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## Water desalination through the sun - International guests are surprised

Wierthe. Countries like Saudi-Arabia and Malaysia cannot complain about missing oil- and gas reserves. But their shortage relates to technological knowledge about wind- and solar energy. Therefore visitors from these countries arrived in Wierthe and were shown water desalination equipment powered by solar energy.

Members of the "International Research Center for Renewable Energy" (IFEED), welcomed Environmental Expert Abdulslam A. Al Rewaished from Saudi-Arabia and Professor Thamer Ahmad Mohammad of Engineer Science, University Putra, Malaysia.

IFEED director Professor Nasir El Bassam introduced to both guests a desalination module, powered by solar. "Normally, these modules are oil- and gas powered," the director explained. Out of 100 liters of water, one could receive 30 to 40 percent drinking water. "Countries with an average temperature of 30°C, the model should produce daily 160 liters, and at 20°C it would be 128 liters drinking water", El Bassam added.

This means, the countries of the guests could produce more water, than in Germany. "This equipment could be very important in these countries", emphasized the IFEED director.

In Germany, renewable energy production amounts up to 12 percent, in Saudi-Arabia up to 0.5 percent and Malaysia 1.0 percent. "In these countries it's always warm; they have great potentials", El Bassam said; the guests agreed. Environmental Expert Abdulsalam A. Al Rewaished presented around 10 percent of renewable energy as a goal for 2020. "We want to learn from the Germans", he pointed out.

That's the key, learning. In the near future, a cooperation agreement with central points of technology sharing, training opportunities and joint projects will proceed.

"We have a training center right here, and we have the workplaces and the experts", emphasized Frank Ziegler, manager of the "Solar- and Haustechnik". Also Mr. Ralf Werner from the City of Vechelde and IFEED vice-president Jürgen Mandel participated in the visit at the Solar Park.



Viewing the Desalination equipment, powered by solar energy (from the left):

Frank Ziegler, manager of the "Solar- and Haustechnik", IFEED director professor Nasir EL Bassam, Professor Thamer Ahmad Mohammad, University Putra, Malaysia, Environmental Expert Abdulsalam A. Al Rewaished from Saudi-Arabia, IFEED Vice-president Jürgen Mandel and Mr. Ralf Werner from the City of Vechelde.

## Malaysians visited solar farm research center for renewable energy established in Wierthe.

In the field of renewable energy development Germany is in an advanced stage. In Wierthe, the site of a former sugar factory has been upgraded into a solar park. The International Research Centre for Renewable Energies in Germany led by Prof. Dr. Nasir El Bassam hosted yesterday a delegation from Malaysia which was interested in the solar farm at Vechede.



Photo: During the tour of the solar park Wierthe (from left): Frank Ziegeler, Professor Nasir El Bassam, Professor Thamer A. Mohammad, Abdul Salam Al Rewaished, Ralf Werner and Juergen Mandel.

**Wierthe.** "While we use the solar energy mainly for heating and electricity generation, in Malaysia it can serve as the production of drinking water," said El Bassam. To meet the demand for water in Malaysia is currently gained through sea water using oil-and gas-powered machines.

"This is a different way," added Frank Ziegeler, managing director of Ziegeler Solar and Building Services and referred to a special collector of a company from Grasleben, which is currently being tested on the site of the Solar Park. "This collector heats salt water by solar energy, water vapor rises, condenses and the now salt-free water is collected in a container."

Professor Dr. Mohammad A. Thamer of the Faculty of Mechanical Engineering, University Putra Malaysia and Abdul Salam A. Al Rewaished were impressed: "We can still learn a lot from the German technology and implement them in Malaysia. Our technology of renewable energy is not yet well advanced.

Frank Ziegeler added: "Only one percent of the energy produced in Malaysia comes from renewable energy sources; in Germany, there are up to twelve percent." For this reason, currently, a cooperation agreement negotiation is being established for technology sharing, training opportunities and joint projects.