

## **1. Mr. Khalid Saeed**

Director, Energy Research Centre, CIIT, Lahore

Mr. Khalid Saeed spoke on the role of NEPRA -looking ahead. The current government has come up with an energy policy in the year 2014 and is making an effort to fulfil their election promise, but what is important is to see whether the plans will be implemented, which can bear fruit after 3 to 5 years. As the energy crisis was not created overnight so the solution can also not come overnight. According to him the energy crisis is a result of wrong and adhoc policies over quarter of a century. Secondly, in the electricity sector there is a gestation period for projects, spanning over 3-5 years, therefore it will be some time before the projects planned and executed today will start showing results.

He started off with some basic hallmark traits of a good regulator around the world, be it in the power sector, oil and gas sector, banking sector or in any other sector, those traits are autonomy: autonomy is the competence, autonomy consistency and transparency in the decision making and last but not least participatory approach.

Speaking on the 18<sup>th</sup> Amendment, role of NEPRA and the right of provinces to legislate and regulate themselves he added that these might have an impact on the future role of NEPRA but as things currently are, the National Electric Power Regulatory Authority (NEPRA) remains the soul regulator for power sectors of the country.

Talking about the various players in the power sector and the role they play, Mr. Khalid Saeed articulated that in order to understand the future of these players in the light of 18<sup>th</sup> Amendment of the constitution, it is imperative to understand their present role. Currently power sector has both the public and private sector players. The private sector comprises of mainly the IPP's which are the independent power producers, the SPP's the small power producers and the CPP's the capital power producers and of course KESC. A number of entities are working in the public sector. NEPRA of course is the regulator then the apex ministry, at the federal level Ministry of Water and Power and the Pakistan Atomic Energy Commission which deals with nuclear energy. WAPDA, under the structural reforms program of 1992 was unbundled into generating companies, known as GENCOs, placed at the very bottom of the structure. NTDC is for Transmission, while DISCOs form the distribution network.

All these entities are regulated by NEPRA, created by an act of parliament in 1998, responsible for exercising autonomous authority in the supervisory capacity. The act provides protection to the authority members, comprising of a chairman and four members. A regulator is the custodian of the consumer interest: codifying and enforcing rules, laws, and regulations: ensuring supervision or oversight to ensure supervision or oversight for the benefit of the public at large; to avoid the

drawbacks of political interference: and enforces standards. Before creation of the regulators, government, with the respective ministries was performing the role of regulator. Establishment of regulators has taken away these powers from ministries which clearly is something not still totally accepted by the ministries and by the bureaucracy.

The mandate that was given to NEPRA was to develop and pursue a regulatory framework for the power sector and that regulatory framework was to cover all the aspects of the power generation, power transmission and power regulation. The objective of NEPRA, through its various rules, regulation and supervising role, it should ensure provision of reliable, efficient and affordable electric power to the electrical consumers for Pakistan. Secondly, prior to the unbundling of WAPDA along with KESC they were the soul vertically integrated units involved in generation, transmission and distribution creating a public sector monopoly. Since private sector and IPP's were inducted making it the regulator's job to facilitate transition from a protected monopoly service structure to a competitive environment, where regulator had to provide level playing field both for the public sector and for the private sector. Today, more than 53% - 54% of the power being supplied to the grid is being supplied by the private sector. The regulators mandate is also to maintain a balance between the interest of the consumers and the investors. Therefore the regulator not only ensures that the electricity tariff remains low but also ensure that the sector stays operational, by maintaining a difficult balancing act between keeping the consumers happy through reasonably low tariffs and keeping the investors happy through giving a tariff level which provides them sufficient profit incentive. Historically, NEPRA has been playing a role in setting tariffs, issuing licenses to the power generators, to the power distribution companies and to the transmission companies for setting standard of services.

NEPRA determines tariffs for the consumers, generation, distribution and transmission:

- Consumers include: public and private sector
- Generation tariffs for fields including: hydro generation, for the power generated with coal, with gas / diesel and furnace oil.
- The transmission cost, the margin allowed to NTDC and the purchase price from CPPA (Central Power Purchase Agency) is set.

NEPRA achieves this while maintaining a relative balance between safeguarding the consumer interest without dis-incentivizing the investors.

The speaker then moved on to the topic of role of provinces in power generation after the 18<sup>th</sup> Amendment of the constitution. He elaborated that it is a misconception that 18<sup>th</sup> amendment had empowered provinces to generate electricity while they were restricted from doing so prior to 18<sup>th</sup> amendment. In fact, the provinces had the power to generate and transmit electricity as well as levy taxes or draw distribution preferences even before 18<sup>th</sup> amendment. However, 18<sup>th</sup> amendment has only reassured that no hydel projects will be constructed without consultation of relevant provincial government. Though provinces can set up projects but they cannot issue guarantees required from

financial close of the projects which can only be given by the Federal Government. Thus the issue is arranging financing from banks, foreign investors or donors, as sovereign guarantees can only be given by the federal finance ministry therefore, unless the provinces can raise finances from their own resources the issue will remain. While theoretically provinces will be able to generate power, but practically there are problem that needs to be resolved for the provinces to actually get into this business. In accordance with the 18<sup>th</sup> amendment, the subject of 'electricity' has been placed in the Federal Legislative list at entry no. 4, part II. This entry was earlier listed under the concurrent list but now under 18<sup>th</sup> amendment, the competent form for all decisions on electricity is the CCI (Council of Common Interest). 2002 Power Generation Policy allows provinces to develop projects for power generation. The 18<sup>th</sup> amendment further allows them to establish their own transmission and distribution companies and even the power to levy taxes and determined tariffs for distribution devolved to provinces.

Talking about line losses, Mr. Khalid Saeed stated that maximum bleeding of the power sector is taking place at the DISCO's and due to the inefficient public sector GENCO. Citing an example from his experience at NEPRA, where an inquiry was conducted over pilferage of furnace oil from the oil companies to the power plants worth billions of rupees. He informed the gathering that according to one estimate the leakages were worth 25 billion rupees but then most of the plants in public sector GENCOs were degraded and they were working way below their designed capacity. Of late, USAID has upgraded a number of projects and plants but still they remain grossly inefficient with compared to the recently setup IPP's which are giving much better efficiency so these issues are there but despite that the major problem remains at the level of distribution companies where in some cases like Sukkur electric company SEPCO and TESCO's the loses range anything between 35% to 40%. Non-Recovery is another issue; bill recovery ranges from 60% to less than 70%. On the other hand there are better performing distribution companies. Islamabad is one example GEPCO Gujranwala, even Lahore, Multan and Faisalabad are some of the better examples where the range of distribution losses ranges between 10% to 13% except for Multan where it was in the range of 16% to 17% and the recovery of bills was 93% or 95% and in couple of best cases more than 97% or 98%. Thus the problem lies in the mismanagement or poor management particularly in smaller provinces. There is widespread corruption and mis-governances in distribution companies themselves but the problem is compounded by lack of participation and lack of involvement by the provincial government.

Internationally, emphasis has shifted to renewable energy due to its reduced capital cost and this can be felt in Pakistan as well. This shift in production strategy will pose new challenges for NEPRA. The first one is to ensure availability of cheap electricity at lowest cost while hydro generation is the cheapest, followed by domestic gas but now the focus is shifting towards renewable energies like solar and wind. He opined that to attain the national goal for energy security a change in the energy mix of our country is inevitable but inducting more renewable energy adds to the basket rate of electricity reaching the end consumer. Basket rate mean as the electricity reaching the end consumer is coming on the grid from various channels, including hydro generation, coal, gas and through furnace oil and cost for each generation is different and the central power purchasing agency

workout the average and after adding their margins that is what is charged to the consumer. But if expensive electricity is inducted into the system naturally it will raise the overall tariff. That will be a challenge in coming years currently it is not of that significance because in the overall generation mix. He explained this situation with a hypothetical situation where let's say at any given date the supply is 14000 to 18000MW, if there are let's say 500 to 1000 MW which are of a higher price then it may not have impact but in coming years once the percentage or ratio of the renewable energy to the total energy supply increases than the overall average is going to increase. This is the dilemma which developed countries also face but there it is subsidized. Unfortunately, in case of Pakistan due to the issue of circular debt and the financial crisis the government will not be able to provide subsidies to that extent. Therefore a realistic balance will have to be maintained. Apart from these, the kind of issues lead to induction of this energy, the grid security, the grid safety issues will arise leading NEPRA to take a fresh look at its grid code, which is a very technical matter and which had taken NEPRA a couple of years to come up with the existing version but clearly a separate grid code will have to be provided.

In the coming years, new challenges will surface morphing the existing objectives, according to the changing international trends and technology. The power sector regulators in Pakistan will face and experience these challenges and in due course they will develop their expertise to meet these challenges. Another area which is very important in the context of the regulator is the need for the more meaningful public participation. According to the laws, rules and regulations of NEPRA every time any decision in respect to tariffs is taken, any generation tariff, transmission tariff or distribution tariff is determined a public hearing is held. These public hearings are advertised and are held not only in Islamabad but in other provincial capitals as well but it is observed that while theoretically a forum is provided for people to participate but practically these are all technical matters and public has very little understanding of these matters so they are either unable to understand the issue or participate in a meaningful manner. Now in developed countries like in USA and Australia, the government appoints advocates or knowledgeable experts to assist the public and they attend on behalf of the public. They are public representatives but their expenses are taken up by the government, to make sure that the public view point is put up in an educated manner. Mr. Khalid Saeed suggested that maybe the energy advisory group could think of starting this exercise. In essence Pakistan as a whole can benefit from public participation in institutional decision making in a more organized and institutionalized manner.

## **2. Mr. Saeed Ahmed Khan**

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In view of the privatization programme launched in Pakistan a need was felt for the regulation of power sector. Accordingly regulatory bodies were established. Since investors, consumers, companies and government are all stakeholders, regulators try to strike a balance among all the stakeholders. Keeping in view the economic situation in the country, oil and gas became a highly regulated sector as compared to the power sector. In the two gas companies; Sui Northern Gas Private Limited and Sui Southern Gas Private Limited, the government is the biggest shareholder. In