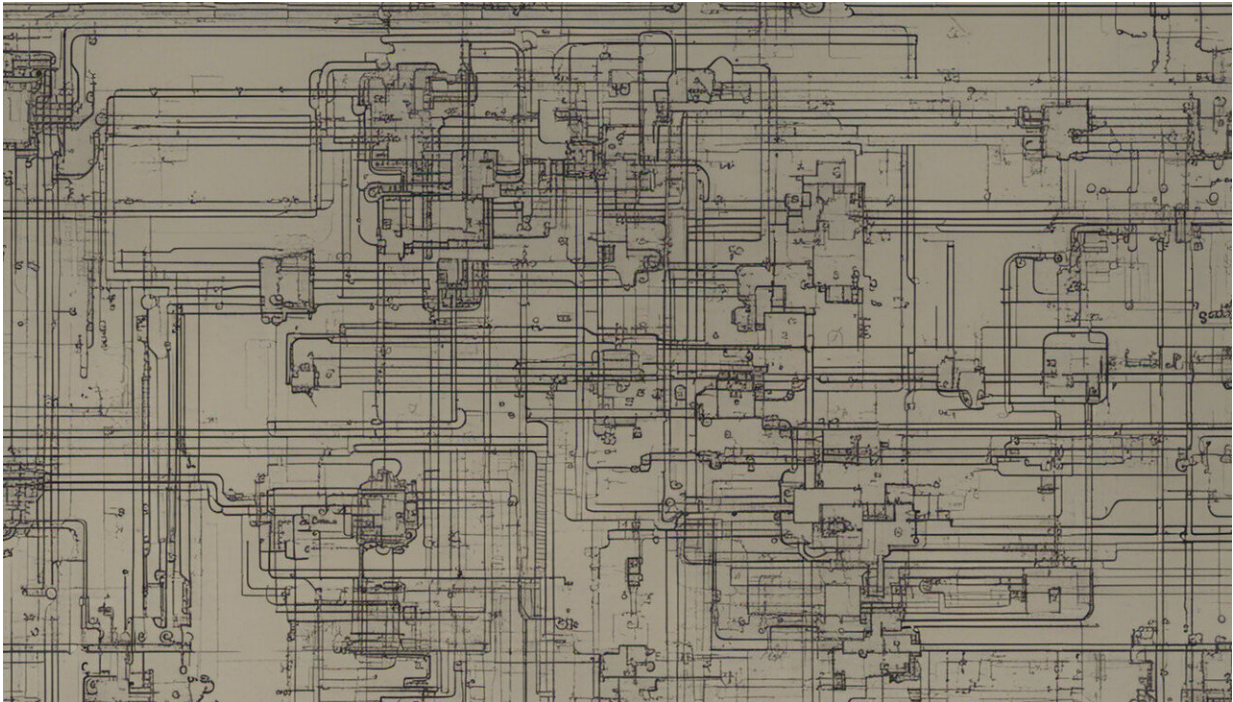


Indonesia's electricity subsidy reforms led to improved efficiency

March 21 2018, by Paul Burke



Credit: AI-generated image ([disclaimer](#))

Indonesia has been home to some of the [world's largest](#) subsidies for electricity use. Electricity prices have been set at low levels, with the government making transfers to Indonesia's electricity utility, Perusahaan Listrik Negara (PLN), to cover its losses. In 2012, electricity subsidies cost the government US\$10 billion.

In an ambitious reform program, since 2013 Indonesia has taken major strides to reduce this subsidy bill. The reforms have involved raising [electricity prices](#) to levels that reflect costs, with exemptions for customers with small electricity connections, including the poor. Subsidies for road transport fuels were also reduced.

In a new paper in [Energy Policy](#), Sandra Kurniawati and I find that Indonesia's electricity subsidy reforms have led to a notable improvement in the efficiency of electricity use.

If it's cheap, why conserve?

Consumers should [ideally](#) face electricity prices that at least cover the costs of production. If electricity is sold at a below-cost price, consumers are likely to consume inefficiently. Lights might be left on when not needed. Upgrades to efficient equipment might be delayed. Turn off the air conditioning in the spare room? Maybe later.

Increasing prices to levels that reflect the costs of production sends a signal that electricity is a valuable commodity.

Our research

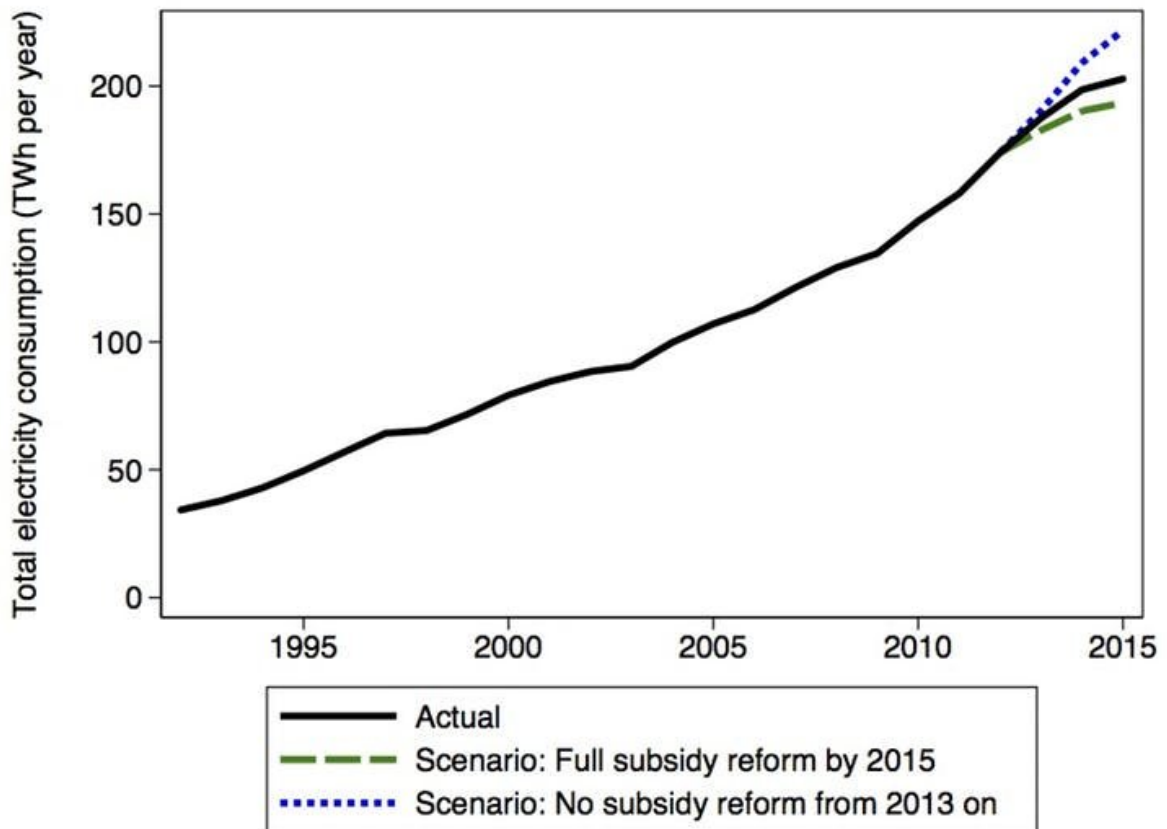
Using data on electricity use and prices for all consumer groups and regions over 1992–2015, we estimated the effect of electricity price changes on electricity use in Indonesia.

Our estimates suggest that, as of 2015, cuts in electricity subsidies reduced annual electricity use by around 7% relative to the scenario of no reform.

Electricity use continued to grow, but along a lower trajectory than

would have been the case had electricity prices remained at their former low levels.

This trajectory was [lower than Indonesia's government had anticipated](#). The government's over-estimation of [electricity demand](#) was also due to unrealistic assumptions about Indonesia's economic growth rate.



Indonesia's electricity use. Source: Burke and Kurniawati (2018).

As a result of Indonesia's move to a more electricity-efficient development trajectory, the pressure to build new generation capacity

has declined. Some of Indonesia's plans to build coal-fired power stations have been [cancelled altogether](#). This has allowed Indonesia to reduce lock-in of fossil-fuel-dependent infrastructure. Fiscal space has been freed up for other priorities.

We estimate that the full removal of Indonesia's electricity subsidies would have induced around 6% of additional savings in electricity use (see figure).

Better targeting

Historically, Indonesia's electricity subsidies have been a [regressive](#) form of spending.

During the latest tranche of the subsidy cut in 2017, the government [withdrew electricity subsidies](#) from households with 900 volt-ampere (VA) connections, with an exemption for the poor. The subsidy had already been withdrawn from households with larger connections. The reforms have thus led to improved targeting of the poor.

Indonesia has also made progress in [targeting](#) cash transfers and other benefits to those most in need.

Setting an example

The international community has [committed](#) to phase out subsidies for fossil fuel use, including in the electricity sector. Over recent years, Indonesia's fuel and electricity [subsidy](#) reforms have made the country a leader in progress towards this commitment.

Indonesia has demonstrated that it is possible to implement reforms that are simultaneously pro-environment, inequality-reducing, and good for

the budget bottom line.

One of the ingredients to Indonesia's success has been relatively clear communication of the benefits of reform. Emphasis on protecting the poor has also helped to shore up community support.

Looking forward, Indonesia could feasibly move away from fuel and electricity subsidies entirely, turning instead to other forms of social assistance for those in need. Doing so would deliver a variety of benefits, including for the environment.

Unfortunately, it has recently [been announced](#) that Indonesia's fuel and [electricity prices](#) are to be frozen until the end of 2019, a presidential election year. Fuel and electricity subsidies are set to grow again.

This article was originally published on [The Conversation](#). Read the [original article](#).

Provided by The Conversation

Citation: Indonesia's electricity subsidy reforms led to improved efficiency (2018, March 21) retrieved 26 April 2024 from <https://phys.org/news/2018-03-indonesia-electricity-subsidy-reforms-efficiency.html>

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