Solar Energy Reporting

Last year the people of Cleveland, Ohio were troubled by natural gas shortages during one of the coldest winters on record. The severe winter generated a great deal of interest in solar energy as an alternative source of heat. Homeowners, home builders and civic officials wanted to know just how much solar energy is available in Cleveland. Now they get a daily report through the city's news media, from information supplied as a community service by NASA's Lewis Research Center.

Lewis routinely makes daily measurements of solar energy as part of its continuing research in behalf of the Department of Energy. The measuring device is a sun sensor called a pyranometer (upper photo) located atop a building at the NASA Center. To make the information conveniently available to news media, Lewis developed a Voice Output Integrating Insolometer shown at right, an automated system that acquires information from the sun sensor and translates it into a recorded telephone message.

The Lewis pyranometer collects sun data for 15 hours daily and measures the total solar energy yield. For reporting to the public, the information is electronically converted to a specific reading. A media representative calling in gets a voice-synthesized announcement of a two or three digit number; the number corresponds to the kilowatt-hours of solar energy that would be available to a typical 500-square-foot solar collector system. Response in Cleveland has been favorable and interest is developing in other parts of the country.