



material. Information and ideas must be gathered in a ready-to-use format.

So, now, we made some materials that gathered the most popular ideas:

- A basic energy course book for 11-to-12-year-old pupils, with a lot of eye-catching drawings. When children finish the course, they get an energy diploma and a badge.
- A collection of experiments with energy with 1 page for each experiment which can be copied for each of the children in the class.
- A planning tool for teachers on the Internet and on a CD-ROM, including relevant shareware programs.

Using Teachers' Network

There is a lot of interest in these offerings. Until recently, though, knowledge of the Schools' Energy Forum and of its resources wasn't spreading very quickly. So, a close co-operation was initiated with the Museum of Electricity, which created an Energy Teachers' Network. One teacher from each school was to be the school's conduit for new energy materials and offers, provided that he/she would promise to pass on the information to interested colleagues. The "Energy Teachers" can also win access to special arrangements at the Museum of Electricity with a class and are sometimes offered free materials for energy education. In Denmark, it is a problem that there are too many brochures etc. trying to catch the attention of teachers, so if it doesn't come to the relevant person at first, it will probably not come at all. So the Energy Teacher Network has turned out to be a success. 3 months after the using the Network, 450 primary schools got involved. There are about 2500 primary schools in Denmark.

Teachers, Children Find Fun"

Schools' Energy Forum in Denmark

The Schools' Energy Forum is an ambitious, NGO-initiated project started up in Denmark. It gives an exciting option for teachers and children who are also communicating through the Internet. Get an insight how it started, what were the problems and what are plans for the future.



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and inspiration through the Internet as well as through a network of contact persons. But, to reach this point, the first thing to do was to present the ideas to a number of relevant organisations. The organisations asked were mostly very interested, and the most relevant joined the Steering Committee. There were Steering Committee meetings every 2-3 months, until consensus was reached on the strategy. All ideas still had to be worked out thoroughly, and the money to be found within existing systems.

The next step was to get an overview of existing materials and offers related to energy education. Many organisations etc. had offers and many materials were made, but there was no co-ordination.

There was a lot of discussion about how much to use the Internet and about whether the teachers would use it. The agreement was to make things for Internet access, but to pursue more traditional means as well. Today many teachers use the Internet, and about half of the letters for the Schools' Energy Forum come through the Internet.

The first offers made by the Schools' Energy Forum were the databases, links to homepages, and a network of contact persons for the teachers and students. To raise awareness of energy-related and environmental topics, posters and wall calendars were made and sent to the schools. It showed that mainly the very interested teachers reacted. The main problem was that the teachers needed substantial time to prepare the educational

How did it start?

The objective of the Schools' Energy Forum (SEF) was to promote energy and environmental education in the Danish schools. SEF was initiated in the beginning of 1997 by Danish NGO organisations, specifically, by the Organisation for Renewable Energy (OVE) and by the Forum for Energy and Development (FED). Both organisations are members of INFORSE.

The idea was to join the technical knowledge of the energy and environmental organisations with the expertise of the educational organisations. There was quite a lot of interest from teachers' side. The energy organisations were interested because they acknowledged the importance of education if the environmental situation is to get better. The Ministry of Education was also encouraging to include it in the educational plans.

Now, in year 2000, the Schools' Energy Forum (SEF) has produced various materials for use in schools. The SEF has also made it possible to get information

Photos on this page:
Children experiment with energy in a Danish School.

Photos by: Kaare Albrechtsen, OVE, Denmark.





Photos on this page:
Hands-on exercises
with energy in Thai
schools.
Photo by: Kaare
Albrechtsen, OVE,
Denmark.

Next Steps

Now, we are planning the next step, which is to integrate the offerings more closely with the educational and technical environments. Because of this, the main office will move from the Danish Organisation for Renewable Energy (OVE) to the Teachers' Innovation Center. An energy education house has been set aside at the Center; school classes come to it for one-day courses. In this way, the Schools' Energy Forum has daily contact with energy education. Around the country, the 20 Energy and Environmental Offices will be the centers for the teachers/students that want personal instruction. These offices are already offering advice to the public, but in the future they will receive more organised support from the Schools' Energy Forum, and they can focus more on presenting advice to children as well.

In the spring of 2000, the Schools' Energy Forum is going to offer a school camp. This is done with the Museum of Electricity and the Folkecenter for Renewable Energy. If it is a success, it will hopefully be made a permanent programme.

One of the ambitions of the Schools' Energy Forum is to promote energy and environmental education via other subjects besides the traditional technical ones. This would mean that, e.g., history and geography would teach some of the energy and environment aspects. This idea, however, is still in its early stages.

The Schools' Energy Forum, along with the English Energy Education Forum, is trying to make a European Energy Education Forum (EEEF). The idea is to create a kind of contact agency, where teachers, students etc. can get in touch with interested teachers, students etc. in other countries that are working with energy and the environment. The main information point is going to be a homepage, which will include databases of contacts, teaching materials and newsletter.

Funding

The Schools' Energy Forum has received economic support, among others, from the Danish Ministry of Energy and Environment, and Ministry of Education, Green Foundation, EU's ALTERNER program.

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School Energy in Thailand

Built on the experiences from the Danish activities, the Schools' Energy Forum got involved in promoting school activities in Thailand. Three networks were made with around 10 schools in each. Representatives from the schools meet frequently to exchange experiences about energy and environmental education. The project office has made some offers for the energy education of these schools:

- A "mobile unit", which is a redesigned delivery van. The van runs on plant oil, and has solar cells for the electrical equipment, which is a video and television for educational videos and a computer for energy-education CD-ROMs. The teachers in the network can borrow the van when doing energy courses.
- "Hands-on exercises", which require equipment to use for experiments, along with explanations. The experiments involve solar hot water, solar cells, vegetable oil fuel, energy-efficient light, and an energy-saving stove.
- "Courses for teachers", where the teachers are showed how the hands-on exercises work.

Presently, an energy game is being tested for use. The main purposes of the game are to make the students think about the consequences of what they are doing and to try to build up a team spirit about doing something for the environment.

You can read more about this Thai-Danish co-operation project in the previous issue of Sustainable Energy News.



Active and Interested Teachers?

The policy of the Schools' Energy Forum has always been to make it easy for the teachers. But teachers are of course individuals, so their needs vary. On the energy issue, it seems that there are three main groups: a small group of very active and interested teachers; a small group of teachers that was absolutely not interested; and a big group who thought that it was quite important and interesting, but didn't really feel that they could handle energy education. One of the ideas of the Schools' Energy Forum was to gather input from the first group and to pass it on to the third and major group of teachers.