

# SUSTAINABLE ENERGY NEWS

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

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Energy -  
Litmus Test  
for Rio+10?



**School Theme**



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The world's largest wind farm cooperative in operation.  
Middelgrunden, Denmark  
See article in issue No.31 Nov.'01  
Photo: Mads Izmodenov Eskesen  
See also photo book on page 14.

# Litmus Test for Rio+10



Gunnar B. Olesen and Michael Kvetny in front of the UN building in New York at CSD9.

The 9th session in the UN Commission for Sustainable Development (CSD9) became a lost opportunity for governments to show their willingness to integrate environmental concerns of the industrialised countries and the poverty concerns of the developing world. It was the last chance before "Rio+10", the World Summit for Sustainable Development in 2002.

There are good reasons for the lack of progress: weak North-South dialogue and the strong lobbies against sustainable energy. While there is a new worldwide agreement to see poverty alleviation as the major task for the new millennium, many developed countries refuse to implement UN recommendations to use 0.7 percent of GDP for cooperation with developing countries. Instead, they push for market reforms in developing countries.

On the part of the developing countries, many governments acknowledge environmental problems and the role of sustainable energy as well as of other sustainable solutions in alleviating poverty. But only few have established firm goals and policies to improve access to energy or other poverty-alleviation measures. Likewise, environmentally harmful subsidies and environmental problems associated with energy use are not addressed adequately. The developing countries also voice fears that initiatives to phase out harmful subsidies are just new, questionable demands from developed countries, like the World Bank's demands for structural adjustments.

These are not new discussions, but there was no real dialogue addressing these questions during the CSD9. In addition, the heavy influence of the fossil and nuclear lobbies gave these technologies too favourable a profile in the CSD9 agenda, - technologies that just should be footnotes in the longer perspective for sustainable development.

The meagre outcome of CSD9 stands in stark

contrast to the general support for sustainable energy solutions that was expressed by almost all of the ministers present at CSD9. Because of its importance in development as well as to a better environment, the treatment of sustainable energy after CSD9 can be seen as a litmus test for the Rio process. With only a year left for preparations for Rio+10, it is urgent to present initiatives that would bridge the gap between developing countries and industrialised countries.

INFORSE and other NGO-networks proposed redirection of subsidies from environmentally harmful energy sources to renewable sources, and to energy efficiency. We also proposed to redirect research funds from nuclear and advanced fossil-fuel technologies to renewable-energy technologies. These measures would provide resources to expand the production of, and thus reduce the costs of, renewable-energy technologies. They also would level the playing field for renewable energy in general. To facilitate international cooperation, we proposed an International Sustainable Energy Agency.

Cost reductions on renewable energy technologies following the technology learning curve at expanding markets in the industrialised countries will help the adoption of renewable energy also in developing countries. Besides being environmentally friendly, many renewable energy technologies are adequate for local needs, and their development could provide new income-generating activities.

A growing market for renewable energy in the developing countries is an important means for social and economic improvement. This improvement will not start until governments acknowledge their responsibility to be policy-makers, nationally and internationally, including at Rio+10.

Gunnar Boye Olesen and Michael Kvetny  
INFORSE

# Energy for (Un)sustainable Development

By Gunnar Boye Olesen  
and Michael Kvetny,  
INFORSE



# Vision 2050 at CSD9 & Beyond

INFORSE's "Vision 2050" was presented at one of the side-events of CSD9 together with sustainable energy indicators. The vision, as discussed in Sustainable Energy News 32, is to realise a worldwide transition to re-

newable energy by 2050 and to provide adequate energy services to all. It was received well by the audience. Some were interested in participating in the coming development of the vision and the related scenario. The plan now is to develop the vision and scenario further in cooperation with interested INFORSE members and other NGOs. The results of this effort should be ready for presentation at the time of Rio+10. INFORSE intends to present aggregated scenarios for developed countries and for developing countries, as well as national scenarios for selected countries.

At the side event, the vision was discussed in conjunction with a set of indicators for sustainable energy, developed by Helio-International. The event was well chaired by Fatma Denton from ENDA Energies, Senegal.

For information about Vision 2050, see: [www.inforse.org](http://www.inforse.org); about Helio's indicators: [www.helio-international.fr](http://www.helio-international.fr).

To participate in the development of Vision 2050, contact INFORSE, att. Michael Kvetny or Gunnar Boye Olesen.

**NGOs have mixed feelings about the outcome of CSD9. Some proposals can support a sustainable development in energy, others could make the situation worse.**

It took 9 years from the Rio conference in 1992 until the Commission for Sustainable Development (CSD) took up a serious debate on energy. At the Rio conference, there was no consensus in favour of including sustainable energy in Agenda 21.

There was certainly not a lot of consensus either at the 9th Session of CSD (CSD9) when energy was on the agenda. As a symptom of this, the term "sustainable energy" was unacceptable to many developing countries. Instead, the text refers to "energy for sustainable development".

During the negotiations at CSD9, INFORSE co-operated with a number of other NGOs in the "NGO Energy & Climate Change Caucus" for CSD, and we were able to find common positions within the Caucus on all major questions. To get

the NGO proposals into the official CSD9 document was another matter, and the results are in many ways not satisfactory. In spite of many nice words, there was little consensus among the countries to make a real push for energy efficiency and renewable energy. One of the main disappointments was that the reference to nuclear power stayed in the document, in spite of several countries previously stating that they preferred to see it out.

Energy is also proposed as an issue for next year's World Summit for Sustainable Development (WSSD) in South Africa, but it is not decided yet if it will be on the agenda. The expectations are high for WSSD, or Rio+10 as it is usually referred to, but given the outcome of CSD9, positive results will not come easily.



Michael Kvetny and Gunnar Boye Olesen represented INFORSE at CSD9 in New York.

On the following pages (4 & 5) we highlight some of the positive and negative outcomes of CSD9.

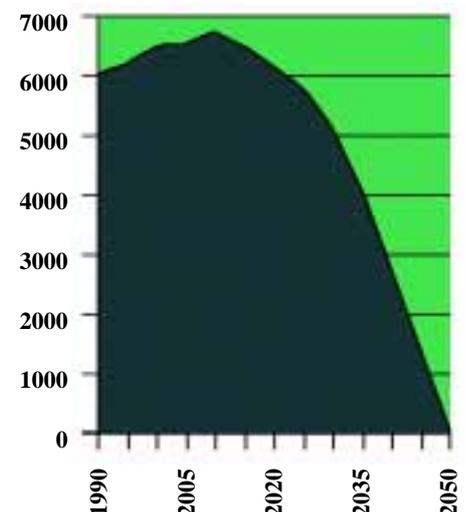
These include just some of the key recommendations from the CSD9 document. Text in quotation marks (" ") is quoted directly from the document.

To see the full CSD9 document take a look at the official report at [http://www.un.org/esa/sustdev/csd9/csd9\\_2001.htm](http://www.un.org/esa/sustdev/csd9/csd9_2001.htm)

See also the NGO Energy and Climate Caucus' comments at: [http://www.igc.org/csdingo/energy/ene\\_index.htm](http://www.igc.org/csdingo/energy/ene_index.htm).

*Phase out of fossil fuels,  
and energy-related CO<sub>2</sub> emissions,  
is an important part of Vision 2050.*

World CO<sub>2</sub> Emissions (MtC)/y,  
draft scenario, Vision 2050



## Positive Outcome of CSD9

In many ways, the 17-page CSD9 energy document brings energy issues into the framework of sustainable development and discusses many of the important issues related to sustainable energy development. While none of the proposals is new, several have been included for the first time in an international consensus document (though not a binding document, all CSD documents are un-binding).

In the document, it is recognised that “Current patterns of energy production, distribution, and utilisation are unsustainable”, that “...nearly one third of the global population of six billion, mostly living in developing countries, continue to lack access to energy and transportation services”, and that, “...to halve the proportion of people living on less than US\$1 per day by 20105, access to affordable energy services is a prerequisite”. It is proposed that countries integrate energy considerations, including energy-efficiency considerations, into other policies.

### Support Efficiency and Renewables

**Energy Efficiency** - It is proposed that all countries strengthen or establish institutions and programmes for energy efficiency. This should include a strengthening of public-awareness programmes to mobilise all stakeholders for energy efficiency, and encouraging the transfer of energy efficiency technologies. It is also proposed to provide incentives for energy conservation.

**Renewable Energy** - It is proposed that all countries support increased use of renewable energies. Part of this should be to develop programmes, policies, and measures to create a supportive environment for renewable energy. Another part should be strengthening of information networks and public-awareness programmes on renewable energy sources and technologies. It is also proposed to encourage the transfer of environmentally sound and advanced technologies and to strengthen financial support to developing countries for the promotion of renewable energy.

**To increase access** to energy for those lacking it today is proposed to:

- Promote local energy enterprises and support local private entrepreneurs.
- Establish financial arrangements to make rural energy services affordable to the poor.
- Support local groups/NGOs in promotion and delivery of new environmentally sound technologies, including solar cooker technology.
- Promote rural community participation, and promote capacity-building in local societies.
- Promote efforts to address the disproportionate burdens experienced by women in rural areas (e.g., carrying fuel wood, adverse health effects from open fires).

### Public Participation in Nuclear

While it is questionable to include nuclear at all in the text, a positive outcome is the recommendation to promote public participation in the areas of nuclear energy and waste management, and to improve the transparency of nuclear safety-related decisions.

### International Cooperation

The last part of the document deals with regional and worldwide cooperation. It proposes strengthening regional institutions to enhance cooperation on energy for sustainable development, in particular to assist developing countries. It also proposes strengthening regional and international networks of centers for research, development, and application of energy to sustainable development, and to strengthen regional capabilities to inform consumers on the benefits of energy efficiency. On an international level, the document proposes support for endeavours to promote equal access to and opportunities for women in relation to energy, including credit facilities and involvement in energy policy decision-making processes.





## Negative Sides of CSD9

Unfortunately, the CSD9 energy document contains so many proposals for *un*-sustainable energy sources and practices that it is problematic to refer to the CSD9 document, except for references to very specific points.

### Nuclear Remained

A major problem is that nuclear power is included in the context of energy for sustainable development. While most of the recommendations regarding nuclear power are reasonable, many NGOs fear that it will be misused by the nuclear industry to try to fund nuclear projects with the scarce funds for sustainable development. One nuclear recommendation is particular problematic: "Promote ..... capacity-building of human resources, in the areas of nuclear energy .....". This will be an subsidy for nuclear power, if publicly financed.

### Weak Definition of "Sustainable"

The introduction of the document includes a very weak sentence that could be held up as a definition of energy for sustainable development: "Energy for sustainable development can be achieved by providing universal access to a cost-effective mix of energy resources compatible with different needs and requirements of various countries and regions".

### Fossils, the Big Winners

Promotion of advanced fossil fuel technologies (without clear definition) is included in parallel with promotion of energy efficiency and renewable energy. This goes throughout the document, and includes a number of questionable recommendations:

- Promote carbon capture and storage technologies.
- Develop and implement measures to make advanced fossil-fuel technologies more accessible and affordable (another way of subsidising fossil fuels?, author's comment).
- Strengthen regional cooperation agreements for promoting cross-border energy trade, including interconnection of electric grids and of oil and gas pipelines.
- Promote cooperation among concerned countries to improve development and production of hydro-carbon fields through integrated cost reduction, enhanced operational efficiency....

### Missing Elements: Environmental & Social Damages

The environmental and social ills known to be caused by fossil fuels and large hydro are missing from the document. Among the missing elements are references to the Kyoto Protocol, and to the many environmental and social damages caused over the years by fossil-fuel extraction and by large dams. In spite of active involvement of many indigenous people's organisations, representing people affected by oil and gas exploration, their problems are not mentioned in the final document. Also, the proposal of a moratorium for search for new sources of oil and gas, in particular in indigenous peoples' areas, was omitted.

The proposal to phase out environmentally harmful subsidies is weak, and does not contain any timetable.

### No New International Cooperation

Very little new international co-operation is proposed. The NGOs' proposal for an International Sustainable Energy Agency was excluded. At the last moment was also dropped the proposal for a UN committee on energy for sustainable development, which appeared in the drafts. Only a reference to continuing the dialogue within the WSSD process remains.

# Pan-European NGO Seminar in Denmark

September 16-22, 2001



Photo from the Danish Folkecenter for Renewable Energy, where the seminar will be at the new Skibstedfjord Training Center.

The participants can discover the new training facility, where in the windows there is "PV in the view". New ways of building technics, different type of wind mills, solar collectors, and much more is waiting for the participants.

**INFORSE-Europe is organizing the "Pan-European NGO Seminar & Tour on Sustainable Energy" to be held in Denmark, September 16-22, 2001.**

The events will take place in co-operation with WISE (World Information Service on Energy), Climate Network Europe (CNE), Climate Action Network for Central & Eastern Europe (CAN-CEE), and the Danish Organisation for Renewable Energy (OVE).

## Study Tour (Sept. 16-18)

- Visits to some of the *best examples* of sustainable energy solutions, including windparks, cogeneration of heat and electricity, urban ecology projects, and the Danish Folkecenter for Renewable Energy.
- Visit to the INFORSE Secretariat in Copenhagen.
- Visit to the dispatch centre for the electric grid in Western Denmark (Eltra), where they control the day-to-day integration of the more than 20% of grid energy derived from windpower.

## Seminar (Sept. 18-22)

- Renewable energy development throughout Europe, overview, and cases, e.g., biogas, bio-oil for transportation, large-scale integration of windturbines in the electric grid.
- Energy-efficiency trends and plans throughout Europe, with examples including Danish electricity efficiency programs, joint implementation projects, and others.
- Phase-out of environmentally harmful subsidies, with examples from European cases.

- Successful support for renewable energy in Europe.
- Energy/CO<sub>2</sub> taxes, including European successes and problems.
- Sustainable energy strategies; e.g., the EU strategy to meet the Kyoto target and the Danish "Energy21" sustainable energy plan.
- Roles of Multilateral Development Banks in energy & climate in Central and Eastern Europe.
- Problems of nuclear power, and NGO-cooperation to address such problems.
- NGO Co-operation on energy & climate after COP6 meeting about the Kyoto Protocol.
- Pan-European Energy Co-operation.
- Working groups and discussions on future NGO co-operation on energy issues.

Further information, preliminary programme, and application form at [www.orgve.dk/inforse-europe](http://www.orgve.dk/inforse-europe), or by request to INFORSE-Europe ([ove@inforse.org](mailto:ove@inforse.org)).

## INFORSE-Europe Meeting

An INFORSE-Europe Meeting is planned for Friday, September 21 (afternoon) at the Danish Folkecenter for Renewable Energy. It will be the first physical INFORSE-Europe meeting since 1998 and will be part of the "Pan-European NGO Seminar & Tour on Sustainable Energy". INFORSE-Europe members will receive a call for the meeting and an agenda in July. Members are hereby invited to send proposals that can be included in the agenda.

### Applications to attend the seminar should be sent to:

INFORSE-Europe,  
Gl. Kirkevej 56, 8530 Hjortshøj,  
Denmark. e-mail: [ove@inforse.org](mailto:ove@inforse.org)  
fax: +45-86227097.

Please, specify whether you are applying for the:

- *Tour & Seminar*  
(2800 DKK = 375 EUR, travel from Copenhagen to Folkecenter included) or
- *Seminar only*  
(1000 DKK = 140 EUR, no travel included).

Please also specify name, organisation, address, email.

### Application deadline: July 15, 2001.

**Limited support is available**, only for participants from Central and Eastern Europe, including the former USSR. If you need support, please specify minimum travel support needed.

*The events are supported by the Danish Open Air Council and OVE, the Danish Organisation for Renewable Energy, while the Danish Folkecenter for Renewable Energy is providing seminar facilities as in-kind support.*

# European-News

Compiled and edited by Gunnar Boye Olesen, editor, OVE Denmark

## EU - Ratification of Kyoto

EU's preparation for ratification of the Kyoto Protocol, the EU Climate Change Program (ECCP), has come to its last phase with a final report due in May, EU ministerial meetings in June, and a final conference scheduled for July 1-2. Then the formal ratification procedure will start, lasting until mid-2002. The NGOs involved in the ECCP process are happy to see a number of new proposals in the drafts:

- an initiative and a directive to promote cogeneration of heat and electricity
- an initiative for renewable energy for heating (primarily biomass and solar)
- a directive for biofuels for transportation. It is important that the biofuels be produced in an environmentally benign way
- a directive for energy efficiency in buildings.

The EU Commission is pushing strongly the creation of an internal market for trading of CO<sub>2</sub> quotas, a measure that many NGOs fear can be inefficient to reduce EU's emissions. Some proposals by NGOs are not so likely to be included by the Commission: e.g. standards for energy efficiency and maximum CO<sub>2</sub> emissions from power plants.

The ECCP process has included studies on the cost of EU compliance with the Kyoto Protocol. While the results can be debated, the compliance costs have been calculated to be 10-40 EUR per capita per year if all greenhouse-gas reductions were made within the EU (no flexible mechanisms used).

*More information:*

[www.europa.eu.int/comm/environment/climat/eccp.htm](http://www.europa.eu.int/comm/environment/climat/eccp.htm), and *Climate Network Europe*, [www.climnet.org](http://www.climnet.org).



Promotion of renewable energy for heating is part of the new proposal from ECCP as this Finnish mass-ovn.

Photo by Biopress / Torben Skøtt

## Submit your comments about "Security of Supply".

The EU Commission's Green Paper on Security of Supply (COM2000-769) is now open for debate. Out of the first 40 responses (received mid-April), only a couple come from NGOs. Now INFORSE-Europe is responding to the Green Paper, stressing that:

- we disagree with the proposal of continued research and development of nuclear power (fission and fusion).
- we disagree with the proposal of EU support for development of gas pipelines in Central and Eastern Europe, including in the former Soviet Union (CEE). Gas pipelines should be financed by private investments only.
- we disagree with the proposal to increase electricity imports from the CEE to the EU. Such imports will probably prompt increased electricity production on unsafe nuclear reactors and on highly polluting fossil-fuel power plants.
- we welcome the idea of redirecting support from fossil and nuclear energy to energy efficiency and renewable energy.

See the Green Paper's website, [europa.eu.int/comm/energy\\_transport/en/lpi\\_lv\\_en1.html](http://europa.eu.int/comm/energy_transport/en/lpi_lv_en1.html).

Read about NGO responses at [www.orgve.dk/inforse-europe](http://www.orgve.dk/inforse-europe) and [www.climnet.org](http://www.climnet.org).

## EU Court Sanctions Renewable Energy Support

In a ruling of the EU court of Justice (13 March 2001), it was decided that Germany's new fixed-price system for electricity from renewable energy does not constitute state aid. With this ruling, such feed-in schemes are not controlled by the EU Commission, and are not limited by EU's guidelines for state aid (described in Sustainable Energy News 32).

The fixed price systems for electricity from renewable energy have been the most successful support schemes for renewable energy, and are now used in Germany, Spain, and France.

See the EU court ruling on Case C-379/98 *PreussenElektra AG vs. Schleswig AG* "An obligation to purchase at minimum prices does not constitute state aid merely because it is imposed by statute", [europa.eu.int/cj/en/index.htm](http://europa.eu.int/cj/en/index.htm).

## Russian Nuclear Waste Import

In the February issue of Sustainable Energy News, we described the draft law from the Russian Ministry for Atomic Energy (Minatom in Moscow) to allow import of nuclear waste. The Duma's second reading of the draft law was postponed from February 22 till April 18, partly because of the NGO campaign to stop the law, partly because of a report on corruption in Minatom. The corruption scandal also forced Yevgeny Adomov to resign as minister of atomic energy, and he was replaced by Alexander Rummyantsev. These events reduced the support for the law in the Duma from 89% in favour in the first reading last December to "only" 65% in favour at the second reading, April 18. Now follows a third reading in the Duma and then the Federation Council will evaluate the law. The final judgement will come from the Russian President. According to "SEU times", it is quite possible the President will reject the proposed law.

Sources: *Social Ecological Union*, *SEU Times* and *Anti-Nuclear Campaign*: [www.igc.org/gadfly](http://www.igc.org/gadfly) and [www.ecoline.ru/antinuclear/](http://www.ecoline.ru/antinuclear/), and *Bellona*: [www.bellona.no](http://www.bellona.no).



## Finnish Nuclear Plans

The Finnish power company IVO has asked the Finnish state for permission to build a 5th nuclear reactor in Finland. While this 5th Finnish reactor has been discussed for over 10 years without being approved for construction, it is possible that the Finnish parliament will give their permission this time.

Many organisations have raised concern over the nuclear plan, including EUROSOLAR and INFORSE-Europe. In INFORSE-Europe, we hope that many organisations will voice their concern before the Finnish Parliament decides upon the project in the summer.

See: [www.orgve.dk/inforse-europe](http://www.orgve.dk/inforse-europe).

## US News *Compiled and edited by Gunnar Boye Olesen*

### Less Sustainable Energy Funding

US resident George Bush recently shocked the world by cancelling US participation in the Kyoto Protocol. He also proposes to cut US federal funding for development of sustainable energy. The proposal is to cut the Department of Energy's 2002 budgets for renewable energy and for energy efficiency by \$ 277 mill., equal to 27%. Among other ill effects, these budget cuts will:

- Slow down the development of super-efficient building equipment and design;
- Reduce outreach efforts to educate consumers about energy efficiency;
- Reduce funding and incentive for partnerships aimed at developing cleaner, more efficient ways of making steel, aluminium, chemicals, glass, and other energy-intensive industrial products;
- Hamper efforts to cut energy waste in federal buildings; and
- Slow down the adoption of stronger building codes and new appliance efficiency standards.

The Department of Energy (DoE) recently documented that 20 of its most successful energy-efficiency and renewable-energy activities have saved consumers and businesses around \$30 billion.

The American Council for an Energy Efficient Economy (ACEEE) and other public-interest groups are urging the US Congress to go against the proposed cuts. ACEEE proposes in addition to increase energy efficiency standards for cars and various other products, and to give tax-incentives for highly energy-efficient vehicles, homes, and other products.  
*See: [aceee.org](http://aceee.org).*

### Auto Efficiency 20 times More Important than Drilling in Alaska

Increasing the fuel efficiency of new cars and light trucks by just 5 percent per year would cut U.S. oil use by 1.5 million barrels per day within a decade, according to a new study issued May 1 by ACEEE. Over 40 years, such a program of increased vehicle efficiency would save 20 times more oil than the projected supply from the Arctic National Wildlife Refuge.

*See: [aceee.org](http://aceee.org).*

### Responsible Energy Policy Proposed

The National Resource Defense Council (NRDC) just released "A Responsible Energy Policy for the 21st Century". The key message is to emphasize clean air, energy efficiency, and renewables in policy-making. The report concludes that an energy policy with this emphasis can be very efficient in addressing the current energy-supply problems, including the power-sector problems in California. The report is a response to president George Bush's proposal to relax air-quality standards and to increase investments in energy supply.

*The report is available at [www.nrdc.org](http://www.nrdc.org)*

### Greenpeace Calls for Energy Action

Greenpeace has launched a campaign targeting the corporate backers of president George Bush's unsustainable energy policy. They ask activists around the world to send a message to the big 5 US oil companies urging them to become clean and support the Kyoto Protocol. The 5 companies are: Exxon/Mobil, Chevron, Texaco, Conoco, and Phillips.

*See [www.greenpeace.org](http://www.greenpeace.org).*

### Cheap Winds

The upcoming "Stateline Wind Farm" on the border of the US states Washington and Oregon will produce power at a record low price of 2.5 cents/kWh.

The 300 MW project will receive US federal wind energy production tax credits. Without these credits, the production price would be 3.2 cents/kWh, -still a very low price for clean electricity, as the price accounts for all costs, including payments for the land owners, maintenance, etc.

While the record-low price is based on cost reductions of windturbines, the project is also placed on a very good site. Other new windpower developments have production costs in the range of 3-6 cents/kWh. In some cases, consumers could get cheaper electricity if parts of their supply would come from windturbines: in a recent ruling, the Colorado Public Utilities Commission required a power company to include a 162-MW windfarm in its developments, simply because this would provide cheaper power to the consumers.

Because of the low costs and of the US federal wind energy production tax credit, windpower development might reach a new record in the US this year, while last year the development was a meagre 53 MW.

*Sources: REAccess News 20/3-01, [www.solaraccess.com/sanews](http://www.solaraccess.com/sanews) and the American Wind Energy Association, [www.awea.org](http://www.awea.org).*



*"Yes to Kyoto" say most US citizens. Photo from the Earth Day, April 22 in New York, NY, USA.*

*Photo by Gunnar Boye Olesen*



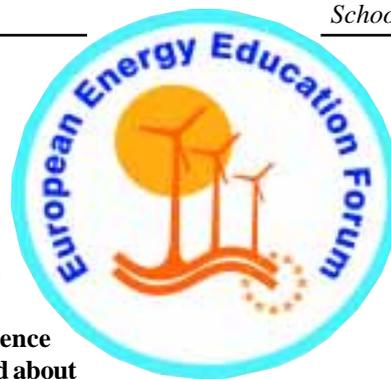
*Photo by Neg-Micom*

# New Educational Network

A new network, the European Sustainable Energy Education Forum (ESEEF), was officially created by organisations from 10 countries at a conference in Copenhagen in December, 2000. The network aims to help teachers and students around Europe who work with sustainable energy.

A new web site ([www.school4energy.net](http://www.school4energy.net)) includes interesting educational materials and web site links. All European educational organisations are welcome to join!

In the following 4 articles, we share some insights into the activities at the Conference and introduce some of the organisations that founded the network. You can also read about other organisations in our first School Theme in issue No. 29, May 2000. (Editors)



## Insights at the Conference



**How to teach better? Similar efforts in various languages. Curiosity and openness in the air.**

*By Judit Szoleczky, editor, Denmark*

The participants were all directly interested in how better to teach children about sustainable energy, which would help them throughout their lives to choose environmentally conscious energy consumption.

The participants came from Denmark, France, Belgium, United Kingdom, Sweden, Norway, Spain, and Italy, as well as from the Baltic countries and Russia. Many of the attendees were active or former teachers who are now preparing instructional materials. The Conference provided good opportunities for open discussions.

For me, the most interesting part of the experience was learning new ideas and, at the same time, hearing about similar efforts in various countries. Because of language barriers and a lack of networking, these teachers usually do not hear about each other's efforts.

We discussed the differences and the similarities:

- How the energy and environment is integrated in the schoolbooks in different countries?
- Who decides which book to use, the teacher or the school or the ministry?
- Can a teacher choose to teach about sustainable energy, or it is decided by the headmaster?
- Can the web and internet be a useful tool in catalyse the process?
- Who can or should have access to the internet: should the list include schools, teachers, children, and/or simply everybody who wants to learn?

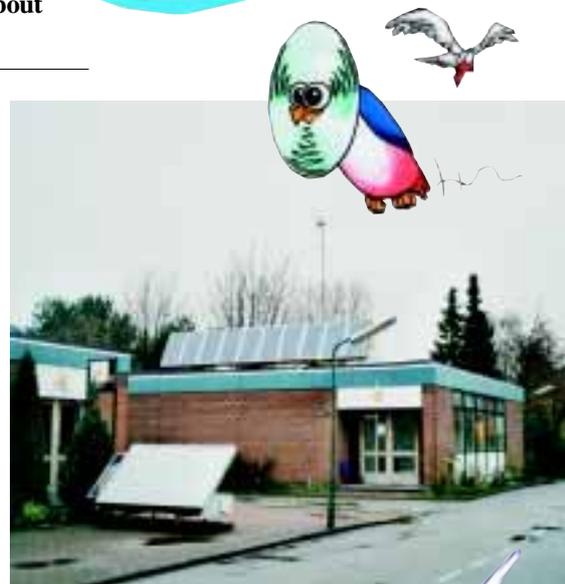
- What is better to have an ambitious web page, which might not work for some users or a simpler but without access problem?
- Should information be provided in English only, or also in national languages? How much work is it to translate the materials to national languages?
- How can other countries use a good idea, which is available only in Norwegian, or in Finnish? How accessible and useful is English to children and teachers in European countries outside UK?
- Can children in a kindergarten understand a wall graph showing energy consumption or fluctuations in temperature? At what age does this first become meaningful to them?
- How can simple role-playing and experiments help children to discover these concepts for themselves?
- How much and how effectively can teachers use colouring books, activity sheets, and computer games as teaching tools?
- How can we accept or not accept money from oil and gas companies to teach renewable energy or energy efficiency?

*More information:*

*Janus Hendrichsen, School Energy Forum, Islevgaard Allé 5, 2610 Rødovre, Denmark. Ph: +45 44536111, fax: +45 44570666, [energihus@mail.dk](mailto:energihus@mail.dk) [www.SkolernesEnergiForum.dk/english.htm](http://www.SkolernesEnergiForum.dk/english.htm), and , e-mail: [sef@email.dk](mailto:sef@email.dk), [www.energy4school.net](http://www.energy4school.net).*

*Janus Hendrichsen (right) showed us around the Energy House. Here, Bente (left) from Norway experiments to see how much energy she can make by bicycling. As she bicycles, the lamps and television turns on...*

*Photos by Judit Szoleczky*



*The Conference was held in the Energy House of "The National Innovative Center for General Education" (SPF), which is hosting the Danish School Energy Forum.*



*The start of the new network marked the end of a project by the Danish School Energy Forum, (SEF). The project was supported by the EU Altener program (See article about SEF in issue No. 29). Please note: Activity sheets in English can be downloaded from the web site!*



# CREATE - Without Re-inventing the Wheel



By Ann Saffery (left), Media & Communications Manager, and John Rodway (right), Education & Training Officer, Centre for Research, Education & Training on Energy, CREATE, UK.

**If pupils are involved, then schools can save energy and reduce their energy bills by at least 10%. That is the view of CREATE, one of the key founders of the new ESEEF network. CREATE aims to ensure that schools and communities develop sustainable energy lifestyles without re-inventing the wheel.**

## Fun Energy

CREATE works in many areas of the UK delivering innovative energy education programs, such as ...

- **Energy Champions** - Over 20,000 pupils have seen a professional theatre show about saving energy. The program is followed by classroom activities and a gift of educational materials.
- **Powerbusters, a new CD-ROM** where you can save energy in a haunted house. Among other activities, you can find good insulators to stop the Ice Man from melting in the kitchen.
- **Hampshire Energy Wise** - guidance and support for schools as they develop educational activities related to school energy management.
- **E-Teams** - Group of pupils have been set up in schools. (The "E" in E-team stands for Energy and Environment.) The E-Teams investigate energy use and wasteful practices around their school; suggest ways of reducing energy waste; help carry them out; and see how effective the measures are. In some schools, certificates and prizes are awarded for the best energy-saving ideas.
- **SchoolEnergy** - So far over 1,500 schools have benefited from this Invest-to-Save funding program that provides cash rebates to schools that install energy efficiency measures, such as insulation, heating and lighting controls, or renewable energy systems, and develop a whole-school approach to energy management.
- **Funergy** - This is a website that presents a range of fun, learning-based projects for use in the home or classroom environment. On the web site, there is a quiz and you can visit Lolly's Kitchen, Living Room, and Bedroom, and stop the Space Monkeys from taking all the energy by clicking on the energy-wasting objects.

## Within the UK

CREATE's services include:

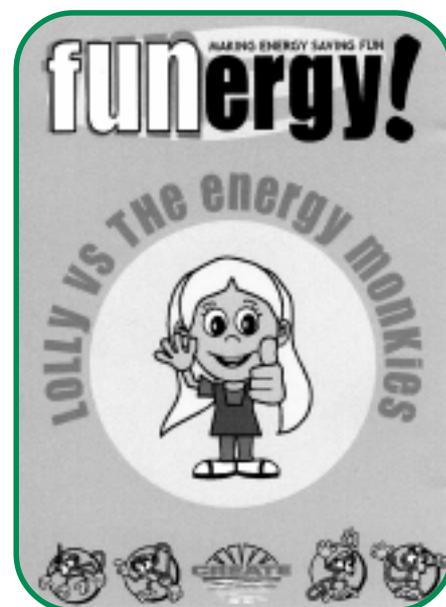
- An information and enquiry service freely available to all teachers, school directors, pupils, members of school boards, etc;
- EnergyWatch - a free newsletter to alert teachers and other professionals involved in energy education to recent developments;
- Training for school personnel in ...
  - using the school building as an educational resource for teaching about energy,
  - practical ways of reducing energy consumption without impairing facilities, reducing comfort, or compromising safety,
  - basic energy management for non-engineers, such as school principals;
- Training for personnel from municipalities in presenting energy efficiency to various groups, such as kindergartens and the elderly.



## Outside the UK

CREATE's international activities include:

- Educational advice, including the establishment of E-Teams, at schools in Ireland and Greece as part of an EU project in 1999.
- Assisting the development of HOTEM - a CD-ROM providing down-to-earth advice for hotel managers on saving energy. This is another EU project
- Advising on energy education in the Ukraine on behalf of the EU.
- Giving advice on the development of energy-related curriculum and extra-curriculum activities to be introduced throughout Malaysia.



Lolly from the web-site. You can visit Lolly's house, and stop the Space Monkeys from taking all the energy by clicking on the energy-wasting objects.

The Ice Man from the CD-ROM game. You should find your way to stop the Ice Man from melting in the kitchen.

**CREATE** (Centre for Research, Education and Training in Energy) is an educational charity for promoting and co-ordinating energy education funded by the UK Government and industry.

CREATE provides advice on energy education and energy management to schools and community organizations.



More information: CREATE, Kenley House, 25 Bridgeman Terrace, Wigan WN1 1TD, UK. Ph: +44- 1942 322271, fax: +44-1942 322273, e-mail [info@create.org.uk](mailto:info@create.org.uk), [www.create.org.uk](http://www.create.org.uk), [www.funergy.org.uk](http://www.funergy.org.uk), [www.schoolenergy.org.uk](http://www.schoolenergy.org.uk), [www.schoolsenergywise.com](http://www.schoolsenergywise.com) (E-team), [www.energy.co.uk/powerbuster](http://www.energy.co.uk/powerbuster).



Photos by CREATE.

These children from Wimbledon Park Primary School are doing a survey about how people in their area use energy. (Photo at the top of the page)



A story of the "Six Sunbeams" was presented here by Ian Davies of the Southamton Energy Efficiency Advice Centre at Borden School in East Hampshire.

E-Team members at the Butts Primary School in Hampshire. They are using the computer to monitor energy.

Join together to help save the planet by making sure your school uses energy wisely!



The E-Teams in many schools have helped...

- use energy wisely while making schools more comfortable to work in,
- reduce energy consumption by about 10%, consequently reducing school energy bills, so that more money can be available for educational activities and equipment, (Savings are around: £500 for primary and as much as £4000 for secondary schools every year.)

- show that young people care for their environment by taking action on global warming,

One of the keys to success is to involve the whole school community and to get everybody enthusiastic about energy management, including teachers.

Schools that have good ways of managing energy can apply for the Eco-Schools Award.

### Web-sites for kids and for schools:

- European network ESEEF (New network see article p.9) [www.school4energy.net](http://www.school4energy.net)
- British CREATE (see article p.10-11) [www.create.org.uk](http://www.create.org.uk) (several links to adults and kids)
- Finnish MOTIVA: [www.motiva.fi/english](http://www.motiva.fi/english) (English part of a Finnish site)
- Danish School Energy Forum [www.SkolernesEnergiForum.dk/english.htm](http://www.SkolernesEnergiForum.dk/english.htm) (See article p. 9 and issue No. 29)
- Irish Energy Center / Ask the rabbit (See article p 13) [www.irish-energy.ie](http://www.irish-energy.ie)
- SPARE (See article in issue No. 29) [www.naturvern.no/english/](http://www.naturvern.no/english/)
- Canadian organization: Destination Conservation [www.dc.ab.ca](http://www.dc.ab.ca) (English/French/Spanish)

- Energy Quest, Californian Energy Commission, [www.energy.ca.gov/education](http://www.energy.ca.gov/education) (Puzzles/ Quiz /As Professor Quester etc. links to kids)
- Energy Smart School Program, US, Department of Energy: [www.eren.doe/energysmartschools/](http://www.eren.doe/energysmartschools/)
- Planet Energy, Department of Trade and Industry [www.dti.gov.uk/renewable/ed\\_pack/](http://www.dti.gov.uk/renewable/ed_pack/)
- Global Warming, Department of Environment, Transport and Regions [www.schools.detr.gov.uk/global/](http://www.schools.detr.gov.uk/global/)
- Think Energy, Scottish Gas [www.think-energy.com](http://www.think-energy.com) (English/Scottish/Welsh/Cymraeg)
- Plug in the Sun, Study Notes and Activities, BP Solarex and Association for Science and Education [www.bpsolar.com](http://www.bpsolar.com), [www.solarpartners.org](http://www.solarpartners.org),
- LIOR Renewable Energy Series, CD-ROM Collection and Eco-village Game. Made in EU. (See Publication List) [www.lior-int.com](http://www.lior-int.com)

# Start in the Kindergarten

A fairy tale book, a board game, a big graph for the children, and a book for the grown-ups bring new ways of learning to Norwegian kindergartens. What is the earliest age to start learning to be an environmentally conscious user of energy? This was one of the questions raised at the Conference in which the new education network was established. A great example from Norway shows that kindergarten is not too early to start energy education.

By Per Hilmo, Information Centre for Energy Efficiency (ICEE), Norway

## Children Know Why ..

In a growing number of kindergartens, the children help to read the electric meter once a week and record the readings on a big poster. The children now know why energy consumption needs to be reduced and how they can help through their behaviour in kindergarten and at home. In addition to achieving actual results in terms of reduced energy consumption, the children also know that they are helping to protect nature and the quality of life on Earth.

Since the start, about 500 kindergarten teachers from all over Norway have taken the course and are using the methods. At present, about 3,000 copies of the game and about 1000 Tale books have been distributed. The concept is described in the monthly periodicals published by the government and distributed to all 6,200 kindergartens in Norway. The teachers can receive the package, free of charge, from the 20 Regional Energy and Environment Centers. Many of the teachers take the one-day course, which we arrange at ICEE.

## The elements of the educational “package” to teach energy efficiency and the connections to the environment for kindergarten children are the following:

- The **1-Day Course** for the kindergarten teachers.
- A **Fairy-Tale Book** about energy for the children, with colourful illustrations. Fact boxes provide the adult reader with information on the physical realities behind the development related in the tale.

*How Eneragus and Energella Made Things Happen on the Earth*



- A **Board Game** called the Energy Game, which works as an excellent starting point for a discussion of good and bad habits of energy use and stimulates the competitive instincts, making energy reduction fun and positive.

*Rolling the dice*



- The **Energy Monitoring Poster**, to be used once every week throughout the year, thereby not allowing this issue to be forgotten. The children can then talk about how the weather and the activities that have taken place in the last week have had an effect on the difference in the level of energy use compared to that of the previous week.



*It all began back in 1991, when I worked with school children. In 1995, a group of pre-school teachers asked me to help them teach energy-consciousness in the kindergartens, because they felt that starting with this education in the*

*schools is far too late. I developed a set of tools whereby the teachers can teach the children, through their daily activities, how to become more careful energy users.*

Per Hilmo, the author of the books and the game, is senior advisor of the ICEE in Norway. He holds a Ph.D. in Engineering.

*For more information:*  
Per Hilmo, ICEE/Ofe AS, P.B.6734  
Rodeløkka, 0503 Oslo, Norway.  
Ph: +47 22805000, fax: +47 22805050,  
e-mail: perh@ofem.no.

- The Novel **“Veronica’s Veracity”**, for the teachers to read and be inspired in their work. The novel describes the methods and is used as a course textbook. The story takes place in a kindergarten setting, in which the relationship between one’s own energy behaviour and the effects on the environment are discovered gradually in a very read-able way. “



*Preface from the book:*  
“Socrates tells us:”  
“The person who knows what is good, will do good, and this right insight leads to right actions.”  
“If Socrates is right, our short-term thinking in resource management is due to lack of knowledge.”  
“Some claim that a race is taking place these days, between alarming global development and the dissemination of knowledge.”  
“I hope that an insight into how things are interrelated will lead to a more needs-based and efficient use of energy resources.”

# The Powerful People

Children are the people with the real power: the power to absorb information, the power to communicate it, and the power to act. They are the industrialists and homeowners of tomorrow. If we educate children today, they will act as adults tomorrow.



By Aoife Cannon  
Education  
Executive,  
Irish Energy  
Center, Ireland

Children often bring home their enthusiasm for a subject, educating parents and others in the process. The Irish Energy Centre finds that pupils' intelligence and exuberance can help to educate families as well as children about energy conservation.

The Centre runs an active education programme in schools across Ireland, teaching about sustainable energy and energy conservation. Children provide a very powerful communication channel, pass on what they have learnt in school to their parents and other adults. Moreover, today's students are the homeowners and industrialists of tomorrow.

The Centre provides user-friendly resources to allow teachers to bring energy issues into the classroom in a real way.

Publications include:

- Energy In Our Lives (booklet)
- Energy Resources in Ireland (booklet)
- Hey Everything's Working
- Energy Conservation and the Environment Resources Pack (folder)

Schools are also encouraged to log on to the Centre's website, which has a section dedicated to schools, with activities, projects, an art gallery, teachers' information, and more.

Exhibitions and workshops specifically aimed at schools are run each year. For last year's workshops, the Centre developed the "Energy Challenge", comprising a large floor game and six interactive exhibits. Both have proved extremely popular with all ages (See Box).

The Irish Energy Centre is responsible for the promotion and the development of a sustainable national energy economy. It is funded by the Irish government under the National Development Plan 2000-2006 and is partly financed by the European Union.

*More information:*

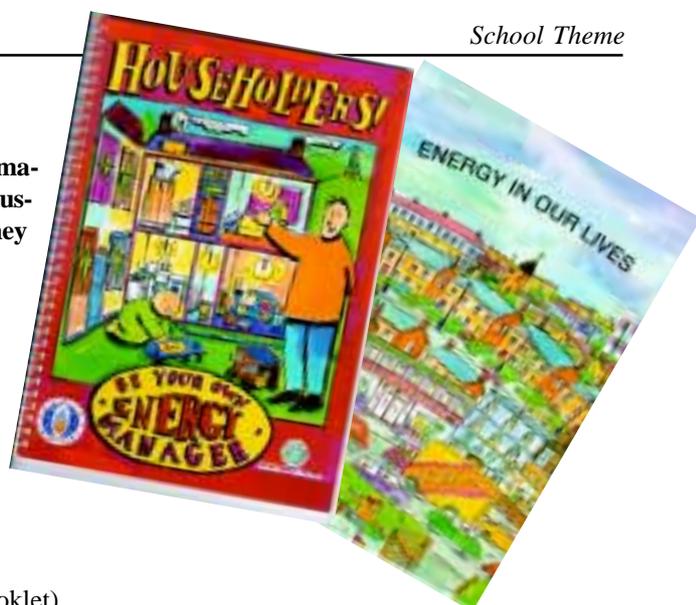
Aoife Cannon, Irish Energy Center,  
Grasnevin, Dublin 9, Ireland.

Ph: +353 1 808 2093,

fax: + 353 1 837 2848,

e-mail: [aoife.cannon@irish-energy.ie](mailto:aoife.cannon@irish-energy.ie),

[www.irish-energy.ie](http://www.irish-energy.ie)



## "Who Wins the Game? - Coloured Balls on a Giant Floor Game in Ireland"

The object of the "Energy Challenge" game is to be the most energy-efficient by collecting as many energy tokens (coloured balls) as you can as you go around the board and by limiting the 'pieces' of energy that you lose. Whichever team has the most "energy" wins the game.

The dice is a large cube of foam. The question cards are large pieces of cardboard. Children of all ages enjoy the game. Questions can be chosen according to the age and ability of the group. Each group has its own colour (green, red, blue, or yellow) and has to select its energy balls from a large basket in the middle of the board.

Each team (1 to 4 students) rolls the dice and moves the corresponding number of spaces. One member of the group will have to stand on the space. The features of the space on which they land determine their next action.

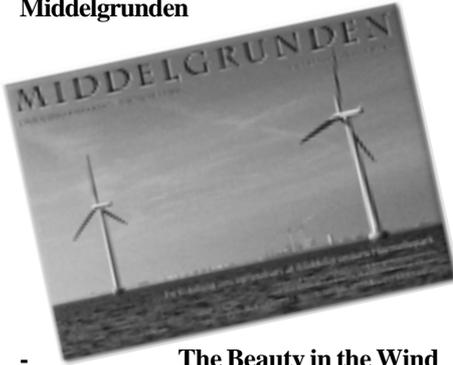
For example: if they land on a '?', they have to pick up a card and answer a question. If they get the question right they gain an 'energy' token. If they lose, they have to give up a piece of energy. If they land on a 'not-so-energy-efficient space' (a picture of coal/peat fire, oil, tungsten light bulb, car) they have to miss a turn and have to go to the 'sin bin'. If they land on an 'energy-efficient space' (a picture of a bus, wind turbine, hydro, sun) they can continue playing. These spaces also allow the opportunity for discussion among all teams.

When students pass 'start' they get an energy token. Each corner has a task. The first corner is 'recharge batteries' and one cannot move forward until an even number is rolled on the dice. If the player lands on the second corner, which is inscribed with 'use some energy', the team has to use some of their own physical energy, e.g., by running on the spot, push ups, star jumps, etc. The third corner is when the town is having an energy shortage and the player has to give back one energy token.



# Publications

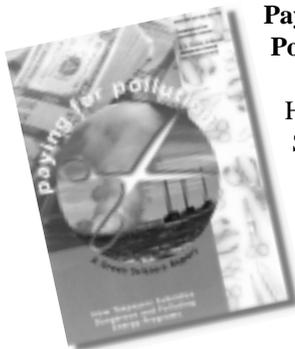
## Middelgrunden



### The Beauty in the Wind

A book full of remarkable photos of the construction of the 40 - MW Middelgrunden wind farm 3 km offshore the Port of Copenhagen. The erection of the 20 wind turbines was completed in January 2001. The world's largest off-shore wind farm co-operative is a beauty of its kind. Photographer: Mads Eskesen. The text is bilingual (English & Danish) ISBN 87-988408-0-0, 60pp, May 2001 Price DKK 120 (\$15).

Info: SPOK ApS, Blegdamsvej 4 1. th, DK-2200 Copenhagen N, Denmark  
Ph: +45 35360219,  
fax: +45 35374537,  
e-mail: sales@spok.dk  
www.middelgrunden.dk.



### Paying for Pollution

How Taxpayers Subsidize Dangerous and Polluting Energy Programs.

A Green Scissors Report  
21 pp, \$15 (incl. shipping charges)  
ISBN 0-913890-820, 2000.

By Erich Pica, Friends of the Earth;  
Cena Swisher, Taxpayers for Common Sense;  
Lexi Shulz, US Public Interest Research Group Education Fund.

Info: Friends of the Earth,  
1025 Vermont Ave. N.W., Suite 300,  
Washington, DC 20005, USA.  
Ph: +1 202 7837400,  
fax: +1 202 7830444,  
foe@foe.org, www.foe.org/foe.

## CD-ROMs

### LIOR CD-ROM Collection

- **Renewable Energy Series**, Wind, Biogas, Solar Architecture, Biomass Combustion, Biomass Gasification (New!), for decision makers and general interest. Price 150 EURO.  
- **Education CD-ROM: Renewable Energy for Schools, Ecovillage Game (New!)**

Themes on wind, biomass, small hydro, PV, solar architect  
In the game you can build and power an Eco-village by 100% renewable energy sources.

Price: Minimum quantity of 20 at a very low price to authorities and schools to be distributed to students.

Info: LIOR International NV, JB. Charlierlaan 78, 1560 Hoeilaart, Belgium.

Ph: +32 2 3051000, fax: +32 2 3051010, info@lior-int.com, www.lior-int.com.



### The World Game, Every Choice Makes a Difference.

CD-ROM, and a Teachers' Guide for Consumer & Environmental Education (20 pp.)

Languages: English/Finnish/Swedish, 2000.

You can evaluate your personal consumption habits.

How big ecological rucksack do you carry?

By Science Center Foundation, University of Helsinki, Finnish Consumer Agency et.al.

Info: MOTIVA, www.motiva.fi.



## Periodicals:

### Sustainable 2001 Building

An independent new quarterly international journal.

A spin-off from the recent Sustainable Builders Conference.

The aim is to provide a common platform for news and discussions.

45pp. Price: \$75/year incl postage.

Publisher: Æbele Kluwer



Info: Aeneas Technical Publishers

PO Box 356, 5680 AJ BEST, The Netherlands.

Ph: +31 499335833, fax: +31 499335830,

email: sustainablebuilding@aeneas.nl, www.aeneas.nl.

## United Nations' Publications:

- **UNEP Energy: Meeting the Global Challenge** Brochure.

- **UNEP and Global Climate Change an Integrated Response** Brochure.

- **Sustainable Energy** Factsheets.

Info: UNEP Energy, mark.radka@unep.fr

UNEP Collaborating Centre on

Energy & Environment,

john.christensen@riseo.dk

www.uccee.org, www.unepite.org/energy

- **New Business: Geothermal, biomass, wind, fuel cells, solar.**

Booklet, 29 pp. March 2001

Info: Hutton Archer, Global Environ-

ment Facility (GEF), 1818 H Street,

NW, Washington, DC 20433 USA.

Ph: +1 202 4730508, fax: +1 202 5223240

www.gefweb.org.

- **UNIDO & ENERGY** CD-ROM. 2001.

Incl. overview of World Energy Assessment.

Info: Industrial Energy Efficiency &

Climate Change Branch, UNIDO,

PO Box 300, 1400 Vienna, Austria.

Ph: +43 1 2600264575, fax: +43 1

26026 6855, www.unido.org.

- **Generating Opportunities, Case Studies on Energy & Women**

By Gail V. Karlsson, UNDP, 95 pp, 2001

- **Multifunctional Platform, Energy for Sustainable Rural Development**

CD-ROM. 2001.

Info: UNDP Sustainable Energy Program

Ph: +12129065569, fax: +12129065148

plateforme@cefib.com, www.ptfm.net.



# EVENTS

\* = *INFORSE is Participating*

June 4 - 8, 2001

## **Health effects of the Chernobyl accident, Kyiv, Ukraine**

Info: UN Chernobyl Program, Int'l commission for Radiological Protection (ICRP)  
53 Melnikov Street, Kyiv 04050 Ukraine.  
Ph/fax: 380-44-213-7202, 452-1803,  
e-mail: kosti@morion.kiev.ua.

June 1 - June 22, 2001

## **Sustainable Design, Building, & Land Use, Plainfield, VT, USA**

Info: Institute for Social Ecology,  
ise@sover.net, www.social-ecology.org.

June 4 to July 18, 2001 (for African countries)  
August 13 to September 26

## **Int'l Courses on Biogas Technology**

Info: Asia-Pacific Biogas Research and Training Center (BRTC), Hu Rongdu, 4 - 13, Renmin Nan Street, Chengdu, Sichuan, China.  
Ph: +86-28-5222658, fax: +86-28-5230677,  
e-mail: obrtc@shell.scsti.ac.cn.

June 8-10, 2001

## **Promoting Global Transfer Activities for Renewable Energies**

International Impulse Conference for the Creation of an International Agency for Renewable Energy.  
Info: EUROSOLAR, e.V., Kaiser-Friedrich-Str. 11, 53113 Bonn, Germany.  
Ph: +49-2 28 362373, fax: +49-2 28 361279,  
www.eurosolar.org.

June 11-13, 2001

## **Power System and Market Aspects, Stockholm, Sweden**

Int'l Symposium on Distributed Generation  
Info: Royal Institute of Technology, ETS, Teknikringen 33, 10044 Stockholm, Sweden.  
Ph: +46-8-7906639, fax: +46-8-7906510,  
e-mail: Thomas.Ackermann@ieee.org,  
www.ekc.kth.se/ees/workshop/DG.htm).

June 11 -16, 2001

## **ECEEE Summer Study 2001, Côte D'Azur, France**

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@ecee.org, www.ecee.org.

June 12-14, 2001

## **Sustainability and Solidarity, Gothenburg, Sweden**

Friends of the Earth Conference, Europe's Way to the World Summit on Sustainable Development (WSSD) in South Africa, June 2002.

NGO event connected to the EU-summit in Gothenburg June 2001.

Info: Friends of the Earth Sweden, Box 7048, 40231 Gothenburg, Sweden.  
Ph: +46 31 128042, fax: +45 31 121817,  
pernilla.rinsell@mjuv.se, www.mjuv.se.

July 2-6, 2001

## **European Wind Energy Conference, Bella Center, Copenhagen, Denmark**

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

July 6-8, 2001

## **Intersolar 2001, Freiburg / Germany.**

International trade fair and conference for European solar technology  
Info: Deutscher Fachverband Solarenergie, DFS, Bertoldstr. 45, 79098 Freiburg, Germany. Ph: +49 761 2962090, fax: +49 761 2962099, dfs.freiburg@t-online.de, or www.dfs.solarfirmen.de  
Intersolar Solar Promotion GmbH, Ph: +49-7231 351380, fax +49-7231 351381, info@intersolar.de, www.intersolar.de.

July 8-15, 2001,

## **WSES/IEEE Int'l Conference on Power Engineering, Rethymnon, Crete, Greece.**

Info: Pecorelli Peres and prof. Lambert-Torres, e-mail: ioannou@vip.gr or theodor@computers.gr.

July 24-27, 2001

## **ACEEE Summer Study, on Energy Efficiency in Industry, Tarrytown, New York, USA**

Info: PO Box 7588, Newark, DE 19714, USA.  
Ph: +1 302 2923966, fax: +1 302 292 3965,  
e-mail: rlunetta@erols.com, www.aceee.org

September 11-13, 2001

## **The 7th Grove Fuel Cell Symposium. London, UK**

Commercialising Fuel Cells - The Issues Outstanding'.  
Info: Conference Secretariat  
Ph: +44 1865 843691, fax: +44 1865 843958,  
e-mail: sm.wilkinson@elsevier.co.uk,  
www.grovecell.com.

**September 16-22, 2001 \***

## **European NGO Seminar, Denmark INFORSE-Europe meeting**

Info: INFORSE-Europe/OVE-Europe,  
Gl. Kirkevej 56, 8530 Hjortshøj, Denmark.  
Ph: +45-86227000, fax: +45-86227096  
e-mail: ove@inforse.org,

www.orgve.dk/inforse-europe

See article on page 6.

October 2-6, 2001

## **Milano Energia, Energy Exhibition and Conference, Milano, Italy**

Traditional and Alternative Energy  
Info: EIOM, viale Premuda, 2, 20129 Milano, Italy. Ph: +39-255181842, fax: +39 255 184161, e-mail: eiom.fairs@bias-net.com, http://www.bias-net.vom.

October 4-6, 2001

## **Renewable Energy For A Competitive Europe, Austria**

Exhibition and conference  
Info: Danube European Programme for Technology and Training, Zieglergasse 28, 1070 Vienna, Austria.  
Ph: +43 1524 060611, fax: +43 1524 060699,  
amoser@danube.or.at, www.bio-solar.at,  
www.danube.or.at/energy.

October 22-26, 2001

## **Photovoltaic Solar Energy, Munich, Germany**

17th European Conference and Exhibition  
Info: WIP- Munich, Sylvensteinstr., 2, 81369 Munich, Germany.  
Ph: +49 89 7201235, fax: +49 89 720 1291,  
e-mail: wip@wip-munich.de,  
www.wip-munich.de.

October 31 - November 3, 2001

## **Renewable Energy Indonesia, Jakarta, Indonesia.**

International Exhibition along with Electric-, Power-, Elenex-Indonesia  
Info: Overseas Exhibition Services,  
Ph: +44 20 7862 2090, fax: +44 20 7862 2098,  
e-mail: elecindo@montnet.com

June 17-21, 2002

## **Biomass for Energy, Industry and Climate Protection, Amsterdam, Netherlands**

12th European Conference and Exhibition  
Info: WIP- Munich, Sylvensteinstr., 2, 81369 Munich, Germany.  
Ph: +49 89 7201235, fax: +49 89 7201291,  
e-mail: wip@wip-munich.de,  
www.wip-munich.de.

June 29 - July 5, 2002

## **World Renewable Energy Congress - VII, Cologne, Germany**

Info: Prof. A Sayigh, WREN, 147 Hilmanton, Lower Early, Reading RG6 4HN, UK.  
Ph: +44 118 961 1364, fax: +44 118 961 1365,  
e-mail: asayigh@netcomuk.co.uk,  
www.wrenuk.co.uk

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- Contact List Form

## Help Improving the Contact List 2001

New Contact  Correction

We would like to subscribe to Sustainable Energy News

We are interested to be member of INFORSE (only NGOs !)

Name of Organisation:

.....  
.....

Address:

.....  
.....

Contact Person(s):

.....

Ph: .....

Fax:.....

E-mail: .....

Http: .....

Description of Organisation:

- NGO  
 Governmental  
 Education  
 Company

**Please Return the form to:**

**- INFORSE Secretariat:**

Blegdamsvej 4 B 1, 2200, Copenhagen N, Denmark.

Fax: +45-35-247717, e-mail: [inforse@inforse.org](mailto:inforse@inforse.org), [www.inforse.org](http://www.inforse.org).

The **Annual Worldwide Contact List** is published in **Sustainable Energy News** since 1992. The List includes about 800 NGOs and institutions working with renewable energy, energy efficiency, and sustainable energy development.

In 2001, the first part of the Contact List (European Part) was published in Sustainable Energy News no. 32, February, 2001. The second part (excl. Europe) will be published in the next issue no. 34, August 2001.

**Deadline** for articles and changes to the List is: **July 15, 2001.**

The Contact List is gradually updated to the web site of INFORSE.