SUSTAINAB EINERGY EWSletter for INFORMS

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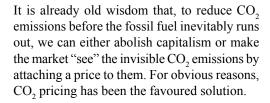
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Photo on front page: PV roof building at the new WISE center at the Center for Alternative Technology (CAT), Wales, UK. Read about the Seminar in October, 2010 on page No. 11.

A New Cure for CO, Is Needed

Even with 2°C global warming, increased drought will be a massive problem in several countries as it is here in Egypt. Read for instance "Voice" from CAN, www.climatenetwork.org.

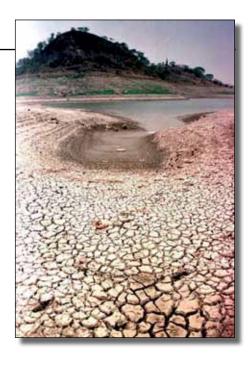


Thus, for two decades already, CO, pricing has been in place in several countries in the forms of energy and CO₂ taxes. The EU chose instead the Emission-Trading Scheme (EU-ETS), as the EU countries could not agree to a common tax. Internationally, the Clean Development Mechanism (CDM) has put a price on emissions under certain conditions, and if there are buyers from industrialised countries.

This might have worked, had it not been for the over-allocation of emission allowances by the EU countries such that the currently planned allowances will not force any reductions until 2017 in the EU, and because of the inclusion of perverse CDM projects. Just three Chinese projects for destruction of industrial greenhouse gases (fluorocarbons) generate about half of all the CDM credits globally, and they hardly contribute to sustainable development or to poverty reduction.

When EU-ETS and CDM, the "flagships" of climate mitigation, prove so dysfunctional, there is little hope that climate policies will lead to anything near sufficient reductions, even in the EU. We need to change this; we need a price on emissions that can support real investments in renewable energy and energy efficiency. The CO₂ price must be sufficiently high and stable to base investments on.

This can be done easily: after 2012, most EU-ETS allowances will be auctioned. Then the EU countries can simply decide that allowances shall only be sold on the auctions if they are above a price of 30€/ton of CO₂, the price originally estimated by the EU Commission as a likely price for the EU-ETS. Unsold emissions shall then be retired.



Such a "floor price" for carbon allowances would not do away with the emissions from the current over-allocations; they could even increase in value with perverse effects. To absorb the excess emissions without jeopardizing the current EU-ETS period 2008-2012, during which the price could drop to zero in the period until 2012, there should be carryover to the next period (2013-2020); but with a devaluation by a factor of for instance three. Then allowances for three tons of CO, today would be carried over to only one ton of CO₂ after 2012. The same devaluation should be done with many excess CDM credits from the current period, while the worst should simply be cancelled.

After 2012, we should only allow CDM projects from NGOs to support basic energy services among poor people.

We need these changes as part of the cure for a sick society that keeps on emitting CO₂, even though we very well know that we shouldn't. The changed EU-ETS and CDM are parts of such a cure; but they will not be enough.

We need feed-in tariffs, energy-efficiency regulation, funding, public participation, and much more. And we need to ensure that the EU-ETS and CDM are not seen as the major solutions to climate change. If they were revised, they could do their part of the job of the transition, but they will only succeed when combined with the other solutions.



Curran Baye Oleven

Gunnar Boye Olesen

Editor & INFORSE Regional Coordinator (Europe)

Photo by CAT, UK





Climate Negotiations, Slowly Gearing Up



While the climate is still suffering, international climate negotiations are gearing up slowly. At the recent negotiations in Bonn, in May and June, participating countries were more constructive than they had been at the previous negotiations in April 2010.

The negotiations are still far from a break-through to a reasonable climate agreement, or for any climate agreement for that matter, but in the negotiation halls, at least more time was spent on discussing issues and less on formalities.

Climate Funding Framework **Appearing**

Consensus is emerging on a global climate-related funding structure. A major disagreement remains, however, on how much the climate COP should be a governing body for the funding structure, eventually via a "finance board" (favoured by developing countries). Alternatively, it could rely on existing institutions (favoured by industrialised countries). There is a hope that a funding structure can be agreed at COP16 in Mexico even if the size and sources of funding cannot be agreed. Then, crucial questions remain about who should pay, and how much. That is not likely to be agreed this year. At COP16, there might also be agreements about forests and land degradation issues in developing countries (REDD) and about technology.

Major Disagreements Remain

The discussion about how to measure, report and verify (MRV) emissionreduction actions of developing countries re-emerged in the negotiations in June, 2010. The USA, supported by Japan and Australia, pressed for a MRV procedure for the actions of developing countries that commit to deviate from baseline. The developing countries only agreed to MRV procedures of actions that are supported by industrialised countries. One of the most concerned countries is China, which does not want MRVs of its planned large deviations from baseline. China does not expect to get much support for this deviation.

At the end of the negotiations for an agreement among all countries (Long-Range Collaborative Actions, LCA) the chair put forward a new paper that was criticized by developing countries for favouring industrialised countries. A particular problem was that the industrialised nations could set their own climate targets for 2020 and might have no targets for the period 2013-2019. The developing countries insisted that the chair should revise the paper before the next negotiations, but they did not veto the paper outright.

Forest Loophole Looming

In the negotiations on a continuation of the Kyoto Protocol, a problematic proposal arose regarding emissions for land use and land-use change (LULUCF). According to this proposal, the industrialised countries could have a so-called "forward-looking baseline".

This means in short: if a country has decided to cut down its forests, the emissions resulting from this shall not be included. Given the many proposals for increased use of biomass from forests, such a proposal could undermine the sustainability of these proposals. It could also create a loophole for countries that adopt a plan to cut forests, then later decide not to cut the forests and wish to claim the "saved" emissions as reductions.

This would mean the invention of a new kind of hot air. Even more worrying is that bad rules for LULUCF for industrialised countries could set a precedent for similar bad rules for developing countries outside the the Kyoto Protocol. In fact, this was requested by Central African countries with large tropical forests. The major supporters for this rule include some of the EU countries, e.g., Sweden, Austria and Poland, as well as Canada, New Zealand, and Russia.

Close Look at Reduction Commitments

In a more constructive part of the Kyoto Protocol negotiations, the negotiators started to divide the national targets for 2020 given at COP15 and in the beginning of 2010 following the Copenhagen Accord into domestic reductions of fossil fuels, purchase of emission allowances (such as with CDM projects from developing countries), change of LULUCF emissions, etc.

Bolivian Cochabamba Conference Calls for Very Strong Climate Policies

In April 2010, Bolivia organised a conference with social movements from 140 countries that agreed on a "People's Agreement on Climate Change and the Rights of Mother Earth". It calls for developed countries to commit to domestic reductions of at least 50% compared to 1990 for the period 2013-2017, for funding of developing country climate actions, for no use of carbon markets, and much more.

Source: http://climateandcapitalism.com/?p=2255

The negotiations will now continue with:

- negotiations of the two tracks (LCA and Kyoto Protocol, Bonn, August 2-6);
- COP 16, Cancun, Mexico, 29 November - 10 December, 2010.

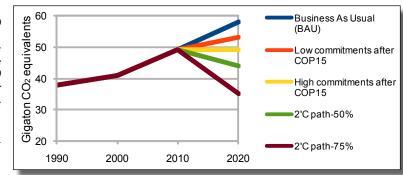
The Gigaton Gap

There is a gap of several gigatons (Gt) of CO₂ emissions between the reductions promised by 2020 as reported after the Copenhagen Accord and the reductions currently considered sufficient to limit global climate to 2°C.

In a study from UNEP, released February 23, 2010 in UNEP's Year Book, nine research centres conclude that to keep global warming to 2'C with 50% certainty, global emissions should be reduced to about 44 Gt (range of 40-48.3 Gt because of uncertainty and because of different possible pathways). If we want to keep global warming below 2°C with a higher likelihood than 50%, not to speak about limiting climate change to 1.5°C, emissions should be even lower in 2020.

This must be compared with expected emissions in 2020 of 58 Gt without climate actions, after expected reductions because of the current crisis, and commitments following the Copenhagen accord between 5 Gt and 9 Gt. This leaves a gap of at least 5 Gt: the 5-Gt figure applies if the highest levels of national commitments are followed and if we only want 50% certainty to keep global warming at 2°C or lower. As the graph shows, the Gt gap may in fact be much higher.







EU Policy Update Edited by Gunnar Boye Olesen, INFORSE-Europe Coordinator

30% Greenhouse-gas Reductions

At the end of May 2010, the EU Commission issued a communication to start the discussion on how the EU could move to 30% greenhouse-gas reductions. It outlined the effects of moving to 30% reduction, including moderate costs and several benefits in the form of increased employment, reduced air pollution, and reduced fuel imports.

Some major effects of the move to 30% reductions according to the communication are:

- Emission reductions in the sectors covered by the EU Emissions-Trading System would be 34% from 2005, instead of the current 21%.
- · Reductions in other sectors would be 16% from 2005 instead of the current 10%.
- Additional total costs for the EU to step up from the current 20% reductions to 30% would be €33-46 billion/ year in 2020, or 0.2-0.3% of GDP. The higher value applies if all reductions take place in the EU, while the lower value applies if half of the reductions are done via credits bought from other countries, so the internal reductions becomes 25%.
- The price of CO, allowances in the EU-ETS would increase from the current value of about 15 €/ton to about 30€/ton with half of emission reductions realised domestically and 55 €/ton with all reductions domestically,
- Fuel imports would be reduced by € 9-14 billion (half, respectively full reduction domestically) in 2020, based on an assumed fuel price of US\$ 88 /barrel.
- Employment would gain some 160,000 jobs if all reductions are done inside the EU, including with a carbon tax.
- · Co-benefits in the form of reduced air pollution worth about € 17 billion / year (or about € 9 billion /year if half of the reduction is done with credits from abroad).
- Sectorial effects would be moderate, even in the hardest-hit sector, which is "other chemicals", where the estimated reduction of production is 3.5 % in the worst case, i.e., where only EU increases reductions, and less if major economies outside the EU adopt similar reduction measures. Other affected sectors would see reductions of less than 1.5%.

The communication found that the greatest potentials for emission reductions are in the power sector, combining more efficient use of electricity with replacement of old power plants with new, lowcarbon power supply solutions. It also found that the largest potentials are in the poorer parts of the EU, from which it concludes that EU structural and cohesion funds are to be important for investments in the reductions.

In spite of the many benefits, industry groups have been lobbying fiercely against the proposal to move to 30% reductions, in particular industry groups in Germany, the UK, and France.

At their meeting on June 11, the EU environmental ministers decided to schedule an in-depth discussion of moving to 30% reduction for their meeting in October. Further, they asked the EU Commission to provide analysis of costs and benefits, including those for each country. So, we have until October to push for this.

Read the Communication COM(2010) 265 and the related working document SEC(2010) 650 at eur-lex.europa.eu.

EU Swamped with CO, Allowances

The EU emissions-trading scheme (EU-ETS) is losing its relevance because of excess allowances. If current excess allowances are all allowed to be carried over to the period after 2013, current plans call for the EU-ETS not to require any reductions of emissions before 2017.

Because of over-allocations in the current period and use of flexible mechanisms, it is likely that allowances for as much as 1.5 billion tons of CO2 will be carried over from the current period to the next period of 2013-2020.

Adding to this is the problem that emissions in the next period will be based on allowances given in this period, rather than on the lower real emissions.

A move from 20% greenhouse reductions in 2020 to 30% would require that fewer allowances be given after 2013 and thereby would avoid the glut of emissions. Another solution would be to set a floor price for emissions, whereby allowances are auctioned only if the price reaches a minimum level of, for instance, 30 €/ton. To reduce windfall profits from emissions carried over from this period to the next, emissions from the current period could be devalued, for instance by a factor of 3, if they are carried over.

Source: http://sandbag.org.uk/files/ sandbag.org.uk/Rescuing EU ETS.pdf.



Find the Big Emitters in EU

The UK NGO Sandbag has launched a website with all CO₂ emitters covered by the EU ETS, effectively all the larger power plants and industries, on an interactive map of the EU-27. One little hint is needed to use the map: the plants are registered at their administrative addresses, which might be some distance from the chimneys. http://sandbag.org.uk/emissionsmap.

Unclear EU Fast-start Climate Funding

With the Copenhagen Accord, the industrialised countries promised quick delivery of climate funding of US\$ 10 billion/ year. At the climate negotiations in Bonn in June, the EU released a report on this funding; however, although it claimed the money pledged would be "fresh" and "not recycled" aid, there is little clarity on the sources of the money. This led to concern on the parts of NGOs and developing countries that much of the funding will come from development aid, to be doublecounted as climate finance.

See CAN - Europe and others, press release June 3, 2010: www.climnet.org.

New EU Energy Action Plan

The EU Commission is planning a new Energy Action Plan. As part of this process, it is carrying out a public consultation based on a discussion paper highlighting the possible priorities.

In its response to the consultation, INFORSE-Europe questions the proposed high priority for power and gas interconnection lines, including possible large-scale EU funding for this. Further, it recommends careful evaluation of projects to ensure that the most cost-effective and sustainable combinations of local solutions and grid development are chosen.

INFORSE-Europe also questions the inclusion of nuclear power in the Strategic Energy Technology (SET) plan.

The EU Energy Action Plan is expected to outline EU's energy strategies, including those beyond 2020, and the launch is expected in the second half of 2010. Read the full INFORSE comment at www.inforse.org/europe/eupolicy.htm.



Energy-Efficiency Strategy Coming

The Energy-Efficiency Action Plan, first expected last fall, has now been replaced by an Energy-Efficiency Strategy (usually a less binding paper), which is expected in December, 2010.

National Energy-Efficiency Targets and "20%"

While the EU countries have agreed in general to a 20% increase in energy efficiency, attempts to turn this into a legally binding target have not been successful. Instead, the EU Commission has started to collect the national targets, and at least 12 countries have already sent their targets. The result, compared with the agreed 20%, is expected within a few months.

Energy-Efficiency Initiative from the EU Parliament

The Parliament's Energy Committee (ITRE) has decided to write an 'own initiative' report on energy-saving, to push the EU system to take new actions in this field. While such a report has no legal status, it can be an important instrument to push for new action on the EU level. Before renewable heating was included in the EU renewable-energy directive, the Parliament pushed it with an 'own initiative' on renewable heating.

Finally, a New Efficient - Building Directive

On May 18, the new Energy Performance of Buildings Directive was finally adopted as Directive 2010/31/EU. It calls for increased national regulation for energy efficiency in new and renovated houses. It also includes the framework for national requirements for building systems, such as heating systems and larger ventilation systems. The new directive shall be implemented by July 2012, though many elements including the regulation of building systems only need to be implemented by January 2013 for public buildings and by July 2012 for all buildings.

Labelling Directive Approved

After more than a year's discussion on how to make the best energy-efficiency label, the updated labelling directive has been adopted as directive 2010/30/EU. With the directive, a new A+++ class can be used.

Economic Recovery:A Bit More for Renewables

About 3%, or € 114 million, of the energy part of the EU recovery package from 2009 has not been spent. The EU Commission has now proposed that this money shall be spent to support development of bankable energy efficiency and decentralised renewables, in particular in urban areas. In July 2010, the EU Parliament will decide whether to promote the proposal, which also will require the support of the EU countries if it is to be adopted. See the proposal 2010/0150 (COD) at

See the proposal 2010/0150 (COD) at eur-lex.europa.eu.

Certification of Biofuels

In June 2010, the EU Commission adopted a package on sustainability criteria of biofuels to fulfil the transport target in the 2009 renewable energy directive. The package, two communications and one decision, shall help to ensure that production of these biofuels generates at least 35% less greenhouse gas than producing fossil auto-fuel and that it does so without damaging the environment.

The sustainability criteria are taken out from the renewable-energy directive. There are no criteria for indirect land-use change, but the Commission is considering adding such criteria later.

NGOs have been critical of the package. For instance, the European Environmental Bureau (EEB) and others are deeply concerned about the Commission's failure to address expansion of agricultural land into environmentally sensitive areas, leading to environmental problems via indirect land-use change.

INFORSE-Europe Comments on Radioactive Waste

At the EU public consultation on radioactive waste (deadline in May 2010), INFORSE-Europe expressed its support for international regulation of radioactive waste, covering all countries, guided by the principles of highest safety levels, the polluter-pays principle, independent control and independent management of funds for radioactive waste and for decommissioning of nuclear power plants.

The regulations should ensure safe disposal of nuclear waste with mechanisms for retrieving the waste, if necessary. It should also maintain national sovereignty to exceed any internationally agreed safety levels, including any level set by the EU.

Read more about EU-policy, find links to further sources: www.inforse.org/europe/eupolicy.htm .

Ecodesign

The development of Ecodesign measures continues, and gradually more product groups are being covered:

- Energy-efficiency requirements for fans, dishwashers, and washing machines were agreed among the EU countries in the beginning of June. New equipment must be more efficient from 2011 onwards.
- New labels and requirements for tumble driers are being developed. They were discussed at a Consultation Forum for stakeholders on June 24, 2010 in which INFORSE-Europe participated.
- Work on boilers and water heaters continues, with comments including those from INFORSE-Europe on boiler methodology and with a new working document on water heaters.
- NGOs have criticized the development of voluntary agreements (VA) as alternatives to Ecodesign regulations in a new position paper. Two VA's on, respectively, complex set-top boxes and imaging equipment are under development; but due to delays they will not be final before the autumn.

Coming Energy Infrastructure Package

The EU Commission is planning a new Energy-Infrastructure Package (EIP) to be launched in November, 2010. It will revise the existing policy for trans-European networks in energy (TEN-E) from 2006/2007. The package will also start the discussion on EU energy-infrastructure development for the 2020/30 horizon, propose a blueprint for offshore grids in the northern seas of Europe, and report on the state of play of "smart grids".

Partnership for 50% Windpower

On June 3, 2010, the Spanish EU Presidency and the wind industry launched a public-private partnership, the European Wind Initiative (EWI), with expected funding of 6 bill. €. Half of the funding shall come from the industry, 1/3 from EU, and the rest from national governments. The partnership also included a target of 20% windpower in the EU power supply by 2020, 33% by 2030, and 50% by 2050. Immediate priorities include development of new turbines and components, offshore technology, grid integration, resource assessment, and spatial planning.

Unfortunately, uncertainties remain regarding the funding.

Read more: www.ewea.org.

INFORSE-Europe NGO Cooperation Projects

INFORSE-Europe has several projects in the pipeline in 2010 in cooperation with the members:

- **Bulgaria:** EU policy work and environmental education. Organisation: "Za Zemiata" / For The Earth (ZZ).
- France: EU policy work and a seminar. Organisation: Committee for Renewable Energy (CLER).
- **Hungary:** Sustainable Energy Vision 2050 Hungary and Structural Funds. Organisation: Environmental Education Network (KNE).
- **Poland:** EU policy work. Organisation: Polish Ecological Club (PKE).
- **Portugal:** Promotion of SPARE environmental education. Organisation: Tavira Live Science Centre (CCVT).
- **Romania:** EU Policy work, seminar, exhibition. Organization: Prietenii Pamantului /Earth Friends (PP).

- **Slovakia:** EU policy work, DIERET online education, Structural Funds, and a Seminar. Organisation: Foundation for Alternative Energy /SZOPK (FAE).
- **Denmark:** Sustainable Energy Vision 2020 in Denmark. Organisation: Organisation for Renewable Energy (OVE).
- Belarus Latvia, Lithuania, Estonia: Development and presentations of Sustainable Energy Visions, Study Tour in Denmark and Sweden, Youth Camp. Organisations: Latvian Green Movement (LGM), Community Atgaja, Renewable Energy Center - TAASEN

SPARE cooperation: INFORSE-Europe is promoting the SPARE educational program in cooperation with INFORSE member organisations. The coordinating organisations are: FoE Norway, Friends of the Baltic Russia. See article on page 9.

Croatia: INFORSE-Europe is partner to a South European Project coordinated by FoE Croatia.

See more details at: http://www.inforse. org/europe/projects.htm

The projects in the EU countries are supported by EU DG Environment Operational Grant for INFORSE-Europe, as well as by own contributions from some of the organisations. The Belarus-Baltic Project is supported by the Nordic Council of Ministers, Swedish Acid Rain Secretariat, and FoE Norway. The SPARE cooperation is supported by FoE Norway.

This year the INFORSE-Europe's Sustainable-Energy Seminar will be at the new Wales Institute for Sustainable Education (WISE), at the Centre for Alternative Technologies (CAT), UK.

See details on page # 11 at the Events.

Trainees at INFORSE-Europe Secretariat - part time in Brussels

In 2010, there will be 4-5 trainees at the INFORSE-Europe Secretariat in different periods.

The trainees are students or representants of INFORSE-Europe members. The Secretariat has had 1-3 trainees, and activists every year during the last years, but it is new that some of them stay in Brussels as part of their traineeship.

The trainees in 2010 are:

May - June:

- Marius Koch, student from HTW-Berlin, Germany.
- Krisztina Krassován, PhD student from ELTE, Hungary and representative of a Hungarian INFORSE member, KNE. June December:
- Paula Rico Díaz, student from IUOG, Spain, ARGO Leonardo program. September-December:
- Dorthe Wolfsgruber Jensen, student from the University of Aarhus, Denmark.



INFORSE-Europe's staff says goodbye to Marius Koch who was trainee in May-June at the Secretariat. From left to right: Marius Koch, Paula Rico Diaz, Hanne Christensen, Judit Szoleczky, Gunnar Boye Olesen, and Randi Pisani.



Big Biomass Potential in EU: Double the Use until 2020

Reported by Krisztina Krassován, trainee at INFORSE-Europe in

Brussels, where she participated on several EU energy policy events including the EU Green Week, where the theme was "biodiversity".

In June 2010, a new report, "Biomass for Heat and Power", was published by European Climate Foundation, WWF, the Swedish power company Vattenfall, and others. It outlines past and future possible developments of biomass production for energy in EU, compared with the 20% renewable-energy target for 2020.

Between 2000 and 2007, biomass energy consumption grew by 25 TWh/year to around 800 TWh/year. If growth continues at this rate, the annual consumption of biomass energy will rise to around 1100 TWh/year by 2020. To fulfil the 20% renewable-energy target, a scenario says, we should reach 1650 TWh/year of biomass use by 2020, so the turnover should grow 850 TWh/year to reach the 2020 target. Currently the European growth rates are only a third of what would be required to meet these forecasts.

The EU Green Week had a theme "Biodiversity", where the un-sustainable biomass concern was not high on the agenda. Even among the exhibitors were the Brazilian sugar industry and Enel, which were let to present how "sustainable" they are.

The report finds that European biomass supply for heat and power could be doubled by 2020 in an ambitious mobilisation scenario, in line with the scenario to fulfil the 20% target. To unlock the great untapped potential in biomass, policy-makers and companies will need to consider, and invest in biomass as a proven technology, while recognising that sometimes the current biomass value chain is immature, holding back investments.

How can we do it in a sustainable way?

We have to use the 'best practice' in the utilisation of biomass: choose the right feedstocks, logistics, and efficient combustion technologies, etc. Biomass shouldn't be used if it entails harvesting old forests and other types of direct landuse change of areas of natural value. It is better to harvest biomass from land that is already under management, such as farmland. Then no additional carbon debt will be created. This should be applied through a combination of legally binding regulations and other schemes and standards. Report: www.europeanclimate.org/documents/Biomass report - Final.pdf.



School: Climate & Energy





By Judit Szoleczky and Randi Pisani

are still plugging the gap in the field of are children. education on environment and energy.

We welcome the new EU-financed projects that develop edu- as an educational input. cation material and reach out to about 500 schools in the EU..

countries in Eastern Europe.

In this mini School Theme, we continue Most of the materials of the projects are available in the differthe tradition of presenting resources that ent languages of the project partners, as the final target group

> As a curiosity we have added the story of the virtual island Heliosthana, which we believe also has the potential to be used

You can find more information about the INFORSE-Europe's We are glad to see that the SPARE school programs are going school-resource collection (games, experiments, programs, teachstrong, reaching out to between 3,000 and 4,000 schools in 16 ing material etc.) at the web site www.inforse.org/schools, as well as at the projects' web sites mentioned in the articles.

School Projects under Intelligent Energy Europe (IEE)







EURONET 50/50 -50/50 European Network of **Education Centers**

50+ Schools in 9 Countries Increase their Funding by 50% of their own **Energy Savings: Successful Program Spreading from Germany**

The project aims to spread the 50/50 methodology from Germany, where the concept has been used since 1994, to at least 50 schools in 9 countries.

The basis of the 50/50 concept is that 50% of the total energy (and money) savings achieved from the energy-efficiency measures implemented by the primary and secondary school students are retained by the school, whereas the other 50% reduces the fuel bills, which often are paid by a public authority, i.e., local or regional government. The project aims for a minimum annual energy reduction of 2.5% for each school.

The partners are local municipalities, agencies, and educational institutes.

Partners: Barcelona Provincial Council (coordinator), Spain;

University of Vaasa (VEI), Finland; UfU - Independent Institute for Environmental Concerns, Germany; HERAKLION, Greece; Lake Balaton Development Agency, Hungary; ALESA Srl, Italy; PNEC, Poland; ALMADA, Portugal; KSSENA, Slovenia.

Duration: 01.06 2009 - 31.05. 2012 http://www.euronet50-50.eu.

IUSES - Intelligent Use of Energy at School

Behaviour Tool Kits & Awards in 14 **Countries**

IUSES will show secondary-school students the basic principles of energy efficiency and will provide a comprehensive guide to teach them how to save energy in their everyday lives.

IUSES is currently developing a behaviour-oriented educational kit, including handbooks, multimedia animations and experiment tool-kit.

Teachers and students participate actively in all stages of the project. In particular, they test the educational kit and provide feedback and suggestions.

The project also includes the launch of the European Energy Saving Award in the 14 involved countries to reward schools and students for improving their energy efficiency.

Partners: AREA Science Park Trieste (coordinator), Italy; University of Leoben, STENUM Austria; University of Ruse, Bulgaria; ENVIROS, Czech Republic; PRIORITERRE, France; Centre For Research and Technology Hellas, Greece; CIT, Ireland; Science Center of Imagination (IS), Italy; Educational Center for Adults of Jelgava, (JR-PIC) Latvia; IVAM UvA bv, Netherlands; SC IPA SA, Bucarest Politechnic University, Romania; Slovenski E-Forum (INFORSE member), Slovenia; Fundación CIRCE, Spain.

Duration: 01.08.2008 - 28.02. 2011 at http://www.iuses.eu/.

SIEU - Schools for Intelligent **Energy Use**

114 Vocational Schools in 9 Countries Spreading a Dutch Success

The project includes 114 intermediate vocational schools and civil societies in 9 countries. The main objective is to increase levels of involvement and responsibility in energy-saving, sustainability, and renewable-energy technology within a large group comprising intermediate vocational school students between the ages of 15-21 years old, teachers, businesses, and local governments, including municipalities.

The methodology of SIEU builds upon the successful Dutch program "Schools for Sustainability" (SfS). In this program, students from vocational schools, who have learned the materials, pass along this triedand-true information in the form of advice to the other stakeholders. By doing so, the students learn in a creative and interactive way how to find sustainable answers, gaining experience and understanding that may prove invaluable to them and to their communities in future years.

Partners: IVN (coordinator), Netherlands; GREEN, Belgium; Cooperation for Voluntary Service, Bulgaria; SEVER, Czech Republic; HESPUL, France; REC, Hungary; IVAM UvA Ltd, Netherlands; Earth Friends (PP) (INFORSE member), Romania: Focus Eco Center, Romania; ECOSERVEIS, Spain; Community Energy Plus, UK.

Duration: 04.04.2009 - 03.08.2011 http://www.sieu.info/about.



YES - Young Energy Savers **Cartoon Animation Films in 5 countries** and a WWF Approach

Young Energy Savers (YES) is making cartoon films to raise awareness among children about energy consumption. The aim is to learn while having fun too!

The project is led by cartoon animators, international environmental organisations including the World Wildlife Fund (WWF), and school children between the ages of 6 and 8 from 5 countries.

Each eight-minute episode of the animation will cover issues from energy conservation, renewable energies and sustainable transport and will be produced in English and translated into several languages. Finally, the animated film will be available to broadcasters from across the EU for free distribution.

Project YES is unique as it works with children across several European countries to evaluate the content of the cartoon animation during its entire production phase. The school children take part in focus groups and questionnaires to provide the animators with their honest feedback on the characters, concepts and messages. This 'pedagogic evaluation' is coordinated by Explora and local children's museums in each country.

A dynamic teaching pack on the animation will be available for free download in June 2010 for use in the following school year starting September 2010.

The local children museums in the countries are: Belgium: Technopolis, Italy: Explora; Bulgaria: Artland; Ireland: Imaginosity; Poland: ParkMiniatur. Partners: Business Solutions Europe Limited (coord.), UK; WWF European Policy Office, Belgium; REC, Hungary; Explora, Italy; Griffilms Ltd, UK.

Duration: 01.09 2008 - 31.08 2010 http://www.animate-eu.com/yes/index. html, http://www.myfriendboo.com/, http://wwf.panda.org/fr/ wwf action themes/politique europeenne/?uNewsID=163022.



YEP! - Young Energy People INFORSE-member, SWEA, is the coordinator of the School-Workplace Part-

nerships: Teens from 50 schools share their energy-management lessons with community employers in 7 countries

In the YEP project, students of secondary schools (14-18 years old) team up with community employers in a program to train a School Energy Management Team (SEMT) of pupils. The Teams survey the energy situations around them and instigate programs of improvements based on their observations in their schools. With the insights that they gain from the program, they visit a workplace and apply their knowledge to a real-life context. Keen motivations:

- Schools are keen to reach out to their communities, and the opportunity for their pupils to be ambassadors for their schools in work-related learning placements in local businesses is greatly appreciated.
- Teachers welcome the opportunity to teach energy-related issues in real-life contexts and through problem-solving such as this project offers (school- and workplace building case study).
- Managers of schools and workplaces are interested in reducing energy consumption; they also benefit in terms of their social and economic standings in their respective communities.
- Pupils gain practical energy-management skills and hands-on experience applying what they've learned to their own schools and to the workplaces visited.
- -Tools, resource packs, and manuals can be used in the future.

Partners: Severn Wye Energy Agency (SWEA) (coord.), UK; Energy Agency of Plovdiv, Bulgaria; Energieberatung Prenzlauer Berg e. V., Germany; Energy Agency of Crete, **Greece**; Energy Agency of Livorno and Perugia, Italy; Energy Agency of Ribera, Spain; Energy Agency for Southeast Sweden, Sweden.

Duration: 07/11/2007 - 06/07/2010 http://www.youngenergypeople.com.

More information on the IEE projects: http://ec.europa.eu/energy/intelligent/.



29th of June 2010, Brussels: The Prime Minister of Heliosthana - the imaginary Mediterranean island - presents his country's new energy plan.

The idea of the imaginary island Heliosthana was launched at the Spanish European Union presidency conference on the Mediterranean Solar Plan in Valencia in May, 2010. The aim is to show how to make a transition to a completely renewableenergy-based nation.

Fossil fuels are dirty and finite, contributing to ever-increasing global warming and short-circuiting the spread of new energy technologies. Further, supplies to Europe are insecure, threatened by both environmental and geopolitical factors, while energy prices are unstable and cause destabilisation in the society. Also imperative is to identify and implement tangible and immediate solutions to climate change.

In 2010, Heliosthana is highly inefficient in its use of energy while depending significantly on expensive and polluting imported fossil fuels. High costs, uncertainty and multiple crises (fossil fuel price volatility and shortages) are affecting people and companies.

The Heliosthana plan outlines six basic steps that are immediately applicable in most Mediterranean countries and that are achievable in a decade. The plan will radically change the situation of the imaginary country.

Heliosthana is a joint project of the World Wildlife Fund and the Heinrich Böll Foundation.

For more information see:

http://www.boell.eu/web/288-586.html and http://www.panda.org/heliosthana.



"Helios": god of the sun in Greek mythology "Sthana": meaning 'place' in

SPARE in the 2009/2010 School Year and Forward

by Olga Senova, SPARE

50,000 School Children

In total, more than 50,000 schoolchildren from about 3,000 schools participate from 16 countries - Azerbaijan, Armenia, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Macedonia, Moldova, Poland, Romania, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine. Moreover, there are SPARE partners in Portugal, Togo and Mozambique.

Broadened Cooperation, Approval in Belarus and Bulgaria

In the past school year (2009/2010), SPARE NGOs developed educational materials, in cooperation with educational institutions, local authorities, and scientific experts. This broadened the national SPARE school networks in the countries. One of the main successes was the governmental approval of SPARE in Bulgaria and Belarus.

Practical Projects

On the level of education, the priority of SPARE NGOs is promotion of practical projects focusing on energy-saving and local renewable energy sources.

In Kyrgyzstan, the training on "solar barrels" was organised by BIOM NGO for rural residents. In Tajikistan, SPARE NGO "Little Earth" has presented workshops on energy-efficient stoves for individual houses and small rural schools. The Ukrainian, schoolchildren took action to save electricity. In Moldova, the Gutta-club organized a traditional summer camp at which participants constructed "solar showers" and other simple energy devices.

Russia's Climate-Change Awareness

In Russia, SPARE activities were directly connected to raising public awareness of climate change. NGOs in every Russian Federal district have organized information seminars for various target groups on climate-change challenges and low-carbon solutions on the local level. Friends of the Baltic, NGO in St. Petersburg, held the public consultations on climate change, at which ordinary people – teachers, students, workers – developed proposals, addressed to the official delegation to Copenhagen UN climate talks.



Olga Senova from SPARE (right) and Ursel Beckmann, INFORSE-Erope chair

at the SPARE exhibition of the INFORSE's stall at UNFCCC COP15 in Copenhagen.



COP15

At the UNFCCC conference at Copenhagen, SPARE was exhibiting at the INFORSE-Europe stand both at the Bella Center and at the Klimaforum09. The SPARE activity at the stand attracted the attention of many conference participants.

SPARE also attracted many people at its side event at the Klimaforum09, and used the opportunity of the many NGOs presence to hold a coordination meeting.

Most activities were organised in cooperation with INFORSE-Europe's Secretariat and members like the Norwegian Society for Conservation of Nature.

International Competition

"One of the most important SPARE activities, the international competition "Energy and Environment", was announced in 2009-2010 with the slogan "Save Climate With Simple Energy Solutions".

We run it every year, inviting the best works from schools on environment, energy and climate. The works we receive tell about high interest and creativity in solutions addressing environmental challenges linked to energy. More information about competition nominations, rules, etc, please see the web-site.

The 2009-2010 competition attracted thousands of projects developed by school-children and teachers from Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Romania, Russia, Tajikistan, Uzbekistan, and Ukraine. 53 of them were nominated to the international level, and 21 were awarded at the annual international SPARE seminar, which took place in Belarus in the end of May 2010.

The international competition of the 2010-2011 school year will be announced in September 2010 via the web-site and the network of SPARE NGOs. All interested schools are invited to participate.

The deadline for the international competition will be 15 March 2011.

If there is a national SPARE coordinator in your country, then school projects should be sent first to the national competition by, at latest, 15 February, 2011.

November 11, 2010 – Energy-Saving Day Invitation

We invite you to join the SPARE international Energy-Saving Day on the 11th of November 2010. Schools and pupils from many countries will participate, and we invite your school to join as well! On Energy-Saving Day, we suggest that your school and pupils perform one or more of the following activities: Take actions to save energy at home and at schools; write a letter or postcard to local authorities about the need for energy-saving; write an article to a local newspaper about energy-saving; make an exhibition about energy-saving at your school and invite local authorities, press and parents.

More about SPARE at the web-site: www.spareworld.org.



Renovating windows is one of the practical actions of SPARE e.g. in Ukraine, as the old windows only offer meagre protection from the long and cold Ukrainian winters. The aims are to provide the children with a more healthful, supportive learning environment and to attract more attention to low-cost energy-efficiency measures while creating better social and energy-efficient conditions in the school. Such insulation, although inexpensive, can reduce heat loss by about 15%.

Contact to an international volunteer summer camp in Ukraine is on page 11.



Malta Industry Roadmap Released

By Charles Yousif, MEEREA INFORSE member. Malta

The Malta Energy Efficiency and Renewable Energies Association (MEEREA) together with the European Renewable Energy Council (EREC) successfully held a workshop on the Renewable Energy Roadmap for Malta on 12th February 2010, under the IEE project REPAP2020. The point of the meeting was to foster discussions on the National Renewable Energy Action Plan (NREAP), due to be submitted by all EU Member States to the

European Commission by June 30th, 2010.

Following the workshop and based on the studies that were carried out by the REPAP2020 partners, specifically by Fraunhofer Institute Systems and Innovation Research, Karlsruhe and Vienna University of Technology, Energy Economics Group, further consultations resulted in the final document addressing the Renewable Energy Industry Roadmap for Malta. MEEREA has issued a press release urging the Maltese Government to open the door to public consultation before the official NREAP is submitted to Brussels. The Industry Roadmap can be viewed at http://www.meerea.org/repap2020.html Charles Yousif, E:info@meerea.org.



The project, REPAP2020: "Renewable Energy Policy Action Paving the Way towards 2020", is combining the efforts of Parliamentarians and of the renewable-energy industry to move forward to meet the national binding targets of the renewable energy share in each EU country.

The targets are set by the so called "RES Directive": The Directive on the Promotion of the use of Energy from Renewable Sources (2009/28/EC).

The aim is to increase the share of renewable energy sources in the European final energy consumption to 20% by 2020, from around 8.5% in 2005.

The Intelligent Energy Europe (IEE) funded project has empowered national industry associations to come up with their individual national industry RES Roadmaps to influence the drafting phase of the NREAPs.

Download:

- Industry roadmaps: www.repap2020.eu
- Forcast documents of NREAP's:

http://ec.europa.eu/energy/renewables/ transparency_platform/forecast_documents_en.htm .



Renewable Energy Systems: The Choice and Modeling of 100% Renewable Solutions Radical Technology-Change "How-to"

This practical guide describes modeling and simulation techniques to use at the outset of any renewable energy project with the goal of ensuring that the resources available will meet supply demands. A clear, comprehensive methodology is set forth for comparing different energy systems' abilities to integrate fluctuating and intermittent renewable energy sources.

The methodology incorporates a freely available software tool, Energy PLAN, that automates and simplifies the calculations supporting such detailed comparative analysis.

The book further presents concrete design examples derived from a dozen successfully implemented renewable energy systems around the globe. It makes recommendations on the first steps of large-scale integration, focusing on the more immediate issue of conversion rather than on storage technologies.

The idea of this book is to unify the results and to integrate the conclusions of several renewable-energy studies.

It presents key strategies for overcoming the inherent inertia of well-established institutions that seek to reinforce the status quo when confronted with the need for radical technological change.



By Professor Henrik Lund, University of Aalborg, Department of Development and Planning, Denmark.

Published by ELSEVIER, 2010, 296 pages, ISBN: 978-0-12-371528-0. EUR 59.95,

Hardcover, and e-book.

Info: www.elsevierdirect.com/product. jsp?isbn=9780123750280, and

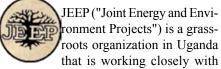
W: www.henriklund.eu

 $E: Lund@plan.aau.dk \ .$



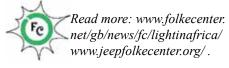
June 2010 - Massive surprise at the speed and amount of support of a Danish Company's marketing campaign in which two INFORSE members are involved: JEEP in Uganda, and the Nordic Folkecenter in Denmark.

In just 3 weeks, 114,000 participants signed up on the "Light for Africa" Facebook page. For every 25 Danes registered, a solar lamp is sent to Uganda. It is part of a marketing campaign of a Danish Company "Energi Nord", by which an INFORSE member organisation, JEEP, buys and distributes the lamps as well as teaches recipients how to use them so that the family gets the best possible return on the lamp.



the Nordic Folkecenter for Renewable Energy to disseminate knowledge about renewable energy technology such as solar cells, energy-saving stoves, and tree-planting.

The project is also promoted by a Danish Zoo in Aalborg, where at the African village site you can have hands-on experience about how is it when 80% of the population in Uganda have no access to electricity and rely mainly on paraffin lamps, made from old tin cans. There at the zoo, you can learn how a solar-cell-powered lamp works by storing the sun's energy during the day, so that the energy can be released as light at night.





ZeroCarbonBritain 2030

By Paul Allen, Centre for Alternative Technology, (CAT), INFORSE-Europe Board member

Launch of a **New Report**

The 16th of June, 2010 saw the UK Parliamentary launch of a new report from the Centre for Alternative Technology -"zerocarbonbritain 2030".

This provides political and economic solutions to the urgent challenges raised by the triple challenges of climate security, energy security and economic security, outlining how we can transform the UK into an efficient, clean, prosperous zerocarbon society. Covering energy, transport, land use, the built environment and industry, the chapters of the report have been written by bringing together the UK's leading thinkers in their field including policy-makers, scientists, academics, industry and NGOs. The document examines ways in which we can meet our electricity and heating requirements through efficient service provision, while still decreasing carbon-dioxide-, methane-, nitrous-oxideand other emissions.

The report opens by examining the current "Context" in the "Climate Science" and "Energy Security" chapters. It then moves on to how the UK can "Power-Down" heat and electricity demand largely through new technology, efficient design and behaviour change.

The "Land Use & Agriculture" section considers the tremendous potential of the land not only to decrease emissions but also to sequester residual emissions. The authors then move on to how we can "PowerUp" through the use of renewable technology. Finally, in the "Framework, Policy and Economics" section, it examines the policy that can help bring this about, pointing out the economic benefits and job creation that will come with it.

This new report is intended to spur discussion and debate amongst the whole of society, demonstrating how greenhousegas emissions could be eliminated completely from a developed society. It is intended to act as a reference point for politicians and policy-makers and can be used as an educational tool to help local community groups and enthusiasts gain broad knowledge of solutions to climate change. In Europe, America and across the world, many organisations are examining how their nations and regions can make a transition from fossil fuels. Please contact us if you know of any similar project.



Download the report free from www.zcb2030.com 385 pages, 6 MB pdf file. Contact:

info@zerocarbonbritain.com

"ZeroCarbonBritain2030" will be presented on the European Tour in Brussels, Paris, Barcelona and Lisbon in September 2010. See details at the events below.

Events - Seminar & Camps - Tours

July 24-25, 2010

4th Ukranian Energy Camp, Vinnytsia region, Ukraine

Lectures and practical reneable energy workshops. Organised by "Greencubator", a new network called "Ukrainian Energy Innovations Network"

More info: Greencubator, www.greencubator.info, and Anatoly Karpyuk, REB, INFORSE member organisation, Rivne, Ukraine, E: karpjuk@ukr.net.

July 12-16, 2010

International Seminar: Sustainable **Energy Potential in South Europe, Solta** Island, Croatia

Organised by FoE Croatia/Zelena Akcija, INFORSE member organisation. INFORSE-Europe is participating. More info: http://zelena-akcija.hr/en.

August 2-15, 2010

International Volunteer Camp to Renovate Windows at a School, Ukraine

Organised by INFORSE member Ecoclub in cooperation with the Ukrainian Association for Youth Cooperation "Alternative V". See article on page 9.

More information: Andriy Martynyk, andriymartinuk@gmail.com. Ecoclub: http://ecoclub.ukrwest.net/. October 5/6-8, 2010

International INFORSE-Europe Sustainable-Energy NGO Seminar, Wales Institute for Sustainable Education (WISE) at the Center for Alternative Energy, (CAT), Wales, UK

In the program:

- Guided Tour of CAT's 7-acre visitor complex visited annually by 60,000 people, and real life applications in the local area including introduction to the "Dyfi UN Biosphere"
- Sessions on best practices, limits to our energy resources, the current EU energy policy agenda,
- Wokshop constructing of working models to demonstrate renewable energy
- Discussion on future NGO cooperation for sustainable energy, including sustainable energy visions.
- On Tuesday, 5/10, a Lowcarbon Society Network seminar will be open to all seminar participants.

Program and Registration at:

More: http://www.inforse.org/europe/ seminar2010 CAT.htm.

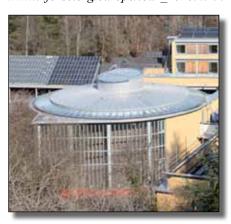
The Guided Tour of CAT will feature the new state-of-the-art educational facilities of the Wales Institute for Sustainable Education (WISE), including a 200-person rammed earth lecture theatre and hemp/lime walls.

September 8-10-13-15, 2010 Brussels, Paris, Barcelona and Lisbon Zero Carbon / Sustainable Energy

Transition Tour 2010

INFORSE Europe presents a range of scenarios this September in Brussels, Paris, Barcelona and Lisbon to researchers, policy makers and NGOs to spur discussion and debate on how greenhouse-gas emissions could be eliminated completely from a long-industrialised society. It is also intended to reach those interested in developing such research for their own area, sharing details on approach and methodology. Among the scenarios will be the new Zero-Carbon Britain and INFORSE-Europe's European sustainable energy vision.

Read detailed programme at www.inforse.org/europe/tour 2010.htm.



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July 8, 2010 IRENA Fully Established

Now 25 countries have ratified the International Renewable Energy Agency's (IRENA) statute.

It will enter into force on July 8, 2010 and the Agency will then become a fully fledged international organisation.

IRENA Seminar June 14, 2010

As one of its first public activities, IRENA was involved in a seminar, "New Dynamics for Renewable Energy in Africa", on June 14, 2010 in Berlin.

The seminar focussed on IRENA as well as on the Africa-EU Energy Partnership. Participating from INFORSE were Ursel Beckmann, chair of the board, INFORSE-Europe, and Ibrahim Togola of the Mali Folkecenter.

Island of Tonga

On June 24, 2010, IRENA and the island state of Tonga celebrated the cooperation and development of the Tonga Energy Roadmap. This will lead to 50% reduction of fossil-fuel use on the islands by 2020, replacing fossil fuels with renewable energy.

Preben Maegaard at Strategic Council

IRENA is now creating a Strategic Council to which the Nordic Folkecenter's director Preben Maegaard has been appointed a member; the Folkecenter is a founding member of INFORSE.

Preben and the other Council members will help to formulate IRENA's strategy for the coming years and will help put together its first board of directors.

See: http://www.irena.org and http://www.venro.org/venro_irena.html.



1,000 Contacts

- Online Global Database

Check your organisation! Corrections are Welcome

www.inforse.org/regions.php3

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Sustainable Energy News

INFORSE South-Asia CD Manual on Solutions Using

Sustainable
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



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