**Pakistan’s power sector needs a new vision**

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January 5, 2020

“P eople and their managers are working so hard to be sure things are done right, that they hardly have time to decide if they are doing the right things.” (Steven R. Covey, author of “The Seven Habits of Highly-effective people”)

National Electric Power Regulatory Authority ([NEPRA](https://dailytimes.com.pk/517287/nepra-imposes-rs50mn-fine-on-ke-for-not-maintaining-safety-standards/)) has dealt yet another blow to the electricity consumers in this country by further raising the per unit price of electricity by 1.56 rupees under Fuel Price Adjustment (FPA)-this decade’s first, but on top of the large increase that was imposed on consumers through multiple notifications during the past year. Going by the conditions agreed by our government for its latest bailout package from IMF, one doesn’t have to be a stargazer to predict that more tariff increases are on the horizon.

Even though the government’s 4-point power sector agenda agreed with the IMF (tariff increases, loss reduction, bill recovery, and replacement of Distribution Companies’ Boards and Chief Executives on merit) is a necessary set of reforms, it may not be sufficient to save the currently sinking power sector and could actually worsen its crisis. The primary reason for this skepticism is that the government is hoping to cure the power sector ills using an approach that has been rendered obsolete already in the wake of some disruptive trends in the energy market. The government needs a new vision to pull this sector out of the present abyss and set it on a path to recovery to transform it into a viable contributor to the nation’s dreams.

The new vision for the power sector must build around four strategic threads: (i) it should be fully alive, responsive, and aligned to the disruptive market forces that are reshaping the energy and power sectors around the world; (ii) it should provide a business-friendly legal and regulatory framework to reorganize the electricity business in the country along open, transparent, competitive, and non-discriminatory lines; (iii) it must replace the traditional business model with a more innovative, liberal, flexible, and decentralized model in which all market players can participate fairly and derive their deserved benefits; and (iv) it should shift decision-making in this sector closer to the end-users of electricity.

The new policy framework should encourage deployment of storage technologies in the country as these will enhance the value of renewable energy technologies while relaxing their intermittency and variability constraints

A number of disruptive developments in the last couple of decades have shaken up the very foundation of the power supply and delivery business in the world whose distinctive features were natural monopoly, economy of scale, centralized-generation, and power transmission and distribution lines interlinked into complex webs and extended over thousands of miles across national boundaries and even continents. Virtually, every salient feature of the utility business has come under critical scrutiny and threat recently.

Competition in supply and choice for consumers has shrunk the monopoly aspect of this business to its wire parts only. Economies of scale have evaporated as small gas-fired combined-cycle plants are beating the efficiency and costs features that were exclusive to very large power plants. Renewable power plants, even without the crutches of government support, are proving competitive for new supply needs. Deployment of intelligent and smart devices and meters are unlocking new opportunities for both producers and consumers. Affordable and modular battery storage technologies are enabling consumers to reduce, and even eliminate, their dependence on grid supply by coupling these with their rooftop PV installations. Electric vehicles (EVs) are also opening up new vistas due to their dual role as loads well as sources of supply.

First, in the changed and still evolving business landscape, a continued reliance on a centrally-planned and tightly-controlled top-down approach to managing this sector, notwithstanding introduction of competition in some of its segments, is tantamount to inviting bankruptcy for not just the power sector but for the national economy as well. The government will need to let go of this “command and control” mindset and instead take a more liberal and laidback approach to encourage small and independent power producers and consumers assume more active and participatory role in this sector’s various activities.

Most energy analysts now agree that the future of the electricity business will be ruled by small, distributed, and independent supply- and consumer-centric schemes that can be best managed through liberalizing and devolving the market and by empowering consumers and non-utility producers by building closer partnerships with them. The government and regulator’s role in the new scheme of things will be essentially restricted to just setting the principles and rules of participation in the power market; not micro-managing it but “pushing it here and pulling it there” to keep it on the desired course.

Second, the government will need to provide an enabling legal and regulatory framework in the country to encourage the deployment of distributed energy generation and demand management schemes in the local electricity system. The new policy framework should also encourage deployment of storage technologies in the country as these will enhance the value of renewable energy technologies while relaxing their intermittency and variability constraints. Similarly, besides being a source of new electric demand, battery packs in electric vehicles (EVs) can also support the power grid in more economical ways than the traditional solutions, and as such should form a key component of any future energy policy.

Third, the traditional business model in which power flows in one direction (from power plants to the end-users) and revenues flow in the opposite direction (from end-users to power company) with electricity prices fixed by the national regulator will not be effective in dealing with the new challenges of the emerging market. In the new environment, power will flow in either direction as some of the consumers may now meet part or all of their electricity demand by generation at their own premises, and not infrequently, providing their excess power and capability to contribute to grid security and reliability. Like the power, revenues will also flow in either direction.

The electricity business in the country, therefore, will need reworking along more open and flexible lines to treat these new options not as competitors or threats but instead as partners and complements to the utility’s own efforts to serve society. The utility managers will need to not just encourage, but actually seek out aggressively, potential contributions from customers and investors on such options and technologies.

Under this new vision, the fourth step will be to shift the decision-making from the center to as close as possible to end-users of electricity, that is, at the distribution company (DISCO) level. This will be imperative as DISCOs are in the best position to grasp the evolving patterns and dynamics of consumer demand, the potential of serving it through supply- or demand-side solutions, and the viability of different strategies in this respect.

The Ministry of Energy and NEPRA will need to empower DISCO managements to devise and introduce innovative and flexible pricing and compensation schemes to induce consumers and investors to install such distributed technologies in the system. These schemes should also enable proper accounting, allocation, and recovery of the various costs from the participating consumers and other investors while allowing them a fair remuneration for the benefits their facilities provide to the grid.

Selection of DISCO Boards and CEOs on merit may be a necessary step towards the above end, but may not be sufficient. Their executives, in particular, will need to be hired based on the vision and business plans they present to the selection boards and how convincing and realistic the boards find them. It will also be necessary that these teams are offered time-bound and performance-based contracts with their compensations also clearly tied with their actual performance on these positions.?

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