



# ENERGY SUBSIDIES A ROAD MAP FOR REFORMS

In the Southern Mediterranean

August 2013





*Energy subsidy payments in Egypt are proving a significant fiscal and economic burden*

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Typical architectural element in the MENA



Atrium



Mashrabiya from outside



Mashrabiya from inside





*Even major energy producers in the MENA region must increasingly import energy to meet their domestic needs*

# Introduction



*Dr. Kurt Wiesegart*  
MED-ENEC Team Leader

Over 50% of global energy subsidies are given in the MENA region, this represents the equivalent of tens of billions of dollars each year. The huge cost of subsidies and their impact on energy prices not only distorts the function of the economies of the region, it is also becoming an increasingly unsustainable burden on public finances. Spending on subsidies is money that is not available to be spent on the economic and social development which is essential to the long term prosperity of the region, tasks such as the development of infrastructure, health, transport, education, innovation, and industrial development. Subsidies also heighten environmental damage by encouraging wasteful energy use by consumers and industry, impeding progress on energy efficiency and renewable energy. Energy subsidy reform in the region is now not only recommended, it is increasingly necessary. But where to start and how to manage?



*A MED-ENEC pilot project in rural Algeria has shown that domestic energy efficiency is technically and economically feasible*

## What is this brochure?

This brochure is intended to support policy makers in the MENA region on the path to energy subsidy reform. It does this by bringing together some of the most recent international and regional works on subsidies and their reform to:

- Demonstrate the scale of the problem
- Explain the corrosive effects of energy subsidies on sustainable economic and social development, energy efficiency and renewable energy
- Outline the main challenges connected to reform, with an eye on the opportunities and alternatives that also exist
- Detail a step-by-step best practice process for subsidy reform, that can be used by policy makers to structure their own road map for reform
- Provide a range of practical examples, guidelines, advice and tools – including a communication strategy – to support the reform process and enable policy makers to tailor an approach best suited to their country

## Why is MED-ENEC taking this initiative?

MED-ENEC has assisted in the development of more than 10 pilot projects for energy efficiency and renewable energy in the MENA region. We have experienced first hand the barrier of low energy prices to improving energy efficiency and scaling up the successful project approaches. Reform of energy subsidies is an essential part of moving the region to a more sustainable development path, improving its economic performance, social development and environmental contributions. In addition to providing policy makers with an effective guide to subsidy reform, we also intend to kickstart further interest, debates and research into reform of energy subsidies and the promotion of energy efficiency.

  
 Kurt Wiesegart

# Energy subsidies in the MENA region

Subsidies are heavily concentrated in developing and emerging economies and particularly in the Middle East and North Africa (MENA) region which accounted for around 50 per cent of global energy subsidies in 2011. In 2013 the IMF estimated that, globally, energy subsidies for fossil-fuel consumption amounted to \$480 billion in 2011, up from \$300 billion in 2009. This large increase was driven by increases in international fuel prices.

Around half of total global subsidies are for oil products. The jump in the oil price from around \$60 a barrel in 2009 to over \$100 a barrel in 2011 has caused subsidies to increase significantly. Electricity and natural gas are also subsidised, but to a lesser total extent.

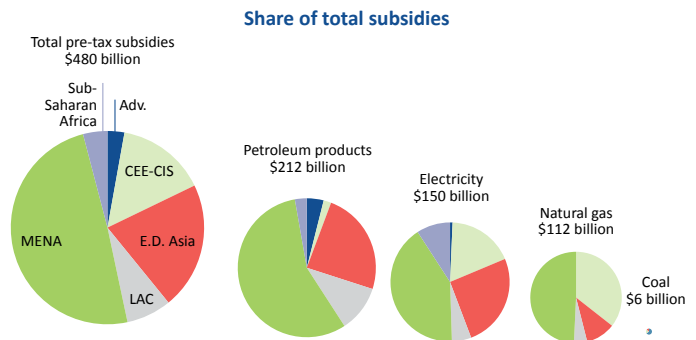
Subsidies in the MENA region total over \$210 billion a year, representing around 8% of GDP. For the six selected MED-ENEC countries<sup>1</sup> in table 1 total subsidies are more than US\$50 billion every year, with subsidies particularly high in Algeria and Egypt.

## Box 1: What do we mean by Energy Subsidies?

We use the accepted IMF, IEA, OECD basis for evaluating energy subsidies, which uses the price gap approach. Energy subsidies result when the price of energy consumption is below a benchmark price, or the price paid to energy producers is above this same benchmark. The benchmark is typically the international market price for a fuel, or, for electricity, the cost-recovery price of production.

As a result the subsidy totals we refer to may not be the same as actual budgetary transfers.

Figure 1: Global energy subsidies by region and fuel, 2011



Source: IMF (2013)

Over US\$50 000 million in energy subsidies are given each year in the six selected MENA countries

Subsidies are normally used for petroleum products and electricity, as well as for natural gas in countries with domestic supplies, such as Egypt and Algeria. Subsidies result in energy prices that do not cover the cost of the fuel or production, with subsidies in the range of 25-95% of the price.

Table 1: Energy subsidies in selected MENA countries

Country	Total subsidies in million US\$	% GDP
Algeria	20 264	10.7%
Egypt	24 422	10.6%
Jordan	1 719	6.0%
Lebanon	1 911	4.5%
Morocco	661	0.7%
Tunisia	1 376	3.0%
<b>Total of selected</b>	<b>50 354</b>	<b>7.9%</b>
<b>Global average</b>	<b>480 000</b>	<b>0.7%</b>

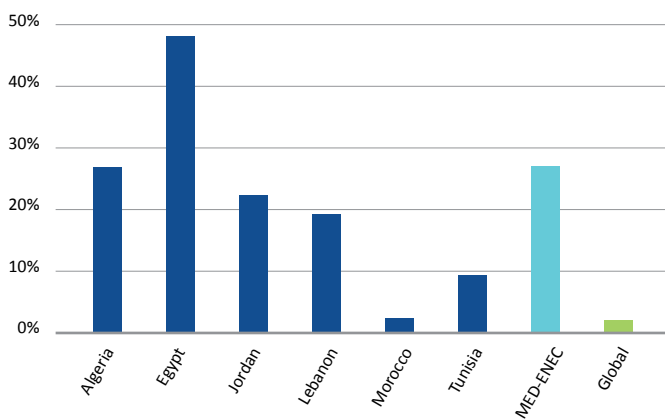
Source: IMF (2013)

<sup>1</sup> "MED-ENEC Countries" are those countries, which MED-ENEC is directly cooperating with: MOR, ALG, TUN, EGY, SYR, JOR, LEB, PAL, ISR

Subsidy costs in the selected MENA countries are equivalent to over 25% of all government expenditures – this is becoming unsustainable and displaces spending on economic development, infrastructure, education and health

Subsidies of this size can have a massive effect on government finances. Globally, energy subsidies account for 2.1% of all government expenditure. As shown in figure 2 the impact is even more acute for countries in the MENA region, with energy subsidies accounting for the equivalent of 27.2% of all government expenditure. This is clearly unsustainable.

**Figure 2: Energy subsidies as % of government expenditure, 2011**



Source: Ecofys based on IMF (2013)

As international prices for fuel continue to rise and local prices remain at the same subsidised level, then higher subsidy costs are incurred. In the past many of the MENA countries were energy exporters and so the direct financial cost of subsidies was low, although indirect negative economic effects were incurred. Now, as many countries, such as Egypt, have become net energy importers, they have to buy more fuel at international market prices. The direct financial costs of these subsidies are putting an increasing strain on government finances. As shown in figure 2, the situation in Egypt is particularly serious, with direct and implicit subsidies equivalent to almost half of all government expenditure. Morocco, at 2.4%, is the only one of the selected countries with subsidy levels close to the global average of 2.1%.

Public budgets are limited, with large proportions of the budget being taken up by subsidies, including energy and



*Huge amounts are paid out in subsidies but these are not always well accounted for*

other (i.e. food) subsidies. As a result there is much less available for spending and investment on economic and social development. As an example, in Egypt direct (excluding implicit) subsidies in 2010/11 totalled 25.3% of public expenditure. After accounting for interest repayments (17%) and public employees' salaries (22%), little more than 35% of the budget was left for spending on all other needs such as health, education, defence, law and order, infrastructure, social welfare and innovation.

This situation is largely typical for the MENA region and it is not uncommon for subsidy payments to push public finances into deficit, which over the long term has detrimental economic impacts and can require credit assistance from international institutions as the IMF.

**Box 2: Savings on subsidies in Syria – could double public salaries with change to spare**

Syria's expenditure on fuel subsidies in 2008 as a share of total government expenditure greatly exceeded health and education spending (a total of S£66.3 billion). In October 2008, Syrian Minister of Petroleum and Mineral Resources Sufian 'Alaw put the figure for Syria's total fuel subsidies in 2008 at S£340 billion, more than five times this amount, owing to higher than expected international prices. 'Alaw is cited by MEES, commenting at the time, that by liberalizing the prices of fuel oil and diesel oil, the Syrian government could double public sector salaries and still have some surplus left.

Source: UNDP (2012)





*With abundant space and sun solar energy could already be a clean and cheap energy alternative in the MENA region, if energy prices were not subsidised and reflected true costs – A CSP plant in Egypt*



# Subsidies, Renewable Energy and Energy Efficiency

Alongside their negative impact on government finances energy subsidies also have powerful impacts within the energy sector and the wider economy.

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Energy subsidies lead to under-investment, poor service and inefficiency in the energy sector – wasting energy and money

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The impact of energy subsidies within the energy sector itself is particularly perverse, with subsidised prices causing the following key problems:

- **Energy producers are unable to recover their costs:** these businesses must either run at a loss (often government funded) and/or reduce their other expenditure, i.e. investment or maintenance. This results in under-investment in new plants, slow expansion and growth in grids and energy access and poor reliability and operation of energy networks.
- **Low incentives to save energy:** if the price is low then there is less incentive for consumers or producers to use less energy or to use it more efficiently. Over time this leads to wasteful behaviour which is difficult to change.
- **Weak investment in energy efficient technologies, products and services:** low prices reduce the financial benefits from energy savings, this results in a lack of investment in energy efficiency, even in relatively simple, low-cost efficiency measures such as insulating buildings, solar water heating, double glazed windows etc;
- **No incentives for renewable energy:** when the costs of energy generation cannot be fully recovered then it is much harder to attract investment in energy generation, particularly in renewable energy.
- **Sense of entitlement:** not only do subsidised prices create conditions that promote wastefulness, but over time they also create a feeling of entitlement to cheap or free energy which undermines payment, encourages theft and makes subsequent price changes more difficult.

These problems all add up to an energy sector with fundamental flaws that mean it functions poorly, consumers and businesses receive a poor (or no) service and the need for, and cost of, back-up capacity is much higher than it would be otherwise. It also results in more energy being used and wasted, higher consumption of fossil fuels, higher subsidy payments, greenhouse gas emissions, environmental damage, air pollution and negative health impacts.



*Installation of thermal insulation at MED-ENEC I pilot project in Syria*

## Box 3: Tunisia – avoiding the energy inefficiency trap

Tunisia has been active in energy efficiency since the 1980s. In the year 2000 the Tunisian National Agency for Energy Conservation developed a strategic plan and programme for the control of energy use. This involved:

- Development and execution of national programmes of energy efficiency;
- Development of a legal framework for energy efficiency;
- The granting of tax and financial incentives;
- The setting up of training and education courses, and information dissemination;
- Research, development and realisation of demonstration projects;
- Measures for encouragement of investment in energy efficiency.

Tunisia was the only Arab country which was able to reduce its energy intensity in recent years. This reduction has been estimated to translate into savings of over US\$40 million/year as a result of avoided fuel costs, reducing subsidy costs for government and improving economic performance.

*Source: REEEP policy database*

Most countries in the MENA region agree that energy efficiency should be improved and many countries have set targets for energy savings over the coming years. This process is underpinned by the development of National Energy Efficiency Action Plans (NEEAPs) which are required under the Arab Energy Efficiency Guideline. Tunisia, Sudan, Libya and Egypt have developed NEEAPS, and, with the support of MED-ENEC, so have Lebanon, Palestine, Jordan and Algeria, thus demonstrating a clear policy commitment to energy efficiency.

prices for PV solutions continue to fall, currently by ~5% or more each year, then the frontier for cost competitiveness will move inward. For countries that have reformed their electricity subsidies, for example Tunisia and Morocco, it is already starting to become much more attractive to invest in solar energy.

Energy subsidies prevent investment in renewable energy, even though it is already cost-effective in some places

Subsidies should be switched from fossil fuels to renewables



Renewable energy can bring skilled jobs in construction, installation and maintenance

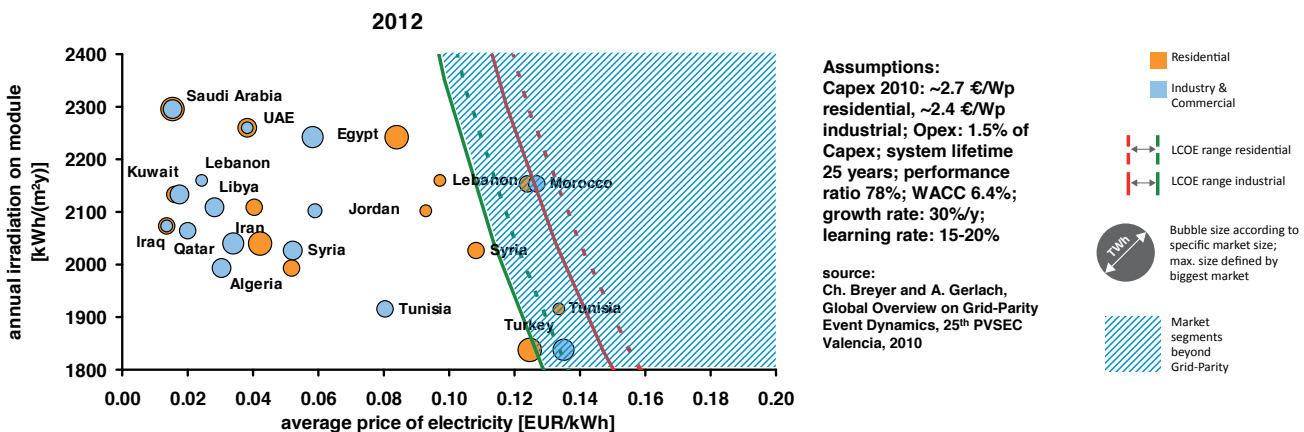
Renewable energy penetration rates in the MENA region are among the lowest in the world. The region, with its naturally sunny climate is considered to have huge potential in renewables, particularly solar hot water and solar PV. However, apart from a few exceptions i.e. solar hot water in Palestine, it has not taken advantage of this. Countries have also set ambitious targets for renewable energy expansion over the coming years, but subsidies form a significant barrier to achieving these.

Similar situations can also be found for other renewable energy technologies, such as solar water heating and wind, where significant growth and energy potential exists but where it also remains uncompetitive to invest in these technologies due to the subsidies for fossil fuel generation.

Figure 3 shows that low energy prices caused by subsidies mean that solar technologies are not cost competitive in MENA countries. With subsidies leading to average electricity prices in most countries of less than €0.06/kWh and the frontier for solar PV cost-competitiveness closer to €0.14/kWh then there is no incentive to invest in solar PV. Yet as the

Cutting fossil fuel subsidies is a necessary first step to promote greater energy efficiency and increased deployment of renewable energy. However, to truly accelerate energy efficiency and renewable energy the savings on subsidies to fossil fuels could then be used to subsidise energy efficiency and renewable energy – in the short-medium term. As the markets for such technologies in the MENA region are relatively immature there is a clear rationale to support their growth, to bring costs down and develop a domestic industry, infrastructure and capacity – as has been successfully achieved in countries such as Denmark, Germany or Spain.

Figure 3: Cost competitiveness of solar PV 2012



Progress may only happen step-by-step as subsidies are reduced, with the rate of improvement also varying dependent on the other barriers (i.e. access to finance, planning, skills, etc.) that exist in a country.

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### Current energy subsidies lead to economic inefficiency

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Energy subsidies distort economic investment decisions. They effectively reduce the costs and prices that producers and consumers pay, often for products and services that would be necessary and paid for anyway.

By making energy cheaper, subsidies also specifically encourage energy-intensive industries to locate in these countries. While this provides an advantage to these sectors, i.e. cement, aluminium and energy and water intensive agriculture, it deprives other sectors of similar investments. This concentration of economic activity heightens the economic risks and vulnerabilities if the subsidised sector is affected by other events, or when subsidies are reduced or removed and leads to missed opportunities as other more worthwhile investments are passed over.

The energy intensive sectors that do locate for subsidised prices are often rent-seeking; only locating there to take advantage of the subsidies. By offering few incentives to improve the energy efficiency of manufacturing processes, the subsidies encourage inefficient and wasteful behaviour which means that often these firms would be internationally uncompetitive and can only survive through the advantage



*A more diverse energy supply provides a better recipe for success*

### Box 4: Saudi Arabia – rent seeking for oil subsidies, low diversification and missed economic opportunities

Subsidies in Saudi Arabia provide great benefits to the petrochemical industry, giving it a significant competitive advantage through lower costs. This encourages firms to invest in this sector – rent-seeking the subsidies.

A further effect is that investments in Saudi Arabia are pulled towards this ‘easy’ money, rather than diversifying into other high value segments in the supply chain such as processing and downstream industries such as plastics. This forces the government to provide additional subsidies to attract such investments.

*Source: Aissaoui (2012)*

that subsidies bring. A UNDP report (2012) shows the result, that while the majority of the world has improved its energy intensity over time, Arab countries have not.

Countries that are dependent on imports to satisfy their energy needs are highly exposed to international energy markets. Rising international fuel prices for oil, and oil products, since 2002 have contributed to the rapidly mounting cost of fuel and electricity subsidies in many countries in the MENA region. Very high prices, such as the oil price spike in 2008 can cause serious difficulties for government finances. Price spikes also often spill over to affect energy supply itself, leading to more frequent power cuts and fuel shortages.

The squeeze on government finances from higher subsidy payments can lead to many difficult decisions and problems such as:

- Deciding which other areas of spending need to be cut to pay for the increased cost of subsidies;
- Borrowing more money to pay for subsidies – although this is restricted by international funding agencies such as the IMF;
- Disruptions to energy supply and fuel shortages;

Over the longer term, if the problem is not dealt with then a crisis can occur which requires immediate and unplanned action to reduce subsidies, risking:

- Political instability
- Economic disruption





*Fuel subsidies benefit those with cars, leading to more traffic and air pollution. Money saved on subsidies could be invested in modern public transport and mass transit infrastructure for the benefit of the economy and everyone*

# Challenges in subsidy reform

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Subsidies are intended to bring economic and social benefits, particularly to the poor and industry

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The justifications for providing subsidies vary but typically include the following reasons:

- Protecting the poor
- Expanding access to energy
- Sharing resource wealth
- Fostering industrial development
- Keeping industries export competitive

Other lesser reasons include smoothing consumption and containing inflation. These reasons are all consistent with economic and social improvement, but can often have unintended consequences, not least in who actually benefits most from the subsidies.

In reforming subsidies a challenge exists to convince people of the fact that subsidies are typically counterproductive and inefficient in achieving these goals, that better alternatives exist and that change is necessary.

## Exploding the myth of subsidies as a fair and effective poverty reduction measure

**Challenge – people do benefit from subsidies:** A first challenge is to address the fact that many people and some industries do benefit from energy subsidies. For some people subsidies make the difference between the ability

to afford energy or not, which makes energy subsidies a critical social issue and highly sensitive subject. The longer that subsidies have been in place, the more used to subsidised energy people have become. People have taken cheap energy for granted and expect this to continue, this could be termed an ‘addiction effect’.

**Linked Challenge – energy subsidies are seen as a fair way to share energy resource wealth:** People expect some fairness in the distribution of wealth from national energy resources and that cheap energy is the most obvious benefit the people demand, i.e. we have lots of gas, we should have low gas prices. This is particularly important in countries with significant natural energy resource wealth, such as Algeria and Egypt, as expectations for sharing are higher.



*Low energy prices lead to inefficient use of resources – multiple old air conditioning units on a building in Egypt*

But people have become ‘addicted’ to subsidies and the benefits go to the wealthy far more than the poor

**Opportunity – the wealthy gain disproportionately more benefits from energy subsidies:** as currently implemented, subsidies benefit those that consume the most energy, typically the wealthiest people, who are able to finance a highly energy consuming lifestyle.

Analysis in over 20 countries in Sub-Saharan Africa, Latin America, the Middle East and South and East Asia (Del Granado et al, 2010) has shown that energy subsidies benefit those that consume the most energy. The example from Egypt (see box 5) is typical of the inequality of universal energy subsidies, with the richest 20% of the population deriving 46% of the benefits.

The biggest losers from subsidies are the poorest people, those that subsist on traditional energy sources, such as wood, and therefore receive little or no benefit from subsidies.

This situation provides a powerful argument for subsidy reform based on fairness and poverty reduction.

**Alternative – people could get same benefits and fair share without energy subsidies:** the money saved from subsidies could be used to increase the income of people via lower taxation, incentives or other means. So although prices would rise, income losses would be compensated. This would protect against poverty, not disproportionately benefit the already rich and ensure people could continue to access energy.

### Subsidy reform has political and practical challenges

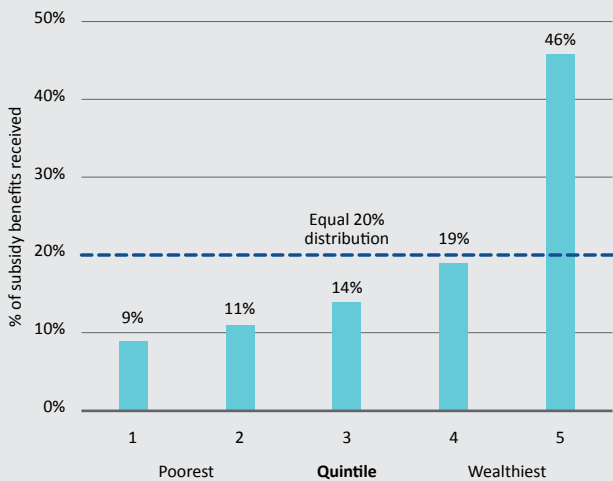
**Challenge – the political fear factor:** subsidy reform is a political mission and there are a variety of risks and factors to take into account in choosing reform, including the following:

- **Political and/or social risk** – the popularity of subsidies provide for significant political and social risk in backing reform proposals.
- **Protest has been shown to be ‘successful’** – civil action on subsidies has proved successful in the past. From the

### Box 5: Egypt – subsidies provide the most benefits to the wealthiest

Analysis from Egypt which looked at population quintiles (20% population segments based on income, low-high) found that that the richest quintile received 46% of the total benefits of petroleum subsidies, while the poorest urban quintile received only 9%. This stark divide illustrates the division in benefits of subsidies between rich and poor. A similar divide also exists both within urban and rural areas as well as between them, with benefits primarily going to the urban rich, rather than the rural poor. These figures give strong evidence of the common reality of inequitable distribution of universal energy subsidies.

Distribution of subsidy benefits, Egypt



Source: Abouleinein et al (2009)

most recent political protests of the Arab Spring, in which at least a small part of the dissatisfaction was driven by higher prices and lower real incomes, to previous subsidy reform protests in Egypt in 1977 and Jordan in 1989 and 1996. People were able to take to the streets and their protests led to reforms being halted or scaled back.

**Linked Challenge – practicalities of reform – bureaucracy, vested interests, lobbyists:** subsidy reform is not only an external political decision, there are also important practical elements to take into account, including the following:





*The people need to be convinced and compensated by reforms to avoid protest*

- **Institutional and bureaucratic barriers** – reform is not always a simple process of drafting a law, as decision making power, administration, enforcement and other functions can often be widely dispersed with unclear and overlapping responsibilities and decision procedures. Bureaucracies are often inefficient and slow to change. The interests and objectives of the different groups can often be very different and in competition with each other, which can pose a significant political and practical challenge for implementing an unpopular subsidy reform. This can slow down the reform process as arguments or offers are successfully developed to convince those who may lose from the reforms.
- **Vested interests in government** – subsidies provide specific benefits to groups and individuals. These groups and individuals are unlikely to support changes that will reduce these benefits and depending on their position and authority can be powerful blocks on the path to reform. A challenge lies in overcoming these interests through appropriate alternative measures, i.e. other compensation (discussed further on page 23).
- **Industry and other lobby groups** – often benefit from subsidies, with this particularly important to energy-intensive industries. Reform to subsidies which will increase their costs threatens to make them less competitive. With unemployment a major issue in many countries a potential loss of competitiveness and then jobs is difficult to support. This presents a challenge, to manage reform to compensate job losses in affected sectors while bringing the economic advantages of subsidy reform to the wider economy. This could be achieved by stimulating job growth in energy

efficiency and renewable energy through redeployment of savings in subsidy budgets to public spending in these areas.

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Necessity provides a powerful argument and opportunity for change

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**Opportunity – through necessity, make a case for change:** the budget situation in most countries makes it highly necessary for change to take place, providing an opportunity for reform, as the alternatives can be even worse. This can help to construct a convincing argument for reform to the concerned groups.

In doing so, decision makers need a precise and clear understanding of the history, social problems and expectations. They also need to engage with the political process, which will take time and success will depend strongly on successfully convincing arguments or compensating offers to the voters and groups which are confronted with losses. An open and factual political dialogue is important.

**Alternatives – complementary reforms, jobs, compensatory measures:** For truly convincing arguments for reform, alternative arrangements must also be offered. Tying subsidy reform to economic and social reform can reduce risks, an example would be to tie reduced subsidies to income support and increased investment in energy efficiency, stressing the employment benefits of such a move. This would address one of the key social concerns and risk groups.

# Road map for subsidy reforms – a process for change

There is no single approach to reform – an approach must be tailored by country – but there are common factors to successful reforms

A variety of organisations have studied how to best achieve subsidy reform, and they conclude there is no ‘one size fits all’ solution to reform. However, there are common elements for successful reform. The IMF outlines six key elements:

1. **Clear long-term objectives** – as part of a comprehensive reform plan, which could include objectives such as achieving full price liberalization and improving the quality of service.
2. **Communication strategies** – must be well planned and timed, and reach all audience groups. Consultation with stakeholders is also an important element.
3. **Timing and phasing** - appropriately phased and sequenced price increases, which give households and businesses time to adjust their energy consumption.
4. **Mitigation measures** – to fairly compensate groups that lose out from reforms.
5. **Improved efficiency of public finance and enterprise** - improvements in the efficiency of state-owned enterprises help to reduce their fiscal burden.

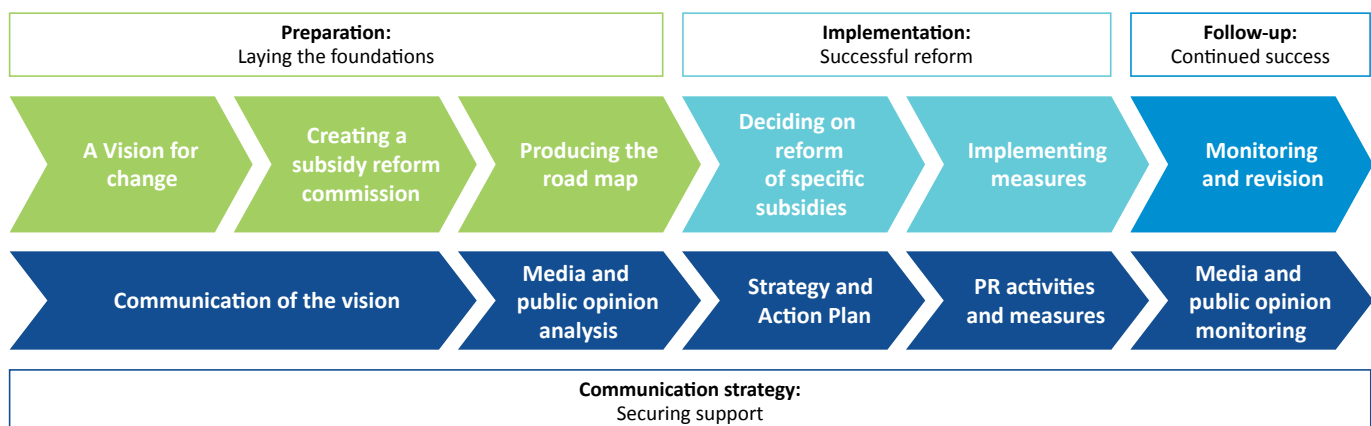
6. **Depoliticised energy prices** - price setting should be made as independent as possible from politics to ensure durable reforms.

These have been brought together in the process presented in figure 4. This details the four stages and individual steps that represent a road map and action plan for change.

There are three stages to the process, with a fourth stage, the communication strategy, running in parallel:

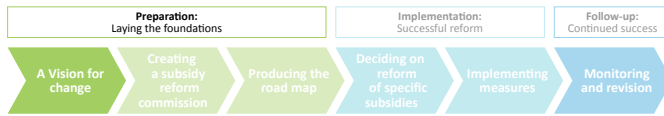
- **Preparation:** this involves creating the original vision for change and getting the right people on board as a reform commission to consider and design the change. They will create a reform road map proposal.
- **Implementation:** of the road map will require decisions on how to address specific subsidies and the implementing measures to support the reform.
- **Follow-up:** it is important the commission formally monitors the reforms as it is a continuous process, which will require revisions and adjustments throughout.
- **Communication strategy:** this is crucial to the overall success of reforms and must run alongside the whole process. There must be a strategy that presents clear, consistent messages, and which manages public expectations and leads public opinion throughout the reform process.

Figure 4: Process for subsidy reform



## Preparation: laying the foundations

### 1. A vision for change



To start the reform process it is essential to have a clear picture of where it should take the country. Reform will help to achieve this positive vision of the future.

The vision must be a clear, concise and inspiring statement which conveys the direction of the reforms. It will be a powerful and broadly used communication tool, which will demonstrate, intent and motivate people to a better common future. Examples include:

- To provide sustainable energy access for all through efficiency and innovation;
- To establish a sustainable, secure and affordable low emission energy mix;
- Investing subsidy savings to be more independent from world energy market ups and downs;
- An energy system that promotes the economy and nature through greater efficiency and inspiring a new environmental consciousness.

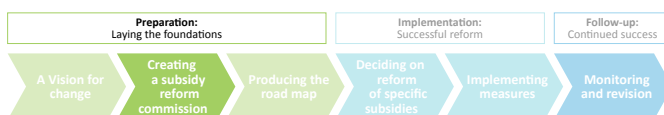
The vision will underpin the whole reform process, influencing the scope, objectives and targets of the reforms, although the essential underlying objective will be to remove energy subsidies.

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A vision for a positive energy future needs to be developed by the leadership – it will underpin the whole reform process

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### 2. Creating a “subsidy reform commission”



The creation of the vision will have sparked considerable public and political interest in the reforms. Decision makers, politicians, stakeholders and other experts will be motivated to move forward. The leadership should appoint a ‘subsidy reform commission’ or equivalent body to harness this,



*German Ambassador to Egypt Michael Bock opens the 14<sup>th</sup> Cairo Climate Talks “Energy Subsidies - Why Egypt has to act now” in March 2013*

calling for people to spearhead turning the vision into a road map and action plan for reform. The commission will need a budget and access to appropriate people and data.

Getting the right people on-board is crucial and it will be up to the leadership to decide on the composition of the commission. The commission should be knowledge-based, politically balanced and as independent as possible, so that it will be able to elaborate widely accepted reform proposals based on facts and best available knowledge. This calls for a mix of experts on energy and fiscal reform from academia, the energy companies, industry, consumers and the relevant ministries, and, if in place, the regulator.

#### **Box 6: The tasks of the subsidy reform commission**

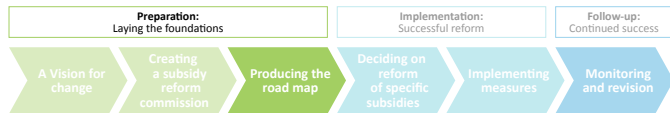
The commission will be an advisory body with a temporary mandate. Its purpose is to propose a road map for a national reform plan. This should include:

- Development of a communication strategy to ensure public support for an energy subsidy reform
- An analysis of the net present costs and benefits of energy subsidies in the country and future projections, including relevant social, economic and fiscal impacts.
- The draft of a road map and action plan, including:
  - A timetable for action
  - Recommendations for amendments to existing policies and programmes
- Periodic review of the subsidy reform programme



Care needs to be taken that the ministries do not dominate the commission. Although they will have the ultimate responsibility to implement the reform, their involvement must be reluctant, constructive and respect the views and independence of the other commission members. A non-ministerial chair is recommended for the commission.

### 3. Producing the road map



To produce a road map for implementing the reform, the commission will need to analyse the subsidy situation. Each country has its own specific economic, social, and political circumstances, policy history and energy resources, which influences the way ahead for subsidy reform.

The expertise within the group should ensure that there is already a high level of understanding of the main factors influencing energy consumption and subsidies, including current and future trends in:

- Economic and population growth, including identifying energy intensive industries, income growth
- Energy production and consumption, imports and exports

A subsidy inventory will point to the timing, speed and absolute level of reforms which shall be proposed in the road map, and could take the form of a simple table:

Figure 5: Energy subsidy inventory

Subsidy name	Objective	Administered by	Main beneficiaries	Fuel Type	Level	Total public subsidy	Trend in total public subsidy
Subsidy 1							Up/Down
Subsidy 2							
Subsidy X							
<b>Total</b>						<b>X million</b>	
<b>As % of public expenditure</b>						<b>X%</b>	
<b>As % of GDP</b>						<b>X%</b>	

The commission will draw up a road map document based on their analysis, which will then be submitted to the leadership for the next steps in the decision and implementation process.

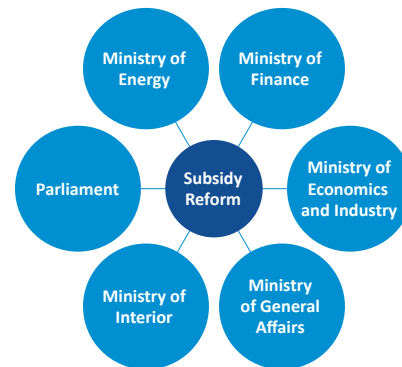
The road map will recommend the timing, speed and level of subsidy reform. It is then left to the leadership and ministries to decide how to proceed with it

The work of the commission normally ends after the road map is submitted to those who awarded the contract (political leadership or parliament), although the commission may also be asked to assist in any further steps in debating, implementing and monitoring the reform.

The road map will then be adopted (or modified or rejected) and the reform process will move towards implementation, involving the relevant institutions, as indicated in figure 6.

It will be the responsibility of all these groups to turn the approved proposals of the commission into a practical reality; this will require consideration of the various political and practical trade-offs that will be needed to reach an agreement.

Figure 6: Institutions to implement reforms



#### Box 7: Iran – Energy subsidy reform principles

The following objectives provided a sound underpinning for the energy subsidy reforms in Iran:

- Respecting and promoting good living standards
- Distributing the national wealth fairly and equally
- Minimizing income disparities
- Raising energy prices to international market level
- Increasing efficiency and preventing wasteful consumption
- Reducing fuel smuggling
- Allocating more energy resources to boost production
- Encouraging demand for domestically produced commodities
- Enhancing the country's oil and gas export capacity

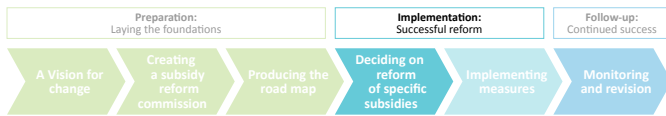


*Strong motivation, commitment and independence of experts and ministry officials are essential to the success of the work of the reform commission - example of a successful group at the MED-ENEC NEEAP conference in Amman, Jordan 2010*

## Implementation: successful reform

With a road map for subsidy reform approved by the national decision makers, the responsibility will then be passed to the ministries and other agencies to decide how the road map can best be achieved.

### 4. Deciding on how to reform specific subsidies



All subsidies will need to be reformed and eventually removed, but there are important practical dimensions to this process: Not all subsidies can simply be removed at once as this would lead to chaos.

The World Bank has developed a decision tree to assist in choosing how an individual subsidy can be reformed. An improved version of this is presented in figure 7.

An individual subsidy will be considered through this decision process with one of three recommended outcomes resulting:

1. **Remove or phase out** – the subsidy is to be eliminated in the most efficient and effective way, either immediately or by full or phased reductions.
2. **Redesign or replace** – reform of the subsidy needs supporting mitigation measures or more detailed step-wise changes on its way to eventual removal.
3. **Retain but monitor** – reform of the subsidy is temporarily postponed but a monitoring process is put in place to ensure that it is reconsidered and dealt with in future.

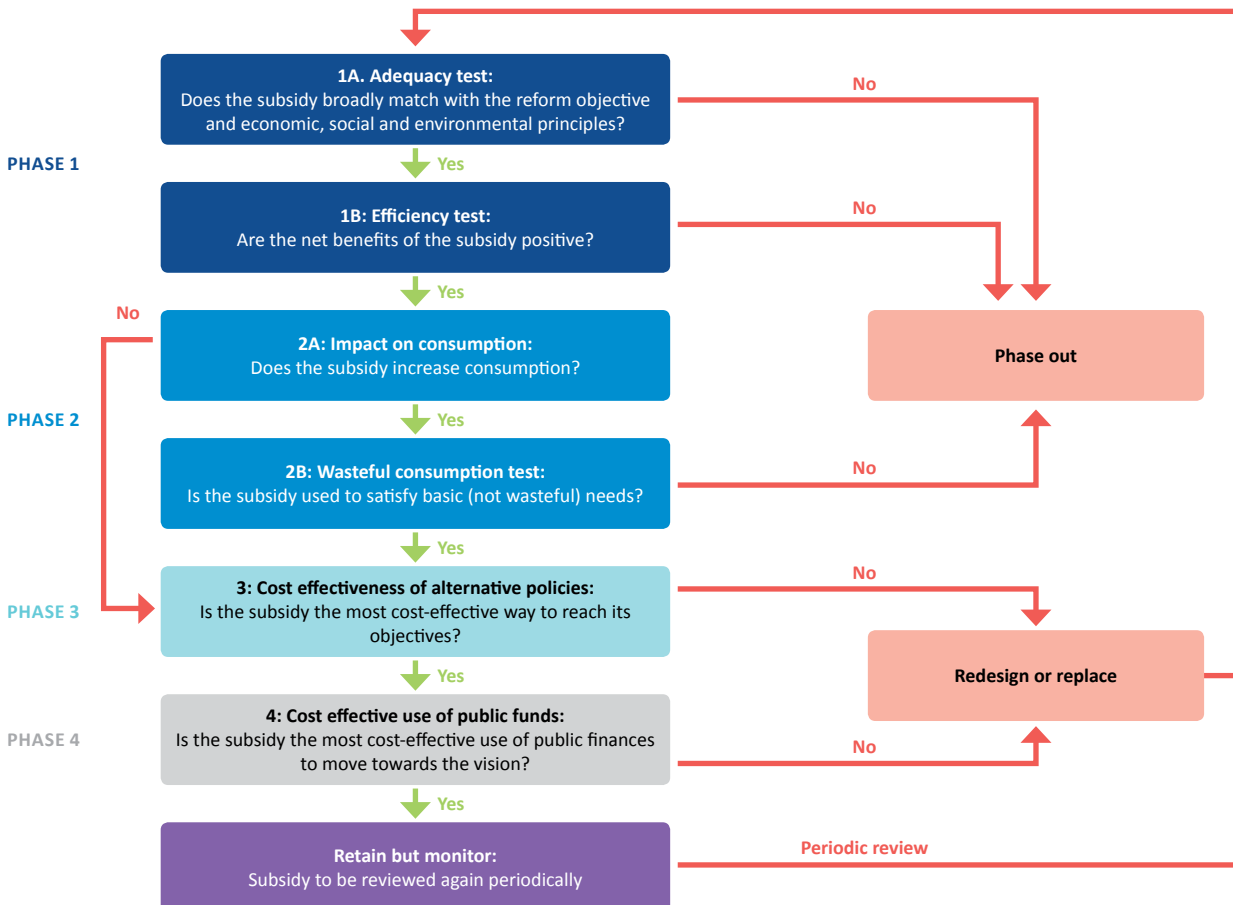
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All subsidies will need to be phased out, redesigned or replaced over time

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It is expected that at the end of this decision process very few subsidies reach the stage where the recommended decision is to 'retain but monitor'. Subsidies that do get to this stage must be re-evaluated periodically, i.e. on an annual basis.

Figure 7: Decision tree for subsidy reform



Source: Adapted from World Bank (2010)

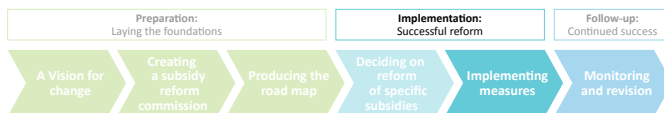


The decision to remove or phase out, redesign or replace or retain but monitor should be accompanied by firm objectives with associated targets and timetables for the changes.

The objectives and their targets must be made SMART (Specific, Measurable, Attainable, Relevant and Time-limited). This could take the form of the following:

- Target: subsidy to be reduced by 20% every six months until it is removed
- Target: subsidy to be reformed to 25% of its current level immediately, with mitigation measures that preserve the standard of living

## 5. Implementing measures



Following previous experience in reforms in other countries it is recommended to use best practice to determine the specific measures that should be used in the reform and how they should be applied. The IMF and other international organisations have identified key factors in successful reform:

### (1) Appropriate timing of reforms

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Timing is important – always plan ahead, consider the impact of other events and phase the reform over the appropriate timeframe

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*There might be lots of ways to reach a goal, but careful mapping will pave a much smoother road*

The timing of subsidy reform has a major influence on its impact, with the following most important:

**Planning ahead:** it is always recommended to plan and implement reforms before other factors (i.e. fuel price crisis, loss of currency value, limits for monetary transactions) make the management and implementation of reforms difficult to control due to both the internal pressure and potential involvement of external institutions, such as the IMF. Effective planning takes time and also requires developing and implementing a communication strategy ahead of time.

The IMF (2013) contrasts examples of effective planning and successful examples of reform in Turkey and the Philippines, with a lack of planning and less successful, or ineffective, reforms in Indonesia and Nigeria.

**Taking account of other political, economic and social events:** the window of opportunity for reform can be a moving target and successful timing requires thought and flexibility. Some timings, i.e. reform close to an election, make the chance of successful reform less likely – as opposition has an easy and popular target and could quickly reverse the reforms. Other events provide better opportunities, i.e. falling international energy prices after a period of high prices, providing the opportunity for energy prices to remain stable, while subsidies are removed and people are insulated from the ‘real’ price increase. Thought needs to be given to the timing of reform to maximise the opportunities and reduce the risks, with some flexibility also built into the timings to account for any unexpected events.

**Opt-outs and phasing:** introducing reforms all at the same moment has advantages in simplicity and immediate effect, but also risks strong immediate opposition. Implementing reforms that have a clearly communicated message of the destination i.e. total phase out or reductions of subsidies by a particular date, but with this happening in stages, with moments for reflection and evaluation can help smooth implementation. Giving people and industry more time to adapt, but with the assurance that change will happen and therefore that the earlier they adapt the better, is a firm but fair approach. Opt-outs and phasing also provide time for the government to adapt and revise the reforms and mitigation measures if needed.

Case studies from the IMF (2013) show that in 17 of 23 successful subsidy reforms phasing was used, with reforms typically phased in steps over 3-5 years.



*Transparency and fairness help build the trust that is essential for successful reform*

## (2) Improving the efficiency of state owned enterprises

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Transparency in the funding of state owned enterprises and real performance targets are essential to drive improved efficiency and reduce the subsidy burden

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State owned enterprises in the energy sector, and also in energy intensive industries, often receive substantial subsidies. Reforms will reduce their profitability and can also reduce their ability to function. However, these state owned enterprises are often highly inefficient in their production and revenue generation. Reform therefore presents an opportunity to mitigate the loss of financial aid through improved efficiency, which has the added benefits of strengthening the enterprise, reducing the burden on the public budget and being more economically efficient.

Two key strategies are proposed by the IMF to improve the efficiency of state owned enterprises:

- **Transparency in national budgets:** ensuring that information on company operations and the financial transfers to state owned enterprises are recorded in state budgets is an important first step to preparing the renewal. The information can be used to identify specific

inefficiencies or problems exposed by the removal of subsidies.

- **Performance targets and incentives:** state owned enterprises need to set performance targets. These targets should function as incentives which encourage their attainment and over-performance, but also include negative consequences for their underachievement. This could include allowing the benefits of over-performance to be retained or distributed within the enterprise and/or management restructuring in the event of under-performance.

It will always be useful to consider risks and benefits of privatisation, and a pathway towards opening of markets.

The combination of these strategies will expose industries and firms to much higher levels of scrutiny and management, and will drive improvements in both energy and economic efficiency. This will spur innovation and improve competitiveness, creating jobs and growth.

Mitigation measures may also need to be linked to these changes at state owned enterprises as they are often overstaffed and an efficiency drive will lead to job losses, and/or the need for further support to invest in more efficient technologies. Therefore programmes that target re-training or that look to create jobs in other sectors such as energy efficiency in buildings and renewable energy should be considered.

### (3) Mitigation measures - protecting the poor

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“Key to making the future reform of energy prices in the Arab world politically feasible, will be... putting in place effective mitigation measures that protect the poorest and assist the economy in its long-term adaptation.”

(UNDP, 2012)

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Subsidy reform will save money for the government but lead to higher prices and costs for households, businesses and industry. Although, compensation through energy savings will be beneficial to these groups and the whole country over the medium-long term. In the short term they can cause economic and social problems. These problems can be particularly serious for the poorest households, who can lose a large proportion of their income.

The most successful reforms implement mitigation measures and economic and social policies to address these problems, to reduce opposition and avoid social unrest. Social justice must be an integral principle of the subsidy reform, as the perception of injustice or favouritism of special (and powerful) interest groups can lead to serious public opposition to reforms.

Mitigation can be funded by using some of the fiscal savings of the subsidy reform.

The choice of mitigation measure will vary by country taking into account the specific context, key factors within the context include:

- **Poverty levels** – high levels of poverty require greater resources to be devoted to mitigation measures.
- **Public finances** – the state of public finances will influence the amount of the savings that can be made available for mitigation measures.
- **Public administration** – the capacity, reach and facilities of the public administration play an important role in determining how a mitigation measure can be implemented, including how it can be targeted using existing social welfare systems. It is preferable to use an existing system as this makes best use of the human and financial resources that are available. This can still involve the use of innovative devices or methods, i.e. smart cards.
- **Affected groups** – the economy as a whole will feel the impact of reforms, and some powerful sectors may be hit particularly hard, which can have implications for jobs, growth and the level of opposition faced.

Mitigation measures must be time-limited, dynamic (i.e. with an automatic adjustment mechanism) or with a built in review process, as they are also essentially subsidies with similar distortive effects to the energy subsidies they replace.



*Everyday life of bread and bakeries in Egypt - food is often also subsidised, with similar negative economic effects as energy subsidies. Lessons on wider reform can also be drawn from the approach outlined here.*





*Stopping subsidies does not mean a stop in development*

A range of mitigation measures exist, the IMF describes the following key measures:

**Targeted energy subsidies** are a more limited re-design of an energy subsidy, removing it or reducing it for some groups or fuels, while maintaining or increasing it for others. Targeting can

be based on income, industries, fuel types or other factors with choices made to protect the most vulnerable groups, i.e. cutting subsidies for most fuels while maintaining subsidies on gas or kerosine for cooking and heating which proportionately benefit the poor most. UNEP (2008) recommends targeting reforms in this way as a first step. It has been successfully used in Indonesia and Armenia.

Careful management is needed to deal with the challenges of targeting which have the potential to create social stigma and is open to abuse and corruption.

#### **Cash transfers – universal and targeted**

Using the savings from the reform to provide direct cash transfers to the bank accounts of selected groups, is another option. Universal cash transfers to everyone tend to be more popular as they minimise the danger that people are excluded.

Cash transfers have advantages for equity, as benefits are not linked to energy use which most benefits the wealthy freedom of choice as cash can be spent in any way; and cash transfers also remove the perverse incentives for energy consumption. They are also transparent to implement, appearing directly in government accounts and can utilise existing social welfare systems to be more efficiently implemented.

#### **Using existing social safety nets**

Increasing existing social payments is another way to mitigate changes to energy subsidies. This can involve improving pensions, measures for job creation, i.e. through investments in energy efficiency and renewable energy; public sector wages, offering private sector wage guarantees, boosting other (i.e. food) subsidies and a variety of other mechanisms. This measure will insure a quick and relatively cheap way to implement mitigation measures.

#### **Reprioritising public expenditure**

Savings on energy subsidies can be reallocated within the

public budget and used to help balance the budget and/or increase government spending on education, health, energy efficiency, renewable energy, innovation or other areas. This can provide benefits to the whole country in the long term, but needs transparency of the measures and intense communication activities in the short term, particularly if levels of trust in the government are low.

#### **Investing in energy access**

Savings on energy subsidies can be used to expand access to energy by investing in gas or electricity grid infrastructure, which can be important if grid coverage and access is poor. The success of such measures depends on the capacity of consumers to pay to use the energy infrastructure when it is in place.

### **Box 8: Universal subsidies and targeting in Iran**

The Iranian energy subsidy reform was based on a formula whereby 50% of savings would be recycled to households, 30% to business and 20% to the government itself. The saving to households has taken the form of a cash transfer to every Iranian citizen living in Iran. Around 80% of the population were registered for the reform and receive the payments.

The transfers have encountered problems with the amount for households climbing to 80% of the reform savings, reducing the industry share to 20% and removing all government benefits. A second stage to the reform to increase and better target payments to individuals based on income has stalled in the Iranian parliament.

This highlights the risks of universal transfers when information is incomplete and also when reform is split over stages, risking opposition before the reform is complete.

The reform has been a mixed success: It has successfully reduced subsidies and been relatively well received by people, but the expected fiscal benefits to government have not materialised and the reform has stalled before this could be corrected through greater income-based targeting. External political events also had a negative influence on the reform process.

*Source: GSI (2012)*

#### (4) Depoliticising the process of price setting

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Automatic pricing mechanisms with price smoothing, overseen by an independent body, offer the best way to achieve political distance and successful and durable reforms

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The durability of subsidy reforms is often tested by changes in energy prices, the IMF (2013) found that recent years of high oil prices led to 11 of 28 national subsidy reforms being slowed or reversed as politicians sought to reduce the impact of higher prices. They used the example of Ghana, which in 2005 reformed and eliminated fuel subsidies, but when oil prices soared in 2007 and 2008, the government abandoned its policy of linking domestic prices to international prices, suspending its automatic adjustment.

Designing reform in a way that reduces the scope for this backtracking, and / or, political influence on energy prices, depoliticising them, is an important element of reforms that are successful in the long term. The long term goal being to eliminate energy subsidies so that prices move with markets, better reflecting true costs, and that people are still able to afford energy.

**Automatic pricing mechanisms** offer a way to successfully reduce the impact of political influence on energy prices through using a formula that links the domestic price of energy to international prices (oil, gas) or other factors in the cost of production (electricity). The formula needs to be transparent and clearly communicated to the public. It should also provide assurance that price changes will not lead to unfair gains or losses for particular groups, i.e. windfall profits for suppliers.

These types of mechanisms have worked successfully in a number of countries, including South Africa, the Philippines, Turkey and Jordan, where they have distanced energy prices from national politics, and turned the debate on price changes towards international markets. Yet automatic mechanisms have also proved unsuccessful in Ghana and Gabon, where the reform has been withdrawn too quickly due to political and social pressure after rapidly increasing energy prices.

**Price smoothing** is a way to ensure that the automatic pricing mechanism is more durable by limiting or spreading price changes over time, i.e. limiting changes to 5% per month. This is important as rapid price changes, driven by



*Volatile prices on international energy markets can require price mechanisms and smoothing to successfully transition away from subsidised prices.*

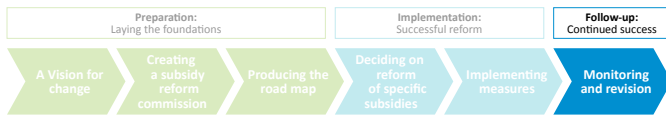
international markets, are often the catalyst for abandoning price mechanisms and reforms, particularly in countries that have a high 'addiction' to subsidies and weak economic and social conditions.

Smoothing gives consumers and industry more time to adapt to price changes, but can put a higher burden on government finances in the short term as they must subsidise any differences, although the reverse can also occur with government benefiting from rapid price decreases.

**An independent body** – for example the subsidy reform commission, that takes technical decisions on prices, offers one of the best ways to deal with the political pressure resulting from the price changes when a mechanism is first introduced and to avoid populist promises of lower prices. They can set prices independently and also be used to oversee automatic price mechanisms and price smoothing. These approaches have been successfully used in South Africa, Turkey, Armenia and Kenya.

## Follow-up: continued success

### 6. Evaluation: monitoring and revision



The reforms need to be monitored and adjusted if necessary

The energy subsidy reforms will need to be monitored and evaluated and then revised accordingly. The analysis involved should be independent of the ministries and bodies that implement the reforms to ensure objectivity. The subsidy reform commission could be retained in a more slimmed-down form for this task.

**Monitoring and evaluation** involves checking the progress of the reforms compared with their objectives, asking if the reforms have succeeded in meeting the targets that have been set. It also involves checking on the progress in terms of timings and the various targeting and opt-outs included in the original reform measures. This should be done on a periodic basis, at least annually.

If targets have been successfully achieved then the question should be asked, what more can be done? Is there a further stage that reform could progress to?

If targets have been missed then other questions should be asked, including:

- What is the direction of travel in relation to the target? Is it on course to be achieved? Is more time needed?
- Why have the targets not been achieved?
  - What are the biggest barriers / problems?
  - Were the targets realistic, could they still be achieved?
- What more could be done? How can the reforms be improved?
  - Are more/less/different opt-outs needed?
  - Are more/less/different mitigation measures needed?

**Revision** of the subsidy reform should be made based on an analysis of the answers to these questions. The subsidy reform commission can make proposals on the next steps that should be taken, but the responsibility for decisions will again rest with the responsible ministries or bodies. The responsible bodies will adapt any proposals as necessary to plan and implement changes to the existing reform measures. They will also need to plan the introduction of any new measures and the supporting communication and mitigation actions.



*A participatory approach is key to reaching reform goals - the MED-ENEC workshop in Beirut in April 2013 is an example of a successful approach*



## Communication strategy: securing support



Reforms to subsidies will inevitably lead to some people or groups losing out. Communicating why reform is necessary, how it will be done, when it will happen and what can be expected in compensation, is critical to retaining public and political support and ensuring the success of the reform. A recent IMF review (2011) of 40 country experiences between 2002 and 2006 revealed that the likelihood of successful subsidy reforms almost tripled in the presence of strong political support, proactive public communications and opinion leadership.

The reform needs political majorities and stability and must be strong enough to face political opposition in a fair and constructive manner. It is important to lead opinion by presenting the positives of reforms to avoid information gaps being filled by misleading information and negative opinion.

“an effective communication strategy [...] made a difference in securing the successful implementation of reforms.”

*(World Bank, 2012)*

Development of a comprehensive **communication strategy** by the government (decision makers) is the only way to ensure success. A communication strategy sets out the organisation and planning for how the reform will be communicated and details the specific messages, delivery mechanisms and timings for communication. The communication strategy must operate from the very start of the whole reform process and throughout the reform period. It is strongly recommended that a professional communication agency is contracted to implement the strategy.

The communication strategy should include:

- **Objectives** – this will be to ensure the success of the energy subsidy reform.
- **Audiences** – a strategy needs to focus on the particular audience groups that it needs to reach, i.e. the poor, large energy users.
- **Messages** – are critical and should be simple, clear, consistent, targeted and repeated. Key messages need to connect to the target audience using stories, images and people that the audience can relate to.

- **Tools and activities** – need to be tailored to the audience, messages and available resources. This includes selecting the right communication mediums (i.e. TV, radio, internet, conferences, posters, events, free gifts) for the right audiences.
- **Resources** – people, financial support, materials, air-time and professional services (design, printing, etc;).
- **Timescales** – must align with the reform implementation plan.
- **Evaluation and amendment** – to adapt messages and tools for better communication to target audiences.

### Box 9: Communication key to subsidy reforms in Jordan

Jordan is an example from the MENA region where energy subsidies have been relatively successfully reformed in recent years. One of the key elements in the success of the Jordanian reform was a large public communication campaign. This was undertaken to inform the people and to prevent protests at the changes. A wide-ranging compensation package was introduced to prevent increases in poverty, and to secure public consent across all income groups, particularly the poor.

Communicating the compensation package and presenting a message that emphasised how the existing subsidies disproportionately benefit higher income groups were important factors in the success.

*Source: World Bank (2012)*

## Communicating the vision



The starting point for implementation of the communication strategy will be in the “communication of the vision” for energy subsidy reform.

Professional communication of the vision will require development of a visual identity. This will include a logo and a main slogan and should be developed by a professional creative media agency.

Campaigns for the communication of the vision will also be carried out by the government, with the campaign chaired and represented by a person of authority, ideally this will be the president or king. They, or another well known person, e.g. famous actors, sportsmen etc, will be used to give the campaign a ‘face’ and can also support it through positive actions that can be publicised, such as providing a testimonial of why they believe in the reform and the things they will do in their own lives to contribute to its success.

## Media and public analysis



Analysis of the current communication situation is important to understand how to prepare and target the campaign; this involves analysing the following aspects:

- **Public opinion** – How does the public currently understand subsidies? How important are they to them? Are the problems with subsidies known? Which messages on equity, education health and efficiency will work?
- **Media opinion** – How does the media currently present the issue of energy subsidies and related energy issues i.e. energy black-outs? Is reform only presented in negative (costs/losses) or are the positive aspects aswell?
- **Communication mediums** – How do people get their information and who do they trust?

It is advisable to recruit a market research agency to carry out the research necessary for this step.

## Communication strategy and action plan



A communication strategy and action plan must have clear objectives to support the success of the energy reform. Other secondary objectives may also be important, i.e. raising general awareness of energy use and efficiency, but it is important that the key objective and subsequent messages remain clear.

The strategy must select which audiences it will target and define for each:

- Which communication medium(s) to use
- Which information gaps need to be addressed
- What types of messages will be most effective
- When these activities will be needed

The result of this stage will be a formal strategy and timings for the plan. These timings must be aligned with, and precede, the actual reform implementation.

## Implementing coherent PR activities and measures



The actual implementation of the communication strategy will be based on the visual identity and employ a wide range of PR tools such as brochures, advertisement and websites. It will also need to utilise interactive media instruments and direct communication closely related to the media consumption habits, lifestyles, traditions and patterns of the targeted audiences. The involvement of social media (“Facebook, blogs and more”) in the MENA region is an asset.

The messages are the key public representation of the reform and the opportunity to set the tone for how they are received. Research and analysis in previous steps will have identified the broad message content that is needed and the strategy will have planned which audiences will be targeted by which type of message.

## Media monitoring and assessment of public opinion



It is likely that messages and/or communication mediums will need to be revised to improve their impact and success. Therefore, it is important to have a feedback and review mechanism that reviews the communication activities on a periodic basis.

The media representation of the reform should be monitored and managed, and public opinion tracked. If public opinion or media is not moving in the desired direction it is important to try to understand why this is to modify the implementation.

# Conclusions



*Subsidy reform is beneficial and essential, but sometimes the road may be hard and lonely before success is achieved*

Energy subsidies are a significant obstacle for sustainable economic and social development in the MENA region, more so than anywhere else in the world. They distort economic growth and employment, are socially and politically divisive and negatively impact the climate and the environment. They form a barrier to energy efficiency and renewable energy, encouraging waste, inefficiency and environmental damage. Finally, energy subsidies are putting an increasingly unsustainable strain on public finances.

The fact that subsidies are a poor mechanism for poverty reduction, as they disproportionately benefit the rich, and lock the country into economic inefficiency provides powerful arguments for reform. However, many groups still rely on subsidies and therefore reform is a challenge. Fairness and transparency are key principles in overcoming this challenge and are at the heart of the active communication strategy which is also central to successful reform.

MED-ENEC recommends, in line with important institutions such as EU, IMF, KfW, UNDP, UNEP, IEA, OECD and World

Bank, to overcome these challenges by designing a reform programme based on a strong government commitment. Key elements to this commitment and successful reform are:

- A clear vision and strategy with objectives and targets
- A high profile communication strategy to accompany any reform
- Appropriate timing of reforms
- Mitigation measures to manage the economic and social disruptions of reform
- Improving the efficiency of state enterprises
- Depoliticising energy prices

Taking these key factors into account and basing a reform road map upon practical examples and experiences can help countries in the MENA region to successfully reform energy subsidies. This will provide a host of benefits to people in the short and medium-long term, unleashing some of the huge potential in energy efficiency and renewable energy, providing reliable, clean and affordable energy for all and spurring economic modernisation, innovation, growth and jobs.



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AFDB	African Development Bank
ANME	Tunisian National Agency for Energy Conservation
CMI	Center for Mediterranean Integration
CSP	Concentrated Solar Power
EE	Energy Efficiency
EIB	European Investment Bank
EU	European Union
GDP	Gross Domestic Product
GSI	Global Subsidies Initiative
IEA	International Energy Agency
IMF	International Monetary Fund
KfW	Kreditanstalt für Wiederaufbau
kWh	Kilowatt hour
MED-ENEC	Energy Efficiency in the Construction Sector in the Mediterranean
MEES	Middle East Economic Survey
MENA	Middle-East and North Africa
NEEAP	National Energy Efficiency Action Plan
OECD	Organisation for Economic Co-operation and Development
PR	Public relations
PV	Photovoltaics
REEEP	Renewable Energy and Energy Efficiency Partnership
SMART	Specific, Measurable, Attainable, Relevant and Time-limited
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WACC	Weighted Average Cost of Capital

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# Imprint

## This is a brochure of the MED-ENEC Project

Project ID: ENPI/2009/224-969



Date of publication: June 2013

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Printed by: Integrity, Cairo, Egypt

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This project is funded by  
the European Union.

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