Grasping Climate

A travelling exhibition about the climate change and what we can do to prevent it
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Grasping Climate

A travelling exhibition about the climate change and what we can do to prevent it.

The average temperature on Earth is rising – what is going on with the climate? How does this affect me? These questions were the starting point when Teknikens Hus created the exhibition “Grasping Climate”

In the exhibition the visitor learns about the background to the increased greenhouse effect. In 100 years time the average temperature on the Earth might rise as much as 6 degrees C. The result can be both drought and floods and extreme heat and cold. But there is hope! The exhibition shows actions we all can take in our everyday lives to reduce the climate change. The visitors can also explore renewable energy sources.

The following pages describe the exhibition contents.
Day and night on the Earth

Slowly rotating satellite images projected on a sphere shows the Earth day and night. The night-light image displays clearly where on the Earth the most energy is used.

The greenhouse effect

The Earth in a slightly leaning greenhouse illustrating the delicate balance of our ecosystem. Text panels with facts about the greenhouse effect and what can happen if the balance is disturbed.
Energy transformation

Crank the weight to the top of the tower. The chemical energy in your muscles transforms to kinetic energy, electricity, light and finally heat.

The sun

The Sun is the source of all energy and all life on Earth. A screen with a solar movie shows the energy of the enormous flares. A scale model Earth gives a perspective of the huge difference in size between the Earth and the Sun.
Maze game

Pilot the Earth through the maze and avoid the fossil fuels pitfalls! On the way run safely over the covered holes representing renewable energy sources.

Ecosystems

Three airtight glass canisters contain each a small working ecosystem with soil, plants and water.
Fuel cell

Fuel cells can be used to power electric motors in cars and buses. This exhibit displays a working fuel cell model and shows that the exhaust from the bus is only water.

Hydro electric power

Crank up the water container and release the water onto the turbine. The height of the container determines the energy output from the generator. The exhibit shows the principle for hydroelectric energy and the importance of the head of a water power station.
Wind power

Create wind by pedalling the fan in the acrylic cylinder. The wind gives energy to a wind turbine that powers the lamp in the doll house. The more wind, the more lamps lit.

Wave power

How can waves make electricity? Create waves by cranking the handle. Study the propeller.

Solar heater

On a small roof a full scale solar heater panel is mounted. The panel is connected to a hot water storage tank. On top of the tank the water pours from an “impossible” tap.
Solar cells

Light the "sun" by pressing the start button. The solar cell powers a lighted text panel where pictures and graphics describe how solar cells are used in large-scale installations.

Transportation energy efficiency

Compare train, airplane and car regarding energy efficiency. Compare energy for the same distance or distance for the same amount of energy. The red columns follow the vehicles and show the energy consumption.
What if…

Make an environmental pledge at this exhibit. Make your choice in one or more of five everyday situations and put your pledge stone in the tube. Your pledge might be a drop in the sea, but the sea consists of drops! Your actions count!

Pellet production

Make you own pellets in the press. If you like, bring them home in the small paper bag. The bag equals 1 kWh.
Energy contents

Display of the difference in energy contents between firewood and wooden pellet.
Slide show and bench

A slide show with sound effects about the climate, human impact and the dream about a sustainable world. The slide show is 16 minutes and replays automatically. The bench is upholstered in water-repellent fabric and consists of two parts that can be placed in different positions.

Signs and symbols

Weather symbols to be hung in the exhibition.
Sheep sign for movie entrance.
Drama and movie room

In the room is played “The Climate Change Show”. It is a 17 minutes fun and educational movie with a couple of sheep as leading characters. The movie deals with the climate change and what we humans can do about it. The movie is produced by Science North, Sudbury, Canada.

To the room there is also a script for the drama and the necessary props.

The room is flexible and made up by 35 panels. Six benches seating 12 persons are included.

A perpetual motion machine is part of the props and can be used as an exhibit as well.
**Text panels**

Text panels in two languages; Swedish and English. Text panels will be translated and redesigned according to needs at new venues.

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**Introduction panel**

Acrylic introduction panel in Swedish and English with introductory text and displaying project partners and sponsors. Text will be adapted for new venues.

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**Klimatgreppet - en solskenshistoria**

Temperature on Earth is rising and the climate is changing. What can we do?

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**Klimatgreppet en solskenshistoria**

Temperaturen på jorden stiger och klimatet ändras. Vad kan vi göra?

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**Fyll behållaren med vatten. Veva upp den och låt vattnet driva turbinen.**

Det går att utvinna energi ur vatten genom att först lägra det i stora dammar. Vattnet får sedan fälla genom en turbin som drivs av en generator.

I generos område används vattnets rörelseenergi till elektrisk energi.

Vattenkraften är en förnybar energikälla, men medför alltid ett stort ingrepp i naturen.

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**Fill the tank with water. Crank it up and let the water flow through the turbine.**

Water is stored in large reservoirs. At a hydro power station, the stored water is allowed to fall through a turbine. The turbine drives a generator which transforms the kinetic energy from the falling water into electric energy.

Hydroelectric energy power is renewable, but always makes a big impact on the environment.

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14:15
Information for venues

Floor space and ceiling height
Floor space 200-300 m². Ceiling height required 3.50 metres.

Marketing materials
Digital file for poster layout and advertisement included.

Electricity
Electricity 240 V.

Lighting
Lighting for solar cell, solar heater and fuel cell exhibits included. Lighting for drama/movie room included. Other lighting not included.

Insurance
The venue is responsible for insurance of the exhibition during the time of display to a value of SEK 2 000 000 (€ 220,000).

Mounting/Dismantling
Technician from Teknikens Hus will be responsible for mounting and dismantling of the exhibition. The cost for this will be included in the rental contract. The venue is responsible for supplying 1 person to assist with this work. Estimated time for mounting 5 days; dismantling 4 days.

Rent and conditions
Contact travelling exhibitions coordinator Anna Almqvist. Minimum rental time 3 months.

Transportation
Transportation cost not included.

Booking and information
For more information and reservations, please contact Anna Almqvist, Teknikens Hus, SE-971 87 LULEÅ
Phone: +46 920-49 22 86
E-mail anna.almqvist@teknikenshus.se

See also http://www.teknikenshus.se/english/exhibitions/consult/index.html