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Green Growth and Fossil Fuel Fiscal Policies in Viet Nam

Recommendations on a Roadmap for Policy Reform

June 2014

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Foreword

The commitment of the Government of Viet Nam towards green growth, including restructuring the energy sector is highly commendable. However, this paper argues that there are still substantial, largely indirect, fossil fuel subsidies. Fossil fuel fiscal policy reform has substantial benefits including enhanced energy efficiency, energy supply and national energy security, a reduction of the fiscal burden, higher GDP growth in the medium to longer term, as well as positive impacts on the environment. Phasing out fossil fuel subsidies is also an opportunity to make energy policies more progressive and overall resource allocation more efficient and inclusive. Many of the positive effects would be significantly amplified with the gradual introduction of carbon pricing.

The paper highlights that current reform efforts need to be significantly accelerated to meet the ambitious targets of the Green Growth Strategy and for Viet Nam to move towards a more inclusive and sustainable growth trajectory. Fossil fuel fiscal policy reform requires comprehensive energy sector reform, pricing reform and a communication and consultation strategy to solicit broad based support for reform. Measures will also be required to protect the poor and vulnerable and the most affected businesses from higher energy prices. By outlining concrete reform options in each of these areas, I believe that this paper makes an important contribution to the development of a roadmap for reform.

Green Growth and Fossil Fuel Fiscal Policies in Viet Nam – Recommendations on a Roadmap for Policy Reform is based on research by many national research partners and international experts, and has benefitted from an extensive dialogue with major stakeholders including affected households, businesses, development partners and policy makers.

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The Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) provided overall backstopping support to the research teams and contributed substantially to this policy discussion paper. This was expertly led by Peter Wooders, and Kieran Clarke, Nguyen Tu Chi and others made important contributions.

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Disclaimer

The opinions, analysis, conclusions and recommendations contained in this document do not constitute an official policy position of the UNDP, the UK-FCO or the Government of Viet Nam.

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Abbreviations

APEC	Asia Pacific Economic Cooperation
CDM	Clean Development Mechanism
CGE	Computable General Equilibrium
CMA	Competition Management Agency (in MOIT)
CPI	Consumer Price Index
EIA	Environmental Impact Assessment
ERAV	Electricity Regulatory Authority of Viet Nam
EVN	Viet Nam Electricity Group
FDI	Foreign Direct Investment
FIT	Feed-in tariff
GDP	Gross Domestic Product
GGS	Green Growth Strategy
GHG	Greenhouse Gas
GreenID	Green Innovation and Development Centre
GSI	Global Subsidies Initiative
IBT	Incremental Block Tariff
IEA	International Energy Agency
IISD	International Institute for Sustainable Development
IMF	International Monetary Fund
kWh	kilo-Watt hour (=one thousand or 103 Watt hours)
LDUs	local distribution units (re electricity)
LPG	Liquefied petroleum gas
MIPECORP	Military Petroleum Corporation
MOF	Ministry of Finance
MOIT	Ministry of Industry and Trade
MOLISA	Ministry of Labour, Invalids and Social Affairs
MPI	Ministry of Planning and Investment
NGOs	Non-Governmental Organisations
OECD	Organisation for Economic Co-operation and Development
PDP	Power Development Plan
Petrolimex	Viet Nam National Petroleum Group (petroleum products and gas trade and distribution)
PSF	Price Stabilization Fund (for petroleum products)
PV	Photovoltaic System
PVN	PetroVietNam (Viet Nam National Oil and Gas Group) (oil and gas exploration and processing)
R&D	Research and Development
RPS	Renewable Portfolio Standards
SMEs	Small and medium enterprises
SOE	State owned enterprise
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
US$	United States dollars (1 US$ = 100 UScent)
VAT	Value added tax
VEPF	Viet Nam Environment Protection Fund
VINACOMIN	Viet Nam National Coal - Mineral Industries Holding Corporation
VND	Vietnamese Dong (exchange rate used here: 1US$=21,000 VND)

Executive Summary

Energy prices in Viet Nam are low by international comparison, which is largely due to price controls and low environmental taxes. While this has facilitated widespread access to energy, it acts as a disincentive for energy efficiency and investment in additional and green energy production and contributes to regular power cuts.

According to the International Energy Agency (IEA) subsidies on fossil fuels fluctuated in Viet Nam between US$1.2 and US$4.49 billion annually over the period 2007-2012 (see Figure 1). This is calculated based on differences between energy price levels in Viet Nam and international prices (the 'price-gap approach') and follows the commonly accepted international definition of subsidies: *any government intervention that reduces the cost of fossil fuels below what it would be without that intervention* (see Figure 2). Most fossil fuel subsidies in Viet Nam are indirect. They are happening through various provisions to energy producers and distributors, which are mainly state owned enterprises (SOEs). Energy SOEs receive, for example, low interest credit for investments, and low cost inputs such as land and coal. Current policies also lead to foregone State revenue (low taxes, no profits) and increasing debt: total debt of the three main energy corporations amounted to about US$15 billion in 2012 according to official figures.

Fossil fuel subsidies in Viet Nam are mainly on coal and other fuels used for electricity generation. The average electricity tariff is very low by international comparison, has reduced since 2002 and has levelled off over the past five years when expressed in constant 2002 prices (Figure 3). Domestic prices of petroleum products are tagged to international prices through formula-based pricing since 2009, and a Price Stabilization Fund (PSF) is in place to smoothen price fluctuations. Controls are in place to limit price increases of petroleum products, which amounts to indirect subsidies.

The Government is committed to green growth and to energy sector reform. There is also a commitment to price reform, yet to date price increases for electricity have been lower than the allowable maximum and have only compensated inflation. Existing price levels and the structure of the power sector provide little incentive for domestic or international investors to invest in much needed power generation capacity. In the context of rising energy demand, a changing energy mix and diminishing resources of domestic fossil fuels, low energy prices are increasingly becoming a pressing fiscal concern and a threat to national energy security.

The benefits of fossil fuel fiscal reform are internationally recognised, and include: enhanced energy efficiency, improved reliability of energy supply, a lower fiscal burden, higher GDP growth over the medium to long run due to efficiency improvements, improved national energy security, improved equity and inclusiveness, and positive impacts on environmental quality and health. In particular, fossil fuel fiscal policy reforms can make investments into renewable energy commercially viable.

Reform is complex and challenging due to the nature of subsidies and the significant vested interests involved. International experience shows that phasing-out fossil fuel subsidies and introducing carbon pricing requires comprehensive energy sector reform, sequenced energy price increases towards market-based pricing, mitigation of the impact of higher energy prices on low-income households and certain businesses, and a communication and consultation strategy.

The Government has already initiated some of the components of fossil fuel fiscal reform. It has set strategic targets to reduce energy intensity in the Green Growth Strategy and the subsequent Green Growth Action Plan, which both commit to a roadmap for phasing out subsidies for fossil fuels. The gradual creation of electricity markets is happening, including break-up of the monopoly of EVN. The Electricity Regulatory Authority of Viet Nam (ERAV) was created to supervise electricity pricing as well as monitoring supply and demand balances and energy efficiency and conservation. There is also a policy to gradually eliminate cross-subsidies from the industrial sector to the residential sector by increasing electricity tariffs for the former less rapidly than for the latter. The Government has committed to restructure SOEs and make them more accountable and efficient, including key energy corporations. It has committed to increase the share of clean and renewable energy use in total energy consumption. It has policies to increase the price of coal to market prices for all users, including for electricity generation. And Viet Nam has a law and national program to improve energy efficiency, as well as a law on environmental tax that levies a modest tax on, for example, petroleum products.

But implementation of reforms is slow. The research underlying this paper finds that fossil fuel fiscal reforms must be accelerated in order to achieve the targets of the Green Growth Strategy. To that end three groups of recommendations are made, in support of formulation of a roadmap for fossil fuels fiscal reforms as announced in the Green Growth Strategy, which are summarized as follows:

A. Comprehensive Energy Sector Reform

Energy sector reform in Viet Nam needs to include changes to energy pricing as well as structural changes in the functioning of energy SOEs and regulation of energy markets due to the nature of indirect subsidies. Unlike in many other countries, most subsidies to fossil fuels in Viet Nam are not actual fiscal transfers and occur through preferential treatment of SOEs, especially in terms of access to financing and land as well as other measures. Liberalised price setting, however, is difficult under monopolistic conditions and in the absence of strong, independent regulators. Furthermore, many Vietnamese citizens and business resent energy price increases as they perceive wastefulness and low-quality services of energy SOEs, including regular power blackouts.

Recommendations for the electricity sector include:

Improving EVN's Functional Efficiency. The Government should put **in place regulation by end-2014 outlining and requiring comprehensive reform to the corporate management, operation and strategy of EVN** to deepen and extend current efforts to enhance the functioning of EVN and improve EVN's efficiency in delivering energy services. This is a key building block for deeper market development and energy price liberalization over time.

Enhancing Electricity Market Competition. The Government should **expedite the introduction of competition in wholesale and retail markets and deepen competition in generation** in its forthcoming Power Development Plan 8 (PDP 8), establishing a roadmap for competition in all sub-markets by 2016-17 to be implemented by the General Energy Department of MOIT and ERAV.

Strengthening Electricity Market Regulation. The Government should **establish ERAV as a fully independent entity with a new regulatory charter designed to promote well-functioning electricity markets and a financially sustainable electricity sector** over time. While some concessions should be made within the regulatory charter to allow for a transition towards more competitive electricity markets, ERAV should be given the mandate to monitor price-setting and market participants' behaviour across the electricity value chain. It should

also be given sufficient powers to adequately sanction market participants who contravene price-setting standards agreed upon in the process of regulatory reform.

Introducing Cost-reflective, Transparent and Predictable Pricing of Electricity. **The Government should further improve transparency in electricity price setting. Price increases should be predictable**, allowing consumers to respond to price appreciation. MOIT should require audited estimates of costs-per-period as part of greater transparency requirements for electricity SOEs. **Prices (e.g. quarterly) should be increased at an appropriate rate for all tariff categories** (industrial wholesale and retail, including incremental block tariffs for households) **to ensure cost reflective pricing in the medium-term**. Prices should reflect changes in costs, including international prices of fossil fuels. SOE reform provides a key building block for market development and price liberalization over time. Deep price liberalization should therefore be timed to coincide with progress in SOE reform, which is likely to occur over the medium-term.

Towards Carbon Pricing. Viet Nam **should put a price on carbon in the medium term in order to stimulate energy efficiency and low carbon energy production and consumption**. There are different carbon pricing options including various carbon taxes and carbon cap-and-trade. It is important to first phase out subsidies and then introduce carbon pricing.

Develop Renewable Power Regulation to Attract On-Grid Renewable Power Investors. Study and recommend the most effective ways of awarding contracts and providing **sufficient incentives to private domestic and foreign investors in wind, solar photovoltaic systems (PV) and other renewable energy** production so as to eliminate commercial barriers and boost investment.

Recommendations for petroleum markets include:

Enhancing Competition in Downstream Petroleum Markets. As a stepping-stone towards market-driven, cost reflective product pricing, MOIT and MOF should **formulate and implement a policy framework designed to enhance competition in downstream petroleum markets by the beginning of 2015**. In order to limit the ability for price manipulation (in the absence of a strong regulator) and to encourage competition between downstream SOEs, MOIT should look to **progressively break down Petrolimex's vertical integration (import-export, distribution, marketing, retail) and horizontal integration**, and to support new and independent market participants in marketing and retail. The Government should also **relax the legal barriers to entry in downstream petroleum trade**, which are currently prohibitive to those other than incumbent SOEs.

Improving the Operational Efficiency of Downstream SOEs. MOF and MOIT should **continue and accelerate the process of SOE equitization as part of a broader structural reform package designed to enhance the operational efficiency and functioning of downstream SOEs by end-2014**.

Separating Social and Commercial Functions. **Benefits designed to enhance energy access for the poor should be separated from the commercial functioning of SOEs**. Where SOE petroleum retailers are currently required to provide fuel to remote energy consumers for the same prices as elsewhere but with higher distribution costs, this should be incorporated in their cost structures and passed onto other energy consumers so as to be cost and revenue neutral. Alternatively, regulation should be implemented to ensure proven loss-making operations are transparently compensated under clear reimbursement frameworks by MOF.

Better Competition Regulation. The role of the Competition Management Agency (CMA) in ensuring competition in downstream petroleum markets should be enhanced. This should include the introduction of **a new regulatory charter that gives the CMA powers to enforce divestment and monopoly break-up in the sector, to be designed by end-2014**. The regulatory charter should remove the CMA from MOIT and establish it as an independent

agency with a clear mandate to uphold competition in key markets. Provisions should be included within the regulatory charter to allow for a transition from SOE monopolies to more competitive markets over time.

Flexible, Cost-reflective Petroleum Product Pricing. The Government should **amend Decree 84 to implement a schedule that allows retailers an increasing ability to independently increase and decrease product prices based on changing input costs.** Under this schedule, the range of potential independent price increases should expand over time to achieve effective liberalisation in price-setting in the medium-term (including the ability to freely increase prices in line with international price trends). Full price liberalization should coincide with progress in SOE reform.

Petroleum Price Stabilisation Fund (PSF) Reform. **Given its limitations in terms of function, transparency and financial sustainability, the PSF should be phased out in the medium-term,** as the downstream markets become deeper and consumers adapt to higher product prices. In the interim, **the regulation, transparency and use of the PSF should be strengthened further**. An alternative mechanism for price adjustment in response to extreme oil price volatility could be developed over the medium-term, and **could be funded through more variable taxation or a windfall tax on upstream oil and gas producers such as PVN** – who will experience higher revenues in times of high oil prices – rather than consumers.

B. Measures to Manage the Impacts of Reform

Energy prices will go up as indirect subsidies are removed and (subsequently) a carbon price is introduced, which affects the purchasing power of households. More expensive energy will also push the prices of goods and services up and squeeze the profit margins and competitiveness of firms while increasing inflationary pressures. Increased competition in energy markets and enhanced energy efficiency, however, will also restrain long-term energy price increases and overall cost increases. Mitigation measures are needed to contain short-term negative impacts of higher energy prices, with a focus on poor and vulnerable households and businesses.

An in depth Study of the New Incremental Block Tariff and Reformed Cash Transfers. About 9-12 months after the start of implementation of **Decision 28/2014/QĐ-TTg**, **the effects of the new incremental block tariff (IBT)** should be assessed in terms of enhancing access to electricity by low-income households and encouraging energy efficiency. The impact on the poor and the 'social policy' group of the abolishment of the lifeline tariff, reform of the IBT, combined with the revised cash transfers must also be studied, and recommendations for improvements should be made.

Cash Transfer integration and effectiveness. The new **electricity consumption cash transfer program** should be **integrated and coordinated with other social protection measures** under Ministry of Labour, Invalids and Social Affairs (MOLISA). The Government should also **consider the significant secondary effects of energy price increases on low-income households** in adjusting the new cash transfer or in determining future cash transfers. In addition, **the administrative burden as well as the burden and opportunity costs for eligible households** of the new cash transfer modalities should be **assessed**.

Subsidised Electricity for Small Farmers. A **special tariff for electricity-for-irrigation as per Decision 268/2011/QĐ-TTg targeted farmers, but was phased out as per Decision 28/2014/QĐ-TTg. A resumption of it, targeting poor and small scale farmers should be considered** (those with less than a certain amount of arable land). Targeting is necessary to avoid the scheme becoming a universal subsidy for agriculture and to ensure it only supports resource poor farmers whose income depends on irrigation and who are likely to be significantly affected by higher electricity prices.

Cash Transfers for Household Businesses. **Existing energy use cash transfer support schemes such as income support for fishermen should be reviewed in detail and possibly renewed and expanded during the transition to higher prices**. They should be targeted only to critical and the most vulnerable sectors. In addition, the Government should consider providing temporary cash transfers to other household enterprises during the transition.

Supporting SMEs and Selected Other Enterprises. MOIT with other ministries and agencies should **consider support for companies, particularly SMEs in trade-exposed and strategically important sectors**. Support actions to facilitate adjustment may include energy audits with advice on energy savings; technology demonstrations; investment loans (loan guarantee funds); tax breaks to encourage investment in energy efficient technology; and capacity building. Choices for certain sectors or sector-groups of SMEs should be based on in-depth analysis of industrial sectors, dialogue with businesses concerned, and best-practice industrial policy and technology.

Facilitating Labour Market Adjustment. MOLISA with others should **study in-depth the potential employment effects of fossil fuel fiscal reforms, including gender aspects**, as in some sectors employment opportunities will reduce and in others increase. Depending on the results the Government should put in place **a labour market adjustment package** to mitigate adverse effects of the impacts of the reform on employment. This may include measures to enhance labour factor flexibility such as targeted vocational training and skills development.

Managing Inflationary Impacts. The Government should **strengthen demand-side macroeconomic and structural supply-side reform measures to tackle the underlying drivers of inflation**. The Government should **consider temporarily adjusting VAT or import taxes for basic food stuffs and other basic commodities** to limit the pass-through of energy price increases to other goods and services. **Temporary industry support measures to transport and food processing sectors may also be considered** if inflation resulting from fossil fuel fiscal reform exceeds expectations. Predictability of price increases should also be enhanced with clear communication by the Government to enterprises and consumers.

Enhancing Energy Efficiency. **Existing energy efficiency programs should be consolidated and scaled-up. MOIT, with business associations, should coordinate business support programs.** The capacity of Energy Efficiency Centres under provincial Departments for Industry and Trade should be strengthened and energy service companies encouraged and used, to provide energy auditing and advisory services. **SOE reform will be crucial for achieving greater industrial energy efficiency – improved energy efficiency should therefore also be a key objective of SOE reform.**

C. Steps to Build and Maintain Support for Reform

While the benefits and necessity of fossil fuel fiscal reform may be clear to policymakers and experts, enthusiasm for this process is not shared by all. The short-term 'losers' of higher energy prices will include low-income households and many energy intensive businesses. For the reform to be successful the Government must build public support. Evidence from other countries suggests that successful reform is dependent on the roll-out of mitigation measures.

Communications, Information and Consultation. The Government should build support for reform by **developing and implementing a comprehensive communications, information and consultation strategy on fossil fuel fiscal reform**. A comprehensive communications, information and consultation process on reform should **raise awareness among households and businesses on the costs of subsidisation and the likely benefits of comprehensive fossil fuel fiscal reform, including a carbon price**. The media will have a central role in this.

I Introduction

Energy is cheap in Viet Nam because prices for electricity and for petroleum products are controlled, and environmental tax is still very low. While this has facilitated widespread access to energy, it acts as a major barrier to achieving green and sustainable growth. It is a disincentive for energy efficiency and limits investment in additional and green energy production, and is thereby contributing to regular power cuts. Energy price controls in Viet Nam are **the primary reason for indirect fossil fuel subsidies. Those subsidies are very substantial but they are not easily identifiable fiscal transfers from the State to energy producers, consumers or businesses.**

Fossil fuel fiscal policy reform and a transition to green growth are already part of Viet Nam's reform agenda. The Party Resolution on Climate Change, Natural Resource Management & Environment[1] and the national Green Growth Strategy (GGS)[2] both include commitments to green growth and to removing fossil fuel subsidies. The Government has put in place a small environmental tax and has started to raise electricity tariffs and prices for fossil fuels (for example prices of coal and gas for power production) with a view to move towards cost-reflective prices. While these are important steps, fossil fuel subsidies remain and fiscal policies are still not encouraging energy efficiency improvements and renewable, low carbon energy generation.

Phasing-out fossil fuel subsidies is complex and challenging. Many countries continue to provide substantial subsidies on fossil fuels, partly because there are significant vested interests that resist reform. Comparing domestic prices to international market prices with the 'price-gap' approach suggests the global value of fossil fuel subsidies to be at least US$600-700 billion per year (International Energy Agency (IEA), 2012). In comparison, global climate finance under the UNFCCC is expected to be US$100 billion per year by 2020.

International experience shows that phasing-out undesirable subsidies and introducing carbon pricing requires an appropriate policy mix, including the following (IMF, 2013; IISD, 2013):

1. Comprehensive energy sector reform, including institutional reforms and capacity strengthening;
2. Appropriately sequenced price increases, that lead to market-based pricing of fossil-fuels;
3. Mitigation of the impact of higher prices on low-income households and other vulnerable groups including (informal) household businesses, farmers and fishers, for example through well-targeted block tariffs and/or cash transfers;
4. Mitigation of the impacts of higher prices on businesses, especially small and medium enterprises (SMEs), including support to reduce energy intensity through, for example, technology transfer, capacity building, loan guarantee funds and other incentives; and
5. A communication and consultation strategy to accompany reform, driven by greater transparency.

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[1] *Resolution of the Central Committee of the Communist Party, nr. 24-NQ/TW*

[2] *Prime Minister Decision nr. 1393/QĐ-TTg*

In order to succeed, Viet Nam needs a clear and feasible roadmap for the removal of fossil fuel subsidies and the introduction of carbon pricing. This paper, intended for policy makers in Viet Nam, provides recommendations for such a roadmap and aims to inform policy dialogue between the Government of Viet Nam, national stakeholders including businesses, social and professional organisations, and international development partners.

It is based on research by multilateral agencies in Viet Nam and their national and international research partners and is informed by international research as well as experience of a number of development partners of the Government of Viet Nam.

II Current Fossil Fuel Fiscal Policies in Viet Nam

II.A Subsidies for fossil fuels

Fossil fuel subsidies in Viet Nam fluctuated between US$1.2 and US$4.49 billion annually over the period 2007-2012, as estimated with the price-gap approach by the International Energy Agency (IEA)[3]. In 2011 this was equivalent to an average subsidization rate of 15.5 per cent or US$46.7 per person (IEA, 2012). These subsidies are mainly on coal and other fuels used for electricity generation (see Figure 1; and see Figure 2 for the definition of subsidy).

Figure 1 - Consumption subsidies for fossil fuels in Viet Nam (price-gap approach)

Energy Source	2007	2008	2009	2010	2011	2012
Oil	0.32	1.09	0	1.09	1.15	0.33
Gas	0.09	0.21	0.13	0.19	0.18	0.23
Coal	0.01	0.01	0.01	0.02	0.02	0.03
Electricity	1.68	2.25	1.06	3.19	2.98	2.86
Total (billion USD)	**2.1**	**3.56**	**1.2**	**4.49**	**4.33**	**3.45**

Source: UNDP, 2012; International Energy Agency, 2014 http://www.iea.org/subsidy/index.html (Last accessed on 9 March 2014, retrieving data for 2010, 2011 and 2012. The IEA numbers change periodically to reflect better estimates and new data.)

Figure 2 - What are fossil fuel subsidies?

Fossil fuel subsidies are usually defined as ***any government intervention that can reduce the cost of fossil fuel below what it would be without that intervention***. Consumption subsidies can include direct price subsidies on petroleum products and electricity; price controls and tax breaks; price stabilization funds; and State provision of energy supply infrastructure. Production subsidies can include tax breaks for exploration; support to Research & Development into fossil fuel extraction; preferential access to financial and other resources; price controls on, for example, coal for the steel and electricity sectors; and limited liability for certain types of risk.

Viet Nam uses many types of fossil fuel subsidy, on electricity and petroleum products: price controls; grants to consumers (electricity only); Government-provided energy infrastructure; Government funded research and development; import quotas; low-interest or preferential loans; Government loan guarantees; tax & tariff credits and exemptions; exemptions on transfer of revenue to the State (as owner); market-access restrictions; and there is weak enforcement of environmental regulations.

Source: UNDP, 2012; Tran et al., 2011

[3] *See: http://www.iea.org/publications/worldenergyoutlook/resources/energysubsidies/methodologyforcalculatingsubsidies/*

Most fossil fuel subsidies are indirect and not recorded as actual fiscal transfers, making them particularly difficult to quantify. Support for fossil fuel consumption comes in the form of various price controls and provisions to energy producers and distributors, the overwhelming majority of which are state owned enterprises (SOEs). These provisions include price controls, discounted or even free resources and infrastructure, preferential loans from state-owned banks, loan guarantees or bail out of loss-making units, and a variety of corporate tax breaks and concessions. Companies are also rarely made to incur the social and environmental costs that result from energy production.

SOEs dominate energy markets, so as they are forced to lower their profits or make losses due to price caps and operational inefficiencies, they build up debt. The Government (and therefore tax payers) is foregoing revenue and eventually will need to cover losses. According to official figures, total debt of the three main energy corporations, PVN, EVN and VINACOMIN, reached VND 315,693 billion in 2012 (or about US$15 billion), which was nearly a quarter of the VND 1,348,752 billion debt owed by all SOEs in Viet Nam[4]. Electricity producers – chiefly EVN – still enjoy input prices of domestic coal and gas well below world market prices (for example, the price of coal sold to electricity producers was about 60 per cent of the export price and 70 per cent of production cost in 2012; in 2013 this price covers coal production cost, but was still below world market prices). This keeps electricity production costs low since a large and increasing share of electricity generation comes from coal and gas, which jointly accounted for about 55 per cent of production in 2010 (ERAV, 2013). Coal and gas are produced by VINACOMIN and PVN, so the Government, and ultimately citizens, bear the costs and opportunity costs of these indirect subsidies.

Electricity prices are regulated, albeit less rigidly than before. As of April 2011, EVN was allowed to adjust electricity prices by up to 5 per cent every 3 months according to changes in production costs, while retail price adjustment over 5 per cent require the approval of the Ministry of Finance (MOF) and the Ministry of Industry and Trade (MOIT). According to Prime Minister Decision 69/2013/QĐ-TTg of November 2013, EVN is allowed to adjust electricity prices by 7 to 10 per cent every 6 months under a regulated pricing framework and in line with changes in production costs, with approval of MOIT. Retail price adjustment over 10 per cent or beyond the framework requires the approval of the MOF and the MOIT. However, annual maximum price increases have been kept unchanged at 20 per cent while actual price increases to date have been lower than the allowable maximum.

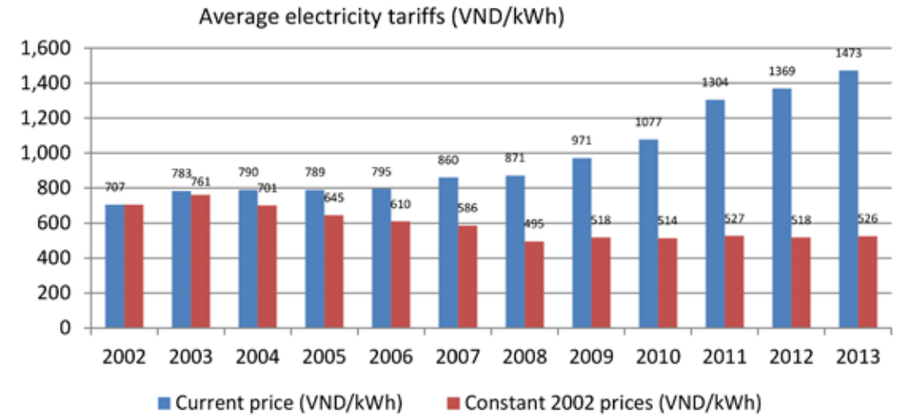
Figure 3 demonstrates that there have been significant price increases in the average electricity retail price, in particular since 2007. However, in constant 2002 prices, the average retail prices remained almost the same in the period 2008-2013 and were lower than those in the period 2002-2007. In constant US dollar cents (USc) we see a similar trend. Current average electricity tariff for all users in Viet Nam increased from 4.6 USc/kWh in 2002 to 7.0 USc/kWh in 2013. This is very low by international comparison. In 2011-12 the average tariff in South Korea, Taiwan and Indonesia was between 8 and 9 USc/kWh, in Thailand it was above 10 USc/kWh, Malaysia 11 USc/kWh and Philippines above 20 USc/kWh. All those countries except the Philippines were providing subsidies, estimated between 36 and 54 per cent[5]. In 2012 the household retail price in for example China was just below 8, in the USA just below 12, in the EU nearly 20, and in Japan around 26 USc/kWh[6].

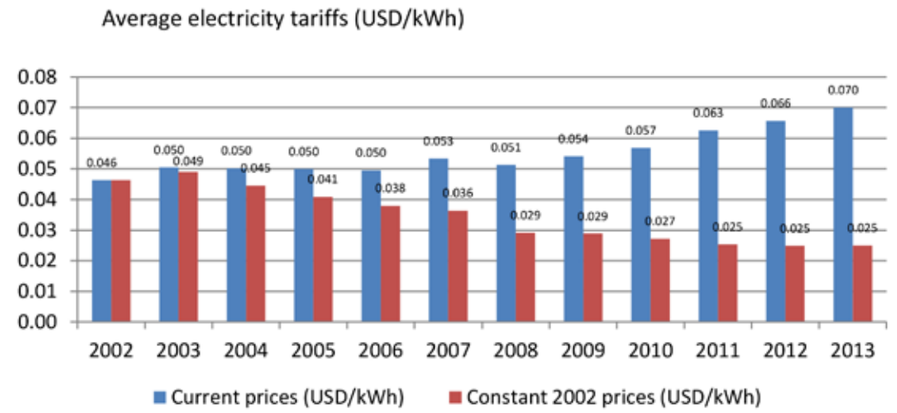
[4] *PVN: VND 124,499 billion; EVN: VND 103,194 billion (by end of 2012) and VINACOMIN: VND 88,000 billion VND (September, 2013). From http://vneconomy.vn/20131128092948810P0C9920/chinh-phu-127-tap-doan-tong-cong-ty-no-gan-135-trieu-ty-dong.html ; http://stocknews.vn/default.aspx?tabid=300&ID=41653&CateID=171*

[5] *IEC, 2012*

[6] *See Figure 5.17 in IEA, 2013b. See also, for example http://www.eia.gov/countries/data.cfm ; http://www.iea.org/statistics/topics/Electricity/ ;http://energyusecalculator.com/global_electricity_prices.htm*

Figure 3 - Average retail prices of electricity in Viet Nam





Source: based on Vu et al., 2013, updated with data from State Bank of Viet Nam

Viet Nam exports crude oil and imports refined petroleum products. In terms of volume and value it is still a net exporter (see Figure 4) but known crude oil reserves are limited. PVN's Dung Quat refinery in Quang Ngai province with a capacity of 6.5 million ton crude oil per year has been in operation since 2010. It currently meets about 30 per cent of domestic demand. The Nghi Son refinery in Thanh Hoa province with a planned capacity of 10 million ton crude oil per year is expected to be operational in 2017. However, as a result of limited investment in refining capacity, Viet Nam will continue to be a net importer of refined petroleum products even after completion of the Nghi Son refinery (Le, 2013).

The Government has attempted to relax price controls and tag domestic petroleum product prices to international prices through formula-based pricing since 2009. Decree 84/2009/NĐ-CP put forward a per litre retail pricing formula for gasoline and diesel as 'base price', based on a combination of prices of imported petroleum products, an import tax, an excise duty, a 10 per cent value added tax, VND300-1,000 in environment taxes, VND 1,000 to help cover business costs, and VND300 per litre as contribution to the Petroleum Price Stabilization Fund (PSF)[7]. According to this Decree, Vietnamese petroleum trading companies are allowed to define selling prices of these products under a certain price

[7] *According to Article 3, chapter I in Decree 84/2009/ND-CP, the base price for retail gasoline and oil prices includes: (CIF price + import duty + excise tax) x exchange rate + business expense norm + petroleum price stabilisation fund's contribution + pre-tax norm + VAT tax + petroleum charges + other payable taxes, charges and other payments.*

range set by the Government. Price rises are constrained to a 7 per cent increase within any 30-day period; any further increase has to be approved by MOIT and MOF.

Figure 4 - International trade in crude oil and petroleum products

	2012 Volume (1,000 tons)	2012 Value (US$ million)	2013 Volume (1,000 tons)	2013 Value (US$ million)
Export				
Crude oil	9,509	8,395	8,388	7,236
Gasoline, kerosene	1,915	1,849	1,311	1,228
Import				
Petroleum	9,119	8,894	7,386	6,980
Other oil products	-	799	-	908

Source: GSO on-line statistics: http://www.gso.gov.vn/default_en.aspx?tabid=622

The Government typically tries to buffer petroleum price shocks for consumers through two mechanisms. One is by adjusting import taxes, which results in lost revenue for the Government. The other is through the PSF, which is capitalized by consumers and set aside by SOEs. Given the appreciation in international crude prices in recent years, the PSF has consistently been close to exhaustion, and, indeed, has been 'in the red' several times[8].

II.B Benefits of fossil fuel fiscal reform

There is increasing international recognition that fossil fuel subsidies hamper green growth (G20 2009, APEC 2009, Rio+20 2012) including reduction of the energy intensity of the economy. Subsidies disadvantage clean energy sources, encourage wasteful fossil fuel consumption, and lock countries in high-energy-intensity modes of economic development, which can make countries uncompetitive as energy prices increase over time. The global costs of direct and indirect fossil fuel subsidies are much larger than global development assistance or expected flows from global climate finance. The benefits of subsidy reform could be amplified by adding a price on carbon through taxation or carbon cap-and-trade[9]. The general advantages of reform have already been argued in the case of Viet Nam (UNDP, 2012) and the following summarises some of the main benefits of fossil fuel subsidy phase-out.

1. Enhance energy efficiency

Viet Nam's energy intensity does not compare well with the rest of the world: the ratio of energy use (in kilograms of oil equivalent) per US$1,000 of GDP (in constant 2005 US$) is 237 kg, which is significantly higher than the world average of 208 kg, while electricity intensity (kWh per US$ of GDP in constant 2000 US$) is 1.4, also higher than the world average of 0.8 (World Bank, 2013). Data also show that energy efficiency of the economy is improving, but that 'annual improvements are modest and do not amount to decoupling of growth from energy consumption' (UN Viet Nam, 2013).

[8] In April 2011 and May 2013, the PSF ran a loss with VND 788 billion and VND 73.5 billion respectively (MOF).

[9] Carbon markets are created by capping emissions in certain industries to an allowable maximum. Those production units that emit less get carbon credits that they sell to those that emit more. The lower the cap, the more difficult it is to generate credits, supply is lower, demand is higher and the carbon price goes up.

SOEs' preferential treatment and near-monopoly position cause significant inefficiencies by artificially reducing production costs and by insulating firms from competitive pressures. Industrial energy efficiency, by regional standards, is low in Viet Nam. Total primary energy consumption per dollar unit of GDP stood at 25,100 Btu in 2011 in Vietnam, 25 per cent higher than Thailand and more than 50 per cent higher than Indonesia (EIA, 2014). Energy SOE reform will enhance the efficiency of SOE energy production (and their profits resulting from this). At the same time, on the demand-side, cost-reflective energy prices will reduce wasteful consumption and encourage individuals and firms to seek efficiencies and cleaner alternatives in their energy use, resulting in significant monetary savings at an economy-wide level over time (as well as reducing greenhouse gas (GHG) emissions and improving energy security, as discussed below).

2. Improve reliability of energy supply

The supply of electricity will likely become more stable as investments in the sector will become more attractive. Rising demand is currently outpacing investments in electricity generation capacity, whilst supply constraints lead to regular power supply interruptions. The Government's investment capacity is limited, and its access to low-interest ODA loans is decreasing, rendering private sector investment critical. Energy sector reform accompanied with higher prices from phasing out subsidies and, potentially, from introducing carbon pricing, will provide the incentives and price signals necessary to encourage investment in modern fossil fuel based power generation as well as renewable energy generation.

3. Limit the fiscal burden

Undertaking fossil fuel fiscal policy reform now will prevent the need for even more significant, costly and challenging reform efforts in the future. Viet Nam is rapidly increasing its consumption of coal, gas and petroleum products, and will become a net fossil fuel importer in the near future. Electricity consumption alone, for example, grew at 12.2 per cent in the period 2006-2012, according to the Electricity Regulatory Authority of Viet Nam (ERAV, 2013). Increased exposure to international fossil fuel prices without corresponding increases in domestic prices will require increasing transfers to energy SOEs or to consumers if domestic prices would need to remain as they are. Energy SOEs are already heavily indebted, and, partly as a result of their monopolies, are generally inefficient in operations. Therefore, reinforced moves toward reform of energy SOEs, including market-based energy pricing and debt restructuring, are particularly urgent.

Introducing carbon pricing through taxation or carbon cap-and-trade will increase medium-term gains from fiscal reforms (UNDP, 2012). A price on carbon would cause further energy price increases, which would stimulate further energy efficiency improvements and investment in renewable energy, enhance energy security and help to shift Viet Nam's economy towards a greener and more sustainable growth – a central policy priority of the Government.

4. Stimulate GDP growth and efficiency

As demonstrated before, energy subsidy phase-out and carbon price introduction will increase GDP growth in the medium and long term (while also imposing short-term costs on households and businesses) (UNDP, 2012). CGE modelling in 2011 estimated that a reduced rate of subsidisation of 20 per cent for coal, 5 per cent for petroleum and 10 per cent for electricity in a three year period would result in annual fiscal savings of 0.59 per cent, 1.25 per cent and 1.98 per cent of GDP in the first, second and third year, respectively.

These savings, along with higher energy efficiency, would lead to an increase in the average annual growth rate of real investment by 0.48 per cent during the three year period, and by 0.72 per cent over an 8 year period from the start of reform. Another scenario considered the introduction of tax on coal (10 per cent in year 1, raised to 20 per cent in year 2, and to 30 per cent from year 3 onwards), natural gas (3 per cent in year 1, raised to 6 per cent in year 2 and to 10 per cent from year 3 onwards) and refined petroleum products (3.6 per cent from year 1 onwards). In this scenario the annual carbon tax revenue and savings from subsidy cuts would rise to 1.4 per cent, 2.3 per cent, and 3.6 per cent of GDP in the first, second and third year, respectively, and to 3.8 per cent of GDP after 8 years. The average annual growth rate of real investment would rise by 0.79 per cent, the average growth rate of GDP increase by 0.16 per cent and the average growth rate of aggregate consumption would drop by about 0.3 per cent. The model assumed that savings from subsidy phase out and carbon tax would be channelled into productive investments (Willenbockel et al., 2011).

5. Enhance national energy security

National energy security is deteriorating as increased fossil fuel imports are required to meet rising energy demand, with Viet Nam projected to become a net importer of coal and petroleum products in the near future, whereas it is importing increasing amounts of gas. Reducing the rate of growth in domestic energy use combined with the expansion of domestic, renewable energy sources will significantly reduce Viet Nam's dependency on international energy markets and thereby enhance national energy security. This is also an opportunity for Viet Nam to adjust its future power development plans (PDPs), which rely heavily on imported coal (see Figure 5).

Figure 5 - Changing the Future Energy Mix: From Coal to Clean

According to PDP 7 (Decision 1208/QĐ-TTg of 21 July 2011) much of the increase in electricity demand, which has been estimated to rise from between 194 and 210 billion kWh in 2015 to between 695 and 834 billion kWh in 2030, will need to be met through coal-fired power plants. This would mean that the share of coal in the power generation mix is expected to become more than half of all power production in 2030. This signifies strong increases of GHG emissions over this period and it would lock in significant GHG emissions for the period thereafter as well, because the lifetime of coal fired power plants could be 40 years or more. Viet Nam is still a net exporter of coal but future power generation capacity will require substantial imports: it is expected to become a net importer from 2015 and by 2030 would be importing about half of all the coal it would use.

Although growth and energy demand have slowed since the PDP 7 was developed, this scenario poses significant environmental, fiscal, logistical and energy security challenges. The Government is committed to raising the prices of domestically produced coal up to production cost, which is a laudable step and could help change the future scenario as outlined in PDP 7. However, to drastically change the (projected) energy mix of Viet Nam and to include more clean and renewable energy, domestic coal prices might need to be higher than cost-recovery. Clean and renewable energy investment will become attractive as technologies develop and their prices come down, yet currently they cannot compete with artificially cheap coal. Therefore, both imported and domestic coal may need to be charged at international prices, and with an additional carbon price this would be able to boost investments into alternative energy sources.

6. Improve equity and inclusiveness

Current subsidies are moderately regressive (UNDP, 2012), and reform is an opportunity to make energy policy more progressive and inclusive. Subsidies on petroleum products clearly benefit families with large cars more than those with small motorbikes. In the electricity sector, the block tariff scheme with low tariffs for low-electricity-consuming households and a cash transfer to poor households will help mitigate the impact of price increases, but targeting is imperfect and administratively burdensome. Reform, described in detail below, could free Government resources for investment in social policy programs for enhanced education, healthcare and poverty reduction, in which the poor are more likely to be the major beneficiaries.

7. Reduce environmental and health impacts

Increased use of cleaner and energy efficient technology and expanded renewable energy will result in local environmental benefits and limit the growth of Vietnamese GHG emissions that contribute to climate change (Willenbockel et al., 2011; Bao et al., 2011). In addition, there are clear health benefits as a result of reduced local air pollution.

II.C Current Fossil Fuel Fiscal Reforms in Viet Nam

Recognizing these benefits, the Vietnamese Government has put in place some of the components of fossil fuel fiscal reform. These policies can be divided into three groups, on: (i) green growth and energy; (ii) energy pricing and markets; and on (iii) SOE reform.

1. Green growth and energy policies

The Government has set strategic targets to promote a more sustainable economy. Most prominent is the Green Growth Strategy (GGS; Decision 1393/QĐ-TTg, of 25/9/2012). The GGS sets out the goals of (i) reducing greenhouse gas (GHG) emissions intensity and promoting the use of clean and renewable energy; (ii) moving towards greener production; and (iii) enhancing green lifestyle and sustainable consumption. The GGS and subsequently the Green Growth Action Plan commit to a roadmap to phase out subsidies for fossil fuels, to apply market instruments to assure principles of competitiveness, transparency and efficiency in the energy sector, and to support renewable energy development. Similarly, Decision 432/QĐ-TTg (12/4/2012) lays out the Strategic Direction for Sustainable Development in Viet Nam for the period 2011-2020 which includes gradually liberalizing energy markets, and increasing the share of clean and renewable energy use in total energy consumption in Viet Nam. These policies are recent and are only starting to be implemented, as for example the national Green Growth Action Plan was only approved in March 2014.

General policies for the entire energy sector as well as specific strategies and plans for each fuel type are in place, including policies for production and consumption of fossil fuels. These include:

- Decision 1855/QĐ-TTg (27/12/2007) provides a strategy for the entire energy sector (including coal, oil, gas, electricity and renewable energy) until 2020 including a vision to 2050.
- Decision 386/QĐ-TTg (29/3/2007) sets out the petroleum development, exploration and production strategy for Viet Nam for the period 2006-2015, with a vision to 2050.

- Decision 89/2008/QĐ-TTg (7/7/2008) sets out the coal development plans for Viet Nam until 2015, with a vision to 2025.
- Decision 1208/QĐ-TTg (21/7/2011) (known as the Power Development Plan 7, or PDP 7) sets out the electricity development plans for Viet Nam to 2020, with a vision to 2030.

The Government has also recognized the importance of sustainable energy and energy efficiency and initiated various policies and support programs. These include laws and decisions such as the Law on Effective and Efficient Energy Use (Nr 50/2010/QH12 of 17/6/2010), which specifies incentives to consume less energy, especially for manufacturing businesses, and promotes the development of less energy-intensive industries. Due to the lack of implementing instructions not all aspects of this Law are fully being implemented. In addition, Decision 1427/QĐ-TTg (2/10/2012) on a national program for efficient and economical use of energy (2012-2015) aims at reducing total consumption by 5-8 per cent for the period 2012-2015 compared to the energy demand forecast in the PDP 7.

There are plans to increase the share of renewable energy sources in electricity generation, both to ensure sufficient energy supply and to reduce GHG emissions. Decision 2139/QĐ-TTg (5/12/2011), for example, includes a target to increase the share of non-hydro renewable energy use in the total power mix by 5 per cent by 2020 and 11 per cent by 2050. PDP 7 aims to increase the proportion of electricity produced from renewable energy sources from 3.5 per cent in 2010 to 4.5 per cent in 2020 and 6 per cent in 2030. This target, however, is quite low compared to other countries. For example, Thailand has established power development plans to 2025 with the goal of sourcing 25 per cent of electricity from renewable energy, while China has set a target of one-third of final energy consumption by 2020 (Nguyen et al., 2012). Hydropower currently makes up about a quarter of Viet Nam's power supply, but further development potential is limited and therefore that share is set to decline rapidly. Concrete policy to encourage investment in non-hydro renewable energy is still limited to wind power (Decision 37/2011/QĐ-TTg including financial support for wind power generation[10]) and biofuels. In both cases investments are supported by ODA. In addition there is a program implemented by EVN for the period of 2011 to 2015 to support the installation of household scale solar water heaters[11] with small subsidies of 1 million VND per unit.

Energy generation must comply with the Law on Environmental Protection (2005), which includes, for example, provisions for Environmental Impact Assessments (EIA) and other regulation on environmental protection. However, enforcement of this Law and related regulation has been weak in several high profile cases, such as the Song Tranh 2 hydropower dam, which means that investments costs have been lower than they should have been (GreenID, 2013). Environmental taxes or carbon prices have not been factored into the price of most energy sources or into energy sector investment decisions. Currently, petroleum and coal products include environmental taxation of VND300-1,000 according to Environmental Tax Law 57/2010/QH12.

2. Energy price liberalization and market regulation

The Government has committed to gradually orient price-setting toward a market-based approach and legislation is in place for market-based pricing in coal, petroleum, gas and electricity prices.

- Decision 60/QĐ-TTg (9/1/2012) includes a Master Plan for coal sector development to 2020, and Circular 14440/BTC-QLG (22/10/2012) sets the price of coal for domestic use according to market prices. The only exception is coal for electricity generation.

[10] *This is discussed in some detail in Section III.A*

[11] *There were 39,238 heaters installed in households in 2012, which was higher than expected. Source: http://www.tietkiemnangluong.vn/Home/Detail/tabid/84/ItemId/3144/View/2/CateId/61/language/vi-VN/Default.aspx*

Announcement 244/TB-VPCP (2009) commits to adjust this gradually to market prices (see also World Bank, 2012).

- Decree 84/2009/NĐ-CP (15/10/2009) links 'base prices' for petroleum products to international market prices and allows retailers to set prices of these products, capped at every increase of 7 per cent. Any increase beyond this level is regulated by MOIT and MOF. Legislation has also forced petroleum companies to improve the management and transparency of their individual PSFs, and requires the balance of PSFs for most companies to be on the MOF website (in place since 2013) (Le, 2013).
- Regulatory mechanisms for electricity are in place to facilitate the adjustment of prices to reflect production costs. Electricity prices are still heavily regulated by the Government, although Decision 21/QĐ-TTg (12/2/2009) lays out several tariff reforms. It specifies that electricity tariffs, starting from 2010, will be revised annually and reflect evolving cost-chain elements. It also harmonised residential tariffs for customers served by power companies and by local distribution utilities (LDUs) in rural areas. Cross-subsidies from the industrial sector to the residential sector will be gradually eliminated by increasing tariffs for the former less rapidly than for the latter.

However, cross-subsidization from large consumers to smaller consumers in the residential sector is expected to remain. Until mid-2014 there is a lifeline tariff for the first 50 kWh charged to low-income households at around 70-80 per cent of the average tariff. This will be phased out by mid-2014 when the Incremental Block Tariff as well as a system of cash transfers to poor households will also be restructured (see sections III.A and III.B, and Figure 10 and Figure 12).

- Decision 69/QĐ-TTg (19/11/2013) allows EVN to adjust electricity prices by up to 7 per cent every 6 months under a new price framework issued by the Prime Minister. If changes of production input prices require price adjustments by 7-10% per cent, EVN has to inform the MOIT, while changes above 10 per cent require the approval of MOIT and MOF. On the supply side, the Government has recognized that, in order to stimulate cross-value-chain investment and encourage competition, the prices at which EVN buys power from upstream plants will need to increase, however there has been no detailed mechanism or institutional arrangement put forward to achieve this.
- Decision 459/2011/QĐ-TTg sets out the gas development plan to 2015 (vision to 2025), which establishes gas prices based on production costs and prices of fuels.

ERAV is the electricity regulator in Viet Nam. It was established under Decision 258/2005/QĐ-TTg (19/10/2005) to regulate the power markets, including the supervision of electricity pricing, monitoring supply and demand balances to promote energy security, efficiency and conservation, and resolving licensing and dispute resolution. However, it is managed by the MOIT who also manages EVN, so ERAV lacks functional independence. Moreover, ERAV's functions are limited given that the main responsibility for regulating and monitoring the energy sector and its component SOEs lies with the General Department of Energy (under MOIT) (GreenID, 2012).

3. SOE reform

The Government has agreed on a roadmap to restructure SOEs and make them more accountable and efficient. The SOE Law enacted in 1995 and amended in 2003 improved the definition of SOEs' rights, obligations, operating mechanisms and financial management. The Enterprise Law (approved in 2005 and amended in 2009) required all SOEs to be transformed into joint stock companies or into one-owner limited liability companies with 100 per cent capital from the State by 1 July 2010 but that target has not been fully achieved. The current plan is that 500 SOEs would be 'equitized' during 2014-2015, and

by 2020 the equitization program would be completed (*Viet Nam Investment Review,* 2013). Decision 929/QĐ-TTg (17/7/2012) and Decision 782/QĐ-TTg (23/11/ 2012) require that large SOEs are restructured, improve their management (for example in business organization, human resource management, and production) and focus on core activities. The non-core businesses of SOEs must be entirely eliminated by 2015, although this is unlikely to be achieved in practice (*Viet Nam Investment Review*, 2013).

Plans exist to restructure key energy corporations such as EVN (Decision 782/QĐ-TTg of 23/11/2012), PVN (Decision 46/QĐ-TTg of 5/1/2013), and VINACOMIN (Decision 314/QĐ-TTg of 7/3/2013). The draft restructuring agenda for Petrolimex, Viet Nam's largest fuel retailer, was submitted to the Prime Minister for approval in 2013. These plans require SOEs to focus on core business, restructure or sell off their subsidiaries, improve their corporate management and enhance auditing and reporting.

There are no plans to break up the monopoly of SOEs in the energy sector, except in electricity. The Electricity Law (approved 3/12/2004) and Decision 26/2006/QĐ-TTg stipulate a step-by-step development of competitive electricity markets, although this is scheduled to take place over a lengthy timeframe. Decision 1208/QĐ-TTg (21/7/2011) and Decision 63/QĐ-TTg (8/11/2013) include commitments for liberalizing the power generation market, piloting competition within the transmission market by 2015, and competition within the distribution market by 2021. Although the competitive generation market begun in 2011, competition and non-SOE involvement in power generation are still very limited.

SOEs have enjoyed favourable commercial treatment, especially in terms of access to financing and land, which explains some of the subsidies (see Figure 1 and Figure 2). Currently, SOEs obtain financing mostly through the State Capital Investment Corporation (SCIC) (which represents State ownership in equitized SOEs), the Viet Nam Development Bank (VDB) and other commercial banks on highly concessional terms. Many SOEs have expanded their operations to non-core business activities in banking, construction and real estate, often for speculative and rent-seeking purposes. The lack of transparency regarding non-performing loans by these SOEs makes it challenging to address the issue of bad and circular debts among energy SOEs and State-owned banks. Progress in the implementation of legislation and regulation on SOE reform has been slow due to vested interests, the complexity of SOEs' role within markets, and difficulty in tackling the scale of commercial and institutional issues existing within energy markets.

III Towards Reform of Energy-Related Fiscal Policies in Viet Nam

Viet Nam has already put in place some components of fossil fuel fiscal policy reform, as described in section II. Efforts, however, will need to be strengthened and accelerated and their implementation bolstered and prioritised in order to transform Viet Nam's energy systems, to reduce the significant fiscal and other costs associated with fossil fuel subsidies, and to achieve the targets of the Green Growth Strategy. International development partners, along with national agencies, are supporting evidence-based analyses to inform further reform. Whilst more research, learning and policy development will be needed, practical proposals are emerging. Recommendations for a roadmap for energy sector fiscal policy reform are discussed below, with three core elements:

A. Comprehensive energy sector reform including steps to develop competitive energy markets and cost-reflective pricing;

B. Measures to manage the impacts of reform; and

C. Steps to build and maintain support for reform.

III.A Comprehensive energy sector reform

The Government will need to undertake comprehensive energy sector reform in order to achieve the benefits outlined above. This will require policy actions in both downstream petroleum and electricity markets, with the latter including coal and gas generated power.

Subsidy reform is often largely limited to changes to domestic energy pricing systems. In Viet Nam reforms need to go beyond adjusting prices and include reforms to SOEs, governance and regulation of energy markets. There are three key reasons for this.

Firstly, the full energy-related costs in Viet Nam include opportunity costs and foregone tax revenues. Many subsidies to fossil fuels in Viet Nam are not actual fiscal transfers, as is the case in other countries. The various indirect subsidies to energy SOEs in electricity and refined petroleum product markets include concessional and preferential deals on land purchases, credit and licensing. Energy SOEs get preferential treatment with low fixed prices for inputs, ad hoc 'bailouts' to firms to allow for cost overruns, as well as debt restructuring (UNDP, 2012). Low prices for domestic coal mostly supplied by VINACOMIN to EVN, for instance, represent the majority of all fossil fuel subsidies (see also Figure 1). Because of this complexity and a lack of data, the overall amount of financial support to energy SOEs is not known, but these practices have clear real and opportunity costs in the underselling of the Government's assets and the diversion of resources.

Secondly, moving towards significantly more liberalised price setting arrangements is difficult because of the monopoly position of EVN and, to a lesser extent, Petrolimex (which is the largest player in a downstream petroleum oligopoly with a handful of other petroleum trade and distribution SOEs). Legal and economic barriers to entry in Vietnamese energy markets and the lack of competition across the electricity value chain and in petroleum trade make it difficult for the Government to cede control of prices to market forces. In

the absence of strong, independent regulators, liberalised prices would give EVN and Petrolimex excessive market and price-setting power.

Thirdly, research has shown that households and SMEs resent energy price increases in the context of what they perceive to be the wastefulness and inefficiency of energy SOEs (Nguyen et al., 2013). Electricity services are currently poor, with regular scheduled and unscheduled blackouts, especially in the dry season. While households and firms recognise that energy prices must mirror production costs over time, they see the magnitude of proposed energy price increases as being strongly related to the mismanagement and operational inefficiencies of energy SOEs. To build support for higher energy prices (e.g. an increase in constant 2002 electricity tariffs as per Figure 3), it is therefore necessary that energy sector reform also enhances the services delivered by energy providers and increases public confidence in this service (see Figure 6 and Figure 7).

Figure 6 - People's perspectives of subsidy reform

A small-scale survey of vulnerable households and focus group interviews with experts revealed interesting similarities in their perspectives on the main obstacles and drivers for reform.

In your opinion what are the main obstacles to reform? (in rank of priority)	
Vulnerable Households	**Experts**
• Lack of transparency, limited information about energy monopolies	• Adverse impact on enterprises, particularly in economic downturn
• Adverse impact on welfare of households	• Monopoly/ oligopoly structure of energy market
• Adverse impact on enterprises, particularly in economic downturn	• Lack of transparency
• Inflationary pressures	• Weak mitigating measures and capacities

In your opinion what are the main incentives/ drivers of reform? (in rank of priority)	
Vulnerable Households	**Experts**
• Losses of energy SOEs	• Losses of energy SOEs
• Introduction of competition in market	• Attraction of investment into energy sector
• Facilitation of energy savings	• Encouragement of energy savings and technology upgrading

Source: Nguyen et al, 2013.

Following are recommendations for electricity markets and for refined petroleum product markets on comprehensive energy sector reform, including (1) energy SOE reform; (2) enhanced regulation and governance of energy markets; and (3) reform of current energy pricing practices.

While SOE reform, enhanced market regulation and energy price reform should ideally be undertaken simultaneously, some parts are more difficult to implement than others, with SOE reform likely to be the most drawn out and complex process. However, SOE reform is also a building block on which deeper market reform depends. Careful attention should therefore be given to the sequencing of reforms, noting the complementarity of different

policy actions. For example, in the absence of greater competition and corporatized functioning of energy companies, a strong and increasingly independent market regulator can mitigate some of the risks associated with price liberalization in the context of persisting monopoly conditions. Conversely, in the absence of strong regulators, at least some competition should be ensured in markets before prices are freed. Figure 8 outlines suggestions for sequencing of each of the recommendations made here.

Figure 7 - Tackling concerns of key stakeholders regarding fossil fuel fiscal reform

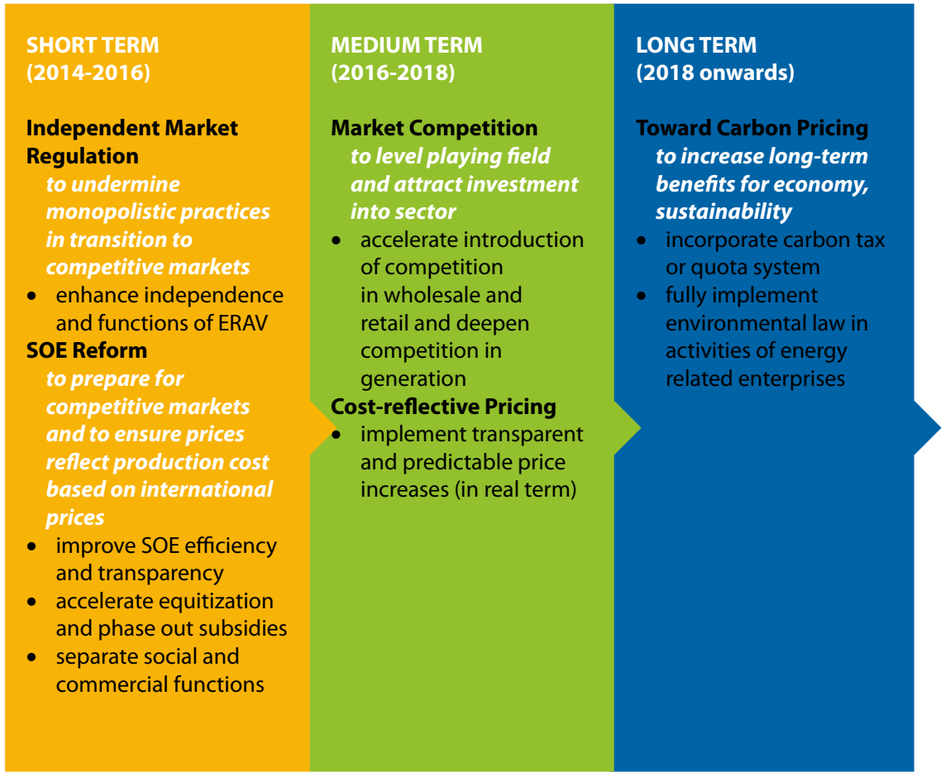
Group	Concern Regarding Reform	Potential Measures to Address Concern
Households	Higher energy prices lead to reduced purchasing power and disposable income	Encourage confidence in mitigation measures for eligible households and SMEs through clear implementation and funding plans
SMEs	Higher energy prices result in higher input costs and squeezed profit margins	Provide clear schedule of reform (and information on likely magnitude of price rises) to allow firms and households to adapt Conduct in-depth consultations on reform to inspire confidence and enhance trust among households and SMEs
Large scale industry	Higher energy prices lead to higher costs and reduced competitiveness	Undertake firm-by-firm consultations to discuss potential for transitional support for large trade-exposed industry Provide clear schedule of reform (and information on likely magnitude of price rises) to allow firms to adapt
Energy SOEs	Reform aims to increase competition in energy markets, reducing current monopoly enjoyed by energy SOEs	Emphasize the potential for incumbent SOEs to become financially sustainable, independent and to make profit over time as a result of reform
Policymakers	Reform will result in more market-based drivers of prices, investment and industry structure resulting in reduced control of energy markets by policymakers	Emphasize the clear policy rationale for reform, stressing the potential for associated economic transition and enhanced growth and government revenue over time

1. Electricity markets

Electricity markets in Viet Nam are dominated by EVN, from generation through to retail. While competition in electricity generation has been introduced (see Section II.C), the extent of actual competition in generation markets is still limited (EVN operates close to 50 per cent of generation capacity and has a significant stake in most other facilities). Further, EVN owns domestic transmission (through a subsidiary); is a single-buyer; controls electricity retail through five regional subsidiaries, which supply electricity to households and businesses below cost (the exact extent of which is difficult to measure precisely, but the overall subsidies given in Figure 1 demonstrate that costs are not recovered); and until 1 June 2014 it provided a lifeline tariff and provided cash to alleviate the burden on the poor. It also had an incremental block tariff scheme, which was reformed for the period after 1 June 2014.

This dominance is compounded by a lack of corporate dynamism in the operation and financial management of EVN (see, for example, Energy Alliance, 2012; Vu et al., 2013). The Government has already established a process of reform of EVN, requiring the firm to divest operations which are tangential to core business and to undertake a process of cost-cutting and debt restructuring (see Section II.C). However, this process will need to go significantly further in corporatizing the management and transparency of EVN in order to lessen its dependence on *ad hoc* extensions of state aid and preferential treatment for operational sustainability.

Figure 8 - Sequencing Reform Efforts – Electricity Markets



Reforming EVN

The dynamism, responsiveness and reliability of Viet Nam`s electricity sector as a whole suffers as a result of the operational limitations of EVN (Tran et al., 2011). As has been stressed, electricity sector-related fiscal costs in Viet Nam are primarily caused by the complex, opaque support of the Government for EVN's operations, in particular the below market costs of coal (recent price increases mean that EVN no longer pays below cost price for coal, but it is still is not paying international market prices and so subsidies remain – see also Figure 2). EVN requires a major overhaul in its operation and management to enhance efficiency, reduce waste and ease its debt burden. This requires a major shift in the functioning of EVN, and in the relation between EVN and the Government.

Recommendation 1 – Improving EVN's Functional Efficiency. The Government should **put in place regulation by end-2014 outlining and requiring comprehensive reform to the corporate management, operation and strategy of EVN**. These efforts should deepen and extend current efforts to enhance the functioning of EVN and improve EVN's efficiency in delivering energy services. This is a key building block for deeper market development and energy price liberalization over time.

As discussed in Section II.C, institutional reform plans have been developed for EVN, including for greater 'equitization' and divestment of non-core business, but these plans are not sufficient in tackling the issues faced by EVN, and the sale of non-core business and equitization are proceeding slowly. Given the importance of a high-performing electricity market and robust future investment such reform would include the following components:

- The introduction of corporatized management, decision-making and incentive structures to the operation of EVN, based on the achievement of key strategic corporate goals and outcomes;
- A significant reduction and eventual elimination of the preferential benefits afforded to EVN, including access to free or cheap inputs such as land, capital, market share, capital write-offs and other support;
- Specifically, the implementation of phased-out upstream coal and gas subsidies for EVN (with the price of coal and gas to be determined by international markets and therefore to include Government revenue from VINACOMIN's sale of coal to generators), accelerating and deepening current plans, which are limited to charging cost price of coal;
- A program to further break EVN into independent component parts (based on region or function) to challenge EVN's monopoly and enhance efficiency in operations (see Recommendation 1). This should be combined, over time, with the increasing 'equitization' of EVN and newly independent commercial entities;
- A stricter enforcement of Government directives for EVN to focus on core business and divest non-core assets;
- The introduction of transparency and accountability standards for EVN, independent auditing and the dissemination of public information on EVN's operations , including its cost calculations, and the relation of this to Government support to the electricity sector; and
- A mandate for EVN to increasingly pass on the real costs of electricity supply to consumers (see Recommendation 3), including the higher costs of certain programs to enhance energy access and to move towards higher input prices as a result of the phase-out of upstream subsidies.

The PDP 7 allows for the introduction of competition in wholesale markets from 2014 and in retail markets from 2022. Given the significant indirect subsidies to the electricity sector and the need to increase foreign and domestic private investment in the electricity sector, this is too slow. Furthermore, greater competition through the electricity value chain is crucial for protecting consumers under a system of increasingly market-driven prices.

Recommendation 2 – Enhancing Electricity Market Competition. The Government should **expedite the introduction of competition in wholesale and retail markets and to deepen competition in generation** in its forthcoming Power Development Plan 8 (PDP 8), establishing a roadmap for competition in all sub-markets by 2016-17 to be implemented by the General Energy Department of MOIT and ERAV. This provides a benchmark for reform, and it is important to achieve enhanced electricity sector competition in this time frame in order to encourage investment and providing many of the conditions for sustainable market-based pricing over time.

This policy action will require the further break-up of EVN by functional or regional activity to create competition between smaller SOEs in electricity sub-markets, and facilitate private investors who have struggled to sell electricity at the same prices as EVN subsidiaries or other SOEs. For example, EVN's five regional retailing subsidiaries should be divested and made independent to enhance competition in retail. This will also require creating an appropriate incentive framework for new, independent (non-EVN) investment across the electricity value chain to provide additional capacity to meet growing demand. A first step would be to relax the regulatory barriers to entry in electricity markets, which currently tend to encourage investment chiefly by established energy SOEs and their partners (Energy Alliance, 2012).

EVN is responsible for implementing Government policies to protect poor consumers and promote energy access, including incremental block tariffs (IBT), lifeline tariffs and various cash transfer and subsidy programs (see e.g. Figure 10) (Vu et al., 2013). The lifeline tariff is being phased out per 1 June 2014 and the IBT is being restructured whilst the cash transfers are shifted towards the State budget and continue to be managed by the Ministry of Labour and Social Affairs (MOLISA) and local authorities (see Figure 12 and Recommendations 13, 14, 15 and 16). This means that the conflict between commercial and social imperatives is being reduced, which should increase management effectiveness of EVN.

Enhanced Market Regulation and Governance

Viet Nam's electricity market regulator, ERAV, currently lacks full functional independence as it is part of MOIT, which also controls EVN. EVN often distorts electricity market functioning, especially in electricity dispatch and as a single wholesale buyer, which significantly undermines independent participation and investment in energy markets (Energy Alliance, 2012). A strong and independent regulator is crucial, to limit the potential for monopolistic practices in the process of transition to more open and competitive electricity markets and as prices are liberalized. A strong regulator is at the same time a key component of well-functioning, competitive electricity markets. There are currently no plans to enhance the powers or independence of ERAV but is suggested as a priority.

Recommendation 3 – Better Electricity Market Regulation. The Government should **establish ERAV as a fully independent entity with a new regulatory charter designed to promote well-functioning electricity markets and a financially sustainable electricity sector** over time. While some concessions should be made within the regulatory charter to allow for a transition towards more competitive electricity markets, ERAV should be given the mandate to monitor price-setting and market participants' behaviour across the electricity value chain. It should also be given sufficient powers to adequately sanction market participants who contravene price-setting standards agreed upon in the process of regulatory reform.

Market-based Pricing – Towards Sustainable, Cost-Reflective Electricity Prices

A move towards cost-reflective electricity pricing (including international prices of inputs such as coal and gas), in tandem with SOE reform, is clearly the key component of energy subsidy reform in Viet Nam. EVN sells electricity to retail customers through its five retailing subsidiaries, plus rural power suppliers. This currently happens at an average price lower than the full cost as a result of subsidies, whereas tariffs in constant 2002 prices remained almost the same (see Figure 3).

Viet Nam's electricity tariffs are regulated in relation to the average costs and the average retail price of electricity as calculated and issued by the Government (see e.g. Decision 268/QĐ-TTg (2011) and Decision 28/2014/QĐ-TTg). Given the complexity of Viet Nam's electricity tariff schedule (see also III.B and Figure 10 and Figure 12), and lack of public information on average costs and tariff calculations, it is difficult to estimate the discount provided to different consumers. Furthermore, the lack of transparency in the Government's financial relations with SOEs means it is also difficult to estimate the total cost of Government support for EVN's operations (Tran et al., 2011).

Nevertheless, estimates suggest that average electricity tariffs will need to increase approximately 10-15 per cent to reflect costs of production (given that current lifeline tariff accounts for about 65 per cent of average 2012 production costs) (CIEM, 2013) and by more than that if international prices for fossil fuels would be used. Without tariff rebalancing, the actual figure is likely to be higher, especially in the context of Vietnamese dong depreciation, as the share of hydro in the generation mix falls, subsidies on coal for generation decrease, coal prices increase and Viet Nam becomes a net importer of coal whilst also increasing gas imports (for imports international prices must be used; for domestic fossil fuels the Government has the choice).

Average electricity tariffs will need to gradually increase to reflect the real costs of production and distribution of electricity. Clearly, such increases in electricity prices will have spill-over effects for the living costs of households, the operating costs of SMEs, the competitiveness of large, particularly trade-exposed industries, and for inflation levels. Mitigating these impacts is the subject of extensive discussion in Section III.B. 'Managing the Impacts of Reform'.

Under Decision 69/2013/QĐ-TTg, EVN can increase average retail prices, with MOIT's approval, by up to 10 per cent and to a regulated price framework every 6 months amounting to a maximum of 20 per cent every year. This does not change the overall maximum annual increase allowed, and EVN is now less flexible than before 2011 in terms of frequency of price increases (every 6 months instead of 3 months). Despite continuing recent input cost pressures, EVN increased retail electricity tariffs by only 5 per cent in the last four adjustments since December 2011, taking average retail prices to 1,509VND/kWh (US$0.07/kWh) in August 2013 (*Viet Nam Investment Review*, 2013). As demonstrated in Figure 3 this means that in constant 2002 prices the average tariff has reduced since 2002 and remained almost unchanged over the past five years.

Recommendation 4 – Cost-reflective, Transparent and Predictable Pricing of Electricity. **MOIT and MOF should further increase transparency in electricity price setting. Price increases should be predictable**, allowing consumers to respond to price appreciation, and MOIT should require audited estimates of costs-per-period as part of the greater transparency requirements for electricity SOEs (see also Recommendation 1). They should also **require EVN to increase prices (e.g. quarterly) at an appropriate rate for all tariff categories** (industrial wholesale and retail, including IBT for households) **to ensure cost reflective pricing in the medium-term**. Prices should reflect changes in costs, **including international prices of fossil fuels**.

SOE reform provides a key building block for market development and price liberalization over time. Deep price liberalization should therefore be timed to coincide with progress in SOE reform, which is likely to occur over the medium-term.

Viet Nam's electricity and other energy prices currently do not reflect the full costs of production, including social and environmental costs of fossil fuel production, transport and consumption (this includes local pollution as well as global externalities such as climate change that is caused by GHG emissions). The pricing of social and environmental

externalities, including carbon pricing has a number of potential long-term benefits for Viet Nam's economy, even though it will initially put upward pressure on costs-of-living (UNDP, 2012). This would accelerate Viet Nam's transition away from resource intensive modes of growth as energy efficiency will be stimulated by higher prices, and renewable and low carbon energy production and consumption will become financially attractive to investors, producers and consumers.

Recommendation 5 – Towards Carbon Pricing. Viet Nam **should put a price on carbon to stimulate energy efficiency and low carbon energy production and consumption**. There are different carbon pricing options including various carbon taxes and carbon cap-and-trade. It is important to first phase out subsidies and then introduce carbon pricing. Carbon pricing may take several years to develop and to reach consensus so preparations should start as soon as possible. Carbon pricing will increase the burden of higher energy prices for consumers and industry in the initial period so mitigation measures may need to continue during this phase. One transitional option is to increasingly employ carbon 'shadow pricing' in investment decisions and policy development in order to judge the viability of both new energy policy and key investment decisions under different carbon price scenarios.

This may not be enough to boost non-hydro renewable energy production and consumption in the short and medium term, whereas it is urgent to increase power production capacity, limit dependency on imported fuels, minimise environmental impacts of energy price increases. In the short term incentives will need to be provided to attract domestic or foreign investment into renewable energy production (wind, solar, small hydro, biofuels). Such incentives could include low cost provision of land, cheap credit and preferential tax treatment. This would amount to a subsidy, or could be seen as a price on carbon.

This is happening to some extent, notably with regards to wind power[12]. Viet Nam has welcomed the first small-sized wind energy parks, based on an overall policy on wind power[13] and regulation on a feed-in-tariff for wind power[14]. These policies give wind power investors, for example, preferential import tariffs for equipment and low cost access to land. Furthermore, all wind power produced by licensed on grid projects must be purchased by EVN (which gives investors/owners an incentive to optimise production). This happens over a 20 year period for 7.8 USc/kWh, whilst a feed-in-tariff (FIT) of 1 USc/kWh is paid to EVN. This FIT is sourced from the Viet Nam Environment Protection Fund (VEPF). In addition, wind power projects are allowed to register as Clean Development Mechanism (CDM) projects, which makes them eligible for revenue from international carbon offsets. However, the price paid to producers as well as the FIT are low by international comparison and of limited attraction to private investors. There is also resistance against this use of the VEPF, and the (potential) revenues from CDM offsets are currently very low.

Viet Nam has regulation on tariffs paid to small renewable power plants, which concerns mainly small hydro and solar PV[15]. The 'avoided cost' are those of the most expensive power production unit at a time of the day and year, and must be paid to owners of small renewable power plants[16]. These costs are announced annually by ERAV and are the basis for power purchasing contracts which also include floor and cap price levels. However, calculations of 'avoided costs' are not transparent; they may not include all (avoided) long distance transmission costs and environmental impacts are excluded from the calculation

[12] *See for example: GIZ/MoIT 2011. Information on wind energy in Viet Nam. Hanoi, Viet Nam. GIZ/MoIT Wind Energy Project http://www.renewableenergy.org.vn/*

[13] *Decision 37/2011/QD-TTg Mechanism supporting the development of wind power projects in Viet Nam*

[14] *Circular 96/2012/TT-BTC on the financial mechanism to support electricity price for grid connected wind power projects*

[15] *Decision 18/2008/QD-BCT of 18 July 2008 on "Promulgation of Regulation on Avoided Cost Tariff and Standardized Power Purchase Agreement for Small Renewable Energy Power Plants"*

[16] *'Avoided Cost' is the marginal cost for a public utility to produce one more unit of power.*

(as stated in the Decision on avoided cost). Avoided costs may also be calculated at a low level as a result of indirect subsidies on existing power production and thus does not provide a clear incentive for small scale renewable energy plants. The 'playing field' thus remains 'tilted' to the advantage of fossil fuel based power.

Recommendation 6 – Develop Renewable Power Regulation to Attract On-Grid Renewable Power Investors. Assess the most effective ways of awarding contracts and providing **sufficient incentives to private domestic and foreign investors in wind, solar PV and other renewable energy production**. Whilst fossil fuel subsidies are being phased out and modalities to impose a carbon price are considered, incentives for grid-connected renewable energy producers should be explored, from the household and company level (using power for internal consumption and only selling occasionally to the grid) to small, medium and large scale commercial renewable power producers. This should build on current regulation for wind power. As technology is becoming more efficient and affordable, support measures would have a limited life span, and purchasing agreements should be negotiated on a case by case basis. Options to be assessed could include:

- power purchasing contracts with households and companies with installations for internal use, and with selling prices (for excess capacity) at (gradually increasing) electricity retail tariffs;
- expanded incentives for investors (reduced taxes, cheap credit and other inputs);
- phase out the FIT for wind from the VEPF, and force EVN to absorb FITs for renewable power purchases as losses or reduced profits (as the average electricity tariff goes up);
- Renewable Portfolio Standards (RPS) which would require EVN to obtain a minimum percentage of non-hydro renewable power (i.e. set the desired quantity and let market establish the price).

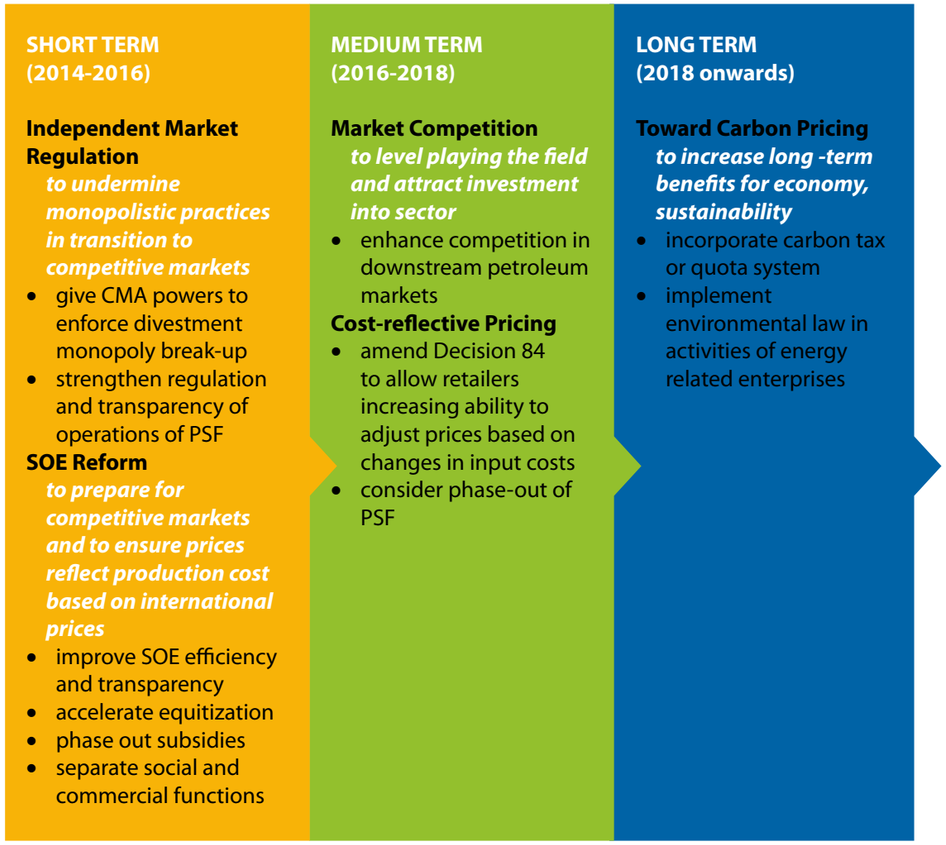
2. Downstream petroleum markets

Petroleum markets suffer many of the same impediments and distortions as electricity markets. Retail prices remain largely fixed by the Government, with downstream operators often required to sell refined petroleum products to consumers and industry below production and trade costs or without a profit: depending on the changeable level of domestic wholesale and retail prices and prevailing international prices for crude oil and refined petroleum products. Domestic fuel markets are dominated by state-owned Petrolimex, which provides more than 50 per cent of Viet Nam's retail petroleum supply, and SOEs like PV Oil (which is part of PVN group), Saigon Petro and MIPECORP, which account for most of the remaining market share (Vu et al., 2013). Independent regulation of petroleum markets is lacking, especially in terms of competition regulation, with MOF retaining significant control over price setting, and MOIT retaining control over industry structure and the direction of investment. Viet Nam's refined petroleum product PSF is ineffective despite recent improvements in its functioning, and under-capitalized (see also Recommendation 12). Finally, with limited investment in domestic refining capacity, Viet Nam is expected to remain a net importer of refined products for many years to come (Le, 2013) (see Figure 4).

Nevertheless, there has been some reform in the functioning and management of domestic downstream markets. As a result of cost pressures from the structural appreciation of international crude oil prices, some flexibility has been introduced into petroleum pricing policy, although MOF currently still has final approval of retail prices (Le, 2013). There is

also considerably greater competition among SOEs in petroleum retail in the downstream sector than in electricity markets. In order to reduce the indirect subsidies to the downstream petroleum sector – driven by low product prices and inefficiencies in the functioning and operation of downstream SOEs – the Vietnamese Government should look to deepen and accelerate recent reforms to sectoral management and regulation. In the same way as in electricity, reducing the subsidy burden in the downstream petroleum markets will require policy actions in three areas: SOE reform, enhanced market regulation and product pricing reform. Recommendations in each of these areas are made below. Figure 9 outlines suggestions for sequencing such reform efforts.

Figure 9 - Sequencing Reform Efforts – Petroleum Products



Enhancing competition and functioning in downstream petroleum markets

Concerns have been expressed about greater liberalization of petroleum product prices in the context of Petrolimex's strong influence in downstream markets, despite some SOE competition in petroleum markets. MOF has noted that it is unlikely to significantly relax controls as long as oligopolistic conditions persist.

Recommendation 7 – Enhancing Competition in Downstream Petroleum Markets. As a stepping-stone towards market-driven, cost reflective product pricing (see Recommendation 11), MOIT and MOF should **formulate and implement a policy framework designed to enhance competition in downstream petroleum markets by the beginning of 2015**. In order to limit the ability for price manipulation (in the absence of a strong regulator) and to encourage competition between downstream SOEs, MOIT should look to **progressively break down Petrolimex's vertical integration (import-export, distribution, marketing, retail) and horizontal integration**, and to support new and independent market participants in marketing and retail. The Government should also **relax the legal barriers to entry in downstream petroleum trade**, which are currently prohibitive to those other than incumbent SOEs.

While greater competition is a prerequisite for liberalised product prices, more flexible price-setting arrangements will be necessary to encourage participation by private-sector players and to induce investment in the sector to meet fast-growing domestic fuel demand (see Recommendation 11).

In addition to the difficulties faced by petroleum distributors and retailers stemming from low product prices, downstream SOEs are often operationally inefficient and provide a low level of services compared to other countries. This creates potentially a significant burden for the Vietnamese Government in guaranteeing the potential losses and cost overruns of SOEs (Tran et al., 2011). The basic operation and management of Petrolimex and other SOEs must thus be improved, in tandem with measures to ensure greater competition in downstream markets.

Recommendation 8 – Improving the Operational Efficiency of Downstream SOEs. MOF and MOIT should **continue and accelerate the process of SOE equitization as part ofs a broader structural reform package designed to enhance the operational efficiency and functioning of downstream SOEs by end-2014**[17]. As discussed in Section II.C, a policy program exists for petroleum SOE reform (equitization, non-core business divestment, business unit break-up etc.), however this is neither comprehensive nor on time.

Aspects of structural reform in the downstream petroleum product sector would include the following, many of which are underway.

- The introduction of corporatized management, decision-making and incentive structures to the operation of SOEs, based on the achievement of strategic corporate goals and outcomes;
- A significant reduction and eventual elimination of the preferential benefits afforded to SOEs including access to land and capital, and ensured market share;
- A program to break Petrolimex into independent component parts to limit its market power and enhance efficiency in operations (see also Recommendation 7);
- A stricter enforcement of Government directives for Petrolimex and other SOEs to focus on core business and divest non-core assets, such as those in insurance, banking and construction;
- The introduction of transparency and accountability standards for SOEs in petroleum product markets, and independent auditing and the dissemination of public

[17] *The suggested timeframe for the start of comprehensive petroleum SOE reform by end-2014 reflects both the importance of SOE reform as a building block for deeper market development and price liberalization as well as the fact that SOE reform is likely to be a long and difficult process*

information on their operations including Government support of the downstream sector; and

- A mandate for Petrolimex and other SOEs to increasingly pass on the real costs of fuel production and supply to consumers (see Recommendation 11), including the higher costs of programs to enhance energy access (see Recommendation 9).

A key component of the package for the structural reform of downstream SOEs will be to divorce their conflicting social and commercial functions. Petrolimex and other downstream SOEs are, for example, currently required to undertake loss-making activities to assist the supply of fuel products to consumers in remote rural areas (Vu et al., 2013).

Recommendation 9 – Separating Social and Commercial Functions. **Benefits designed to enhance energy access for the poor should be separated from the commercial functioning of SOEs**. Where SOE petroleum retailers are currently required to provide fuel to remote energy consumers for the same prices as elsewhere but with higher distribution costs, this should be incorporated in their cost structures and passed onto other energy consumers so as to be cost and revenue neutral. Alternatively, regulation should be implemented to ensure proven loss-making operations are transparently compensated under clear reimbursement frameworks by MOF.

Enhanced market regulation and competition in downstream petroleum markets

The regulation of downstream petroleum markets is undertaken by MOIT, which controls issues of industry structure and function, and MOF, which controls petroleum product pricing. Within MOIT, the Competition Management Agency (CMA) is tasked with regulating competition in key markets, including downstream petroleum supply. Thus far, however, the CMA has not been willing or able to tackle Petrolimex's dominant market position and the general lack of competition in refined petroleum product markets (*Dan Tri International,* 2012).

Recommendation 10 – Better Competition Regulation. The role of the CMA in ensuring competition in downstream petroleum markets should be enhanced. This should include the introduction of **a new regulatory charter that gives the CMA powers to enforce divestment and monopoly break-up in the sector, to be designed by end-2014**. The regulatory charter should remove the CMA from MOIT and establish it as an independent agency with a clear mandate to uphold competition in key markets. Provisions should be included within the regulatory charter to allow for a transition from SOE monopolies to more competitive markets over time.

Stronger market regulation is important during the transition to more competitive petroleum markets in order to protect consumers in the context of persistent market domination by powerful petroleum SOEs. Strengthening of petroleum market regulation should be prioritised and sequenced early in the process of institutional reform.

Market-based pricing – towards sustainable, cost-reflective petroleum prices

Whilst the Government still controls prices, significant steps have been made in recent years to make pricing practices more flexible and reflective of input costs. Nevertheless, domestic prices increased as international petroleum prices have gone up. The PSF is regulated by

Decree 84/2009/ND-CP (25/10/2009) and Circular 234/2009/TT-BTC (9/12/2009, by MOF), aiming to minimize fluctuations in domestic prices. The PSF raises a tariff of 300VND/litre for petrol and diesel and 800VND/litre for kerosene under stable market conditions (Le, 2013).

If the base price increases by less than 7 percent compared to the current retail price, retailers can increase prices by officially reporting their pricing decision to MOIT. If the base price rises by between 7 and 12 per cent, retailers can also increase prices by 7 per cent plus 60 per cent of the marginal increase in price over 7 per cent, with the rest of price adjustment coming from a reduction in PSF contributions or a drawdown of the PSF balance after officially reporting to MOIT and MOF. If costs rise more than 12 per cent, retailers can increase prices by 7 per cent, with the balance of adjustment made up by abolished PSF contributions, a drawdown of the PSF and, potentially, other administrative measures such as import tax reductions. This process is under the guidance of an inter-ministerial working group of MOF and MOIT, which is presided by MOF and coordinates with MOIT. In all cases, the minimum interval between price increases is 10 days. Relevant ministries (MOIT and MOF), are responsible for supervising petroleum price adjustments by the traders to ensure they are in line with regulations.

However, in practice the required administrative deliberations are hindering timely adjustment, so price increases tend to lag cost increases, with the burden of adjustment falling on the balance sheets of SOEs or the PSF, and eventually households and businesses. Although prices have been allowed to rise to unprecedented levels in recent months, the rigidities in the system have resulted in limited profitability for downstream SOEs and the near-exhaustion of the PSF (Vu et al., 2013). In response, MOF is currently considering an amendment to Decree 84 that would allow retailers to increase prices without its prior approval, but with a monthly cap of 5 per cent (so less than the existing 7 per cent).

Recommendation 11 – Flexible, Cost-reflective Petroleum Product Pricing. The Government should **amend Decree 84 to implement a schedule that allows retailers an increasing ability to independently increase and decrease product prices based on changing input costs**. Under this schedule, the range of potential independent price increases should expand over time, starting perhaps at 5 per cent and increasing steadily to achieve effective liberalisation in price-setting in the medium-term (for example, an ability to freely increase prices in line with international price trends). Full price liberalization should coincide with progress in SOE reform. During this transition period, the balance of adjustment to higher input costs should fall on the PSF (reforms to which are discussed below), which should be sustainably funded through, if necessary, higher per litre contributions and other measures to ensure capitalization.

As discussed above, during the transition to more market-determined energy prices, Viet Nam should consider options for carbon pricing, to be implemented after subsidy reform, and carbon shadow-pricing during the transition period (see also discussion with Recommendation 5).

While the PSF provides a transitory mechanism to manage extreme oil price volatility, it has failed in many of its stated goals[18]. Evidence demonstrates that domestic inflation in recent years has been linked to international crude oil prices, suggesting that the PSF has failed in preventing the pass-through of higher international petroleum prices into domestic inflation levels (Le, 2013). At the same time, the need for consumers to capitalize the PSF under normal market conditions through higher product prices has put pressure on energy affordability when price conditions are favourable. In addition, while the PSF is

[18] *See Le, 2013; also: http://hn.24h.com.vn/thi-truong-tieu-dung/nen-bo-quy-binh-on-gia-xang-dau-c52a594740.html*
http://duthaoonline.quochoi.vn/DuThao/Lists/TT_TINLAPPHAP/View_Detail.aspx?ItemID=320

self-sustaining under conditions of oil price volatility around a stable mean price, it is likely to be consistently exhausted in the context of structurally appreciating international oil prices, as has occurred during much of 2013. In addition, the use of the PSF by downstream SOEs has been non-transparent, with evidence of mismanagement in the use of PSF funds by SOEs and aberrations in accounting between the different funds managed by individual SOEs, though transparency is improving (Le, 2013; *Viet Nam Investment Review*, 2013).

Recommendation 12 – PSF Reform. **Given its limitations in terms of function, transparency and financial sustainability, the PSF should be phased out in the medium-term**, as the downstream markets become deeper and consumers adapt to higher product prices. In the interim, **the regulation, transparency and use of the PSF should be strengthened further**. An alternative mechanism for price adjustment in response to extreme oil price volatility could be developed over the medium-term, and **could be funded through more variable taxation or a windfall tax on upstream oil and gas producers such as PVN** – who will experience higher revenues in times of high oil prices – rather than consumers.

III.B Managing the Impacts of Reform

Energy sector reform is likely to cause welfare losses during the transition period to higher prices. As direct and indirect subsidies in the energy sector are removed and (subsequently) a carbon price is introduced, the purchasing power of households for energy and other goods and services will be affected. More expensive energy will result in higher production costs, which will push the prices of goods and services up and squeeze the profit margins and competitiveness of firms. Evidence suggests that higher costs will also increase inflation and may raise inflationary expectations, notably because of the indirect effects of higher energy prices on the prices of other goods and services (VEPR, 2011 and La et al., 2013). At the same time, increased competition in energy markets (see Recommendations 1 and 7) and enhanced energy efficiency across the economy is expected to restrain long-term energy price increases. Improved energy efficiency also helps to curb energy demand. Furthermore, as per the above recommendations, price increases should be open, gradual and predictable (even where price levels themselves may not be), thus giving consumers and businesses a chance to respond to changing price conditions and hopefully limiting the 'pain'.

Mitigation measures are needed to contain the short-term negative impacts of higher energy prices. The decisions on which impacts to manage depend on the ability of losers to adapt to the impacts, and the capacity of the Government to afford and to effectively put in place compensation measures. Evidence from other countries suggests that mitigation efforts also need to consider the respective political influence 'losers' may have on obstructing reform efforts. Measures should be specific in their response to the vulnerabilities of different groups resulting from the price increases of different fuels. But not all 'losers' must be compensated, especially as many industries have been lax in managing energy as it was cheap: given a transparent roadmap for price increases they will be able to implement simple measures to improve efficiencies.

The negative short term impacts of subsidy reform can be classified into three broad groups, which are discussed in detail below.

1. **Impacts on household welfare;**
2. **Impacts on competitiveness and employment;** and
3. **Impacts on inflation and the economy.**

1. Impacts on household welfare

Increases in petroleum prices and electricity tariffs will **affect household welfare through both their consumption and net income**. Because energy is not only a direct consumption good for cooking, heating, lighting and private transport but also an input to the production and transport of many goods and services, the impact of energy price increase on consumption is both direct and indirect. According to the 2010 Viet Nam Household Living Standard Survey (VHLSS), fuel - including electricity, petroleum and other fossil and non-fossil fuels – accounts for 10.5 per cent of total expenditure, of which 43.6 per cent for petroleum, followed by electricity with 27.6 per cent. An additional 14.9 per cent of energy disbursement of households was on LPG. Firewood and agriculture residuals, in terms of values, account for 10.8 per cent of fuel costs. Food and foodstuffs, the prices of which are sensitive to fuel prices, are the most important items consumed by Vietnamese households, accounting for 34.2 per cent of total expenditure. This ratio climbs to 47.6 per cent when food services, beverages and tobacco are included (La et al., 2013).

These price effects will reduce household purchasing power, lowering demand for energy and other goods and services of which energy is an input. With higher energy prices, households may also substitute electricity and refined products toward traditional fuels such as coal briquettes, firewood and farm residues for cooking, which are less efficient and more harmful to health. Richer households will be affected more in absolute terms because they consume more energy and goods and services. But they have more flexibility and ability to adjust their energy usage, for example by cutting down on non-essential consumption or by obtaining more energy efficient appliances. Poorer households will be significantly more vulnerable as a result of their budget constraints and lower ability to both reduce and smooth consumption. For many, energy consumption is already close to subsistence. These likely impacts have been comprehensively mapped by Nguyen et al. (2013) (see also: La et al., 2013; CIEM & World Bank, 2012; IMF, 2013). In addition, energy is a key input for many household businesses. Therefore, energy price increases will affect profit margins (if they cannot be passed on) and lower net income. The small income-expenditure gap of poor and near-poor households means that they have less flexibility in adjusting their production and income. Compensation measures should therefore be targeted to protect low-income households, promote energy poverty alleviation, and prevent the near-poor from falling into poverty (Nguyen et al., 2013).

Two mitigation measures to deal with increased electricity prices existed, as regulated by Decision 268/2011/QĐ-TTg (of 23/02/2011): (i) incremental block tariffs for all households, including a lifeline tariff for the poor; and (ii) cash transfers.

Incremental block tariff and lifeline tariff (households)

Electricity tariffs for households are determined by the monthly usage of consumers under an Incremental Block Tariffs (IBT) scheme that relates to the average retail price as calculated according to Government decisions. From 2011 to 1 June 2014, a fixed lifeline tariff for 'low-income' households was set at 993VND/kWh (US$0.046/kWh) (see Figure 10). To be eligible for the lifeline tariff households needed to consume no more than 50 kWh per month for three consecutive months, and needed to register. The group of low-consuming households included households classified as poor in particular, as well as other households. Higher-consuming households tend to be richer, so the cross subsidies are generally from high income groups to low income groups (through EVN). As per Decision 268/QĐ-TTg households on the official poverty list[19] were also able to benefit from cash transfers (see below).

[19] *Poor households are those with monthly income per capita below 400,000 VND in rural areas and 500,000 VND in urban areas (Decision 09/2011/QĐ-TTg).*

Figure 10 - Incremental Block Tariffs for electricity (1999 to 2013) (VND/kWh)

	PM Decision 193/1999/ QĐ-TTg of 22/09/1999	PM Decision 124/2002/ QĐ-TTg of 20/09/2002	PM Decision 215/2004/ QĐ-TTg of 29/12/2004		PM Decision 276/2006/ QĐ-TTg of 04/12/2006	PM Decision 21/2009/ QĐ-TTg of 12/02/2009	Circular 08/2010/ TT-BCT of 24/02/2010	Circular 42/2011/ TT-BCT of 19/12/2011	Circular 17/2012/ TT-BCT of 29/06/2012	Circular 38/2012/ TT-BCT of 20/12/2012	Circular 19/2012/ TT-BCT of 31/7/2013		MOIT Decision 4887/ QD-BCT of 30/5/2014	
			<300 kWh/m	>300 kWh/m										
Effective date	1/10/1999	1/10/2002	1/1/2005		1/1/2007	12/2/2009	1/3/2010	20/12/2011	1/7/2012	22/12/2012	1/8/2013		1/6/2014	
0-50 kWh/m	500	550	550	1100	550	600	600	1242*	1284*	1350*	1418*		1388	
51-100						845	1004						1433	
101-150	704	900	900	1100	1110	1135	1214	1369	1457	1545	1622		1660	
151-200	957	1210	1210	1100	1470	1495	1594	1734	1843	1947	2044		2082	
201-300	1166	1340	1340	1340	1600	1620	1722	1877	1997	2105	2210		2324	
301-400				1400	1720	1740	1844	2008	2137	2249	2361		2399	
>400 kWh/m	1397	1400		1500	1780	1790	1890	2060	2192	2307	2420			

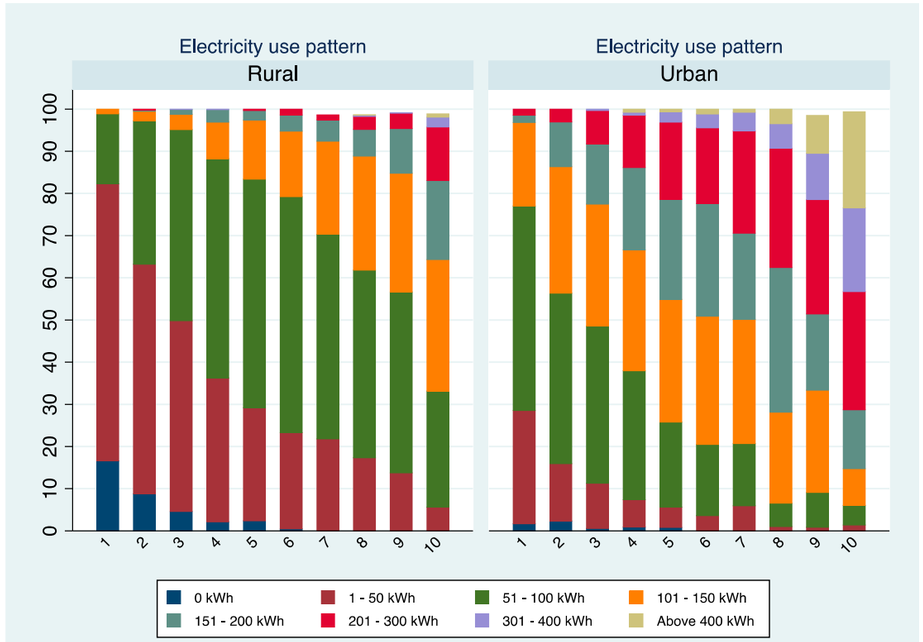
Note: * TThe lifeline tariff of 993 VND/kWh is applied for households using no more than 50kWh per month for 3 consecutive months and registering with electricity suppliers, since June 2011, which is 80 per cent of the average price of 1242 VND/kWh as per Decision 269/QĐ-TTg and enforced from 1 March 2011. This is discontinued as per Decision 28/2014/QĐ-TTg from 1 June 2014.

Source: based on La et al. (2013), with updates from official decisions and circulars

However, many poor households, especially in urban areas, do not benefit from the lifeline tariff because they may not know how to register or cannot register because they purchase electricity through intermediaries such as landlords (who often charge tenants higher rates than they pay). Furthermore, the lifeline band and block tariff rates are quite arbitrary and a volumetric cut-off is generally not a good method to target poor households[20]. Indeed, research shows that lifeline tariffs in most countries perform more poorly than other social interventions such as cash transfers, electricity consumption subsidies and food subsidies in terms of coverage, targeting and progressivity (Bacon et al., 2010). Nevertheless, lifeline tariffs can be an important and administratively simple means of enhancing energy access for the poor[21]. Often, low-income households cannot afford a minimum amount of electricity, especially as electricity tariffs increase. The goal of the lifeline tariff is to ensure that *all* households are able to consume at least a small amount of electricity for a low price.

Figure 11 shows that the majority of rural Vietnamese in the lowest income deciles use less than 50 kWh/month, and only in the highest decile is the majority consuming more than 100 kWh/ month. In the urban areas most households in the lowest two income deciles consume less than 100kWh.

Figure 11 – Distribution of electricity consumption by urban/rural income deciles (%)



Source: La et al. (2013) - calculation from the 2010 VHLSS

Notes: Sample weights are applied to make the data representative for the entire population.

[20] *The difference in electricity consumption between income quintiles is often not particularly large, and there is usually very large variation in electricity consumption within each quintile, such that many low-income households consume large volumes of electricity, and some rich households consume relatively low volumes of electricity (Kelly et al., 1976; Trimble et al., 2011).*

[21] *Energy poverty is defined by the International Energy Agency (IEA) as a lack of access to modern energy services. These services are defined as household access to electricity and clean cooking facilities (for example fuels and stoves that do not cause air pollution in houses) (IEA, 2013). It also considers access to electricity to be more than a first supply connection to the household and also to involve consumption of a specified minimum level of electricity (IEA, 2012).*

Figure 11 suggests that abolishing the lifeline tariff and creating a new incremental block tariff schedule with a (very) low rate for the first 50 kWh for all consumers would cover all electricity consumption for most low income households. There are sufficient households who consume (much) more than 50 kWh/month to make this cross-subsidy possible, in higher-income groups and urban areas (La et al., 2013). Prime Minister Decision 28/2014/QĐ-TTg on electricity prices is effective starting 1 June 2014, and replaces Decision 268/QĐ-TTg of 23/2/2011. The lifeline tariff will be abolished, the IBT for households modified, and cash transfers will also change.

Figure 12 - Incremental Block Tariffs: 2011 & 2014 compared

Decision 268/QĐ-TTg (2011)	
	% of average retail prices
0-50 kWh/ month	Lifeline Tariff (70-80%) *
0-100	100%
101-150	106%
151-200	134%
201-300	145%
301-400	155%
>400 kWh/ month	159%

Decision 28/2014/QĐ-TTg (effective from 1 June 2014)	
	% of 'adjusted' average retail prices
0-50 kWh/ month	92%
51-100	95%
101-200	110%
201-300	138%
301-400	154%
>400 kWh/ month	159%

Note: * Lifeline tariff is 'equal to average cost price'. This is/was only applicable to low-income households who register with the electricity suppliers and consume no more than 50kWh per month for 3 consecutive months. It was set at 993 VND/kWh or 80 per cent of average retail price in 2011 as per Decision 269/QĐ-TTg, and 993 VND/kWh or 70 per cent of average retail price by 2013. Decision 28 abolishes the lifeline tariff, whereas the lowest tariff applies to all consumers.

The lifeline tariff was 80 per cent of the average retail price in 2011, and because it was fixed this became 70 per cent of the average retail price in 2013 (see Figure 12). According to Decision 28/2014/QĐ-TTg the lowest block (to 50 kWh/month) will be 92 percent of the average price. Depending on the actual average retail price that will be calculated according to the MOIT Circular 12/2014/TT-BCT issued on 31 March 2014 and effective from 15 May 2014, the absolute increase for those benefiting from the lifeline tariff up to mid 2014 can be significant. The new IBT effective from 1 June 2014 will have 6 blocks instead of 7, as shown in Figure 12. The increased burden on the poor is planned to be off-set by changes in the cash transfer system (which is discussed further below). The new IBT is still progressive and remains a cross subsidy between low and high consumers that encourages energy saving and is a disincentive for wasting energy, but at the higher blocks the percentage of the average price has reduced somewhat. How effective the IBT will be in benefiting low consumers and encouraging energy efficiency remains to be studied.

Cash transfers to households

With Decision 268/QĐ-TTg of 23/02/2011 Viet Nam introduced the lifeline tariff, described above, and households officially classified as poor could also receive a monthly cash transfer of 30,000VND in order to compensate for electricity price increases (see also Figure 12). However, as per Decision 28/2014/QĐ-TTg of 7 April 2014 (effective from 1 June 2014),

the cash transfer will be reformed. Whereas abolition of the lifeline tariff combined with a modified IBT could disadvantage the poorest (see above and Figure 12), the reformed cash transfer should compensate for that.

Instead of a fixed cash transfer of 30,000 VND/month in Decision 268/QĐ-TTg (2011), according to Decision 28/2014/QĐ-TTg the cash transfer to poor households will be equivalent to 30 kWh consumption per month at the price of the first block in the IBT scheme, no matter how much they consume. In addition, a so-called 'social policy group[22]' of households with consumption not exceeding 50 kWh per month are provided with assistance equivalent to 30 kWh/month. The amount depends on the average retail price set according to a formula by the Government. As of 1 June 2014 eligible households are expected to be supported with 42,000 VND/month[23]. Cash transfers will be made to the poor and social policy groups on a quarterly basis as previously. Based on the present system of cash transfers the increased cash transfers may be welcomed in particular by poor rural households as it could help compensate price increases, although some other households may not benefit from it (Figure 13).

Figure 13 - Mitigating the impact – cash transfers

According to the retail electricity price schedule introduced in 2011, poor households were entitled to an electricity subsidy of 30,000 VND a month and pay a lower price for the first 50 kWh each month. The Government has received positive feedback on the policy from poor households. Although the amount of assistance is not large, it eases the financial burden on poor households. However, in residential quarters in urban areas where many migrants live, this policy has not been effectively implemented because unregistered migrants are not eligible. At rural survey sites, the amount might just be sufficient to cover the household electricity bill. In mountainous areas, where poor ethnic minorities live, this assistance sometimes exceeds the household electricity bill.

Source: CAF (2011)

Cash transfers will be charged directly to State budget instead of EVN. In other words, the system of subsidy to the poor through cash transfers originating from EVN until 1 June 2014 will be replaced by a State subsidy directly to consumers, which reduces EVN's costs. While general responsibility for allocating, guiding and supervising cash transfers belong to relevant ministries (MOF is assigned to take the lead in coordination with MOLISA and MOIT during this process) as per Decision 28/2014/QĐ-TTg MOLISA's role needs be further specified to ensure all eligible households are covered and to avoid leakages.

If an estimated 2 million (poor and 'policy') households would claim the monthly allowance over a year this would amount to about VND 1 trillion or USD 48 million for one year. Whilst this is a conservative estimate, it is significant and may be difficult to raise in the short run.

In terms of mitigating the impacts of higher energy prices on poor households, cash transfers are often the most efficient means of support, as they allow households to allocate cash according to individual budget constraints so as to most flexibly meet their needs, and provide a buffer preventing low-income households from falling into poverty. While lifeline tariffs make sense in delivery of electricity to poor and low-income households, cash transfers are likely the best option to insulate poor households from direct effects of

[22] MOLISA, in coordination with MOF, MOIT and other concerned agencies, is responsible for developing criteria of 'social policy group' and submitting to Prime Minister for approval, within 3 months after issuing Decision 28/2014/QD-TTg.

*[23] MOIT Decision 4887/QĐ-BCT of 30 May 2014 puts the average retail price at 1,508.85 VND/kWh (this was VND 1,418/kWh in 2013; see Figure 10). Based on Decision 28/2014/QĐ-TTg the retail price for the band 0-50 kWh/month is therefore 1508.85 VND /kWh x 92 percent = 1,388 VND/kWh. By using the formula derived from Decision 28/2014/QĐ-TTg, the monthly payments for low income households is: 30 kWh * 1,388 VND /kWh, or about 42,000 VND/household/month.*

higher electricity and petroleum product prices and the secondary effects of this on the prices of other essential goods and services.

Support measures for poor and near-poor households in Viet Nam[24] remain fragmented and administered by different Government agencies, resulting in overlapping of benefits, leakage and under-coverage. A lack of awareness and the complication of registration processes may prevent some people who are eligible for existing mechanisms from accessing these (Nguyen et al., 2013). There is thus a need to consolidate energy-related cash transfers and wider social protection measures under one framework or scheme and to ensure that all poor and vulnerable households are covered. MOLISA with the support of several development partners is developing such a consolidated social protection system.

However, the administrative complexities of implementing Decision 28/2014/QĐ-TTg may be significant. Further, criteria of which households are to be included under the 'social policy group' have yet to be defined. Experience with the cash transfers since 2011 suggests that this is administratively cumbersome (UNDP, 2012). Collecting a small amount of cash can also represent a major (opportunity) cost to the poor[25]. Decision 28/2014/QĐ-TTg only provides for broad responsibilities for implementation whereas it must come into effect in less than two months after the issuing date. Provided that resources will be mobilized and structures to manage the payments are put in place on time, this is a large and new operation for local authorities. It may also be a major burden on eligible households to collect the subsidy even on a quarterly basis.

Recommendation 13 – An in-depth Study of the new Incremental Block Tariff and Reformed Cash Transfers. About 9-12 months after the start of implementation of **Decision 28/2014/QĐ-TTg**, the effects of the **new IBT** in terms of supporting access to electricity by low income households and in terms of encouraging energy savings should be **assessed**. The impact on the poor and the 'social policy' group of the abolishment of the lifeline tariff, reform of the IBT, combined with the revised cash transfers must also be studied. **Recommendations for medium term modifications of the IBT and cash transfers** should be developed.

Recommendation 14 – Cash Transfer integration and effectiveness. **The new electricity consumption cash transfer program should be integrated and coordinated with other social protection measures**. In determining the total amount of cash transfers, the Government should in future also **consider the secondary effects of energy price increases on low-income households**. The aim of cash transfers under MOLISA programs should be to alleviate the effects of energy pric e increases stemming from energy market liberalization (price increases in electricity and petroleum products, including indirect effects on prices of other goods). In addition, **the administrative efficiency as well as the burden and opportunity costs for eligible households should be assessed** soon, in order to ensure effective and efficient implementation. The logistics of the cash transfers could be simplified through electronic transfers, in particular if this includes a link to the billing systems of EVN and local electricity providers.

[24] For example, the National Targeted Program for Poverty Reduction (NTP-PR) provides credits and services for the poor but has mainly focused on poor and remote areas, rather than poor households regardless of where they might be. Decree 67/2007/NĐ-CP dated 13/4/2007, updated by 13/2010/NĐ-CP dated 27/2/2010, provides guidelines to give regular cash assistance and emergency relief to vulnerable population groups including orphans, the elderly, the disabled, and the poor but covered only 6 million people in 2010. Decision 289/QĐ-TTg dated 18/3/2008 allows for several support programs, including transfer of cash equivalent to 5 litre of kerosene per year for lighting to ethnic and poor households in areas without access to electricity grid.

[25] See for example http://dantri.com.vn/xa-hoi/nguoi-ngheo-duoc-ho-tro-30000d-di-xe-om-den-lay-ton-50000d-840901.htm , which includes a case of someone spending VND50,000 on travel in order to collect VND30,000

Low cost electricity for irrigation by small-scale farmers

One group of household businesses for which electricity subsidies may be appropriate is small scale farmers, who rely on electricity for irrigation. According to a survey by Nguyen et al. (2013), higher electricity prices in farming will likely lead to rationed water pumping among small scale farmers, reducing crop productivity. The effect of higher prices on richer farmers will be less severe, and muted by investments in more energy efficient pumping equipment. Higher electricity prices in farming activities are therefore likely to affect the poor and may lead to higher income inequality among farmers. Currently, most local government budgets for irrigation are fixed, meaning higher electricity prices reduce the total amount of free pumped irrigation water available to farmers – forcing these farmers to pay new, higher energy costs for pumping or to turn to local water markets to meet their water and irrigation needs (see Nguyen et al, 2013).

The special tariff for electricity-for-irrigation of Decision 268/QĐ-TTg of 2011 was discontinued. As per Decision 28/2014/QĐ-TTg, farmers will be charged at considerably higher tariffs when using electricity for irrigation, similar to other production sectors. Tariffs for electricity-for-irrigation will be ranging between 52-59 percent of the average electricity price compared to 40-42 percent previously during non-peak hours in Decision 268, and 150-167 percent vs. 114-118 percent in Decision 268 during peak hours. This may raise concerns regarding impacts on farmers, especially poor farmers.

Recommendation 15 – Subsidised Electricity for Small Farmers. **Special tariffs for electricity-for-irrigation for poor and small farmers should be considered** (e.g. those with less than a certain amount of arable land and possibly the poor and near poor groups). Targeting is necessary to avoid the scheme becoming a universal subsidy for agriculture and to ensure it only supports resource poor farmers whose income depends on irrigation and who are likely to be significantly affected by higher electricity prices. Further study of the modifications as per new regulation under Decision 28 and practices and their effectiveness will be required to formulate an appropriate targeting mechanism.

Cash transfers to household businesses

A large proportion of enterprises in Viet Nam are micro-businesses, based within households. Household businesses with the highest share of their costs on petroleum products are in the transport, fishery, agriculture and forestry sectors, while electricity expenses account for 7-8 per cent of sectoral costs in household services (see Figure 14). Energy consumption is the highest single expense for household businesses in wholesale and retail services, although such households usually have more than one source of income (La et al., 2013).

The existing support programs for household businesses include support to farmers and fishers in particular[26]. The program for income and capital equipment support to fishermen (Decision 48/2010/QĐ-TTg; Decision 289/QĐ-TTg) provides income support, interest-free loans for energy efficient equipment and funds for vessel upgrades. However, the implementation and roll-out of this program has been slow and onerous. There also exist programs (see Decision 289/QĐ-TTg) that provide cash support for rural households to increase the affordability of transport in the context of rising energy prices, to support

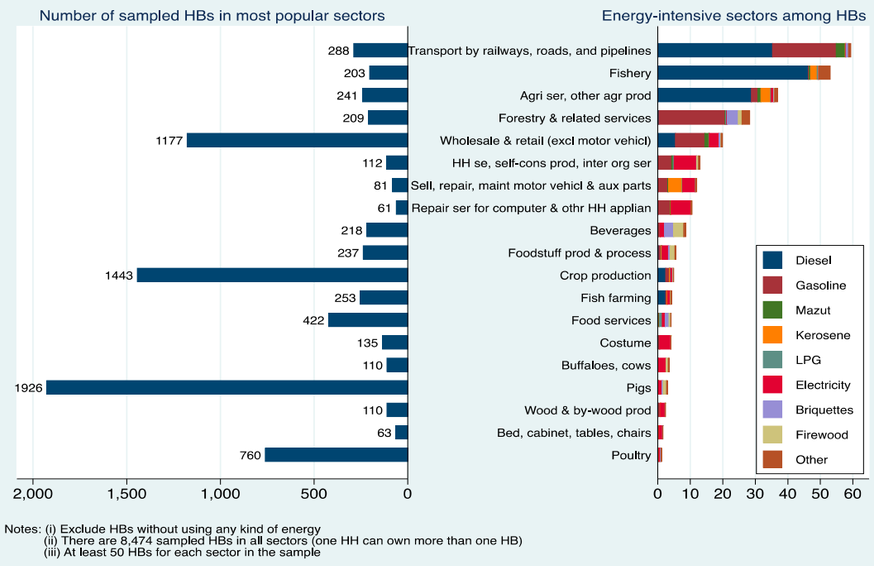
[26] These include Decree 61/2010/NĐ-CP dated 4/6/2010 which stipulates that enterprises in priority agriculture sectors receive 50 per cent subsidy in actual transport costs if production sites are located more than 100 km from retail sites, with the subsidy ceiling at 500 million VND per enterprise per year. Another support program, under Decision 289/QĐ-TTg dated 18/3/2008, provides fishermen 70 million VND per year per to buy a new engine with capacity above 90CV, supports fishermen to switch to more fuel efficient engines in the amount of 10-18 million VND per year per engine, and subsidizes diesel cost in the amount of 3-8 million VND per fishing trip up to 3-5 trips per year.

transport of agricultural produce, as well as to provide new and more efficient agricultural inputs, including fertilizers and seeds. This is in addition to the subsidies on transport and lighting fuels provided by Petrolimex in rural areas.

Recommendation 16 – Cash Transfers for Household businesses. **Existing energy use cash transfer support schemes such as income support for fishermen should be reviewed in detail and possibly renewed and expanded as energy sector reform takes place, but only during the transition to higher prices**. They should be targeted only to critical and the most vulnerable sectors. In addition, the Government should consider providing temporary cash transfers to other household enterprises during the process of price liberalization.

A cash transfer scheme for household businesses could be financed, at least partially, by a proportion of the savings resulting from reduced financial flows to energy SOEs and increased revenue from SOEs, as well as (potentially) a carbon tax[27].

Figure 14 – Energy-intensive sectors among household businesses (HBs)



Source: La et al. (2013) - Calculation from 2010 VHLSS

2. Impact on industry competitiveness and employment

Large, trade-exposed industries and some SMEs are major consumers of energy[28] and are therefore strongly affected by energy price increases. Energy intensity per unit of GDP is high and some large industries, (commercial) buildings and transport are energy inefficient. Increases in energy prices are also likely to raise the prices of other inputs, putting further cost pressure on firms. In the same way as with household enterprises, energy price increases squeeze firms' profit margins. Simultaneously, the substitution effect is such that, as far as technically feasible, increases in energy prices tend to induce firms to substitute energy inputs with other inputs. The consequences of price increases

[27] *According to MOLISA, informal workers include 37 million people, or 75.5 per cent of total employment in 2011.*

[28] *The transportation sector uses 70.8 per cent of refined petroleum products and industries use 52.3 per cent of electricity.*

obviously vary greatly from sector-to-sector and firm-to-firm, depending on the share of energy in their input cost, the demand elasticities they face for their outputs, and the price setting power they enjoy in markets.

There is a host of measures that firms can adopt in response to energy price liberalization. In the short-term, firms can suffer lower profits or take losses, raise the prices of their outputs to maintain their profit margin, adjust their production factors, or save energy. In the medium and long term, firms can change production technology to use energy more efficiently, move out of Viet Nam, or close down altogether. On the other hand, pricing fuels to reflect their production and environmental costs can incentivize firms to reduce wasteful consumption and be more efficient in energy use, therefore decreasing production costs. It will also help in removing inefficient producers from domestic markets.

According to Willenbockel et al. (2011), Vietnamese firms are very responsive to changes in energy prices. As would be expected, under higher energy price scenarios energy-intensive sectors will experience lower growth rates while labour- or capital-intensive sectors would have higher growth rates. Willenbockel et al. (2011) also suggest that most businesses could cope with gradual increases in energy costs of 5-10 per cent per annum (during a period of three years) and that many of those could be off-set through basic energy saving behaviours. A survey of 70 Vietnamese firms by Dang and Tran (2013) revealed that when energy input prices rise less than 5 per cent per annum, firms are likely to do either (a) nothing or (b) stimulate some energy savings by making minor changes in their management, production and/or distribution processes. As prices would increase by more than 5-10 per cent, firms expect to raise output prices and/or improve the efficiency of their production capital. Firms are hesitant to completely change their technology because this can be costly and requires longer-term planning. It is also important to note that many firms indicated that reliability of energy supply is as, if not more important, as low prices, whereas power outages are currently very common.

These results support earlier recommendations that real price increases should be gradual in order to allow firms (and households) to adapt to higher prices. Predictability of price increases (where possible) also allows firms to make investment plans to upgrade their production facilities. The timing of price liberalization is also important; with firms noting that the negative impact of price increases can be exacerbated by economic downturns as has been the case in recent years.

A key concern is that industries will see their competitiveness eroded, especially those highly dependent on energy and those exposed to international trade. Firms for which costs are likely to rise significantly are operators in cement, paper, steel, fertilizer, fisheries, petrochemicals and transport. Indeed, the transportation sector uses 70.8 per cent of refined petroleum products, while industry in total uses 52.3 per cent of electricity (La et al., 2013).

The level of support for these industries required to mitigate the negative effects of fossil fuel fiscal policy reform should be considered in terms of broader industrial policy and developmental goals. While in some cases Government support for the transition to higher prices might be warranted (for example, large employers or industries of high strategic importance), in other cases industries should be responsible themselves for adapting to higher cost conditions in order to remain competitive. There are in fact some 'low hanging fruit' of basic measures that many enterprises can take at limited cost, as they start from low energy efficiency behaviours and technologies.

Recommendation 17 – Supporting SMEs and selective Enterprises in Key Sectors. MOIT with other ministries and agencies should **consider support for companies, particularly SMEs in trade-exposed and strategically important sectors** with measures that have demonstrated success, under for example the National Target Program on Energy Efficiency or ODA-funded projects supporting energy intensive SMEs. Support actions to facilitate adjustment may include:

- energy audits with advice on energy savings; technology demonstrations;
- investment loans (loan guarantee funds);
- tax breaks to encourage investment in energy efficient technology; and
- capacity building of workers and managers.

Choices for certain sectors or sector-groups of SMEs should be based on in-depth analysis of industrial sectors, dialogue with businesses concerned, and best-practice industrial policy and technology.

The impact of energy cost increases for industries is expected to have implications for employment. Technology in some sectors may allow firms to substitute between labour and energy, so when energy prices increase, the demand for unskilled labour may increase as well. Other firms may choose to cut employment or reduce salaries, especially among non-critical staff, to offset increased energy costs or to scale down production. A recent small-scale survey of businesses suggests, however, that very few firms would choose to cut output and employment given higher energy costs (Dang and Tran, 2013).

As a result of higher energy costs movements of labour between sectors are likely. As energy-intensive sectors experience slower growth, labour will be attracted to capital and labour-intensive sectors (for example textiles, services and technology firms, with a predominantly female labour force) (UNDP, 2012). The Government should therefore consider implementing measures that ease the transition of labour between sectors. Major effects on employment are not expected as a result of a gradual transition to higher energy prices for business as proposed in this paper. However, further study with regards to employment is needed. Some enterprises may require major structural adjustment, and severance pay and unemployment packages might be used to mitigate the labour market effects of this reform. In the case of inter-sectoral reallocation of employment, active labour market policies such as re-training will be crucial in facilitating this process.

Recommendation 18 – Facilitating Labour Market Adjustment. MOLISA with others should **study in-depth the potential employment effects of fossil fuel fiscal reforms, including gender aspects**, as in some sectors employment opportunities will reduce and in others increase. Depending on the results the Government should put in place **a labour market adjustment package** to mitigate some of the impacts of higher energy prices on employment. This may include measures to enhance labour factor flexibility such as targeted vocational training and skills development.

3. Impact on inflation and the economy

Energy is an integral input in many production processes, so higher energy prices will have an economy-wide impact, including domestic inflation. Viet Nam has faced a structural problem of high inflation in recent years, making the impact of subsidy reform on inflation a key concern. Research suggests that the inflation resulting from fossil fuel fiscal policy reform may be substantial, with more than half of the inflationary impact of energy price

rises coming from indirect effects of this process on the prices of other goods and services consumed by households, especially in rural areas and in the case of electricity consumption (Willenbockel et al., 2011). For example, a 5 per cent increase in electricity prices and a 10 per cent increase in petroleum prices combined are estimated to directly cause the Consumer Price Index (CPI) to rise by 0.12 per cent immediately and 0.46 per cent over a matter of months. However, when taking into account the impacts of electricity and petroleum price changes on prices of other goods and services, the increase in CPI from price increases of this magnitude may be much larger. In the short term, CPI would be 2.2 to 2.5 per cent higher in rural areas and 2.1 to2.4 per cent in urban areas (CIEM and World Bank, 2012).

Similarly, research into direct and indirect inflationary impacts of energy prices found that an increase in electricity prices of 20 per cent would increase inflation by 1.3 per cent in rural areas, while an increase of 20 per cent in petroleum product prices would increase inflation by 2.7 per cent (La et al., 2013). A combined increase of 20 per cent in electricity and petroleum prices would increase inflation rates by 4 per cent. In all cases, indirect inflation as a result of energy price increases contributes more than half of the total inflationary effect. In most modelled scenarios, the consumption baskets of the poorest and the richest were most affected.

Many of the inflationary impacts on households and businesses could be mitigated by support measures for households and businesses elaborated above. In addition, if the Government wants to keep inflation under a certain level (for example the current inflation target of 7 per cent for 2014[29]), it should strengthen its supply- and demand-side macroeconomic measures to manage the drivers of inflation. Such measures include tighter monetary policy, sterilization of external investment flows and better public financial management on the demand side; productivity improvements, SOE and financial sector reform on the supply side. Notably, some of the fossil fuel fiscal policy reform measures will reduce aggregate demand-driven inflationary pressures. Furthermore, predictability of energy price increases (as discussed in Section III.A) will restrain inflationary expectations, which might otherwise reinforce secondary bouts of inflation.

Recommendation 19 – Managing Inflationary Impacts. The Government should **strengthen demand-side macroeconomic measures and structural supply-side reform to tackle the underlying drivers of inflation**. To limit the pass-through of energy price increases to other goods and services, especially those goods that make up a large share in the consumption basket, the Government should **consider temporarily adjusting VAT or import taxes for basic food stuffs and other basic commodities** as price reform occurs. **Temporary industry support measures to transport and food processing sectors should also be considered** if inflation resulting from fossil fuel fiscal reform exceeds expectations. Predictability of price increases as a result of fossil fuel fiscal reform should also be enhanced with clear communication by the Government to enterprises and consumers.

Measures to increase energy efficiency and curb energy demand will also be critical to subdue the economy-wide impact of reforms. According to MOIT, projections for total energy demand for Viet Nam to 2020 indicate demand growth of 8.1 per cent per year, overshooting the ASEAN trend considerably (APEC, 2010). The economy-wide reaction to rising energy prices depends on the price elasticities, but energy price increases also affect income and reduce the demand for energy, helping to slow the projected rapid growth in demand. In turn, reduced fuel demand (for both transport and power generation) will enhance national energy security by reducing imports.

As discussed above, there is significant room for improved energy efficiency. Calculations from Viet Nam's recent Enterprise Census show that on average firms are only 19 per cent as energy efficient as the most efficient firm in their sector (measured by the amount of energy

[29] *According to the Social Economic Development Plan for 2014 as approved by the National Assembly.*

consumed per million VND of revenue). FDI-led enterprises are the most efficient, followed by private domestic firms, with SOEs the least efficient by some margin (Dang and Tran, 2013).

There are many ongoing Government support programs, specialised funds, as well as donor projects[30] aimed at increasing the efficiency and productivity of energy use in Viet Nam[31]. They promote energy efficiency through, for example, loans, technology transfer and capacity building, and setting energy efficiency standards in consumer and capital goods. However, they do not yet reach a sufficient number of businesses to considerably alter the current trajectory of energy consumption by industry, they are fragmented as they are managed by different ministries and agencies, under-resourced, and they lack an overarching strategy for targeting. There is also a gap between planning and implementation, with a key constraint being the lack of information and data to establish an effective monitoring and evaluation system for the various energy efficiency improvement strategies and programs (see APEC, 2010; UNIDO, 2012). Existing support programs should therefore be streamlined and scaled-up, and coordinated centrally by MOIT, which is best positioned to provide guidance to industry, in association with Viet Nam Chamber of Commerce and Industry (VCCI) and other business or industry associations.

Recommendation 20 – Enhancing Energy Efficiency. **Existing energy efficiency programs should be consolidated and scaled-up. MOIT, in association with VCCI and other business associations should coordinate business support programs**. The capacity of Energy Efficiency Centres under provincial Departments for Industry and Trade should be strengthened and energy service companies (ESCOs) encouraged and used, to provide energy auditing and advisory services. **SOE reform will be crucial for achieving greater industrial energy efficiency – improved energy efficiency should therefore also be a key target of SOE reform**.

III.C Building Support for Fossil Fuel Fiscal Reform

While the benefits and necessity of fossil fuel fiscal reform may be clear to policymakers and experts, enthusiasm for this process is unlikely to be shared by all (see also Figure 15, Figure 7 and Figure 16). There are many short-term 'losers' (including poor households and SMEs) as a result of higher energy prices. For the reform to be successful, the Government must build public support. Fears of affected groups should be addressed by measures lessening the impact of reform on poor households, industry and the economy in general (see Section III.B). Evidence from other countries suggests that successful reform is dependent on the roll-out of such mitigation measures.

[30] *Existing programs and projects on energy efficiency include the Environmental Protection Fund (Decision 82/2002/QĐ-TTg, issued in 2002); the National Strategic Program on Energy Savings and Effective Use (issued in 2005); Viet Nam Energy Efficiency Program (Decision No.79/2006/QD-TTG, issued in 2006); the National Target Program for Energy Efficiency (issued in 2006); Guideline for Energy Efficiency Standard and Labelling (Circular No.08/2006/TT/BCN, issued in 2006); the Cleaner Production Strategy (Decision 1419/2009/QĐ-TTg, issued in 2009); the National Technology Renovation Fund (Decision 1342/2011/QĐ-TTg, issued in 2011); MOF's guide on the establishment of technology fund at enterprises (Circular 15/2011/TT, issued in 2011); and, for example, the UNDP(GEF)-MOST Project "Promoting Energy Conservation in Small and Medium Scale Enterprise-PECSME" (completed 2011).*

[31] *The Green Growth Strategy sets the goal to reduce energy intensity by 1-1.5 percent per year.*

Figure 15 - Public debate about reform

Public debate about energy price reforms is heated. For instance, a popular online newspaper (*vnexpress.net*) received thousands of comments on the topic of energy price increases. *Tuoi Tre Online*, the online newspaper of the Viet Nam Youth Union, reviewed over 100 comments by readers on the issue[32]. A search of the Internet on blog comments in Vietnamese on the electricity price increases found thousands of comments.

A small-scale survey showed that most respondents doubt the rationale presented by the Government for energy price reforms, although all agreed that prices should reflect market trends. Many respondents, particularly those in urban areas with better access to information, consider electricity price increases not absolutely necessary and argue that EVN should improve its management. They attribute losses of EVN to poor coordination, too high salaries and wages and inefficient investment in non-core activities. The monopoly of EVN was mentioned as the main argument against price increases. Increases in petrol prices are more readily accepted. Most respondents are aware that fluctuations in the world market are driving domestic prices.

There has been no public protest about energy price increases to date. This is partly because respondents do not know how to express their disagreement or to whom. Many are also more concerned with other pressing issues such as employment and business.

Source: Nguyen et al., 2013

Figure 16 - Awareness raising in South-east Asia

During the process of similar reform, a number of countries in South-east Asia and beyond have put in place successful awareness-raising, communications and consultations programs. In Malaysia in 2010, for example, the Government undertook a nationwide mobile phone poll of public attitudes to fossil fuel subsidy reform and invited interested parties to attend public 'open days' providing information on the reform. The Indonesian Government has displayed large banners at retail fuel outlets to inform consumers of the extent of fuel subsidisation and to urge them to purchase unsubsidised products. In Ghana in 2005, the cause of building support for subsidy reform was spear-headed by then-President Kuffour, who used nationwide television addresses to emphasise the economic benefits of subsidy reform and to provide information on the reform process. The Philippine' Government successfully targeted messages on subsidy reform to groups who typically used different forms of media. Evidence suggests that simple forms of engagement with the public such as these have the potential to considerably enhance support for the process of reform to energy pricing (IISD, 2013).

The Government should leverage its own advantages in public engagement and messaging to ensure households and businesses are aware of the economic rationale for fossil fuel fiscal reform, to stress the benefits of reform (including, for example, more reliable provision of energy) and to provide clear information on both the process of reform and the support measures to mitigate the impacts of higher energy prices (including the nature of support, eligibility criteria etc.) – allowing those affected to adapt. Media in Viet Nam reaches the majority of Vietnamese citizens and would play a central role in such communication, including through the internet. Mass organizations of farmers, women, and youth can reach

[32] *http://vnexpress.net/tin-tuc/ban-doc-viet/kinh-doanh/dien-tang-roi-luong-sao-con-chua-tang-2858330.html http://tuoitre.vn/Ban-doc/526323/%E2%80%9CSao-chung-toi-phai-bu-lo-cho-nganh-dien%E2%80%9D.html*

households, and business associations can reach large enterprises as well as SMEs. Given high-level agreement on the need for reform, the Government should lead a concerted effort to build support for the reform, including reform of energy SOEs.

A Communication, Information and Consultation Strategy in Support of Reform

Recommendation 21 – Communications, Information and Consultation. The Government should build support for sector reform by **developing and implementing a comprehensive communications, information and consultation strategy on fossil fuel fiscal reform**. The Government should explain that reform is necessary, beneficial and likely to enhance growth, energy sector performance and living standards over time. This should involve MOIT, MOF, the Office of the Government and the Ministry of Information and Communication (MOIC), utilising state media and engaging mass organisations and business associations.

Key components of this support-building-package could include:

Information and Transparency: Greater transparency and public scrutiny are critical in enhancing support for subsidy reform. Evidence from other countries suggests that public trust in the rationale for reform and trust that the benefits of reform will be widely shared and efficiently allocated, are key to a successful reform strategy. A small-scale perception survey of households and interviews with experts suggests there is considerable public disillusionment with the opacity and inefficiency of the operations of energy SOEs and the financial relationships between SOEs and the Government (Nguyen et al., 2013). For consumers and businesses to support energy price increases they will need to understand how energy prices are determined, how investments are prioritized, how efficiency is to be enhanced, and how revenues saved as a result of reform will be used – to be reassured that reform is being undertaken in a competent and measured fashion that considers their needs and concerns. As part of the process of building support for reform, the Government should commit to increasing transparency in the energy sector and to making information easily accessible regarding price determination, SOE operations (and plans to reform these), Government support to the energy sector, planned policy change and regulatory developments. This will complement the process of ensuring transparency in the operation of SOEs described in Recommendations 2 and 8.

Where possible, the Government should enhance the predictability of energy price increases by providing detail about the planned schedules, stages and timelines for reform and the likely implications of these for prices over time (although this will be less possible in fuel markets than electricity markets). Increased transparency in the process of reform is likely to enhance public confidence and acceptance. Clear reform schedules are necessary to give energy consumers a chance to adapt and adjust to new energy price conditions.

The Government has started to improve the way it conducts information-sharing on energy sector reform policy, and on developments in energy prices in particular. Since 2011, MOIT has used monthly press conferences to discuss developments in energy pricing with the media (amongst other policy issues), while decisions on changes to energy prices are accompanied by appearances by MOIT officials explaining decisions on television, radio and in press conferences (Energy Alliance, 2012). Key public statements and speeches by senior officials on energy pricing are readily available on Government websites and widely covered in state media. There is, however, no clear Government strategy for information sharing and communication on energy sector reform, no single spokesperson on this issue and little whole-of-Government coordination on communication, resulting in inconsistent and, at worst, misleading messages (Energy Alliance, 2012).

Consultation: As part of this information sharing process, the Government should consult

with citizens and businesses on the process of reform; providing information and listening to concerns. Such a consultation process should provide the means of identifying involved parties' underlying interests and promote their understanding of and support for proposed reforms. A transparent and consultative program can help to build trust in decision-making and add to the legitimacy of the reform process while sending the message that the Government is listening to the concerns of the people. Understanding the concerns of households and businesses 'on-the-ground' can also inform the design of measures to mitigate the impacts of higher energy prices.

Such a consultation process could be organised through Mass Organizations and business associations, possibly including town hall-style gatherings and smaller focus groups or seminars with business networks; workers, farmers and youth; and community leaders.

Raising Awareness of the Public and Businesses on Fossil Fuel Fiscal Reform

Recommendation 22 – Communicating Costs and Benefits. Perhaps the most important part of a comprehensive communications, information and consultation process on energy subsidy reform outlined above is to **raise awareness among households and businesses on the costs of subsidisation and the likely benefits of a comprehensive fossil fuel fiscal reform, including a carbon price**. The media will have a central role in this. Media training will be required to ensure a balanced and well informed reporting on this complex topic. Core messages should be divided into (a) the costs of indirect subsidies on fossil fuels and (b) the benefits of comprehensive fossil fuel fiscal reform, including a carbon price.

Communicating the Costs of Subsidies to the Economy and Society: The Government should stress the following costs of current energy sector arrangements:

- Fossil fuel subsidies are costly and place pressure on Government finances. Opportunity costs are significant affecting other spending priorities;
- Fossil fuel subsidies lead to a misallocation of resources– resulting in higher consumption of energy and lost efficiency in energy use;
- If fossil fuel fiscal reform does not happen in the short term, future costs to households, businesses and the Government will be significantly higher and more painful as reform would be forced by circumstances and would need to be significantly accelerated;
- Current energy sector organisation perpetuates chronic SOE inefficiency and wastefulness, and leads to poor energy service provision for consumers.

Communicating the Benefits of Reform: The Government should stress that the benefits of reform are, in to a large extent the inverse of the costs described above.

- Fossil fuel fiscal reform will lead to fiscal savings and more efficient resource allocation;
- Fossil fuel fiscal reform can allow Government to redirect resources to more productive and useful ends, for example, enhanced funding for key developmental programs;
- Fossil fuel subsidy reform represents an opportunity to make energy policy more progressive and inclusive;
- Fossil fuel subsidy reform will include energy sector reform which will lead to better services from energy producers, enhanced reliability of energy provision, especially in electricity markets;
- Over time, fossil fuel fiscal reform will lead to a better allocation of Viet Nam's economic resources, driving growth and aiding in the transition to a more dynamic, sustainable and less resource-intensive mode of growth.

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