

# GREEN TECHNOLOGY & ENVIRONMENTAL ETHICS



*Together for Sustainable Future*

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A historical painting depicting a bustling industrial city. The scene is dominated by numerous brick buildings and tall, dark smokestacks that release thick, billowing clouds of dark smoke into a hazy, overcast sky. In the foreground, a dirt road is busy with activity; several teams of horses pulling carts or wagons are visible, along with people walking. The overall atmosphere is one of intense industrial activity and environmental impact.

**Due to Rapid  
Industrialization  
And  
Urbanization  
Toxic  
elements are  
released**

**15000** Days to the end of oil

The Arctic is caught in a dangerous process that man cannot reverse.

This year was the warmest Arctic summer in 400 years.

The Arctic ice is melting at a dangerous speed and may completely disappear by the end of this century.

# Global Warming

**151,856** Days to the end of coal

This means there may be no ice at all during the Arctic summer of 2060.

Less sea ice means the Earth cannot reflect the sun's rays.

**60600** Days to the end of gas

Arctic Circle is melting so quickly that it may never recover.

The image is a composite of three futuristic scenes. The top left shows a wireframe human head in profile against a background of blue digital data points. The top right shows a futuristic train station with a train and people. The bottom half shows a close-up of a computer keyboard with a blue glow. The text is overlaid on these scenes.

What is the next  
Technological Revolution  
To over come  
Present situations

???



**GREEN**



**TECHNOLOGY**

got a **bright idea?**  
bring it out of the lab  
and into the world

GREEN TECHNOLOGY  
ENTREPRENEURSHIP ACADEMY

July 6 - 10, 2009  
Tahoe Center for Environmental Science



# WHAT IS GREEN TECHNOLOGY?



- Mitigates or reverses the effects of human activities on the environment



- Green technology includes:

- Environmental Sciences
- Green Chemistry
- Electronic devices



# WHY DO WE NEED GREEN TECHNOLOGY?

- Rainforests -----> depleting
- Fossil fuels -----> depleting
- Polar Ice Caps ----> melting
- Crazy ideas -----> reality
- Sustained living



# A WAY OF LIFE.....

eco  
ideas



# GOALS OF GREEN TECHNOLOGY

## 1. REDUCE

- © Fuels
- © Waste
- © Energy consumption
- © Using clean water



The top of the slide features a green background with a lighter green circle on the left side. Below this is a white horizontal band containing the title text.

# **ALTERNATIVE SOURCES OF ENERGY**

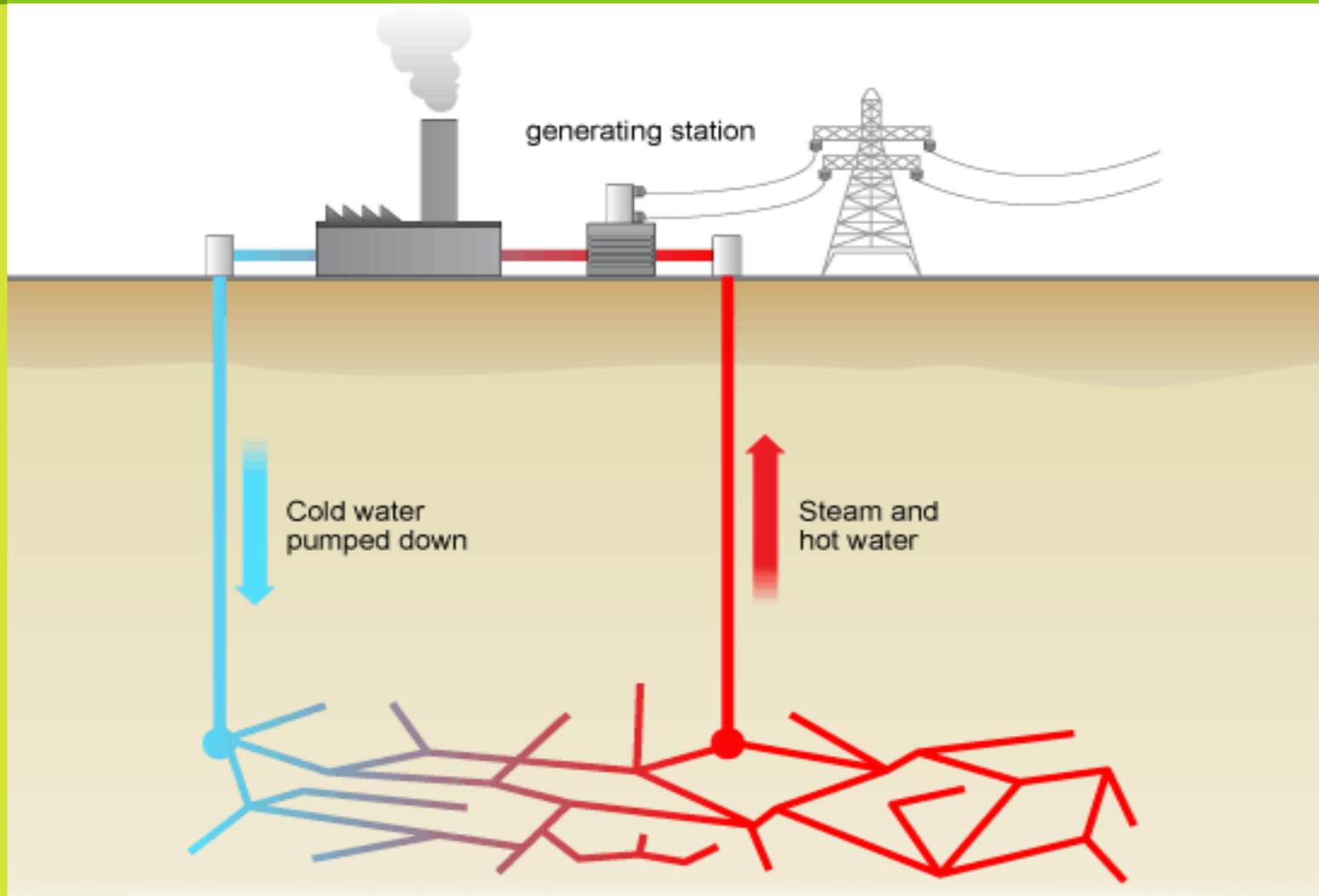
# ENHANCED GEOTHERMAL SYSTEMS



Heat energy harvested from core or mantle

- Objective -----> Produce Electricity
- 
- Located in areas with thin crust close to the Mohorovicic discontinuity
- Process:
  - Pipes ensure the direction of cold
  - Due to high temperatures, Water transforms into steam
  - Steam enters into the power plant

# ENHANCED GEOTHERMAL ENERGY



# Nano Solar Energy

Discovered in

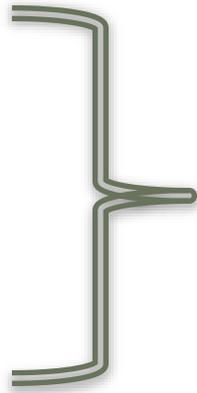
**2004**

“On a bright, sunny day, the sun's rays give off approximately 1,000 watts of energy per square meter of the planet's surface. If we could collect all of that energy, we could easily power our homes and offices for free”

# NANO SOLAR FOILS

- Costs reduced from \$3 per watt to 30 cents per watt

- Copper
- Gallium
- Indium
- Selenide



Good  
Conductors of  
heat



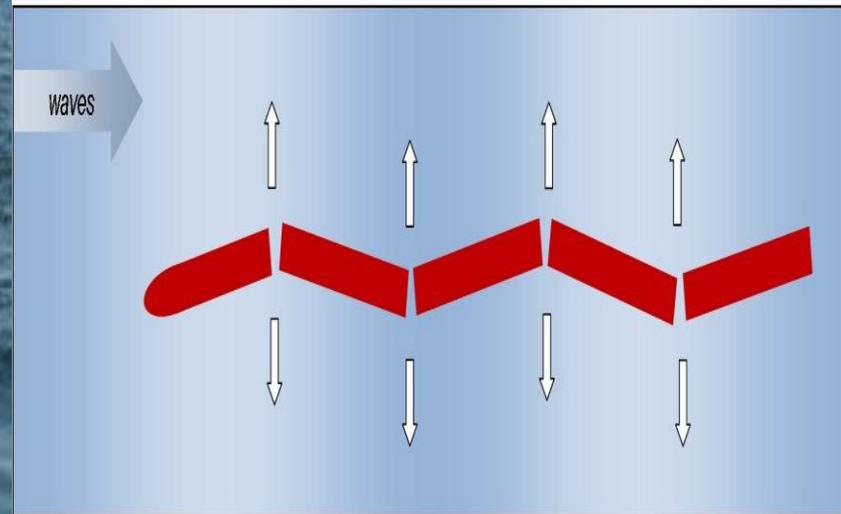
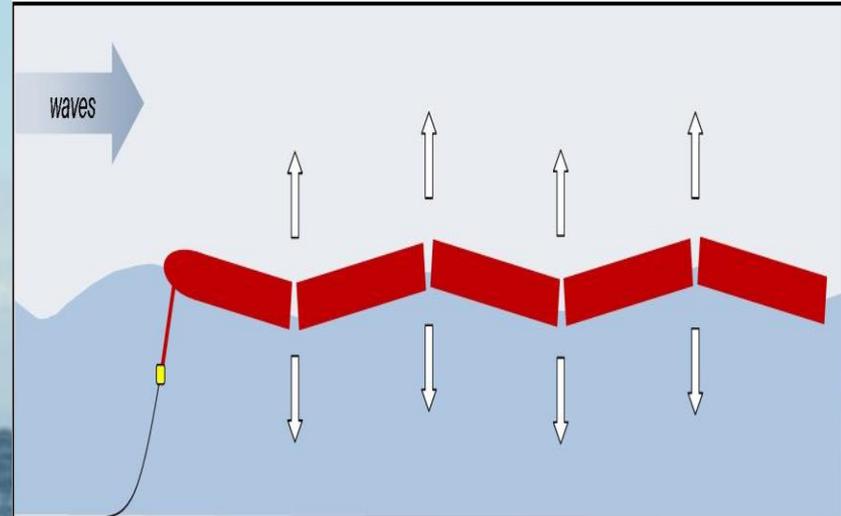
# WAVE POWER

- ❖ Waves are generated by the wind as it blows across the sea surface.
- ❖ Has potential to be one of the most eco friendly forms of energy
- ❖ It is a clean and renewable energy source and its potential is huge.
- ❖ 2700 GW Of Power is generated

5

# WAVE POWER

Pelamis  
Wave  
Energy  
Converter



# GOALS OF GREEN TECHNOLOGY

## 2. RECYCLING

- ◎ Metals
- ◎ Paper
- ◎ Plastic
- ◎ E-Waste
- ◎ Clothing



# GOALS OF GREEN TECHNOLOGY

## 3. RENEWING

Sewage  
water  
treatment  
and  
Water  
Purification

- Removal of :
  - Chemicals
  - Toxins
  - Dead or decayed organisms
  - Excreta
- Contains many processes like :
  - Sedimentation and Decantation
  - Filtration
  - Coagulation
  - Purification

# GOALS OF GREEN TECHNOLOGY

## 4. REFUSE

- Refuse the Use Of Plastic Bags

- Refuse Energy Wastage





# GOALS OF GREEN TECHNOLOGY

## 5. RESPONSIBILITY

Ecosystems,  
once  
destroyed,  
cannot be  
retrieved.

- Don't waste electricity
- Don't waste
- Don't waste fuel
- Don't waste food



**INDIA'S  
STATUS  
QUO**



# GEO THERMAL ENERGY IN INDIA

- ① Chhattisgarh , Gujarat, Maharashtra , Orissa , Chandigarh and Andra Pradesh.
- ① First to come in Chhattisgarh
- ① Has a generating power 1100 MW

# TIDAL ENERGY IN INDIA

- ⊙ India has a potential of 8000 MW tidal energy
- ⊙ Gujarat signed a memorandum with Atlantis Resources Corp.
- ⊙ They plan to build a tidal power farm with capacity of 50 MW
- ⊙ The location will be at the Gulf of Kutch
- ⊙ The Gulf of Kutch → area of 7300 sq km.  
→ depth of 30m



# NANO-SOLAR ENERGY IN INDIA

- ⊙ Not yet in India
- ⊙ No signs of plans also

# ENVIRONMENTAL ETHICS

TO BRING GREEN REVOLUTION INTO ACTION and  
RULEBOOK OF IMPLEMENTATION OF ANYTHING  
RELATED TO THE ENVIRONMENT

Save the Earth for our Future generations.....



**Thank you  
For watching A  
Green  
Presentation**

