

Energy Survey of Connecticut Businesses

CBIA

August 2002

Executive Summary

Introduction

Energy is fundamental to a healthy economy. As Connecticut's economy grows, so does our demand for energy. Today, Connecticut is more dependent on electricity than at any time in our history.

The safe and efficient production of business and industry depends on a reliable and plentiful energy supply, especially with the widespread application of technology in all segments of business operations.

In addition, Connecticut's competitiveness as a business location is greatly influenced by the availability of affordable power.

But Connecticut has a serious energy transmission problem that affects the availability, reliability and affordability of power throughout the state. The Federal Energy Regulatory Commission has identified southwest Connecticut as one of the nation's top 10 most-constrained electricity-transmission areas, and ISO New England says it has the worst energy problem in the six-state region.

Several brief power outages and many more near misses have occurred in southwest Connecticut over the last two years. And ISO New England specifically warned that peak demand this summer and the region's inadequate transmission system could combine to create "critical power supply reliability problems for the area's 51 cities and towns."*

The area's poor transmission system during periods of peak use means that sufficient additional power cannot reach southwest Connecticut from other parts of New England to alleviate any shortages. Even a temporary loss of just one major transmission line or generating unit servicing the region imperils its electricity reliability.

CBIA members have reported that recent power fluctuations and outages have resulted in damaged research and production processes or caused them other financial losses.

This survey was conducted to determine the level of concern of the Connecticut business community about the state's energy situation. We endeavored to obtain an estimation of the potential economic impact of unreliable power and determine to what degree energy conservation measures are being employed.

CBIA hopes this data will better guide policy makers in making prudent decisions that will benefit the state's economy and its citizens.

* *ISO New England press release, April 24, 2002, "Southwest Connecticut Faces Tight Power Supplies This Summer."*

Results summary

Energy priorities

Ninety-eight percent (98%) of survey respondents agreed that high-quality, reliable electric power is very important to their businesses. When asked to prioritize their energy needs, businesses said they need fully available (37%), high-quality (31%) and low-cost power (31%).

Power outages

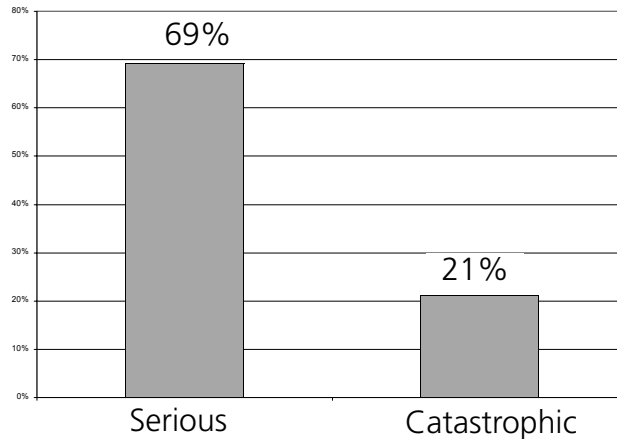
We asked Connecticut businesses to assess the financial impact of unanticipated power outages, for varying lengths of time, on their companies.

An unanticipated loss of power for just 60 seconds would affect two-thirds of all responding companies, causing economic damage of greater than \$1,000 in 20% of these businesses.

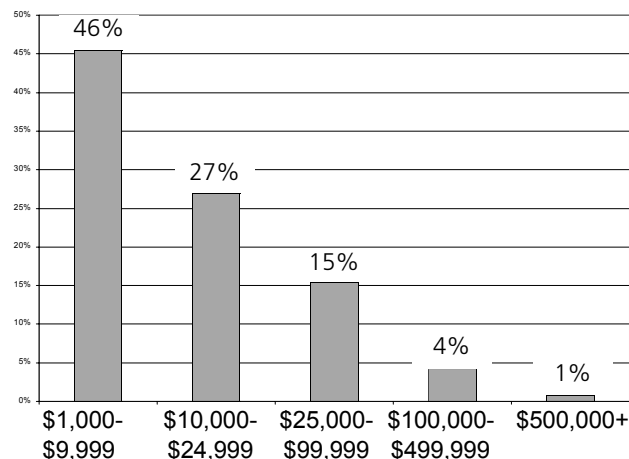
Loss of power for one hour would produce a serious or catastrophic impact on 43% of Connecticut businesses, triggering financial losses between \$1,000 to \$99,999 in 49% of them.

Ninety percent (90%) of responding companies said that a power outage lasting one day would have a serious or catastrophic effect on their businesses. Eighty-eight (88%) percent of respondents said that a one-day loss of power would result in economic damages between \$1,000 and \$99,999. Another 4% said they would experience financial loss between \$100,000 and \$499,999; 1% would experience a loss of \$500,000 or more.

Ex. 1: The effect of a one-day power outage on Connecticut businesses.



Ex. 2: Financial impact of a one-day power outage on Connecticut businesses.

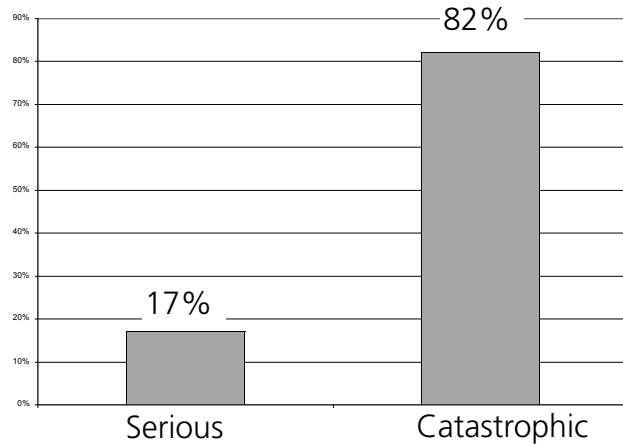


Prolonged power losses

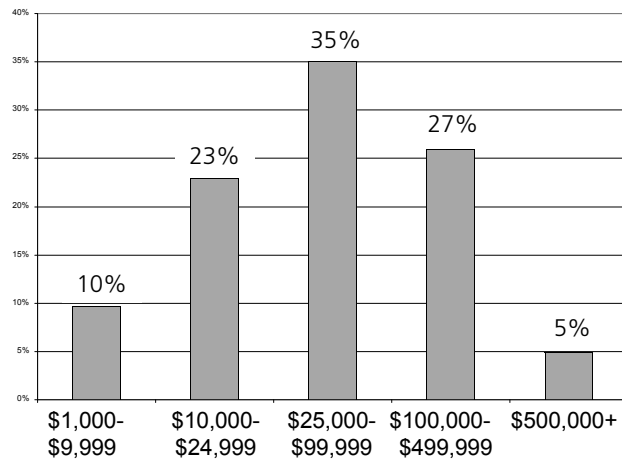
If Connecticut were to experience California-like, extended outages (10 or more unanticipated losses of power for one hour to one day over one quarter of a year), the economic stakes would dramatically increase. ISO New England has indicated that a week's loss of power is not inconceivable in southwest Connecticut.

If a combination of unfortunate occurrences produced a one-week outage, what would be the effect on businesses? Ninety-nine percent (99%) of survey respondents said that such a loss would be catastrophic (82%) or serious (17%). The economic damages would range from \$1,000 to \$99,999 for 68%, \$100,000 to \$499,999 for 27% and \$500,000 or more for 5%.

Ex. 3: The effect of a one-week power outage on Connecticut businesses.



Ex. 4: Financial impact of a one-week power outage on Connecticut businesses.



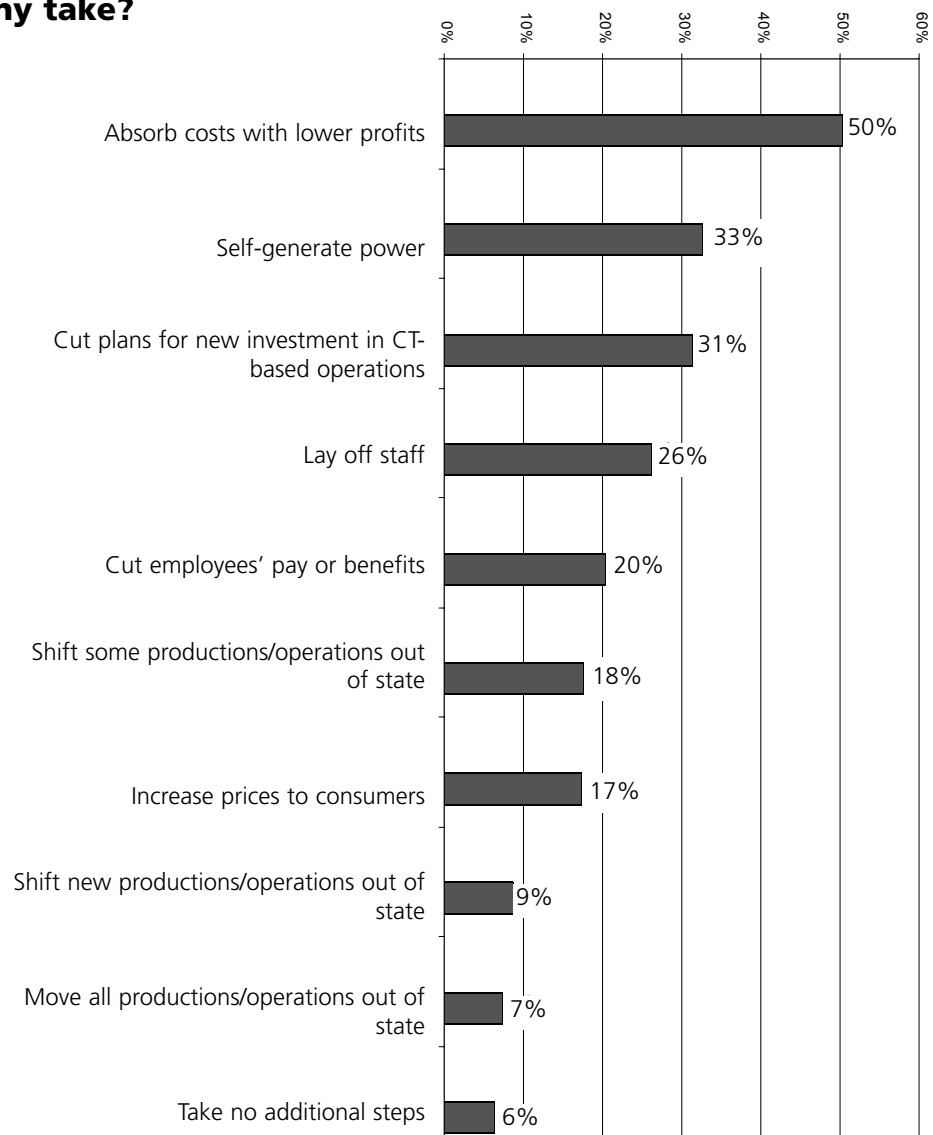
Business response

Repeated power losses would cause businesses to take remedial action with economic implications. Thirty-four percent of respondents said they would shift operations out of Connecticut if they experienced 10 or more one-hour to one-day unanticipated power losses over a quarter of a year. Of these companies, 18% would shift some operations, 9% new operations and 7% all of their operations. Another 33% would self-generate power and 31% would cut plans for investment in in-state operations.

While just over one-half of responding companies said they would absorb some costs with lower profits under such a power-loss scenario, 26% would be forced to lay off workers and 20% would have to reduce their employees' pay or benefits.

Another segment (17%) said it would pass along higher prices to consumers. Six percent said they would take no additional steps and 2% said they would close their businesses.

Ex. 5: If Connecticut were to experience repeated losses of power over an entire fiscal quarter, what steps would your company take?

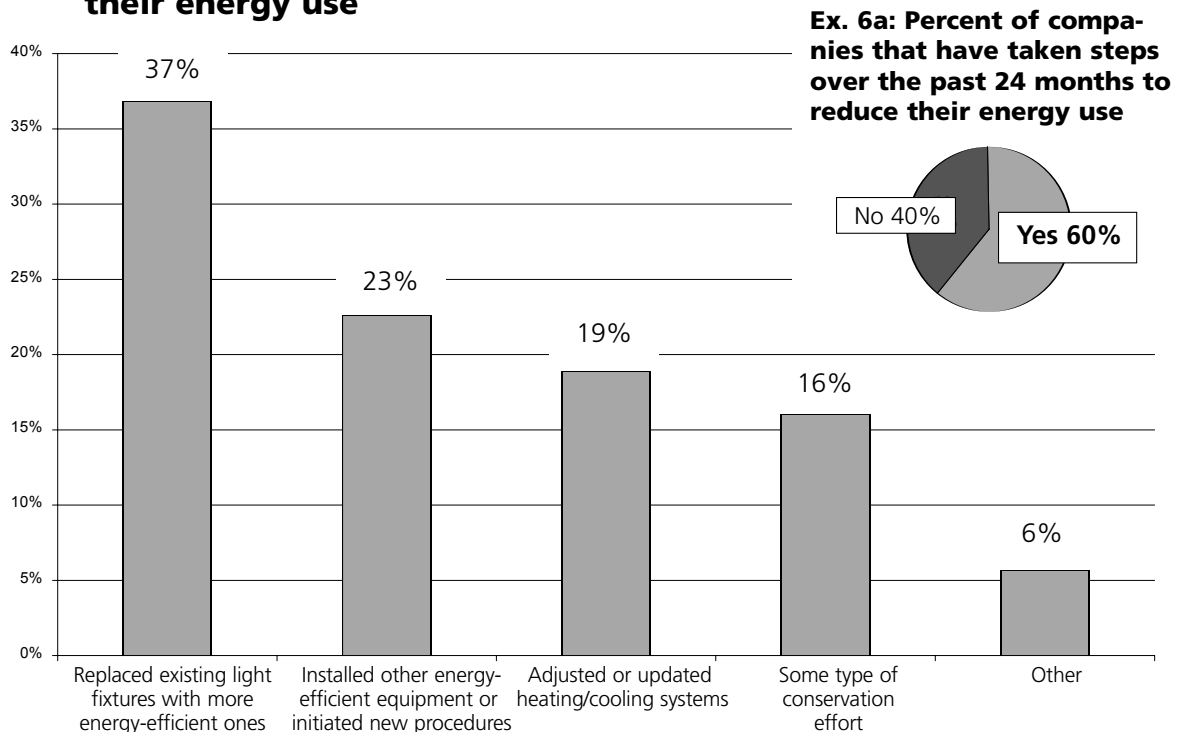


Energy conservation

An overwhelming number of businesses (79%) said they have made changes over the past decade to conserve their energy use. Another 3% said that although they had not yet taken steps, they were already planning to do so.

Over the past two years, more than 60% of respondents have taken some steps to reduce energy use. In particular, businesses have improved their lighting systems (37%), installed other energy-efficient equipment or initiated new energy-saving procedures (23%), and upgraded their heating or cooling systems (19%). Another 16% have initiated some type of conservation effort.

Ex. 6: Steps that Connecticut businesses have taken to reduce their energy use



Distributed generation

Some people believe that distributed generation, in which a company has its own power-generating capacity on site, may be a good option in some power-strained areas. But the survey revealed that this is not a widely acceptable solution for most businesses. Only 11% of our respondents reported that they had some sort of on-site generation capacity. Furthermore, only 1% are planning to create this capacity over the next two years.

When we asked companies why they would not consider self-generation as an option, the most-often cited reasons were cost concerns (52%) and that self-generation is not a viable option for their size or type of company (48%). In addition, 19% stated that they did not own the building they are located in, 16% voiced concern over the need to finance such a purchase, and 13% said doing so would distract them from their core business. An additional 9% said that their site was unsuitable for installation of a power generator.

Crisis awareness

We also asked businesses about their awareness of the Aug. 9, 2001, power emergency in southwest Connecticut, when the area was just minutes away from rolling blackouts. It was only because emergency power could be imported from Long Island that blackouts in Connecticut were averted. We discovered that nearly 60% of survey respondents were unaware that any problem existed.

Survey methodology

CBIA mailed surveys to 4,000 randomly selected top executives of Connecticut businesses in late June and early July 2002. We received 400 responses for a 10% response rate and a 5% plus or minus margin of error. Small businesses dominated the survey responses, with 78% of the respondent companies employing fewer than 50 employees.

About CBIA

The state's largest business organization, the Connecticut Business & Industry Association has 10,000 member businesses statewide. CBIA is dedicated to encouraging a healthy economic climate that fosters economic growth and job creation. Among our highest priorities are identifying and addressing the needs of technology- and information-driven businesses, including the manufacturing and financial services sectors, both of which have been core industries in Connecticut.

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