Independent Regulator’ or ‘Regulation by Contract’ for the Lebanese Electricity Generation Sector?
A Call for Local Research and Dialogue

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Power Reform

Vertically integrated monopoly

1

Purchasing Agency as national
genco, transco, disco,
genco/transco, or transco/disco

2

Retail power competition with
supply unbundled from
distribution in addition to
wholesale competition

5

Wholesale power competition
in a national power market of
gencos, discos, and large users
with an ISO* and transco

4

Purchasing Agency as national
tansco, with many genos and
regional discos

3

World Bank 2006
**Power Reform: What is agreed upon**

The one thing that is clear is the need to move away from vertically integrated electricity supply and monopolies.

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<tr>
<th>Power supply has deteriorated to critically low levels &amp; has been failing to meet national needs in most developing countries</th>
<th>Many of these countries have been experiencing power shortages and frequent interruptions</th>
<th>Their power generating plants emit toxic pollutants</th>
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<td>Their power utilities are bankrupt</td>
<td><strong>Vertically integrated monopoly does not work</strong></td>
<td>Their power tariffs do not cover costs</td>
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<td>Electricity is widely stolen by customers (frequently with the active support of existing employees)</td>
<td>Many citizens - especially those in rural areas - lack access to electricity supply</td>
<td>The power sector drains the government’s fiscal resources</td>
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The Lebanese Power Sector and Economic Development

App. 98% of primary energy demand imported

Fuel imports constitute app. 3 – 8% of Lebanon’s GDP

App. 8% – 23% of Lebanon’s trade deficit is due to this oil import bill

App. 40 – 45% of Lebanon’s national debt is due to fuel subsidies

App. 6 – 11% of household income goes to secure electricity

EDL Fuel subsidies subdue at least 140,000 employment opportunities
One size fits all?

- Electricity systems ‘vary significantly in size, structure, and resource mix that complicate comparison and transfer of experience’

- Furthermore, countries differ in terms of:
  - Experience
  - Skilled human resources
  - Economic and institutional endowment

- All of which ‘rule out the use of cookbooks’ for regulatory reform
Current Lebanese Power Regulations

• In Lebanon and since 2002, Law 462 has been approved and ratified by parliament, stipulating the establishment of a national regulatory authority that has the responsibility to issue private sector licenses for power generation, however Law 462 has yet to be implemented.

• In its place, the Government of Lebanon (GoL) has issued Law 288 (extended by Law 54 and yet now obsolete - awaiting possible new extension), which grants the Council of Ministers the right to license independent power producers (IPPs), through a joint proposal from the Ministry of Finance (MoF) and Ministry of Energy and Water (MEW).

• However, the implementation clauses of this law were not stipulated.

• This lack of clarity with respect to electricity regulation is a barrier towards reforms urgently required and are an added risk to investments (and therefore to cost-effectiveness), as identified in the De-risking Renewable Energy Investment for Lebanon report (UNDP, 2017).
Lebanon Solar & Wind Farms

Impact of identified risk categories on financing costs for wind and solar investment in Lebanon – BAU scenario

http://cedro-undp.org/Publications/National%20Studies/151
Power Reform: Regulation by Contract

• The government of Lebanon (GoL), through the Ministry of Energy and Water is recently leaning to rely on ‘regulation by contract’ to achieve RE targets stipulated within the National Renewable Energy Action Plan.

• However there are mixed messages in the literature with respect to ‘regulation by contract’.

• On the one hand, the ‘Asian IPP model’ covered the situation where the incumbent power company, which owned and managed transmission and dispatch, purchased power on contracts from a small number of IPPs (Stern, 2000).

• This ‘attempt at regulation by contract produced a crises of regime when the contracts became unsustainable after the 1990 Asian financial crisis’ due to two main reasons;

  (1) There was no explicit regulation of anything other than generation prices, and;
  (2) There were no procedures in place for handling major shocks

• Up to 60% of concession contracts, that include IPPs, are renegotiated within 3 years.

• One of the major reason to thus rely on independent regulatory institutions that are well designed and managed, is related to the ‘inherent difficulties in writing time-consistent, enforceable long-run contracts for 20 plus years ahead that can realistically cover all the necessary contingencies’.

• Evidence has it that contract renegotiation is more likely to take place in the absence of a regulator.
Power Reform: Independent Regulatory Authority

On the other hand, assessing the overall benefits in establishing an effective independent regulatory authority requires several key parameters:

1. The issue of having the required institutional endowment: There is strong evidence that ‘effective regulatory institutions and performance depend critically on effective law courts and judicial independence’ and the political economy of the country and its ‘institutional endowment’

2. Relatedly and for small countries within which Lebanon can be categorized, there is the problem that “the political, economic and social elite is typically sufficiently small and regularly interactive that any genuine separation of powers can become virtually impossible. Since regulation (and, in particular, the separation of regulation from policy) depends on the separation of powers, this can make the establishment of separate regulatory agencies a notional rather than a genuine exercise”

3. It is critical to assess the size of the power market and establish how best to ‘evolve’ the unbundling of the power sector segments to induce more competition. There is a tradeoff between having a sufficient number of competing generators and economies of scale of the plants that will enable better prices for power

4. Last, for effective regulation, there ‘needs to be a substantial number of staff with particular and scarce skills (economists, lawyers, accountants, financial analysts...) and it remains a question whether small countries have these skills in the numbers required’
Power Reform: A call for research and dialogue

• Therefore the question as to whether to implement Law 462 and establish an Independent Regulatory Authority or to extend and use contract regulation through Law 54 for a country such as Lebanon, requires the stepping up of regulatory assessments, comparative studies and evidence based research from international and local development and research institutions in Lebanon, and to transfer or effectively communicate the findings of such research to Lebanese policy makers.

• The World Bank has established several review and guideline reports on reforming power markets and has collected lessons learned that can form the backbone of such research.

• To this end, Lebanon’s academic institutions need to exert more efforts in assisting Lebanese policy makers make sound judgments and policy choices with respect to unbundling and gradually (yet urgently) reforming the Lebanese power system.
Thank you

Biography

Hassan Harajli is the UNDP (Lebanon) Energy Advisor and project manager of the UNDP-CEDRO project since 2009.

He is a holder of a PhD from the University of Bath in renewable energy economics and policy, an MSc from Imperial College in Environmental Technology (focus on environmental economics and policy) and double undergraduate degrees from the American University of Beirut and the London School of Economics in Political Science and Environmental Policy with Economics, respectively.

He has several peer-reviewed and conference publications and several years of experience in environment and energy-related consultancy.

Mr. Harajli also lectures, part-time, at the American University of Beirut (AUB) in energy policy and economics and environmental policy and economics.
References