

SUBSCRIBE TO  



OAKRIDGER.com NEWS

SEARCH Go

[Homes](#) [Jobs](#) [Autos](#) [News](#)

SITE MENU:

HOME

[Home](#) > [News](#) > ORNL could brighten blackout blues

OAK RIDGE NEWS

[Email](#) [Forums](#) [Print](#)

Story last updated at 1:26 p.m. on September 12, 2003

ORNL could brighten blackout blues

By: **R. Cathey Daniels | Oak Ridger Staff**
cathey.daniels@oakridger.com

EDITOR'S NOTE: Oak Ridge National Laboratory says it's ready to help the nation keep its lights on. This is the first of a three-part series, which continues Monday.

Hawsey: Technology at research lab is in the pipeline, but market penetration could take a while.

Following the biggest blackout in U.S. history, a new sense of "grid" urgency can be felt at Oak Ridge National Laboratory.

There's also a bit of grid gratification.

"If Aug. 14 has done nothing else, it's told us that we need to accelerate the technology," said Bob Hawsey, manager of Oak Ridge National Laboratory's superconductivity program.

While investigations into the blackout are ongoing, it's well documented that electrical transmission has not kept pace with generation, leading officials to push for a grid upgrade.

"Definitely there's a sense of urgency," he said. "But it's pretty gratifying - we were already working on this stuff long before the blackout occurred, so it's good having it in the pipeline."

This "stuff" is a myriad of technology development, research and partnerships with industry to help keep America's lights on.

From localizing power generation to streamlining high voltage cable transmission; from sending researchers to investigate the blackout to providing a test bed for superconductivity; from sorting out the futuristic notion of coupling hydrogen and electrical transmission to providing a philosophical perspective on the grid grind, ORNL hit the ground running following Aug. 14.

FEATURED ADVERTISER:

Methodist Medical Center



METHODIST MEDICAL CENTER OF OAK RIDGE

Covenant HEALTH

A Higher Standard of Healthcare
[\[view complete ad \]](#)



NISSAN

Herb Newton

NISSAN

TOP JOBS

Curves for Women F/T or P/T World s largest fitness organization looking for energetic, self-motivated people perso...
East Tennessee Children s Hospital East Tennessee Childrens Hospital has the following job opportunity available in o...
A full-time orthodontic assistant is needed for a progressive and reputable practice. Prior orthodontic or dental exper...
» View all TopJobs
» About TopJobs

TOP HOMES

FSBO 4BR,3 full Baths Basement Rancher 2 car garage,\$129,000 Open House Sun 2-4 14 Moore Lane or call for appt. 482-17...
» View all TopHomes
» About TopHomes

ADVERTISERS

- ROLLING HILLS APARTMENTS
865-483-5357
- Y-12 FEDERAL CREDIT UNION
865-482-1043
- WEATHERFORD MORTUARY
865-482-2464
- CREATIVE CARPET
865-481-2544

MESSAGE BOARDS AND POLLS

What type of establishments would you like to see in a revitalized Oak Ridge Mall?

And the blackout pointed the lab back to its future, which was heralded in with the nuclear age, noted Mike Gouge, group leader of applied superconductivity.

"We have a very strong background in materials research that started with nuclear energy years ago," said Gouge. "When you look at technology, almost invariably it's materials that makes a difference. For instance, changing materials in superconductivity, the new composite material in the 3M conductor, that's the advantage and leverage I think ORNL has."

ORNL and 3M Company have developed a conductor that could increase current-carrying capacity over existing conventional lines. The conductors are being tested at the lab's National Transmission Technology Research Center, a collaboration of the company, the lab and the Tennessee Valley Authority.

And high-temperature superconductivity research was initiated at the lab in 1988, soon after its discovery in 1986.

While transmission related technology, including overhead conductor and conventional transformers materials, surge arrestors and circuit breaker technology and insulation technology are all "ripe for research and partnerships with industry," don't expect a fast fix, said Hawsey.

"Utilities are very conservative - they don't adopt technology overnight," said Hawsey. "I guess as consumers we should be glad of that, we want the lights to stay on."

He noted that the earliest to expect local technology to market would be in about 12 months.


"That's for first orders," said Hawsey. "Real market penetration takes a while."

- Restaurants
- Clothing Stores
- Music Stores
- Athletic Stores
- Toy Store
- Book Store
- Electronics Store
- All of the above
- None of the above

[Submit Your Vote](#)

[View Results](#)

 [Email This Story to a Friend](#)

 [Post a Comment on This Story](#)

 [Printer Friendly Version](#)