

## **Main Policy Failures and the necessity of effective reforms of the Iraqi Power Sector. By Barik Schuber\***

Since 2004 Iraq had 8 Ministers of Electricity. All of them were electrical engineers, except one, Dr. Luay al-Khatteeb. All of them were not able to solve the long-lasting problem of ensuring sufficient power supply to the suffering Iraqi population. The present minister, number 9, is still new for a final evaluation. He is also an engineer and has been working in the Ministry of Electricity (MoE) as Director General for different departments and for a longer period. I am not optimistic that he will be much different from his predecessors, as the problem is much deeper and complex and goes beyond the technical skills of one person leading the Ministry as [Mr. al-Khatteeb agreed on in his latest article](#).

This poses the question why no Minister was and will not be able to bring about a real solution, although some of them like Hussein Al Shahrastani and Karim Aftan had made spectacular promises to end the long-lasting problem? The common reply we have been learning from public opinion and media is that all of them have been corrupt. At least in one case this allegation has been affirmed by a court of law. However, in my conviction corruption played a role, but only to a certain extent and it is not the only factor for the failures. In many other countries, reform solutions for the power sector have been achieved despite the existence of corruption, albeit on a different level.

In this paper I will try to analyse the complexity of the problem and to figure out the real reasons for the policy failures. The paper suggests that the increasing gap between the demand and supply of electricity is the core problem. Past policy failed to bridge this gap by applying pure technical approaches. In my view if present and future policy continues relying on these approaches the problems will never be solved, as other countries

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have successfully solved it. The simple reason is that technical approaches can be only viable in the environment of a market economy which is still lagging in Iraq behind many neighbouring countries such as the rich Gulf countries and even a low middle income country like Jordan.

### The main failures of the Iraqi power policy

#### 1. Fixation on non-viable technical solution

After 2003 demand for electricity increased dramatically. Between 2003 and 2020 demand has increased fivefold, whereas supply has risen fourfold only. Moreover, demand is still increasing by 10% annually as estimated by the. [Iraqi energy economist Ali Al-Saffar](#).

This policy failed to bridge the persistent gap between demand and supply by focusing on the supply side. Based on a one-sided diagnosis, the policy makers adopted a technical strategy aiming at continuing expansion of the generation capacity. This strategy turned out to be a big fallacy as inefficiencies has been prevailing in all stages of the electricity sector. In the area of generation, the average efficiency rate of all power stations in 2015 amounted to 27%, which could be slightly improved to 29.9% in 2018 according to the annual reports of the Ministry of Electricity (MoE). The efficiency of newly installed modern gas turbines is even less and amounting to 27% due to inappropriate feedstock.

Technical losses have increased form 40% in 2014 to 58% in 2018 according to MoE source. Furthermore, collection of consumer bills amounts only 10 percent of electricity sales.

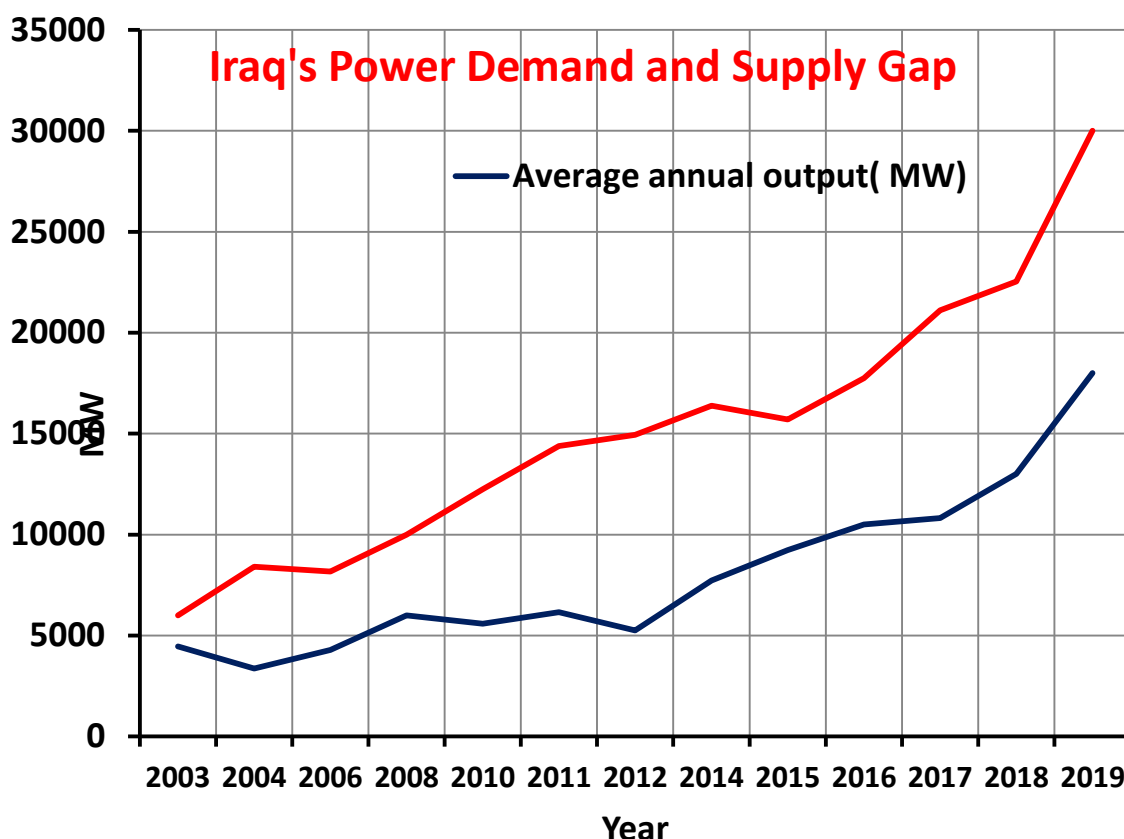
The generation expansion strategy has been quite expensive for the Iraqi economy, as capital expenditures since 2004 are estimated to range between 20 and 40 billion US\$. As the gap between demand and supply is widening, more capital expenditures are required at the time of severe

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financial crises facing the Iraqi economy due to Covid-19 and slumping oil revenues.

### 2. Absence of Demand Side Management (DSM) Measures

Demand has been increasing dramatically since the regime change and the end of the international embargo in 2003. Income increase and uncontrolled imports of energy inefficient electrical appliances beside population increase and excessive consumption patterns for cooling in government, private and commercial buildings are the main factors for this increase. In sociological terms most consumers consider the provision of electricity by the government as an obligation of the paternalistic state, which they are used to live with under the older regimes. They are prepared to pay billions of USD for electricity supply by the private



Source: Compiled by the author based on various sources

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neighbourhood generator (see below) but not for the national grid supply financed by the state budget. DSM measures have been applied in many developing countries successfully for the last 25 years, such as effective tariff schemes, improved building insulation, conducting of energy audits in hotels and industries, labelling the energy efficiency of appliances, conducting of awareness campaigns, etc. In Iraq, however, the actual practice was confined to a modest and limited public awareness campaigns initiated by MoE and the application of imported energy efficient bulbs by the consumers. No building insulation programme has been adopted by the Ministry of Housing and Construction despite the recommendation of a study conducted by an Iraqi Consulting firm for this Ministry.

### 3. Ineffective tariff system and failed collection reform

In 2018, MoE introduced a new progressive tariff scheme to curb excessive consumption but was faced by heavy protest from populist parties and political groups and forced the Ministry to reduce it. The current scheme looks as follows:

Tariff US\$ Cent per kwh	Range of consumption level
<b>Domestic</b>	
0.8 Cent	1-1500 kwh
2.9 Cent	1501-3000
6.7 Cent	3001-4000
10 Cent	4001 and more
<b>Commercial</b>	
5 Cent	1-1000
6.7 Cent	1001-2000
10 Cent	2001 and more
<b>Industrial</b>	
5 Cent	Flat rate
<b>Agriculture</b>	
5 Cent	Flat rate

Source: Website of MoE, accessed on 12/8/2020. Tariffs in Iraqi Dinar (IQD) has been converted to US\$ at the exchange rate of 1200 ID per US\$

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However, the collection of consumers bills by the staff of MoE has been very poor due to corruption and slackness of the staff. The proceeds from the collection have not exceeded one billion USD, whereas the annual total costs for the grid supply financed by the state budget are estimated by professional sources at between 12 and 14 billion USD.

In 2018, a new system of collection was incepted by outsourcing this task to private companies. Despite the partial successes of the new collection system in many districts of selected Iraqi cities, some populist political parties succeeded to mobilize the street against the new reform measures, accusing MoE of having implemented privatisation of public goods. Due to political rhetoric of these parties, privatisation is widely considered by the Iraqi population as negative measures leading to unemployment. Moreover, MoE has been accused of corruption by the selection of the private sector companies charged with the collection. It is believed that the private owners of the neighbourhood generators have been commercially affected by the new collection system, which was designed to make their services redundant. The major failure by the planner of the reform measure was the ignorance of these pressure groups and their links to populist politicians. Many collection companies cancelled their contract and the Ministry has apparently stopped implementing the new system.

### **4. Ignored utilization of alternative energy sources**

It is evident that the country possesses a huge potential of solar energy, which has been completely neglected over the last 4 decades. Even the simple technology of solar panel for domestic water heating was not promoted by the implemented power policy. Instead consumers are using energy intensive and inefficient electrical water heaters imported from abroad, whereas the solar panels can be manufactured locally as is the case in Jordan. In the early sixties of last century there used to be a research centre on solar energy initiated by the Iraqi Government at that time. The centre vanished due to the frequent regime changes and political instability.

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Only recently, MoE started paying attention to solar energy and has launched a modest initiative to promote renewable energy. Also, there has been some private initiative to introduce solar pumps for usage in agriculture and water supply; for example, the initiative put forward by one academic and businessman. [Dr Labib Sultan published a feasibility study in 2013 on the advantages of such devices for Iraq.](#) However, the pumps were imported from a manufacturer in the USA and not manufactured locally. Further initiatives from the private sector are coming up from [Shamara Renewable](#). A new project for the generation of solar power has been recently launched aiming at replacing the neighbourhood generators and furnishing the agriculture sector with solar power.

### **Urgent need of genuine and effective reform of the Iraqi power sector**

In April 2013 I presented a [research paper on the restructuring of the power sector to the first Symposium of the Iraqi Economists Network held in Beirut](#). Based on my international experiences I have suggested the following reforms measures:

1. Restructuring the sector in generation, transmission and distribution
2. Establishing a National Electricity Company
3. Transferring all assets owned by the MoE and the staff to the new company and converting the Ministry to a regulatory body

In 2018 a new law for the MoE was enacted by the Iraqi parliament which meant to introduce a reform package of the power sector. The sector has been divided into generation, transmission and distribution. But the existing organisational system has not been changed substantially. The former General Directorates in charge have been formally converted into state companies for generation, transmission and distribution serving four regions in Iraq except the Kurdistan region.



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The regions are: North (Ninawa, Kirkuk governorates), South, Midland (Baghdad, Salah Al-Deen, Anbar, Diyala and Wasit governorates) and the region of Fourat Al-Awsat (Babel, Karbala, Najaf, Qadisiya, Dhi Qar governorates). This kind of reform measures have turned out to be a big fallacy as the efficiency problem was neither solved nor mitigated, to say the least. Continuing appointment of new members of staff has worsened the problem of disguised unemployment in the new SOE.

### **The role of neighbourhood generators in the reform process**

Another supposed reform measure was the out-sourcing of the collection of consumer bills to private sector companies as mentioned before. It has been a complete failure due to ignorance by the planner in MoE of conflicting interests of the owners of these generators. The private owners provide about 20% of the electricity consumed by households in 2018, but they managed to collect 4 billion USD annually according to a study published by IEA in 2019. Other sources from MoE estimate the proceeds at around 7-8 billion USD.

They charge the consumers changing tariffs ranging between 6,000 and 25,000 IQD per one ampere of capacity depending on the level of supply by the national grid which is fairly fluctuating. In summer time, the price jumps to 25,000 IQD in those districts with limited access to the grid. Privileged districts with relatively good access to the grid have little demand on electricity from the neighbourhood generators forcing the owners to reduce the price to 6.000 IQD in wintertime. In districts with outsourced collection, the private companies are supposed to provide electricity 24 hours a day. The neighbourhood generators would become redundant. This is bound to trigger their resistance. I cannot understand why the MoE planners were not able to foresee this outcome of their plan.

## Conclusions

Based on past experiences and lessons learned, the real and sustainable solution for the long-lasting electricity problem can only be the gradual privatisation of generation and distribution. Transmission can be kept as the preserve of a non-commercial state owned body. It is suggested that the policy starts with privatisation of distribution as soon as possible.

Each Governorate except the Kurdistan region should be allowed to establish its own distribution company as a Shareholding Company. The owners of the neighbourhood generators should be included as individual shareholders after assessing the value of their unit by an independent auditor. The governorates should get at the beginning 51% of the share granted by the state. The remaining 49% should be divided between the owners of the generators and the public.

The new distribution company will buy the electricity in bulk from the national generation company to be established and/or from Independent Power Producer (IPP). Contrary to advanced market economy as the German one, the new distribution companies will have a monopoly of selling the electricity to the consumers in the same governorate. The selling price should be fixed at a reasonable tariff scheme to be approved by the Regulatory Body to be established in the future. This reform model is based on a win-win formula and is likely to be accepted by all stakeholders and more importantly to solve the collection problem.

The four existing regional generation state companies are suggested to be transformed into shareholding companies. At the beginning, the state represented by the Ministry of Finance should retain 51% of the shares. At a later stage, over the next 10 years, the state should sell its shares to the public and private investors. It is absolutely necessary that the management of all aforementioned companies should be delegated to qualified and independent managers from the private sector and not to government



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officials. This manager will be selected carefully and appointed for a certain period of time. It should be possible to fire them by the Supervisory board in case of weak performances.

This paper will be presented in a webinar organized by the Iraqi Economists Network on Sunday the 23<sup>rd</sup>. of August at 9:00 PM Baghdad time. All are invited to join the discussion. The link is:

<https://us02web.zoom.us/j/82741603564?pwd=a0RIQkZ4TnJnT1UvcitGbU1kRGlxUT09>

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