SUSTAINA

Newsletter for INFORSE International Network for Sustainable Energy

No. 61, July 2008

NGO Seminars:

Paris, October & CAT, Wales, UK, August

EU policy: Package, ECO Design, EPBD

Play to Electricity in Namibia

Fuel Cells

Calls:

Volunteers Awards **Anti-Nukes** Rainforestation

























Sustainable Energy News

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Pictures from the articles of this issue.

Energy Crisis A Challenge and a Chance

With steeply increasing oil, coal, and gas prices, and as more people must struggle harder to manage their energy bills, the world is suffering from an energy crisis as we were in the 70's. The price changes are a bit less sudden than they were in the 70's; but the effect is the same: increasingly, people are not able to continue to live as they used to do. The differences are also obvious: inequalities are larger, allowing many better-off people to continue their lifestyles, and some of the countries that were hardest hit in the 70's have become less dependent on oil. Other countries have become more oil-dependent, including some of the developing countries that are struggling hardest today.

The energy crisis twists the energy issues in many ways:

- It is less a question of whether we should change away from fossil fuels and more one of when and how we should change.
- For the many energy-importing countries, greenhouse-gas reductions are less of a cost, and more of an economic benefit.
- It is increasingly obvious that predictions based on low future fossil-fuel prices are and always have been unrealistic and that plans based on such predictions must be changed as fast as possible.
- New bottlenecks are appearing, such as a lack of windpower production capacity that has lasted for three years already, in spite of rapid growth in the production capacity.
- Despite its many unsolved problems, nuclear power is once again being promoted with promises of low costs, often based on past price estimations that are no longer valid (if they ever were), combined with very optimistic assumptions regarding lifetimes, maintenance and waste costs, and no external costs (such as radioactive pollution in the fuel and waste process).

With the energy crisis, it is time for us as promoters of sustainable energy to rethink our activities, widening the agenda from the environmental imperative of cutting fossil-fuel use to helping societies manage their transitions to sustainable energy.

We must advocate proven solutions while pursuing the development of new sustainable technologies and thinking ahead to avoid creating new problems such as unsustainable biofuels and the also unsustainable nuclear power. We must also focus on affordable, sustainable solutions to the problem that a growing part of the population can no longer afford to pay their basic energy bills (also known as growing "fuel poverty").

Many NGOs have helped communities and individuals to reduce their fossil-fuel consumption with local, sustainable energy solutions. This should continue, but on a larger scale, with greater outreach, and in more countries. We need mechanisms to finance this activity via public budgets and small levies on energy bills. This must be done in cooperation with other stakeholders, such as municipalities, while emphasizing our advantages in innovation, flexibility, and well established networks to disseminate new ideas quickly.

We also need to go deeper into the realisation of our visions for transition to sustainable energy, in close cooperation with other stakeholders. We need to show how a society can renovate the majority of its houses to curb by half their energy consumption, how we can realise a factor-4 increase in energy efficiency, how to manage transport in sustainable ways, etc.

And then we need to continue to work on the environmental problems of energy. Energy can easily be bought at too great a cost, whether it be nuclear power with all its unsolved problems, GMO plants to "revolutionize" biomass production, or imports of materials that cause local catastrophes in the countries that produce them. This focus on sustainable development will be under increasing pressure in an energy-hungry world.

Another crucial focus that we must maintain is on poverty reduction. Increasingly, this will be possible only with renewable-energy solutions that the poor can afford independent of the rising prices of unsustainable energy.

Gunnar Boye Olesen

editor



INFORSE at Climate Conference

As mentioned in our last issue, INFORSE has decided to follow the climate negotiations more closely. Thus,

an INFORSE delegation will participate in the UN climate conference in Poznan, Poland in December 2008.

It will include representatives from at least Europe, Africa, and South Asia.

We will work with the many NGOs that have worked for over a decade to achieve better climate agreements, doing our part to attain agreements that carry meaningful commitments, no nuclear subsidies, and no loopholes with hot air in place of real emission reductions.

We will also push our points on promotion of sustainable energy solutions as a major part of mitigating climate change. The provision of energy services to reduce poverty and help development in poorer countries is an important part of the solution, and it must be done efficiently with renewable energy; climate negotiations must reflect this reality. Obviously, INFORSE's sustainable energy visions must also be part of the solutions that we will promote.

International Partnership for Energy Efficiency

More than a year ago, INFORSE and others pushed for international cooperation on energy efficiency, and the EU leaders called for it at their Summit in March 2007. As a result of this and other initiatives, on June 8th of this year the G8 countries, EU, China, India, and South Korea established an International Partnership for Energy Efficiency Cooperation (IPEEC). The main activities of the partnership will be:

- Annual meetings of high-level energy officials (Vice-Ministers or similar);
- Voluntary energy-efficiency action plans by all partners;
- Inventory of existing national and multilateral efforts toward energy-efficiency improvements, and
- Other concrete activities, including sharing of best practices as well as identifying areas for joint action, including cooperative work to promote energy-efficient lighting.

The EU has already announced an initial contribution of 400,000 € to establish an implementation structure for the Partnership. The other partners are making similar commitments.

Read more at www.inforse.org.

Energy Prices: An Update

A year ago we wrote about soaring uranium prices and, six months ago, about resource limits that seemed much tighter than those described by the International Energy Agency. The present article gives a brief overview of energy prices to date during this period of history in which they are more volatile than ever before.

Uranium

While uranium increased steadily in price from about 10\$/pound of U₂O₆ (yellowcake) in 2003 to 135\$ in mid-2007, it has fallen to about 60\$ this year. According to analysts, suppliers overestimated market demand, and export restrictions to India from other countries has reduced demand as it has curtailed nuclear power production in India. Many experts agree, however, that this slump will not last. The stockpiles, which supply 40% of demand, are running low within less than 5 years and it is a challenge to increase the production output of mines. While prospecting for new mines continues to be pursued avidly, problems such as water intrusion have occurred in several existing mines, slowing production.

See: http://www.energywatchgroup.org/ http://www.resourceinvestor.com/pebble. asp?relid=42921

http://www.uranium.info/

Oi

Oil prices have jumped from 17.5 USD per barrel in 1999 to 145 USD in July, 2008 (8.5 \$cent/kWh = 5.4 €cent/kWh), a doubling from 2007. The price is even expected to hit 170 USD. The IEA, which has underestimated future prices consistently in the past, now speaks of a coming oil crisis. Contrary to the 70's crisis, current oil prices cannot be explained by politics. Today, the main reason for crisis is a large increase in demand due to the economic development of countries like India and China. As long as China can and will use its large financial capacity to subsidize the oil used by Chinese

consumers, neither demand nor prices is likely to go down.

See:

http://www.iea.org, http://www.opec.org/ home/basket.aspx

Coal

Coal prices, which used to serve as a stable floor for energy prices, are currently soaring because of production and transportation constraints and due to increasing demand (coal provides 70% of China's energy needs). Because of its high weight, coal prices vary widely among different parts of the world. Prices also vary widely with quality. While coal import prices to Europe are reaching an all-time high of 220 \$/ton (3.2 \$c/kWh = 2.0 €c/kWh), more than three times the price a year ago, a lower-grade coal can still be bought for 13 \$/ton in the US inland Powder River basin.

While the current record coal prices might come down, a large reduction is not likely. Studies like the Energy Watch Group Report foresee that the richer coal deposits will run out sooner than previously expected.

See: http://www.globalcoal.com http://www.guardianenergy.co.uk, etc.

Gas

See: http://www.guardianenergy.co.uk, http://tonto.eia.doe.gov/oog/



INF RSE-EUROPE



European
Sustainable
Energy Seminar for
European NGOs &
INFORSE-Europe
Board Meeting

Paris, France October 13-15, 2008

This year, INFORSE-Europe, together with CLER, the largest French network for renewable energy, will organise a sustainable energy seminar on October 13-15, 2008 in Paris, France.

The seminar will feature European sustainable energy policies and visions for sustainable energy as well as promotion of and education in sustainable energy. Highlights of the seminar include:

- European policies: What can we do to improve the climate & energy package, research policies, structural funds, ecodesign, building requirements, etc., and how can we get more out of them for sustainable energy?
- Practical actions promoting sustainable energy with exhibitions, campaigns.
- Education for sustainable energy, with a practical workshop covering new working models for education and exhibitions.
- Visions and strategies for sustainable energy, presenting and discussing INFORSE's and members' sustainable energy visions; the new Low Carbon Network to bring together NGOs, researchers and other stakeholders; and ZeroCarbonEurope/Britain.

INFORSE-Europe's Board Meeting is planned to be after the Seminar.

Cost: 180 €/person inclusive of 3 nights' food & accommodation.

Information and application, see at: http://www.inforse.org/europe/seminar08 France.htm.

INFORSE-Europe's 15-year anniversary party at the Energy Academy, Samsø, Denmark, 2007.



UK Energy 21 Seminar CAT, Wales, UK August 16-18, 2008

Community Energy Transition, Networking, and EU Policies

The INFORSE-Europe and Centre for Alternative Technology (CAT) are organising a seminar for British NGOs working on sustainable energy. The seminar will explore how communities can make the transition to sustainable energy, highlighting local and national successes from Britain, Denmark, and other European countries. The seminar will be a platform for networking for sustainable energy among British NGOs and for revitalising the Energy21 network. It will also establish new links, e.g., among Transition Towns, sustainable energy centres, and promoters. Last but not least, the seminar will be a place to make connections between EU policies for sustainable energy, national policies, and local actions.

The seminar will be held on August 16-18, 2008 at CAT in Wales. The unique training and demonstration center is visited by 65,000 people every year.

Cost - £100 per person inclusive of 2 nights' food & accommodation at CAT. Information and application, see at: http://www.inforse.org/europe/seminar08_Energy21.htm, and http://www.cat.org.uk.







Pictures from CAT: solar cells, water-balanced cliff railway, wind tunnel, and the brand new conference center.



YEP! - Young Energy People

YEP is a project, co-ordinated by Severn Wye Energy Agency (SWEA), UK and launched in 2008.

The projects is incorporating energy education into secondary-school practices. In a work-related learning approach, local schools and businesses are encouraged to co-operate on their energy issues through student leadership.

Partners from 8 European regions are engaging with their local schools to initiate a phase of planning and preparation for the launch of school action in September 2008. Educational resources are selected that will be refined for local project work that seeks to train student groups (14-19 years) in basic energy management skills.

Initially the project partners work alongside teachers, using their school building as the case study to develop students' basic energy-auditing skills; identifying energy-saving actions and



implementing programs of improvement in their schools. This is considered the training period for the students, after which they will be placed with local businesses to replicate the process, widening the impacts of the energy-saving work and illustrating to students the real-life applications of energy-saving skills outside of school.

The partnership includes agencies in Italy, Bulgaria, Germany, Greece, Sweden and Spain, representing a variety of local contexts for the work.

The project is supported by the EU Intelligent Energy Europe Program.

Contact: Rachel Close, SWEA, UK. E:rachel@swea.co.uk W: www.swea.co.uk www.youngenergypeople.com



French NGOs For a Nuclear-Free France



European Demonstration Paris, France, 12 July '08 The French network "Sortir du nucléaire" (Phasing Out the Nuclear Age) is organising a demonstration to be

held in Paris on July 12, 2008.

The aim is to remind the French President Sarkozy that nuclear is neither a renewable energy nor a solution to global warming. The background is that promoting nuclear power is feared to be one of the objectives of the European French Presidency (July-December 2008).

The overall goal is to convince France to phase out nuclear power generation by:

- rethinking its energy policy;
- improving the efficiency of electricity use;
- developing alternative and sustainable generation scenarios.



Send a Postcard to the French President Sarkozy until December 2008.

"Sortir du nucléaire" is a coalition of 820 French associations and has 19,136 individual subscribers. The French campaign Nor Nuclear, Nor Climate Change" also has several other French partners, like WWF, FOE-France, Greenpeace, and RAC-France.

www.sortirdunucleaire.fr





The Sustainable Energy Europe (SEE) Competition pro-

motes, showcases and rewards outstanding European projects and programs.

Deadline to submit a project is October 31, 2008. The winners will participate in the annual award ceremony in Brussels on February 10, 2009 during the Sustainable Energy Week (EUSEW).

The SEE Campaign is an initiative of the EC DG for Energy and Transport. INFORSE-Europe is

Campaign Associate.

More details: www.sustenergy.org



EU Policy Update

By Gunnar Boye Olesen, INFORSE-Europe Coordinator (left) and Sonia Béthencourt, trainee (right)

Energy & Climate Package

Negotiations are progressing concerning the Energy and Climate Package launched by the European Commission in January, 2008. Although some subjects remain quite thorny, progress has been made, and it is a high priority of many, including the French EU Presidency, to reach an agreement within the next six months. Without such an agreement, EU will find it difficult to lead crucial global climate negotiations. The proposals' aim for 2020 is to have achieved 20%/30% greenhouse-gas reductions (30% with international agreements), 20% renewable energy, and 10% renewables in transport in the EU.

Ministers Met in June

In June, Environment and Energy Ministers held debates on the Energy & Climate Package. Energy Ministers focused on the directive on the promotion of renewable energy, and they stressed the need for better assessment of biofuels. Talks were fiercer among Environment Ministers. The most debated points are the effortsharing of the 2020 targets (including the reference year), how to go further than the 20% reduction in case of an international agreement, biofuels criteria, and the emission-trading scheme (ETS) after 2012. A number of Central European countries, lead by Hungary and including Czech Republic and Poland, are pushing for lower reduction targets from 2005 to 2020, since they had large reductions from the Kyoto Protocol base year, 1990. On the opposite site are countries such as Spain that had large increases during the period of 1990-2005.

Renewable Energy Compromise

In the end of June, a breakthrough was made in the negotiations on the renewable energy directive, when a broad majority of countries agreed upon a proposal from Germany, UK, and Poland. With the proposal it is left to each country to decide to what extent renewables produced in another country in the EU can benefit from its national support scheme and to what extent renewables produced on its territory can benefit from a national support scheme of another country. The Guarantees of Origin (GO) will no longer be tradeable throughout EU, as was proposed by the





Commission with the Package, but will still give proof of origin of the related renewable energy. The proposal also includes that countries may make statistical transfers of renewables from one country to another within the EU to fulfill national renewable energy targets.

Biofuels: No Agreement

On biofuels the main outstanding issues are sustainability criteria, and how mandatory the 10% target of renewables in transport should be. On sustainability issues questions are:

- how to ensure social and environmental sustainability for production outside the EU.
- whether CO₂ reductions with biofuels should be at least 35% increasing to 50% by 2015 (the Slovene Presidency proposal), or greater, or less, and
- how to calculate the greenhouse gas emissions.

On the 10% target, many countries want to make it dependent on opportunities to supply sufficient amounts of sustainably produced biofuels. A special working group of EU countries is meeting regularly to discuss biofuel questions.

Weakenings Proposed

Of the other, outstanding, issues there are many proposals to weaken the package, such as increasing the possible purchase of emissions credits from countries outside the EU, have less stringent intermediate targets, more free CO₂-credits to the power sector, and others.

EU Parliament in the Debate

The European Parliament is now entering the debate with discussion of the proposals in the package. Member of Parliament Claude Turmes (Greens) has prepared a report for the Parliament on the renewable energy directive with a proposal to drop the 10% biofuels target, to strengthen the sustainability criteria for biofuels, and to push for a greater focus on the use of biomass. Voting on this text will take place in the industry Committee on July 16-17, 2008 and during a plenary session in September with a possible agreement with the Council soon after.

Ecodesign: - Standby, Water Heaters, Boilers, Pumps, Fans, Biomass Combustion and More

The EU's "Ecodesign" process for limiting energy consumption of equipment is progressing quickly.

One measure has reached the final decision-making step: a measure on standby was adopted unanimously by country representatives July 7, limiting standby and off-mode to 1 Watt (2 W for standby with a display). It will apply to most products sold after 2009 and will be strengthened after 2012.

A number of measures are still being debated by stakeholders in the "Consultation Forum". In May, these included:

- Circulator Pumps, where two large, progressive companies dominate the EU market and high requirements for energy efficiency should be possible without serious industry opposition, even though we as NGOs would like to see faster action.
- **Pumps**, where it is more difficult to demand high efficiency because electronic regulation that can raise efficiency a lot in some applications will decrease efficiency in other applications.
- Fans have a large potential for improvement with a combination of better fans and electronic regulation, but the proposal from the EU Commission is not ambitious enough and does not include requirements for electronic regulation.
- Electric Motors are less efficient in Europe than, e.g., in the USA; and the industry wants to keep it that way. The proposal to increase efficiency is around 10% (from about 75% today to 85% for a 1 kW motor), mainly limited of the technical limits for higher efficiencies.

EU Agency for Renewables Proposed

The Green group in the European Parliament has called for the creation of a "European Community for Renewable Energies" (ERENE) based on the model of EURATOM. ERENE would gather the most ambitious Member States willing to develop and put into practice a Community strategy for renewables, such as establishing European grids and common enterprises, supporting research and the dissemination of new technologies, etc. The revenue from emission-trading schemes would finance this new Community. ERENE is unlikely to win Member States' approval but it can be one of the topics debated during next year's European elections in June, 2009.

In July the stakeholders will discuss water heaters, where the proposal is to have a common label for all water heaters. With the proposal electric water heaters will be labelled with an efficiency below 40% because of the losses in electricity production, which are assumed to amount to 60%; whereas solar water heaters will have very high efficiencies (above 100%), as solar input is not counted as consumption of energy resources.

A large number of **new product groups** will be discussed in the coming months and years, and a new plan is under discussion to determine which products it should cover.

INFORSE-Europe is particularly following work on **small solid-fuel combustion installations** for biomass and coal. This is a challenging product group, because efficient biomass combustion is important for sustainable energy developments but biomass combustion can also be a serious source of local air pollution.

In the negotiations, INFORSE-Europe and the other participating NGOs (see logos below) play a large role as progressive, independent experts that are challenging the industry's attempts to weaken proposals and sometimes to avoid energy-efficiency regulation at all. Therefore we welcome input from experiences of NGOs with energy-efficient products.



ECOs: www.ecostandard.org

Read more on EU policies and INFORSE-Europe opinions at www.inforse.org/europe/eupolicy.htm.

Airline Emissions to Be Cut

A major step has been made to cut aviation emissions: a compromise agreement has been reached between the European Parliament and the EU countries on this issue. With this agreement, aviation will be included in the EU-ETS in 2012. Emissions from planes will be reduced by 3% by 2012 (compared to the 2004-2006 level) and by 5% by 2013. According to the compromise, 85% of the emission certificates will be allocated for free, and the remaining 15% will be auctioned. This agreement still must be formally endorsed by the Council and by the European Parliament during the next plenary meeting in July, 2008.

Energy Performance of Buildings, New Proposal

The building sector accounts for 40% of EU energy requirements, and 28% of this energy could be saved by 2020 through adequate standards. The existing directive from 2002 on the Energy Performance of Buildings sets up certification systems for new and existing buildings, common methodology for minimum standards, and specific inspection requirements for heating and cooling systems. But five years after the Directive entered into force, many gaps remain. Many Member States haven't implemented the directive properly yet, and measures introduced by the directive seem to be inadequate to convince owners to improve the energy efficiency of their property. Consequently, the EU Commission decided to revise the directive. It launched a consultation to assess the main barriers and possible solutions, and is planning to propose a new directive before the end of 2008.

INFORSE Opinion

INFORSE-Europe contributed to the consultation. Our major requirement is that the scope of the Directive should be extended as follow:

- The 2002 Directive sets up a 1000 m² threshold for existing buildings undergoing major reparation. Under this limit, the owner is not obliged to take energy efficiency into account when making repairs and when renovating. The threshold should be lowered to its cost-effective level, no higher than 200 m².
- Thresholds on the rated output of boilers and/or air-conditioning systems subject to regular inspections should be lowered as well.
- Renewable-energy fueled boilers and heat pumps should be included in the inspection scheme. After inspection, a report including assessment of the boiler and advice on how to improve its energy efficiency should be delivered to the user.
- Higher standards for public buildings should be set up to show the way forward
- Energy-efficiency certificates should be issued for all buildings at least every 15 years, even if the buildings have not been sold in the interim.

INFORSE is aware that such measures will increase costs of renovation and inspections, but savings will be realized and energy bills will decrease. The proposals will also have positive environmental and social impacts, such as increased employment.

Small-scale Fuel Cells: Integration of Fluctuating Power

By Poul Alberg Østergaard, Associate Professor, Aalborg University, Denmark

Micro-CHP systems can create more flexibility to increase the wind power share especially in countries without district heating.

Cogeneration of heat and power (CHP) systems are used actively in Denmark to integrate wind power, but in countries without district heating, this was not an option before the advent of very small CHP plants for individual dwellings. The introduction of fuel-cell-based micro-CHP systems for individual houses might expand the use of wind power above 20-25% of electricity supply. Naturally, the fuel used must be produced from renewable energy sources. Reversible fuels cells producing and consuming hydrogen are particularly interesting, as they support downward as well as upward regulation.

The Fuel-Cell Market

Stationary applications are emerging, in which fuel cells are used to supply individual houses with electricity and, as a by-product, with heat. The EU-supported renewable energy sources (RES) fuel cell household systems (FCHS) Market Project has investigated barriers and preconditions for such applications in Denmark, Netherlands, Germany, Portugal, Spain Household Fuel Cell, Example:

Nominal: 1.5 kW AC Range: 0.5-2.0 kW AC Nominal: 1.5 kW; Range: 0.5-3.0 kW Electrical Power Heating: Efficiency: Electrical: >45%: Total: > 80%

PEM Fuel Cells Technology Life expectancy Not tested at systems level

and Iceland. The ability of the fuel cells to supply regulating power adds value to help balance the investment. However, public regulations in most European countries do not accommodate such small producers of power and of regulating power. Technical changes in the energy systems must thus be accommodated by institutional changes, including promoting tariffs.

Cost of Developing the Technology

Costs must be brought down and life expectancies must be improved. Fuel-cell unit life expectancy should be at least 40,000 hours, but most barely last through 10,000 hours of operation.

A proposed goal in Denmark is commercially available mass-produced 1.5 kWe domestic fuel cell units priced by 2012 at approximately 4000 € for units run on pure hydrogen or 5300 € for units operated on natural gas or cleaned biogas. These prices are comparable to those of new oil furnaces for house heating, though the latter have higher heat outputs. Such fuel-cell units will thus require better insulated houses.

FC system for single house. IRD Fuel Cells. Denmark



Ambitions like these are in the process of being met through actual technology development and a number of field tests being conducted worldwide. In Denmark. a 7-million-€ demonstration project is underway, focusing on national technology

development and testing three different technologies operating on natural gas and hydrogen. German Baxi, using Danish IRD Fuel Cell's low-temperature Polymer Electrolyte Membrane (PEM) technology, has conducted field tests for some years, and Tokyo Gas has a very large project with more technologies and 1000s of units being field-tested.

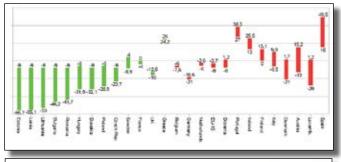
With technology development progressing and barriers for their implementation being identified, fuel cells may one day be an important element in the energy system.

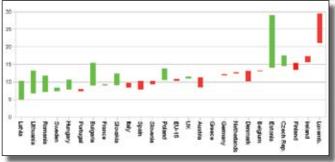
More: www.resfc-market.eu.

Greenhouse Emissions in EU: A Study in Variations

It is always interesting when the European Environmental Agency (EEA) publishes its overview of greenhouse-gas emissions, even though the data comes 1 1/2 year late. Sorting the countries according to how well they did in 2006 compared to their Kyoto 2008-2012 targets, it is clear that all the new EU countries except Slovenia (as well as Cyprus and Malta, which have no targets) are well below their targets, while many Western European countries are well above. Of the countries with ambitious targets (reductions greater than 20%), only Germany is close to meeting its goal.

If we compare emissions and targets with the per-capita emissions, a somewhat different picture appears, showing that some countries with high emissions have even higher targets, while others with lower emissions have to reduce. There are some explanations for that in the power sector structure, but they only partially explain the situation. The graph below also shows that all EU countries are above global average





emissions and will have to reduce substantially if and when an equitable, global greenhouse-gas reduction scheme is agreed.

Greenhouse-gas emissions of EU countries in 2006 and corresponding Kyoto targets, in % relative to the base year (1990 with modifications). For countries with green bars, the targets are higher than their emissions, so they have reached their targets if they stay at the 2006 emissions level. Countries with red bars have to reduce emissions.

Countries according to per capita emissions. The bars show the distances to the

Green bars are for the countries below targets. Red bars are for the countries above targets.

Based on EEA statistics, www.eea.europa.eu

Ashden Award '08



Ms. Svati Bhogle from Technology Informatics Design Endeavour (TIDE), one of the AIWC's active partners, has received the prize recognizing that TIDE has developed, adapted and commercialised energyefficient woodstoves and kilns, which save 30 percent of fuel and are tailor-made for specific small industries.

Over 10,500 stoves have been sold by TIDE and the entrepreneurs it has trained. These stoves save about 43,000 tonnes/ year of biomass, provide a cleaner, cooler environment for users, and often lead to significant time savings.

www.ashdenawards.org www.tide-india.org www.gshakti.org www.inforse.org/asia



Grameen Shakti, Bangladesh

Mr. Dipal Barua from Grameen Shakti (GS) received a special prize in recognition of GS's achievements. This is the second time that GS gets the prize for providing photovoltaic solar home systems (SHSs) through affordable loans to households in Bangladesh. With 2,000 staff, GS operates from 400 local offices, and installed 150,000 SHSs. Besides, 14,000 cheap, efficient cooking stoves and 3,000 biogas plants were also sold. Trained technicians, mostly women, manufacture components in 20 centres as well as install and service systems.

Grameen Shakti is member of INFORSE and recently co-authored a manual on renewable energy solutions to reduce poverty available in 5 languages.







ROAD to 2020 Rainforestation Campaign in the **Philippines**

Bring Back 1 million hectares of rainforests by year 2020.

The Campaign of the Haribon Foundation is an environmental conservation movement to restore 1 million hectares of rainforests in the Philippines using native tree species by year 2020.

ROAD stands for Rainforestation Organizations and Advocates.

The aims is to plant native tree species in order to recover and conserve biodiversity, to optimize the supply of forest benefits and ecosystem services, to reduce the risk of natural hazards, and to enhance options for sustainable livelihood.

Haribon is working with different clusters throughout the country like local governments, academic institutions, governmental agencies, NGOs, POs and individuals who are committed to rainforestation.

To support the campaign contact the Haribon (INFORSE member) in the Philippines.

E: rainforestation@haribon.org.ph, communication@haribon.org.ph, W: www.haribon.org.ph.

Solar Energy Leads in Indian Climate Action Plan



'India will put solar energy generation at the forefront of its battle against climate change', Indian Prime Minister Manmohan Singh announced while releasing the delayed national action plan on climate change on June 30, 2008.

Eight national initiatives form the core of the plan: solar energy, enhanced energy efficiency, sustainable habitat, water conservation, sustaining the Himalayan ecosystem, creating a 'green India' through a large tree-planting programme, sustainable agriculture, and establishing a knowledge platform on climate change.

The Prime Minister promised to pool India's talent with sufficient financial resources, to develop solar energy as a source of abundant energy to power the economy and to transform the lives of the people of India.

While the Plan did not include quantified limits to greenhouse-gas emissions, the Prime Minister called for 'a graduated shift from economic activity based on fossil fuels to one based on non-fossil fuels and from reliance on non-renewable and depleting sources of energy to renewable sources of energy'. Reiterating India's position in the climate negotiations, he also said: 'Every citizen of this planet must have an equal share of the planetary atmospheric space. Long-term convergence of per capita emissions is, therefore, the only equitable basis for a global compact on climate change.'

> Sources: Indo-Asian News Service (IANS), Times of India, WWF India.



Integrated Development Association (IDEA, member of INFORSE) is inviting international volunteers to work with IDEA on introduction of sustainable energy conservation technologies such as gasifier stoves, solar crop drying etc, kitchen improvements, evaluation of indoor air pollution and others.

> See: www.inforse.org/asia or contact: idea@sltnet.lk Fax: +94-81-4476049



Volunteers Going Worldwide Renewable with *solivol*

Hosting German Volunteers in the "South"?

The new German volunteer program "solivol" is beginning to identify project partners in the south for volunteer placement. - What about your organisation? Artefact became registered to send young German residents as volunteers for 1-year to developing countries. The focus is, among others, on energy efficiency in households, renewable energy sources in education, demonstration projects and small enterprises, micro credits, micro projects for "gold standard" emission trading.

If your organisation is in the "south" and is working on sustainability and environment issues, might it be interested in hosting volunteers? Don't hesitate to get in touch with us!

Artefact is an international training centre for sustainable development in Germany, and is a member of INFORSE.

Contact: Artefact, Att. Werner Kiwitt, E: info@artefact.de, www.artefact.de.

Merrily We Go Around Generating Electricity in Namibia

A standard playground item, a merrygo-round, was modified to produce electricity during children's play. This ingenious technological development is making history in a Namibian kindergarten.

On May 22, 2008, the first merry-go-round to produce electricity was inaugurated in an orphanage in an area without electricity. A Namibian NGO, the Desert Research Foundation of Namibia (DRFN), initiated the development of the prototype of this much-loved traditional playground equipment. The enthusiastic developers modified and installed the first model on the grounds of the Oprah Orphanage Home and Kindergarten, which serves 128 children of whom 48 are orphans.

The power produced amounts to 30% of the electricity requirements of the center. The remaining power is provided by solar panels. The center has a television set, a fridge, several lights, a hi-fi and a sewing machine.

Technology

The Energy Merry-Go-Round is based on a common model of this ubiquitous playground equipment. An electric generator is installed beneath the rotating platform and is turned via a set of cogs and a gearbox. Electricity is produced during play and is transferred via an underground 10-meter electric cable to a battery bank located in the kindergarten office. From here the electricity is converted to alternating current by an inverter and feeds 220 Volts appliances.

Safe -Replicable

The Energy Merry-go-Round is safe to use, and not vulnerable to theft since all unsafe and movable parts are concealed beneath the robust, 500-kg rotating platform. It does not produce pollution as it makes use of a renewable energy source, namely human energy. The installation is not site-dependent and can thus be replicated at any off-grid kindergarten in Namibia or elsewhere

The project was supported by several local stakeholders. The City of Windhoek supplied the old playground merry-goround, the Windhoek Vocational Training Centre helped with the technical design of the prototype, and among the financial supporters were two Rotary Clubs, the Namibia Environment Fund, and the Namibia Diamond Corporation.

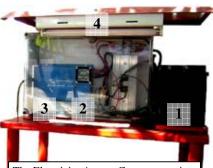
The project is harnessing children's near boundless playing energy when they are playing.



A 7-year old girl can rotate the merry-go-round at a speed of about 5 seconds per revolution. This amounts to about 12 turns per minute. This results in 300 rpm and 80 W of electrical power output.



The generator as viewed through the service hatch of the merry-go-round platform.



The Electricity Access Centre comprises the battery (1), the battery monitor (2), inverter (3) and light (4). Through a conventional socket electricity can be used for a range of appliances.

The article was sent by Robert W. Schultz, who initiated and coordinated the project with high enthusiasm and commitment. Contact: DRFN, Namibia.



E:robert.schultz@drfn.org.na, W: www.drfn.org.na

Other Playground Items:

Seesaw-pump in Columbia



On the front page of Sustainable Energy News (SEN) issue no. 22, September 1998, we had another common playground item, a "seesaw", which had

been attached to highly efficient water pumps so that when children were playing, they were simultaneously pumping water for the community of Gaviotas, Colombia

The related SEN article was a one-page review of a book titled "Gaviotas: A Village to Reinvent the World", by Alan Weisman.

In the late 1980s, Gaviotans brought their sleeve pumps and other appropriate technology to more than 600 villages as part of the Colombian government's "Water for Everyone" program. The Gaviotans refuse to patent their inventions, and share them freely with everyone else."

Roundabout Play-Pump in Mozambique

Along the same lines, a playground "roundabout" version called a Play-Pump, produced by the company "Roundabout Outdoor", is now in use in Mozambique.

More information & sources:

- Roundabout in Mozambique: www.treehugger.com/files/2005/10/the_ roundabout.php, and at www.roundabout.co.za.
- Gaviotas' seesaw-pump: www.thegenieslamp.com/dreams/farm/#1.33, backspace.com/notes/2003/08/gaviotas.php.

Publications



Mined U – Financing of New Uranium Mines

An overview of 14 companies involved in the financing of new uranium mines since 2003. The present and potential uranium

mines are in South Africa, Namibia, Central African Republic, Mozambique, Chad, Nigeria, Senegal, Canada and Kazakhstan.

Edited by Peer de Rijk 2008, 52pp. Download it free. Published by WISE, Po box 59636, 1040 LC Amsterdam, The Netherlands. E: wiseamster@antenna.nl, W: http://www.antenna.nl/wise.



Nuclear Energy Phase out in France

5 or 10 year Nuclear Phase-Out Evaluation. Translated to English by Naomi Lebegue and Nabil Kerbati.

28-page summary in English and French. 92-page Full Report in French Published by "Sortir du nucléaire" Dowload free as pdf file. Paper copy Cost: 4 EUR and 13 EUR W: http://www.sortirdunucleaire.fr.

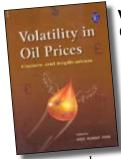
Climate Change on Online Encyclopedia of Earth (EoE)

The Climate Change Collection was launched in the Encyclopedia of Earth (EoE) in May 2008, and now seeks contributors.

The EoE is a free online resource designed to make authoritative information about the environment widely available and easily accessible.

The Climate Collection includes articles by climate experts, the reports of IPCC, biographies of individuals, a timeline of key events, and a climate glossary.

The Collection seeks to expand with articles on a wide range of climate-related topics, written for a large and diverse global audience. You are welcome to contribute.



Volatility in Oil Prices, Causes and Implications

A hot subject: oilprice volatility!

After setting out major explanations of this

phenomenon (increasing

demand, geopolitics, speculative trading), the authors attempt to figure out the implications of oil price fluctuations. Special attention is paid to key countries or regions like the EU, South Asia, China, India and South Africa.

INFORSE contributed towards this work through two articles, "A Global Vision for 2050" and "Vision 2050 for the EU25".

The book is composed of 13 articles written by 15 different authors.

Edited by Asis Kumar Pain, Icfai Business School Research Centre, Kolkata. Printed by ICFAI University Press, India. 2007, 208 pages, 16 USD ISBN: 81-314-0886-8 http://www.icfai.org.



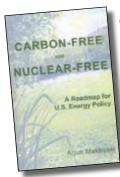
www.eoearth.org

Much to Do! Critic on EoE

Surprisingly, although we were able to locate nuclear energy and energy efficiency among the topics, renewable energy and the different forms of renewable energy were not in the list! There is much to do! Solar energy, e.g., appears only under a title connected an article of USA legislation

Launched in 2006, the EoE is one component of the Earth Portal published by a non-profit organisation, the National Council for Science and the Environment (NCSE) in Washington, D.C.

Contact for the Climate Collection: Cutler J. Cleveland, Editor-in-Chief.



Carbon-Free and Nuclear-Free. A Roadmap for US Energy Policy

A publication aiming to raise a national US debate towards eliminating

CO₂ emissions without resorting to nuclear power. It is an assessment of the technical and economic feasibility of a zero-CO₂ economy in the USA by 2050. After reviewing the different technologies available and evaluating their potential in the USA, the author draws up a roadmap to achieve this target without nuclear power. The publication outlines a progressive phase-out for nuclear power as licenses expire and advises consideration of 12 policies that the author deems most critical, e.g., physical limitation of CO, emissions for all large users of fossil fuels; elimination of all subsidies and tax breaks for fossil fuels and nuclear power.

By Arjun Makhijani, President of the Institute for Energy and Environmental Research (IEER) http://www.ieer.org The publication is the result of a joint research project of the Nuclear Policy Research Institute and the IEER. Published by IEER Press & RDR Books, August 2007. \$17.95 ISBN 978-1-57143-173-8.



www.wikipedia.org

INFORSE in Wikipedia - Contribution is Welcome!

INFORSE and INFORSE-Europe established presences within Wikipedia's English, French, and Danish sites.

Wikipedia is a growing information resource database that anybody can edit. There is a need to establish INFORSE on other national sites of Wikipedia as well.

We also recognised that many NGO members are also still missing from Wikipedia, although some major NGOs have an entry at least in English and French.

Events

July 5-6, 2008

Naturtec'08, Glücksburg, Germany

Fair on sustainable housing and living at Artefact. 50 exhibitors of solar and biomass systems, pellet stirling, green electricity and more. Opening ceremony of Germany's most northern electric car charging station.

Info: www.artefact.de

July 12 2008 - December '08

"For a Nuclear-free World" European Demonstration, Paris Campaign Sending Postcards until

December 2008

Info: W: www.sortirdunucleaire.fr

August 16-18, 2008

See article on page 5.

Energy 21, UK, CAT, Wales

Info: INFORSE-Europe Secretariat
Ph: +45 86227000; Fax: +45 86227096
E: ove@inforse.org;
W: www.inforse.org/europe/seminar08_
Energy21.htm, and
Center for Alternative Technologies
(CAT), Machynlleth, Wales, UK.
E: courses@cat.org.uk

T: +44 1654 705981 W: www.cat.org.uk See article on page 4.



INFORSE South Asia CD

Manual on Solutions Using Sustainable nergy to

Energy to Reduce Poverty

(in English, Hindi, Nepalese, Bangladeshi, and Singhalese) and Financial Manual (in English).

These manuals were produced through an INFORSE-South Asia project using input from INSEDA, AIWC, WAFD and SDA from India, Grameen Shakti from Bangladesh, CRT from Nepal and IDEA from Sri Lanka as well as OVE and DIB from Denmark. The project was supported by The Danish Small Grant Facility for NGOs' development projects.

Published January 2008; available from the project partners. Info: www.inforse.org/asia.

September 16-22, 2008

European Mobility Week 2008

For a World of Sustainable Transportation, Clean Air for All!

Organised by a partnership of Eurocities, Energie-Cités, Climate Alliance.

Info: www.mobilityweek-europe.org

September 17-19, 2008

Air Pollution and Climate Change: Developing a framework for integrating co-benefits strategies, Stockholm, Sweden

Info: Stockholm Environment Institute (SEI). T: +44 1904 432 896 E: khicks@york.ac.uk, W: www.gapforum.org

September 22-24, 2008

4th International Conference on Biomass Energy, Kyiv, Ukraine

Languages: Ukrainian, Russian, English. with simultaneous translation.

Info: Institute of Engineering

Thermophysics of the National Academy of Sciences of Ukraine.

E: conference@biomass.kiev.ua

E. conjerence@biomass.kiev.ua
W: www.biomass.kiev.ua/conf2008/

October 9-12, 2008,

Renexpo'09, Augsburg, Germany Int. Trade Fair & Conference for Renewable Energy & Energy Efficient Building and Renovation

4th Int. Business Exchange Forum: Czech Republic - Market with Future!

300 exhibitors, 13,000 visitors. *Info: REECO GmbH, Germany.* T: +49 7121 30 16 - 0 F: +49 7121 30 16 - 100

E: redaktion@energie-server.de;

W: www.renexpo.de

October 13-15, 2008

NGOs Discussing Sustainable Energy, Paris, France

Organised by INFORSE-Europe and Comite de Liaison Energies Renouvelables (CLER)

Info: INFORSE-Europe.

T: +45 86227000

F: +45 86227096

E: ove@inforse.org;

W: www.inforse.org/europe/seminar08_

France.htm

See article on page 4.

October 19-22, 2008

Third Global Congress of Women in Politics and Governance

Theme: "Gender in Climate Change and Disaster Risk Reduction", Makati City, Metro Manila, Philippines.

Registration deadline: August 31, 2008. Info: Center for Asia Pacific Women in Politics (CAPWIP)

E: globalcongress2008@capwip.org W: www.capwip.org

November 17-22, 2008

2008 EU Presidency Renewable Energy Policy Forum, Paris, France

Info: EREC, Renewable Energy House, Brussels, Belgium.

T: +32 2 546 19 33

F: +32 2 546 19 34

E: erec@erec.org

W: www.erec.org

November 19-21, 2008

Renexpo'09, South-East Europe, Bucharest, Romania

International Trade Fair and Conference for Renewable Energy and Energy Efficient Construction and Renovation.

Info: REECO GmbH, Germany.

T: +49 7121 3016 - 0

F: +49 7121 3016 - 100

E: international@energie-server.de;

W: www.renexpo-bucharest.com

November 24-25, 2008

3rd Int. Renewable Energy Storage Conference, Bonn, Germany

Info: EUROSOLAR, Bonn, Germany.

T: +49-228-362373

F: +49-228-361279

E: info@eurosolar.org

W:www.eurosolar.org

December 1-12, 2008

United Nations Climate Change Conference (UNFCCC), Poznan, Poland

Info: The Secretariat of the UNFCCC, Bonn, Germany.

T: +49 228 815 1000

F: +49 228 815 1999

W: www.unfccc.int; www.cop14.gov.pl See page 3.

February 9-13, 2009. EUSEW, Award Ceremony EU Sustainable Energy Week

Organised by the Sustainable Energy Europe (SEE) Campaign initiative of the European Commission DG for Energy and Transport.

Info: EUSEW, Brussels, Belgium.

W: www.sustenergy.org

See page 5.

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- UK Energy 21 Seminar, CAT, Wales, August 16-18, 2008
- YEP! Young Energy People
- French NGOs For a Nuclear-Free France
- 3rd SEE Award Competition

EU Policy Update:

- Energy & Climate Package
- Ecodesign: Standby, Water Heaters, Boilers, Pumps, Fans, Biomass Combustion and More
- EU Agency for Renewables Proposed
- Energy Performance of Buildings, New Proposal
- Greenhouse Emissions in EU: A Study in Variations
- Small-scale Fuel Cells: Integration of Fluctuating Power

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• Sustainable Energy News, DIERET, INFORSE Online Database



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E: ove@inforse.org,

www.inforse.org

1,000 Contacts - Online



INFORSE maintains a database of more than 1,000 NGOs and public officials, including as well research and educational institutions that are actively working in renewable energy. These contacts include all INFORSE members and span 159 countries. The database is available through our website and can be searched by membership, country and name.

Check your organisation! Corrections are welcome Global database: www.inforse.org/regions

European region: www.inforse.org/europe/memblist.php3 African region: www.inforse.org/africa/memblist.php3 Asian region: www.inforse.org/asia/memblist.php3

DIERET - Distant Internet Education on

Renewable Energy Technologies CD available, 15€ www.inforse.org/ europe/educat.htm



