

Together We Can...

Keep the Power Flowing with Three Electric Load-Management Programs

YOUR UTILITY OR ENERGY SERVICE PROVIDER CAN HELP YOU PARTICIPATE

2003 SEASON

New York State has three load-management programs that provide opportunities for every electric customer. Each utility or energy service provider in the State can help you get paid for curtailing your electric load during high-demand periods on the electric grid. These programs offer differing terms and payments, and are open to all types of customers. To determine which one, or combination of these programs can benefit you, contact your electric supplier, program provider, or the organizations on page 3.

- **Emergency Demand Response Program** (EDRP) is a short-notice program relying on the ability of many to voluntarily reduce their demand for a short period of time, in exchange for payment.
- **Day-Ahead Demand Response Program** (DADRP) is a customer-initiated economic bidding program, where participants offer their load reduction into the wholesale market one day in advance.
- **Installed Capacity Special Case Resources** (ICAP SCR) is a reserve capacity program that contracts resources to meet NYISO supply requirements over a specified contract period.

These load-management programs pay participants, while providing all New York State electric customers with crucial grid stability during times of high electricity demand and helping to prevent extreme market prices.

SUMMER 2002 EXPERIENCE

A variety of customers, large and small, from many sectors, took part in these valuable programs last summer. Although most pledged 1,000 kW or less, several reduced their electricity consumption by more than 40,000 kW on just two hours notice. Steel foundries, cement factories, and paper mills found these programs worthwhile. But even more diverse sectors, including cheese producers, wineries, scrap yards, and apartment buildings, reduced their electricity consumption during certain periods, and were paid for doing so.

More than \$3.3 million was paid to more than 900 commercial, industrial, and multifamily residential customers for reducing their peak electricity consumption by 650 MW.

These commitments helped to avoid jeopardizing the State's electric grid stability. Participants understood just how important their participation was: "The program helps to keep prices reasonable during high electric demand," said one satisfied participant. Another noted: "We are aware of the critical situation that could develop...without programs such as these." The inherent value in developing good energy-management habits was recognized by all participants.

NEW FOR 2003

For 2003, you too can help keep the power flowing. Join the customer load-management team to help New York State achieve its energy goals.

During summer 2002, more than \$3.3 million was paid to more than 900 commercial, industrial and multifamily residential customers for reducing their peak electricity consumption by 650 MW.



EMERGENCY DEMAND RESPONSE PROGRAM

Emergency Demand Response Program (EDRP) pays retail electricity customers to reduce load during specific times when electric service in New York State could be jeopardized. During these “declared events,” participants are expected, though not obligated, to reduce electricity consumption, transfer load to an on-site generator, or a combination of both, for a minimum of four hours. During these emergency program events, performance is based on how much metered load is reduced.

NOTIFICATION: A program provider usually will give notice the day prior to an expected emergency program event. When the program is activated, participants receive a confirmation notice indicating that participation is needed. Providers will generally be able to provide this notice two hours prior to the start of an event.

PERFORMANCE: During the event hours, metered load is compared with a customer baseline (CBL), the statistical estimate of how much electricity would have been used during the same time period. The difference between metered load and CBL is the basis for payment. Since this program is strictly *voluntary*, there is no obligation to reduce load when an emergency event is declared. Similarly, there is no penalty for non-performance.

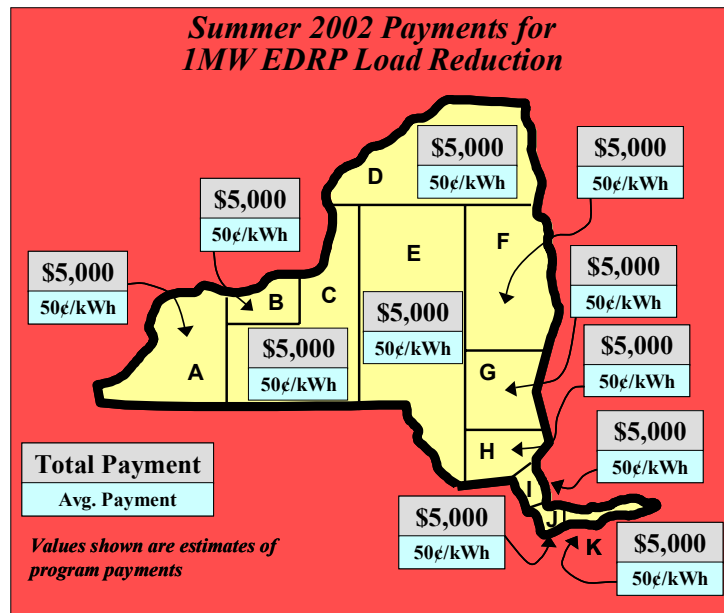
PAYMENT: Performance during emergency program events is measured on an hourly basis. Payment is computed on the higher of either \$500/MWh, or the wholesale electricity price in the customer’s area during the time of the event. Exact payment arrangements differ by program provider.

NEW FOR 2003

- ◆ EDRP has been extended through October 31, 2005.
- ◆ EDRP event notification has been separated from ICAP-SCR events. If you sign up for EDRP, you cannot participate as an ICAP Special Case Resource. If load reduction is necessary, EDRP participants are notified after ICAP-SCR resources have been called.

SUMMER 2002 EXPERIENCE

- ◆ More than \$3.3 million was paid to emergency program participants for two summer events, one each in July and August. An additional \$250,000 was paid to participants who reduced load during two events in April 2002.
- ◆ Enrollment in EDRP rose to 1700 participants.
- ◆ 58% of 2001 participants re-enrolled for summer 2002.



CUSTOMER QUESTIONS FOR PROVIDERS

- ◆ Is there a minimum load-reduction requirement?
- ◆ What CBL options are offered?
- ◆ How and when will a customer be notified of an opportunity to curtail?
- ◆ If use is curtailed, when does payment occur?
- ◆ What services are available to encourage participation?
- ◆ Is NYSERDA financial assistance available to help purchase load-curtailement equipment?
- ◆ What are the requirements for on-site generators?

NOTICE

This informational brochure was prepared by Neenan Associates for the New York State Energy Research and Development Authority (NYSERDA) as an introduction to the New York State Independent System Operator’s (NYISO) Demand Response Programs. Neither NYSERDA, its members, nor any person acting on their behalf: (a) makes any warranty, express or implied, with respect to the use of any information, apparatus, method or process contained, described, or referred to herein or that such use may not infringe on privately owned rights; or (b) assumes any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method or process contained, described or referred to herein.

Although the details in this NYSERDA publication are accurate as of the time of printing, they may be subject to change. For final program rules and procedures, contact the Market Relations Department of NYISO: (518) 356-6060 or check the NYISO website: www.nyiso.com/services/documents/manuals

As with any market, a certain level of risk is associated with a transaction. To effectively assess risk of a transaction or bid, a participant should develop familiarity with and knowledge of the market and its principles. Analysis supporting the calculation of potential benefits referenced herein is available at www.bneenan.com

DAY-AHEAD DEMAND RESPONSE PROGRAM

Day-Ahead Demand Response Program (DADRP), offers retail electricity customers a chance to bid load-reduction capability in New York State's wholesale electricity market. To participate, companies bid their load-reduction capability, on a day-ahead basis, into the wholesale electricity market, where these bids compete with generators' offers to meet the State's electricity demands. If the load reduction bid is a less expensive alternative than a generator's offer, it is accepted and the bidder is scheduled to reduce load during the hours specified the following day.

The bid amount, term, frequency of submitted bids, and use of generation may be subject to some restrictions, based on each program provider's rules and regulations.

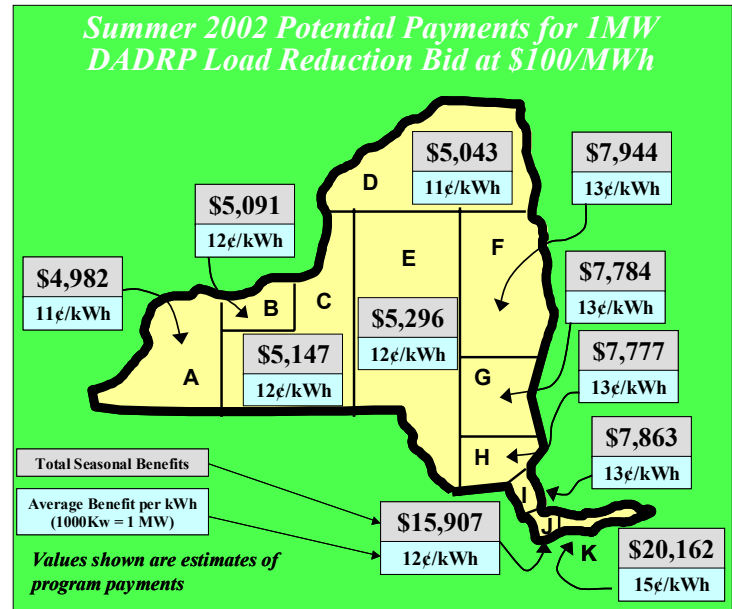
NOTIFICATION: When a curtailment bid is accepted, the program provider notifies the customer of the scheduled load curtailment.

PERFORMANCE: Participant-metered load during the event hours is compared with a customer baseline (CBL), the statistical estimate of the amount of electricity that would have been used during the same time period. The difference between the two is determined to be the level of load curtailment and is the basis of payment. When a load-reduction bid is accepted in the day-ahead wholesale electricity market, participants are *obligated* to meet the posted load-reduction schedule. Any shortfall will be charged the higher of either the day-ahead, or spot-market price.

PAYMENT: Customer performance during scheduled load reductions is calculated on an hourly basis, at the wholesale price for electricity in the day-ahead market, during those hours scheduled. If necessary, a supplemental payment is made to make whole the transaction on the basis of the participant's bid price.

NEW FOR 2003

- ◆ DADRP service is available from program providers other than your electricity commodity provider.
- ◆ The 10% penalty has been removed. Any customer unable to reduce load by the bid amount during the scheduled time will pay the higher of the day-ahead price or the real-time price for the amount of the incomplete scheduled load reduction.
- ◆ For 2003, no generation is permitted to participate in DADRP



SUMMER 2002 EXPERIENCE

- ◆ More than \$100,000 in payments was distributed among the 24 day-ahead program participants.
- ◆ 1,486 MWh of load reduction bids were accepted over a wide range of hours and days.

CUSTOMER QUESTIONS FOR PROVIDERS

- ◆ What kind of bidding options are offered?
- ◆ What are the frequency and duration requirements for bids?
- ◆ How long are the bids good for?
- ◆ If a participant fails to curtail, what is the penalty and when are they notified of the amount?

FOR MORE INFORMATION:

New York State Energy Research and Development Authority (NYSERDA) toll-free at (866) NYSERDA or (866) 697-3732 or visit NYSERDA's website at www.nyserdera.org or e-mail info@nyserdera.org

New York State Public Service Commission toll-free at (877) 661-9223 or on the web: www.AskPSC.com or www.dps.state.ny.us/eschoice.htm

New York State Department of Environmental Conservation (DEC) at (518) 402-9167 or visit the Regional Environmental Permitting page on the web at www.dec.state.ny.us/website/dcs/regions/state.htm

New York Independent System Operator at (518) 356-6060 or via e-mail: market_relations@nyiso.com

INSTALLED CAPACITY-SPECIAL CASE RESOURCES

Installed Capacity-Special Case Resources program pays retail electricity customers to provide their load reduction capability for a specified *contract* period. Program participants receive payments for an agreement to curtail use during times when the electric grid could be jeopardized. Based on system condition forecasts, participants are notified to curtail this subscribed “capacity,” through the use of on-site generation, reducing electricity consumption, or a combination of both, to a firm power level. Any under performance results in a penalty assessment. To register, participants commit to a minimum load reduction of 100 kW with 100 kW increments, subject to a one-hour verification either through an actual event or test to be called by NYISO.

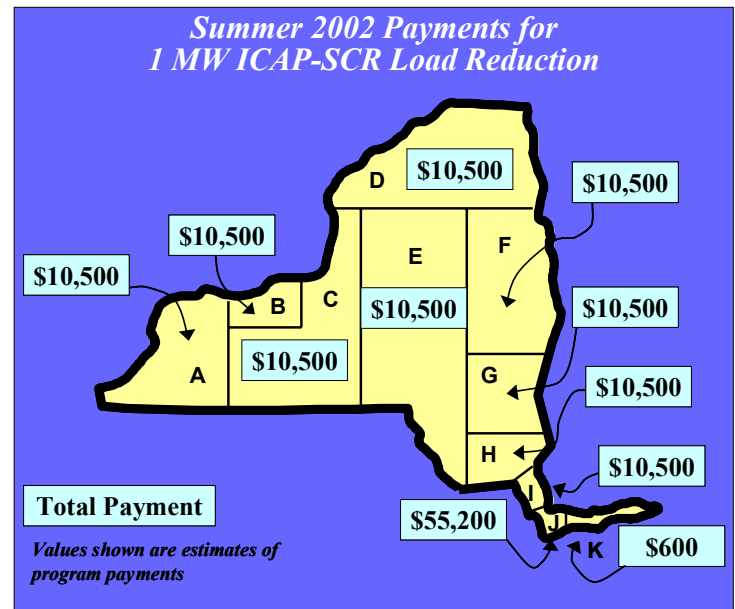
NOTIFICATION: Program providers offer 21-hour advance notice of any anticipated need for curtailment. A confirmation notice is provided a minimum of two hours before the actual event begins.

PERFORMANCE: The participant’s metered load during the event hours is compared with the subscribed firm-power level, or the metered generator output is compared with its subscribed output level. Any under performance of either load-curtailment efforts or generator output will result in a reduction, or “derate,” of any future capacity claims. Such a “derate” will require the customer to fulfill any *contractual obligations* entered into for capacity and will result in a proportional reduction of any future long-term contractual payments.

PAYMENT: When initially registering for ICAP SCR, program providers calculate an unforced capacity obligation (UCAP) that is based upon a participant’s claimed load reduction capability, line losses, and historical program performance, if any exists. The UCAP is then sold into wholesale capacity markets where payment rates vary according to a participant’s location in the State and the contract period.

NEW FOR 2003

- ◆ ICAP-SCR calls have been separated from EDRP events. ICAP-SCR resources are called first.
- ◆ You may participate in either EDRP or ICAP-SCR, but not both.
- ◆ If a qualified ICAP-SCR resource has not been contracted in a given month, that resource will be eligible for energy payments during EDRP events.
- ◆ If fewer than all ICAP-SCR resources are needed in a selected zone, the number required to serve the need



will be called in ascending order based on the submitted minimum price guarantee of participants.

- ◆ ICAP-SCR resources are eligible for an energy payment at the minimum price guarantee, up to \$500/MWh. The minimum price guarantee, or strike price, is specified by the ICAP-SCR resource and may be revised monthly. Energy payments are computed using the same performance calculations as EDRP.

SUMMER 2002 EXPERIENCE

- ◆ Monthly payments ranged from \$1.15 per kWh Statewide to \$6.50 per kWh in New York City.
- ◆ 680 MW registered capacity.
- ◆ ICAP-SCR resources who also participated in EDRP provided more than 50% of the load reduction during summer curtailment events.

CUSTOMER QUESTIONS FOR PROVIDERS

- ◆ Will the provider purchase the offered load-curtailment capability? If not, what types of arrangements can be made for purchase?
- ◆ When and how do participants get paid?
- ◆ How is a “derate” in load-curtailment capability handled?
- ◆ If “derated,” what penalties apply and when do they take effect?