

IANAS Energy Program:

# Renewable Energy Priorities

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## **RECOMMENDATIONS from:**

First Workshop, Dec. 6-7, 2010

Second Workshop, June 9-10, 2011

# Recommendations from First Workshop

## Recommendations for policy-makers

- **All countries should be encouraged to increase the level of both public and private investment in energy research and technological development and dissemination. This will require removing fiscal disincentives and other barriers for both domestic and foreign investment and, where appropriate, providing incentives, such as making relevant investments tax-deductible, and zero-rating cross-border shipments of renewable energy technologies.**
- **There are areas where governments will have to agree to cooperate on policy issues. For example, the policy environment will have to support the liberalization of energy and investment markets, the development of cross-border, efficient energy generation, distribution and trading networks, and the interconnection of pipelines and grids between neighbouring states. This would include non-discriminatory third-party access to transit infrastructure to encourage the development of transparent, efficient and orderly energy markets.**
- **It will also be important to cooperate to improve the security, safety and stability of critical energy infrastructure and supply networks and to ensure that all links in the energy supply chain operate to the highest standards of human health and safety, environmental protection and physical security.**
- **All governments should also ensure the collection and reporting of market data on oil and other energy sources in all countries to ensure smooth functioning of energy markets at the regional and global levels, ensure the harmonization of technical standards for biofuels, and support the Joint Oil Data Initiative and related efforts to promote improved governance, transparency and accountability in the energy sector.**
- **All governments should encourage the introduction of minimum efficiency requirements and harmonized ratings systems for both domestic and industrial appliances, review building codes and raise the standards for energy efficiency, and develop urban planning guidelines to encourage more energy-efficient cities.**
- **All countries should also be encouraged to establish and strengthen training and certification programmes for energy installation engineers, and to establish and strengthen networks of trusted laboratories that will test and certify both locally manufactured and imported renewable energy technologies.**

# Recommendations from First Workshop (cont.)

## Recommendations for the Academies

- It is particularly important to ensure universal access to accurate, reliable and impartial technical information on energy options and technologies. The Academies, universities, research institutes, relevant Ministries and government agencies, in particular the national Meteorological Offices, should therefore participate in the UNEP SWERA programme (Data for Wind and Solar Renewable Energy) and request UNEP to assist in obtaining GEF and IADB funding to support ancillary developments. This information should be available via satellite link to allow all communities to download the models and upload local data, and link into local databases of solar and wind regimes. The Academies should request the WMO to support this initiative. This should be achieved by the end of 2013.
- The Academies should identify the technical issues involved in developing renewable energy technologies, standardize the information needed by developers for relevant engineering applications and serve as a clearing-house for reliable, verified information. The Academies should recruit universities, schools of engineering schools and other research institutions into this initiative, and support the development of a knowledge management system, with a web-based platform to enable information-sharing. The Academies should approach GEF, UNEP, the IADB and local funding agencies for the necessary financial support. This should be achieved by the end of 2012.
- As a part of this initiative, the Academies, universities and other research institutes should be encouraged to review, share and disseminate experiences of best practices and successful programmes of renewable energy in both urban and remote rural environments. This should be achieved by the end of 2012.
- The Academies should encourage collaborative research in key areas, including micro-hydro, solar thermal applications, photovoltaics, power thermal systems geothermal and wind turbine engineering, biotechnology, including energy from waste and advanced biofuels, and integrated systems engineering, including the design and management of smart power distribution grids. The Academies should integrate the networks of research groups in each country, and facilitate collaborative research work. The Academies should approach the GEF, UNEP, the IADB and local funding agencies for the necessary financial support, and ensure that funding is allocated on a competitive basis. This should be initiated by the end of 2011.
- The Academies should provide policy-makers with accurate, neutral advice as to the viability and sustainability of competing energy supply options and technologies, with especial regard to the issues involved in implementing energy solutions in very diverse environments, such as dense urban settlements, where centralized supply may be the optimal solution, and remote rural locations, where devolved, local management is required for the effective maintenance of energy generation and distribution. This should be initiated by the end of 2011.

# Recommendations: Second Workshop

- The first was creation of a renewable energy information network that would be initiated in the last half of this year. The network would focus on renewable energy resources, identifying research groups evaluating renewable energy resources, work to unify and consolidate resource assessment methodologies, and establish an information network for exchanging this information among research groups, centers and universities. The network would exchange information on advanced technologies from both regional and international sources, evaluate their technical, economic and environmental impacts, and develop the legal and regulatory measures required to promote them in the Americas.

# Recommendations: Second Workshop

- The second recommendation is a case study of the transition of a country to an expanded use of renewable energy. Mexico was proposed because of its high dependence on fossil fuels and abundant renewable energy resources. The project would develop a methodology for penetration of renewables in an approach that is economically and environmentally competitive with conventional sources. The initiative would bring together a qualified team of experts to lead the effort. The project would be monitored and evaluated so that it could be replicated in other countries in the region.

## Recommendations: Second Workshop (con't)

- The third recommendation is to establish a Center of Excellence for training renewable energy professionals at the highest level on scientific, technical, economic and environmental issues as they relate to energy policy, legal and regulatory issues. The center would strengthen the interaction among scientists and technicians in the region and between them and public and private decision-makers. It would be patterned after similar international centers on other topics