and securitized. At the same time, renewable sources create challenges in the management of the grid and of other sources, and it is not clear whether the state is up to the task of managing well a system in which renewables play a large role. Thus the question of the future of energy in the Gulf raises issues of centralization/decentralization and the relationship between the state and private investors, issues that are of broader significance than just for energy.

The Political Economy of Clean Energy Solutions in the GCC: Regulatory Institutions

Rabia Ferroukhi and Julia Wichmann

Endeavors to promote the development and deployment of renewables in the Gulf Cooperation Council (GCC) countries reach back to the early 1980s, with a surge of interest in more recent years. While most governments in other parts of the world have generally first established enabling legal, regulatory and institutional frameworks to promote renewable energy, its deployment in the GCC countries was characterized by a strong dynamic on an individual project level.¹ To date, none of the six countries has a renewable energy support

¹ Some of these initiatives include Masdar City in the UAE, the installation of wind turbines on the Bahrain World Trade Center, the KAUST sustainable campus in Saudi Arabia, or Energy City in Bahrain.

policy in place (except for a few announced targets), and institutions in charge of renewables have a weak capacity and low influence on domestic policy processes. Moreover, while climate change related mitigation policies are usually advocated bottom-up by an active civil society and an informed public, the renewable energy policy-making process in the GCC countries has been largely based on a top-down approach.

The paper focuses on two main aspects, namely i) the institutional and regulatory frameworks required to accelerate the deployment of renewables in GCC countries, and ii) experiences in other countries to possibly draw a link between the type of decision-making process and the scale of renewable energy deployment. We argue that if the region chooses to develop its renewable energy potential, governments will have to implement comprehensive, long-term strategies that are supported by all relevant stakeholders. To overcome existing structural weaknesses, changes in the regulatory and institutional framework as well as in the decision-making process will be necessary. The aim of this paper is to discuss how such changes could be implemented in the region and how they could further foster the renewables uptake in GCC countries.