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Electricity Subsidies: Benefiting some Regions More than Others

Éric Verdeil

► **To cite this version:**

Éric Verdeil. Electricity Subsidies: Benefiting some Regions More than Others. 2018, <http://www.lcps-lebanon.org/featuredArticle.php?id=163>. halshs-01875103

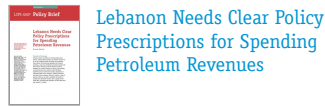
HAL Id: halshs-01875103

<https://shs.hal.science/halshs-01875103>

Submitted on 16 Sep 2018

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Eric Verdeil, Professor at CERI-Sciences Po, France and LCPS fellow

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September 2018

Electricity Subsidies: Benefiting some Regions More than Others

While the recent political showdown over where to connect the Esra Gul barge to Lebanon's power grid is indicative of the country's unequal electricity supply, it also unearthed something more fundamental, namely, how electricity subsidies exacerbate geographical and social inequalities. Indeed, one major problem facing Electricité Du Liban (EDL) concerns the fact that production costs exceed revenues from consumers. For many years, the difference has been covered/subsidized by the state but these subsidies impact citizens differently depending on where they reside.

More precisely, because the periphery have access to a smaller supply of electricity per day, they incur greater generator use costs than those living in the central agglomeration, particularly in municipal Beirut. Consequently, my recent study demonstrates that effective

subsidies disproportionately benefit wealthier households and in particular those who live in Beirut, as the latter are supplied with more power on a daily basis compared to other regions.^[1] Therefore, electricity subsidies exacerbate both geographical and social inequalities.

While the production cost of electricity—indexed to the international hydrocarbon market—has significantly increased since 1994, prices have not been reevaluated in that period. According to the National Electricity Strategy Plan of 2010, the price represented on average only 55% of the production cost per kilowatt hour. While the price structure should reflect a principle of fairness and employ progressive rates designed to ease the burden for small consumers—among whom are the country's poorest people—a 2009 World Bank study reported the opposite. In fact, fixed costs added onto an EDL bill resulted in small consumers (who use up to 300 kilowatt hours) paying disproportionately more of their income toward energy bills than larger users. Practically, the more they consume, the more users are subsidized by the state. This is not an open and deliberate subsidy, but rather a largely unseen mechanism at work.

In fact, the study highlights geographic variances that result from the length of time that power is supplied. This adds an essential component to the distortion caused by this effective subsidy. Since 2006-2007, Beirut has received on average nineteen to twenty-one hours of electricity per day, while other regions have received only twelve to fifteen hours if not less (depending on the time of year and in which year data was gathered). The capital's residents use more public electricity by default and consequently benefit more from subsidies.

This hypothesis was tested using official data from the 2010 National Strategy Plan, the aforementioned 2009 World Bank study, and geographical data on EDL customers and their consumption that was collected and mapped in *Atlas du Liban* and published by Institut Français du Proche-Orient in 2016. These results provide an estimate valid for 2009 but their scale remains comparable to the present, even when taking into account variations linked to oil prices. As the latter increase, so do subsidies.

The total amount of subsidies granted in 2009 was of the order of \$495 million, which is worth comparing to the technical and non-technical "losses" (thefts and non-payments) that politicians usually focus on and which, in the same year, totaled nearly \$300 million. If we then look at the geographical distribution of these unintended subsidies, greater Beirut enjoys 58% of total subsidies even though it represents only 43% of users. This is the country's most developed region and its population is, on average, wealthier. Beirut proper receives 21% of subsidies (that is, about \$100 million per year) while it accounts for 13% of users and, more importantly, is supplied with power for much longer periods. Antelias (a northeastern suburb of Beirut) receives 17%

of subsidies for 12% of users, and Chiyah 19% of subsidies for 17% users. These two regional districts, which have a rather high consumption profile, must nevertheless pay heavy charges due to power being supplied for less than fifteen hours a day. Three other regions receive subsidies greater than the size of their populations: Bikfaya, Keserwan, and Saida. Conversely, the poorest peripheral regions of Baalbek, Joub Jannine, Nabatieh, Sour, Tripoli, and Akkar-Minnieh receive proportionally 50% less than the share of users living there.

Thus, two mechanisms explain the unequal distribution of subsidies: A high level of power consumption—related to higher living standards, better developed economic activities, and more electrical devices being used—and inequalities in power rationing, which facilitate more continuous and therefore higher consumption. The least wealthy regions are dually punished as their consumption profile is very low and sometimes power is supplied for barely twelve hours a day, resulting in them receiving a smaller share of the subsidy compared to the number of users living there.

The results do not take into account power consumed by Syrian refugees, who place heavy pressure on public utilities on account of added power demand, sold at a price which does not reflect its production cost. A 2017 study by the Ministry of Energy with UNDP claimed Syrian refugees cost the national economy \$330 million. However, most Syrian refugees live outside Beirut and therefore experience the same daily cuts as Lebanese in the same areas. Their average household consumption remains low, meaning they do not benefit more than other users from the subsidy mechanism described in this article.

In brief, there is a need to openly discuss how subsidies exacerbate geographical and social inequalities in Lebanon. These inequalities are sometimes justified on account of high levels of fraud and non-payment, which are supposedly higher in peripheral regions. However, there is very little data which shows that more fraud is committed in peripheral regions compared to central ones. Furthermore, since consumption levels are higher in the latter, the cost of fraud is likely higher than acknowledged in regions where fraud is reported in small numbers. In 2009 and 2011, former Energy Ministers Alain Tabourian and Gebran Bassil suggested rebalancing the distribution of electricity. The Council of Ministers refused to adopt this measure, arguing that an increase in the use of generators would no doubt lead to an increase in pollution in Beirut. One can think of other reasons, such as the fact that it is in EDL's interest to favor Beirut where, in comparison to other regions, there is a low level of fraud and therefore the company's revenue is assured. Nevertheless, the analysis presented here highlights the fact that each kilowatt-hour consumed in Beirut costs EDL and ultimately the state a considerable amount of money. In practice, each kilowatt-hour consumed amounts to giving away half a kilowatt-hour, which is a particularly costly gift in the capital, where

its habitants are generally better off than the rest of the country. It is not certain that the country can still afford to subsidize electricity rates as EDL buckles under the weight of its debts—debts which current and future tax payers will have to pay. All in all, it seems unjustifiable that the system's main beneficiaries should be those whose service is least affected.

The following link provides access to the study (in French) on which this article is based: <<https://rumor.hypotheses.org/4273>>
The article was translated thanks to the financial support of AFD to CERI-Sciences Po.



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