

SUSTAINABLE ENERGY NEWS

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

No. 44, March 2004

**New life of Used Wind Mills
Prepare Renewables' 04, Bonn
Russian-Danish NGO Visits
Biogas Center in Kazakhstan
Water Mills in Nepal**



Sustainable Energy News

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Photo on the front page:

The Russian NGO group with a
view to the Middelgrunden off
shore wind mill farm in Denmark.
See article on page no. 7.

Photo by Gunnar Boye Olesen
INFORSE-Europe/OVE.

Targets and a Home

Children during the Johannesburg Summit
asking the decision makers to
"Stop Global Warming"

Picture from Sustainable Energy News no. 38
front page. Photo by Eyal Moizag.



Since the Johannesburg Summit in 2002, a number of countries have cooperated in the Johannesburg Renewable Energy Coalition (JREC). In a few months, they will meet in Bonn at 'Renewables2004', the largest-ever conference for renewable energy. Probably this will be the best opportunity thus far to strengthen international cooperation on renewable energy. It is an opportunity that must not be missed.

The intent of JREC was to form a club of countries that wanted targets for renewable energy. Now it is the time to set the targets. We must set targets in line with sustainable development: they must reflect the need to reduce greenhouse gas emissions; they must ensure a stable future in which energy crises are not the order of the day; and they must include targets for energy for the poor who do not have adequate energy.

If the European countries and EU want to keep the leading role, they should set new targets beyond 2010. A target of 25% by 2020 for the 25 EU countries, and strategies for fulfillment of the target in a number of the countries, would be an optimal start for 'Renewables2004'. It would set a trend that other countries could join. It would show the world, and the industry, that a transition to renewables is on its way. Likewise, the Latin American countries should confirm their 10% target for 2010. With such targets adopted, 'Renewables2004' could be a serious forum for development of consistent targets for all concerned countries. It could be the start of a process in which targets and strategies are linked, transforming the energy supply to a sustainable supply.

While regional and national overall targets for renewable energy are important landmarks for development, target-setting must go beyond that. First of all, targets for provision of

adequate energy supply for poverty reduction must be included, in line with the Millennium Development Goals for Poverty Eradication. Such targets must be fulfilled in cooperation between the developing countries and the industrialised countries that have most of the resources to make the changes happen. Commitments from both sides are important. Such targets are not necessarily purely for renewable energy, but energy for the poor must not just increase reliance on imported fossil fuel for developing countries. That will not be sustainable development.

For the development of a sustainable energy supply, other targets are also needed: targets for energy efficiency in all sectors and more specific renewable energy targets reflecting the fact that not all renewables are sustainable, and that, e.g., biomass is sustainable to a point, but must not be overexploited.

Targets themselves do not change the world. It is strategies with market regulation and institutional support that will make the changes and fulfill the targets. On the international level, the lack of institutions dealing with renewable energy and energy efficiency is a serious obstacle for a success. As the African NGO meeting before 'Renewables 2004' (see p. 4) concluded, there is a need for an "institutional home" for renewable energy. Probably there will not be consensus on such a structure within the UN. So why not follow the proposal of the African NGOs to establish institutional homes for renewables outside the UN, both global and regional levels?

If an efficient international structure for renewable energy as well as for energy efficiency could be started at 'Renewables 2004' in Bonn in June, it would be a remarkable achievement. Then the European Union, the African Union, etc. could follow with regional institutions.

Gunnar Boye Olesen
Gunnar Boye Olesen
INFORSE Coordinator



Busy “Renewables 2004” Coming

The International Renewable Energy Conference, “Renewables 2004,” which is scheduled for June 1-4, is expected to be very busy, with representatives of 100 countries or more and with massive participation of NGOs and business.

The conference will start with a day of multi-stakeholder dialogues, where the hope is that the different sectors will go beyond rhetoric and commit themselves to development with renewable energy. The second day will include presentations of best practices and success stories, as well as a forum of parliamentarians from around the world that will prepare their common view in a statement to the conference. The third and fourth day will be a ministerial conference opened by the German Chancellor to discuss the future of renewables. Three outcomes are expected:

- A political declaration describing common political objectives and a vision of how renewable energy can play a greater role. This will include agreements on a follow-up process.
- An international action plan in which various governments and actors propose concrete actions and voluntary commitments/goals for developing renewable energies.
- Guidance for good policy leading to greater impact and increased coherence of the policy strategies employed.

The important questions center on finding targets and cooperation on which the countries can agree. Regarding targets, experts at the European preparatory conference in January in Berlin found 20% renewable energy for the 25 EU countries together a realistic goal, while NGOs at the conference proposed 25%. The difference arose mainly because the NGOs included stronger energy-efficiency measures that could reduce total consumption.

While all countries are invited, it is not a consensus conference as in the UN. A number of countries can agree to go forward with proposals that do not have the support of all countries. Another differ-

ence is that actors other than governments are invited to take part in the agreements.

INFORSE expects to take part in the official conference as observers. We have also asked for exhibit space to show members’ activities in support of renewable energy and of the global vision 2050 for a transition to 100% renewable energy. In addition, INFORSE and some member organisations have asked for space for side-events, e.g., in the Vision 2050 and on municipalities’ role for sustainable energy. We do not know yet whether these spaces will be granted, but if so,

INFORSE members will be invited to take an active part in both.

INFORSE and other NGOs in the CURES coalition cooperate with a large number of environment and development organisations, and with the World Council for Renewable Energy (WCRE), which promotes a global organisation for renewable energy.

Read news about the conference at www.renewables2004.de and at www.inforse.org.

Preceding the official conference will be a large number of events, including:

- Second World Renewable Energy Forum. WCRE has scheduled a forum, entitled Global Benefits and Policies, to take place on May 29-31 in Bonn.
- CURES NGOs will organise a pre-conference to on May 30-31 in Bonn.
- German Youth Alliance for Future Energy will hold a Youth Energy Summit (YES2004) on May 28-31 in Bonn.
- The Sustainable Energy Finance event, “Creating the Climate for Change,” will be held in Bonn on June 1-2, organised by UNEP Energy, UNEP Finance Initiative, and BASE (Basel Agency for Sustainable Energy).

Climate Run:

- A network of NGOs is organizing a non fossil-fuel run through all federal states of Germany, starting May 10th in Kiel at the Baltic Sea. International participants are most welcome to join; even just running a kilometre can help.
- At ARTEFACT, an international training centre for sustainable development (INFORSE member), volunteer runners are welcome on May 6th. Participants from Scandinavia on this day may request a lift over the Flensburg Fjord in a rapeseed-oil-driven boat. Also on May 6th, there will be a public event at ARTEFACT with the well-known climate scientist Mojib Latif. On the next morning, volunteers may continue their climate run to Kiel, where there will be information and activities concerning the topic of energy until the march starts on May 10th.

More information about events: www.renewables2004.de, www.inforse.org, and the Events’ List on page 11 in this issue.

European INFORSE Activities to Grow



European organisations are invited to join (see p. 5).

The INFORSE-Europe will scale up its activities this year compared with 2003.

With support from the EU, INFORSE-Europe will be able to carry out most of the activities in the INFORSE-Europe work programme 2004 (agreed at and after the regional meeting in October 2003).

In addition to follow EU-policy, supporting this newsletter, and other ongoing activities, education & sustainable energy will be a new focus.

African NGOs for Renewables

51 African NGO representatives from nine African countries met at an African preparatory meeting for Renewables 2004 in Johannesburg, South Africa, 24-26 February 2004. They agreed to cooperate to promote, develop, and implement renewable energy; specifically,

- to endorse the CURES NGO statement for Renewables 2004 (see Sustainable Energy News 42);
- to call for a Renewable Energy Agency under the African Union, with a multi-stakeholder steering committee and public participation;
- to call for an International Fund and Institution to
 - draw revenue from mechanisms such as pollution charges/taxes;
 - develop financing mechanisms for project finance, skills, and technology development, including retraining;
 - establish an institutional home for renewables, which will be a new entity that initially will not be a UN agency; and
- to call for the African ministerial statement (developed in Nairobi, November '03, see Sustainable Energy News 43) to be revised to emphasize the importance of new and ambitious renewable energy targets and to urge African ministers to take into account the CURES Declaration and the outcomes of this meeting.

They also elected the following persons to an African Co-ordinating Committee for NGOs interested in Renewables2004:

- Rajen Awotar, Maudesco, Mauritius
- Timothy Byakola, Climate and Development Initiatives, Uganda
- Johannes Chigwada, Zero, Zimbabwe
- Fikiswa Mahote, Development Action Group, South Africa
- Geoffrey Musonda, Energy and Environmental Concerns for Zambia
- Ousmane Ouattara, Mali Folkecenter
- Claire Taylor, Earthlife Africa Johannesburg, South Africa

The Committee is primarily concerned with the period leading up to and including Bonn 'Renewables 2004', though it will also propose plans for follow-up and monitoring after the Conference.

Read more about the African NGO preparations for Bonn at <http://www.inforse.org/africa>.



Fikiswa Mahote, DAG, South Africa, presenting a working group's results



Kuena Khatlile DPE/Pelum, Lesotho, explaining the work-sheet of a working group

Helen Bitterbos, Barendse Griqua House and Desmond, South Africa listing.



NGO representatives at the preparatory meeting.



Timothy Byakola, CDI, Uganda

Elias Mkhwanazi, Env. Justice Network Forum, South Africa



Ontibile Moalusi, Env. Justice Network Forum, and Johannes Chigwada, Zero, discussing.



South Africa News

Summaries of articles from *Sustainable Energy News on Email (SENSE)* from South Africa, edited by Claire Taylor. *SENSE* is published by Earthlife Africa (INFORSE Coordinator).

French Partner for Nuclear?

Since the US company Exellon pulled out of the South African nuclear power project for a "Pebble Bed Modular Reactor" (PBM), Eskom has been looking for another foreign partner. It is now officially confirmed that Eskom is negotiating with Avera, the holding company of Framatome, which built the existing Koeberg nuclear power station in South Africa. "We have been talking to them for over a year now and they have indicated very strongly that they want to become involved in the PBM," a spokesperson from the PBM development company claims.

NGOs raise the accusation that the new negotiations are the reason for the South African government's cancellation, on short notice, of a nuclear "summit" in February. This would have been a discussion of future nuclear power in South Africa that would have involved both the pro- and the anti-nuclear sides.

Solar Electricity Subsidy Stop

The South African off-grid solar electricity programme, announced with fanfare some years ago, may now be stopping as the government cuts subsidies.

According to original agreements, public subsidies were set to 3,500 Rand (440 €) per home solar system installed, in total 105 mill Rand (13 mill €). However, in 2003, 60% of this money was reallocated to Eskom (the South African Power Company) for "ministerial special projects". Industry insiders translate this to mean "making uneconomic grid electrification projects viable to get votes before the upcoming general election". Thus, in order to drag out the capital subsidies from the remaining funds, a maximum of 300 installations per month were given subsidies, despite protests from those who had been installing systems at a much higher rate.

In early January 2004, it was made public that once the remaining subsidies ran out at the end of January 2004, there would be no further capital subsidies until a review was done and a final decision was made about the future of the programme. The official opinion of the South African Department of Minerals and Energy is that the failure of the contractors to meet their targets and the failure of the technology to meet the needs of rural people "gives doubts about its sustainability".

More European INFORSE Activities



By Gunnar Boye Olesen,
INFORSE-Europe

With support from the EU, INFORSE-Europe will step up its activities.

In 2004, we will:

- follow EU's policy for sustainable development more closely, with regular updates and comments;
- develop further visions of sustainable energy leading to 100% renewable in by 2050. Visions will be developed for the group of "old" EU countries as well as for the group of 10 new member countries;
- carry out Distance Internet Education in English, and develop it further; and
- start new initiatives to promote sustainable energy in education, sharing of experience among organisations, and collaborative development of activities.

INFORSE-Europe members will receive more information directly.

Non-members are invited to check www.inforse.org/Europe or to contact INFORSE-Europe, ove@inforse.org, for details and updates.



INFORSE - Europe Seminar on Sustainable Energy and Social Change



Picture from the INFORSE-Europe Seminar in 2003 at CAT.

INFORSE-Europe and Escanda in Spain are organising a seminar to be held on **August 22-28 in Asturias, Spain**, for people working from different perspectives towards a transition to sustainable and democratic energy production and use.

The seminar will cover a broad range of themes, including the transition away from fossil fuels and nuclear energy and towards renewable energies; climate change and emissions trading; liberalisation of the energy markets; control of resources, etc. At the seminar, we will also develop practical tools to increase communication and coordination in these areas of work.

With support from the EU, we can offer participation for free or for a very low price for young people.

If you are interested in participating in the seminar, please e-mail to Escanda: energy_seminar@yahoo.com. More information about the seminar will be available soon on <http://www.inforse.org/europe>, and www.escanda.org.

Nuclear Protests Rising in Europe, January 17, April 26

Nuclear power is being challenged all over Europe, and in particular in Finland and France where new nuclear power is planned. On January 17, almost 15,000 people protested in Paris against the French plans. New protests are planned for Chernobyl Day, April 26, and for the month that follow, to be held in Helsinki, in Skt. Petersburg, in France, and in other countries.

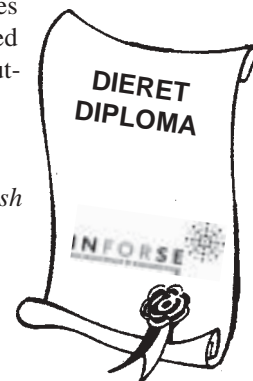
Read more at <http://www.inforse.org/europe/nuclear.htm>.

First Graduates of Russian DIERET

INFORSE's Distance Internet Education on Renewable-Energy Technologies (DIERET) has been translated to Russian.

Over 50 people participated in the first Russian DIERET course, organised by the Renewable Energy Agency NGO in Kiev on behalf of INFORSE. Most of them have graduated by now and have received their diplomas. INFORSE and REA are looking for funds to continue DIERET courses for Russian NGOs. Until now, the DIERET activities have been financed by the Danish Outdoor Council.

Read about DIERET in English and Russian at www.inforse.org/europe, www.rea.org.ua.



Office Equipment and Library Material Stolen from the office of "Zelena Energetyka" in Ukraine

Help to Recreate !

On the night of March 15th, the office of "Zelena Energetyka" (Green Energy) in Kiev was plundered. All working materials, archives, and equipment were stolen.

According to criminal investigations and the Ukrainian press, the stealing was ordered by someone as an act against renewable energy development in Ukraine.

"Zelena Energetyka" jointly with the INFORSE member 'Renewable Energy Agency' (REA), previously called Future Age Energy (FAE) actively participates in promotion of renewable energy in Ukraine.

"Zelena Energetyka" is unique as a magazine for renewable energy, operating with no state support in the former Soviet Union.

REA is now looking for to recreate its plundered library of materials on renewable energy as well as its equipment.

Contact: [Andrey Konechenkov](mailto:Andrey.Konechenkov@fae.kiev.ua)
e-mail: fae@fae.kiev.ua
<http://www.rea.org.ua/>

New Windpower Planning Guidelines

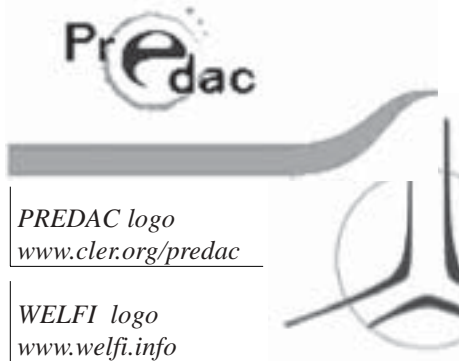
A set of proposed guidelines for integrating windturbines into the landscape has been assembled by a number of European organisations. The guidelines, developed by experts from CLER (France), OVE (Denmark), APERe (Belgium), and others, describe all the main elements of land-use planning, from citizens' involvement to noise issues.

The guidelines are based on an analysis of the situations in the participating countries. In addition to the guidelines, national reports on land-use planning for windturbines are available from the PREDAC project website, www.cler.org/predac. They are also available from INFORSE-Europe in printed form. The PREDAC project was supported by the EU Commission.

Internet Library for Renewables

More than 200 European publications on renewable energy are listed in the virtual PREDAC library, many of them with links to online versions. The publications are mainly in English and include many key periodicals, books, etc.

See www.cler.org/predac/library.php3.



Local Windpower Financing

Local interest in windpower depends crucially on local involvement. One way of involving local people in windpower is local financing of windpower, with local people and companies financing the installations partly or fully. In addition to the feeling of ownership, it also gives local people direct influence on the siting and operation of the windturbines. Local financing and the local influence that follows can be the difference between local support and local protests to windpower.

To promote local financing of windpower, CLER, OVE, and other organisations have developed a tool describing how windturbines can be financed locally in Denmark, France, Germany, and Spain. It shows how much local financing considerations can vary from place to place: the situation is relatively simple in Denmark and Germany, but there are many obstacles in France. The CD also includes a spreadsheet tool for calculating the economy of windpower projects in different countries. The CD is one of the outcomes of the WELFI project, which was supported by the EU ALTENER program. See www.welfi.info for further details.

directive does not open a floodgate of emissions from unsustainable projects into the EU emissions trading. The total amount of credits must be limited, and allowed credits must be limited to sustainable energy projects, excluding sinks and large hydropower.

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Emissions Trading

In the EU countries, the most heated current debates on EU energy policy is on the national allocations of CO₂-emissions for the emission cap and trade system that starts with the beginning of 2005.

The Commission has set a deadline of March 31, but the debate is still ongoing and many countries will not meet this deadline.

Cogen Directive Approved

The Cogeneration Directive for promotion of cogeneration of electricity and heat was finally approved by the EU countries on February 11, 2004. It is now to be known as 2004L0008.

Read more about EU news, and INFORSE positions www.inforse.org/europe

EU Update

By Gunnar Boye Olesen,
INFORSE-Europe/OVE



Energy Package

The energy package with directives proposed by the EU Commission in December, and immediately criticized by a number of NGOs is now up for debate among the EU countries.

The most positive side part of it, the directive on energy end-use efficiency and energy services (COM 2003-0739) has a number of good objectives as well as a target for energy efficiency. Unfortunately the target of 1% increase of efficiency per year is not ambitious, and is below what has been achieved historically in some sectors.

The more criticised part of the package, a directive for security of electricity supply (COM2003-740) is a push for increase of high-voltage electricity lines, in particular interconnectors between different countries and regions. The assumption is that these lines will increase security of electricity supply. The reality is more diverse: power cuts in USA and Sweden-Denmark in 2003 have shown that interconnectors also can increase size and length of power cuts. The ways to promote high-voltage lines include some nasty proposals: operators could be punished if they do not construct lines fast enough, also if this is because of environmental impact assessments and public consultations, power companies could

be allowed higher profits on high-voltage lines operations than on other monopol activities. Further, there is no regulation of import of polluting electricity, even though this will be promoted by more high-voltage lines.

The other elements of the "package" is a new regulation of Trans European Energy Networks and a regulation of cross-border gas transmission.

The only element that the Parliament is likely to get an opinion before they close for election in April is the gas transmission regulation. If they agree on this, the ministers will discuss it at their meeting June 10.

Eco-Design Directive

The ECO-design framework directive COM(2003)0453 to minimize environmental impacts of equipment by energy efficiency and other "eco-efficiency" standards was welcomed by the EU energy ministers in December. The EU Parliament is now trying to find its position to this complex directive until the end of March. If they do so, the EU ministers can decide upon the directive at their next meeting, June 10.

Link Directive

The directive to link EU emissions trading with the Kyoto mechanisms have been debated strongly since it was proposed last year. The EU Parliament adopted a report on the proposal on March 17, and it will now be discussed among EU environmental ministers. It is important that this

Russian-Danish Cooperation Continued



By Judit Szoleczky and Ann Vikkelsø
INFORSE-Europe/OVE, Denmark

Photos:
- Wind mills in Denmark;
- Poster and picture from the press conference in Voronesh, and at the independent press center in Moscow.

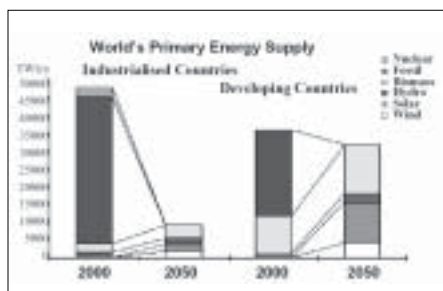


The Russian NGO group with a view to the Middelgrunden off shore wind mill farm in Denmark

The cooperation in between the 10 Russian NGOs and INFORSE-Europe continued, after the Russian NGO visit in Denmark in September, 2003. Between January 26 and February 6, 2004, Ann Vikkelsø and Judit Szoleczky visited the Social Ecological Union's Center for Nuclear Ecology and Ecodefense organisations in Moscow, Voronesh, and Ekaterinburg. During the trip, several public presentations were made, 3 press conferences were held, and local and regional television stations broadcasted interviews.

Presentations in Russia:

The presentations in Russia included: **The INFORSE Vision 2050**, which is a model worked out on world and national levels such that in 2050 there will be 100% renewable energy supply in the world. The presentation raised high interest and a lot of questions, because it would mean a structural reorientation of the power sector, and there would be no new nuclear power plant built in the future, which is feared in both Voronesh and Ekaterinburg. The elements behind the Vision are that it is expected that there will be high energy efficiency, which would decrease the energy demand, and that the demand for environmentally friendly renewable energy technology would result with mass production, which would press the costs down.



One of the graphs of the Sustainable Energy Vision 2050.

72 m² solar collector on the roof providing hot water to 26 houses in Denmark



The Danish experience in development of renewable energies, where it was shown that the renewable energy supply is technically possible and that it is a reality if there is a political will. There was special focus on wind mill cooperatives, where private people invest in windmills together and earning money by selling electricity to the grid. This is an important area, where NGOs can lobby for a change of law in Russia, because presently it is not possible to sell electricity to the grid in Russia. (See article on the new life of the Danish used wind mill). Besides, Russia has huge resources and many facilities that could produce wind mills, solar cells, biogas plants, etc.,

Environmentally friendly lifestyle in one of the ecovillages in Denmark, where private people took an initiative to use environmentally benign building material, solar and biomass energy, composting toilets, grey water evaporation system, rain water reuse, etc. This topic raised high interest in Ekaterinburg, where some of the members of the Ural Ecological Union are interested in establishing an ecovillage in the Ural in an abandoned village, and would like to get municipal support for the project.



From the right: Alexey Kozlov (Ecodefense Voronesh), Ann Vikkelsø (INFORSE/OVE)



From the left: Vladimir Sliviyak (Ecodefense), Ilya Popov (SEU), and Ann Vikkelsø (INFORSE/OVE)

Local Proposals, Newsletter

In the framework of the project, the Russian NGOs worked out 10 local project proposals for future work of NGOs on sustainable energy, and the first issue of a quarterly Russian magazine on sustainable energy got partial funding. The project was supported by the Danish Outdoor Council Project Fund. The Swedish Acid Rain Secretariat supported the participation of a video maker on the tour in Denmark with a view that there will be a Russian NGO film made promoting renewable energy in Russia.

More information: INFORSE-Europe
www.inforse.org/europe/rus-dk.htm with several links to the Russian NGOs.

New Life for Used Danish Wind Turbines in St. Petersburg

We were taking the first steps on this path

By Svetlana Volchek former PhD student at the St. Petersburg Technical University

The St. Petersburg and Leningrad regions in Russia have high wind speeds and potential for implementation of wind energy technology. In 2001, there was a good opportunity for realizing a project to integrate a wind turbine into the energy supply of an industrial company in St. Petersburg. Private financing made it possible to realize this project. A private company, "Krasnoe", and the St. Petersburg State Technical University were the initiators of this project, which included the buying and installation of a used Danish wind turbine – the Wind Matic 75 kW.

The Danish Folkecenter for Renewable Energy supported the project. It also assisted in selecting, purchasing, and packing the wind turbine, and contributed a new computer for integration into the original control system.

Used Windturbine to Reduce Electricity Costs

The wind turbine "Wind Matic" was bought by the company "Krasnoe" in Denmark after 13 years of operation. This was an experimental project on the basis of which all questions regarding the optimal exploitation of such wind power plants could be resolved. Krasnoe, who produce different kinds of building materials, decided to install the turbine on their own premises to reduce their energy expenses. At the same time, their own consumption of the electricity was and still is the only way to make the project feasible, since there is no payment for power fed into the Russian grid.

Customs Barriers, Training

When we started realization of this project, we expected various problems; they began to appear immediately. This kind of equipment has never been delivered before in Leningrad oblast. Therefore, nobody knew clearly the mechanism of conveyance and customs requirements. We were taking the first steps on this path as pioneers, and of course we faced risks. For instance, the contract for buying the wind turbine was changed five times in order to meet the requirements of customs.



Economic calculations show that the pay back time for the wind turbine is 4,5 years at the present cost of electricity.

Awards

The project was presented as one of the contribution from Leningrad Oblast at the national energy-savings competition in Moscow in 2003. Both

Krasnoe and the St. Petersburg State Technical University received awards.

Towards the Future

This first experience helped us to buy the next wind turbine, "Vestas V19" (90 kW), in Denmark.

The wind turbine was installed in 2003 for a private investor also in the St. Petersburg region. The third wind turbine is already in St. Petersburg, and will be installed in the near future.

Finally, after overcoming the customs barriers, we got "Wind Matic" together with new challenges. The workers who were going to install the wind turbine knew only that this machine could produce electricity by using wind. This was completely all their knowledge. At this stage of the project, Folkecenter for Renewable Energy was our consultant, and provided training and complete technical know-how for installation, operation, and maintenance. This transfer of know-how partly took place when we were in Denmark, and continued during the following implementation phase. In this way, we could educate the group of people involved in this project. They did all of the work, starting with building the foundation, then integrating the new computer into the control system, and finishing by putting the "Wind Matic" into operation.

Successful Operation

After all of the complications introduced by the lack of on-site experience with the installation of such equipment were overcome, the wind turbine successfully started operation on 26 April 2002. The period from agreement with seller to installation of the wind turbine in St. Petersburg was 10 months. After one year of successful operation, calculations showed that the average energy savings during the summer period were 27 %, while the energy savings during the winter period, when the wind speeds are higher, were around 45%.

New Life of the Danish Wind Mills

In 2000-2004, the Danish government supported increases in the size of wind turbines in the country; therefore, smaller wind turbines were taken down even though these turbines were operating successfully.

As a result, a number of second-hand wind turbines are available in Denmark that can work well for another 10 to 12 years. Refurbishing these turbines and installing them in Russia is a more cost-effective method of introducing wind-turbine technology than the purchase of new wind turbines.

Svetlana presently is a student at Aalborg University in the Sustainable Energy Engineering Master of Science program.



Contact: svetlana.volchek@mail.dk, and the Danish Folkecenter for Renewable Energy, www.folkecenter.dk, energy@folkecenter.dk

Biogas Education Center in Kazakhstan



By Judit Szoleczky,
INFORSE-Europe/OVE,
Denmark

In 2004-2005, a biogas educational center, "Azur Flame", is being established, aiming to be a center for education about and promotion of biogas and other renewable energy use in Central Kazakhstan.

The project is coordinated by INFORSE-Europe together with the member organisations ECO-Museum in Kazakhstan, which hosts the Center, and Renewable Energy Agency in Ukraine, which will assist with biogas knowledge etc. From Denmark, besides INFORSE-Europe, the Bioenergy Department of the University of Southern Denmark (SDU) will assist the project.

Role of the Center

The Azur Flame Center is planned to be a focal point for promotion of biogas and other renewable energy for local use, in particular in rural areas in Kazakhstan.

It is intended to introduce and to disseminate biogas technologies in Central Kazakhstan, and to improve the economical, environmental, and social situation in rural communities.

The most important of the center's activities are expected to be educational training, consulting, and designing services related with biogas technologies. In addition to these, the center is advocating for national and local policies to encourage rural groups, families, and entrepreneurs to use renewable sources of energy.

During the project, several types of materials will be developed, e.g., training material, educational videos, posters, a do-it-yourself building manual for smaller plants, database, and feasibility studies for future farm biogas plants.

In February, 2004 the project partners participated in a study tour in Denmark.

There will be trainings on biogas in Karaganda in Kazakhstan in April and in October, 2004 as well as in April and October of 2005.

In September, 2005, there will be an International Central Asian Conference on Biogas in Kazakhstan.



Visiting a biogas plant in Filskov during the study tour in Denmark. The plant receives slurry from 11 livestock farms, and the biogas is powering a 375-kW engine.

Background of the Project:

The ECO-museum implemented a biogas project between 2000 and 2003, with financing by the Small Grant Program of the GEF, the UNDP, and Dutch HIVOS Foundation. The project financed building of a few digesters (8, 36, 40, 67, and 162 m³).

The "Azur Flame" project, establishing a Biogas Training Center, is building on the experiences of this previous project. The "Azur Flame" project includes more training of local specialists, involving more foreign experience, organising several seminars to further the knowledge of the farmers and the officials, rendering

support and researching the feasibility of building more biogas plants, developing means and facilities to be able to train more local people and to optimise the biogas plants to function better in the Kazak climate.

Funding

Most (80 %) of the financial support is from the European Community - EuropeAid. The remaining 20% is cofinancing from the partner organisations, partly from support from the HIVOS foundation and the Norwegian Society for the Conservation of Nature.



Group at the Study Tour in Denmark. From left to right: Georgiy Geletukha (REA), Jens Bo Holm Nielsen (SDU), Yuri Matveev, (REA) Gunnar Boye Olesen (INFORSE-Europe/OVE), Valentin Zhirkov (ECO-Museum), and Julia Kalmykova (ECO-Museum).

Photo made by Judit Szoleczky (INFORSE-Europe).

More information at the INFORSE-Europe homepage:

http://www.inforse.org/europe/kz_biogas.htm

and the partner organisations:

Gunnar Boye Olesen, INFORSE-Europe, Denmark, e-mail: ove@inforse.org,

Georgiy Geletukha, REA, Ukraine e-mail: geletukha@biomass.kiev.ua, and

Julia Kalmykova, ECO Museum, Kazakhstan, e-mail: ecomuseum@nursat.kz

4,000 New Water Mills' Installation Start with Full Swing in Nepal

INFORSE member organisation is implementing the 5-year program

By Ganesh Ram Shrestha, CRT/Nepal, INFORSE member and national focal point.



Water mill house in Nepal. Photos by CRT/N.

So far, 1,000 Ghattas Improved

The Centre for Rural Technology, Nepal (CRT/N), has been engaged in the improvement of traditional water mills, locally known as "Ghatta", in Nepal since a decade ago, with the support of various national and international development agencies. The main supporter of this endeavor in the past has been the German GTZ, particularly during the 1990's.

So far, CRT/N assisted the local millers to improve/install about 1,000 Improved Water Mills (IWM) in various parts of the country. The technology has helped the rural entrepreneurs and millers, increasing their income. It has also helped community users, especially rural women and children, by reducing the drudgery of providing efficient and diversified services such as grinding grain, paddy-hulling, expelling oil, etc. A few IWMs have even generated electricity for community use. Each "Ghatta" (Water Mill) serves about 30 to 50 households.

New 4,000 Ghattas in 5 years

To capitalize on the positive contribution of improving the traditional water mills and to meet the growing energy demands of rural communities, CRT/N has implemented a 5-year Improved Water Mill (IWM) Program aiming to improve 4,000 water mills from early 2003 as part of Nepal's Renewable Energy Sector Program with the support of His Majesty's Government of Nepal (HMGN) and the Netherlands Development Organizations, Ne-

pal (SNV/N). After almost one year's preparatory phase for design modification, setting up standards, preparation of promotional materials, development of installation and operational manuals, and identification of service providers, the installation of IWM began in full swing starting in January, 2004.

The major objectives of this program are to improve the living conditions of rural households, especially of the traditional water millers, and to address the agro-processing needs of rural communities, especially of the women, who depend on the services of local traditional water mills and of encroaching diesel mills. In the long run, the programme is also to improve the sustainability of the IWM sector as a whole through institutional strengthening and local capability development. The program makes special provision for financial incentives from US \$ 135 to \$ 270. This, along with other credit support provided by the Government of Nepal and SNV/N through the Alternative Energy Promotion Center (AEPC), depends on the nature of agro-processing and other end-use applications. There is provision for additional incentives of about US\$ 375 per kW to generate electrification through improved water mills. The program is to emphasize end-use diversification to properly use the power output from IWM.

CRT/N, as the main implementing organization, is responsible for program management and support given to service providers (service centre, micro-finance institution, millers' groups/ associations, etc.) for their capability development. CRT/N also provides timely facilitation and monitoring to ensure quality management.

Grain grinding at an improved water mill site in Nepal.



The penstock and kit runner of an improved water mill.



The program has already being initiated in four selected hill districts. It will be extended to more hill- and mountain districts through its "Open-up Program Strategies," helping to install IWMs to benefit a larger community of local millers and service users. The main expected results of the program at the end of the program period are:

- Increased income for 4,000 millers.
- Reduction of the workload of about 100,000 households, often women and girls, as a result of reduced waiting time for milling services.
- Diversified agro-processing services for about 25,000 rural households.
- Electricity facility for about 10,000 rural households.
- Generation of employment in rural areas.
- Significantly increased sustainability of IWM sector as a result of improved institutional and local capability.

*More information: Centre for Rural Technology, Nepal (CRT/N), P.O.Box 3628, Tripureswore, Kathmandu, Nepal
Ph/-fax: +977-1 4260165 /- 1 4257922
info@crtnepal.org, www.crtnepal.org*

Events

April 21, 2004

Symposium on Financing Sustainable Electricity, WRI, Washington DC, USA

Co-hosted by Heinrich Boell Foundation, World Resources Institute (WRI), Int'l Institute for Energy Conservation (IIEC).

Info: Marc Berthold, marc@boell.org, www.wri.org, www.boell.org, www.iiec.org.

April 20-22, 2004

The XVth Global Warming International Conference & Expo, San Fransisco, USA

Info: Fax: +1 630-910-1561, e-mail: gw15@globalwarming.net, www.globalwarming.net

April 26, 2004

Nuclear Protests, Chernobyl Anniversary

Info: www.inforse.org/europe

May 6-10, 2004 *

Int'l Climate Run to Bonn, Start from Artefact, Lecture by the climate scientist Mojib Latif and other events

Info: Werner Kiwitt, ARTEFACT, Bremsbergallee 35, 24960 Glücksburg, Germany. Ph: +49 4631-61160, fax: -611628, info@artefact.de, www.artefact.de

See article on page 3 in this issue.

May 13-14, 2004

ECO-forum, Biomass Utilization, Rendsburg, Germany

Info: Rendsburg Centre for Energy and Technology, Germany, Janet Sönnichsen, Ph: +49 43 31136600, fax: +49 4331136667 E-mail: info@zet-rd.de, www.ecoforum.info

May 10-14, 2004

2nd World Conference and Technology Exhibition on Biomass for Energy, Industry & Climate Protection, Rome, Italy

Info: WIP, ETA Florence, Piazza Savonarola 10, 50132 Florence, Italy Ph: +39 055 5002174, Fax +39 055 573425 eta.fi@etaflorence.it, www.etaflorence.it, www.conference-biomass.com/

11th -12th May

The Brussels Climate Change Conference, Brussels, Belgium

Info: www.euconferences.com/fraclimate04.htm

May 28-31, 2004

YES 2004, Youth Energy Summit

Info: Youth Alliance for Future Energy, e-mail: sven_anemueller@gmx.de, www.yes2004.de

See article on page 3 in this issue.

May 30-31, 2004

"Local Renewables 2004", Bonn, Germany

Int'l local stakeholder forum, organised by Service Agency Communities in One World / InWEnt, www.localrenewables2004.de, e-mail: claudia.moll@inwent.org

May, 30 - 31, 2004 *

2nd World Renewable Energy Forum: Global Benefits & Policies, Bonn, Germany

Info: World Council for Renewable Energy (WCRE) c/o EUROSOLAR Kaiser-Friedrich-Str. 11, 53113 Bonn, Germany. info@wcre.org, http://www.wcre.org

May, 30 - 31, 2004 *

CURES NGOs' Pre-Conference to the "Renewables 2004" Bonn, Germany

Info: http://www.cures-network.org/, See article on page 3 in this issue.

June 1-4, 2004 *

"Renewables 2004", Int'l Conference for Renewable Energy, Bonn, Germany

Info: Secretariat of the Conference Ph: +49 6196 79 4404, fax: +49 6196 79 4405 info@renewables2004.de http://www.renewables2004.de

See articles on pages no. 3-4 in issue Nr 42 on pages no. 3-4 in this issue.

June 1-5, 2004

"Bioenergy2004", World Conference on Bioenergy, Jönköping, Sweden

Info: Swedish Bioenergy Association, SVEBIO, Torsgatan 12, 11123 Stockholm, Sweden. Ph: +46 8 441 7080, fax: +46 8 441 7089 info@svebio.se, http://www.svebio.se

June 1-4, 2004

Green Week 2004, Changing our Behaviour, Brussels, Belgium.

Info: Green Week secretariat, EC, DG Environment, Communications & Civil Society, www.greenweek2004.eun.org e-mail: env-greenweek@cec.eu.int

June 6-11, 2004

Small and Medium Size Wind Generators, ARTEFACT, Glücksburg, Germany

Workshop for decision makers, planners and staff of development NGOs from North & South. Info: j.christensen@nmz-mission.de, or info@artefact.de

August 22-28, 2004 *

INFORSE-Europe Seminar on Sustainable Energy and Social Change, Asturias, Spain

Info: Kolya Abramsky, Escanda, Spain e-mail: energy_seminar@yahoo.com, or kolyaab@yahoo.co.uk http://www.escanda.org Ph: +34 985493696

See articles on page 5 in this issue.

September 20-22, 2004 *

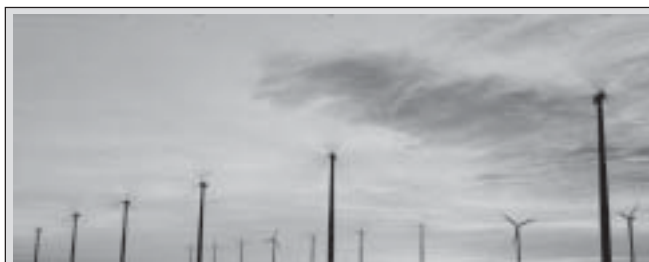
2nd International Ukrainian Conference on Biomass for Energy, Kiev, Ukraine

Info: Institute of Engineering Thermophysics National Academy of Sciences of Ukraine # 236, 2A, Zhelyabov str., 03057, Kyiv, Ukraine. Ph./fax: + 380 44 456 94 62, E-mail: info@biomass.kiev.ua, zhelyezna@biomass.kiev.ua http://www.biomass.kiev.ua/conf2/

October 19-20, Amsterdam

Energy and Sustainable Development

Organised by the Dutch EU-Presidency, Dutch Ministries for Transport / Infrastructure, Economy, Environment/Spatial Planning. Info: Petrouschka Werther, Ph: +31 70 351 7197, eu-conference@dgp.minvenw.nl



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INFORSE Contacts Online !

While we have been publishing the Sustainable Energy Contacts Lists for 12 years, the contacts are now available online at the INFORSE website. From the main page, www.inforse.org, just go to "INFORSE Contacts and Members", or go directly to www.inforse.org/regions.php3. There you will find members listed by region, as well as a search function for members and contacts, country by country. You can also search for members and contacts by name.

<http://www.inforse.org/regions.php>



http://www.inforse.dk/s_e_news.php3



www.inforse.org

Increasing number of visitors to the INFORSE website

The INFORSE website, including the online versions of Sustainable Energy News, the INFORSE-Europe site, etc. has had an increasing number of visitors, now reaching 3500 unique guests per month, together doing 40,000 hits/month on the site. The number has been steadily growing in recent years, increasing by about 40% per year.

INFORSE Regions' sites

<http://www.inforse.org/europe>

INFORSE-Europe's site was established under the INFORSE web site in 2000. Increased number of visitors are looking the success story collection, an EU policy update, the seminar proceedings, DIERET and other NGO cooperation projects.

<http://www.inforse.org/africa>

INFORSE-Africa's site was launched in 2004 March. It has already been actively used by the INFORSE member organisations as a forum for the preparatotion to the Renewables 2004 Conference in Bonn in June 2004.