

the Smithsonian Institution's scientific research. Neither the Smithsonian Institution nor the National Museum of Natural History supports or endorses the views of the Discovery Institute or the film."

Kremer said the events staff people who originally screened the film "vetted it in the narrow terms of avoiding things that are political, commercial, or religious and, based on those grounds, there wasn't a basis for turning [the Discovery Institute] down." The second review, by the museum director, was on the broader and more basic criterion that "anything that occurs in the museum has to enhance the mission of the Smithsonian," Kremer said. "In the future we will use the broader criteria."

The screening itself was attended by about 200 people and concluded with a question-and-answer session between the audience and the two Discovery Institute fellows who are featured in the film, Iowa State University astronomer Guillermo Gonzalez and Jay Richards, an institute vice president with a PhD in philosophy. "I was very happy about how it turned out," said Gonzalez. "We had to limit the audience to a size the hall of gems could handle for the reception. There was enthusiastic applause."

Gonzalez is unusual in that he is a working scientist who has allied himself with an organization that most major science societies hold in low regard. Asked about the reaction among

his colleagues to his work on the film and the book that preceded it, he said, "They've been pretty silent. One of them said he is a skeptic, but that he liked the film. He didn't agree with everything in it, but he liked it."

Gonzalez says in the film that his viewing of a total eclipse of the Sun prompted a search that led him to conclude that "the universe is designed not only for life, but also for scientific discovery." Gonzalez said he was "surprised by the reaction of the science organizations, especially the AGU [American Geophysical Union]. Some of the comments were over the top, overheated rhetoric."

AGU officials not only signed the general letter asking the Smithsonian not to show the film, but issued a separate statement saying, "The film fosters the idea that science should include the supernatural. This is unacceptable. AGU's position is clear, creationism is not science."

Ordinary scientist

What he is doing isn't creationism, Gonzalez insisted. "Linking intelligent design to creationism is a political statement. I'm an ordinary scientist who has come up with these ideas [of intelligent design]. I'm looking for evidence of purpose in the universe. I agree that that is controversial, but we didn't start out with the assumption of design. We looked at the evidence in nature. Our evidence of design doesn't start with the Bible."



Gonzalez

In Tulsa, the zoo's board first voted to include a creationist display in answer to the complaint about the elephant-headed Hindu god and another display creationists considered religious, then reversed itself. The Georgia warning-sticker case will be resolved by a federal court ruling within the next several months. In Kansas, science is "still under siege," according to the NCSE. The final form of the proposed science standards scheduled for a vote in September remains unclear.

Then there is the legislation introduced in the South Carolina legislature that is based on antievolution language that originally was part of the No Child Left Behind bill. The antievolution language was eventually stripped from the federal bill. The South Carolina bill, whose author wants students to be taught "more than Charles Darwin's theories of evolution," will top the agenda when the legislature reconvenes in January.

In Pennsylvania, a house subcommittee on basic education just concluded hearings on a bill that would allow school boards to include intelligent design in their K-12 science curriculum. The hearing was held as lawyers prepared for a trial over an order by the Dover Area School District in Pennsylvania that intelligent design be taught in biology classes as an alternative to evolution. Eleven parents challenged the order and the trial is set for September.

As NCSE's Branch noted, it has been a very busy year in the evolution wars, and indications are that the battles will heat up even more in the coming months.

Jim Dawson

GE Makes High-Profile Pledge to Green Up

From fluorescent light bulbs to power stations, General Electric is betting on profits from energy-efficient and environmentally friendly products.

Green is green—good for the environment and good for the bottom line. That's how General Electric CEO Jeff Immelt describes "ecomagination," an initiative launched by the company this spring.

In going green, GE joins a growing trend in industry. At the 2000 World Economic Forum in Davos, Switzerland, for example, business leaders ranked global warming as the most pressing issue of the new century. "GE may not be the first, but they are certainly the 800-pound gorilla in this in terms of what they can do," says Bernie Bulkin, former chief scientist at the BP energy company and a member of a group that advises the UK

government on sustainable development issues.

Ecological imagination

GE's new initiative includes a pledge to more than double the company's investment in environmentally friendly products and energy efficiency from \$700 million to \$1.5 billion a year by 2010, a hike from 25% to 35% of total R&D spending. GE also says it will double annual profits from such products to \$20 billion by 2010 and cut its own greenhouse gas emissions by 1% by 2012. Based on projected growth, the company estimates that without countermeasures its emissions would grow by 40% in that time. Headquar-

tered in Fairfield, Connecticut, GE creates about a third of the world's electricity and is one of the world's largest publicly traded companies.

"An absolute reduction [in greenhouse gas emissions] by GE is a good step," says MIT's Ernest Moniz, former US Department of Energy undersecretary. "You'd hope that 1% will be followed by 20% in 2020, but you have to be realistic." And the reality, he says, "is that the ship is too big to turn. Speaking globally, the best you can do is level off emissions in the next 20 or 25 years, and then reduce." GE's multipronged plan to cut its emissions includes converting a manufacturing center from coal to gas, using methane from landfills as an energy source, employing the company's own energy-efficient technologies, and trading emission credits.

Photovoltaic roof panels for solar energy collection (below) and the H System gas turbine (right) are examples of General Electric's push to create green products.



GENERAL ELECTRIC

ergy R&D is "going through the screening process and trying to become a product of ecomagination," she says.

With unsolved hazards of proliferation, waste, and security, environmentalists generally do not see nuclear energy as advantageous. They also note that GE's environmental track record is not unblemished. By dumping hazardous waste, the company has created many Superfund sites. One is a 300-km stretch of the Hudson River in New York state, which is polluted with more polychlorinated biphenyls than anywhere else, says Patricia Daly, executive director of the New Jersey-based Tri-State Coalition for Responsible Investment. Although the PCBs were dumped legally, Daly says that GE's record on cleaning up has given it a "black eye in terms of credibility."

Still, on climate change, GE's initiative is winning widespread applause. Just two years ago, company shareholders filed a resolution asking GE how it was responding to regulatory and consumer pressure to address climate change. Around the same time, GE scored at the bottom of the heap in a ranking of 20 international companies on corporate governance response to global warming. "We are updating our checklist," says Doug Cogan of the Investor Responsibility Research Center in Washington, DC, who undertook the ranking for Ceres, a coalition of environmental groups and institutional investors. "There's no question they'll come out better this time."

Toni Feder



GENERAL ELECTRIC

Jeff Immelt,
General Electric CEO.

Energy, water desalination, and advanced materials are key ecomagination categories. Among the products GE has gathered under the new umbrella are coal gasification systems, offshore wind turbines, natural-gas turbines, diesel-electric hybrid locomotives, photovoltaics, low-toxicity materials, and household appliances such as washing machines and light bulbs.

Sending a signal

The company's research center comprises some 2500 researchers at labs in China, India, Germany, and Niskayuna, New York. Since the May launch of ecomagination, says GE's Ed Hall, an R&D manager in the physical sciences, "probably the biggest impact that I've seen has been that . . . people who come in for interviews say, 'I've heard about this, and I'd like to work on wind turbines.' It's apparently had an effect on the university community and gotten people excited about things they may want to work on." In-house, he adds, ecomagination has also "excited passions." GE denied PHYSICS TODAY's repeated requests to interview its scientists.

"The overall trend at the research center has been toward more risky stuff, long-term goals," continues Hall. "The hydrogen program is a prime example. There are not a lot of hydrogen-based products out there now." GE is studying production, stor-

age, distribution, and applications of hydrogen energy.

For the most part, though, ecomagination is a repackaging of pre-existing activities. "GE has always been committed to minimizing consumption of fuel and reducing emissions," Hall says. Ecomagination, he adds, is an intensification of that effort within the company.

"Identifying and naming their corporate strategy for the public and policymakers is extremely significant," says Alan Noguee, energy program director at the Union of Concerned Scientists. "It sends a clear signal that one of the biggest companies in the world is taking global warming seriously and finding ways to profit." Adds Moniz, "Ultimately, it's about the customers in terms of carbon control, and about what technologies are bought and deployed."

Getting past pollution

Perhaps to avoid controversy, nuclear energy R&D is not under the ecomagination rubric, at least for now. But in launching the initiative, Immelt said "nuclear is emissions-free" and added, "I agree with [President Bush]: It is unrealistic to imagine America's energy future without this proven, clean, safe, domestic resource." The company will invest \$400 million to \$500 million in developing a new boiling-water reactor, according to GE nuclear marketing communications manager Claire Zurek. Nuclear en-

Deal Puts ITER in Europe, Compensates Japan

A protracted impasse over where to site ITER was broken on 28 June, when the six partners in the international experiment to prove the feasibility of generating energy by fusion announced it would be built in

Cadarache, France. China and Russia had supported that site, put forward by the European Union (EU), while South Korea and the US had backed Japan's proposed site, Rokkasho.

Japan conceded because it "really