

Africa-EU Energy Partnership *Draft Road Map*

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Executive Summary

The Africa-EU Energy Partnership (AEEP), one of the 8 partnerships comprising the Africa-EU Joint Strategy, will be a long-term framework for structured political dialogue and cooperation between Africa and the EU on energy issues of strategic importance, reflecting African and European needs.

Through **improved dialogue and cooperation**, the AEEP aims to increase the effectiveness of African and European efforts to:

- assure **secure, reliable energy services** in the coming decades;
- extend **access to modern energy services** to the entire African population;

An analysis of current trends – in energy **policy and planning documents**, in **major infrastructure investments and regional integration**, in **energy access programmes**, and in **diversification of energy sources and renewable energy** – revealed the following gaps:

- Investment in energy production and energy transport infrastructure is inadequate.
- Diversification of energy sources is not proceeding adequately.
- Safe and sustainable cooking energy is lacking for the majority of Africans.
- Access to modern energy services is not growing rapidly enough to reach the MDGs.
- Dialogue and exchange on energy issues is inadequate to achieve AEEP objectives.

In order to achieve AEEP objectives and overcome the gaps in current trends, priority policy actions need to be implemented – both for institutions and investments - in the following areas:

- **Mobilising additional resources and support for access to energy services.**
 - Create adequate political and regulatory frameworks.
 - Support implementation of regional and national energy access policies.
- **Regional and intercontinental integration of energy systems and markets.**
 - Support priority "win-win" projects, as identified by NEPAD, PIDA, TEN, etc.
 - Build institutional capacity to plan and implement integration plans.
- **Enabling environment for scaling up investments and mobilising private capital.**
 - Implement stable, equitable and transparent investment conditions.
 - Intensify efforts to attract European investment to Africa's energy sector.
- **Renewable Energy and Energy Efficiency.**
 - Create appropriate institutional capacity: renewable energy/energy efficiency policies; support centres; resource mapping.
 - Support renewable energy and energy efficiency programmes and projects
- **Reduction of gas flaring and venting.**
 - Support the World Bank Global Gas Flaring Reduction Partnership.
- **Develop institutional and technical capacity.**
 - Support capacity building for national, regional and continental institutions (RECs, power pools, UPDEA, AFUR, AFREC, AFSEC) for instance on information systems, databases, planning, standardisation, etc.
- **Political and technical dialogue, contacts and exchanges.** Support technical and political dialogue on:
 - projects and programmes for interconnections, access, capacity building;
 - evaluate possible specific European contribution to priority actions;
 - encourage twinning between homologue agencies and authorities.

The AEEP, an evolving process, will support short-term actions (next 18 months) as well as medium and long-term actions.

Part 1

1 Introduction

The Africa-EU Energy Partnership (AEEP) is one of the 8 partnerships comprising the Africa-EU Joint Strategy, adopted in Lisbon in December 2007.

The AEEP is a long-term framework for structured political dialogue and cooperation between Africa and the EU on energy issues of strategic importance, reflecting African and European needs. Through the Partnership, Africa and Europe will work together to develop a shared vision and common policy answers, and to stimulate specific actions that address the energy challenges of the 21st century.

The Partnership will strengthen the existing Africa-EU dialogue on access to energy and energy security, at the local, national, regional, continental and global levels. The AEEP aims at mobilising increased financial, technical and human resources in support of Africa's energy development, scaling up European and African investments in energy infrastructure and in energy interconnections within Africa and between Africa and the EU. AEEP actions will address both institutional and capacity issues, as well as investments in infrastructure. AEEP actions include promoting renewable energy and energy efficiency, improving the management of energy resources, and mainstreaming climate change¹ into development cooperation.

This Road Map is a living document that will be reviewed and revised as part of the political dialogue of the AEEP process. The document is based on contributions from the African and EU Implementing Teams; from African and EU member states; on consultations with African stakeholders such as Regional Economic Communities (RECs), Power Pools and others²; and on consultations with the private sector and civil society. The document will be presented, for approval, to a High-level Meeting envisaged to take place in autumn 2009.

2 Current situation and objectives for energy in Africa and Europe

The energy situation of African and European countries presents a wide variety of specific national and regional situations, as well as some common challenges³. !! refer to Lisbon and Joint Statement..

2.1 Energy Security

All countries face the challenge of assuring **secure, reliable energy services** in the coming decades. Almost all countries in Africa and Europe have experienced interruption of some form of energy supply in recent years. Tension in oil and gas markets, changing rainfall

¹ The Joint Africa-EU Partnership includes specific Partnerships on Climate Change, on Infrastructure and on Peace and Security. The Partnership on Energy will complement actions in these partnerships. Thus, this document will avoid redundancy with issues treated in detail elsewhere.

² Notably at the Technical Consultation Meeting in May, 2009 in Uganda.

³ This document is based on Lisbon Summit Declaration, 8-9 December 2007, and the Joint Statement, 8 September 2008.

patterns, expanding demand, as well as internal technical, managerial and financial problems, have caused crisis in the availability of fuels or electricity. Furthermore, the challenges of climate change are putting increasing pressure on energy sector development in Europe and Africa. A large majority of African and European countries are heavily dependant on energy imports. Even the African and European countries that are major exporters of energy – petroleum, gas, and electricity or biomass fuels – must import at least one crucial element of their energy mix.

The improvement of economic governance and the investment climate are essential elements to build Africa's economic strength and allow Africa to move away from continuous donor support and find its place in global markets. Integrating national systems into regional networks will foster sustainable economic growth and development and improve energy security. The international economic crisis has highlighted the importance of regional integration as a means to aid those countries that rely on a limited range of energy supplies.

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2.2 Access to Energy

Alongside the energy security challenge, many countries in Africa face the additional challenge of extending **access to modern energy services**, including **safe and sustainable cooking fuels**, to their entire population. Indeed, insufficient energy infrastructure and lack of access - to electricity, to motive power, to transport fuels, or to improved cooking - constitute major barriers to sustainable development objectives, as expressed in national plans as well as in the Millennium Development Goals. Well over sixty percent of the African population lacks access to electricity, and depends on traditional methods of wood or charcoal use for cooking⁴. The majority of schools and clinics in rural Africa lack modern energy services. Productive activities in rural areas are severely handicapped by lack of energy services. African countries and Regional Economic Communities (RECs) have set ambitious targets with respect to access to modern energy. Meeting these targets will require both infusion of private and public resources, and use of innovative models to make energy service provision economically viable, in poor sparsely populated areas.

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2.3 Dialogue

African and European countries have recognized the need for more effective dialogue, notably on energy access and energy security. As a result, Heads of State from Africa and the EU called for the establishment of Africa-EU partnerships during their Lisbon Summit in December 2007. While substantial progress has since been made, it is a declared objective of the Africa-EU Energy Partnership to further strengthen this dialogue and cooperation. !!include UN and other actors.

2.4 Sustainable Development

In addition to the security and access issues, the energy sector presents opportunities and challenges for all areas of sustainable development in Africa and Europe.

- **Economic progress.** Energy service activities can be a major source of jobs, national value added or export revenues. On the other hand, energy imports (oil, gas, electricity)

⁴ According to the WHO and UNICEF, only 6% of Sub-Saharan Africa's population had access to safe and sustainable cooking in 2005.

are among the major imports for a majority of countries, and can cause balance of payments deficits. In those countries with an electricity supply shortfall, the cost of providing backup power (typically \$0.40 per kWh) is a handicap to productive industries.

- **Social progress.** Access to energy services could contribute to improving essential services such as health, education, and water supply.
- **Protection of the environment.** While energy sector activities can contribute to protection of the environment (notably through sustainable management of water and forest resources), unsustainable energy practices can be a cause of environmental degradation: deforestation, indoor and outdoor air pollution, and climate change.

3 Current trends in partner regions

Given the importance of the energy sector for sustainable development, Africans and Europeans are making substantial joint efforts to assure secure, reliable, and affordable energy for the future.

Policy and planning documents. Planning documents have been drafted or are underway for energy infrastructure in Africa and Europe: the Programme for Infrastructure Development in Africa (PIDA), that will build on the NEPAD Short Term Action Plan (STAP) and Medium to Long Term Strategic Framework (MLTSF), the Africa Infrastructure Country Diagnostic (AICD) study, the EC Communication "Interconnecting Africa: the EU-Africa Partnership on Infrastructure", Trans-European Networks (TEN), the EU Strategic Energy Review, energy aspects of the EU's European Neighbourhood Policy, the "Priority Action Plan for Euro-Mediterranean Energy Cooperation 2008-2013", as well as the Union for the Mediterranean.

The African Union has recently adopted a "Declaration on development of transport and energy infrastructure in Africa"⁵ that defines three paths for action:

- Strengthen regional cooperation and integration
- Mobilise public resources, solicit private support
- Strengthen national, regional and continental human and institutional capacity

The African Union is developing a Coordination Mechanism for the development of infrastructure in Africa. Similarly, UPDEA (Union of Producers and Distributors of Electricity in Africa) is developing coordination instruments among African power pools.

Policy documents on access to energy have been adopted by several African Regional Economic Communities (RECs) and by many African countries. Regional and national multi-sectoral working groups have been created to help focus energy investments on the needs of energy using sectors. Many countries have developed national energy strategies that cover, according to national needs: energy services; electrification; household energy; oil and gas sector; renewable energy; energy efficiency. Some countries have adopted a sector-wide approach to energy to facilitate the alignment and coordination of investments and partnership with development finance sources.

The Second EU Strategic Energy Review⁶ highlights the importance of Africa for the EU's energy security, as well as the urgent need to enhance cooperation with key African producing countries and to develop the high potential of Africa for renewable energy.

Major infrastructure investments, regional integration. In both Africa and Europe, physical and economic integration of energy markets is progressing, at different rates, both

⁵ Doc. Assembly/AU/9 (XII), 2-3 February 2009

⁶ Second Strategic Energy Review: an EU energy security and solidarity action plan COM(2008)781, endorsed by the European Council, 19&20 March 2009.

through the building of energy infrastructure (power lines, gas pipelines, oil and gas storage facilities, both within Africa and between the EU and Africa) and through increased convergence in legislative and regulatory frameworks in the energy sector. Programmes, supported by the EU and other development partners, aimed at strengthening technical and institutional capacity of authorities responsible for regional energy systems are under way. The groundwork - both infrastructure and regulatory mechanisms - is being laid for regional power pools in Africa. Infrastructure planning, under the leadership of the African Development Bank, is progressing. The creation of an "African Petroleum Fund" is also taking shape. River Basin Agencies – as managers of Africa's hydropower potential - are assuming their role in the energy planning process.

Energy access programmes. Many African countries have created specific instruments – rural energy agencies, rural electrification funds, special regulatory and legal structures for rural energy, forestry and biomass energy regulatory mechanisms – to facilitate expansion of access to energy. Grid extension and decentralised energy systems are increasing access to electricity in several countries. Innovative energy service delivery models – energy service centres, energy concessions, multi-functional platforms, etc. – are being expanded. Several countries have established programmes, often with EU development aid, to foster safe and sustainable cooking energy, through sustainable forest management, improved stoves or alternative fuels.

Diversification of energy sources, renewable energy. Access to renewable energy technologies and other clean, efficient, energy technologies is being developed and disseminated in both Europe and Africa. The African Union, in cooperation with the Government of Senegal and UNIDO, organized the First Conference on Renewable Energy in Africa from 16-18 May 2008 in Dakar, Senegal. The conference adopted the Renewable Energy Declaration and the first Plan of Action for Scaling up for renewable energy market in Africa. The EU has adopted an ambitious Renewable Energy Directive, with numeric targets for 2020, including a 10% biofuels target of which half is to be imported from third parties.

Many investors have been attracted to the effort to identify clean and sustainable alternative energy sources for European and African consumers in rural and urban settings, using hydropower, solar energy, wind energy or biomass. For instance, in the area of biomass, the First High Level African Union /Brazil/ UNIDO Biofuel Seminar in Africa from 30 July to 1 August 2007 in Addis Ababa, Ethiopia, adopted the declaration on "Sustainable Biofuel Development in Africa: Opportunities and Challenges" and established the "First Action Plan for Biofuel Development in Africa". The establishment of the EU-Brazil-Africa cooperation on biofuels sustainability was proposed recently as a follow up of the 2nd International Biofuels Conference that took place in Brazil in November 2008.

4 Gap between actions and objectives⁷

Despite the major ongoing activities briefly described above, current action in the energy sector is inadequate to create sustainable solutions to meet the combined energy security/energy access challenges.

While adequate resources exist to meet energy needs, **investment in energy production and energy transport infrastructure is inadequate.** Investment in interconnections is not rapid enough to optimise sharing, use and distribution of available resources. Current investment is neither meeting rising demand from growing economies, nor the demand from expansion of energy services to new users. In smaller countries in particular, self-sufficiency

⁷ The analysis of gaps between actions and objectives is based on a mapping of activities in the energy sector in Africa carried out by the ITs.

in electricity generation is an expensive and inefficient strategy⁸. Current investment rates are inadequate: the investment gap for the power sector alone is estimated to be \$28 billion per year, of which 80% is in low-income countries⁹. Furthermore, financing of investment in decentralized energy systems is particularly difficult. Policies encouraging these investments are lacking or not being implemented in some countries.

Needed Actions:

- Since investment in energy infrastructure in Africa needs to be expanded, appropriate conditions for attracting investment financing should be established.
- Technical standards for energy systems in Africa (grid codes, etc.) should be standardised, so as to facilitate investment.
- Appropriate pricing policies - including energy tariffs - should be adopted, both to render investments attractive by making supply of energy services viable, and to make energy service affordable for users. Administrative and economic tools - such as feed in tariffs – should be used to encourage diversification of energy supplies, notably the development of renewable energy.

Diversification of energy sources and improvement of energy efficiency is not proceeding adequately. In fact, many countries are becoming even more dependant on price-volatile fossil fuels. The share of national and renewable energy in energy mixes is growing slowly or not at all. Africa's huge potential in energy resources - such as hydropower (notably in Ethiopia, in Guinea, Zambia, Mozambique and the Democratic Republic of the Congo), as well as wind resources, solar energy, geothermal energy and biomass – is under exploited, both at the centralised and decentralised levels. The potential contribution of energy efficiency is not being realised.

Needed actions:

- Energy policies and policy tools must aim at diversifying energy supplies by using local energy sources, notably renewable energy sources.
- Energy policies and policy tools for promoting energy efficiency should be supported, notably to raise awareness among policy makers, entrepreneurs and energy consumers of the benefits and means for improving energy efficiency.

Safe and sustainable cooking energy is lacking for the majority of Africans, causing negative effects on health, on the environment and on efforts to achieve gender equality.

Needed action: According to national circumstances, cooking energy policies can combine improvement of traditional use of wood (sustainable forest management, improved stoves, etc.) with use of alternative biomass or fossil fuels such as LPG.

Access to modern energy services is not growing rapidly enough to power achievement of the MDGs in many countries in Africa. Over 500 million Africans lacked access to electricity in 2005: under current trends, the population without access will grow, since expansion of power systems – centralised as well as decentralised - is not keeping up with demographic growth¹⁰.

Needed action: Energy access policies should be defined, and energy access programmes should be carried out, notably to meet local needs in rural or isolated areas.

⁸ 21 countries in Africa have an electricity production capacity of less than 200 MW, resulting in high electricity tariffs of up to \$0.30 per kWh.

⁹ ICA document Africa Infrastructure Country Diagnostic study

¹⁰ *World Energy Outlook*; IEA; 2006.

Dialogue and exchange on energy issues, be it on the political or technical level, is inadequate to focus our efforts and achieve maximum synergies.

Needed actions:

- Opportunities for dialogue and exchange, at multiple levels, should be created or expanded.
- Capacity building must be carried out to improve Civil Society's ability to engage in energy issues.

List of Acronyms

AAA	Accra Agenda for Action
ACP	Group of African, Caribbean and Pacific countries
AEEP	Africa-EU Energy Partnership
AFD	Agence française de développement
AFREC	African Energy Commission
ALTENER	Renewable Energy Programme of the European Commission
AUC	African Union Commission
BDSA	Development Bank of Southern Africa
BEST	Biomass Energy Strategy
CDM	Clean Development Mechanism
COMLEC	!!
DEEP-EA	Development Energy Enterprise Project - East Africa
DFID	UK Department for International Development
DGIS	Dutch Ministry of Foreign Affairs
EC	European Commission
ECOWAS	Economic Community of West African States
EDF	European Development Fund
EIB	European Investment Bank
EITI	Extractive Industries Transparency Initiative
EnDev	Energising Development
ESMAP	Energy Sector Management Assistance Program
EU JRC	EU Joint Research Centre
EUEI PDF	European Union Energy Initiative – Partnership Dialogue Facility
FMO	Entrepreneurial Development Bank of the Netherlands
GTZ	German Technical Cooperation
ICA	Infrastructure Consortium for Africa
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
INCO	Programme for International Scientific Cooperation of the EC
IPEEC Initiative	International Partnership for Energy Efficiency Cooperation Initiative
IRENA	International Renewable Energy Agency
KfW	German Development Bank
MDGs	Millennium Development Goals
MED-ENEC	Energy Efficiency in the Construction Sector in the Mediterranean
MENA	Middle East and North Africa
NEPAD IPPF	NEPAD Infrastructure Project Preparation Facility
NEPAD MLTSF	NEPAD Medium to Long Term Strategic Framework
NEPAD STAP	NEPAD Short Term Action Plan
NEPAD	New Partnership for Africa's Development
NIPs	National Indicative Plans
OECD	Organisation for Economic Co-operation and Development
PERACOD	Programme pour la promotion de l'électrification et de l'approvisionnement durable en combustibles domestiques en Sénégal
PIDA	Programme for Infrastructure Development in Africa
PRSPs	Poverty Reduction Strategy Papers
RIPs	Regional Indicative Plans
SAPP	Southern African Power Pool
SAVE	Energy Efficiency Programme of the European Commission
Sida	Swedish International Development Agency
TEN	Trans-European Networks
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UPDEA	Union of Producers and Distributors of Electricity in Africa
WHO	World Health Organization

Part 2

1 Priority actions for implementation of the Partnership

The Africa-EU Energy Partnership aims to mobilise new resources, and improve synergy and coordination among existing activities, in view of attaining the Partnership objectives. On the basis of the joint analysis of the energy challenge carried out by the African and European Implementing Teams, a number of priority actions have been identified to address the policy, technology and finance aspects of the energy challenge.

This section broadly describes the types of priority policy actions in favour of Partnership objectives. Annex A presents more specific examples of activities, whereas Annex B contains a list of energy projects presented to the heads of state of the African Union Member States at the African Union Twelfth Ordinary Session 2-3 February 2009 in Addis Ababa, Ethiopia.

The Partnership is expected to accelerate progress on the priority actions through improved dialogue and coordination between key policy actors in Europe and Africa. The present document describes both short-term actions as mandated in the “First Action Plan (2008-2010) for the implementation of the Africa-EU Strategic Partnership”, and longer term actions that will be implemented after 2010. The partnership will help identify synergies, avoid duplication and accelerate the implementation of effective policies, programmes and other cooperation means. The improved quality of dialogue will make knowledge about best practices and success stories readily available and will help channel resources effectively into priority investments. The Partnership will thus help overcome the short-term approach to cooperation that often hinders the development of long-term sustainable solutions with supporting markets and infrastructure.

The Partnership would also define and carry out short, medium and long-term actions in a coordinated manner.

- In the short term, support for the Partnership will come from the most flexible EU financial instruments (Infrastructure Trust Fund, EIB investment facility, Energy Facility, some bi-lateral cooperation for which the modalities of application can be determined in the near term), and from political support by public authorities.
- In the medium and long term, the Partnership will aim to attract increased flows of public resources (through better integration of energy considerations into development programming) and private capital (through improved framework conditions, and improved synergy with public political and financial action).

Support for energy activities is increasing within the framework of EU development assistance: several countries have chosen to include energy into their National Indicative Programmes, financed under the 10th EDF or the ENPI. Other countries and regions may choose to include energy in future cooperation agreements with the EC. Furthermore, support for energy is growing in bi-lateral programmes, and in the activities of the EIB and other European financial institutions. The AEEP will seek dialogue and coordination in its actions with other major actors, notably within the UN system.

1.1 Mobilising additional resources and support for access to energy services

African countries and regions will sustain and strengthen efforts to create adequate political and regulatory frameworks to achieve the energy access goals expressed in the access White Papers and strategies adopted by the RECs, and in numerous national energy access strategies. The development of innovative, long-term financial schemes is key to implementation of access to energy programmes in Africa.

EC support to energy access programmes, as defined in regional and national White Papers, will be increased. The ACP-EU Energy Facility I is supporting projects with a total contribution of 210M€, mostly in Africa. Discussion is underway for the modalities of the replenished Energy Facility (200M€), whose launch is expected by the end of 2009.

EU bi-lateral actions in the field of access will be strengthened and replicated, including:

- support to rural electrification funds;
- development of innovative technology for affordable energy service delivery;
- support for public and private investment in off grid power;
- development of cooking energy strategies.

1.2 Regional integration of energy systems and markets, developing energy interconnections within Africa and between Africa and Europe¹¹

Integration of African and European energy systems and markets - at the regional, continental and intercontinental level - is viewed as a priority, given the multiple benefits of integration. Integration of energy markets will require investments in physical infrastructure (power lines, gas and oil pipelines) as well as improved functioning of energy market.

Increased integration improves energy security and the reliability at national and regional levels. Integration aids in the diversification of energy supplies, by allowing the best use of complementary resources:

- Intermittent or seasonal renewable sources – wind power, run of the river hydro, some biomass resources – are most valuable if injected into large continental and intercontinental grids, since this allows combining different sources to achieve stable power supply.
- Storage hydro (of which huge untapped reserves exist in Africa) and natural gas power generation are most valuable – in economic and technical terms - if sold to large grids as peak power sources.

Thus, continental and intercontinental integration of energy systems would create markets for some of the large African power projects that would be difficult to finance if they served only limited national or regional markets.

Increased integration facilitates cost effective energy systems, notably in terms of lower energy prices, by allowing the use of the most economical combination of energy resources. Increased integration allows better use of capital resources. Integration of energy systems, serves the overall objective of aiding political and economic integration. Furthermore, integration contributes to the expansion of access to energy, for instance through cross border electrification.

Given the importance of integration of energy systems, the EU and AU aim to reinforce their cooperation for the development of energy infrastructures of common interest, to improve

¹¹ The Joint Statement priorities for “Regional integration ...” and for “... interconnections between Africa and Europe” have been combined, in view of a more coherent treatment of overlapping and interdependent actions.

energy security for both Africa and Europe. Thus, African and European public authorities will intensify their support for projects that are underway or planned for construction in the near term. African Regional Economic Communities (RECs) are supporting the strengthening of regional power pools and gas pipelines. Priorities will be determined through political and technical dialogue, in line with ongoing planning exercises, such as the Africa-EU Infrastructure Partnership, PIDA, the Second European Strategic Energy review and other processes.

Programme for Infrastructure Development in Africa (PIDA) is a joint initiative led by the African Union Commission (AUC), the NEPAD Secretariat and the African Development Bank (AfDB). It is a merger of the AUC Master Plan and Continental Policies Studies and the NEPAD Medium to Long Term Strategic Framework (MLTSF). The PIDA aims at aiding African decision makers to:

- Establish a strategic framework for the development of regional and continental water, energy, transport and information and communication technologies infrastructure based on a vision, strategic objectives and sector policies;
- Formulate a prioritised and phased programme of infrastructure development;
- Prepare an implementation strategy and process for the programme, including, in particular, a priority action plan.

The approach adopted by PIDA will seek to provide innovative solutions to all recurring issues after an evaluation of the existing situation. The ambition of this programme is thus to learn, in a practical manner, the lessons from previous initiatives, in order to enable Africa to effectively develop the much-needed networks of infrastructure.

The EC, at the sub-regional level, is supporting integration of electricity markets in Maghreb countries. A proposal for an Electricity Master Plan is expected to be presented by the AUC within the framework of the PIDA initiative.

Priority actions of the AEEP will cover both the investments in regional and intercontinental physical infrastructure, as defined above, and the accompanying institutional actions, including:

- updating regional energy policies and regional master plans, as well as harmonisation between regional and national policies;
- support for the strengthening and adaptation of legal, regulatory and institutional frameworks and institutions responsible for: planning; regulation; energy market agreements; power Pool investment strategies; standardisation of grid codes; wheeling and power trade agreements.

Additional opportunities for Africa-Europe interconnections will be studied, notably to identify "Win-Win" projects. Efforts will be made to open up access to African and European markets on a mutual basis, in coherence with respective internal energy market rules and policies. The EU will work to identify European priorities, both in the field of electricity and in oil and gas infrastructure. Private investment opportunities - notably opportunities for joint venture projects, including development of future renewable energy markets, interconnections such as the Trans Sahara Gas Pipeline, electricity interconnections, etc. – will be studied through intensified energy dialogue. Intercontinental interconnections will be further integrated into the EU Neighbourhood Policy.

1.3 Promoting an enabling environment for scaling up investments and mobilising private capital

Developing cooperation between private and public sectors is a priority of the AEEP. To increase investment, it is necessary to reduce institutional bottlenecks, complete feasibility studies, improve procurement processes and introduce medium term, multi-year budgeting, rather than piecemeal short-term project budgeting. AEEP efforts will focus on power pool interconnections, as well as regional and intercontinental gas and oil transport infrastructure, notably the priorities established in the NEPAD Short Term Action Plan (STAP) and Medium to Long Term Strategic Framework (MLTSF), the PIDA and the TEN. The AEEP will seek to establish an expert group - including the EIB, the AfDB and other interested IFI's and public financial bodies – to identify barriers for project financing, and to make recommendations on how best to mobilise public and private resources for investment in the energy sector.

The EU will continue to support the implementation of the Paris Agenda and the Accra Agenda for Action (AAA), on harmonisation and alignment. In particular, the EU will support increased donor coordination, for instance through the establishment of conferences for bankable projects.

The EU will intensify efforts to facilitate cooperation among African and European private sector investors, with particular focus on attracting European investment to Africa. Opportunities for new projects will be identified. Furthermore, efforts will be made to improve the profitability and viability of power utilities, for instance through more efficient management, through adaptation of tariff setting regimes and connection cost pricing, through innovative payment and financing tools, or through more precisely targeted subsidy policies.

The EU – through instruments such as the European Development Fund (including the Energy Facility, as well as National and Regional Indicative Programmes), the EUEI Partnership Dialogue Facility (PDF), and bilateral instruments – will support African countries who wish to launch or intensify efforts to improve the business climate for energy investments, in areas such as development of appropriate tariffs, or regulations on Independent Power Producers, transport fuels, decentralised household energy, etc. With those countries and regions that choose to do so, discussions will be launched on strengthening existing financing mechanisms and on better integrating energy into European ODA, notably in view of the upcoming mid-term review of the 10th EDF and the programming for future Africa-EU development cooperation.

The role of the private sector in provision and productive end-use of decentralized renewable energy will be scaled up in the Energy Facility. The African Development Bank, with support from the Commission on Effective Development Cooperation with Africa, will establish a facility to stimulate the energy market by supporting investments, capacity building and development of policy frameworks.

African countries are invited to pursue their efforts for increasing the share of domestic market capital finance, for instance through development of corporate bond markets. African countries are further invited to pursue their efforts to implement stable, equitable and transparent conditions - institutional, legal, fiscal, etc – so as to create more attractive markets for private investment, and to facilitate investment in the energy sector. The AEEP will, in dialogue with RECs, support the elaboration of model legislation to address critical bottlenecks / impediments to investment in the energy sector.

The EU is supporting the efforts of those African states wishing to promote good governance and transparency, notably through its participation in international initiatives such as the Extractive Industries Transparency Initiative (EITI). The EU will continue to support the

efforts of the Regional Economic Communities in favour of harmonisation of national economic frameworks, so as to favour the creation of large integrated, attractive markets.

1.4 Renewable Energy and Energy Efficiency¹²

Renewable energy technologies are often the best solution to improve energy access and energy security whether they are grid connected (large scale production) or decentralized (access to energy/rural electrification). Africa has a vast potential for all forms of renewable energy:

- hydropower (only 7% of potential is currently exploited);
- wind energy, for which an enormous potential exists in coastal areas;
- geothermal energy (only 1% of the potential is currently exploited);
- solar energy, for both electricity and thermal energy;
- biomass, including biofuels (currently traditional use of wood is the major source of primary energy in Africa).

Given the important potential for increasing renewable energy use and introducing energy efficiency and energy savings measures, African and EU authorities are invited to support specific renewable energy and energy efficiency programmes and projects.

The EU is currently discussing the modalities of implementation of the second ACP-EU Energy Facility, for 200 M€, that will focus on renewables for access to energy, as well as on energy efficiency. The Facility aims at leveraging funding from bilateral donors and implementing agencies and the private sector.

A renewable energy cooperation programme for Africa is being developed, in order to further promote renewable energy and energy efficiency. Consultations on the outline of the initiative with EU and African partners will take place during 2009, in view of a launch in 2010. The EU is already working with some African countries on the development of a Mediterranean Solar Plan that supports solar energy development in the region.

The recently created International Renewable Energy Agency (IRENA) will have expert staff available to advise member countries.

Resource mapping, notably on renewable energy, will be supported through the creation of databases. For instance: the Southern African Research And Documentation Centre (SARDC) has carried out a study on the "Basic Energy Initiatives In Southern Africa; the EU Joint Research Centre (JRC) will undertake a mapping of African renewable energy resources in support of the partnership. Cooperation between these and other initiatives to map energy potentials will be explored.

Renewable energy and energy efficiency support centres will be strengthened or created, notably to facilitate the exchange of experience on policies, best practices as well as technologies. The multilateral initiative for the MENA Centre for Renewable Energy and Energy Efficiency based in Cairo, Egypt can be used as a model to spur similar regional centres for cooperation on Renewable Energy and Energy Efficiency.

Technical assistance from European bilateral programmes on renewable energy technologies, including export initiatives, etc., will be analysed for the potential to scale up private sector investment. Specific technical measures – for instance, dissemination of energy efficient CFL or LED lamps, reduction of power losses in distribution, utility supported

¹² In the interest of concision, this section combines actions related to the Joint Statement priorities for: "Launching a renewable energy cooperation programme"; "Strengthening cooperation to improve energy efficiency in all sectors"

demand side management (DSM) and energy efficiency programmes - will be evaluated for their applicability in specific national and regional circumstances

A consolidated EU proposal on measures to promote local sustainable access to energy in developing countries has been adopted during the Czech EU Presidency. Discussion is underway on actions to facilitate the participation of African cities in the EU Covenant of Mayors – an initiative focused on the role of municipal authorities in developing sustainable urban energy - in order to share information and good practices, and to foster joint action among cities.

Measures to encourage the efficient use of biomass for household use and industrial applications will be scaled up in both the Energy Facility and in EU MS cooperation programmes such as Energising Development (EnDev) and EUEI PDF work on Biomass Energy Strategies (BEST).

Development of sustainable biofuels could support economic development and social progress in developing countries. In the coming months, the EU will consider how to support creation of biomass strategies and actions, in view of helping African countries wishing to promote the production of biofuels in a sustainable manner. Capacity building and transfer of available know-how will be encouraged. Establishment of an EU-Brazil-Africa Cooperation for Sustainable Energy is being pushed forward.

Drafting of renewable energy and energy efficiency master plans - including appropriate targets and objectives - will be supported, at both the regional and national level. EU member states are invited to increase their funding for advisory services to African states to develop policies to encourage renewable energy and energy efficiency in all sectors. Action can build on a variety of current activities: World Energy Council; World Bank ESMAP Initiative; the EC supported MED-ENEC initiative; the new campaign for more efficient use of energy in South Africa; the Ghana CFL programme; the Kenya industrial energy efficiency programme, etc. Coordination with the World Energy Council and the International Partnership for Energy Efficiency Cooperation (IPEEC) Initiative will be enhanced to increase information about the potential for energy efficiency measures in African countries.

The possibilities of carbon financing for energy efficiency measures and renewable energy generation projects will be explored.

1.5 Reduction of gas flaring and venting

The reduction of gas flaring will contribute to both energy security and the fight against climate change. The EC supports the World Bank Global Gas Flaring Reduction Partnership. At the bilateral level, the EU member states, the concerned gas producing countries and the oil companies operating in these countries are invited to seek means to support gas utilisation projects for efficient local use. Use of innovative methods – such as financing through CDM, regulatory and financial incentives, etc. – should be considered.

1.6 Developing institutional and technical capacity of the AUC, of RECs, of national authorities and of energy operators

The EU will support capacity building for national, regional and continental institutions (AUC, AfDB, RECs, power pools, UPDEA, AFUR, AFREC, AFSEC) for instance on information systems, databases, planning, standardisation, etc. EU programmes will facilitate dialogue and exchange of experience on best practices. Synergies will be sought with the REC Capacity Building programme of the NEPAD Infrastructure Project Preparation Facility (IPPF) at the African Development Bank.

The EC will facilitate access for African institutions, organisations and enterprises to technology and capacity building programmes in the field of energy, such as: SAVE ALTENER; INCO; ENRTP; Marie-Curie. It will also facilitate exchange of experience on key aspects of policy making in the energy sector between Europe and Africa.

Capacity Building Programmes for African Power Pools are being implemented, with support from Energy Facility I. A similar programme for AFUR should start up by the end of 2009.

Capacity building will be designed to respond to national choices with respect to technologies and institutional options. EU bi-lateral programmes in favour of capacity building within the RECs will be strengthened. Technical assistance from European bilateral programmes will assist African utilities in improving both management and the environment for Public Private Partnerships (PPPs), for example through: Independent Power Production; Power Purchase Agreements; distribution concessions; improved regulation and governance. Twinning with European utilities could be a source of relevant technical capacity. In this respect, for those countries that have chosen to pursue the peaceful use of nuclear energy – in line with all relevant IAEA safety standards and the Non-Proliferation Treaty - dialogue on capacity building could focus on ensuring the highest standards of nuclear safety and security. The security of energy and transport infrastructure, essential to the achievement of AEEP goals, is a key element within the broader issue of peace and security. The AEEP, in cooperation with the Partnership on Peace and Security, will seek ways to support African efforts to enhance the security of physical infrastructure (training, appropriate technologies, anti-pirating measures, etc.), notably in view of improving the security of international petroleum trade.

The EU will support acquisition of European technology and creation of local manufacturing of energy equipment, notably through facilitation of exchanges between private sector actors.

1.7 Political and technical dialogue, contacts and exchanges

Energy plays an increasingly important part in African and EU external relations. Thus, the AU and the EU will make efforts to enhance and strengthen their energy cooperation. Ongoing dialogue at the regional and continental level will be reinforced. Furthermore, the EU intends to promote bilateral political and technical dialogue, in view of reliable energy partnerships, with African countries.

Dialogue will be strengthened at many levels, to better focus actions on public policy objectives, and to maximise synergies. Mainstreaming access to energy and energy security into AU-EU development cooperation is essential to the success of the AEEP. Political dialogue will be strengthened to:

- identify public policy objectives, and politically important projects;
- exchange experience on African and European energy policy;
- launch the public actions necessary for inclusion of energy in development plans (PRSPs, NIPs/RIPs, etc.; legislative and regulatory action;

- improve coordination between national, regional and continental levels.

Technical dialogue will be strengthened by facilitating contacts and exchanges of know-how between relevant European Institutions and their African counterparts:

- review menus of possible projects and programmes, notably in the field of interconnections, access to energy, on- and off-grid renewable energy, and capacity building;
- take into consideration political priorities;
- evaluate technical feasibility, economic viability, development impact, and a specific European contribution
- encourage twinning between homologue agencies (see "twinning" in the preceding section);
- work to improve our "map" of ongoing energy activities in Africa, in synergy with the official reporting mechanisms of the OECD Development Aid Committee, so as to facilitate cooperation through improved transparency and visibility of in the field action.

Strengthened dialogue with African and European civil society actors - essential for effective implementation of the AEEP – will be sought. Furthermore, since the private sector will be essential in reaching the AEEP's objectives, outreach will be pursued to fully integrate private sector concerns into AEEP actions. Research institutions in both continents will similarly be involved in the AEEP dialogue process.

Recognising the increasingly important role of Africa in EU energy security, EU will step up its energy relationships with Africa and promote bilateral political and technical dialogue and reliable energy partnerships with key Africa suppliers. The AEEP will work in synergy with existing and future bi-lateral energy partnerships between African and EU countries. The AEEP will seek synergies with major multi-lateral initiatives, both European and non-European, for instance the UN System (UNDP, World Bank, UNIDO, UN-Energy) and the G8 Initiatives on access to energy.

1.8 Implementation of actions

In accordance with the Joint Progress Reports of the Africa-EU Ministerial Troika meetings - in Addis Ababa, 20-21 November 2008 and in Luxembourg 28 April 2009 - dialogue will continue on the Road Map, in particular with respect to including more information on financing, timing, driving actors, and benchmarks.

In the coming months, the JEG will consider the creation of appropriate fora to carry forward the implementation, monitoring and reporting on AEEP activities. This could take the form of convening ad hoc expert groups on specific issues.

The AEEP, an evolving process, will support both ongoing and new actions, including short term actions (to be engaged during the next 18 months as part of the First Action Plan) as well as medium and long term actions, that will extend into future reporting periods of the AEEP. The AEEP will discuss how to put into place appropriate mechanisms to monitor and report on progress on priority actions, and to make recommendations on the enrichment of the AEEP action plan.

In particular, work must be done to define **Indicators of progress** and **Reporting** methods. During the discussion on follow up, it will be necessary to determine:

- the frequency for reporting;
- the responsibility for reporting;
- the format for reporting, and in particular, the appropriate level of detail.

2 Activities classified by status

Note: The tables of projects, programmes and activities in this annex are examples of ongoing and planned AEEP activities. The list is far from complete. Further work within the AEEP framework will facilitate creating a more comprehensive vision of energy activities. Note also, that the classification is somewhat arbitrary, since many projects could be classified in several categories.

A.1 Integration of energy systems and markets

<i>Project description</i>	<i>Countries/region concerned</i>	<i>Financing actors</i>	<i>Status</i>	<i>Renewable energy, energy efficiency</i>
SAPP				
Capacity development	SADC members	Sweden, Norway	On-going	
Capacity development	RERA, Regional Electricity Regulator	Sweden, Norway	On-going	
Caprivi interconnector, 400 MWe, 1250 km transmission connection	Namibia and members of SAPP	EU – Africa Infrastructure Trust Fund, KfW, AFD	approved	
Kafue Gorge Lower HEP 750 MW (Zambia)	Zambia	preparatory activities co-financed by NEPAD-IPPF/IFC/PPIAFDBSA-AFD PPFS/GoZ	The feasibility is complete	*
Hwange Expansion (600MW)-Zambia	Zambia		The feasibility is complete	*
Itezhi-Tezhi Hydropower Plant	Zambia	NEPAD-IPPF for project preparatory and pre-investment activities	The feasibility is complete; ZESCO and TATA Africa Holdings (SA) (Pty) Ltd drafted agreement	*
Mozambique-South Africa Oil Products pipeline	Mozambique, RSA	EIB	advanced	
Temane Combined Cycle	Mozambique, RSA	EU – Africa Infrastructure Trust Fund	advanced	*
Zambia-Tanzania-Kenya-Electricity Interconnection Project	Zambia-Tanzania-Kenya		Expression of interest formulated by FMO and AfDB	
Western Corridor (Westcor) Electricity Interconnection	DRC, Angola, Botswana, Namibia and South Africa		Request for funding for the Final Feasibility	

Project description	Countries/region concerned	Financing actors	Status	Renewable energy, energy efficiency
Project				
Zimbabwe-Zambia-Botswana-Namibia [ZIZABONA] Project	Zimbabwe-Zambia-Botswana-Namibia			
Andekaleka hydropower station extension	Madagascar	EIB		*
ZESCO KARIBA NORTH II power station rehabilitation	Zambia	EIB		
Kariba North Bank Expansion 360 MW	Zambia	preparatory activities co-financed by NEPAD-IPPF/IFC/PPIAFDBSA-AFD PPFS/GoZ		
Mozambique-South Africa Natural Gas pipeline	Mozambique, RSA	EIB		
EAPP				
Gilgel Gibe II Hydropower Plant	Ethiopia	EIB	under construction	*
East Africa Electricity Interconnector	Ethiopia-Kenya	EU-Africa Infrastructure Trust Fund, KfW, AFD	approved, feasibility study ongoing	
GIBE III Hydroelectric Project 1 870 MW -Ethiopia	Ethiopia	- EEPKO & Government of Ethiopia financing civil works - EIB & AfDB EIB requested to finance electromechanical equipment	- design of project by Salin International	*
Ethiopia-Sudan-Egypt transmission project	Ethiopia-Sudan-Egypt		feasibility study completed	
Kenya-Uganda transmission project	Kenya-Uganda		feasibility study completed	
Rwanda-Burundi transmission interconnection	Rwanda-Burundi		feasibility study completed	
Uganda-Rwanda transmission interconnection	Uganda and Rwanda		feasibility study completed	
Geothermal Risk Mitigation Facility		KfW, AFD, EU – Africa Infrastructure Trust Fund	advanced	*
Bujagali hydropower station	Uganda	EIB		*

Project description	Countries/region concerned	Financing actors	Status	Renewable energy, energy efficiency
KPLC grid development	Kenya	EIB		
Olkaria II Extension Geothermal Plant	Kenya	EIB		*
WAPP				
West African Gas Pipeline	Ghana, Nigeria	EIB	near completion	*
FELOU hydroelectricity plant	Mali	EU – Africa Infrastructure Trust Fund	approved, under construction	*
330 kV Volta – Momé-Hagou – Sakété (Ghana-Togo-Benin Interconnection)	Ghana-Togo-Bénin	Funding approved by ADB, WB, BOAD, IsDB, VRA and CEB	Under implementation	
ECOWAS Electricity Regulation	WAPP	AFD, EU – Africa Infrastructure Trust Fund	ongoing	
WAPP CLSG Power Interconnector	WAPP: Ivory Coast, Liberia, Sierra Leone	EU-Africa Infrastructure Trust Fund, KfW	approved, pre-investment study ongoing	
OMVS Gouina Hydropower	Guinea, Mali, Mauritania, Senegal	EU – Africa Infrastructure Trust Fund, AFD	approved, feasibility completed	*
WAPP Coastal Backbone	Ghana, Ivory Coast	EU – Africa Infrastructure Trust Fund	approved	
WAPP Burkina-Mali Interconnector	Burkina Faso, Mali	AFD, EU – Africa Infrastructure Trust Fund	advanced	
WAPP Burkina-Ghana Interconnector	Burkina Faso, Ghana	AFD, EU – Africa Infrastructure Trust Fund	advanced	
OMVG Phase I (Kaleta + Interconnector)	Gambia, Senegal	EU – Africa Infrastructure Trust Fund, KfW, AFD, AfDB	advanced	
Reinforcing the 225kv power line: Laboa-Ferke (cote d'ivoire) - Sikasso- Segou-Bamako (mali)	Côte d'Ivoire, Mali		WAPP priority project	
Cross border electrification, by medium voltage power line	Senegal-Gambie, Senegal-Guinee Bissau		WAPP priority project	

Project description	Countries/region concerned	Financing actors	Status	Renewable energy, energy efficiency
Implementing operations manual for synchronization of grids	WAPP		WAPP priority project	
Design of regional energy market, and rules for operation	WAPP		WAPP priority project	
Study on capacity building for WAPP	WAPP		WAPP priority project	
VRA VII power line	Ghana	EIB		
CAPP				
Ruzizi III Hydropower Plant	Burundi, DRC, Rwanda (EAPP&SAPP)	EU-Africa Infrastructure Trust Fund, Oe-EB	approved, feasibility study ongoing	*
Study on the Interconnections of CAPP Member States electricity grid	ECCAS member countries	AfDB	approved, study ongoing	
Study of the Development of the Inga Hydropower Site and Associated Power Interconnections	DRC	AfDB	approved, pre-selection ongoing	*
Trans-Border Electrification Project in Central Africa	ECCAS region (DRC, Gabon, Cameroon, Chad, Equatorial Guinea, RCA)	IPPF	approved, pre-selection ongoing	
Study on the Interconnections of CAPP Member States electricity grid	ECCAS member countries	AfDB	approved, study ongoing	
Study on the Interconnections of the Inga (DRC)-Cabinda (Angola)-Pointe Noire (Congo Brazzaville)	DRC; Angola; Congo Brazzaville		request for financing the study	*
Inga-Calabar Electricity Interconnection	Inga (RDC) to Calabar in Nigeria.		request for financing the study	*
Inga rehabilitation	DRC	EIB		*
AES Sonel electricity supply rehabilitation	Cameroon	EIB		

Project description	Countries/region concerned	Financing actors	Status	Renewable energy, energy efficiency
COMLEC¹³				
Nigeria-Algeria (Transahara) Gas Pipeline pre-feasibility Study	Nigeria-Niger-Algeria	Request for financing feasibility study	approved, pre-feasibility completed	*

NB: A "*" in the right most column indicates projects that directly use renewable energy, or contribute to energy efficiency, including through the use of natural gas. In fact, almost all of the interconnection projects contribute to use of renewable energy, by facilitating regional use of major renewable installations.

¹³ Several projects concerning the UMA are classified in the Africa-EU interconnection paragraph. Note also that the Nigeria-Algeria pipeline also concerns Africa-EU interconnections.

A.2 Access

<i>Project description</i>	<i>Countries/region concerned</i>	<i>Financing actors</i>	<i>Status</i>	<i>RE/EE</i>
"Energising Development" (EnDev)	The programme currently has actions in 13 African countries and impacted 3.0 million persons and is being extended in a second phase in which it aims to reach an additional 2.5 million persons and supply them with sustainable energy services	financed by the Netherlands and carried out by GTZ	Ongoing	*
PERACOD - rural electrification and sustainable cooking	Senegal	Senegal-GTZ-DGIS-EC	Ongoing	*
Cost effective and environmentally sustainable electricity	Sierra Leone	Sierra Leone-DFID		
Rural Electrification	Mozambique, Tanzania, Zambia, Uganda	Sida, Sweden	Ongoing	*
Energy and Environment Partnership for SADC	SADC	Finland, Austria/ADA	Ongoing	*
Energizing Africa: From Dream To Reality.	Africa. The initiative, would take stock of the numerous EU-Africa joint projects in the field of energy, scale them up, in view of achieving access to modern energy for Africans	France	Approved	*

A.3 Africa-EU Interconnections

<i>Project description</i>	<i>Countries/region concerned</i>	<i>Financing actors</i>	<i>Status</i>	<i>RE/EE</i>
Medgas gas pipeline	Algeria, Spain		under construction	
Tunisia-Libya Gas Pipeline Project	Tunisia-Libya		approved, feasibility completed, execution on hold	*
Tunisia-Italy interconnection	Tunisia-Italy		approved, pre-feasibility completed	
Southern Corridor Gas Pipeline	Egypt, EU, West Asia		EU political commitment	
Trans-Sahara Gas pipeline	Nigeria, Niger, Algeria, EU		under feasibility study/consideration	
Mediterranean Ring for electricity and gas		North Africa-EU branch	under definition	*
Galsi gas pipeline project				

A.4 Scaling up investments, mobilising private capital

<i>Project description</i>	<i>Countries/region concerned</i>	<i>Financing actors</i>	<i>Status</i>	<i>RE/EE</i>
The Emerging Africa Infrastructure Fund	Africa	KfW, DFID, SIDA	On going	*
GuarantCo (local currency guarantee facility)		DFID, SIDA	On going	
DevCo	Africa, global	IFC, Sida and others	On-going	
PIDG	Africa, global	Sida, DFID, SECO, DGIS/FMO, ADA	On-going	
'Increasing access to sustainable energy', which facilitates access to finance for small and medium sized enterprises and strengthens the market for decentralized renewable energy and energy efficient solutions in Africa.	Africa	African Development Bank/ Denmark and others. Commission on Effective Development Cooperation with Africa	ongoing	*
EITI	Global	EU support for improved governance	Ongoing	
InfraCo (credit enhancement to private, municipal and parastatal entities for infrastructure sector investments)		DFID	Preparation	
Development Energy Enterprise Project - East Africa (DEEP-EA)	East Africa	DGIS and the EC	Preparation	

A.5 Renewable Energy and Energy Efficiency

<i>Project description</i>	<i>Countries/region concerned</i>	<i>Financing actors</i>	<i>Status</i>	<i>RE/EE</i>
Solar PV marketing	Tanzania	Sida	On-going	*
Sustainable utilisation of Nigeria's Gas and Renewable Energy Resources in the Niger Delta Region	Nigeria	EC	Under preparation	*
Rehab Hydro Power	Mozambique	Sida	Under preparation	*
120 MW Wind Farm Ashegoda	Ethiopia	loan by AFD		*
Olkaria Geothermal Power Plants	Kenya	Germany/KfW, France/Proparco-AFD, Netherlands/FMO		*
200 MW Wind Farm in the Gulf of el Zayt	Egypt	EC, EU MS, KfW, EIB		*
Municipal Energy Efficiency Programme South Africa	South Africa	KfW, Development Bank of Southern Africa/BDSA		*
MENA Center for Renewable Energy and Energy Efficiency	MENA region	GTZ		*
EU JRC Project for Mapping African Renewable Energy Resources	Africa	EC		*
UNIDO Coordination work on a Plan of Action for Renewable Energy in Africa and plans to establish Regional Centres of Excellence for Renewable Energy	Africa	UNIDO, Austria/ADA		*

Nb: several large renewable energy projects are listed in the paragraph on “Integration of energy systems and markets” above

3 African Quick Win Projects

The African Union Twelfth Ordinary Session 2-3 February 2009 in Addis Ababa, Ethiopia adopted the Declaration on Development of Transport and Energy Infrastructure in Africa. The following list of quick win energy projects was presented to the heads of state of the African Union Member States:

- Kenya-Ethiopia Interconnection
- Kenya-Uganda-Rwanda-Burundi Oil Pipeline Project
- Nigeria-Algeria Pipeline (Trans-Saharan Gas Pipeline (TSGP)) Project
- Sambangalou Kaleta Hydropower Project and OMVG (Gambia, Guinea, Guinea Bissau and Senegal) Interconnection Project
- Kafue Gorge (Lower) Hydropower Generation Project(Zambia)
- Zambia-Tanzania-Kenya Interconnection Project
- Western Corridor (development of Inga III Power Station and Interconnection of DRC, Angola, Namibia, South Africa and Botswana) Study