

Towards an effective arrangement to review progress on increasing the global market share of renewable energy

Background Paper,
Prepared by international team of experts
with logistical support from
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1. Background

At the 2002 World Summit on Sustainable Development (WSSD), Heads of State committed to “with a sense of urgency [...] substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply [...] and regularly evaluate available data to review progress to this end.”¹

Following the WSSD, several relevant initiatives emerged to implement this commitment. Initiatives such as the Johannesburg Renewable Energy Coalition (JREC)², the International Conference for Renewable Energy 2004 (*renewables2004* in Bonn, Germany), the 2005 Beijing International Renewable Energy Conference (*BIREC2005*), all contributed to the increasing consensus regarding the multiple benefits that renewable energies can bring in terms of combating climate change, energy security, and increasing access to energy for the poor.

¹ See “Plan of Implementation of the World Summit on Sustainable Development” (Johannesburg Plan of Implementation(JPOI)), p. 9, § 20e (text §20 in Annex 2)

² http://ec.europa.eu/environment/jrec/index_en.htm. See also the JREC Ministerial Declaration adopted in Dubai, 2006.

The proceedings of – and perhaps even more so the nature of the debates at -- the 14th Session of the Commission for Sustainable Development, (held in New York, May 2006, and focusing inter alia on the progress made towards the energy related WSSD/JPOI commitments) clearly demonstrated the progress made since 2002.

However, whilst many positive actions were undertaken at the international, regional, and local level, it has been acknowledged that the measurable progress reached at the global level remained too weak. The conclusions reached at the above mentioned initiatives all referred to the need to regularly review progress as foreseen in the Johannesburg Plan of Implementation. This was also reflected in report from CSD 14 prepared by the General Secretary on policy options and possible actions to expedite implementation: energy for sustainable development.³

Therefore, an appropriate review arrangement should be identified and agreed upon at the CSD15.”

Against this backdrop, the Governments of Austria, Denmark, Germany, Norway, Sweden, and the United Kingdom, ordered a study to develop possible options for developing an appropriate review mechanism. The Secretariat of the Johannesburg Renewable Energy Coalition (JREC), hosted by the European Commission, offered to facilitate. Draft versions of the paper were commented by a large amount of international peer reviewers. In two dedicated meetings, senior officials from JREC and non JREC member states were given the opportunity to comment and to come to common views amongst official CSD delegates.

³ Report of the Commission on Sustainable Development, 14th Session (http://www.un.org/esa/sustdev/documents/docs_csd14.htm): (p) Considering the establishment of a mechanism for regularly evaluating available data to review progress being made in achieving the renewable energy goals of §20 (e) of the JPoI. See also paragraph147: “For the share of renewable energy to be increased in the total energy supply and for energy efficiency to be promoted, further effort is needed in the area of market support, through innovative financing mechanisms, increased investments, accelerated research and development, adequate legislation, education, awareness raising and information and data exchange.”

2. Objectives of this paper

The purpose of this paper⁴ is to describe the principles, objectives and functions of an effective arrangement to review progress made towards increasing the share of renewable energy in the global energy mix as foreseen in the WSSD/CSD and outlines possible stakeholders' contributions. The modalities and organisational settings for the review arrangement will be defined in an ongoing process of stakeholder consultations.

The paper builds on a review of the activities and expertise of selected institutions, processes and networks including UNEP, UNDP, UNDESA, WB, IEA, REN21, REEEP, JREC, and others. It takes account of comments received from a large international group of peer reviewers. It aims to summarize the consensus emerging amongst consulted experts related to the objectives of such a review arrangement, its guiding principle, core functions, and possible options for its organisational setting and implementation.

The paper does not reflect the official position of sponsoring governments or institutions.

The paper offers guidance to senior officials from governments participating in the CSD15 preparations.

⁴ Previous versions were revised on the basis of comments received from a large international group of peer reviewers. Input given on possible options for the organisational setting are taken into account in a separate future report.

3. Guiding principles for the Review Arrangement

There exists broad consensus to date that the review arrangement should be guided by the following principles:

- Cost-effectiveness – therefore building on existing initiatives, data collection and review arrangements to create synergies and to avoid duplication.⁵
- Added value – therefore avoiding the creation of undue overhead, new institutions, networks and partnerships unless a clear added value is established.
- Broad Participation – therefore promoting arrangements that can engage a broad range of stakeholders (including the private sector and civil society).
- Promote Positive Action – therefore focusing on good practice and international actions that help meeting the needs on the ground.
- Respect Sovereignty – therefore refraining from undue interference in national, regional, local or sector initiatives that could hamper creative approaches.

4. Scope and Objectives of the Review Arrangement

Note: the current focus of this paper / this review arrangement is limited to increasing the share of renewable energy. This is to build on the extensive experience gained in this field over the last years. The ultimate scope may/ will at some stage be expanded to energy efficiency and other forms of clean, affordable, and secure energy production and consumption whilst keeping an appropriate focus on the particularities of each sector.

⁵ Existing data and review arrangements include e.g.: IEA annual report ‘Renewables Information’; IEA ‘World Energy Outlook’; IEA/JREC ‘Renewable Energy Policies and Measures Database’; IEA “Energy Policies of IEA Countries” yearly review; REN21 ‘Global Status Report’ Germany/REN21 Bonn International Action Programme and Follow Up; UNDESA Statistics Division energy statistics yearbooks; UNDESA ‘Expert Group Energy Indicators for Sustainable Development’, World Bank, Energy Charter etc. (see Annex 4).

The general objective of the Review Arrangement is to contribute to, and accelerate, the world-wide development of renewable energy.

The specific objectives of the Review Arrangement are to:

- Provide governments and key stakeholders with accurate and complete information on the potential and current use of renewable energy, including on:
 - o Good practices related to policies and measures (incl. programmes and projects);
 - o Gaps and barriers;
 - o Opportunities for accelerated development, transfer and diffusion of renewable energy technologies and services, energy efficient production and consumption;
- Promote participation in the review arrangement of all governments across all relevant policy areas, in particular key decision makers in the area of energy, environment, and economic and development policies;
- Pay due attention to the needs of developing countries.
- Promote concerted action at the international (multilateral, bilateral, etc.), regional, national and local level to increase the share of renewable energy, including on:
 - o Research, development and demonstration projects
 - o Capacity building
 - o Market-based public and/or private financing mechanisms

5. Core Functions of a Review Arrangement

Considering the above stated objectives and principles, the arrangement will aim towards the following three core functions that should facilitate a regular high-level review:

1) Global Data Reporting

This function consists of:

- **Data collection, verification and validation**, based on existing sources including the share of renewable energy in the total energy mix, untapped potentials, planned and enacted policies (including targets set at the regional, national, and/or local level), programmes, projects and financing trends and opportunities;

- **Reporting including online databases and regular progress reports** on trends, market shares, fund flows, on the share of renewable energy in the total energy mix, including untapped potential, enacted policies (including targets set at the regional, national, and/or local level), programmes, projects and financing trends and opportunities;

This may also take into account processes to report on the outcomes of implementing initiatives (including lessons learned), voluntary commitments such as those included in the Bonn International Action Plan, the G-8 action plan on Climate and Energy, etc. [See chapter 6 “Available Capabilities”]

2) Global Analysis

This function includes:

- **Identifying good practice and success factors, gaps, barriers, and opportunities** to accelerated development and deployment of renewable energies, etc.
- **Scenario analysis to forecast development of renewable energies on a business as usual as well proactive policy scenarios.** (based on existing initiatives)

3) Progress Review

- **High-Level Progress Review (UN Level on the basis of a 3-4 year cycle)** – the review process should ultimately be presented at regular intervals at the UN level. The purpose of this review will be to identify and address gaps and means to overcome barriers, including guidance to international, regional, and national organisations. Such guidance may, where appropriate, include recommendations to strengthen and/or take on voluntary commitments or develop appropriate international agreements.

- **Other Periodic Progress Reviews** -- the review arrangement could also contribute to, and benefit from, other review or high-level processes (e.g. building on the Renewables2004, BIREC2005, etc.)

6. Available capabilities, gaps, and opportunities for synergies

There is a broad consensus that a review arrangement should make maximum use of available capabilities, where possible focusing on filling gaps and tapping opportunities for creating synergies (i.e. avoiding overlapping work where there is no clear added value).

A table is included in a separate annex which provides a (non-exhaustive) listing of key players, their activities and relevant outputs, and their respective strengths and gaps in terms of their contribution to the review arrangement as defined above.⁶

The following are selected examples to illustrate the type of capabilities that could be built upon.

- The International Energy Agency (IEA) has established ten Implementing Agreements⁷ on renewables technology collaboration and deployment, and is actively encouraging the membership of non-IEA Countries through its NEET Initiative. The IEA also has longstanding experience of data collection. It delivered a comprehensive analysis of RES in IEA countries for the Bonn Conference. At present an online Global Renewable Energy Policies and Measures Database is available⁸ and its scope is gradually expanding towards including developing country data, where

⁶ Each section includes some suggested options for shaping the review arrangement. The table below reflects work in progress. It contains illustrative data that have not been fully verified/validated by listed actors. The listing of actors does not imply a formal position taken by these actors. The table will be further developed and its content will also become part of the report on organisational settings.

⁷ See <http://www.iea.org/Textbase/techno/technologies/renew.asp>

⁸ <http://renewables.iea.org>

this is made available. The latter has been made possible based on co-financing and co-operation with the JREC Secretariat (EC).

A review arrangement could make use and build on the IEA tools and processes, particularly because this would avoid introducing additional reporting schemes for governments and it would allow engaging the energy policy community. Adequate provisions would need to be made to ensure that regional energy agencies are also involved and that their work in specific regions is properly accounted for (e.g. OLADE for Latin America). It has been suggested that more efforts should be undertaken to develop and use reporting units that were meaning full on a global scale (e.g. some units were not used on a standard basis).

- The Renewable Energy and Energy Efficiency Partnership (REEEP) is a registered NGO with central hub in Austria and comprising more than 200 partners and 4000 network partners. Its activities focus on removing market barriers through targeted projects on policies and innovative financing mechanisms and on improving access to reliable and clean energy for the poor. REEEP is located in 40 countries with several regional secretariats. In addition to contributing renewable energy facts and figures, REEEP could also contribute to a review arrangement covering energy efficiency. It continues to develop capabilities and expertise in this area, similarly to what JREC, REN21 and others were doing for renewables.

Whilst 36 Governments participate in REEEP, it does not at present have a regular high-level platform to raise awareness about its activities and for taking political guidance. Hence, REEEP would benefit from the review arrangement, particularly its high-level platform.

- REN21 has developed an effective platform to engage a large number of public and private stakeholders. Through its steering committee an effective and efficient process had been put in place to perform peer reviews for its flagship publication, i.e. the Global Status Report for Renewable Energies. One of the added values of the

report was that it relied on official statistics (mainly from IEA) but that these were complemented by data collected from experts in the field that were not (yet) captured by official agencies, including market and investment data and very recent data not yet reflected in statistics. REN21 has furthermore developed an effective and efficient process for reviewing progress in the implementation of the voluntary commitments contained in the Bonn International Action Plan. The "non-intrusive" character of this review could form an example for similar features to be developed in the review arrangement.

- UNEP, as one of the member organisations of UN Energy (with, among others, UNDESA and UNDP) holds a mandate to promote international environmental cooperation. It provides general policy guidance for the direction and coordination of environmental programmes within the UN system, maintains an ongoing review of the world environmental situation and promotes international scientific and other knowledge-based communities in the acquisition, assessment and exchange of environmental knowledge and information: It is continuously reviewing the impact of national and international environmental policies and measures for developing countries. Dedicated capabilities exist that focus in sustainable energy, including associated innovative financing mechanisms.

Whilst UNEP could offer important capabilities to underpin a review process, adequate arrangements would need to be made, through tighter co-operation with other UN Energy and UN agencies to cover all developing countries.

7. Basic Principles on Modalities and Organizational Setting for a Review Arrangement

7.1 State of the Art Global Progress Report

A state of the art progress report should be at the core of the review arrangement. This report should be underpinned by a solid data collection and analysis capability, including

the capability to provide key recommendations for consideration by Ministers and other actors on ways and means to remove barriers and exploiting untapped potential and opportunities. It could take/include the following shape(s)/ content:

- Review progress since 2002 WSSD/JPOI
- Identify gaps and opportunities
- Recommended concerted action and synergies
- Policy recommendations for countries, organisation etc.
- Sector reports
- Country reports

Considering that there exists no single international body at present that has the very broad expertise, capability and/or mandate to develop a state of the art progress report, an arrangement would be needed that allows to draw on the strengths of various existing organisations, agencies, and partnerships. Obvious candidates that should be considered are IEA, UNEP, UNDP, UNDESA, UNIDO, the World Bank and other international and regional finance institutions, REN21, REEEP, etc.

There is a need to ensure effective leadership in the preparation of the report. The key issue is to find an effective arrangement that would ensure a timely start of the preparation of the progress report and effective resourcing associated with that process.

7.2. The Political High-Level Review

There is a growing consensus that the review arrangement should culminate in a Ministerial session focusing on the review within the context of the CSD.

CSD emerges as the preferred platform as it offers at present the only global UN platform where (the increasingly important) sustainable energy issues were being debated. In the absence of a decision on a review arrangement energy issues would not be debated until 2016, as this was at present not included in the CSD calendar.

A four-year cycle is considered adequate to ensure that solid data collection and analysis could be carried out ahead of the Ministerial meeting. Ideally, Ministerial sessions were held during the "decision making" sessions of the CSD cycle. Hence possible target dates needed careful reflection (2009 or 2010 and 2013/2014).

As for other CSD and/or UN meetings, senior officials would consider a progress report ahead of the Ministerial meeting and prepare Ministerial resolutions and, where appropriate, decisions to be taken on further action to accelerate the share of renewable energy in the global energy mix. Senior officials would also consider views from representatives of civil society and private sector which could be expressed during plenary senior official meeting. Having this layer would ease the pressure on the authors of the progress report (see above) to produce a political rather than factual report.

Support services will be provided by a Conference Secretariat. The Secretariat will be responsible for convening Ministerial and Senior Officials' Meetings and for providing the necessary logistical support.

It should be noted that the review arrangement would not substitute but compliment existing international initiatives such as the 2004 Bonn Conferences, 2005 BIREC, and the forthcoming 2008 WIREC. The review arrangement would also indirectly strengthen (and draw from) existing data collection, analysis, and reporting initiatives and capabilities.

8. Expected Outcomes

In the short term, the review arrangement is expected to promote the the timely availability of comprehensive, relevant, accurate and lean datasets and thus providing a practical basis for key public and private decision makers to develop enabling policy frameworks and effective implementing and financing arrangements.

It should help increasing investment and funding opportunities, e.g. by providing public and private investors with better information to manage risks and develop risk mitigation instruments. This will in turn provide for a more favourable environment for technology transfer and accelerate the diffusion of innovative renewable energy technologies, particularly in developing countries.

Every 3-4 years a comprehensive progress report will be produced for consideration by Ministers and high-level representatives from international organizations.

The review arrangement is also expected to contribute the discussions and decision making process in several international processes, for example the UN Framework Convention on Climate Change, G-8, etc. but also provide guidance for international organisations such as the WB, UNDP, UNEP etc.

Annex 1.

International commitments upon which the mandate for an effective review arrangement is based

Paragraph 20(e) of the Johannesburg Plan of Implementation (JPOI) expresses a commitment to “substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply, recognising the role of national and voluntary regional targets, as well as initiatives, where they exist, and ensuring that energy policies are supportive to developing countries’ efforts to eradicate poverty, and regularly evaluate available data to review progress to this end.”¹

The Bonn World Conference for Renewable Energy in 2004 highlighted the consensus regarding the need to urgently increase the share of renewable energies and to report on progress. Paragraph 8 of the Political Declaration states that “measurable steps should be reported to the CSD and that progress should be reviewed as foreseen in the Johannesburg Plan of Implementation. An appropriate arrangement for follow-up should be identified in a future meeting in preparation for CSD 14/15.” At the 2002 World Summit for Sustainable Development (WSSD), governments agreed to urgently and significantly increase the share of renewable energy in the global energy mix.

The 2005 Beijing International Renewable Energy Conference confirmed the Bonn commitment to act. The Beijing Declaration sent a strong message for the need to periodically track progress of actions taken on the ground and of the global share of renewable energies. Specifically, it called on the CSD to consider an “effective arrangement to review and assess progress towards substantially increasing the global share of renewable energy as foreseen in paragraph 20(e) of the Johannesburg Plan of Implementation

Against this backdrop, the Johannesburg Renewable Energy Coalition (JREC) has now developed a consultative process that will generate a set of options for the proposed review arrangement to be presented at CSD-15.

Annex 2: Other Documents referred to in the paper

Excerpt from: “Plan of Implementation of the World Summit on Sustainable Development” (Johannesburg Plan of Implementation), p. 9:

20. Call upon Governments as well as relevant regional and international organizations and other relevant stakeholders to implement, taking into account national and regional specificities and circumstances, the recommendations and conclusions adopted by the Commission on Sustainable Development concerning energy for sustainable development at its ninth session, including the issues and options set out below, bearing in mind that in view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. This would include actions at all levels to:

- (a) Take further action to mobilize the provision of financial resources, technology transfer, capacity -building and the diffusion of environmentally sound technologies according to the recommendations and conclusions of the Commission on Sustainable Development, as contained in section A, paragraph 3, and section D, paragraph 30, of its decision 9/19 on energy for sustainable development;
- (b) Integrate energy considerations, including energy efficiency, affordability and accessibility, into socio -economic programmes, especially into policies of major energy -consuming sectors, and into the planning, operation and maintenance of long-lived energy consuming infrastructures, such as the public sector, transport, industry, agriculture, urban land use, tourism and construction sectors;
- (c) Develop and disseminate alternative energy technologies with the aim of giving a greater share of the energy mix to renewable energies, improving energy efficiency and greater reliance on advanced energy technologies, including cleaner fossil fuel technologies;
- (d) Combine, as appropriate, the increased use of renewable energy resources, more efficient use of energy, greater reliance on advanced energy technologies, including advanced and cleaner fossil fuel technologies, and the sustainable use of traditional energy resources, which could meet the growing need for energy services in the longer term to achieve sustainable development;

- (e) Diversify energy supply by developing advanced, cleaner, more efficient, affordable and cost-effective energy technologies, including fossil fuel technologies and renewable energy technologies, hydro included, and their transfer to developing countries on concessional terms as mutually agreed. With a sense of urgency, substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply, recognizing the role of national and voluntary regional targets as well as initiatives, where they exist, and ensuring that energy policies are supportive to developing countries' efforts to eradicate poverty, and regularly evaluate available data to review progress to this end;
- (f) Support efforts, including through provision of financial and technical assistance to developing countries, with the involvement of the private sector, to reduce flaring and venting of gas associated with crude oil production;
- (g) Develop and utilize indigenous energy sources and infrastructures for various local uses and promote rural community participation, including local Agenda 21 groups, with the support of the international community, in developing and utilizing renewable energy technologies to meet their daily energy needs to find simple and local solutions;

**Statement from Member Governments of the Johannesburg Renewable Energy Coalition to UN Commission for Sustainable Development (14th and 15th Session)⁹
(The Dubai Declaration)**

Renewable energy – key to Energize Future Generations

1. Winning the battle against climate change, securing global energy supplies and assisting in the eradication of poverty by improving access to energy services feature amongst the biggest roadblocks to global sustainable development.
2. Considering these and other challenges, Heads of State recognized the key role for renewable energies at the 2002 World Summit on Sustainable Development, and agreed to significantly increase their share in the global energy mix, with a sense of urgency. We launched the declaration “The way Forward on Renewable Energy” and established the Johannesburg Renewable Energy Coalition (JREC), now including 88 Governments. We agreed to the importance of, and promote the use of national and regional time bound targets and timetables for developing markets and guiding investments in renewable energies. We agreed to make sure that these did not remain empty words.
3. We welcome, as part of an overall energy policy approach, the growing awareness on the multiple benefits of increased development and use of renewable energies for improving access to energy services, reducing greenhouse gas emissions, enhancing energy security, reducing the economic burden of energy imports, increasing job opportunities, improving air quality and public health, sustainable development, and eradicating poverty.
4. Our Governments, individually and jointly, have shown international leadership. We, together with other countries and stakeholders, actively engaged in many action oriented conferences and partnerships such as REEEP, MEDREP, EUEI, EEP, GVEP, and GNESD, to strengthen international awareness on the benefits of renewables and to ensure action is delivered on the ground.¹⁰ These efforts led to a notable strengthening of international co-operation on renewable energy. The International Energy Agency, with support from the JREC secretariat, established a Global Renewable Energy Policies database to encourage exchange of information and good practice. At least 48 countries have now introduced proactive policies to drive new renewable energy technologies into the market. More than 45 countries had taken on renewable energy targets at the regional, national, or sub national level.

⁹ JREC members in Annex

¹⁰ Renewable Energy and Energy Efficiency Partnership (REEEP), Mediterranean Renewable Energy Partnership (MEDREP), EU Energy Initiative (EUEI), Energy Environment Partnership (EEP), Global Village Energy Partnership (GVEP), and Global Network on Energy for Sustainable Development (GNESD)

5. The Bonn Renewables 2004 declaration demonstrated the broadening and deepening consensus on the need to urgently increase the share of renewables. It delivered an International Action Program containing around 200 commitments towards delivering concrete results on the ground and led to the establishment of the global policy network 'REN21'. The 2005 Beijing International Renewable Energy Conference confirmed this commitment to act, pointing to the increasing and improving affordability of renewable energies also for developing countries. A strong message was sent to periodically track progress of actions taken on the ground and of the global share of renewable energies.
6. We have not yet realized our objectives. The share of renewables remains too low. Government actions are urgently needed to reap the full potential and benefits by providing the long-term policy framework that renewable energy investors require as well as facilitating access to technologies and to funding for cost-effective renewable energy and energy efficiency investments and programs. Further action by the international community, including international financing institutions, is required. The upcoming 14th and 15th Session of the Commission for Sustainable Development provides an unprecedented opportunity for all governments to take another important step forward. It is therefore of key importance that further action on renewable energies features amongst the key issues on the upcoming CSD agenda. Discussions should focus on reaching agreement on action oriented measures building on progress made to date and challenges ahead, and in incorporating the environmental costs of all energy sources.
7. We urge CSD 15 to establish an efficient arrangement to review and assess progress towards the global increase of renewable energies building on the recommendations of the Beijing Declaration (BIREC 2005). We strongly encourage the CSD to consider the Bonn International Action Program and the Global Renewable Energy Policies Database as a format and starting point for enhancing awareness raising and capacity building by exchanging the latest information on good practice. The CSD should identify measures that seek to eliminate the barriers to, and create positive incentives for, the widest possible development, financing and diffusion of appropriate technologies and services in the renewable energy sector including further engaging international and regional finance institutions and the private sector.
8. We look forward to discussing how to further deepen the commitments on renewable energy in the Johannesburg Plan of Implementation. We call on REN21 to assist in bringing together all relevant stakeholders for fact based discussions and for ensuring that our agreements will find support across all relevant policy areas. We are committed to co-operate with all governments, stakeholders, and partnerships to come to conclusions and actions that are meaningful for present and future generations.

Excerpt from: Increasing Global Renewable Energy Market Share: Recent Trends and Perspectives. Final Report, prepared for: Beijing International Renewable Energy Conference 2005

(Chapter [7: Options for Enhanced Information Gathering, Sharing, Review, and Assessment](#))

Textbox 7.2 Selected Examples for International Policy Review

Currently there is no or only limited experience among members of the Commission on Sustainable development on the use of peer review mechanisms; some national and international examples are given here.

In his speech at the World Summit on Sustainable Development, the President of the French Republic, M. Jacques Chirac, made a commitment that **France** would submit its **National Strategy for Sustainable Development** for a **peer review** by other countries, following a proposal by the European Union to develop such a system in order to promote the sharing of experiences. A pilot peer review project was initiated in 2004 in cooperation with the United Nations Department of Economic and Social Affairs and the European Commission (DG Environment). The peer review involved eight invited visiting experts, two each from Belgium, the United Kingdom, Ghana and Mauritius. The visiting experts represented both, governmental and non-governmental organizations. The peer review process was facilitated by the International Institute for Environment and Development and has been documented in several reports of the Ministry of Economy and Sustainable development and the Ministry of Foreign Affairs of France. The information exchange and policy dialogue has been rated very useful by the participants who recommended voluntary cooperation under similar mechanisms also among other countries and/or on selected issues of sustainable development.

Various policy peer review mechanisms have been established at regional levels and among members of several international organizations. The **OECD** and **IEA** have established peer review mechanisms among respective members. Peer reviews are undertaken and published in line with the respective OECD / IEA statutes and guidelines. The periodic IEA energy policy review covers all dimensions of energy policy, including the use of renewable energy sources.

Peer review mechanisms have also been established under the **OECD Environmental Action Program (EAP)**. Under this program, OECD established a Task Force for the Implementation of the Environmental Action Program for Central and Eastern Europe, Caucasus and Central Asia, with a subsidiary Regulatory Environmental Program Implementation Network (REPIN) and a REPIN Peer Review Scheme. The country of Kyrgyzstan was the first country to invite a peer review under this scheme. Upon request of the Ministry of Ecology and Emergency Situations of the Kyrgyz Republic, a peer review team comprising seven experts carried out a review mission in March 2004, and subsequently submitted its 23 page report summarizing the conclusions and recommendations of the review. The expenses of the review were covered by the EuropeAid Program of the European Union.

During recent years peer review mechanisms have also been established among developing countries. The **African Peer Review Mechanism (APRM)** is generally considered the most innovative aspect of the **New Partnership for Africa's Development (NEPAD)**. The APRM is a voluntary mechanism open to all member states of the African Union. NEPAD is premised on the need for improved democratic political, economic and corporate governance and an end to conflict as preconditions for sustainable economic growth. As a result the issues of tracking and reporting on political, economic and corporate governance have featured prominently in all NEPAD and APRM documentation as an integral part of the partnership. The NEPAD secretariat appointed the United Nations Economic Commission for Africa, and the African Development Bank to prepare indicators and benchmarks for the operationalization of APRM. Thus far, 22 African countries have joined and participate in this regional peer review mechanism. The policies reviewed under APRM do not directly relate to energy or renewable energy, but the functioning of the mechanism may be studied by interested countries and organizations intent on establishing similar voluntary mechanisms of information sharing pertaining to other issues of sustainable development.

Annex 3. List (not exhaustive) of organisations with a link to renewable energy

United Nations Bodies:

United Nations Environment Programme (UNEP)

The mandate of UNEP's Governing Council provides a compelling rationale for integrating the policy-making function within its remit. The Governing Council's current responsibilities, which are directly relevant to the policy-making responsibilities for the review arrangement, include: promotion of international environmental cooperation; provision of general policy guidance for the direction and coordination of environmental programmes within the UN system; maintaining ongoing review of the world environmental situation; promotion of international scientific and other knowledge-based communities in the acquisition, assessment and exchange of environmental knowledge and information; continuous review of the impact of national and international environmental policies and measures for developing countries.

www.unep.org

United Nations Development Programme (UNDP)

UNDP's efforts in energy for sustainable development support the achievement of the MDGs, especially MDG 1, reducing by half the proportion of people living in poverty by 2015. Through an integrated development approach, UNDP works to help create enabling policy frameworks, develop local capacity and provide knowledge-based advisory services for expanding access to energy services for the poor. In this respect UNDP could have valuable input into the data gathering and review / tracking functions.

www.undp.org

The Department of Economic and Social Affairs of the United Nations (UN DESA)

The Department of Economic and Social Affairs of the United Nations Secretariat act as an interface between global policies in the economic, social and environmental spheres and national action.

UNDESA also has the potential to contribute towards the data gathering and review function, since it is involved in the compilation, generation and analysis of a wide range of general economic, social and environmental data and information. UNDESA is fulfilling the secretariat function for the Commission on Sustainable Energy (CSD). Therefore it has the potential to contribute towards the policy making function of the review arrangement as it has the capacity to facilitate negotiations between Member States and has experience in advising interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level. The 14th and 15th sessions of the CSD address the theme of energy, which forms part of a thematic cluster. The 15th session takes place in 2007 and will focus on policy decisions on practical measures and options to expedite implementation in the selected cluster of issues. The CSD has an existing ministerial-level policy-making function which could be used for the policy arm of the review arrangement. However, energy is not scheduled to be addressed again by the CSD until after 2017, if indeed the CSD does receive a renewal of its mandate. There is however, potential for the CSD to re-address the energy theme every four years, i.e. in 2010 and 2014, if agreed to at CSD 15.

www.un.org/esa/desa/

Energy Networks:

Renewable Energy Policy Network for the 21st Century (REN 21)

REN21 is a global multi-stakeholder policy network that provides a forum for international guidance on renewable energy. REN21 has significant experience in the tracking of international commitments for renewable energy and has recently taken stock of the progress countries have made for the commitments made at the 2004 Bonn Conference. Furthermore, REN21's Global Status Report provides an assessment of trends in renewable investment and policies worldwide. This already existing capacity to potentially carry out further tracking, along with REN21's ability to draw on a very wide range of sources and actors, including governments, international organisations and non-state actors, thus provides great potential for the data gathering and review function.

REN21 would also provide a prominent role for developing countries and would provide them with a platform from which they could highlight their concerns and special needs and considerations, especially in terms of technology transfer and capacity building.

www.ren21.net

Renewable Energy and Energy Efficiency Partnership (REEEP)

Conceived at the Johannesburg World Summit on Sustainable Development in August 2002, REEEP is an active, global public-private partnership backed by more than 200 national governments, businesses, development banks and NGOs. The REEEP finances projects which identify replicable models of policy and regulatory frameworks that overcome the market barriers to renewable energy and energy efficiency systems (REES). Furthermore REEEP's 8 regional secretariats provide access to best practice in policy and finance to promote renewable energy and energy efficiency. REEEP would indeed play an effective role in contributing data gathering and review, as well as policy recommendations to any networked review arrangement.

www.reeep.org

Global Network on Energy for Sustainable Development (GNESD)

GNESD is a UNEP facilitated knowledge network of developing world Centres of Excellence and network partners. The main objective of GNESD is to work for reaching the Millennium Development Goals (MDGs). The second thematic programme of the Global Network on Energy for Sustainable Development (GNESD) focuses on renewable energy technologies and poverty. In this respect GNESD could contribute valuable data gathering and analysis capacity to the review arrangement.

www.gnesd.org

Johannesburg Renewable Energy Coalition (JREC)

Formed to ensure the effective follow up to the JPoI on renewable energy, the JREC is a coalition of over 80 governments, which focus on international, regional and national policy initiatives to foster the promotion of renewable energy. Convening meetings in the

sidelines of various other intergovernmental conferences, JREC could support the efforts of the review.

http://ec.europa.eu/environment/jrec/index_en.htm

Other relevant organisations:

International Energy Agency (IEA)

The International Energy Agency (IEA) acts as energy policy advisor to its members (most of the OECD's member countries) in their efforts to promote sustainable energy. Its mandate includes energy security, economic development and environmental sustainability. The Energy Statistics Division (ESD) of the IEA collects, processes and publishes data and information on energy production, trade, stocks, transformation, consumption, prices and taxes as well as on greenhouse gas emissions. The geographical coverage of the IEA's statistics includes the OECD Member countries and over 100 non-OECD countries world-wide. The IEA's annual World Energy Outlook is a useful source that predicts medium to long-term energy market projections and analysis. Another important output is the Global Renewable Energy Policies and Measures Database, an initiative led by the IEA and implemented in collaboration with the European Commission and JREC. In this respect the IEA could provide valuable data gathering and review capacities to any networked review arrangement.

www.iea.org

World Bank (WB)

The World Bank Group's energy work focuses upon helping developing countries improve access to clean, modern and affordable energy services and achieve sustainability in the environmental, financial, and fiscal aspects of their energy sectors. The World Bank supports these objectives through targeted interventions and assistance across the full spectrum of public and private provision of energy services. The World Bank regional units are responsible for implementing individual energy projects through loans and credits to the governments of the client countries. In addition, the International Finance Corporation (IFC) issues loans and equity, and the Multilateral Investment

Guarantee Agency (MIGA) provides guarantees to catalyze private investment in the sector. In this regard, the World Bank has the potential to contribute a great deal by helping to facilitate the implementation of various policy recommendations.

www.worldbank.org

Annex 4: Existing arrangements for regular information gathering, sharing, reporting, and review

Energy

International Energy Agency (IEA)

‘World Energy Outlook’

The annual World Energy Outlook is the leading source for medium to long-term energy market projections and analysis and has achieved widespread international recognition. It is the flagship publication of the International Energy Agency.

<http://www.worldenergyoutlook.org/>

IEA annual report ‘Renewables Information’

Provides a comprehensive review of historical and current market trends in the OECD on renewables and waste energy sources. It encompasses economic and energy indicators, generating capacity, electricity and heat production from renewable and waste sources, as well as production and consumption of renewable and waste products. Renewables Information is one of a series of annual IEA statistical publications on major energy sources.

http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1108

Similar reports for:

- Coal Information:
http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1082
- Electricity Information:
http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1081
- Natural Gas Information:
http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1080
- Oil Information:
http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1079

IEA “Energy Policies of IEA Countries” annual review

The 2006 edition examines trends in energy markets, including an analysis of energy demand and supply, energy prices and energy related CO₂ emissions. It highlights key policy trends across member and non-member countries on energy security, energy market reform, climate change mitigation, energy efficiency, renewables and energy R&D. The book contains a special chapter on energy efficiency, which compares the

most successful efficiency policies of member countries on the basis of In-Depth Review findings of the past three years.

<http://www.iea.org/w/bookshop/add.aspx?id=272>

IEA & Johannesburg Renewable Energy Coalition (JREC) & European Commission

‘Renewable Energy Policies and Measures Database’

The Global Renewable Energy Policies and Measures Database is an initiative led by the International Energy Agency, and is being implemented in collaboration with the European Commission and the Johannesburg Renewable Energy Coalition. The Database features over 100 countries and offers renewable energy market and policy information in one format in one location for countries that together represent almost total global renewables supply.

<http://www.iea.org/textbase/pamsdb/grindex.aspx>

UN Department of Economic and Social Affairs (DESA)

‘National Information’

National information includes information submitted biennially in national reports by member States to the Commission on Sustainable Development. Also included are 2002 Country Profiles and 2002 National Assessment Reports prepared for the Johannesburg World Summit, as well as 1997 Country Profiles prepared for the Five-Year Review of the Earth Summit.

<http://www.un.org/esa/sustdev/natlinfo/natlinfo.htm>

Renewable Energy Network for the 21st Century (REN21)

‘Global Status Report’;

The Global Status Report is a collaborative effort involving more than 100 researchers worldwide in a REN21 issue group with Eric Martinot as leading author. It provides an assessment of several renewables technologies—small hydro, modern biomass, wind, solar, geothermal, and biofuels—that are now competing with conventional fuels in four distinct markets: power generation, hot water and space heating, transportation fuels, and rural (off-grid) energy supplies.

http://www.ren21.net/globalstatusreport/download/RE_GSR_2006_Update.pdf

UN Statistics Division

UN Statistics Division Energy Statistics Yearbooks

The Yearbook provides a global framework of comparable data on long term trends in the supply of mainly commercial primary and secondary forms of energy. Data for each type of fuel and aggregate data for the total mix of commercial fuels are shown for individual countries and areas and are summarized into regional and world totals. The data are compiled primarily from the annual energy questionnaire distributed by the United Nations Statistics Division and supplemented by official national statistical publications.
<http://unstats.un.org/unsd/energy/yearbook/default.htm>

UN Energy

The Energy Challenge for Achieving the Millennium Development Goals

This UN-Energy paper on the importance of energy for achieving the Millennium Development Goals (MDGs) was drafted collectively by the United Nations (UN) agencies, programmes and organizations working in the area of energy, reflecting their insights and expertise.

[http://iris37.worldbank.org/domdoc/PRD/Other/PRDDContainer.nsf/All+Documents/85256D2400766CC78525704600577431/\\$File/UN_ENRG_paper.pdf](http://iris37.worldbank.org/domdoc/PRD/Other/PRDDContainer.nsf/All+Documents/85256D2400766CC78525704600577431/$File/UN_ENRG_paper.pdf)

International Atomic Energy Agency (IAEA)

Expert Group on Energy Indicators for Sustainable Development: Guidelines and Methodologies

The product of an international initiative to define a set of Energy Indicators for Sustainable Development (EISD) and corresponding methodologies and guidelines. The successful completion of this work is the result of an intensive effort led by the International Atomic Energy Agency (IAEA) in cooperation with the United Nations Department of Economic and Social Affairs (UNDESA), the International Energy Agency (IEA), Eurostat and the European Environment Agency (EEA). One goal of this joint endeavour has been to provide users with a consensus by leading experts on definitions, guidelines and methodologies for the development and worldwide use of a single set of energy indicators.

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1222_web.pdf

World Bank

World Bank Working Papers

World Bank Working papers derive from completed or ongoing work and are published in a relatively unpolished form to communicate findings and encourage comment. They present the results of economic, financial, or technical research; country experience or analysis; operational evaluations; detailed background or case studies; performance guidelines; or other technical materials.

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTENERGY/0,,contentMDK:20407861~menuPK:1018410~pagePK:148956~piPK:216618~theSitePK:336806,00.html>

Energy Charter

The Energy Charter's energy efficiency review process relies on two major components:

- Regular reviews assist with the monitoring the implementation of the Treaty and PEEREA and with additional cross-country analysis
- In-depth Energy Efficiency Reviews are undertaken in countries that volunteer for hosting such an exercise and include specific recommendations to the national governments concerning possible improvements of their national energy efficiency policies and programmes.

<http://www.encharter.org/index.php?id=42>

US Energy Information Administration

The Monthly Energy Review (MER)

The Monthly Energy Review (MER) is the Energy Information Administration's primary report of recent energy statistics. Included are total energy production, consumption, and trade; energy prices; overviews of petroleum, natural gas, coal, electricity, nuclear energy, renewable energy, and international petroleum; and data unit conversions.

<http://www.eia.doe.gov/emeu/mer/contents.html>

Climate Change

United Nations Framework Convention on Climate Change (UNFCCC)

Article 12 of the Convention requires all Parties to report on the steps they are taking to implement the Convention. In accordance with this article, the Conference of the Parties has elaborated several different types of reports and related guidelines and procedures

consistent with the common but differentiated responsibilities of Parties. The following types of national reports are submitted under the Convention:

- National communications (Annex I): periodic submissions by developed countries covering all aspects of implementation:
http://unfccc.int/national_reports/annex_i_natcom/items/1095.php
- National communications (Non-Annex I): periodic submissions by Parties not included in Annex I to the Convention on all aspects of implementation:
http://unfccc.int/national_reports/non-annex_i_natcom/items/2716.php
- Greenhouse gas inventories (Annex I): annual submission by developed countries on greenhouse gas emissions and removals:
http://unfccc.int/national_reports/annex_i_ghg_inventories/items/2715.php
- National Adaptation Programmes of Action (NAPAs): submissions by least-developed countries on their needs and priorities for adaptation:
http://unfccc.int/national_reports/napa/items/2719.php

Ozone Layer: Montreal Protocol

Multilateral Fund for the Implementation of the Montreal Protocol

Monitoring of projects involves periodic reporting to gauge its progress or lack of progress. Evaluation regards completed and on-going projects and provides information on the strengths and limitations of various types of projects and phase-out plans, the major causes of failures to reach targets, lessons learnt during implementation and recommendations for actions to improve performance of the Fund.

http://www.multilateralfund.org/overview_-_results_and_impact.htm

Sustainability

United Nations Environment Programme (UNEP)

GEO Year Book 2007

The GEO Year Book 2007 includes global and regional overviews of significant developments over the past year concerning ecosystem health, human well-being, and economic development; examines new thinking on the value of ecosystem services and the threat from ecosystem degradation; and describes recent research findings and policy decisions that affect our awareness and response to global change. The emerging scientific and policy challenges of nanotechnology are examined from an environmental perspective. http://www.unep.org/publications/search/pub_details_s.asp?ID=3915

World Resources Institute (WRI)

World Resources 2005 -- The Wealth of the Poor: Managing ecosystems to fight poverty

World Resources 2005 details the steps necessary to empower the poor to use ecosystems both wisely and for wealth. Using examples and case studies, the report traces a route to greater environmental income. It lays out the governance changes necessary to give the poor the legal, financial, and management capacity to use nature for wealth creation without depleting their fragile resource base. It presents a wealth of statistics on current environmental, social, and economic trends in more than 150 countries.

http://pdf.wri.org/wrr05_lores.pdf

World Resources database in the companion website Earth Trends:

<http://earthtrends.wri.org>.

The Government of France

A Proposed Options -Based Methodology for Shared Learning and Peer Review of National Strategies for Sustainable Development (NSDS)

Following the WSSD of 2002 French President Chirac made a commitment that France would be prepared to submit its national strategy for sustainable development to be 'peer reviewed' by other countries, following the proposal by the European Union to develop such a system in order to promote the sharing of experience. As a follow up, a project was initiated in 2004, which aimed to develop and test a methodology for 'peer review' of NSDSs, using the French NSDS as an experimental case.

http://www.un.org/esa/sustdev/natlinfo/nsds/peer_review.htm

United Nations Forum on Forests (UNFF)

Intergovernmental Forum on Forests (IFF)

The IFF's programme includes:

- (a) facilitating the implementation of the proposals for action (see below) of the Intergovernmental Panel on Forests and reviewing, monitoring and reporting on progress in the management, conservation and sustainable development of all types of forest;
- (b) Considering matters left pending and other issues arising from the programme elements of the IPF process;
- (c) International arrangements and mechanisms to promote the management, conservation and sustainable development of all types of forests.

http://www.un.org/esa/forests/ipf_iff.html

Regional Partners that could significantly contribute a review arrangement include:

Latin America:

Organization Latinoamericana deEnergia (OLADE)

<http://www.olade.org.ec/php/index.php>

Organisation of American States (OAS)

<http://www.oas.org/main/english/>

Asia

APEC

<http://www.apec.org/>

ASEAN

<http://www.aseansec.org/>

Africa

New Partnership for African Development (NEPAD)

<http://www.nepad.org/>

African Energy Policy Research Network (AFREPREN)

<http://www.afrepren.org/>

Regional development banks

Asian Development Bank (ADB)

<http://www.adb.org/>

African Development Bank (AfDB)

<http://www.afdb.org>

Inter-American Development Bank (IDB)

<http://www.iadb.org/>

European Bank for Reconstruction and Development (EBRD)

<http://www.ebrd.com/>