

Promoting Renewable Energy and Energy Efficiency

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One way of addressing the problem of climate change is through reducing the consumption of fossil fuels, as these contribute significantly to man-made climate change. This reduction can be achieved through the increased use of renewable energy sources and greater efficiency in energy consumption, and many governments have introduced legislation and policy to promote the utilisation of these measures.

Although renewable sources of energy cost less in the long run than fossil fuels, and an efficient use of energy will result in reduced energy costs, both options tend to cost more in the short term than the continued use of fossil fuels, which generally already have the necessary equipment and facilities for their exploitation and use in place. For this and other reasons, such as the fact that often, energy efficiency measures only benefit the end users, renewable energy and energy efficiency measures are not always first choice investment options for investors, whether local or foreign. As a result, many governments have introduced legislation and policy to promote the exploitation and use of, and investment in, renewable energy sources and the adoption of energy efficiency measures.

This article analyses energy-related policies and legislation in South Africa, Jamaica and the Philippines. This is in order to determine if, and the extent to which, the legal and policy frameworks in these countries encourage or enable energy investments, particularly investment in sustainable energy resources. Additionally, these frameworks are examined to determine their effect on the countries' ability to attract CDM investment, particularly in light of the additionality criterion of the CDM.

Favourable energy-related tax or fiscal regimes, financial regulations and property regulations and other provisions that encourage the private sector to invest in clean energy technologies and their impact on investment flows, are some of the issues examined. The article concludes by identifying lessons that can be learnt and in particular, best practice examples from these countries and their activities.

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Climate change is recognised in most quarters as one of the most serious problems facing the current, and inevitably, the future, generations of mankind. It is an environmental problem and also a developmental problem.² There are many different ways of addressing climate change.³ One way is by reducing the consumption of fossil fuels, as these contribute significantly to man-made climate change.⁴ This reduction can be achieved through the increased use of renewable energy sources, which are carbon neutral, as they do not produce greenhouse gases; and by greater efficiency in energy consumption.⁵

Energy consumption is rapidly increasing, and will continue to increase.⁶ Energy is necessary for development, and especially for developing countries, there is a need not to reduce or slow down energy consumption, in order not to reduce their development. There are still millions of people who have no access to energy, but more and more people, as countries are becoming developed, are getting this access and/or increasing their energy consumption.⁷ Energy consumption however poses a problem. Energy is largely produced by the consumption of fossil fuels, which are the

² See generally on the science and effects of climate change, “*Climate Change 2007: The Physical Science Basis*” Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press, 2007); “*Climate Change 2007: Impacts, Adaptation and Vulnerability*” Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press, 2007); A. Barrie Pittock, “*Climate Change: Turning up the Heat*” (London: Earthscan, 2005); John Houghton, “*Global Warming: The Complete Briefing*” 3rd ed. (Cambridge: Cambridge University Press, 2004).

³ The first international action to address climate change was made in 1992 in the form of the 1992 United Nations Framework Convention on Climate Change and its 1997 Kyoto Protocol. The Convention and Protocol contain many provisions all aimed at stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (that is human) interference with the climate system – Article 2 of the Convention.

⁴ “Mitigating greenhouse gas emissions requires the development and implementation of low-carbon technologies and policies encompassing a wide range of sectors.” See “*An Investment Framework for Clean Energy and Development: A Progress Report*” (World Bank, 2006) at page vii.

⁵ See Taylor, P., Govindarajulu, C., Levin, J., Meyer, A. & Ward, W. “*Financing Energy Efficiency: Lessons from Brazil, China, India and Beyond*” (Washington DC: World Bank, 2008) pages 3 – 7, 27 – 28; International Energy Agency “*World Energy Outlook 2006*” (Paris: OECD/IEA, 2006).

⁶ See International Energy Agency “*World Energy Outlook 2006*” (Paris: OECD/IEA, 2006).

⁷ See Cosbey, A., Ellis, J., Malik, M. & Mann, H. “*Clean Energy Investment: Project Synthesis Report*” (Winnipeg, Manitoba: International Institute for Sustainable Development, 2008) page 3.

major cause of global warming, or climate change.⁸ Increased energy consumption through increased fossil fuel consumption therefore means worsening global warming. Both developed and developing countries are not keen on reducing their energy consumption drastically, as, for developed countries, this means a drop in their standard of living, and for developing countries, it may mean being resigned to poverty. So whilst recognising that sustained, or in the case of developing countries, increased, energy consumption is necessary, it must also be recognised that energy consumption, especially consumption of fossil fuels, is damaging to the environment. The answer therefore could be greatly increasing the renewable energy mix in current energy consumption; and vigorously promoting and enforcing energy efficiency.⁹

Although renewable sources of energy cost less in the long run than fossil fuels, and an efficient use of energy will result in reduced energy costs, both options tend to cost more in the short term than the continued use of fossil fuels, which generally already have the necessary equipment and facilities for their exploitation and use in place. For this and other reasons, such as the fact that often, energy efficiency measures only benefit the end users, renewable energy and energy efficiency measures are not always first choice investment options for investors, whether local or foreign. As a result, many governments have introduced legislation and policy to promote the exploitation and use of renewable energy sources and the adoption of energy efficiency measures. Investment in renewable energy and energy efficiency is on the increase, and this is attributable to several factors, such as environmental concerns, particularly climate change concerns, interest in sustainable development and the increasing price of oil.¹⁰ Policy plays a major role in driving investment in sustainable

⁸ See literature on the science of climate change, above.

⁹ According to the IEA, “The challenge for all countries is to put in motion a transition to a more secure, lower-carbon energy system, without undermining economic and social development.” (World Energy Outlook 2007, page 3).

¹⁰ World Energy Outlook 2006 Ibid pages 49 – 50; Boyle, R., Greenwood, C., Hohler, A., Liebreich, M., Sonntag-O’Brien, V., Tyne, A., and Usher E. “*Global Trends in Sustainable Investment 2008*” (UNEP and New Energy Finance Ltd., 2008); Cosbey, A., Ellis, J., Malik, M. and Mann, H. “*Clean Energy Investment: Project Synthesis Report*” (Winnipeg, Manitoba: International Institute for Sustainable Development, 2008); Greenwood, C., Hohler, A., Liebreich, M., Sonntag-O’Brien, V. and Usher E. “*Global Trends in Sustainable Investment 2007*” (UNEP and New Energy Finance Ltd., 2007) pages 20 and 21.

energy¹¹ and “investment in sustainable energy is still very much driven by policy...”¹²

The main focus of this paper is on promoting investing in renewable energy and energy efficiency sources and measures. However, many policies actually focus on promoting the use of these resources, and so this paper will look at policies and measures focused on promoting the use of, and investment in, renewable energy and energy efficiency resources. Additionally, increasing the use of these resources will increase their demand, thereby making investing in them more financially viable for investors. Therefore in a slightly roundabout way, increased use will promote increased investment.

There are many factors that affect any kind of investment, including in developing countries. Such factors include political factors such as political stability, path dependence, existing business relations and investment risk, whether real or perceived. This paper focuses on the policy and/or legal factors, that is, issues relating to the regulatory/enabling investment framework in the country.

Any energy efficiency and/or renewable energy policy must provide for certain things in order to promote investment in these sectors. Essentially the policy must create a favourable environment in which investors can invest in energy efficiency and renewable energy. Some important issues that need to be addressed by the policy include: financial incentives for investment, set at the right level to give an incentive to investors, whilst not depriving the host country of the benefits of the investment; policies that speed up the planning process of renewable energy projects; incentives for the use of RE and EE such as tax rebates for domestic users, rewarding (industrial) energy efficiency; increased public awareness; and active promotion of the CDM and CDM investment in RE and EE.¹³ In addition to these standard instruments,

¹¹ According to A.L. van Dijk *et al*, policy support for renewable energy forms the basis of its market position - Van Dijk *et al* ““Renewable Energy Policies and Market Developments” REMAC, March 2003. The International Energy Agency presents two scenarios in its World Energy Outlook, and discussions of these two scenarios show how policies affect the global energy market, energy security and energy-related climate change concerns. The Outlook contains two energy scenarios: a reference or baseline scenario, which depicts how global energy markets would evolve in the absence of new government policies; and an alternative policy scenario which depicts global energy markets as impacted by additional government interventions and policies - World Energy Outlook, 2006 *ibid*

¹² Greenwood, C., Hohler, A., Liebreich, M., Sonntag-O’Brien, V. and Usher E. “*Global Trends in Sustainable Investment 2007*” (UNEP and New Energy Finance Ltd., 2007) page 8.

¹³ *Ibid* at page 21

innovative policy instruments that could really stimulate sustainable energy investment are required.

This paper sets out the legal and policy frameworks in three developing countries - South Africa, Jamaica and the Philippines.¹⁴ As stated by UNEP, different policies work in different regions and for different technologies,¹⁵ and so as many of the relevant laws and policies of these three countries will be examined in order to determine the way in which they seek to promote sustainable energy investment and/or use.

The clean development mechanism (CDM) is one of the flexible mechanisms established by the 1997 Kyoto Protocol¹⁶ to the UN Framework Convention on Climate Change, 1992. The objectives of the CDM are to assist developing countries to achieve sustainable development through “green” investment inflow and to assist developed countries to meet their commitments to reduce greenhouse gas emissions.¹⁷ One of the requirements of the CDM is that to be registered as a CDM project, the project must result in emissions that are additional to any that would occur in the absence of the certified project activity. Additionality is defined by paragraph 43 of decision 3/CMP.1 as follows:

“A CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity.”¹⁸

In light of this provision, where the project activity does not require the added incentive of the CDM, or where the project activity would have proceeded even in the

¹⁴ One each from Africa, Latin America and the Caribbean, and Asia.

¹⁵ UNEP at page 21

¹⁶ Article 12 of the Kyoto Protocol establishes the CDM.

¹⁷ See on the CDM, Wersksman, J. *“The Clean Development Mechanism: Unwrapping the “Kyoto Surprise”* RECIEL Vol. 7 Issue 2 (1998) pp 147 – 158; Goldemberg, J. (ed.) *“Issues and Options – The Clean Development Mechanism”* United Nations Development Programme (New York, 1998); Energy & Environment Group and Bureau for Development Policy *“The Clean Development: A User’s Guide”* United Nations Development Programme (New York, 2003); *‘Clean Development Mechanism’* published by UNEP and available on the UNEP CDM website www.cd4cdm.org; *“The Clean Development Mechanism: An Assessment of Progress”* United Nations Development Programme, 2006.

¹⁸ See the decision of the Conference of the Parties of the Convention, serving as the Meeting of the Parties to the Protocol, decision 3/CMP.1. See also United Nations Economic and Social Commission for Asia and the Pacific *‘Implementation of the Clean Development Mechanism in Asia and the Pacific: Issues, Challenges and Opportunities’* (New York, 2003).

absence of the CDM, such a project would not qualify as a CDM project. As an example, where an activity is mandated by law, it cannot qualify as a CDM project because the activity would occur even in the absence of the CDM.¹⁹

This paper will therefore also seek to determine the effect of the various laws and policies examined on the country's ability to attract CDM investment, particularly in light of the additionality criterion of the CDM.

South Africa

The first legislation that will be examined is the Revenue Laws Amendment Act, 2002. Section 103 of this Act amends the Customs and Excise Act of 1964 by inserting new provisions (section 37B) relating to the manufacture, storage, disposal and use of biofuel, biodiesel and bioethanol. Section 37B(2)(b) of the Customs and Excise Act, 1964 gives the Minister the powers to make certain provisions relating to the manufacture of biofuels, such as licensing exemptions for producers of biofuels or producers of goods used in the production of biofuels, which for example, means not having to pay a licensing fee. Section 37B(4)(b)(i) gives the Commissioner the power to exempt any person required to license under the Act from furnishing security. The Customs and Excise Act is further amended by the Revenue Laws Second Amendment Act, 2006, which in Section 20, amends the permitted duty exemption given to persons who manufacture biofuel for their own use. The amended S.37B(2)(c) permits the Commissioner to exempt registered biofuel manufacturers from the payment of duties in respect of any quantity of biofuel manufactured by them. This amendment extends the classes of persons who may be so exempted from duty, from persons who manufacture for their own use, to all manufactures of biofuel, provided they are registered. This is an added incentive for the manufacture of biofuels.

The effect of this exemption on biofuel CDM project eligibility/additionality test would depend on whether the exemption makes biofuel manufacture financially viable, or whether it is still insufficient and needs the added incentive of CERs to make it attractive enough to encourage a sufficient increase in the manufacture of biofuels. A potential CDM developer, who desires to register a CDM project for the

¹⁹ Because it is mandated by law.

manufacture of biofuel, would require to provide relevant evidence to the CDM Executive Board.

Another renewable energy policy in South Africa is the 2003 White Paper on Renewable Energy.²⁰ One of the objectives of this WP is to promote the use of RE in order to mitigate climate change. In the White Paper, the government of South Africa sets a 10 year energy target of 10,000 gigawatt hours (GWh) renewable energy contribution to final energy consumption by 2013, which is approximately 4% of the estimated energy demand for 2013, in addition to the existing RE contribution. The renewable energy contribution is to be mainly made up of biomass, wind, solar and small hydro. One of the ways of achieving this is by creating a favourable investment climate for investment in RE. This is obviously one of the sectors with CDM potential. Encouraging investment in RE by having a solid RE policy and a favourable investment climate can open the way to more CDM projects. This white paper appears to be a step in the right direction. It achieves some of the objectives of a good energy policy, such as setting a clear renewable target. Apart from setting a target, the white paper addresses five key areas that would contribute to achieving the renewable energy target, and identifies the objectives of each key area. The areas addressed are: financial and fiscal instruments; legal instruments; technology development; and awareness raising, capacity building and education. The white paper does not go as far as making definite substantive provisions. It only gives examples of possible mechanism and means that could be utilised in meeting the renewable energy target.

One of the programmes that has come out of this white paper and the renewable energy target specified in it, is the Solar Water Heating Programme. Under this programme, launched in 2008 by South Africa's state-owned utility, Eskom, solar water heater purchasers receive a direct rebate.²¹ This programme may promote the use of solar water heaters, which may have a knock-on effect on investment in renewable energy resources. It however is not directly aimed at promoting sustainable energy investment.

²⁰ <http://www.info.gov.za/gazette/whitepaper/2004/26169.pdf>

²¹ That is, the rebate is paid directly to the consumers/purchasers. See http://www.eskomdsm.co.za/?q=Solar_water_heating_Background_information for more information about the programme.

The final policy instrument that will be examined is the Draft Biofuels Industry Strategy, 2006. The aim of the strategy is to increase the market penetration of biofuels, *inter alia* because of climate change concerns. Strategies to achieve this include the extension of the existing fuel levy exemption for biodiesel to bioethanol, making imports of agricultural feedstock for biofuels production and of biofuels duty free. For example, it is recommended²² that the fuel levy exemption continue and be reviewed annually and that increases be used to attract investment to reach the market penetration target.

The CDM can be used in achieving part of the market penetration target, by providing an additional investment stream, which is one of the reasons for the fuel levy exemption. However, as has been noted above, the exemption raises the question of additionality, in relation to CDM eligibility. Any project developer would have to prove that without the added incentive of CERs, the biofuels project would not be financially viable and would not otherwise be undertaken.

Jamaica

Under the Draft Power/Electricity Policy, 2004 of Jamaica, electricity policies include ensuring stable, secure and sustainable supplies of energy at least economic cost (with the exception of renewables), reducing independence on imported energy, reducing energy intensity while seeking to provide economic growth and minimising any negative environmental impacts. The RE policy for the electricity sector aims to obtain the maximum benefit from RE. Under this policy, Jamaica Public Service Company (JPSCo), which is the sole distributor of electricity in Jamaica, and Jamaica's Office of Utilities Regulation (OUR) will be statutorily obliged to promote renewable power. The policy also sets a renewable energy target of 15% by 2012.

The draft power policy also contains the government's policy for energy efficiency/demand side management.²³ Under the policy, the government will make it compulsory for all commercial and residential buildings to be more energy efficient. This will be integrated into the building code and all new buildings must be designed

²² See page 13 of the Strategy.

²³ Demand-side management (DSM) programs consist of the planning, implementing, and monitoring activities of electric utilities that are designed to encourage consumers to modify their level and pattern of electricity usage. See the website of the US Energy Information Administration http://www.eia.doe.gov/cneaf/electricity/dsm99/dsm_sum99.html

with the capacity to have solar water heaters installed into them.²⁴ The regulations also do not affect the CDM eligibility of solar water installations, as what is mandatory is that new buildings should have the capacity for solar water heaters and not that they be built with solar water heaters. The regulation could act as an incentive for this kind of RE project, as it would thus be easier to install solar water heaters in buildings that have the capacity. In addition, a demand-side management (DSM) programme is to be developed in consultation with JPSCo. JPSCo and OUR will have a statutory obligation to include demand side and energy alternatives in energy resource planning and implementation. The target will be a 3% reduction in demand over the next 5 - 8 years. The costs of these measures are to be recovered through the tariff base or Energy Fund (discussed below).

An Efficiency and Renewable Energy Fund is to be established to provide concessionary financing to EE investments to individuals, residential and commercial users and energy service companies. The government will provide certain fiscal incentives and access to low cost financing to commercial, industrial and institutional users, to attain a level of EE improvement or consumption reduction, which will be voluntary. The Fund is yet to be established. Incentives to be provided include zero-rated and tax free imports on EE devices, equipment and supplies.

On the subject of rural electrification, the power policy states that 90% of the population has access to electricity, but that there are still about 20,000 homes yet to be electrified, but the cost grid connection is too high on some routes. Photovoltaic technology offers a more cost effective alternative to meet electricity demand in deep rural areas. There are some issues with the use of PV technology. Since the use of PV technology appears to be more cost effective than grid connection, this raises the issue of additionality and CDM eligibility. If the issues identified can be resolved without the use of the CDM, then it is unlikely that projects to instal PV technology can qualify as CDM projects. This of course depends on whether it is cost effective enough for the government or investors to undertake the projects without the additional incentive of CDM credits.

The next Jamaican energy policy instrument this paper looks at is the Energy Policy Green Paper, 2006 – 2020. The main objectives of the energy policy are to ensure

²⁴ This building code was supposed to be brought into operation by middle of 2006, but this writer could not obtain any information on it, and it is unclear whether it is actually in operation.

stable and adequate energy supplies at the least economic cost, to provide an environment conducive to private sector participation in electricity generation, to diversify the energy base and encourage development of indigenous energy resources where economically viable and feasible, promote energy efficiency, minimise adverse environmental effects and pollution. With regard to the use of petroleum tax to enhance EE and conservation, the government will undertake studies and consultations on taxation levels for petroleum fuels such as gasoline and diesel. The tax rate on LPG will remain low to encourage its use as a household fuel and to reduce harvesting of wood for fuel (LPG is also cleaner than other petroleum fuels).

For the electricity sector, the government will establish efficiency standards for each electricity generating unit, with phased replacement of inefficient plants. And in the transport sector: the government wants to encourage the use of vehicles with smaller size engines to conserve fuel for transportation (because of the rising cost of fuel). The government will maintain a lower import duty rate on vehicles with smaller engines. The government will also implement a lower tax rate on diesel-powered vehicles, as these are more fuel-efficient than gasoline-powered vehicles. Other transport policies include educating the public to use appropriate fuel grades for motor vehicles; replacement of MTBE with ethanol as a fuel enhancer (MTBE is not a GHG and has no climate change effects, though it has adverse environmental effects). The government will promote wider use of hybrid and flexible vehicles through a discriminatory tax regime favouring fuel diversification and fuel-efficient vehicles.

With regard to expanding the use of solar and other RE sources, the government has proposed that the National Housing Trust should provide loan financing for solar water heating systems for their beneficiaries. The government will seek to create a competitive market for solar water heating systems. The use of the CDM as an additional incentive is not mentioned.

On the issue of energy efficiency and conservation, the policy states that the government aims to improve awareness and training through e.g. requiring government-funded post-secondary institutions to include energy-related courses or programmes in their curriculum, to provide relevant professional skills.

Finally with regard to funding, the government plans to establish a revolving fund, called the Energy Fund, to finance such projects with the aim of developing a market for such types of lending. This fund has yet to be established.²⁵

The Philippines

The first relevant legislation is the Electric Power Industry Reform Act, 2001, particularly in sections 2 and 37. The policies of the Act include enhancing private capital inflow, assuring socially and environmentally compatible energy sources and infrastructure, promoting the use of indigenous and NRE resources, and encouraging the efficient use of energy. The Act does not contain substantive rules relating to energy efficiency or renewable energy. It however provides in S.37²⁶ for the Department of Energy to encourage private sector investment in the electricity sector and promote the development of indigenous and RE sources and to *inter alia* implement a system of providing incentives for energy efficiency in all energy-consuming sectors of the economy.

Secondly, the Biofuels Act, 2006 also contains provisions relevant to the promotion of the use of renewable energy resources. Section 2 of the Act “declares” that the policy of the government is to reduce dependence on imported fuels with due regard *inter alia* to the environment and natural ecosystems and this is to be achieved by mandating the use of biofuels as a measure to *inter alia* mitigate toxic and GHG emissions. Section 5 then mandates the blend of locally sourced biofuels with all liquid fuels. It is therefore compulsory to, for example, have a 5% minimum bioethanol content of gasoline fuel sold and distributed by every oil company.

This means therefore that projects to produce gasoline with this biofuel content cannot qualify as CDM projects. It is however possible to produce gasoline with a higher biofuel content or pure biofuel, which should qualify as a CDM project. This would however still depend on how financially viable such a project would be in the absence of the additional benefit of CERs.

Section 6 provides incentives to encourage investment in the production, distribution and use of locally produced biofuels above the minimum mandated by section 5. The

²⁵ See <http://www.pcj.com/efficiency.htm>

²⁶ This contains the powers and functions of the Department of Energy.

incentives include zero percent tax on the biofuel component of liquid fuels, VAT exemption on raw materials used in biofuel production, exemption from wastewater charges for the water effluents from the production of biofuels and high priority financial assistance from government financial institutions. These provisions and incentives apply to the production, distribution and use of biofuels. They also only apply to locally sourced or produced biofuels, thereby contributing to the sustainable development of local communities. Whether or not investment in biofuels will qualify as CDM projects will depend on whether the added incentive of CERs is required to make such investments financially viable.

Under the Omnibus Investments Code of 1987, investment in the priority areas published in the annual Investment Priority Plan enjoys certain benefits and incentives. The 2006 Investment Priority Plan includes investment in energy exploration, development and use, including energy efficiency and renewable energy projects. In addition, all renewable energy projects are accorded pioneer status, entitling them to 6 years income tax holidays. Various incentives are provided under the Code, including tax holidays, tax credits and additional income tax deductions.

Another important instrument is Executive Order 462, 1997, which as contained in the title, and specified in Section 1, enables private sector participation in the exploration, development, use and commercialization of OSW energy resources. The Order does not refer to climate change mitigation, apart from recognition that these resources are environment friendly. The main purpose is to achieve self-sufficiency in energy. This Order therefore allows private investment and participation in renewable energy development, in production-sharing contracts with the government. Section 4 grants the contractor exclusive privilege to explore, develop and use OSW energy resources in the contract during the contract term. Before this exclusive privilege can be transferred to another (qualified) person, the approval of the Secretary of Department of Energy must be obtained. This gives the private sector some investment security. Section 16 of the Order also provides that the contractor be granted the incentives and privileges allowed in existing laws.

In order to further encourage private sector investment and participation in NRE projects and activities, this Order was amended by Executive Order 232 of 2000. It

introduces in section 14, some measures limiting the amount to be paid as government share, including a waiver of the payment of government share on the first project.²⁷

Section 16 introduces some new incentives to encourage private sector investment. OSW projects can be registered as pioneer industry under the Board of Investments, thereby entitling them to the incentives provided by the Omnibus Investments Code. The incentives include 6 years income tax holiday, tax credits and additional income tax deductions.

As RE projects are usually deemed to be less financially attractive than other kinds of projects, these incentives, while making investment in RE more attractive to CDM investors, should not affect the additionality of CDM renewable energy projects.

Several other executive orders aim at promoting the use of clean energy sources. One of these is Executive Order 290 of 2004, which implements the Natural Gas Vehicle Program for Public Transport.²⁸ The Program covers issues such as supply, infrastructure development and market development, in order to encourage the use of compressed natural gas in public transport. The Order contains provisions for incentives, privileges and financial assistance. It also includes an Information Education Communication Programme to raise public awareness of the benefits of using natural gas. Section 4 mandates the various co-implementing agencies to develop incentives such as tax incentives, reduced tariffs and conducive pricing environment - translating to a discount to the price of diesel. Section 5 also provides other incentives such as income tax holidays and reduced import duty.

Another such order is Executive Order 396 of 2004, which reduces the rate of import duty on compressed natural gas motor vehicles and related equipment, parts and components to zero. Annex A of Executive Order 397 of 2004 permits duty-free import of completely knocked down parts and components for the assembly of low engine displacement and hybrid vehicles; and Executive Order 449 of 2005 provides for the reduction of import tariffs on certain specifications of alcohol to encourage and promote the use of bioethanol as a blend for gasoline. As there is no local producer of

²⁷ As stated above, private investment and participation in renewable energy development is undertaken in production-sharing contracts with the government, and a share of profits has to be paid to the government.

²⁸ The objectives of the program are: to enhance energy supply security and to promote the use of compressed natural gas (CNG) as a clean alternative fuel for transport.

bioethanol fuel, the reduction in tariff is aimed at ensuring that ethanol-blended gasoline is competitively priced vis-à-vis other gasoline products. The import tariff is reduced to 10% and 1% when the alcohol is imported with certification of the DoE that the imports will be used for the Fuel Ethanol Programme. Executive Order 488, 2006 modifies the rates of import duty on components, parts and accessories for the assembly of hybrid, electric, flexible fuel and compressed natural gas motor vehicles, providing for duty-free and reduced rate imports.

Conclusion and General Comments

Jamaica has not been very active in the CDM market. The country currently has one registered CDM project - a large-scale wind farm project, which was registered in March 2006. There also appears to be a need for increased CDM awareness among policymakers, as even when detailing policy measures for issues such as energy efficiency and forestry, the potential of the CDM is not fully considered.

South Africa appears to have done a lot to implement the Convention, especially with regard to programmes and policies aimed at reducing energy consumption and promoting the use of renewable energy resources, both for development purposes (such as increasing access to energy and poverty reduction) and for environmental, especially climate change, purposes. An example of this is the biofuels fuel levy exemption.

The South African government appears to be very interested in the climate change process and in implementing the Convention and related instruments. In particular, the government sees climate change response as an opportunity for achieving its national and sustainable development objectives such as creation of employment, alleviation of poverty and provision of housing.²⁹ One way of doing this is by using the CDM to achieve energy efficiency, thus reducing carbon dioxide emissions and combating climate change³⁰ and ultimately reducing the cost of and increasing the accessibility of energy to the South African people.

²⁹ National Climate Change Response Strategy for South Africa, 2004 at page 8

³⁰ Energy Efficiency Strategy, 2005 at page 5

In terms of the strategy or method of implementing the Convention, the strategy of the South African government seems to be the use of policies, guidelines and voluntary measures, as opposed to the use of specific legislation containing mandatory measures. According to the National Climate Change Strategy, *“the view of the government is that a specific Act to deal with climate change issues in South Africa is not warranted. Other laws embracing environmental issues can be amended to include climate change provisions. New laws should also provide for climate change issues as appropriate.”* It further states that, *“legal provisions should not prescribe specific methods and principles, but should only set out the broad objectives of providing for climate change actions with established linkages to other sectors”*.³¹

With regard to the use of financial or fiscal incentives to promote energy efficiency or the use of renewable energy, the government states that the use of incentives is not justifiable, as there are more pressing needs than energy efficiency.³² There is however an incentive for the use of biofuels (a fuel levy exemption). Also in implementing energy efficiency standards, regulations and management tools, capital costs such as equipment costs are to be borne by the direct beneficiaries, such as householders. This is because the payback period is deemed short. Where however the payback periods are not deemed favourable, enabling mechanisms such as the CDM may be used.³³

This lack of financial or fiscal incentives for investing in energy efficiency measures may actually make such projects or measures eligible for CDM participation. This is because without such incentives, these projects may not be inherently attractive to investors and it would therefore be easier to prove that without the CDM and CERs, such projects would not be undertaken, thereby allowing such projects to pass the additionality test.

The Philippine government has an overall policy of achieving energy self-sufficiency and reducing reliance on imported energy. To implement this policy, the government plans to develop the country’s indigenous energy resources, including new and renewable energy sources (NRE). Among other tools, the government is using various

³¹ See page 29.

³² Energy Efficiency Strategy, 2005 at page 21.

³³ Ibid Energy Efficiency Strategy at page 20.

incentives, both fiscal and non-fiscal to accelerate the development of NRE sources. The aim of the government is to increase and facilitate private sector participation and investment in NRE use and development to ensure rapid development of these energy sources. Examples of incentives are income tax holidays and tax credits. Most of these incentives are mainly directed at increasing private sector investment to ensure energy self-sufficiency.

Some of the steps taken by the government have had the result of making certain kinds of project ineligible for CDM registration, and others potentially more attractive to CDM investors. An example is the mandatory use of biofuel as a diesel blend. As this is mandated by law, activities to implement this mandate will not be qualify for registration as CDM projects, as they will be deemed non-additional.

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