

2016



Energy Subsidy Reform

An International Comparative Perspective on Myanmar

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Summary

The report starts by presenting the numerous arguments for reducing energy subsidies, both at a general level and for Myanmar in particular.

After identifying electricity pricing as the main area for potential energy subsidy reform in Myanmar, and the reasons for such reform. It then examines the experiences of other countries, drawing on a newly compiled dataset of past efforts at reforming energy subsidies, the largest such dataset ever gathered. Particular attention is paid to the experiences of other ASEAN countries.

From this review of the experiences of other countries, proposals are made for how Myanmar might proceed with reforming its own electricity prices. Recommendations include a proactive communication strategy, strengthening key government institutions and the division of powers in electricity pricing, improving the production and availability of data on electricity generation costs and pricing and ensuring that key groups benefit from the revenue generated by higher electricity prices.

The report argues that, despite some challenges, Myanmar is well positioned to carry out electricity subsidy reform.

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About this report

This report was produced jointly by the Myanmar Institute for Strategic and International Studies (MISIS) and the Norwegian Institute of International Affairs (NUPI). On 2 March 2014, the two institutes held a joint seminar on the premises of MISIS in Yangon, with the participation of Norway's Foreign Minister Børge Brende and Myanmar's Deputy Minister of Energy U Aung Htoo. The Deputy Minister took the initiative to raise the issue of energy subsidy reform and expressed interest in sharing in the experience of Norway and other countries. This interest was echoed by several other prominent seminar participants from the Myanmar side. Also Accenture, the Asian Development Bank and the World Economic Forum have recommended that Myanmar look to other countries, Indonesia in particular, in reforming its energy subsidies (Accenture, ADB and WEF 2013: 30).

The concept of first mover's advantage is well known. However, in the case of energy subsidy reform, it may be possible for Myanmar to reap a latecomer's advantage. On this background, the authors of this report have conducted an international comparative study of other countries that have reformed their energy subsidies, to see whether Myanmar could benefit from their experience.

As part of this study, we have compiled a new dataset on energy subsidy reform covering a total of 290 cases from 59 countries. To our knowledge, this is the largest such dataset ever compiled. The biggest previously existing dataset we are aware of is Clements et al. (2013), which was published by the IMF and covers 28 instances of energy price reform.

Beaton et al. (2013) have published an extensive and highly useful guidebook to fossil-fuel subsidy reform for policymakers in Southeast Asia. However, it deals only with fossil fuel subsidies and explicitly excludes electricity, which is the main area where reform is needed in Myanmar. It is also targeted at the ASEAN-5, leaving out the five other ASEAN states including Myanmar. Indeed, Myanmar is not mentioned in the entire guidebook. The present report therefore builds on and supplements Beaton et al. (2013).

This report does not provide the final word on energy subsidy reform in Myanmar, but an introduction and first overview for policymakers. The data and strategies discussed in the report can be further developed to achieve a rigorous reform policy.

This report has been presented at three workshops in Myanmar: at the Myanmar Institute of Security and International Studies (MISIS) in October 2015, at the Yangon Electricity Supply Corporation (YESC) in February 2016 and at the Ministry of Electric Power in Naypyidaw in February 2016. We are grateful to workshop participants for their feedback.

Rationale for reducing energy subsidies

There is a strong rationale for cutting energy subsidies, as they:

- are a burden on government budgets
- negatively affect a country's trade balance
- encourage local pollution
- encourage greenhouse gas emissions, even when subsidies are not for fossil fuels
- increase energy import dependency in energy-importing countries, thereby reducing their energy security
- drain capital from the government budget and energy companies – capital that should have been reinvested in the energy sector

- encourage smuggling and black markets, because energy is priced artificially low compared to neighbouring markets
- hinder regional integration, because countries are afraid to leak subsidized energy products to other countries if their energy markets are integrated
- disproportionately benefit the rich, because they consume most energy
- paradoxically, make it more difficult to reduce energy poverty, because funds are not generated for investment in infrastructure expansion to serve new consumers.

For all these reasons, global efforts at removing energy subsidies are underway. In 2014 only, 20 countries carried out energy subsidy reforms in (see Merrill et al. 2005: ii). 0 presents the energy subsidy reforms covered by our dataset, showing how the number of energy subsidy reforms has been rising.

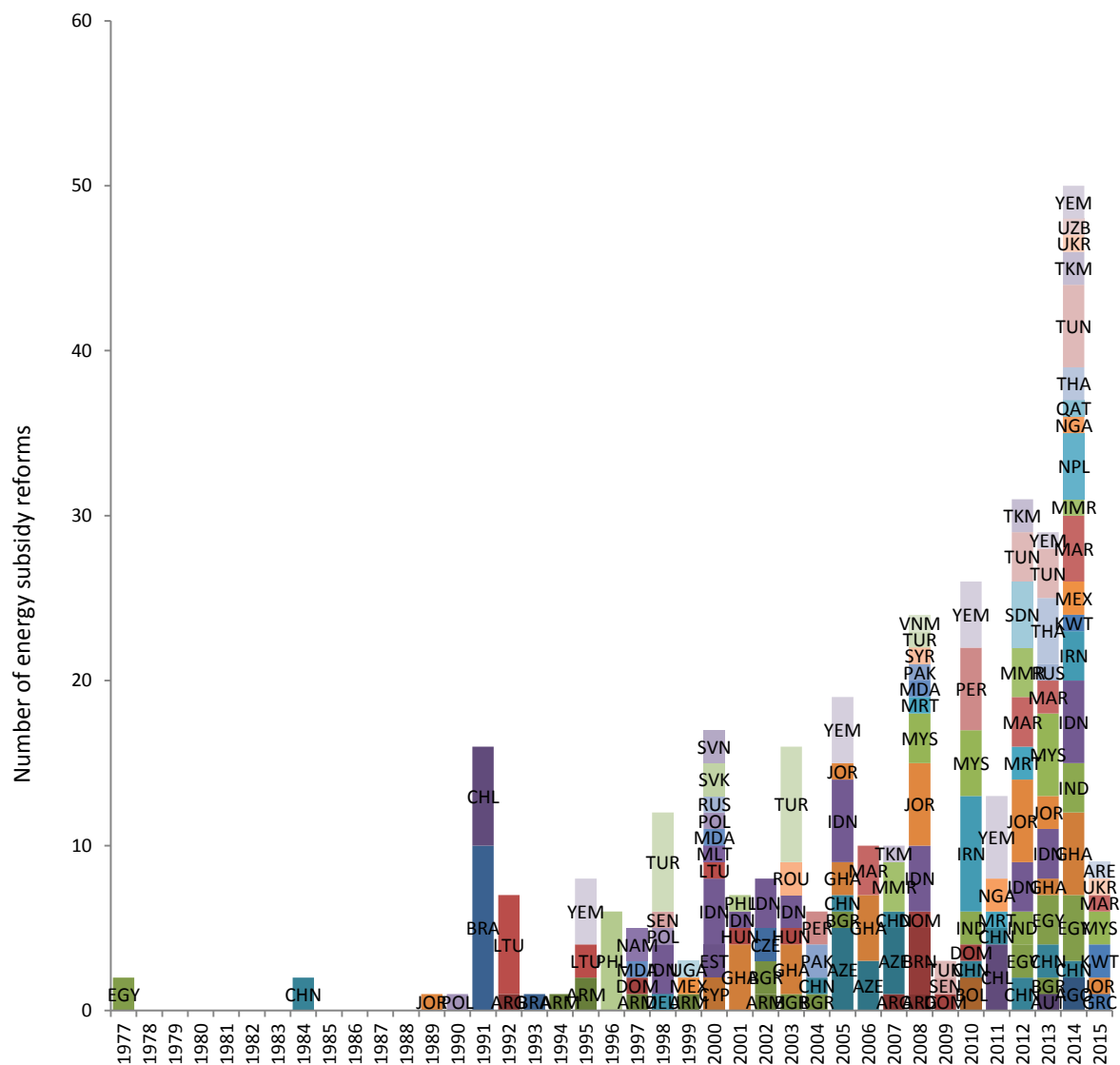


Figure 1. Energy subsidy reform by country

Clearly, there is growing enthusiasm for energy subsidy reform. However, poorly designed reforms can lead to public discontent, cause reforms to be halted or scaled back, and sometimes entail broader problems for governments. The International Energy Agency (IEA) recently lamented that governments still embark on reforms using an ad hoc approach (van der Hoeven 2015: 5). Clearly

there is rising enthusiasm for energy subsidy reform, but badly designed reforms can lead to public discontent, cause reforms to be halted or scaled back and sometimes also lead to broader problems for governments. The International Energy Agency (IEA) recently lamented that governments still embark on reforms with an ad hoc approach (van der Hoeven 2015: 5).

As the track records of many countries show, removing energy subsidies can be socio-economically and politically sensitive. Myanmar has already previously experienced protests related to energy subsidy reform. In this report, we therefore look at challenges other countries have encountered in order to identify possible mistakes and pitfalls and try to identify a way forward for Myanmar that is socio-economically sensitive and politically stable.

Energy subsidies in Myanmar

In November 2015, important elections were held in Myanmar. Implementing subsidy reform in the run-up to the elections would have been difficult, and the outcome of the reform might not have been successful. Now that a new government is in place, however, the time may be ripe for energy subsidy reform.

Myanmar has set itself a target of 100% electrification by 2030, a steep rise from 26% in 2012 (Terway 2013: 2). In order to achieve this aim, approximately USD 40 billion will have to be invested in the energy sector over the next 20 years, according to the government's Energy Master Plan (cited in Shin 2016). This is ambitious, but not necessarily unattainable, as demonstrated by other ASEAN countries that have rapidly increased electricity access for their population – Indonesia, Laos and Vietnam in particular (IEA and ERIA 2013: 27).

Electricity access needs to be expanded dramatically in Myanmar to reach the majority of the population who are not currently connected. In addition, the per capita consumption of electricity of those already connected to a grid in Myanmar will surge. According to various forecasts, electricity demand in Myanmar is set to grow between 7.4% and 15% annually from 2010 to 2035 (Than and Sajjakulnukit 2014: 3; Shah 2014: 3).

According to Merrill and Chung (2014: 9), Myanmar spends more on energy subsidies than it does on education or healthcare. The cost of electricity subsidies has been estimated by the government at KKM 185 billion / USD 191 million (Chrisman 2014). This sum may be lower after the 2014 price adjustment, but is still big for a country that needs all the capital it can get in order to expand its electricity supply. The cost of energy subsidies to the government may rise again if the share of natural gas in electricity generation rises, as seems likely.

The suppressed price of energy has hindered the expansion of energy supply in Myanmar (WEF, Accenture and ADB 2013: 17). As long as electricity is so cheap, the funds generated within the electricity sector will be insufficient to finance the necessary expansion of electricity supply. Prices for electricity consumers will have to go up, to avoid draining the state budget and in order to attract sector investment by private actors and international development institutions.

Myanmar has been exhorted by international organizations to reduce its energy subsidies (IEA 2015: 10; OECD 2014: 255; Accenture, ADB and WEF 2013: 22). Doing so would show that Myanmar is willing to follow up on sensible policy recommendations; it would help to brand Myanmar as a country with a rational and modern economic policy; remove one target of potential negative attention from international partners; and help keep Myanmar in a good position for future international climate negotiations.

The ease of getting access to electricity is one of ten indicators employed by the World Bank’s Ease of Doing Business rankings. By raising funding for a rapid expansion of electricity generation, transmission and distribution, Myanmar can move upwards in these rankings. As most of the population in Myanmar is not yet connected to a grid, Myanmar has a greater potential for upward mobility in the Ease of Doing Business rankings than many other countries. An improved ranking might contribute to attracting foreign direct investment.

The backdrop for any attempt to reduce energy subsidies in Myanmar is the country’s past experiences in this area. In August 2007, there were simultaneous price hikes of up to 100% for petrol and diesel and up to 500% for compressed gas (BBC 2007). This led to demonstrations involving hundreds of people on several dates in August. By September that year the protests spiralled into the ‘Saffron Revolution’, with at least 13 people killed and thousands arrested by the authorities (CIA 2015; see also Accenture, ADB and WEF: 2013; Hays 2008; Mydans 2007; AP 2007). Also in 1988 there were large-scale protests. Although these were more related to the price hike on rice, they point up the general political sensitivity of pricing and socio-economic issues in Myanmar (Mydans 2007). It is therefore understandable if the government is cautious in approaching energy subsidy reform. However, as we argue in the concluding part of this report, Myanmar is in some ways quite well positioned to carry out energy subsidy reform. Indeed, this may be a good area for the state to develop its capacity for modern governance through thorough analysis and planning, and dynamic communication with the population and key stakeholders.

Analysis of international data on energy subsidy reform

The dataset on energy subsidy experiences compiled in connection with this study comprises 290 cases from 59 countries. Reform efforts are distributed across various energy sources, as shown in 0.

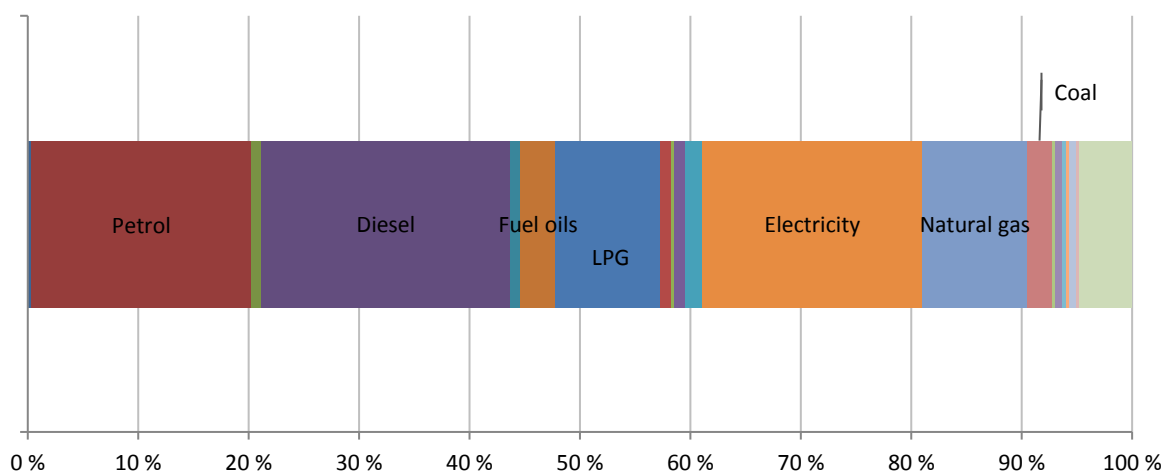


Figure 2. Energy reform, by energy type

In order to compile the new dataset, it was first necessary to resolve some methodological issues. One of the greatest challenges was to distinguish where one energy reform ended and another started. Sometimes a government can chip away at an energy subsidy with a whole range of policy tools over many years, as was the case in Brazil in the 1990s. Should this be counted as one case of energy subsidy reform, or many? This must be dealt with from case to case. As a general rule, we decided that if a reform process had been planned and launched as a whole, then we would count it as one reform, no matter how many components it included and how long it took to implement. On

the other hand, if one reform was carried out, and then later new and more ambitious reform targets and/or measures were formulated, we would count these as separate reforms. Reforms of different energy types were considered as separate reforms, even if they were part of the same reform package.

Not all experiences of energy subsidy reform are equally relevant for electricity subsidy reform in Myanmar. For example, the reform of petrol prices in Peru in 2004 might have limited relevance due to the remoteness of the country, its different setting from that of Myanmar and that fact that the reform concerned petrol rather than electricity. China is of course much closer to Myanmar, but also its experiences with energy subsidy reform might have limited relevance since China is so much bigger than Myanmar, and is in addition a one-party communist state. Also the 1965 reform of various petro-product prices in Morocco might have limited relevance, because this concerned petro-products and not electricity, because Morocco is a monarchy with a Muslim majority population, and because the reform took place a long time ago in a different historical context.

In their report on energy subsidy reform in Indonesia, Beaton et al. (2014: vii) used the following criteria to identify similar countries: Southeast Asian, archipelagos, large emerging economies. This led them to select the following countries as relevant examples for Indonesia: China, India, the Philippines, South Africa and Thailand. For this report on Myanmar, we could draw upon a larger dataset with more sub-indicators and have therefore further developed the methodology for selecting relevant countries. We employ manual multivariate matching with rank order, using the following variables with equal weighting: type of energy, GNI per capita PPP, population size, geographical distance from Myanmar, political system, level of corruption, level of violent conflict, level of democracy, proximity in time, whether reform concerned electricity or another type of energy. For the result of this exercise, see Table 1. Interestingly, some of the most relevant cases for Myanmar electricity reform may not be those that would perhaps immediately spring to mind – for example Iran, Uzbekistan or Yemen. As with the other tables in this report, Table 1 is only a starting point for analysis, intended to identify relevant cases to look further into for the purposes of designing electricity subsidy reform in Myanmar.

Table 1. Energy subsidy reform cases relevant for Myanmar, multivariate matching

Relevance for Myanmar electricity reform 2016, rank	Country	Energy type	Year	Reform implementation	Did reform trigger protest?
1.	Uzbekistan	Diesel	2014	Full	No
2.	Vietnam	92 octane petrol	2008	Full	No
3.	Yemen	Diesel, petrol	2014	Full	Yes
4.	Iran	Petrol, diesel	2014	Full	No
5.	Iran	Natural gas	2014	Full	No
6.	Thailand	Electricity	2013	Full	No
7.	Thailand	Diesel	2013	Full	No
8.	Thailand	Natural gas	2013	Full	No
9.	Thailand	LPG	2013	Full	No
10.	Yemen	Petrol, diesel	2010	Partial	No
11.	Yemen	Kerosene	2010	Partial	No
12.	Yemen	LPG	2010	Partial	No
13.	Thailand	CNG	2014	Full	No
14.	Thailand	LPG	2014	Full	No
15.	Yemen	Diesel	2013	Full	Yes
16.	Sudan	Petrol, diesel	2012	Full	Yes
17.	Sudan	LPG	2012	Full	Yes
18.	Sudan	Jet fuel	2012	Full	Yes
19.	Yemen	Petrol, diesel	2011	Full	Yes
20.	Yemen	Kerosene	2011	Full	Yes

Sometimes governments are forced to scale back energy subsidy reforms due to public discontent or unforeseen consequences. Changes over time in the success rate of implementing energy subsidy reform are shown in 0. There is no clear trend. Some years, most reforms are fully implemented; other years more reforms fail or can only be partially implemented. This indicates that there is still a need to work on reform design and implementation.

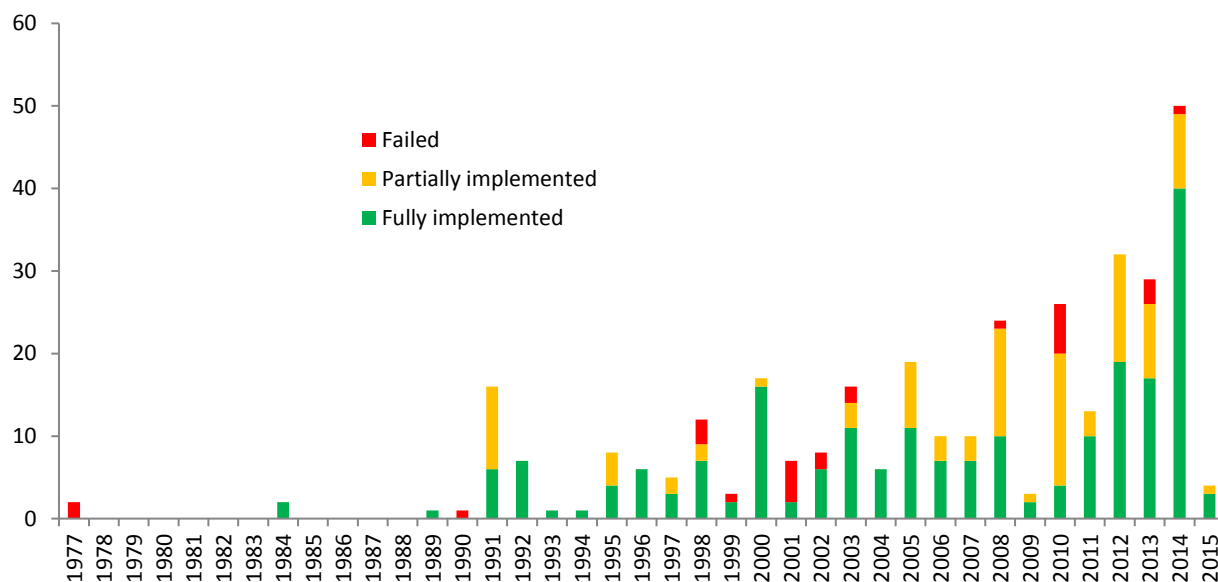


Figure 3. Success rate of energy subsidy reform implementation over time

The majority of energy subsidy reform efforts conducted in other countries have not concerned electricity, as in Myanmar, but fossil fuels, and in particular petrol and diesel. There are two reasons for this. Firstly, although there are many good reasons to cut energy subsidies, the main driver for the global effort is the need to reduce greenhouse gas emissions. Secondly, as fossil fuels are easily transported and subject to extensive international trade, it is easier to determine whether they are subsidized in a given country using international prices and the price-gap method. Electricity is usually produced for in-country consumption, occasionally traded across borders on long-term bilateral contracts and only very rarely subject to extensive international trade. (One notable exception is the NordPool electricity exchange in the Nordic countries.) Most countries do not have fully competitive domestic electricity markets with many suppliers engaged in dynamic and unfettered competition. It is therefore difficult to know what the correct domestic or international market price of electricity is, and how much the price in a given country deviates from it.

It is particularly difficult to estimate subsidies for electricity in countries with high levels of energy poverty, such as Myanmar. Although the price paid by consumers for electricity may not be much lower than the running cost of producing the electricity from hydroelectric dams that have already been constructed, it is also necessary to take into account the cost of expanding the electricity supply to the rest of the population. How much the electricity should really cost therefore depends on the cost of expanding generation and distribution.

For the same reasons, it can also be more difficult to carry through reforms of electricity prices than of prices for petroleum products. Conveying clear and convincing arguments to the public is decisive for the success of reform efforts, but with electricity subsidies, policymakers cannot simply point to the price gap with international prices. As shown in 0, electricity subsidy reforms in other countries have sometimes triggered protests.

Table 2. Electricity subsidy reform cases

Country	Year	Implementation	Protest	Country	Year	Implementation	Protest
Lithuania	1992	Full	n.d.	Bulgaria	2005	Full	No
Argentina	1992	Full	No	Azerbaijan	2007	Full	No
Brazil	1993	Full	Yes	Argentina	2007	Full	No
Armenia	1994	Full	No	Pakistan	2008	Full	Yes
Armenia	1995	Full	No	Turkey	2008	Full	Yes
Armenia	1995	Full	No	Indonesia	2008	Partial	Yes
Lithuania	1995	Full	n.d.	Malaysia	2008	Full	No
Armenia	1997	Full	No	Brunei	2008	Full	No
Dom. Rep.	1997	Full	No	Moldova	2008	Full	No
Moldova	1997	Full	No	Jordan	2008	Full	No
Uganda	1999	Full	Yes	Argentina	2008	Partial	No
Armenia	1999	Full	No	Dom. Rep.	2009	Partial	No
Mexico	1999	Failed	n.d.	Iran	2010	Partial	No
Kenya	1990s	Full	No	Dom. Rep.	2010	Full	No
Russia	2000	Partial	Yes	Myanmar	2012	Full	No
Poland	2000	Full	No	China	2012	Full	No
Estonia	2000	Full	No	Jordan	2012	Full	No
Moldova	2000	Full	Yes	Mauritania	2012	Partial	No
Cyprus	2000	Full	No	Tunisia	2012	Full	No
Slovakia	2000	Full	No	Thailand	2013	Full	No
Lithuania	2000	Full	No	Egypt	2013	Full	No
Slovenia	2000	Full	n.d.	Indonesia	2013	Partial	Yes
Philippines	2001	Full	Yes	Jordan	2013	Full	No
Hungary	2001	Full	No	Tunisia	2013	Full	Yes
Armenia	2002	Full	No	Bulgaria	2013	Failed	Yes
Bulgaria	2002	Full	No	Egypt	2014	Full	Yes
Czech Rep.	2002	Full	No	Indonesia	2014	Full	No
Romania	2003	Full	No	Tunisia	2014	Full	No
Bulgaria	2003	Full	No	Myanmar	2014	Full	No
Bulgaria	2004	Full	No	Jordan	2015	n.d.	No
China	2005	Full	No	UAE	2015	Full	No
Azerbaijan	2005	Full	No				

Most governments realize that energy subsidies should be cut, but are reluctant to do so because of the possible socio-economic and political ramifications (Overland and Kutschera 2011). After all, members of the public use energy all the time and for almost everything they do: transportation, heating/cooling, cooking, communication, entertainment, housework etc. They are thus highly dependent on it, although they also tend to take it for granted. In some countries, people may also feel that the government provides them with little else of value and will therefore be reluctant to give up cheap energy. For companies, energy is often a major input factor in their production process. Raising the price of energy may eat into their profit margins or weaken their position in relation to foreign competitors.

Thus it is essential to implement energy subsidy reforms without disrupting the social and political situation. Also in the case of Myanmar there is a risk of provoking political reactions from the populace (WEF, Accenture and ADB 2013: 22, 44), as shown by the role of the energy price hike in triggering the chain of protests that preceded the ‘Saffron Revolution’ in 2007.

The chicken and egg problem of quality versus price

If the energy supply is unreliable – for example, with frequent electricity brownouts and blackouts, as Myanmar tends to experience in the dry season – this may also make it more difficult to get consumers to pay more for energy. They ask themselves, why pay more for something that is of low quality? And yet, higher payments may be precisely what is required in order to raise enough funds for the large-scale investments needed to improve security of supply. Thus the combination of low

energy pricing and low energy-supply reliability can get countries stuck in a paradoxical situation: in order to improve the reliability of supply, they need to raise prices; but in order for the price hike to be seen as legitimate, they first need to improve the security of supply. The way out of this chicken and egg situation is through communication. A government seeking to carry out energy subsidy reform needs to communicate clearly and convincingly to the public why it is necessary to raise prices and how the reform will lead to more reliable supply and other benefits (Beaton et al. 2014: 25; Beaton et al. 2013).

However, if the government suffers from high levels of corruption and low levels of governance capacity, such a communication strategy is unlikely to be effective. Thus in order for communication to work, a government may need to back it up with improvements in its performance and credibility, at least in those areas relevant for the supply of energy.

Relevant ASEAN experiences

Perhaps the most relevant countries for Myanmar to look to are the other members of ASEAN. Examples from Southeast Asia, and possibly also from East and South Asia, are likely to be relevant because these countries are often geographically and culturally close, and economically and politically similar, to Myanmar.

Most countries in Southeast Asia region have a long history of providing energy subsidies in various forms: from holding the end-use prices of fossil fuels for the transport sector below international levels, to setting the electricity tariff below the cost of the fossil-fuel generated electricity supply. Based on IEA estimates (WEF, Accenture and ADB 2013: 122), the economic value of these subsidies in 2014 totalled USD 36 billion, with petrol and diesel contributing around USD 11 billion and USD 8 billion, respectively.

Most other countries in the region – Brunei Darussalam, Indonesia, Malaysia, Myanmar, Thailand and Vietnam – regulate the price of fossil fuels, ostensibly in order to limit the cost of energy for poor households, redistribute resource revenue, and sometimes also to support state-owned companies. For many years, also in Laos electricity tariffs were set at a low level, undermining the finances of the state-owned *Electricité du Laos (EDL)* (Pillai 2014). The government of Cambodia spent about USD 180 million on oil subsidies in 2007; in 2008, they were estimated to account for 2% of GDP. It spent some USD 20 million on electricity in subsidies in 2012. Given that the wealthiest in Cambodia consume 15 times more than the poorest quintile, and that the poorest have least access to modern energy services, subsidizing modern energy services favours the richest groups (Matinga 2012). Also the Ministry of Finance of Indonesia (2014) has concluded that subsidies for petroleum products have not helped poor households much, as they are responsible for only a small part of consumption.

ASEAN electricity tariffs

Most of the ten ASEAN countries have traditionally had vertically integrated and government-owned electricity sectors where end-user tariffs were regulated by the government. Only Singapore and the Philippines have deregulated their electricity industry to allow the tariff to reflect the actual market situation.

0 below shows the intervals of electricity tariffs for households in ASEAN countries, as of October 2015. Except for Singapore and recently Indonesia, most of them differentiate the electricity tariff for households so that the pricing level depends on how much the household consumes. For those

who consume least, tariffs are subsidized. When consumption rises above a given level, consumers are charged a higher tariff. Among the least developed of the ASEAN countries – Cambodia, Laos and Myanmar – Myanmar has the lowest electricity tariffs.

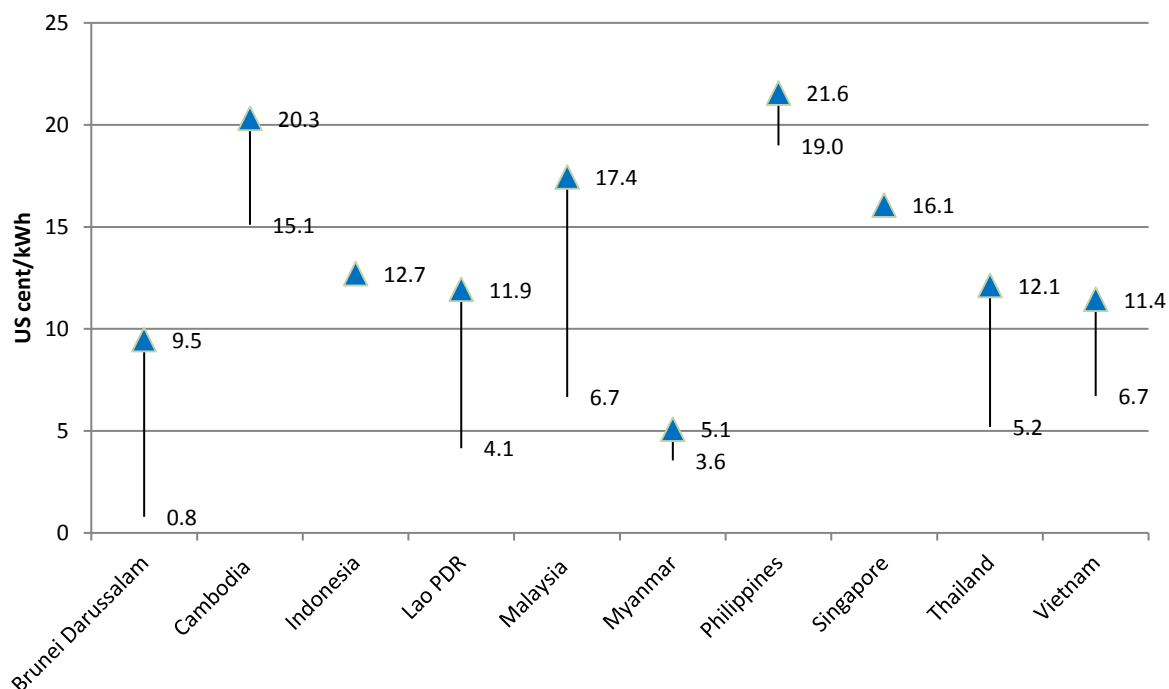


Figure 4. Interval (lowest to highest tariff) electricity tariffs for households in ASEAN countries, as of October 2015. Data retrieved from ministry and/or utilities websites of each country with standardized USD exchange rate based on World Bank Data.

While approximately 72% of a total of 12 202 GWh electricity generated in 2013 in Myanmar came from hydropower, which is assumed to have low generation costs, the government has still provided subsidies to keep the price far below actual cost. Even for a user with maximum consumption, the tariff is only 5.1 US cents per kWh – in contrast to Laos, where all 15 533 GWh were generated from hydro in 2013, but the tariff was more differentiated so that only the smallest consumers enjoyed the low prices while majority consumers had to pay twice as much, 11.9 cent per kWh (data provided by the ASEAN Centre for Energy). On the other hand, although the Electricity Authority of Cambodia (EAC) reports usage of different sources of power, the main one is imported diesel, which in 2010 accounted for almost 93% of Cambodian electricity generation. Thus the price of electricity is unstable because it is linked to the fluctuating cost of diesel. As Cambodia is an oil-importing country, the cost of diesel is sensitive to global market movements (Poch and Tuy 2012). Although Cambodia and Laos have proceeded at different paces, in both countries on-grid electrification is on track to become sustainable. Higher electricity tariffs have helped the utilities phase out reliance on government subsidies, while also making it possible to reduce cross-subsidies among consumer categories (SE4All 2012).

Recent reforms in the ASEAN countries

In recent years, ASEAN has stood out as one of the world's most active regions as regards phasing out or reducing subsidies for fossil fuels. Reforms have been driven primarily by the combination of an extended period of high international energy prices 2000–2014 and growing import dependency, making subsidy programmes a significant economic burden on government budgets (IEA 2015). With the drop of oil prices in 2014 and 2015, several ASEAN countries used the opportunity to reduce their fossil fuel subsidies. This is a first important step not only towards reducing the burden on public budgets, but also towards harmonizing the ASEAN regional energy market. In the case of

Indonesia, energy subsidies added up to approximately USD 29 billion in 2014, nearly 20% of total governmental expenditure (OECD 2015). At the beginning of 2015, the removal of premium petrol subsidies was announced. The relatively low oil price helped to reduce the consumer-shock of removing subsidies. Also Malaysia used the opportunity of low oil prices to abolish diesel subsidies. Both countries showed that subsidy reductions are possible even in large economies with relative moderate economic shocks to absorb (OECD 2015). Their experience can be valuable for other ASEAN members, including for Myanmar. Table 1 presents an overview of ASEAN energy subsidy reform efforts. It shows that in the majority of cases in the ASEAN countries, energy subsidy reforms led to protests.

Table 3. ASEAN energy subsidy reform cases

Country	Year	Implementation	Protest	Country	Year	Implementation	Protest
Brunei	2008	Full	No	Indonesia	2014	Failed	Yes
Brunei	2008	Full	No	Indonesia	2014	Partial	Yes
Brunei	2008	Full	No	Indonesia	2014	Full	Yes
Indonesia	1998	Failed	Yes	Malaysia	2008	full	no
Indonesia	1998	Failed	Yes	Malaysia	2008	Partial	Yes
Indonesia	2000	Full	Yes	Malaysia	2010	Failed	Yes
Indonesia	2000	Full	Yes	Malaysia	2010	Failed	Yes
Indonesia	2000	Full	Yes	Malaysia	2010	Failed	Yes
Indonesia	2001	Failed	Yes	Malaysia	2013	Partial	Yes
Indonesia	2002	Full	No	Malaysia	2013	Partial	Yes
Indonesia	2002	Failed	Yes	Malaysia	2013	Full	No
Indonesia	2003	Failed	Yes	Myanmar	2007	Partial	Yes
Indonesia	2003	Failed	Yes	Myanmar	2007	Partial	Yes
Indonesia	2005	full	Yes	Myanmar	2012	Full	No
Indonesia	2005	full	Yes	Myanmar	2012	Full	No
Indonesia	2005	Partial	Yes	Myanmar	2012	Full	No
Indonesia	2005	Partial	Yes	Myanmar	2014	Full	No
Indonesia	2008	Partial	Yes	Philippines	1996	Full	Yes
Indonesia	2008	Partial	Yes	Philippines	1996	Full	Yes
Indonesia	2008	Partial	Yes	Philippines	1996	Full	Yes
Indonesia	2012	partial	no	Philippines	1996	Full	Yes
Indonesia	2012	partial	no	Philippines	1996	Full	Yes
Indonesia	2013	Partial	Yes	Philippines	2001	Full	Yes
Indonesia	2013	Partial	Yes	Thailand	2013	Full	No
Indonesia	2014	Full	No	Thailand	2014	Full	No
Brunei	2008	Full	No	Thailand	2014	Full	No

The experiences of the other ASEAN countries are also of interest because they have experienced challenges that one can learn from (Beaton et al. 2013: 90–94). According to Clements et al. (2013), the Philippines fuel-price reform in the 1990s was successful due to a well-designed communication strategy focused on building a social and political consensus. However, in Indonesia, there was inadequate consultation with stakeholders in the preparations for the failed 2003 fuel subsidy reform (Clements et al. 2013: 31). The widespread and sometimes violent resistance to that reform was motivated, among other things, by perceptions that the reform favoured powerful interest groups.

There is a similar contrast between Indonesia's 2003 reform effort and the one conducted more recently under President Jokowi Widodo. Thanks to his greater charisma and political legitimacy and the fact that his government has been doing more visible infrastructure building than its predecessors, stakeholders are more prone to believe that reforms carried out under him are indeed to their benefit. He also has the great advantage of lower oil prices – should they rise abruptly again, the hypothesis about his charisma and legitimacy would be put to the test.

More on the Indonesian experience

Indonesia is one of the most relevant countries for Myanmar to look to for subsidy reform experiences (WEF, Accenture and ADB 2013: 30). The two countries have some key similarities: location in Southeast Asia; large segments of the population without access to central electricity grids; complex ethnic composition; and a history of military involvement in politics. With the November 2015 elections, Myanmar took a step towards repeating Indonesia's successful peaceful political transformation – which can also be a factor for successful implementation of energy subsidy reforms.

The introduction of fuel subsidies in Indonesia dates back to 1967, when the retail price of fuels was subsidized to keep fuel products affordable for low-income households. Since then, the fuel subsidy policy has been a hot issue in energy debates, intensifying in recent years as Indonesia has faced increasing fiscal pressure.

Reforming the subsidy regime has been high on the agenda of the government since it cut energy subsidies in connection with the 1997 Asia financial crisis, but this contributed to political unrest (Clements et al. 2013). In the aftermath of the 1997 Asian financial crisis, the government agreed to cut energy subsidies as part of an IMF-supported adjustment programme. Instead of the gradual phase-out strategy that was originally envisioned, the government announced increases in the prices of kerosene by 25%, of diesel by 60%, and of petrol by 71% (Beaton and Lontoh 2010). The rapid increase triggered protests after the announcement and, along with several other factors including dissatisfaction with the government, eventually led to the end of President Suharto's rule in 1998.

According to Clements et al. (2013), from then until the administration of Susilo Bambang Yudoyono there were several price increases that were subsequently rolled back. In 2000, the prices of petrol, diesel, and kerosene were successfully raised despite violent demonstrations. In 2003, an attempt was made to link movements in domestic fuel-product prices automatically to international prices, but this was not carried through due to intense protests from the public, which saw the new arrangement as favouring powerful interest groups. Concerned over the rising fiscal pressure from fuel subsidies, the government undertook two major fuel-price hikes in 2005: the price of diesel doubled and that of kerosene nearly tripled. Protests again took place in opposition to the reform, but with less intensity than in 1998 and 2003. Reform had become even more pressing since Indonesia became a net importer in 2004. In 2008, with international fuel prices at their peak, petroleum product subsidies reached 2.8% of GDP. Fuel prices were raised by 29%, on average, but were later reduced when international prices started to fall, though remaining above their pre-increase levels. The government also ceased paying subsidies to larger industrial electricity consumers. The government announced its objective of removing fossil-fuel subsidies by 2014. But in September 2010, the House of Representatives agreed to raise budget allocations for subsidized fuel consumption in the revised 2010 budget, going against the government's objective of reducing energy subsidies. Indonesia also missed an opportunity to reduce fuel subsidies in 2012, when increases in fuel prices proposed by the government were significantly reduced by the parliament.

For the year 2014, spending on energy subsidies claimed around 20% of the central government's budget – more than three times the allocations for infrastructure such as roads, water, irrigation and electricity grids, and three times the government spending on healthcare. On 17 November 2014, only a month after the elections, the new government of Jokowi Widodo decided to prolong the policy of removing fuel subsidies. A 70% reduction in fuel subsidies compared to the previous year's budget was planned in the Revised State Budget for 2015. President Widodo himself formally announced to the public his government's plan to deliver much-anticipated cuts to fuel subsidies, a task that previous presidents had left to their ministers. Widodo emphasized that with potential

savings upwards of IDR 100 trillion (USD 8.2 billion), his immediate priorities were to use these funds to develop infrastructure, education, and healthcare for the people (*Jakarta Post* 2015). Since then, the Widodo government has reduced subsidies and brought prices almost to the level of international oil prices. On 1 January 2015, the government also introduced what it called a tariff adjustment for retail prices at petrol stations, reflecting the movement of the exchange rate, Indonesian crude oil prices and inflation. From then on, the tariff was to be reviewed periodically.

In the electricity sector, the Indonesian government also plans to revoke the subsidies for the 450 and 900 Volt Ampere (VA) groups of customers. These plans received strong support from the public, as the government was able to show that around half of the 40 million consumers in these VA groups are not among the right consumers to receive subsidies.

In Indonesia, there is no independent regulatory body for energy pricing. However, the government, through the Ministry of Energy and Mineral Resources (MEMR) and PT.PLN (state-owned electricity company), has at least started providing transparent calculations on energy costs and the size of subsidies.

There were several reasons why the efforts of previous Indonesian governments to reform the energy price did not succeed, and one of them was lack of communication. The governments were unable to convince people that pricing reform would benefit the population, as the savings were not accompanied by significant infrastructure development. The government had also dithered in making the final decision on removing subsidies, leaving the public confused for a few months and space for rumours about uncontrolled price hikes. The then-opposition party, PDI Perjuangan, had actively challenged the government and spread the message that the subsidy cutbacks would only make the situation worse for the poor. In contrast, Widodo swiftly cut back subsidies only one month after taking office. He made it clear that his sole intention was to develop the country, and demonstrated this by rapidly launching infrastructure projects such as roads, ports, dams and power plants. He also continuously campaigned the safety net that he created to protect the poor. Even though everything did not work out quite as planned, with active communication Widodo had the full support of the public. PDI Perjuangan, which had criticized the previous government's reform effort, was now the ruling party, and shifted its position to support Widodo.

Subsidy reform can have negative consequences for some parts of society, and social reforms may need to be implemented in parallel to protect vulnerable groups, such as the poorest households. The Indonesian government provides low-income families with several social protection cards, including the Indonesian Smart Card (KIP), the Indonesian Health Card (KIS) and the Prosperous Family Card (KKS). The Smart Card and Health Card – guaranteeing the holder a certain number of years of free medical care and schooling, as well as state subsidies for school supplies – have gone out to millions of poor Indonesians. Over time, this new social welfare programme is likely to bring noticeable improvements in education and health indicators for many of the poorest in the country (Kurlantzick 2015).

Recommendations

National circumstances and changing market conditions mean that there is no single path to follow when reforming energy subsidies. However, taking into account the elements of successful subsidy reform listed by the IEA (2015), we can identify some elements that may be useful for Myanmar.

Myanmar's good starting point

In many respects, Myanmar is advantageously positioned to carry out energy subsidy reform:

- Since the majority of the population still lack access to electricity and the country has a low level of industrialization, the number of stakeholders with an interest in continued cheap electricity is relatively small – although they also have disproportionate clout because many of them are located in or near the country's economic and political centres.
- Myanmar already has a system whereby tariffs are differentiated according to how much electricity each consumer uses. For bigger (and presumably wealthier) consumers, prices are higher. This means that the existing system can be used to protect the poor, and it might not be necessary to introduce a completely new pricing system in connection with reform, only to adjust the rates.
- Myanmar's administrative system under the Ministry of Interior can be used for communication from the full range of administrative units:



The lowest units of wards often have populations of around 1000 and locally elected administrative staff. If they can be involved in the communication and implementation of energy subsidy reform, that may improve the chances of success.

- Democratization and the peace process have put the country on a positive development trajectory where the economy is may continue to expand rapidly for a while. That may be a good time for carrying out potentially painful reforms.
- Although Myanmar has previously experienced discontent in connection with energy price hikes in 2007, the more recent reform efforts under the military government in 2012 and 2014 were fully implemented without major upheaval.

Division of powers

It is important to establish independent governmental institutions for energy pricing, and to anchor their independence firmly and ensure that the public understands this independence. In other words, it is important that such institutions *are* independent and are *seen* as independent. In Myanmar, where the Central Bank was not separated from the Ministry of Finance until mid-2013 and has yet to establish its independence firmly, this is an important challenge.

- There are already plans to establish a Myanmar Energy Pricing Regulatory Authority (MEPRA), possibly in 2016. The delegation of energy pricing matters to such an institution may make it easier to carry through subsidy reform.
- MEPRA should tilt towards market-based pricing as much as possible. Although the 2007 price hike in fact made sense due to rising international prices, the government monopoly on fuel sales made it easier to blame the government. The 2007 price hike was also probably a result of

the government having tried to protect the population from rising international oil and gas prices for several years and hoping that prices would subside – only to have to give up in 2007. Had prices been market-based, they would have risen more gradually over a ten-year period, creating less of a shock for consumers.

Reform design

- Reforms should be started early rather than late in a government's term. It makes sense to carry out reforms quickly during the honeymoon period while the new government is popular, and then reap the benefits of those reforms somewhat later. If reforms are put off they may never be carried out, as a government facing elections may be reluctant to embark on such a potentially unpopular endeavour.
- It may be best to let prices rise incrementally, perhaps over a two-year period. One of the main problems with Myanmar's 2007 price hike was the fact that very large price hikes were carried out abruptly. In Indonesia, by contrast, the government introduced the subsidy reforms in small steps. It started with a 2 000 IDR hike to subsidized petrol and diesel, with prices rising to 8 500 IDR per litre and 7 500 IDR per litre, respectively. The amount of the increment was considered carefully by the government, taking into account the overall economic situation. For the electricity sector, the government also took steps to reform the tariff gradually, starting with gradual periodical price adjustments in the industrial sector, and then followed by the residential sector.
- Some of the income generated by raising the price of energy could go to ethnic minority groups living in the areas where some of Myanmar's hydroelectric surplus is produced, thus reinforcing the peace process and giving the government less to worry about in that area, leaving it more time to handle other matters such as energy pricing reform.

Importance of a good communication strategy

In the past, energy price hikes in Myanmar have been denounced as breaches of human rights (see HRW 2007) – even if they are good for the national economy, the local environment and the global environment. This paradox highlights the importance of effective communication in connection with energy subsidy reform in Myanmar, as has also been emphasized by WEF, Accenture and ADB (2013: 26).

- The various government institutions need strong internal communication and coordination to ensure that their staffs are thoroughly convinced and brought on board and can contribute to delivering strong and consistent messages to the public. To this end, the National Energy Management Committee, and under it the Energy Development Committee, should be strengthened specifically for the purpose of coordination, with good staffing and support from international consultants, also from other ASEAN countries with relevant experiences.
- Stakeholders need to know more about the international situation and trends, for example energy costs elsewhere, especially in other ASEAN countries. Cambodia may be a particularly good example, as it is poor but has high electricity rates. Such an example can help to show that it is not impossible for a poor country to have higher electricity prices.
- Over past two or three years, the Myanmar print media have blossomed, with some 15 to 20 new private print media. They have a large readership and provide good platforms for debate, and could be used to send convincing messages to the population about energy subsidy reform.
- One option is to start first with an information campaign in the media to generate general public awareness and interest, and follow up swiftly with public meetings and use of the state apparatus to communicate specifically with targeted groups, including through public seminars and presentations at schools.

- Specific townships where electricity subsidy reform may be a particularly sensitive issue can be targeted in the information campaign.
- Since a large proportion of the population in Myanmar still is not connected to an electricity grid, there are a great many people with an interest in expanding the electricity supply. The communication strategy should also reach out to those who do not yet have access to electricity, to mobilize them in favour of reform.
- The government could try to involve independent environmentalist organizations in the information effort. Their voices would add a further dimension and legitimacy to the information campaign, perhaps also reaching different groups. They should be intrinsically motivated to contribute to such a cause, but it would still be worth providing funding, to give their contribution an extra boost. The financial gain from a successful price hike might be far greater than the cost of providing financing for environmentalist organizations. Moreover, international donors may be willing to provide funding for this.
- Detailed information about the exact size of electricity subsidies is not just a technical issue – it is central to the communications element of any reform effort, because the message must be transparent and logical.
- Arguments as to why reform is necessary and how it will work out should be tested in pilot projects, for example with focus groups, and necessary adjustments made afterwards. Focus groups should be drawn from relevant segments of society. For selected state functionaries, direct interaction with focus groups can also hone their own thinking and communication about energy price reforms.

Managing stakeholders

For successful implementation of energy subsidy reform, relevant stakeholders must first be identified and reached. We have identified the following stakeholders:

- Eight ministries are involved in energy issues in Myanmar at the technical level, and that does not include commercial aspects
- Regional governments
- The poor
- Community leaders
- NGOs
- Labour and farmers' unions
- Village electrification committees
- Myanmar Policy Association
- Union of Myanmar Federation Chamber of Commerce and Industry UMFCCI
- Myanmar Industry Association, including its unit for small and medium-sized enterprises
- Renewable Energy Association of Myanmar
- Cement and sugar factories (major electricity consumers)

Improving data availability on electricity costs and pricing

Reforming electricity prices is often particularly challenging because the price-gap method is often more difficult to apply to electricity than to oil. In addition, Myanmar generally needs to improve its national statistics.

- There is therefore an urgent need to improve the production and availability of statistics on the cost of generating and transmitting electricity in Myanmar, in order to provide the informational and analytical basis for a sound electricity pricing policy.

Recommended reading

Parallel with the growing global effort to remove energy subsidies, there has been a rapid rise in the number of publications on the topic. The large literature can seem overwhelming and confusing. From our research, we have therefore tried to identify the most useful publications to consult in connection with energy subsidy reform in Myanmar:

- Beaton, Christopher; Lasse Toft Christensen; Lucky Lontoh and Hanan Nugroho (2014) *An Input to Indonesian Fuel Price System Reforms: A review of international experiences with fuel pricing systems*, GSI
https://www.iisd.org/gsi/sites/default/files/ffs_indonesia_pricing.pdf
- Beaton, Christopher; Ivetta Gerasimchuk; Tara Laan; Kerryn Lang; Damon Vis-Dunbar and Peter Wooders (2013) *A Guidebook to Fossil-Fuel Subsidy Reform: For Policy-Makers in Southeast Asia*, GSI and IISD
https://www.iisd.org/gsi/sites/default/files/ffs_guidebook.pdf Clements, Benedict; David Coady; Stefania Fabrizio; Sanjeev Gupta; Trevor Alleyene and Carlo Sdrlevich (eds) (2013) *Energy Subsidy Reform: Lessons and Implications*, Washington, DC: IMF
<http://www.imf.org/external/np/pp/eng/2013/012813.pdf>
- Indriyanto, Asclepias; Lucky Lontoh; Azis Pusakantara; Nataliawati Siahaan and Damon Vis-Dunbar (2013) *Fossil-Fuel Subsidy Reform in Indonesia: A Review of Government Communications in 2012*, Indonesian Institute for Energy Economics and the International Institute for Sustainable Development and GSI
https://www.iisd.org/gsi/sites/default/files/ffs_indonesia_communications.pdf
- Nikomborirak, Deunden and Wanwiphang Manachotphong (2007) *Electricity Reform in Practice: The Cases of Thailand, Malaysia, Indonesia and the Philippines*, Intergovernmental Group of Experts on Competition Law and Policy, Geneva, 17–19 July
http://unctad.org/sections/wcmu/docs/c2clp_ige8p25asia_en.pdf

If policymakers can find time to read about energy policy reform, we suggest starting with these publications, all of which are readily available online.

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- Beaton, Christopher; Lasse Toft Christensen; Lucky Lontoh and Hanan Nugroho (2015) *An Input to Indonesian Fuel Price System Reforms: A review of international experiences with fuel pricing systems*, Global Subsidies Initiative (GSI) and International Institute for Sustainable Development (IISD), http://www.iisd.org/gsi/sites/default/files/ffs_indonesia_pricing.pdf, accessed 31 January 2016.
- Chrisman, Kate Rosow (2014) 'Powering Myanmar: Investors watch closely as government cautiously cuts subsidies', *Breaking Energy*, 20 March, <http://breakingenergy.com/2014/03/20/powering-myanmar-investors-watch-closely-as-government-cautiously-cuts-subsidies/>, accessed 14 October 2015.
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