Efficient business

City's chief 'green' official blends his background in electrical engineering with his drive to save money and solve problems

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Cris Eugster, Houston's officer of sustainable growth, helped acquire solar panels for the roof of the City Hall Annex building because the panels will save the city money.

The city's chief officer of sustainable growth is far from your stereotypical "green" activist. Cris Eugster does not belong to the Sierra Club or the Audubon Society. He has no background in environmental science or policy or politics. He is a clean-cut electrical engineer who spent years as a McKinsey consultant, jetting around the world to advise corporate titans on technology, energy and waste logistics.

Eugster isn't even sure he would call himself an environmentalist.

"I describe myself more as a problem solver," he said.

Nevertheless, the 43-year-old seems a good match for Mayor Bill White's approach to environmental development. Like the mayor, Eugster brings a

businessman's background to the job: The focus is on innovation, incentives and incremental victories.

When Eugster recounts how the city helped low-income residents install energy-saving insulation, he speaks about "performance metrics." If the topic is luring wind-energy companies to Houston, he describes "business value propositions."

It takes a nerd ...

Eugster is a bit of a nerd, he agrees. He reads the city's electric bill, looking for ways to cut it. He likes to analyze processes, pose questions: How much can the city save by screwing energy-saving bulbs into all its traffic lights? (About $10,000 a day.) What uses the most energy in the city? (Sewage treatment plants, where giant fans blow hot air over our excrement to dry it out.) How much does that cost? ($28 million every year in electric and gas bills.)

(For those who are not sewage experts, the excrement is dried to keep it out of the bayous, then dumped in landfills or turned into fertilizer.)

"The thing that excites me about sustainability is it's a complex problem with many variables," said Eugster, who did his undergraduate work at Texas A&M University.

Eugster's approach sometimes is called eco-efficiency, said Joseph Romm, a senior fellow at the Center for American Progress. It emerged in the 1990s with the realization that many environmental actions also save dollars.

"Most of those things had to do with using energy and materials more efficiently," Romm said. But the market-based approach will not solve all environmental problems, he added. Issues such as toxic waste, water quality and global warming also need government regulation, enforcement and infrastructure investment.

White created the position for the city, and looked for someone like Eugster to fill it.

"We needed somebody with business experience to run numbers and distinguish between ideas that were green but not economical, and things that could also save us money," he said. "I'm a big believer in the environment, but for the decades I've worked on sustainable development,

I've often seen ideas that sounded good in theory but had a very low return on investment."

Wooing foreign investment

Eugster, who has a doctorate in electrical engineering from the Massachusetts Institute of Technology, also has the scientific background to understand the technology behind building codes and wind power purchasing, White explained.

Eugster doesn't just parse kilowatts. He also is an economic diplomat for Houston. He recently returned from a trip to China, where he visited solar-panel factories and manufacturers of oil pipelines. It was the first step in possibly wooing Chinese companies to set up facilities in Houston.

Eugster also worked with other city leaders to persuade a Danish company, Vestas Wind Systems, to pick Houston for its first U.S. research and development facility. Originally, Vestas was considering Austin and other cities — with Houston running a distant fourth. The owners worried Houston, with its "old energy" image, would hurt their green "brand."

But Eugster and other civic leaders went on a marketing blitz.

"We convinced them Houston is the energy capital of the world," Eugster said. "This is a place to do business, to get things done, and a lot of their potential clients and customers are here. Shell is building huge wind farms."

Vestas decided on Houston in June and plans to open the R&D center in 2009.

Eugster said he wants to lure more new energy companies here.

To back up his rhetoric, he ticks off some of Houston's real "green" accomplishments: locking in a wind-power contract that made the city the No. 1 municipal purchaser of renewable power, or snagging a "Solar America City" grant from the Department of Energy.

More important than the DOE recognition was what came next. Eugster used the grant as a lure to corral private-sector partners, leveraging the initial $400,000 award to get an additional $1.15 million in private funds.

The money will go toward solar panels on the roof of the George R. Brown Convention Center and the creation of a solar "farm," perhaps on the site of the old Sunnyside landfill.

Saving the taxpayers' cash

The total cost to the local taxpayer is zero, if you don't count Eugster's time. It's typical of Eugster's — and White's — green strategy: create public-private partnerships, and concentrate on changes that will save the taxpayers money.

That explains the city's recent focus on recycling tree and yard waste, rather than radically ramping up "curbside" pickup of consumer recyclables such as plastics and paper.

While the traditional curbside program only reaches half of the city's households and has struggled with participation rates, the new "tree waste" program will reach everyone.

"Green waste is a no brainer," Eugster said. The tree limbs, branches and stumps constitute 12 percent of all the city's solid waste.

Starting in January, tree waste will be picked up every other month on traditional "heavy trash" days. Recycling the tree waste could save the city $1.5 million per year.

Eugster will have one more year under White's administration to work on energy efficiency and other green initiatives.

He will spend some of that time tackling decidedly unsexy subjects, such as lowering electricity consumption at those raw sewage treatment plants. He is exploring the idea of using jet engine turbines to dry the excrement. The spinning turbines create electricity to help power the plant, while the waste exhaust from the jets does the drying work.

"I'm a technology guy from both my background and my passion," he said. "And I think we can solve a lot of problems with technology and innovation."