WFER6

Bridging the World of Energy Regulation

A Concept Paper for Program Development

Introduction

1. World Forum on Energy Regulation (WFER) has been established as a platform to review progress, exchange views, identify good practices, discuss challenges and concerns associated with the energy sector and regulation, and to promote cooperation of regulators. Following the successful past five Fora, the WFER is now the top global event where energy regulators, government officials, policymakers and experts, development agencies, energy market participants, investors, consumer associations and, financing institutions, as well as academics and other specialists meet.

2. The success of the past Fora, as evidenced by strong participation from all around the world, was outstanding. WFER has proven itself to be of great importance and of paramount interest to participants not only from developed economies, but also from emerging and developing economies. WFER enables exchange of views and experiences on different energy regulation models and discussions about the challenges of bringing energy resources to customers at affordable prices, at good quality and in a sustainable manner. Special attention is also given to topics of importance and relevance to developing countries, such as the relationship between security of supply, sustainability and regulation. These discussions help to identify good practices that can be adapted to particular requirements and training needs and the methods associated to employ them. This is relevant to regulators and other stakeholders.

3. The common ground of the past Fora was regulatory good practices, spanning from consumer issues to market design. The interests of regulators have expanded during the last 15 years. The focus on basic aspects of monopoly regulation, introduction of competition and regional market integration remains, but now shares space with the issues of security of supply, sustainable development from an energy perspective, and the effects of technological change, which regulators will increasingly face. WFER6 is organized not only on the outcome of past Fora, but also on the future prospects and challenges in the energy world, in particular those related to regulation.

Balancing Interests

4. Nearly 1.3 billion people remain without access to electricity. The lack of access to modern energy services is a serious obstacle to economic and social development, and must be overcome if the UN Millennium Development Goals are to be achieved. The International Energy Agency (IEA) estimates that nearly $1 trillion, in cumulative, investment is needed to achieve universal energy access by 2030; while the World Economic Forum (WEF) reports that the energy systems of 124 countries are currently not ready for the transition to a sustainable and secure energy architecture required to harness economic growth.

5. Affordable and reliable energy is a precondition for growth. At the same time, the energy industry itself is an important potential growth engine for economies, a key to unlocking world sustainable development, and a tool for the creation of jobs. Hence energy is one of the leading agendas of the G20 leaders. The core issues of the G20 agenda can be summarized as; reducing excessive market volatility, eliminating inefficient fossil fuel subsidies, increasing market transparency, enhancing energy efficiency and supporting green growth policies. These objectives fall also within the scope of the regulators. Consequently, majority of the regional associations came together for an Energy Regulators Roundtable in 2009, and adopted the "G8+ Energy Regulators Statement". A similar initiative in 2013 was concluded with "Energy Regulators' Statement on Sound Regulation and Promoting Investments in Energy Infrastructure". With Turkey holding the presidency of the G20 in 2015, enhanced collaboration with G20 would likely give impetus to WFER6.

6. In parallel with the development of market reforms, the role of consumers has gained substantial importance. A market includes different parties, namely suppliers, traders, and consumers but it is basically a matter of maintaining the balance between supply and demand. From time to time and from place to place the players might change but consumers have a pivotal position upon which the existence of others depends: more specifically, markets were, are and will be for consumers. In this regard, consumer protection might be necessary but definitely not sufficient for a contemporary regulatory approach. Indeed, we can already see some tools towards consumers. However, it is fair to say that up to now the mechanisms were "consumer friendly" whereas new ones will be "consumer centric". Therefore, the should be on strengthening the role of consumers in both regulatory and market environments via improvements in relevant areas such as providing choices, complaint handling procedures, price comparison tools, demand side participation and service quality, and their corresponding roles in regulatory processes.

7. Also, considering the recent financial turmoil, improvements in the investment environment are a significant challenge for developed markets as well. That places

challenging tasks on energy regulators worldwide, as catalysts in creating and maintaining market structures that will attract capital and stimulate required investments. Therefore, regulators have to ensure providing and sustaining stable and reliable conditions for investors towards decreasing ambiguity in business while balancing the interests of various stakeholders in particular consumers and policy makers. This challenging task is not achievable unless independent, accountable, transparent and non-discriminatory regulations are in place.

8. The challenges stemming from different regulatory approaches throughout the world enrich the discussions towards reaching solutions and significantly deepening the regulatory community. However, there are some points such as transparency, accountability and credibility that all have agreed upon, and must always be at the top of the agenda for creating and maintaining self-sufficient markets, with as few distorting interventions as possible. For instance, and probably most importantly, the regulatory processes should be transparent in all stages as it enables all the stakeholders in a regulation to be actively involved in its preparation. This prevents capture, bridges democratic deficit and helps establish a workable and fair set of rules. Although, in today's world of sophisticated information technologies, access to regulation-making and market information is getting easier, the regulatory community has to reiterate its will to maintain and further improve transparency.

Benefitting from Change

9. Changes in energy policy priorities, and technological changes such as distributed generation, smart grids, smart meters, development and deployment of renewable generation, uncertainties over future development of nuclear generation and over the role of gas in a carbon-constrained world, and storage technologies are affecting investors, grid operators and regulators, specifically in transmission infrastructure development and system operation. These factors result in increasing uncertainty about the demand and supply that will be placed on grids and, as a consequence, make it more difficult to make correct investment decisions today which in turn raises the issue of appropriate risk apportionment between investors and consumers. Managing these challenging risks effectively and efficiently is likely to be one of the key topics our regulatory community will increasingly discuss in the near future.

10. There is another aspect of change which goes even further by encouraging change in order to maintain dynamism in the market rather than only managing the market. The traditional regulation practices can be criticized in terms of their approach to innovation and R&D. However, considering the rapid change in power generation, system operation and

network related businesses, new and effective regulatory strategies are required. Of course, this approach cannot be limited to integration of new technologies, and must also target market services, especially those relating to consumers. In other words, the regulators must be visionary, and anticipate and encourage innovation either in the market or in regulatory practices. In this regard, it can be confidently stated that regulations should not hamper flexibility in businesses but rather leave room for innovative approaches.

Regulation & Sustainability

11. Rapid development of unconventional oil and gas production in North America has the potential of dramatically changing the global dynamics of energy supply. The recent rebound in oil and gas production, especially driven by unconventional oil and gas production, is capable of spurring economic activity through the introduction of cheaper energy prices. Fortunately, the resources are estimated to be largely distributed all over the world. However, effective utilization of this opportunity depends heavily on increased volumes of international energy trade. Meanwhile, after Fukushima, some governments have addressed serious public concerns and revised engineering and economic assessments, resulting in abandonment of or reduction in their nuclear ambitions; while others are continuing or even expanding their nuclear plans as a means of diversifying their energy supply sources and moving away from dependence on fossil fuels. The future of nuclear power, as for the other energy resources, will not be decided by government policy alone. There are a variety of factors affecting its development, such as market rules, grid development needs and public perception. These developments are likely to have significant impacts on issues such as security of supply, role of renewables, cross border trade, environment, etc. and will force regulators to cope with challenges arising from changes in energy mix.

12. Climate change control initiatives such as the increased use of renewable energy, energy efficiency, CCS, etc. can significantly contribute to the efforts towards reducing and/or mitigating harmful effects of producing and consuming increasing amounts of energy which leads to enormous amounts of GHG emissions. These tools require new regulatory decisions to ensure appropriate implementation because development of renewable energy penetration and decarbonization of the energy sector cannot be promoted further unless corresponding mechanisms are integrated into the evolving market structures, where regulators have responsibilities in market design, as obtains in some countries. World energy regulators therefore dedicated themselves to take necessary actions as indicated in the World Energy Regulators' Statement on Climate Change. In this statement, the regulators agreed to commit

themselves to set up substantive actions, within the ambit of regulators' responsibilities, such as overseeing the development of efficient and climate responsible energy markets. This commitment prevails while the global climate change is still continuing. In that sense, energy regulation would likely focus on energy efficiency, more utilization of renewables, and less carbon emitting processes. Also, considering that energy has become more water intensive because of its wide use in industries such as electricity, and oil and gas, regulators need to assess the interdependency between water and energy markets, while addressing social and environmental concerns.

13. Security of supply is a perpetually challenging issue in the energy world. As concerns towards maintaining energy security are stimulating multinational efforts towards transnational projects that are expected to deliver required energy resources to meet demand, having a secure supply system requires coherent functioning of many market elements. Besides the smooth functioning of production, transmission, distribution, sale and other market segments, it also requires regional cooperation and diversity. In this regard, regulators' role in building and maintaining a well-functioning market structure that will provide the required investment conditions becomes crucial. However, regional and international factors add a political dimension to the issue and make this task more complex. Consequently, the regulatory community needs not only to be cognizant of the elements of supply security but also of the roles of ministries, investors and other involved entities and to understand them well.

14. Monitoring of security of supply is already one of the main tasks of many regulators around the world. Security of supply cannot be monitored and assessed without considering the developments in the upstream and transport activities of oil and gas markets, as well as coal markets. Moreover, in the case of transport of gas either via pipelines or as in LNG, regulators are likely to have responsibilities for setting access and usage rules.

Towards Smart Regulation

15. Energy markets are becoming more and more complex as new technologies are implemented, and the expectations of consumers and policy makers vary. Regulatory decisions, therefore, must be based on comprehensive analyses and take all aspects of the problem into account, while considering all possible scenarios towards ensuring proper implementation. In other words, the decision makers have to utilize Regulatory Impact Assessments appropriately before proceeding. Specifically, we need "Smart Regulation" for today's, and more importantly tomorrow's, smart world.

16. While the global energy map is changing, interconnection of networks and integration of markets are continuously progressing. In today's world it is a fact that no country is an energy "island". Hence, the interactions between different fuels, markets and prices are intensifying. In this situation, the policymakers' interest is more on collaboration for securing supply, combating climate change and achieving a sustainable growth path. The technological change and policymakers' intentions have led to regulators to develop consistent and coherent solutions to problems they encounter. Although the jurisdictions of regulators are fixed, the business to be regulated is becoming more complex because of the regional, continental and global nature of energy business. Regional market integration provides many benefits, for example, more secure energy supply, stable prices, enhanced competition, reliable system operation, increased trade and better utilization of renewable energy resources. However, these benefits have a precondition: joint regulatory approaches towards compatible market arrangements

17. The goals, the settings they operate in the extent of the accountability of policymakers and regulators vary. The degree of this variance depends on countries' overall governance approaches. Ultimate responsibility in meeting citizens' demands is on the politicians who have exclusive legislative power. On the other hand, regulators have important roles in defining and enforcing energy market design and rules to ensure open and non-discriminatory market access, adequate and sustainable investments, to promote the public interest, and to support public policies and related political choices. Hence, they can define and protect their realm of authority by increasing their capacities, competencies and performance. Consequently, a successful policy making process, as well as introduction of better regulation, necessitates a sort of compromise. Regulators around the world have a lot to learn from each other on reconciling these distinct perspectives.

18. Also in today's world, exploring, producing, converting one form to another, transporting, selling, and even consumption of energy, and transactions associated with these activities require clear rules. Regulation itself is a rule making process, and as the rules develop legal order develops, which leads to specialization in law. Hence, energy regulators have to assess judicial constraints and collaborate with other authorities having specific jurisdictions related to the energy market throughout the entire decision making process.

19. Market monitoring is very important in creating and maintaining competitive and efficient energy markets. There are some challenges such as information asymmetry, difficulties in obtaining sufficient and necessary information, and changing technology and market conditions. Within this framework, some discussion questions arise: Which data is relevant or essential and which methodologies should be developed for efficient market monitoring? Which methods are more appropriate at different levels and segments including

retail, wholesale or network activities? As the market evolves continuously monitoring should evolve accordingly. Hence, discussing efficient market monitoring methods is of the utmost importance and will be one of the most important topics on the regulatory agenda.

20. The abovementioned interactions among the regulators are not expected to result in finding "one size that fits all" solution, because underlying reasons for energy market reforms for developing and developed countries are understandably different. Likewise, the institutional, legal and investment environments also differ significantly. However, these discussions can provide fruitful insights into different approaches towards similar problems and facilitate the processes of learning from one another's experiences. Further elaboration on good regulatory practices can significantly improve the interaction and maximize the benefits.

21. Another potential interaction area for regulators is capacity building. The energy field is critical to the growth and stability of the world economy. To meet the challenge of developing the required specialized work, regulators should pay attention to capacity building in areas such as human resources development and improving gender equality as addressed by ICER's Women in Energy initiative.

Conclusion

22. Within this context, WFER6 will focus on important issues facing the regulatory community in building the energy markets of the future while offering solutions for today's problems. Given different categories of countries those will participate in the Forum, such as those aiming to rationalize and reorganize energy systems; capitalize on significant hydrocarbon resources; grow their energy supply to support economic expansion; and access basic energy services at affordable prices, WFER6 aims to meet the needs of all the countries around the world. Therefore, WFER6 will address emerging challenges as market structures become ever more sophisticated, and policy, social or environmental concerns play more significant roles in decision making. This Forum hosted in Istanbul, a city that links not only continents but also energy resources and markets, will go beyond previous Fora, and will examine regulatory challenges from a global perspective, and in a global context. As a result, WFER6 will form a bridge between different markets, concerns and regulatory levels as well as policy priorities.