

# **Initiative for Clean Energy in Development Cooperation ("Clean Energy Programme")**

## **ACTION PLAN 2009-2012**



## 0. Summary

The Initiative for Clean Energy in Development Cooperation (hereinafter referred to as “the Clean Energy Programme”), will promote sustainable environmental, economic and social development by contributing towards meeting the huge need for energy in developing countries, and will help boost international efforts at lowering greenhouse emissions. In order to meet the challenges and needs of poor countries flexibly and effectively, this programme, in principle, takes a technologically neutral approach, aiming at solutions which, in an environmentally and economically sustainable way, increase access to energy services at affordable prices, thus promoting development. The Initiative is a key aspect of the Government’s development policies, and is an integral part of the overarching energy policy of the Norwegian government.

This 4-year Action Plan, with proposals for concrete operationalization, comes in addition to budgets, other activity plans and the embassies’ strategic plans and will, along with these ordinary planning schemes, be updated on an annual basis. This Action Plan also constitutes an operationalization of the Action Plan for Environment in Development Cooperation in the field of climate change and access to clean energy. As a political and technical framework for a fragmented organization, the Clean Energy Programme aims at a coordinated use of all tools available in interaction with private and commercial investors and other external working partners within government, academia, the consultancy field, and in civil society.

A scale-up of foreign assistance funding for the energy sector is expected in the years ahead. Key premises for development work form the basis for this endeavour. These include ownership and firm anchorage with the recipient, as well as a sustainable development perspective, with an emphasis on framework conditions for investments and for combining monetary and technology transfers with the transfer of knowledge and know-how.

The following main priorities lie at the heart of this planning period:

- Mobilization of commercial investments and direct support for energy infrastructure
- Facilitation of climate-friendly energy supplies, energy efficiency measures and integration of environmental issues.

In this plan, the above-mentioned priorities have been translated to recommended administrative and technical follow-up measures, along with directions for long-term development cooperation with countries and regions, through multilateral organizations and the NGO channel. These directions provide a multiplicity of relevant intervention areas which must be further prioritized and concretized through dialogue and planning at the national level.

Liberia, Mozambique, Nepal, Tanzania, Uganda and East Timor are the main partner countries for bilateral energy collaboration. Here Norway will pursue sound, uniform, flexible programmes, and develop the capacity to become a strategic dialogue partner. The directions for energy development cooperation with these countries will involve, in part, a continuation of previous endeavours and, in part, a shift in focus towards more environmentally-oriented planning, setting the stage for CDM financing, as well as further investment in environmentally-friendly hydropower and other renewable energy production methods, energy efficiency, transmission lines and rural energy.

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## 1. Introduction

This is the Action Plan of the Norwegian Ministry of Foreign Affairs' [henceforth MFA], which operationalizes the Clean Energy Programme into more detailed priorities and concrete activities with a 4-year perspective. The Action Plan comes in addition to budgets, other activity plans and the embassies' strategic plans and will be updated on an annual basis, along with this ordinary planning scheme. The Action Plan should also be viewed in relation to the Action Plan for Environment in Development Cooperation that has climate change and access to clean energy as one of four subject areas. As a general plan for all Norwegian energy assistance, the Action Plan will strengthen the basis for coordination and reporting across all channels and administrative units.

The Clean Energy Programme was approved by Erik Solheim, Minister of the Environment and International Development, on 4 April 2006 as a unified political and technical framework for what is, in principle, a fragmented organizational structure. Energy assistance is on the rise. Responsibility for the various budget lines involved and decision making will remain with the different units in MFA, and at the Embassies, as before. The Clean Energy Programme shall coordinate, prioritize and ensure the quality of the portfolio.

The Programme will encompass all Norwegian assistance to the energy sector (apart from petroleum, which is handled by Oil for Development, OfD). Thus, the Action Plan aims to include a complete overview of Norwegian-supported schemes. Many departments and units in the Ministry are involved in this sector, and assistance is provided over a number of posts in the budget with a variety of aims. Norfund and the Guarantee Institute for Export Credit (GIEK) are part of this work tool apparatus, (See Enclosure I for an overview of their energy portfolios). The Norwegian Agency for Development Cooperation (Norad) contributes with technical advice and serves as the Secretariat for the Clean Energy Programme. Norad also manages the support schemes for private sector development, as well as the assistance that is channelled through NGOs, both of which are relevant for the Clean Energy Programme.

With a view to effective forms of collaboration and communication, the following measures have been taken / are being taken:

- Clean Energy is organized as a project under the auspices of the Section for International Development Policy of the MFA. The Section's senior energy advisor, together with the Secretariat in Norad and the Project Group for Clean Energy, will serve as an important focal point for the internal coordination.
- The Project Group consists of representatives from various sections of the MFA with budgetary responsibility for the Programme (the Department for Regional Affairs and Development), the UN section, Section for the Environment and Sustainable Development, as well as Norad, Norfund, the Norwegian Ministry of Petroleum and Energy and the Ministry of the Environment. In addition to its customary responsibility for technical quality assurance, Norad functions as Secretariat for the Programme, in close cooperation with the energy advisor at the MFA. Norad is in the process of consolidating its capacity to follow up clean energy by recruiting technical advisors and making organizational adjustments.
- To promote effective forms of external cooperation and communication, a draft proposal has been drawn up for a mandate for the Reference Group for Clean Energy, along with related proposals for potential participants from relevant administrative, commercial and consultancy agencies, academia and non-governmental organizations. The focus and meetings of the Reference Group should be coordinated with the Norwegian Energy Council, which is led by the Minister of Petroleum and Energy.

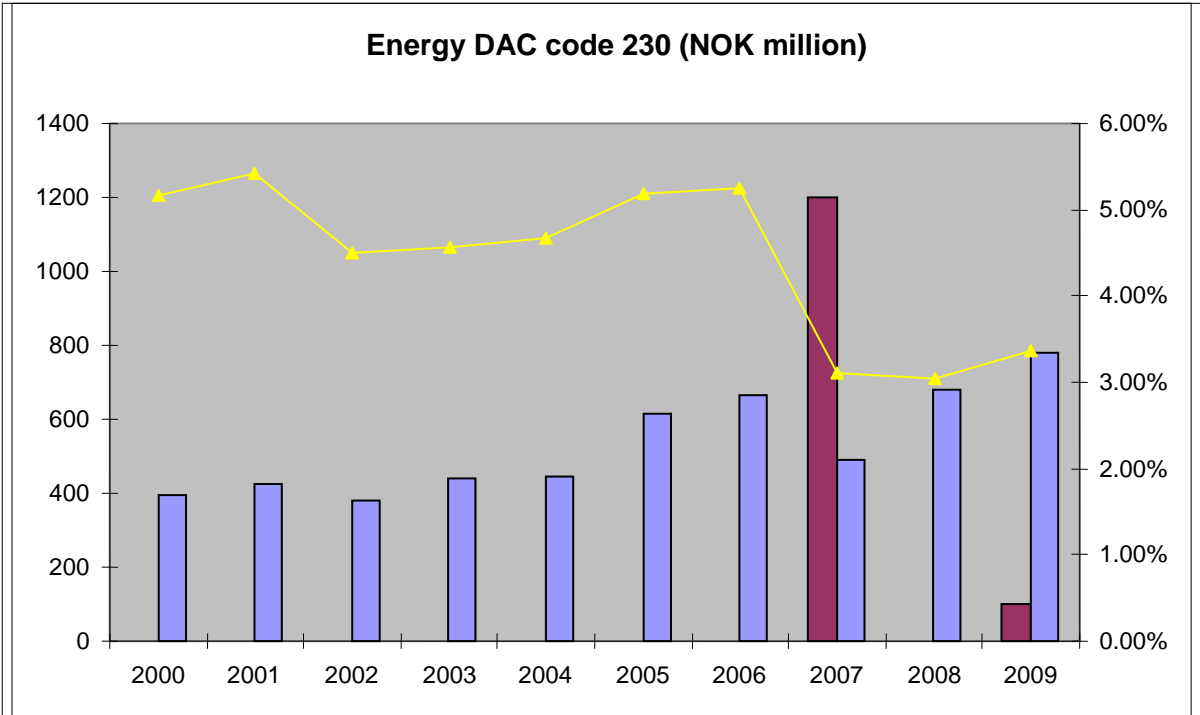
A review will be undertaken of the sustainability of the Clean Energy Programme after two years. It would be appropriate to undertake such a review in 2010, when the Programme has accumulated two years of experience with the Action Plan.

**2. Main priorities that serve as the basis for this Action Plan**

The Clean Energy Programme’s primary goal is to improve access to clean energy at affordable prices, based on long-term, sustainable management of natural resources and efficient energy consumption. It aims to promote economic and social development in selected partner countries by helping meet the need for energy, while playing an international role in reducing greenhouse emissions and taking into account the need to halt the loss of biological diversity.

The Programme will encompass major national infrastructure projects geared towards general economic development, as well as decentralized solutions. In order to meet the challenges and needs of poor countries effectively, this programme will, in principle, employ a technologically neutral approach, aiming at solutions which, in an environmentally and economically sustainable way, will boost access to energy services as a means of promoting development.

For climate and environmental considerations, the development of renewable energy solutions and energy efficiency schemes will always have priority. The development of fossil energy solutions will also be supported, as an exception, when an overall assessment indicates that it is the best solution for our partner countries. Norway will do its part to maximize the effectiveness and sustainability of such measures, while minimizing pollution and the emission of greenhouse gasses.



**Figure 1: Assistance to the energy sector for the period 2000-2009 (source: PTA)<sup>1</sup>**

<sup>1</sup> Allocations to the energy sector (OECD/DAC code 230) in sum total (million NOK) and as a percentage of overall Norwegian assistance. Allocations via Norfund are indicated by the red columns and have not been calculated in the percentage. Based on PTA accounting figures, except for the amount

Assistance to the energy sector in 2008 should come to approx. NOK 680 million. As shown in Figure 1 above, energy assistance rose from a level of approx. NOK 400 million in 2000 – 2002, to a level of approx. NOK 600 million in 2006. White Paper No. 1 (2008-09) has proposed an increase of NOK 200 million to a level of approx. NOK 880 million in 2009, based on the predictions for 2008. The rise in energy assistance has taken place in tandem with a rise in Norwegian foreign aid altogether, where a share of approx. 5% has fallen to approx. 3.5%, not including payouts via Norfund.<sup>2</sup>

Key premises for the development partnership are at the heart of our clean energy efforts. This means, among other things, that state-to-state assistance is anchored in national development strategies and budgets, and that each country's systems and procedures will be adhered to as far as possible. It also involves a sustainability perspective, with an emphasis on the framework conditions for investments, and the linking of investments and funds transfers with skills transfer.

Both bilateral and multilateral efforts will be long-term. The Programme will be linked with Norway's international energy and climate commitments. The bilateral effort will focus on – but not be restricted to – areas in which Norway has special expertise.

It will not be practically possible to follow up at once all the priorities for the Clean Energy Programme; the Action Plan must set priorities. The main priorities for this planning period will focus on the following:

- The mobilization of commercial investments and direct support for energy infrastructure.
- The facilitation of climate-friendly energy provision and energy efficiency and the integrated safeguarding of the environment.

These two main priorities have been translated into recommended schemes in chapters 3 and 4 below. Chapters 5 to 8 provide guidelines for the work with the Clean Energy Programme in the long-term development work on a national and regional basis, and through multilateral organizations and volunteer organizations. Chapter 9 deals with prioritized technical development tasks related to the follow-up and quality assurance of results, while chapter 10 deals with measures for extending the scope of skills development schemes.

In a dialogue with the Norwegian embassies, the recommended schemes are to be further translated into detailed activity plans in Enclosure I, which outlines goals, projects and expected results, and which assigns responsibility and sets deadlines.

### **3. Mobilization of commercial investments and direct support for energy infrastructure**

Access to capital for major investment needs for Clean Energy is limited by local ability to pay, by the difficulty of establishing cost-adequate tariffs, and by a generally high investment risk. There is a growing realization that both public and private capital will be necessary for satisfying investment needs. The public sector will bear particular responsibility for public welfare and for safeguarding the needs of the poorest. Public – private partnership (PPP) is a relevant platform that needs further development in order to boost investments, inter alia by maintaining various investors' demands for returns through risk sharing. Any subsidies from the national government must be clearly stated, so that the consequences can be assessed.

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for 2008, which is a prognosis for consumption per 23 October 2008, and the amount for 2009, which is the same as the prognosis for 2008 plus the Government's commitment to clean energy in White Paper No. 1.

<sup>2</sup> In 2007, the Norwegian energy sector assistance reported to OECD/DAC amounted to a total, record-high NOK 1.7 billion, which constituted 10.7% of total assistance. NOK 1.2 billion of this amount involved investments in hydropower plants under the auspices of Norfund/SN Power Power in Peru, Chile and the Philippines.

Improved dialogue, more information and the establishment of contacts with partners in partner countries is envisaged to pave the way for and assist private players. More active facilitation of potential investment projects, the establishment of energy funds, the active use of guarantee instruments, the utilization of Norad's support mechanisms for private sector development, and efforts to increase the willingness and ability of local capital markets to invest longer term in infrastructure, can help promote participation from the private sector. All this will ensure a good link with initiatives from MFA / Norfund in the mobilization of Norwegian commercial investments.

Development work will merely constitute a supplement as far as meeting the total investment needs of the energy sector; hence it must be applied strategically and catalytically in order to improve the framework conditions for the establishment of partnerships.

Private investors in developing countries will encounter many challenges in terms of health, safety and environment (HSE), corporate social responsibility (CSR), corruption, etc. Therefore, these subjects will be highlighted and discussed with potential investors.

Implementation of the following measures is recommended in this area for this planning period:

- Find effective forms of cooperation between public and private capital, based on previous reports on funding models ("Approaches and Financial Models for Scaling up Renewable Power Sector Assistance") and experience with individual projects (the Bugoye Project in Uganda). Find practical solutions for national public procurement and issues regarding untied aid.
- Improve framework conditions for private investments in the energy sector by supporting the development of the regulatory framework, capacity, institutional development, the development of fundable projects, and support for adjacent investments such as links to the web and local social development programmes.
- Serve as a door-opener for the business community, with a special focus on industrial investments, and inform commercial players of multilateral and regional initiatives that Norway supports that may lead to new projects and investments for the private sector.
- Provide information about and discuss the challenges and expectations related to HSE, CSR, corruption, etc.

#### **4. Facilitation of climate-friendly energy supplies, energy efficiency measures and the integrated safeguarding of the environment**

The developing countries are fully entitled to share in the economic growth that the industrialized countries have enjoyed the past two centuries. Energy consumption in the developing countries will increase, and the challenge will be for them to develop their own energy resources and make use of new and more efficient energy technologies, so that they will have the option of choosing alternative, more climate-friendly energy development methods than our own.

As highlighted in the policy platform for the Clean Energy Programme, environmental considerations are to be taken into account in all development work. Energy projects can have a major impact on the environment and on social life, and most schemes will require environmental impact studies. For major hydropower projects, international standards must be applied to safeguard environmental and social conditions, including indigenous populations, during the planning stage.

Environmental considerations are to be safeguarded as an integral part of the energy authorities' planning and project management, in coordination with their own national laws and with internationally accepted guidelines for environmental and social conditions. In principle, the choice of energy technology should be based on poor countries' available resources and on the need to focus on cost-effectiveness and energy efficiency. It should preferably be based on national integrated energy

plans. The impact on environmental and natural resources, as well as climate change, is expected to be taken into account in the choice of technologies. Developing countries may choose solutions that lead to higher greenhouse emissions if, after an overall assessment, this appears to be the best solution. The effect of climate change on energy investment must also be assessed with respect to the new guidelines in the sustainability manual.

Along with the more generalized safeguarding of the environment as an integrated factor, the following measures are recommended for this planning period, with a view to following up the environmental action plan's goals with respect to energy assistance<sup>3</sup>:

- Review the bilateral portfolio in the main countries for energy cooperation, with a view to establishing portfolios that includes the environmental action plan's clean energy priorities, with an emphasis on promoting greater use of clean, renewable energy, along with more energy efficiency and the development of low carbon technology. The same priorities are to be promoted in collaboration with the World Bank and the regional development banks.
- Assist in the development of and in investments in hydropower, and ensure that these projects are planned and carried out in accordance with internationally accepted standards for coping with environmental and social consequences.
- Support the development and facilitation of Clean Development Mechanism (CDM) energy projects, where this is appropriate, and help build new capacity in this field in the partner countries. Assistance funds cannot and should not be used to purchase CDM credits. The goal of The Clean Energy Programme is to boost access to clean energy at affordable prices, based on long-term management of natural resources and efficient energy consumption. It is a positive thing if such projects can be approved as CDMs, but this is not a goal in itself.
- Review and get an overview of assistance provided by Norwegian civil society, and assess it as a channel for assistance to small-scale/alternative energy supply.

Consideration of other cross-cutting issues, such as gender, governance (anti-corruption) and conflict prevention are to be integrated into the design and implementation of all projects. These are issues of priority for the Clean Energy Programme that will be given increased and more purposeful in the years ahead.

## **5. The bilateral energy portfolio**

Assistance for capacity building and institutional development, with an emphasis on legislation and national planning, will remain one of the most important areas for bilateral energy assistance. Important aims are to strengthen the foundation for commercial investments, protect the environment, and encourage countries' participation in regional energy cooperation.

The embassies update their strategic plans for bilateral development cooperation on an annual basis, and there will be active dialogue regarding the priorities for energy in these plans. Responsiveness to recipient countries' wishes and needs will be fundamental. Energy projects have a long planning horizon and it will take time for the Clean Energy Programme to bring about major change in the bilateral portfolio.

Liberia, Mozambique, Nepal, Tanzania, Uganda and East Timor are the main countries for bilateral energy cooperation. Here Norway aims to have solid, well-integrated, flexible programmes and the

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<sup>3</sup> The Environmental Action Plan aims to increase access to clean energy for poor people in the following ways: by supporting schemes to promote enhanced energy efficiency and cleaner use of fossil fuels; by supporting the mapping of resources, consumption analyses, development of regulations and system planning for the most relevant renewal sources; by supporting the development and use of renewable energy, including wind and solar energy and the environmentally-friendly expansion of hydropower; and by supporting multilateral schemes for renewable energy.



capacity to be a strategic dialogue partner. The embassies in Mozambique, Tanzania and Uganda have been strengthened by the addition of regional energy advisors. In addition, Norad must prioritize the technical follow-up of all these embassies, so that it can be an active partner in the policy dialogue, with a greater capacity for analysis. For the main partner countries, the following measures shall be considered:

- Enhanced and more environmentally-oriented planning in the energy sector, including:
  - support for increased institutional capacity and measures to integrate environmental concerns and the regional dimension in national power system planning, including the use of strategic environmental impact studies.
  - active support for and participation in the development of sector programmes and sector investment plans, provided such endeavours have potential efficiency gains and partner countries are willing and able to take the lead.
- Energy efficiency adapted to the needs of the recipient country.
- Paving the way for commercial investments in environmentally-friendly hydropower and other renewal forms of energy production, including schemes for bolstering the regulatory framework, providing support for the development of the power grid and other assistance related to specific investments.
- Investments in power lines in the facilitation of regional power trade, as well as national and local power supplies.
- Support for rural energy, with a focus on desired energy services, economic sustainability, isolated (off-grid) solutions, combined with support for local private sector development.
- Paving the way for CDM financing (project development and capacity building).

In Afghanistan, Angola, Ethiopia, Ghana, Bhutan, the Palestinian areas, Vietnam and Laos, we have partnership programmes that vary greatly in content and size, and where Norwegian money and expertise are both in demand. Institutional development/capacity building and renewable energy are recommended as prioritized areas of cooperation. During the current planning period, the needs and opportunities will be mapped out with a view to strengthening these areas of cooperation.

India, China and South Africa prefer Norwegian expertise to financial support. Climate and purification technologies, and energy planning and efficiency are in demand. Experience tells us that mobilization of Norwegian know-how is subject to serious capacity constraints. Within the framework of the Clean Energy Programme, efforts can be made to establish fora for the exchange of know-how and cover the added costs associated with the expansion of the technical base and other activities in the collaboration.

The aim is to ensure that the bilateral clean energy portfolio will not be spread too thin. A scale-up of the energy portfolio should preferably take place by means of increased volume in the main partner countries and for regional schemes, while the volume in other countries should be maintained or developed at a slower pace. Liberia and East Timor, however, have both assumed prominence as main partner countries for energy cooperation in 2008. New strategies for India and Central America are currently under consideration, and clean energy is regarded as a prioritized commitment. Furthermore, clean energy has been proposed as a prioritized area in the event of a resumption of bilateral cooperation with Zimbabwe. Internal management capacity, as well as external technical capacity, must be carefully monitored and weighed carefully in the further development of the bilateral portfolio.

## **6. Regional collaboration on energy**

Energy is an important aspect of the agenda in a number of regional organizations and partnerships. In Africa, energy is on the agenda in regional organizations such as the African Union (AU), the New Partnership for Africa's Development (NEPAD), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Economic Community of West African States

(ECOWAS), the Southern African Development Community (SADC) and the Nile Basin Initiative (NBI). Norway provides direct financial and technical assistance for regional energy collaboration (energy planning, power trade and the expansion of infrastructure) within the framework of the Nile Basin Initiative and the energy protocol of the SADC collaboration.

Institutional development at both the regional and national levels is, and will remain, an important focus area for regional energy cooperation in Africa. During the current planning period, the following will be done:

- A broader mapping and assessment of the need for more pro-active political reporting on regional organizations that have energy as an area of focus.
- A broader mapping and assessing of which regional collaborative efforts in energy will be prioritized for Norwegian assistance, with a focus on efficiency and achievement of goals.
- An assessment of ongoing Norwegian assistance to regional energy collaborate efforts, with a view to avoiding the establishment of parallel structures at the regional level, achieving a balanced development of capacity at the national and regional levels, and the realization of an increased degree of donor harmonization in this important area.

For energy cooperation in particular, within the framework of the Nile Basin Initiative, the following will be prioritized:

- Support for integration of the regional dimension in national power planning in the bilateral collaboration with Uganda, Tanzania and Ethiopia.
- In the follow-up of power trade cooperation, an integrated and strategic approach – both regional and national – will be important, as well as a sub-regional approach (NBI and the Eastern African Power Pool), with a focus on synergies and the avoidance of duplication.
- Support for studies and the implementation of several concrete hydropower projects and power lines of regional significance.

There are no fixed multilateral frameworks for regional energy cooperation in South Asia (Nepal/India/Bhutan/Bangladesh). However, the matter is being actively discussed bilaterally. Bilateral agreements have been entered into between countries with the aim of expanding the huge hydropower potential in Nepal and Bhutan for export to India and Bangladesh, which are huge markets with power shortages. Norway contributes to hydropower expansion and institutional development in Nepal and Bhutan. In India, we are also a player, assisting in capacity building and power trade. With this point of departure, it is recommended that Nepal and Bhutan be offered technical assistance, with the following aims:

- Integration of the regional dimension in national power planning
- Safeguarding countries' economic interests in power exchange agreements.

To help ensure a broader scope of skills transfer, regional needs and potential should be considered in connection with the recommended preparation of a broader programme for education and research cooperation in the main countries.

## **7. The multilateral portfolio**

The Clean Energy Programme assumes that efforts conducted through multilateral channels will be based on the organizations' special advantages and expertise and complement bilateral efforts, both in terms of topic and country. The Initiative also assumes that there will be a primary focus on Africa and energy efficiency.

The development banks, with the World Bank in the lead, are a vital channel for increasing access to energy and to the development of energy efficiency. The World Bank occupies a unique position,

because it operates at both the national and global levels; in addition, it is involved in most sectors, applying a broad range of tools, including gifts and loans, investments, and options for establishing incentive structures. The World Bank is well connected to the authorities at the national level, including the trade and finance ministries, but also with the private sector through its development arm, the IFC. This unique position makes it ideally situated for contributing to the development of enhanced access to energy and energy efficiency.

Access to energy has a high priority in the World Bank's climate strategy, and is a prerequisite for continued development in the developing countries. Consequently, the World Bank accepts the fact that access to energy for developing countries cannot be limited to "clean" energy, but must also include traditional carbon-based energy, using the best available purification technology. At the same time, the commitment to renewable energy is now increasing, in the wake of a long lull in energy investments.

The World Bank's justification for its priorities is the fact that access to (clean) energy must figure prominently in the World Bank's strategy and rank high on the climate agenda if it is to have legitimacy in relation to the developing countries and their needs. The development of clean energy (hydropower, solar cell energy, windmills, etc., energy efficiency, and purification technology with respect to carbon-based energy (coal, oil, gas) have all been given a major role to play in this strategy.

To promote the widespread use of clean energy, the World Bank and the International Finance Corporation (IFC) collaborate to develop and establish incentives (such as guarantees/risk sharing/carbon financing) in order to get the private sector to invest in climate-friendly energy and technology, and to engage in high-risk countries operating under difficult framework conditions.

In tandem with its energy investments, the World Bank is seeking to improve the framework conditions, such as a legal framework and investment climate in countries where high risk and unpredictability hamper private investments.

Through the Norwegian Trust Fund for Private Sector & Infrastructure (NTF-PSI) in the World Bank, Norway will continue to support the Energy Sector Management Assistance Program (ESMAP), with the primary goal of alleviating poverty through better access to electricity in a financially and environmentally defensible manner. Energy and women will be given special emphasis. ESMAP has been one of the few energy/infrastructure programmes that has encompassed this area.

Through the NTF-PSI, Norway will also continue to support catalytic individual projects that could have a major impact, such as "Lighting Africa." This is an initiative to replace oil lamps with mass produced, robust and effective LED lamps that can be used in households and public buildings such as schools, health clinics, etc. Other groundbreaking schemes include energy efficiency pilot projects in the African mine industry, energy efficiency investments through investment funds in Africa, and pilot projects to determine how rapidly post-conflict countries can be assured access to energy.

At the same time, a number of new, groundbreaking multilateral initiatives are in the pipeline, first and foremost under the auspices of the World Bank's Climate Investment Funds – an umbrella agency for several climate investment funds. A technology transfer fund (Clean Technology Fund) has been established in order to address rising investment costs related to energy efficiency and the use of clean technology (e.g. in power plants), directed first and foremost towards high-emission countries such as China, India, etc. In addition, a forest investment fund is being established, along with a fund for developing and increasing the large-scale use of renewable energy in low-income countries, with a special focus on Africa. The last two funds should be operative towards the end of 2009.

Norway will continue to participate in the development of these initiatives, and will consider participating. These funds have a creative structure, with both donor and receiver being equally

represented in the management structure. The funds are also important arenas for debate concerning energy access, energy cooperation and solutions, and are an important component in building trust between the G77 countries and developed countries in terms of the climate agenda in general.

The Bank is also working to identify new, substantial, non-traditional donors, such as Saudi-Arabia and other OPEC-countries with more coordinated energy cooperation in Africa. Norway will monitor the process and consider support.

As one aspect of the incentives for the private and public sectors for expanding clean energy and the cleanest possible technology in connection with power plants, Norway will support the establishment of the World Bank's new carbon fund – the Carbon Partnership Facility – which, in partnership, guarantees the buyers of quotas generated through investments in clean energy and technology.

The regional development Banks – the Inter-American Development Bank (IDB), the African Development Bank (AfDB) and the Asian Development Bank (AsDB) have developed their own climate and clean energy strategies. Norway will, however, continue to support the Clean Energy Finance Partnership Facility (CEFPF), founded in April 2007 as an umbrella organization for a number of financial facilities in the AsDB. AfDB experienced growth in infrastructure loans from 37.2% in 2006 to 74.8% in 2007, with the major share of the increase attributed to the energy sector. Non-renewable energy will continue to be crucial for the further development of the continent, and the AfDB plays a major role in the development of this sector.

Norway provides a great deal of assistance to the UN's energy efforts through the Global Environmental Facility (GEF), and is the most important single donor to the UN's largest energy programme under the auspices of its development organization, the United Nations Development Programme (UNDP). The UNDP energy programme has a normative focus and the inclusion of energy in national poverty plans as its special field of work.

For this planning period, the following measures are recommended through multilateral channels:

- Prioritize schemes that are relevant for boosting access to the cleanest possible energy
- At the same time, support measures for improving framework conditions and the investment climate
- Support schemes/initiatives that can provide more experience/insight with respect to investments and the spread of clean energy, including incentives for the private sector
- Prioritize support to poor countries
- Prioritize support for measures that can alter the energy picture on a grand scale
- Prioritize schemes that improve the situation of women
- Strengthen dialogue with multilateral organizations by actively consulting and involving the embassies (especially in the main partner countries) to a greater degree in important technical discussions and policy issues, with a view to harvesting concrete experience from bilateral cooperation and vice versa.
- Require the measuring and reporting of results, and help spread results internally and externally for the most relevant multilateral initiatives.

## **8. Non-governmental organizations (civil society)**

The environmental Non-Governmental Organizations (NGOs) are key players in the climate debate, both nationally and internationally, and as wielders of influence in civil society and the governing authorities in the south through its network. Their expert knowledge and experience will be utilized in the continued work with the Clean Energy Programme.

All civil society organizations (including those that do not have energy as their primary objective) will be able to participate – either themselves or through partners – in the production and distribution of

clean energy at the local level in the fields of solar and bioenergy efficiency sources. They can also systematically report from the household level and thereby compliment and bolster – or modify – reporting from the authorities or the major environmental organizations and research organizations.

The attitudes of civil society to climate issues and to energy use that doesn't increase harmful emissions depends, in large measure, on knowledge, as well as physical access to alternative forms of energy. Environmental NGOs and the broader, more rights-oriented organizations in civil society should be able, by acting in concert, to boost consciousness-raising, knowledge development and professionalization at their partner organizations and at local and national government agencies. It is recommended that relevant Norwegian and international organizations should be mapped, in short order, and stimulated to increased interaction on behalf of the Clean Energy Programme.

## **9. Follow-up on results, reporting and quality assurance**

Energy assistance provides support for a variety of development goals. The measuring and reporting of results depends on defining clear-cut goals, and on establishing clear-cut requirements for reporting. As with assistance in a number of other sectors, Norwegian energy assistance has the potential for improving practice with respect to documenting and reporting results, learning from experience, and basing dialogue with partner countries and other developing partners on knowledge and experience in the field.

Norad has a particular responsibility for ensuring quality and documentation of result for the entire Programme. The quality of the Programme will be enhanced through increased focus on analytical work and more active participation in a dialogue on policy formation and strategies at the national and regional levels, in multilateral organizations and with other collaborators on the donor side.

In the more detailed planning of the bilateral energy portfolio, there will be increased emphasis on explaining the relationship between the Norwegian contributions and the national objectives. The structure for the embassies' strategic plans can serve as a starting point, along with specific baseline goals for Norwegian support and the means of measuring progress (indicators).

Administratively, the Clean Energy Programme encompasses a multiplicity of institutions and a variety of budget lines. The reporting of progress and results shall take place through established routines, including reporting in connection with the annual budgets, operational planning, agency reporting and Norad's annual result report.

To strengthen result reporting, the following measures are recommended for the current planning period:

- Overview of achieved results and available evaluations, reviews and reports in Enclosure I will be made available and updated on Clean Energy's website.
- The foundation for effective measuring and reporting is laid in the design of energy projects. This foundation can be strengthened through a more comprehensive quality assurance and expert counselling from Norad. A comprehensive plan for following up results across the portfolio will ensure more optimal distribution of monitoring resources and make it easier to document results at the outcome level for different types of energy projects.
- Clean Energy will also seek to benefit from relevant experience from OfD and the Environmental Project with respect to result reporting.

Quality assurance of the energy portfolio will be based on current guidelines for assessing sustainability, where consideration for the environment, social conditions and governance (anti-corruption) in particular are crucial to energy projects.

During this planning period, Norad will prioritize the following technical development tasks that are significant for policy formation and/or the quality of energy sector assistance:

- Capacity building and institutional collaboration – application of lessons learned from the power evaluation and other reviews, with a view to enhancing the efficiency and quality of such interventions
- Principles for supporting rural electrification projects, including isolated systems, with a view in particular to economic sustainability and social impact
- Economic cost-benefit analyses of various types of clean energy investments.

## **10. Expanded scope of skills development**

The recently completed evaluation of Norwegian Power-Related Assistance showed that the results are related to broad, predictable, long-term assistance and programmes that supplement one other. Broad and lengthy skills development, also at the university level, has been important.

With a view to long-term development of a technical skills base in the South that can help generate knowledge and ensure access to qualified personnel through education, the following measures are recommended:

- In collaboration with the Research Council of Norway, assess to what extent relevant ongoing educational and research programmes in the energy field are responsive to knowledge needs and propose enhancements. Assistance from MFA/Norad to the RENERGI<sup>4</sup> research programme has thus far been modest in scale, and can be expanded.
- Energy is one of the prioritized technical areas in Norad's programme for Masters studies (NOMA), and this programme can be expanded with a "window" for further strengthening energy, petroleum and clean energy. Something similar can also be done with the National Programme for Development-Related Research and Education (NUFU).
- Build up and strengthen regional university programmes.
- Map relevant expert environments in Norway that have the will and the wherewithal to collaborate with China and South Africa.

By conducting courses for individuals, the International Centre for Hydropower will cover the more immediate need for knowledge, and there are already plans afoot to expand the involvement of the skills environment in providing assistance.

Measures must be considered for hindering the geriatrification of Norwegian energy expertise: a study on a collaboration between colleges and universities on the one hand and companies, civil society and government agencies on the other hand concerning a split-income model, where the newly educated are brought into a "Young People out into the World" programme in the energy sector.

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<sup>4</sup> Programme under the auspices of the Research Council of Norway, with primary funding from the Ministry of Petroleum and Energy. Gathers basic research, applied technological research and sociological research. MFA/Norad's assistance focuses on global issues related to clean energy and boosting cooperation with the South.



## I. Energy portfolio of Norfund and relevant support schemes in GIEK and in NORAD

### 1. Norfund

Renewable energy is one of Norfund's most important growth areas. Norfund's involvement is primarily through SN Power. SN Power, established in 2002, is a 50/50 joint venture between Norfund and Statkraft. SN Power invests in renewable hydropower on commercial terms. SN Power's equity (capital base) is approx. USD 255 million. In 2007, Norfund spent NOK 1.2 billion in assistance in connection with SN Power's hydropower investments in Peru, Chile and the Philippines.

In addition, Norfund plans to invest directly in hydropower in countries where SN Power is not a player. In this connection, Norfund has established the company Trønder Power Ltd., together with "Trønder Energi." Norfund's ownership stake is 30%. The company is currently building the Bugoye power plant in Uganda. Bugoye (13 MW/82 GWh) will commence operations in the autumn of 2009.

Norfund is also in a dialogue with the largest regional power companies in order to involve several Norwegian power companies in hydropower investments in poor countries.

More about SN Powers Invest's operations in Africa:

- No investments as yet.
- It has won licenses for Karuma and Bugoye in Uganda, but these have been sold to "Trønder Energi" and Norpak, respectively.
- In Mozambique it has a Heads of Agreement with the national power company EDM. the companies are considering establishing a joint venture company for upgrading and operating two hydropower plans (Mavuzi and Chicamba), which have a total installed effect of 90 MW.
- It is also considering projects in South Africa, among other countries.

I Asia:

- In the Philippines, it has established a joint venture company, SN Aboitiz Power, together with the national player (Aboitiz Equity Ventures, Inc.). In 2006, SN Aboitiz Power was granted a license to build and own a power plant (Magat) with an installed effect of 360 MW, and a mean production of 1000 GWh.
- On Sri Lanka, it purchased 40% of the shares in the hydropower company Nividhu Pvt. Ltd. in 2003. SN Power's partner, Lanka Transformers Limited (LTL), owns 45% of the shares in this hydropower company, which plans to expand the 30-40 MW capacity in the mini power plant within the next few years.
- In 2006, it took a majority ownership interest in the power company Himil Power Limited after taking over Statkraft's shares. At the same time, set up its own office in the country. Himil Power Limited operates the 50 MW Khimti power plant east of Kathmandu, which began operations in 2000. A mini power plant also became operational and supplies more than 4,300 households in the surrounding area.
- In Nepal, it has acquired licenses to develop Tamakosi II and III. The installed effect of these power plants is designed to be approx. 500 MW, and annual production will be approx. 2,600 GWh.
- In India, it holds a minority ownership interest in Malana Power Company Ltd. (MPCL), which is a joint venture between SN Power and LNJ Bhilwara. MPCL operates the 86 MW Malana hydropower plant and is currently building a 192-MW power plant (Allain Duhangan) in Himachal Pradesh.
- The partnership with LNJ Bhilwara also provides an opportunity to develop new projects in the future.
- It has begun to explore the possibility of becoming involved in hydropower projects in Bhutan.



In Latin America, SN Power's involvement has so far been directed towards Chile and Peru. The company has also set up offices in Brazil:

- In Chile, a number of investments in collaboration with various partners are under consideration.
- Along with Pacific Hydro, the La Higuera power plant (155 MW/900 GWh) is being built. It is due to become operational in 2008. Upstream, in the same watercourse, the Confluencia project (145 MW/700 GWh) is due to become operational in 2010.
- Through an 80/20 joint venture with the Chilean Gustavo Pavex Group, it has acquired the rights to build four river power plants of 108 MW, 30 MW, 118 MW and 320 MW, respectively. These could become operational by 2012-2014.
- Through an 80/20 Joint Venture Norvind S.A with the same above-mentioned partner, there are plans to construct a 50 MW wind power plant 300 km north of Santiago, the capital city, in 2009.
- In Peru, SN Power has established itself as the country's biggest private power producer. In 2003, SN Power bought Cahua S.A, with 12 power stations and an installed effect of 115 MW. In 2007, SN Power also bought Electroandes S.A, which commands an installed output in hydropower of 180 MW.
- In addition to upgrading and boosting the efficiency of existing stations, SN Power also plans to build several new power plants. The construction of the 168 MW Cheves river power plant is expected to commence during the second half of 2008.

## 2. GIEK

The Guarantee Institute for Export Credit (GIEK) is organized as a government management company under the Ministry of Trade and Industry (MTI). GIEK shall promote Norwegian exports and investments abroad by issuing guarantees on behalf of the Norwegian government. The Parliament and MTI set the general framework for GIEK's activities. Handling day-to-day operations and management at GIEK is a managing director and a 7-member board; these have the final say in specific matters.

GIEK guarantees Norwegian companies' export credits by offering a variety of guarantees that cover commercial risks (e.g. the buyer going bankrupt or if, for some other reason, the buyer is unable to pay) or political risks (war, expropriation and government initiatives that prevent payment). GIEK can also provide a guarantee against the loss of invested equity as a result of political risk.

OECD has prepared guidelines for assessing new credits to developing countries with a limited capacity for handling new loans (sustainable lending). These guidelines mean that credits to official buyers in a large number of countries must be concessional – that is, mixed with assistance funds. Norway has no scheme for concessional loans, which means that Norwegian enterprises, in principle, cannot offer guarantees to official buyers in many of those countries for which the scheme for developing countries is intended.

GIEK's credit assessment also includes an assessment of environmental consequences before any guarantees are given for a specific project or investment. In addition to the impact on the natural environment, the environmental consequences include the relocation of people and the impact on vulnerable groups, cultural heritage and ethnic

groups. In cases where Norad, the World Bank, or other similar institutions or organizations are involved and have given their approval, GIEK will, as a rule, take this into account in its assessment. GIEK, through OECD, is obligated to accept the World Bank's (or other high) international standards.

The developing countries scheme has an uppermost framework of involvement and responsibility of NOK 2.1 billion. This amount is set at 7 times the amount on deposit in a special loss fund (NOK 300 million) that was at one time approved. If any of this loss fund is used, the upper limit will fall correspondingly. During the past year, some premiums have come in, and we have been able to replenish the fund to NOK 300 million, with the limit now at NOK 2.1 billion. NOK 1.2 billion is currently being used. There is NOK 802 million in outstanding (current policies), and there is NOK 459 million in commitments (firm offers of coverage). We have NOK 1.3 billion in applications, distributed over 5 cases. With the exception of the limit, these amounts increase when the dollar exchange rate rises, because many loans are denominated in USD. A major project of approx. NOK 550 million that was applied for now appears to have been dropped. This means that we have an opportunity to handle all applications; however, we are aware that more applications will be submitted, particularly for the power sector.

What is special about these projects is that they involve a lengthy development time, and it is difficult for companies to work with applications (for many months, and sometimes for many years) without knowing whether there is a capacity for guarantees. They want a commitment early on. However, these commitments lie dormant for extended periods before becoming policies or being dropped. The limit is usually filled up with pledges: we expect approx. NOK 600 million extra in pledges during the course of a few months.

GIEK's board has repeatedly asked for extended limits, to no avail. A small increase was granted in 2006. In GIEK's opinion, the limit can be extended significantly without a corresponding increase in the loss fund.

Due to strict limits, the developing countries scheme is a small programme with only a very few guarantees each year. Only one policy was issued during the past three years, and this concerned a power project. The energy sector has accounted for 90% of the guarantees the last 2-3 years. This involved laying cables and the construction of a small hydropower plant. A number of investment guarantees have also been issued for the purchase of hydropower plants, but for the most part these have been covered by GIEK's standard guarantee scheme.

Work is pending on three projects in these very sectors. One frequent user has given us an overview of a number of projects it wants to work with, but where it wants to adapt or delimit what it wishes to do and apply for within the framework of anticipated benefits.

### 3. Support schemes for private sector development managed by Norad

Norad is seeking to encourage commercial development in developing countries, and can offer financing and guidance to enterprises. Norad administers financial support schemes for commercial and trade cooperation with developing countries, and can

provide grants for a variety of schemes in which Norwegian and international companies and commercial environments are involved within developing countries, or where such schemes are directed towards developing countries. Norad would like to partner with Norwegian and international companies and competence environments in any such collaboration. Clean energy is defined as an area of focus where the tools of commercial cooperation are ideally put to pro-active use.

With the aim of making a positive contribution to commercial development in developing countries, Norad can support preliminary studies, training, schemes for safeguarding social responsibility (HSE, environment and hiv/aids), and project development under the CDM. These support schemes are application-based and aimed primarily at the Norwegian business community.

In addition, these funds for commercial development can be used in capacity building and in strengthening the institutional framework in partner countries.