

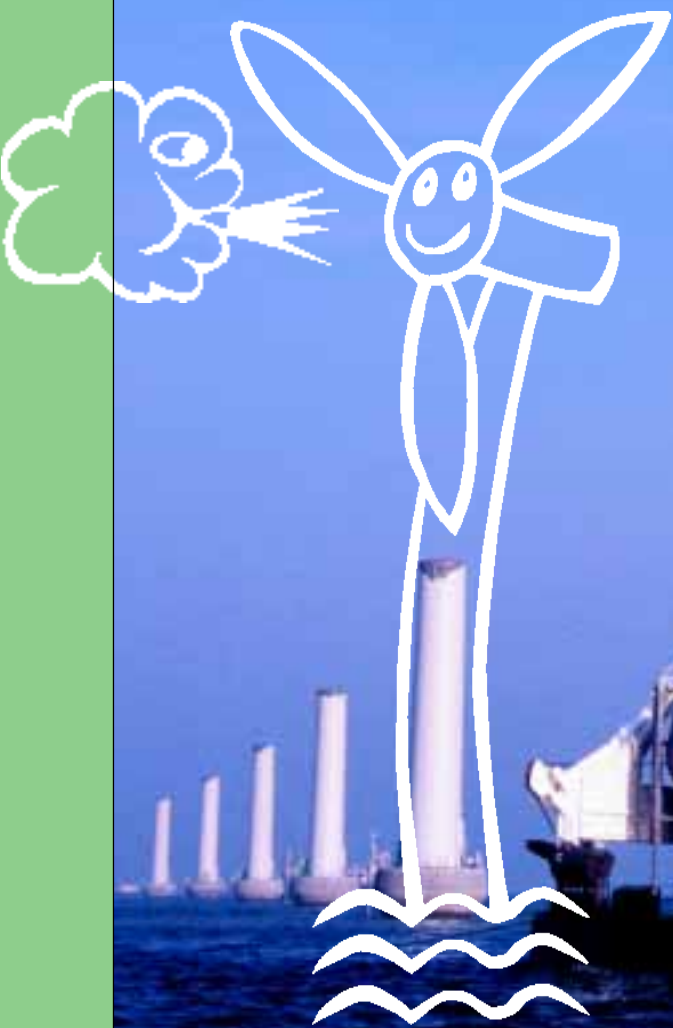
SUSTAINABLE ENERGY NEWS

Newsletter for **INFORSE** International Network for Sustainable Energy.

No. 31, November 2000

**World's Largest
Wind Cooperative**

**Higher
Targets
for Wind
Power
in Europe**



Sustainable Energy News

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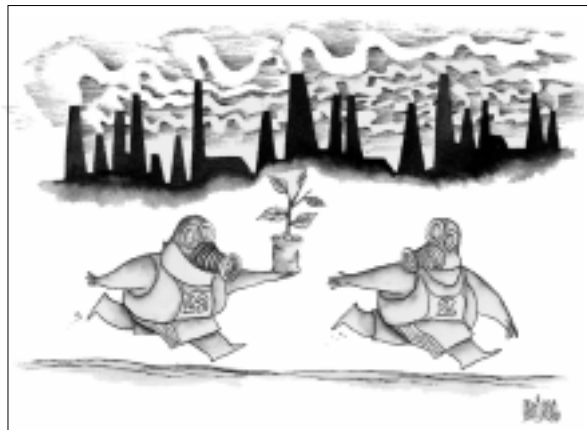
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(FED), Denmark.

Photo on the front page:

Placing the foundations in the shallow water of Middelgrunden, in Denmark for the world's biggest windfarm.
Montage with the windpark's logo.
Photo: Mads Izmodenov Eskesen.
See article on pages 12-13.

Time for a Change

Drawing from the cartoon competition 'Humankind & Energy' for EXPO 2000. See article page no. 5.



Drawing by Alfredo Martirena Hernandez, Cuba

There is an urgent need for changes in the way we use energy and for changes in the way we produce and transport energy. This was a statement from the International NGO Conference "Energy in Transition: Asian Perspective to Sustainable Energy Development", Thailand, October 25-27, 2000 (see page 8).

Most decisionmakers know that energy savings, energy efficiency, and renewable energy are the solutions to the energy problem.

Today, we have vast experience in sustainable energy, both in the industrialised world and in developing countries. Regional conferences like the one in Thailand provide an important and highly appreciated opportunity for NGOs to share experiences and to strengthen the cooperation within INFORSE. We are all concerned about energy development. Over time, in almost every country, social development has been firmly linked to energy consumption. Access to energy is an imperative for human development, and global energy consumption indeed has increased over the time. It could be a positive development showing the increase in global welfare, but the world energy system today is not sustainable from a socio-economic and environmental point of view. The benefits from this development are unequally distributed, while all in the world share the environmental costs.

Today, around 20 % of the world's population is responsible for more than 60 % of global energy consumption. People in Western Europe and in the United States use 7 time the energy per capita of people in Asia. The increasing consumption of energy has caused

serious damage to the world's climate and to other aspects of nature. With increasing evidence of climate change and still more than 2 billion people living without access to modern energy, present energy supplies and usage pose serious problems. It is time for changes.

There are many kinds of transition going on in the energy sector. The transition from vertically integrated monopolies in the oil and gas industry and in the power sector to more decentralised structures creates opportunities for competition and thus for improved efficiency. Commercialisation of state-owned companies could further improve efficiency and decentralisation. Consumers should benefit from these improvements in efficiency through price reductions and better supply. However, combined with privatisation, there is a major risk that private investors will go for the quick profits and not for the long-term sustainable development of the energy sector. Neither will they necessarily improve the situation for those without supply of modern energy. Public regulation of the sector is a must to ensure the other important transition, namely the transition from a non-sustainable system towards a sustainable system. It is a huge challenge for civil society to demand and to participate in the formulation of public regulation.

The NGOs in Asia decided to look critically at their national energy policies to ensure that civil society will be involved directly in the preparation of national energy policies as well as in their implementation. This calls for capacity-building, which will be an important area of INFORSE activities in the coming years as one pillar in the bridge to a sustainable energy future.

Michael Kvetny
INFORSE, Editor

CSD9, One Step Forward or Backward?



By Gunnar Boye Olesen, INFORSE-Europe, OVE Denmark

Worrying UN Definition on Sustainable Energy

In the preparation for the UN Commission for Sustainable Development's session on energy (CSD9), nuclear and coal are still in the documents. To include these two technologies can be destructive for any attempt to use the CSD9 as a basis for worldwide activities in support of sustainable energy solutions.

If they are not removed from the agenda, we have to question the value of discussing energy at the level of the CSD.

The two unsustainable technologies were included in the report from the official group of experts preparing for the CSD9 at their meeting in March this year, and in the report from the UN Secretary General to this meeting.

The petition against including nuclear in the CSD9, mentioned in the previous issue of Sustainable Energy News, was supported by a large number of NGOs and was sent to the CSD Secretariat in the UN as well as to the member countries of the CSD. The NGO-protests led to the removal of nuclear power as a topic for the exhibition on sustainable energy technologies that is proposed as a side-event to the CSD9. So far, the protests have not led to removal of the unsustainable technologies from the CSD9's agenda. A few countries are strongly advocating the technologies, e.g., Canada has a firm position in favour of nuclear power. The final preparation of the CSD9 will be the meeting of the group of experts in February - March 2001, while the CSD9 itself will be on April 16-27, 2001. These are the remaining opportunities to influence the CSD9.

EU for Global Action

From the EU, the paper proposed for consideration by CSD9 is entitled "Shared Goals for Global Action". It calls for governments to introduce a large number of progressive actions, including phase-out of harmful subsidies, factoring environ-

mental costs into energy prices, strengthening the role of civil society in energy decision-making, promoting energy efficiency and renewable energy, and asking multilateral development banks to promote sustainable energy in all sectors. It does not mention nuclear power, while it has a short paragraph on fossil fuels calling for continued development of cleaner and more efficient technologies.

The paper calls for increased North-South and South-South co-operation for sustainable energy, but it does not include specific proposals for the UN system. In general, the many good proposals are very briefly described.

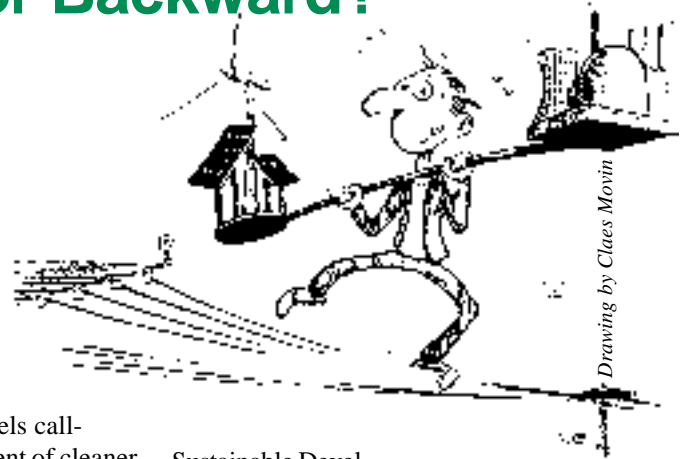


European UN Input

The Sustainable Energy Committee of the UN Economic Commission for Europe made a statement for the CSD9 at its meeting, November 2. The European ECO-Forum took part in the development of this multi-stakeholder statement, and so did the coal lobby. The resulting paper calls for increased investments in energy efficiency and renewable energy, and also for cleaner use of fossil fuels. It recognises that no consensus can be made on nuclear.

Focus on Energy Subsidies IEA-UNEP

The International Energy Agency (IEA) and the UN Environmental Program (UNEP) are focusing their preparation for the CSD9 on subsidies. They are doing this with a series of regional consultations entitled "Energy Subsidy Reform and



Sustainable Development: Challenges for Policy Makers". The first workshop is on November 6-7 in Paris, while later workshops will be in Africa, Asia, and Latin America. The workshops will all have NGO representation.

NGOs' Visions

INFORSE and other networks in the CSD Energy Caucus are also working on proposals for the CSD9. As part of this, many have sent statements and success stories to the UN Secretary General, who is collecting such inputs to report at the CSD9. INFORSE has proposed this vision: "to develop energy systems where energy services necessary for a just and human centered development are provided in a sustainable way using renewable energy".

To do this, we propose "to phase out nuclear energy and fossil fuels, replacing them with renewable energy and energy efficiency". We should also supply adequate energy resources to the 2 billion people that lack basic energy needs today for, e.g., light and healthy cooking facilities. We propose that this should happen within 50 years.

While the first INFORSE statement was submitted to the UN in October, we continue to develop our vision into a description of how the transformation to a sustainable energy system could look on a world scale. We want to describe how we could reduce greenhouse gas emissions fast enough to avoid climate catastrophes, and at the same time avoid nuclear catastrophes. We invite interested NGOs to join this work in the remaining part of 2000.

Follow the CSD9 on the internet:
www.un.org/esa/sustdev/ (official site),
www.igc.org/csdngo (NGO Caucuses).

Sinking Climate Targets

The Controversy About Sinks and Energy Options is Heating Up.

By Marcelo Alvarez, Roque Pedace
REJIMA, INFORSE Regional coordinator, Argentina

The use of biological sinks under the Kyoto Protocol has raised concerns of its impact compared to those of other mitigation options. Opponents consider impossible, at this stage, to develop rules and guidelines that address uncertainty, impermanence, and impacts upon biodiversity of sink projects studied so far. (See Boxes)

The most important argument in favour of renewables is the one about timeliness: reducing emissions is more efficient in order to reverse the consumption trend and prompt the deep changes needed in the carbon economy than is increasing CO₂ capture (delaying this process). **Hence, renewable energy should be the preferred choice for early action. This long-run approach is now widely accepted.**

Even a recent report of World Energy Council (WEC), recommends some policy options for a sustainable Clean Development Mechanism (CDM), e.g. to ensure energy affordability for the poor. It also links greenhouse gas abatement strategies with the natural turnover of capital stock, particularly in developing countries, where most new investment in energy is likely to occur before 2020.

The impending release of the Third Assessment Review of the IPCC will probably add pressure to move towards the replacement technologies for fossil fuels.

Nevertheless, there are many proponents of financing nuclear and fossil fuels (gas, clean coal) via flexible mechanisms. Unless these mechanisms, especially CDM, are clearly committed to renewable-energy technologies at the expense of conventional ones, the potential market for renewables will contract and so will their beneficial effects.

The issue at stake is: which types of energy technologies are eligible for inclusion in the Clean Development Mechanisms?

A CDM exclusive positive list has been proposed by many NGOs. This is a basic basket of all the different forms of renewable energy and well defined energy efficiency measures. Such a CDM positive list should be restricted to the cleanest options at least for the first period of compliance, i.e., before 2008. This would allow renewable energy technologies to offset some of the disadvantages that are due to current failures to include environmental costs in the price of energy delivered.

Life cycle impacts, based not only on power plant operation but on fuel production and transport, waste disposal, and other operations, should be the basis for project assessments. Even more important, there is more to sustainable energy than CO₂ or even environmental considerations.

Social goals such as equity and job creation have at least equal merit and should be included in desirable criteria for CDM projects.

The near-future scenarios (2010) show that if we consider the externalities of the classic energy sources and the projected renewables prices we can conclude that renewables technologies will be really cost effective.



The Crucial Climate COP6

The 6th Conference of Parties (COP6) to the UN Framework Convention on Climate Change (UNFCCC) will convene in the Hague, Netherlands, November 13-24, 2000. Several crucial issues for the fate of the Kyoto Protocol are on the agenda:

- **The modalities of the flexible mechanisms of the Kyoto Protocol.** It is the mechanisms by which industrialized countries can lessen their emission-reduction targets by paying for reductions in other countries (includes CDM, emissions trading, and Joint Implementation - JI).

- **The use of biological carbon sequestration (sinks) as an alternative to reduce greenhouse gas emissions.**

All of the proposals to use the flexible mechanisms and sinks for uncertain emission reductions (including trading of those emission-quotas, which does not lead to any reductions in the selling countries), add up to considerably more than the sum of the agreed emissions reductions in the Kyoto Protocol. If all of these loopholes are allowed to be included in the national emission reduction targets for 2010 in the Kyoto Protocol, this protocol could be without any effect.

- **Issue of compliance: what to do with countries that do not comply with the Kyoto Protocol?**

Behind the scenes is the question of whether and under what conditions the USA will ratify the Kyoto Protocol. If the USA does not ratify it, the Protocol probably will not enter into force at all. In addition, however, if the USA demands inclusion of too many loopholes, it will be without effect. The Protocol will no longer provide any leverage to improve the behavior of major polluters. The success of COP6 requires a balance here, if possible.

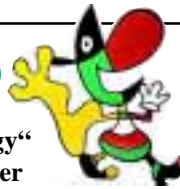
Follow the NGO positions on the Climate Network Europe website: www.climnet.org. Follow the climate negotiations via the eco-newsletter: www.igc.org/climate/Eco.html. Tell your opinion: www.climatevoice.org.



Argentine Groups Oppose Tree-Planting Project

The proposal of a German organization, Prima Klima, and others to plant 125,000 hectares of trees in the Chubut province in Argentina has generated local opposition. One of the species to be planted is the Lenga tree, a local tree that has a high value in the international market. The project is intended to work under the CDM. Local Chubut environmental groups have opposed the project. They fear that it would increase demand for lenga wood, resulting in more logging of the native tree. Also, Greenpeace Argentina is fiercely opposing the project, as the group does not want carbon-sink projects within the CDM. Information from ENDS Daily, Alejandra Herranz

Pro & Contra at the EXPO



We were curious how the motto “Humankind, Nature, Technology“ was mirrored in the World’s Exhibition (EXPO 2000) in Hannover concerning energy. We were impressed but also disappointed.



Village model. Micro hydro providing power for light and for workshops. Theme Hall: Basic Needs.



Drawing by Toso Borkovic, Yugoslavia

One of the cartoons... The drawings made us think and laugh

By Judit Szoleczky and Gunnar Olesen, editors

Small Vision

First of all, we looked at the Energy Theme Hall. In the pre exhibition area, an impressive 42-m long and 6-m high screen showed a film about the current energy situation on the Earth. We learned that there are massive problems associated with using fossil- and nuclear fuels. Using more solar and wind energy is unavoidable if we want to meet the energy demand of the growing world population in the 21st century. Walking upward on a long spiral ramp, we arrived to the exhibition area where we, unfortunately, experienced the domination of the traditional energy sources, heavily sponsored by the German industry. While we could go down on a simulated lift in a coal mine or in a natural gas drill, the solar and wind were only represented with a series of

displays mainly from pictures sponsored by the Freiburg municipal energy company. Only a few of the many good existing examples were shown. At the end, the message was that “coal, oil, gas will still need to satisfy the main worldwide energy demands within the foreseeable future”, as it also said in the catalogue.

We had expected more visionary approach than this!

We also had expected to see more of the sustainable energy projects proposed for EXPO. (See issue no. 19 and no. 24)

Small Surprises

We found some renewable energy applications at the national exhibitions. More over, a drawing exhibition attracted our attention. It featured the best 170 drawings from the 3000 participants of a cartoon competition on “Humankind and Energy” organized by the Goethe Institute.



Bicycle rickshaw from Bangladesh



Improved cook stoves from Chad

More information:
EXPO: www.expo2000.de,
Cartoons: www.energyhit.de, and
see Publication List on page no. 14.

Wind-power model (left), and PV-driven deep-well pump (right) from Namibia



New Enlarged Report on 53 Islands

Renewable Energy on Small Islands - Second Edition

The new report is a little lexicon covering 53 islands' experiences and plans for renewable energy. Together with the first edition, which was published in 1998, it gives an overview of 71 islands.



By Thomas Lyng Jensen
Island Project
Coordinator,
FED, Denmark

A Little Lexicon

This second global overview of renewable energy on small islands presents 53 islands with experiences in renewable energy (RE) and/or plans for future renewable energy developments. The 53 islands are described in 34 chapters, with details on the island or island group, with information on population, area, and the renewable energy sources, and with data on their electricity capacity, production, potential related energy policy, plans, contact information, and references.

It includes a lot of new cases as well as updates of cases that were in the first edition (1998). However, it is still useful to look into the first edition, because it includes details about 18 islands that are only represented by brief summaries in this new version.

Major Findings Islands' Important Role

Today, nearly all islands in the world are totally dependent on expensive and environmentally harmful fossil fuels for their energy needs. But islands have a unique potential for renewable energy - a competitive economic situation for renewable energy technologies, good renewable energy resources, and a positive attitude towards renewable energy.

Islands further are in a position to be leaders in RE, adopting highly visible research-and-demonstration projects in RE-related technology, organisational methods, and financing.

Globally, there is a need to demonstrate renewable energy in a large-scale (i.e., covering a very large fraction of demand, ed.), integrated, and organised form. This is not possible on mainlands and conti-

nents in the short and medium terms, for political, economic, technical, and organisational reasons. Therefore, islands are very important when it comes to the promotion of renewable energy worldwide.

Today, a very few islands already have some of the characteristics of a Renewable Energy Island and thereby use renewables extensively. La Desirade (France), Fiji, Samsøe (Denmark), Pellworm (Germany) and Reunion (France) are currently producing more than 50% of their electricity from renewable energy sources.

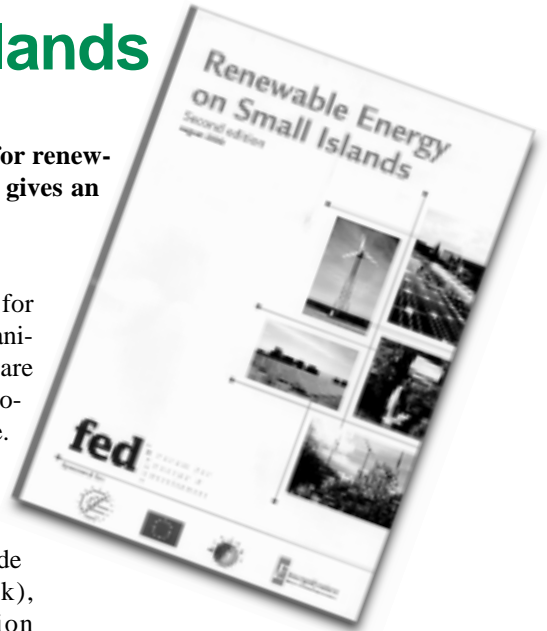
Some islands aim at becoming Renewable Energy Islands in the short or medium term. Samsøe (Denmark), Pellworm (Germany), Aeroe (Denmark), Gotland (Sweden), El Hierro (Spain), Dominica, and St. Lucia have adopted the explicit goal of becoming 100% self-sufficient from renewable energy sources.

All of the mature renewable-energy technologies have been used for electricity production on islands. Whether small or great in area, population, and power systems, in all climates and regions, developing and developed alike, many islands have acquired experience in harnessing some form of renewable energy. Consequently, there is good potential for future co-operation, exchange, and networking among islands, some are already far along the path of converting their energy systems into sustainable energy systems and others have just started.

Report's Objective

The objectives of this overview are:

- to document the feasibility of renewable energy on islands regarding environment, technology, organisation, economics, etc.; and
- to prepare for global co-operation and networking among islands that have decided to become Renewable Energy Islands, i.e., islands that are 100% self-sufficient from renewable energy sources.



Financing

The second edition is being financed by the European Commission (SYNERGY- and ALTERNER program), the Danish Energy Agency, and the Forum for Energy and Development (FED).

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The report can be downloaded in PDF
format (1.6 MB) at the homepage of the
Forum for Energy and Development:
[http://www.energiudvikling.dk/
projects_pro.php?id=19](http://www.energiudvikling.dk/projects_pro.php?id=19)
The price for the report in print is US\$
30 postage included.

PV Solar Home System on the island of Atata in Tonga.



New Network Overcomes Lack of Expertise in East Africa



Training course participants, who launched the new network. Authors of the articles: Timothy Byakola (sitting 1st row 2nd from right), and John Tumuhimbise, (3rd row 2nd from right).

By Timothy Byakola, *Climate and Development Initiatives (CDI) INFORSE member, Uganda*

A new networking initiative to promote Environment Impact Assessment (EIA) in the East-African region has been formed.

- The Environment Impact Assessment for East Africa (EIANEA) was launched in September 2000 during a regional training course on EIA at MS Training Centre for Development Cooperation in Arusha, Tanzania.
- The course attracted 19 participants from Uganda, Kenya, and Tanzania. It was organised by the Danish NGO "Forum for Energy and Development" (FED), and funded by the Danish government through the DANIDA Fellowship Programme.
- This course was organised in recognition of the many environmental impacts that can result from development activities in which NGOs and governmental authorities are involved.
- The course was very successful in trying to ease the present shortage of local expertise, providing practical tools and methods for assessing environmental impacts in the region.

- EIANEA is to increase networking and information sharing among EIA practitioners in the region.
- The network will contribute to increased awareness of the use of EIA in development planning, as well as provide a platform for capacity-building and research about EIA.
- The regional coordination office for EIANEA is hosted by the INFORSE member "Climate and Development Initiatives" (CDI) in Uganda, with national coordination offices at Econews Africa in Kenya and at MS in Tanzania.
- The network will complement and work with similar network initiatives such as the International Association of Impact Assessment (IAIA) and Capacity Development and Linkages for EIA in Africa (CLEIAA).

Contact:

Regional Coordinator, Environment Impact Assessment Network for East Africa (EIANEA)

Climate and Development Initiatives, P.O.Box. 8849 Kampala, Uganda.

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e-mail: acs@starcom.co.ug.

Watching over Charcoal Kilns in Uganda

Environmental Impact Assessment in Practice

By John Tumuhimbise, *Department of Energy, Uganda*

A method known as Environmental Impact Assessment was used to detect the impacts of using portable metal charcoal kilns in Uganda. The overall aim is to reduce environmental damages by improving charcoal production. The assessment involved INFORSE members and the Ministry of Uganda.

Portable Metal Kilns are More Efficient, but ...

In Uganda, environmentally harmful burning of charcoal in traditional earth kilns is expected to increase. Therefore, the Department of Energy in the Ministry of Lands, Water, and Environment in Uganda is embarking on a project in Luwero District to improve charcoal production by encouraging conversion to efficient portable metal kilns.

The project is massively supported in the area because of the many benefits expected from it. But, there are concerns that some related activities may have significant environmental effects. To address these concerns, an Environment Impact Assessment (EIA) was done.

Assessing Impacts

The EIA of the portable metal kilns was completed as a practical field exercise during a regional training course on EIA in East Africa. It was organised by the Danish NGO "Forum for Energy and Development" (FED), which also hosts the INFORSE Network, and by the Ugandan INFORSE-member organisation, the Joint Energy and Environment Project (JEEP), in collaboration with the Danish NGO MS in Uganda, Kenya, and Tanzania.

Major findings of the assessment study include:

Positive impacts

- The better recovery of charcoal will translate into increased levels of income for the charcoal producers and for the surrounding communities;

cont. p 8

- The process of charcoal production will become less strenuous and less time-consuming;
- Amelioration of the physical environment will be achieved by easing pressure on the available resources in the district;
- A better-quality product will be produced for the market.

Negative Impacts

- Change in ecology of the area
- Health and safety of the charcoal producers and that of domestic animals
- Soil sterilisation
- Influx of more charcoal vendors in to the area.

Proposals

The study also identified a number of mitigation measures to counter some of the negative environmental impacts of the project. Some of these required enrichment tree planting to restore forest cover, and discouragement of clearcutting to reduce damage to young trees. The land will also be kept fallow for a period of not less than 5 years to allow for regeneration.

More Information:

John Tumuhimbise, Senior Energy Officer, Department of Energy, P.O.Box. 7270 Kampala, Uganda. Ph: 256-41250142, fax: 256-41230220, e-mail: kamugi@imul.com .

Charcoal Burning

Charcoal is a major fuel in Uganda's urban and suburban households. The production of this source of energy relies largely on clearcutting of mature live trees, especially high-density species. At present, wood is converted into charcoal by exclusive use of the traditional earth kiln. The efficiency of the traditional earth kiln is estimated to be as low as 10-15%. Charcoal consumption is estimated to be increasing at a rate of 6% per annum.

The production of this fuel contributes significantly to denudation of forest cover and to general degradation of the physical environment.

Unfavorable Conditions in Asia NGOs Must Work Harder and Closer

By Decharut Sukkumnoed, Sustainable Energy Network for Thailand (SENT), INFORSE regional coordinator, Asia-Pacific region

INFORSE, OVE (Danish Organization for Renewable Energy) and the Thai-Danish Co-operation on Sustainable Energy joined hands in organizing the International Conference "Energy in Transition: Asian Perspective to Sustainable Energy Development," which was held on October 25 - 27, 2000 in Thailand.

In this conference, many NGOs from 15 countries, mainly in the Asian region, discussed the energy situation and ways to promote sustainable energy development during the period of transition to renewable systems.

In this region, the transition can be found in all countries. The supply-driven energy policy has always resulted in sharp increases in energy demand and in continuous installation of new power plants. The environmental impacts from energy projects have become obvious and unavoidable, leading to social conflicts in many countries. The liberalization of the energy sector in some countries, which has been strongly promoted after the Asian economic crisis, has turned out to be the process of "privatize benefits, publicize risks". The Conference participants generally agreed that current conditions in the region do not favor renewable-energy development, and that the transition to RE can only succeed with the very active support of civil society.

Three Action Plans

Three sets of action plans were discussed during the conference.

First, at the policy level, it is essential to start some comparative energy-policy studies of various countries in this region as well as case studies outside the region. Concurrently, the roles of NGOs in energy policy formulation in each country have to be analyzed. Both types of studies will help us understand current situations in the region and to find better options as well as to inform and to educate the public.

Second, capacity-building in appropriate technological development as well as in empowering people and communities as stakeholders in the energy sector requires international collaboration between and among GOs and NGOs in different countries, especially in the south-south connection.

Last, better conflict-resolution processes must be developed to protect the rights of people and communities in this region.

The collaboration of independent NGOs in the regions became the focus of the final session in the conference. The program of activities for collaboration in the Asia-Pacific region was discussed. Stronger connection between INFORSE's Asia-Pacific and South Asian regions has been proposed by both sides. It was suggested that INFORSE conduct new joint activities, including conferences with other networks in the region, such as SPENA (Sustainable and Peaceful Energy Network Asia); development of such projects is in progress.

More information: SENT, 92/2 Soi Pitchayanan, 22 Tiwanon road, Muang, Nonthaburi Province 11000 Thailand. Ph: +66 29688113, fax: +66 29688113, e-mail: tonklagroup@usa.net <http://www.ata.or.th/sent>



Old and new in Thailand.

Photo: Finn Tobiesen, OVE Denmark

Higher Targets for European Windpower

Windforce10 is the campaign to raise windpower to 10% of the world electricity supply by 2020. INFORSE-Europe has evaluated the prospects for realising the Western European part of this global goal, which would require a total of 220,000 MW of windpower in the EU countries and Norway.



By Gunnar Boye Olesen, INFORSE-Europe

Windpower Increasingly Competitive

Economic evaluation shows that development of 220,000 MW of wind power compares favorably to large, efficient, combined-cycle gas turbines. It has a positive net present value, i.e., it is cost-effective, even without considering the reduction that it effects in environmental costs.

The calculation shows a positive value of 89 billion EUR, equivalent to EUR 400 per kW of the 220,000 MW to be installed by 2020. The break-even point, when windpower and gas power cost the same, is around 2010.

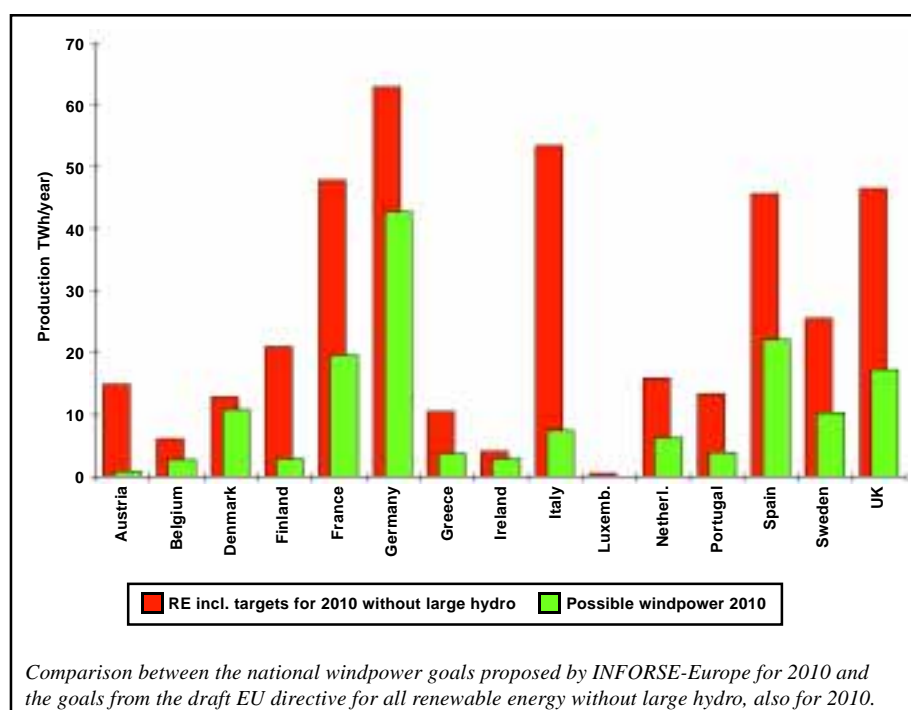
The calculation is quite sensitive to gas price development, which is taken from the IEA 1998 forecast. Another important assumption is that the learning curve for windpower development will continue with a learning rate of 12%, i.e., every time the installed capacity doubles, investments and operating and maintenance costs, will be reduced by 12% (exclusive inflation). The evaluation is based on a social discount rate and on an interest rate, both of which are set to 6% p.a.

Increased Goal for 2010

Only a few countries and organisations have goals for windpower development to 2020. For 2010, however, most countries have official goals, and many national organisations have their own goals, often more ambitious than the official ones.

Summing up these goals and assuming some development in the remaining countries, a target of 63,000 MW windpower capacity for the EU was identified for 2010. This is considerably more than the current EU goal of 40,000 MW that is included in the EU White Paper for Renewable Energy.

In addition, the European Wind Energy Association (EWEA) decided in September to raise its target for EU for 2010 from 40,000 MW to 60,000 MW.



The economic evaluation carries considerable uncertainty. Even so, it is concluded that the proposed investment is likely to generate a positive contribution to the economy. If reductions in environmental costs are included, this positive contribution will probably be large.

High Employment Less CO₂

The proposed development will generate substantial employment: 180,000 people would work in the wind industry in Western Europe by 2020. The total net employment is estimated to be 250,000+ jobs.



Photo by Bonus Energy

The windturbines will reduce CO₂ emissions by 80 mill tons/year in the Kyoto budget period of 2008-2012 and by 320 mill t/year by 2020, if they replace a mix of 60% gas power and 40% coal power. This is equal to respectively 2.5% and 10% of present CO₂ emissions of the EU and of Norway.

Policies Needed

To reach the goal of 220,000 MW windpower, it is important to establish policies to support the necessary development, locally, nationally, and in the EU. The experience of recent decades has shown that such development has taken place only in countries with a political commitment to windpower and other renewable energies. Without supporting policies, the goals will not be reached, as is pointed out in the enclosed comment (see box p.10). Until around 2010, there is need for general support schemes.

After 2010, when windpower has become more competitive, there is a need to support windpower development in low-wind areas. In addition, there is a need to set a level playing field, not allowing subsidised and substandard

cont. p 10

fossil-fuel and nuclear power to out-compete windpower and other renewable energies.

In support of windpower development in Western Europe, INFORSE proposes:

- to ensure local support for and involvement in the development of windpower;
- to ensure stable prices for wind electricity and for grid access;
- to include sites for windpower in land-use planning;

- to set national and regional targets, e.g., for 2005, 2010, and 2020;
- to stop the EU's preferential treatment of atomic and coal energy over windpower and other renewable energy sources;
- to remove environmentally harmful subsidies;
- to include environmental costs in energy costs;
- to support research, development, and dissemination for renewable energy.

The INFORSE wind campaign also includes proposals for Ukraine (presented in Sustainable Energy News 28), Russia, and Conosur in Latin America.

The report "Wind Power for Western Europe, - an INFORSE Proposal for 2000-2020" is available at:

<http://www.orgve.dk/inforse-europe>.

A printed copy can be ordered at a price of 100 DKK. For interested INFORSE members and environmental NGOs, spreadsheets with the calculations behind the evaluation are available from INFORSE-Europe e-mail: ove@inforse.org.



Photo by Bonus Energy



Only Dreamers Can Ignore This - Success is Political

Comment by Preben Maegaard, Folkecenter for Renewable Energy, Denmark

I have a critical comment to make about the high windpower target for the EU. I think that the impact of raising the target from 40,000 MW to 60,000 MW should be evaluated more carefully.

The proposed new target is a projection specifically based on the very positive results of wind power installations in Denmark, Germany, and Spain. - However, due to EU harmonisation, Denmark has new, untested conditions for renewable energy (RE), with green certificates, so that no one can estimate the future Danish development. The Germans are fighting a hard struggle with the EU commission to maintain their extremely successful RE law with fixed minimum prices for electricity from RE. A trial (at the EU Court) will demonstrate whether the "climate vandals" can maintain their immunity in the name of competition. Because the Danish wind industry, with its 60% of the world market, now will depend exclusively on the export markets, it should send its prayers to Mr. Mario Monti (EU commissioner for competition), to hold his protecting hands over the RE laws of Spain and Germany. Without these two markets, the industry would soon vanish like it did in the 1980's in the USA. Irrespective of all proclamations and plans of actions, neither windpower nor the other renewables can compete with the old energy sector with its abundance of political privileges and subsidies. Only dreamers can still ignore this!

The apparent success of wind power is due, not to EU policies, but to national programmes, and that in two countries only: Germany and Spain.

I strongly recommend that all European organisations work for tariff models that have already succeeded in practice, e.g. in Germany. It is not time to experiment with uncertain systems when experience has already shown what leads to the desired growth of renewables.

The technology is available. What are needed are organisational solutions and proper tariff models. I have written a paper on the German Renewable Energy Law; that document is available online at www.folkecenter.dk.

European News

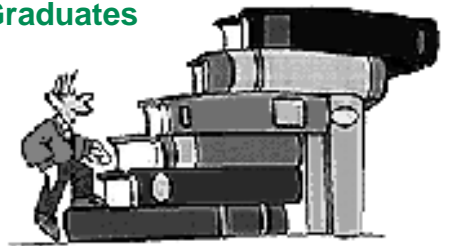
Compiled by Gunnar B. Olesen, OVE, INFORSE-Europe Coordinator

INFORSE-Europe Annual Meeting

December 5-14, 2000

The annual meeting of INFORSE-Europe will be an e-mail meeting during the period of December 5-14, 2000. The main topic will be the priorities for the INFORSE-Europe action plan 2001. We expect to get support for some core activities in 2001. All core members are being informed about the meeting via e-mail or letter. Associate members that wish to participate should contact INFORSE-Europe by sending email to: ove@inforse.org.

Internet Education Graduates



Education about sustainable energy is one of INFORSE's priorities. It was for this reason that two regional coordinators, Foundation for Alternative Energy in Slovakia (co-ordinator for Europe) and INSEDA in India (co-ordinator for South East Asia), prepared the course of study titled, "Distant Internet Education on Renewable Energy Technologies" (DIERET). The project was launched in April, 2000, with 29 students. All students received study material, including examination test, by e-mail. In August, seven of the students finished the course successfully. They all received the INFORSE certificate.

The first graduates of the course are:

- Ion Zamfir (Romania)
- Abdoussalam Ba (Niger)
- Boaventura C. Cuamba (Mozambique)
- Vincente O. Roaring (Philippines)
- Engr. Md. Obaidullah (Bangladesh)
- MD. Abdur Rashid Sarkar (Bangladesh)

Join the Course! Starts Again!

The study material is now available on the FAE Website (www.fae.sk). The new course session starts in November.

For information about future courses, please contact INFORSE-Europe, FAE e-mail: bedi@ba.telecom.sk.



ECO-Forum Sets European Energy Priorities

At the European ECO-Forum Strategy Meeting, September 14-16, 2000, the agenda was set for the coming years with an ECO-Forum Declaration, "Agenda for Kiev 2002, The View of the European ECO-Forum".

At two energy workshops during the meeting, priorities were set for the energy activities of ECO-Forum:

- The problems of nuclear power will receive high priority. Aims of the work will include stopping new construction, step-wise phasing-out of existing plants, avoid imports to CEE of nuclear waste, and establishing a nuclear phase-out account.

- The problems of the open electricity markets generated another new priority. We propose to ban import/export of electricity from dangerous nuclear power plants and "dirty" fossil-fuel plants (in general plants that do not meet Western European emission standards).

- Climate-change mitigation is also a priority. A general demand is that all countries should reduce emissions with national measures, as far as possible. Joint implementation (JI) should follow strict criteria and should be limited to energy efficiency and renewable energy. Nuclear power and waste incineration should be excluded from participation in JI projects.

- Energy efficiency continues to be a priority. For the Pan-European Environmental Ministers' meeting in Kiev in 2002 or 2003, we will propose a number of new international cooperative activities, based on ideas from the European Energy Efficiency Strategy and from the Ministerial Declaration of the ministerial meeting in Århus in 1998. To generate these proposals, we will participate in the Energy Charter's Working Group on Energy Efficiency. In addition, we will propose ECO-activities for sustainable energy, e.g., a newsletter in Russian on sustainable energy.

- Further, the group will participate in the Sustainable Energy Committee of the Economic Commission for Europe (UN-ECE), with the view of improving the Commission's environmental profile and, in particular, to push for a progressive statement for CSD9 (see page 3).

- Finally, the group will participate in the coming Intergovernmental Task Force on Reforming Energy Prices to Promote Sustainable Development, under the auspices of the UN-ECE Sustainable Energy Committee.

The group is open to NGOs and to communication via an e-mail list.

To join the list, email: ove@inforse.org. Read more about ECO-Forum and see the declaration at www.eco-forum.org.

Ambitious Plans to Stop Climate Change

A number of NGOs and progressive industries have proposed actions to reduce CO₂ emissions in the EU in a statement to the EU-Commissions Climate Change Program (ECCP): "ECCP - Ensuring its Effectiveness". If all the proposals in the statement are carried out, CO₂ emissions in EU will be reduced by roughly 30%. The statement is supported by Climate Network Europe, WWF, Greenpeace, Friends of the Earth, INFORSE-Europe, Transport & Environment, and 9 industry associations, including Cogen-Europe, EuroACE, and the European Renewable Energy Federation. The statement will be available on the Climate Network Europe website: www.climnet.org. If your NGO wants to follow the EU Climate Change Program, please contact INFORSE-Europe, e-mail: ove@inforse.org.



Energy-retrofit of houses. An EU Framework Directive with insulation standards for houses is one of the proposals included in the statement.

2.5 million Signatures, Russia No to Nuclear Waste Import

The proposal of the Russian government to import nuclear waste and to use the income from this to construct new nuclear power plants is being questioned by environmental groups in Russia. From August to October, the groups collected more than 2.5 million signatures of Russian voters, while 2 million is necessary to demand a referendum. They call for a referendum on this proposal and on proposal

to re-establish the Russian State Committee for Environment that was closed by the current government. The many signatures are now under consideration by the Russian Election Committee and it remains to be seen whether the referendum will be allowed.

Nordic-Baltic Co-operation

A new Nordic-Baltic collaboration is starting among NGOs working for sustainable energy. This effort is intended to parallel the increased official Nordic-Baltic co-operation, including the proposal to make the region a testing ground for emissions trading and for Joint Implementation (JI). The collaboration will also address the environmental problems of the internal electricity market in the Nordic countries and of the proposed internal electricity market around the Baltic Sea.

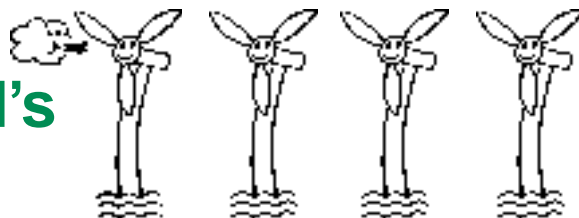
NGOs from the countries around the Baltic Sea met in Göteborg, October 22-24, to discuss the key issues to be addressed by the group. In addition to the NGO meeting, they attended a dialogue session with representatives of the official collaboration and with representatives of the ABB company. ABB was chosen because it has reduced its polluting activities by selling its coal- and nuclear-power divisions. The company wants to compensate for this by expanding its production of efficient power cables and of windturbine technology.

The NGOs will set up an e-mail list for future collaboration. Interested NGOs from countries around the Baltic Sea are invited to participate. Contact the Swedish Acid Rain Secretariat, e-mail: Reinhold.pape@snf.se, or INFORSE-Europe, e-mail ove@inforse.org.

Polluting power plants like this Estonian oil-shale plant were on the agenda of the Nordic-Baltic NGO meeting.



All Shares Sold in the World's Biggest Wind Co-operative



By Jens H. Larsen, Copenhagen Environment and Energy Office (CEEEO), Denmark

The Danish wind cooperative has nearly 9,000 members, who bought all of the 40,500 shares, representing half of the 40-MW offshore wind farm near Copenhagen. The construction is under way and is expected to be finished by the end of 2000.



Placing the foundations in the shallow water of Middelgrunden. Photo by Mads Izmodenov Eskesen

20 wind-turbines

The 40-MW "Middelgrunden" wind farm is under construction with a rated power capacity of 40 MW. It will consist of 20 wind turbines with a rotor diameter of 76 m and a generator size of 2 MW each. It will be ready for production in December 2000. The wind farm will be situated just 2 km outside the Copenhagen harbour in shallow water (4-5 meter depth). The total cost of the wind park is 1,2 million EURO per MW, including grid connection. The cost of electricity is 5.3 EURO-cent per kWh, including operation and maintenance.

Co-operative Ownership

The wind farm is being developed and is owned fifty/fifty by the Co-operative and the local utility, the Copenhagen Energy. Of the 20 wind turbines, 10 are owned by the Co-operative, which has nearly 9000 members. The Co-operative's part consists of 40,500 shares (10 x 2 MW turbines). One share yields 1,000 kWh/year and costs 4250 DKK. (See box on p. 13) By October 2000, 100 % of the private shares were sold. Middelgrunden Wind Park will become both the world's largest co-operative and the largest wind farm based on dual ownership.



Jens H. Larsen MSc. Engineer. Leader of the Copenhagen Environment and Energy Office (CEEEO), a local association that provides free, impartial information and guidance on energy conservation, as well as on the utilization of renewable energy sources.

CEEEO has more than 1500 enquiries about these subjects every year. It is a non-governmental member organization and is a part of a network with 22 offices in Denmark. These offices are closely cooperating with OVE - The Danish Organization for Renewable Energy, a core member of INFORSE.

CEEEO has worked to promote ecologically sustainable development in Denmark for more than 20 years. Since 1987, it has initiated energy and environment activities and urban ecology projects in Greater Copenhagen. CEEEO receives financial assistance from the Danish Energy Agency based on the national programs on renewable energy.



Who Could Buy Shares?

In the beginning, only people from the municipal area could buy shares. In 1999, new regulation came into effect and all Danish people could buy shares. The newest development in year 2000 was that all people also outside Denmark could buy it within certain conditions.

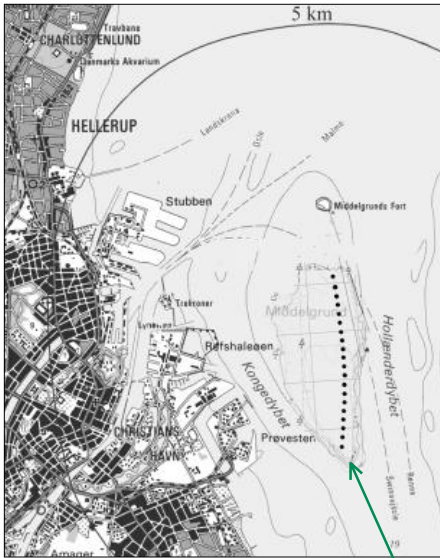
Citizens' Initiative

In 1996, the Copenhagen Environment and Energy Office (CEEEO) took the initiative to propose and organize the project. After mapping the wind potentials in the area of Copenhagen, the CEEEO organized a working group consisting primarily of citizens from the area who were interested in wind energy. Different personal and educational backgrounds were represented, with a common belief that the project was going to be a success. CEEEO was a part of the working group in the beginning and now serves as a consultant for the wind energy co-operative.

Cooperative and Utility - Everybody Gained

In the beginning of the process, there was competition between the Co-operative and the Copenhagen utility regarding the ownership of the project. After 2 years of negotiation and overcoming political differences, we have made a contract between the partners, i.e., the co-operative and the utility. The utility is Copenhagen Energy (CE), which is owned by the Municipality of Copenhagen. The contract addresses central issues, such as how to work together, planning approval, wind turbines, contractor work, financial agreement, and a 25-year agreement on cooperation.

Both parties have gained from the arrangement. CE possesses the big organization for questions about technique, contractor work, etc. The wind co-operative has the knowledge from the private wind sector, with enthusiasm and commitment as well as better contacts with the public and the press. The locally based commitment, along with co-operation between the co-operative, the local utilities, and the municipality of Copenhagen, constituted a significant precondition for the development of the project. This co-operation has provided credibility to the project in relation to politicians and the public.



The 20 wind mills are placed in a curve outside of the Copenhagen port.



Preparing the 38-m long wings. Photo by Jens H. Larsen

Public Phase

The project has gone through a “publicity phase” in which the public and all relevant authorities have been involved. As a response to objections, the project was reduced from 27 to 20 turbines. It has been very important to engage in a dialogue with shareholders and with interest groups who have a positive attitude towards wind power in general, but who are reluctant regarding projects in their own backyard. There has been positive progress, and a number of former opponents have changed their attitude. Right from the start, 4 years ago, there was a huge need for investiga-

tions, particularly of the visual and environmental impact, due to the site’s proximity to Copenhagen. The computerized visualization of the project has been a very important part of the process. The dialogue with all kinds of interest groups generated a widespread understanding and acceptance for the chosen location and layout of the park.

Environmental Investigations

Fortunately, the CEEO and the Co-operative were granted 5.2 million DKK (699,000 EUR) from the Ministry of Environment and Energy. The purpose of the grant was to investigate technical and environmental matters concerning shallow water wind power development, as well as to prove the feasibility, organizationally and economically, of co-operatively owned off-shore wind farms.

Present status is that the investigations concerning environmental and technical matters have been fulfilled. So far, the most important technical part has been to develop and choose the right foundation. Through optimizations, it has been possible to gain substantial savings. With respect to the environmental impact, the following subjects have been investigated by independent consultants: the visual impact, risk of leaking debris and heavy metal contamination (from an old dump site), the influence on the free flow of water in Øresund, the risk of collisions with vessels, the impact on flora and fauna, conflicts with other interests, etc. Several reports and brochures about the visual impact have been published in Danish.



From the computerized visualization

Delays

The planning process has been delayed because of the discussions of the liberalization of the electricity market. Other factors have also created problems; no single authority has planning authorization, no planning procedures existed, no rules or regulation on private offshore wind-turbines are in force (on land, Denmark has laws and regulations in this field).

Danish Wind Cooperatives

Today, more than 100,000 families are members of wind energy co-operatives in Denmark, and they have installed 80% of all Danish wind turbines. The co-operatives are a very important and dominant factor in the development of the Danish wind energy sector. This project convinces us again that there are many positive aspects of the co-operative ownership.

More info: Copenhagen Environmental and Energy Office (KMEK), Blegdamsvej 4 B, 2200 Copenhagen N, Denmark. Ph: +45-35373636, fax: +45-35373676, e-mail: kmek@sek.dk http://www.middelgrunden.dk/.

Jacobsen family bought 1 share	
Yearly production is 1000 kWh:	
Price of the share:	4250 DKK
(172 Million DKK/40500 shares)	
Selling price of electricity:	330 DKK
RE payment(*):	270 DKK
Income/yr	600 DKK
Maintenance cost	-70 DKK
Net income/yr	530 DKK
Rate 530/4250 = 12,5%	
Simple pay back: 8 years	
Lifetime: 20 years	
1 USD = 8.5 DKK (Danish krone)	
(*) Renewable-electricity producers receive a special payment that used to be a partial reimbursement of the electricity taxes. Now, the payment comes from the electricity consumers. For this project, the payment is fixed for the first 6 years.	
The income is tax free up to buying 5 shares per person. If you own more, then 40% of the income is still tax-free. Some Danish banks are offering loans to finance the buying of shares.	

Publications

Fuel for Change

World Bank Energy Policy, Rhetoric vs Reality

Edited by
Ian Tellam

Burning Issues; The World Bank's controversial energy policy; No shift to sustainable energy only rhetoric; The Bank vs. civil society; Which way forward?; Case studies of 15 countries written by local NGO organizations. Countries: Cameroon, Kenya, Zimbabwe, China, India, Indonesia, Philippines, Bulgaria, Hungary, Lithuania, Ukraine, Brazil, Colombia, Mexico, and Uruguay.

Info: Pb ISBN 1 85649 558 2, £14.95, September 2000.

Info: ZED Books Ltd, 7 Cynthia Street London N1 9JF UK. Ph: + 44-20 78378466, fax: +44-20-7833 3960, e-mail: sales@zedbooks.demon.co.uk, http://www.zedbooks.demon.co.uk

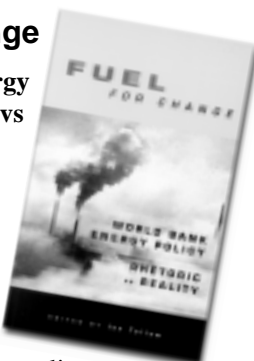
Heavy Footprints

The World Bank Group & the Environment in Europe & Central Asia.

Edited by Ivona Malbasic and József Feiler, CEE Bankwatch

Problems of the World Bank (WB) operations in the region on the environmental area. Although, the WB has changed over the last 20 years, and many of those changes have come in response to NGO campaigns, unsustainable projects are continuously approved and the core operations of the WB show little change. Among titles: Radioactive Loan; Shall not be Built; Trouble & Opportunity; Highway through Forests; Bypass through the Environment; Drilling the Sea; What Stinks? ISBN 963 0042061, 192 p., Sept. 2000. In English & Russian, Available in PDF and http on the web. Hardcopies: \$ 6.

Info: CEE Bankwatch Network, Kratka 26, Praha 10000 Czech Republic ph/fax: +420 -2-781-6571 e-mail: bankwatch@attglobal.net http://www.bankwatch.org



Climate Change and Extreme Weather Events

By P. Vellinga and W. J. van Verseveld, University of Amsterdam, Institute for Environmental Studies.

Published by WWF.
46 pages, September 2000.

Global Warming and Terrestrial Biodiversity Decline

By Jay R. Malcolm University of Toronto and Adam Markham Clean Air-Cool Planet

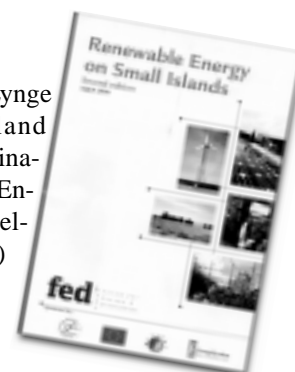
Published by WWF
34 pages, August 2000.

Info: WWF Climate Change Campaign at Jennifer Morgan, 1250 24th St NW, Washington DC 20037-1175, USA. Ph: +1 202 822 3455, fax: +1 202 331 2391, e-mail: climate.campaign@wwfus.org, http://www.panda.org/climate.

Renewable Energy on Small Islands

By Thomas Lyng Jensen, Island Project Coordinator Forum for Energy and Development (FED)

Info: FED, Blegdamsvej 4 B, 1st Floor 2200 Copenhagen N Denmark. Ph: +45 35247713, fax: +45 35247717, e-mail: tlj@inforse.org, Available in PDF format (1.6 MB) http://www.energiudvikling.dk/projects_pro.php3?id=19 See also article on page 6.



Periodicals

REFOCUS

Official Bi-monthly Magazine of International Solar Energy Society (ISES), a global alliance of academics, business professionals and organizations.



Launch Issue in July/August 2000. ISSN 1471 0846, 56 pages. Launch issue is gratis. Subscription in USA is \$251/yr. Info: Elsevier Advanced Technology, The Boulevard, Langford Lane Kidlington, Oxon, OX5 1GB, UK. Ph: +44 1865 843648, fax: +44 1865 843971, e-mail: p.spencer@elsevier.co.uk http://www.re-focus.net.

European ECO-Forum Newsletter

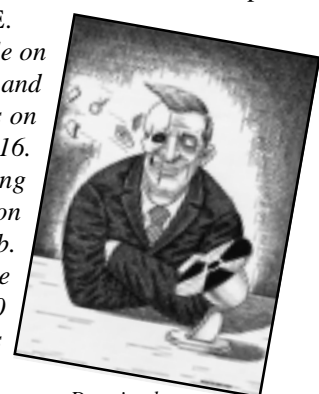
Issue 1 (7) September 2000. See article on page no. 11. Info: ECO-Accord, PO Box 43, 129090, Moscow, Russian. Ph: +7 095 9246240, fax: +7 095 9259282, e-mail: eco-forum@eco-forum.org, http://www.eco-forum.org.

Cartoons

Humankind & Energy

The best 170 drawings of the 3000 participants of the Cartoon Competition "Humankind and Energy" arranged by the Goethe Institute for EXPO 2000, presented by IZE.

See article on page no.5 and drawings on page 2, 15, 16. 150 drawing can be seen on the web. The catalogue 250 p. of 170 cartoons DM 24,80.



Drawing by Alexander Avramenko Ukraine

Info: IZE, Dr. Horst-A.Kukuck, Stresemannallee 23, 60596 Frankfurt/Main, Germany. http://www.energyhit.de Ph: +49 696304375, fax: +49 696304483 e-mail: horst_kukuck@ize.de.

EVENTS

* = INFORSE is Participating

November 13-24, 2000 *

COP-6, UNFCCC, The Hague, Holland

Info: United Nations' Framework Convention on Climate Change, Conference of Parties, fax: +49-228-815-1999, secretariat@unfccc.de

November 23-26, 2000

CERE 2000, Beijing, China

Int'l Environment & Renewable Energy Conference

Info: China International Science Center, No. 1 Sandaojie, Jianguomenwai, Chaoyang District, Beijing 100022, P.R. China. Ph: +86-10-65157760, fax: +86-10-65158442, e-mail: cisc@midwest.com.cn, www.ciscexpo.orgcn.net

November 28- December 1, 2000

CIEE 2000, Shanghai, China

China Int'l Energy Exhibition and Conference

Info: Worldwide Exhibition Service Co., Rm. 2706, Nanzheng Building, 580 Nanjing Rd. (W), Shanghai 200041, P.R. China. Ph: +86-21-52340650, fax: +86-21-52340649, e-mail: wezhou@online.sh.cn

November 28 - December 1, 2000

From Fossils to Photons, Renewable Energy Transforming Business Brisbane, Australia

38th Annual Conference of the ANZSES.

Info: Australian and New Zealand Solar Energy Society, (ANZSES), solar2000@icms.com.au, http://www.solar2000.aust.com/

December 5-7, 2000

2nd Triangular Cooperation Conference on Small Hydro Power, Hangzhou, China

Info: IN-SHP, PO Box 202, Hangzhou 310002, China. Ph: +86 571 7070070, fax: +86 571 7023353, e-mail: hic@mail.hz.zj.cn, http://www.inshp.org.

December 6-9, 2000

SOLAREXPO 2000, Verona, Italy

Int'l Trade Fair & Conference on Renewable and Alternative Energies

Info: Piazzetta Trento Trieste 10 b, 32032 Feltre BL Italy. Ph: +39-439 840922, fax: +39-439 849854, e-mail: conference@solarexpo.com, http://web: www.solarexpo.com

February 13-22, 2001

Planning and Technology Selection for Small Hydro Power, Roorkee, India

Info: Arun Kumar, Alternate Hydro Energy Centre (AHEC), University of Roorkee, Roorkee 247 667 U.P. India. Ph: +91 1332 74254, fax: +91 1331 73517, e-mail: ahec@rurkiu.ernet.in, ahec@vsnl.com, www.ahecindia.org, www.ahecindia.com.

February 26-27-28, 2001

Creating an All-Energy Future Conference, Aberdeen, UK

Diversification, Renewable Energy Technologies World Energy Cities' Partnership Meeting.

Info: JPPR, 34 Ellerker Gardens, Richmond, Surrey TW10 6AA, UK. Ph: +44-20 8241 1912, fax: +44-20 8940 6211, e-mail: judithpattenpr@msn.com, info@all-energy.co.uk, http://www.all-energy.co.uk

February- March, 2001*

2nd Meeting of Intergovernmental Group of Experts on Energy and Sustainable Development, New York, USA

Official Preparation of CSD9.

Info: www.un.org/esa/sustdev

See article on page no. 3

February 28 – March 3, 2001

World Sustainable Energy Day, Wels, Austria

Energy Globe Award 2001, Languages: English, German, French, Czech/Slovak

Info: O.Ö. Energiesparverband, Landstrasse 45 4020 Linz Austria. Ph: +43-732-6584 4380, fax: +43-7326584 4383, e-mail: office@esv.or.at, http://www.esv.or.at.

February 28- March 3, 2001

Renewable Energy Exhibition, Lyon-Eurexpo, France

Ph: +33 4 72223260, fax: +33 4 72223258,

February 28 – March 2, 2001

3rd Asia-Pacific Cleaner Production Roundtable, Mandaluyong City, Philippines

College of Business Administration, University of the Philippines Diliman, Quezon City 1101 Philippines, Fax: (63-2) 9297991

Email: elvira.zamora@up.edu.ph

March 30 - April 1, 2001

New Energy 2001, Shanghai, China

2nd Int'l Exhib. on New & Clean Energy

Info: Coastal Int'l Exhibition Co. Ltd, Room 3808 China Resources Building, 26 Harbour road, Wanchai, Hong Kong. Ph: 852 2827 6766, fax: 852 2827 6870, e-mail: general@coastal.com.hk, http://www.coastal.com.hk.

April 2-5, 2001

WORK 2001, Johannesburg, South Africa

1st Int'l Conf. on Employment Creation in Development,

Info: Dep't of Civil Engineering, Private bag 3, WITS 2050, South Africa. Ph: +27-11 717 7137, fax: +27-11 339 1762, e-mail: filip@civen.civil.wits.ac.za, http://www.civil.wits.ac.za/rmc/w2001/index.html, http://work2001.cjb.net.

April 5-6, 2001

7th Annual Int'l Sustainable Development Research Conf., Univ. of Manchester, UK

ERP Environment, PO Box 75, Shipley, West Yorkshire, BD17 6EZ, UK.

Ph: +44 1274 530408, fax: +44 1274 530409, e-mail: elaine@erpenv.demon.co.uk, www.erpenvironment.org

April 16-27, 2001 *

Commission for Sustainable Development 9th Session (CSD9), New York, USA

Info: www.un.org/esa/sustdev

See article on page no. 3

May 3-4, 2001

REMIC - Renewable Energy in Maritime and Island Climates, Belfast, UK.

Organized by ISES-UK and Centre for Sustainable Technologies. (CST)

Info: University of Ulster, Newtownabbey, Co. Antrim, BT37 0QB, Northern Ireland. Ph: +44 28 9036 8238, fax: +44 28 9036 8239, e-mail: remic@ulst.ac.uk, http://www.engj.ulst.ac.uk/remic

May 6-8, 2001

The Changing Land of Europe, Amsterdam, The Netherlands

The 1st European Conference on Agriculture & Renewable Energy

Info: EMMML (European Media Marketing Ltd.) PO Box 7, Torrington, North Devon, EX38 8YP, UK. Ph: +44 1805625500, fax: +44 1805625400, E-mail: land@sustain.co.uk, www.emml.com.

May 15-16, 2001

From Eco-Efficiency to Overall Sustainability in Enterprises, Duesseldorf, Germany

2nd Int'l Conference. It will be part of ENVITEC.

Info: Wuppertal Institute for Climate, Environment & Energy, Doeppersberg 19, 42103 Wuppertal, Germany. Ph: +49-202-2492102; fax: +49-202-2492108, e-mail: Jan-Dirk.Seiler@wupperinst.org, http://www.eco-efficiency.de.

June 11 -16, 2001

ECEEE Summer Study 2001

Info: European Council for an Energy Efficient Economy, c/o ADEME - ICE, 46 rue de Provence, 75009 Paris - France. Ph: 33 1 48 74 59 73, fax: 33 1 42813958, e-mail: summerstudy@eceee.org, http://www.eceee.org.

July 2-6, 2001

European Wind Energy Conference, Bella Center, Copenhagen, Denmark

Supported by Danish Wind Turbine Manufacturers Association, The European Wind Energy Association (EWEA).

Info: EWEA Brussels, Ph: +32 2 546 19 40, fax: +32 2 546 19 44, e-mail: ewea@ewea.org, http://www.ewea.org or WIP, http://www.wip-munich.de.

October 31 – November 3, 2001

Renewable Energy Indonesia, Jakarta

Int'l exhibition alongside Electric,- Power,- ELENEX –Indonesia.

Info: PT Pamerindo Buana Abadi, Deutsche Bank Building 13th Floor, Jl Imam Bonjol 80, Jakarta 10310, Indonesia. Ph: +62 21 316 2001, fax: +62 21 316 1981/2, e-mail: pamindo@rad.net.id, or indonesia@montnet.com

One of the participant drawings of the Cartoon Competition "Humankind and Energy" arranged by the Goethe Institute for EXPO2000, represented by IZE, Germany. See article on page no. 5, and Publication List on page no. 14



Drawing by Francisco J. Etxayo Larraizarrar Basque Country, Spain

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Funding for INFORSE Members
The South-South-North Co-operation
Fund has US\$ 13,000 for 2001

Funding for INFORSE Members

The South-South-North Co-operation Fund has
US\$ 13,000 for 2001

Members of the INFORSE network have an opportunity to apply for funding for activities in the field of sustainable energy from the South-South-North Co-operation Fund (SSN).

The fund is hosted by the INFORSE Secretariat at the Forum for Energy and Development (FED) in Denmark.

Apparently, many of the members are not aware of this opportunity, since the Secretariat has only received very few applications for funding in 2000. Therefore, we encourage INFORSE members to submit applications.

The main objective of the fund is to give INFORSE members economic assistance to develop project ideas and to prepare projects in the field of renewable energy.

SSN will give priority to projects where INFORSE members plan to co-operate. In this way, members can learn from each other, share experiences, develop ideas, and otherwise work together. Thereby, this will strengthen the INFORSE network. The co-operation can be between members from the same country, as well as, it can be South-South, or South-North co-operation.

Application Form Available

The Secretariat has developed an application format available via e-mail, fax, and postal mail.

The application is not supposed to be very extensive. It must contain basic information about the applying organizations; the problem that the NGO is addressing; the objectives, the activities, the beneficiaries, and the other stakeholders. Finally, it must include a budget.

If a NGO has any questions about the required information, it is most welcome to discuss them with the Secretariat.

Apply Year Round

The SSN will be able to spend about 13,000 US\$ in 2001. The responsibility of the members receiving funds is to implement the activities and to report on activities carried out as well as on the project's finances. There is no deadline for submitting applications to the Fund. The FED executive board will discuss applications on a quarterly basis.

Assistance in Formulating Application

INFORSE members should also be aware that the Secretariat can assist members in formulating project applications to donors for support of any type of energy activity. As a point of departure, NGOs will write a draft project proposal. The FED will comment on it and discuss with the owner of the proposal whether the FED thinks that part of the application should be changed.

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One of the participant drawings from the Cartoon Competition arranged by the Goethe Institute for EXPO 2000, represented by IZE.

See article on page no. 5, and the Publication List on page no.14



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Galati, Romania*