FEATURE: One Solution to CT’s Energy Needs

Burgeoning Energy Needs

In an effort to meet increasing energy needs and rising electricity costs for Connecticut businesses and residents while using efficient, environmentally sound resources, the Connecticut General Assembly passed Public Act 05-01, An Act Concerning Energy Independence (EIA), in a June 2005 special session. One of the most important of the conservation measures called for under the act is the provision of monetary incentives designed to encourage corporations, large-scale industries, and commercial enterprises to install on-site generators, thus creating a distributed electrical power system. The bill

- Is a “win-win” situation according to state Department of Public Utility Control (DPUC) spokesperson Beryl Lyons—removing power from grid reduces energy costs for consumers, allows large-scale users to meet power needs with state-of-the-art technology that’s environmentally sound and efficient.
- Will include lower back-up power charges, lower natural gas fuel charges, direct grants and payments to businesses to cover installation costs.
  - Grants will be proportional to amount of electrical load the on-site generators will remove from the grid, and could be up to $500 for each kilowatt of power generation capacity.
  - Customers will be able to sell renewable energy credits back into the market to offset cost of project.
  - Funds supporting development of on-site generators should be recoverable from FMCCs (Federally Mandated Congestion Costs, required by federal law since 2004, which occur as penalties when a more costly generator is dispatched before a less costly one because there isn’t adequate transmission capacity to get the generation from the less costly plant to the load center).”
- Seven organizations petitioning for funds as of May 2006; among them: Fairfield University, Anthem Blue Cross, Cellu Tissue, Frito-Lay.
- Connecticut Clean Energy Fund (CCEF) created by General Assembly to promote clean, renewable energy sources and charged under EIA with giving preference to renewable generation projects that maximize the reduction of FMCCs.
  - Funded by surcharge on ratepayers’ utility bills.
  - Funded Bridgeport Fuel Cell Park, largest in nation, with $500,000 grant in June 2006.
  - Approved $1.7 million grant for largest photovoltaic system in CT, to be built on the grounds of a Staples distribution plant in Killingly.

NASA should pursue a list of research challenges and strategic objectives over the next 10 years, including developing aircraft that are quieter, more efficient and less polluting; developing technologies to reduce delays during peak travel conditions; and developing “smart” technologies that can quickly detect and respond to anomalies outside or inside a plane.

NASA should have clear criteria for starting, continuing to support, and discontinuing research projects.

Synergies between research objectives of the nation’s civil aeronautics industry and those of national security.

[CASE president Alan C. Echbreth served on the Steering Committee for this report, and chaired Panel B: Propulsion and Power. CASE member David (Ed) Crow also served on Panel B.]

Lower Limit for Naturally Occurring Fluoride Urged

About 200,000 Americans have water sources containing fluoride at 4 mg/L or higher, while another 1.4 million have water with 2 mg/L of fluoride. Artificially fluoridated water contains between 0.7 and 1.2 mg/L of total fluoride.

Most of the committee concluded that a population with lifetime exposure to water with 4 mg/L or higher of fluoride is at increased risk for bone fractures; research is needed into the question of whether fluoride also can cause bone cancer.

The entire committee agreed that EPA should lower its “maximum contaminant level goal” for fluoride in order to prevent it.

Northeast Utilities Service Company
Pfizer Inc.