



Frequently Asked Questions Day-Ahead Option

Q: What is the Day-Ahead Option?

A: The Day-Ahead Option allows customers who are already enrolled in one of ISO New England’s Real-Time Demand Response Programs to submit an offer to curtail their energy consumption for the following day. The offer would specify a price, the amount of curtailment, minimum duration and optional start-up/shut-down cost at which the customer would be willing to reduce consumption for the following day. Unlike the Real-Time Demand Response Programs, the Day-Ahead Option is based on electricity prices set in the Day-Ahead Energy Market.

Q: What is the Day-Ahead Energy Market?

A: The Day-Ahead Energy Market is a *financial* market where buyers and sellers of electricity can agree upon the price at which they are willing to purchase and deliver electricity for the following day. The Day-Ahead Market allows buyers and sellers to lock in their price and hedge against volatility in the Real-Time Energy Market.

Q: Who can participate in the Day-Ahead Option?

A: Any customer enrolled in the Real-Time Price Response, Real-Time Demand Response or Real-Time Profiled Response program.

Q: How does the Day-Ahead Option work?

A: Working through their Enrolling Participant¹, customers will develop and submit an “offer” to ISO New England. The offer will specify the price, amount of curtailment, minimum duration and an *optional* start-up/shut-down cost at which the customer is willing to reduce their electricity consumption for the following day. For example, a customer’s offer may state that they are willing to reduce consumption by 1 MW for a minimum of 2 hours if they are paid \$200 per MWh (\$0.20 per kWh).

| Hour Ending | Day-Ahead LMP (\$/MWh) | Offer Clears |
|-------------|------------------------|--------------|
| 8 | \$ 80.00 | No |
| 9 | \$ 80.00 | No |
| 10 | \$ 125.97 | No |
| 11 | \$ 200.00 | Yes |
| 12 | \$ 215.00 | Yes |
| 13 | \$ 200.00 | Yes |
| 14 | \$ 334.79 | Yes |
| 15 | \$ 301.19 | Yes |
| 16 | \$ 309.92 | Yes |
| 17 | \$ 267.16 | Yes |
| 18 | \$ 101.22 | No |

The customer’s offer will be compared with the Day-Ahead Market hourly clearing prices in their load zone. If the combination of the customer’s price (\$/MWh) and the optional start-up/shut-down cost is less than or equal to the Day-Ahead Market hourly clearing prices, the customer’s offer will be accepted or “cleared”.

The table above illustrates how the offer described above would clear based on actual Day-Ahead prices. In this example, the customer’s offer cleared in hours ending 11 through 17 (10 a.m. to 5 p.m.) because Day-Ahead prices are equal to or higher than the customer’s offer price in those hours.

¹ Enrolling Participants include your local utility, most competitive electricity suppliers, demand response providers and several other companies that are members of the New England Power Pool (NEPOOL).



Q: How much can I “offer” into the Day-Ahead Option?

A: Your offer must be at least 100 kW and could be as high as the amount of load that was registered in the Real-Time Price or Demand Response Program. So if you are currently a Real-Time Demand Response participant that registered 500 kW in that program and your Enrolling Participant registers this full amount in the Day-Ahead Option, then you can offer between 100 to 500 kW of load reduction in the Day-Ahead Option. The price offered (including the optional start-up/shut-down cost) must be, on average, between \$50 and \$1,000 per MWh. You can also specify minimum curtailment duration of up to four hours. Your Enrolling Participant can assist you in formulating your offer.

Q: How and when will I know if my offer is accepted?

A: The Day-Ahead market closes each day at noon, and the results are posted (made available) at approximately 4 p.m. Your Enrolling Participant will be able to check the status of your offer after the results are posted and will notify you if your offer is accepted. You and your Enrolling Participant can work out a mutually agreeable method of notification.

Q: How much will I be paid?

A: If your offer is accepted, your Enrolling Participant will be paid the higher of the offer price or the hourly Day-Ahead LMP (\$/MWh) times the offer reduction amount (MW) for each hour your offer was accepted.

As the table illustrates, your Enrolling Participant would be paid \$1,828.06 for your promised 1 MW curtailment from hour ending 11 to 17 (10 a.m. to 5 p.m.) for the following day.

It is up to you and your Enrolling Participant to work out an agreement on how the demand response payments will be shared.

| Hour Ending | Day-Ahead LMP (\$/MWh) | Offer Clears | Day-Ahead Offer MW | Payment at Day-Ahead Price |
|-------------|------------------------|--------------|--------------------|----------------------------|
| 8 | \$ 80.00 | No | 1.00 | \$ - |
| 9 | \$ 80.00 | No | 1.00 | \$ - |
| 10 | \$ 125.97 | No | 1.00 | \$ - |
| 11 | \$ 200.00 | Yes | 1.00 | \$ 200.00 |
| 12 | \$ 215.00 | Yes | 1.00 | \$ 215.00 |
| 13 | \$ 200.00 | Yes | 1.00 | \$ 200.00 |
| 14 | \$ 334.79 | Yes | 1.00 | \$ 334.79 |
| 15 | \$ 301.19 | Yes | 1.00 | \$ 301.19 |
| 16 | \$ 309.92 | Yes | 1.00 | \$ 309.92 |
| 17 | \$ 267.16 | Yes | 1.00 | \$ 267.16 |
| 18 | \$ 101.22 | No | 1.00 | \$ - |
| | | | | \$ 1,828.06 |



Q: What happens if I can't reduce my consumption by my offer amount when scheduled?

A: If you do not reduce consumption by at least your offer amount when scheduled, your Enrolling Participant will be charged the difference between your actual and offer reduction at the hourly Real-Time locational marginal price (LMP) in your load zone. The hourly Real-Time LMP can be higher or lower than your offer price.

As illustrated below, if your offer to reduce load by 1 MW was accepted, but you reduced load by only 0.8 MW, your Enrolling Participant would be responsible for buying back the difference (0.2 MW) at the Real-Time prices for hours 11 through 17. In this example, the “deviation” charge totals \$319.79 resulting in a \$1,508.27 net payment for the 0.8 MW reduction.

| Hour Ending | Day-Ahead LMP (\$/MWh) | Real-Time LMP (\$/MWh) | Offer Clears | Day-Ahead Offer MW | Actual Reduction MW | Real-Time Deviation MW | Payment at Day-Ahead Price | Deviation at Real-Time Price | Net Payment |
|--------------|------------------------|------------------------|--------------|--------------------|---------------------|------------------------|----------------------------|------------------------------|--------------------|
| 8 | \$ 80.00 | \$ 58.08 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| 9 | \$ 80.00 | \$ 76.81 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| 10 | \$ 125.97 | \$ 93.32 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| 11 | \$ 200.00 | \$ 85.49 | Yes | 1.00 | 0.80 | -0.20 | \$ 200.00 | \$ (20.00) | \$ 180.00 |
| 12 | \$ 215.00 | \$ 100.02 | Yes | 1.00 | 0.80 | -0.20 | \$ 215.00 | \$ (20.00) | \$ 195.00 |
| 13 | \$ 200.00 | \$ 116.19 | Yes | 1.00 | 0.80 | -0.20 | \$ 200.00 | \$ (23.24) | \$ 176.76 |
| 14 | \$ 334.79 | \$ 138.31 | Yes | 1.00 | 0.80 | -0.20 | \$ 334.79 | \$ (27.66) | \$ 307.13 |
| 15 | \$ 301.19 | \$ 233.19 | Yes | 1.00 | 0.80 | -0.20 | \$ 301.19 | \$ (46.64) | \$ 254.55 |
| 16 | \$ 309.92 | \$ 352.08 | Yes | 1.00 | 0.80 | -0.20 | \$ 309.92 | \$ (70.42) | \$ 239.50 |
| 17 | \$ 267.16 | \$ 559.14 | Yes | 1.00 | 0.80 | -0.20 | \$ 267.16 | \$ (111.83) | \$ 155.33 |
| 18 | \$ 101.22 | \$ 304.83 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| Total | | | | | | | \$ 1,828.06 | \$ (319.79) | \$ 1,508.27 |



Q: What happens if I reduce my consumption by more than my offer amount?

A: If you reduce consumption by more than your offer amount of curtailment, your Enrolling Participant will be paid the difference between your offer amount and actual reduction at the hourly Real-Time locational marginal price (LMP) in your load zone. The hourly Real-Time LMP can be higher or lower than your offer price.

As illustrated below, if your offer to reduce load by 1 MW was accepted and you reduced load by 1.1 MW, your Enrolling Participant would be paid for the difference (0.1 MW) at the Real-Time prices for hours 11 through 17. In this example, the “deviation” additional payment totals \$159.89 resulting in a \$1,987.95 net payment for the 1.1 MW reduction.

| Hour Ending | Day-Ahead LMP (\$/MWh) | Real-Time LMP (\$/MWh) | Offer Clears | Day-Ahead Offer MW | Actual Reduction MW | Real-Time Deviation MW | Payment at Day-Ahead Price | Deviation at Real-Time Price | Net Payment |
|--------------|------------------------|------------------------|--------------|--------------------|---------------------|------------------------|----------------------------|------------------------------|--------------------|
| 8 | \$ 80.00 | \$ 58.08 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| 9 | \$ 80.00 | \$ 76.81 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| 10 | \$ 125.97 | \$ 93.32 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| 11 | \$ 200.00 | \$ 85.49 | Yes | 1.00 | 1.10 | 0.10 | \$ 200.00 | \$ 10.00 | \$ 210.00 |
| 12 | \$ 215.00 | \$ 100.02 | Yes | 1.00 | 1.10 | 0.10 | \$ 215.00 | \$ 10.00 | \$ 225.00 |
| 13 | \$ 200.00 | \$ 116.19 | Yes | 1.00 | 1.10 | 0.10 | \$ 200.00 | \$ 11.62 | \$ 211.62 |
| 14 | \$ 334.79 | \$ 138.31 | Yes | 1.00 | 1.10 | 0.10 | \$ 334.79 | \$ 13.83 | \$ 348.62 |
| 15 | \$ 301.19 | \$ 233.19 | Yes | 1.00 | 1.10 | 0.10 | \$ 301.19 | \$ 23.32 | \$ 324.51 |
| 16 | \$ 309.92 | \$ 352.08 | Yes | 1.00 | 1.10 | 0.10 | \$ 309.92 | \$ 35.21 | \$ 345.13 |
| 17 | \$ 267.16 | \$ 559.14 | Yes | 1.00 | 1.10 | 0.10 | \$ 267.16 | \$ 55.91 | \$ 323.07 |
| 18 | \$ 101.22 | \$ 304.83 | No | 1.00 | 0.00 | 0.00 | \$ - | \$ - | \$ - |
| Total | | | | | | | \$ 1,828.06 | \$ 159.89 | \$ 1,987.95 |

Q: What is the relationship between Day-Ahead and Real-Time prices?

A: Unfortunately, the relationship is difficult to predict, and ISO New England is not in the business of forecasting prices. Real-Time prices can be higher or lower than Day-Ahead prices and both market prices are affected by many variables including weather conditions, fuel prices, power plant and transmission line availability, etc.

Historical hourly Day-Ahead and Real-Time prices for your load zone are available on ISO New England’s website at:

http://www.iso-ne.com/smd/operations_reports/da_rt_lmp.php

You can see for yourself how Day-Ahead and Real-Time prices in your Load Zone vary from day-to-day and hour-to-hour.



Q: Is it possible to owe ISO New England money if I can't reduce my consumption by my offer amount when scheduled?

A: Yes. If you fail to reduce consumption when scheduled and hourly Real-Time LMPs are greater than hourly Day-Ahead LMPs, your Enrolling Participant could end up owing money to ISO New England to cover your deviation charges.

This is a risk that you and your Enrolling Participant should evaluate before submitting a day-ahead offer.

Q: How often is my offer likely to clear?

A: That depends entirely on your offer price and your required minimum interruption duration. The table below illustrates, by Load Zone, the number of hours in 2004 Day-Ahead prices were equal to or greater than the specified offer price.

| Number of Hours Day-Ahead LMP was equal to or greater than the Bid Price | | | | | | | | |
|--|------|------|------|------|------|------|------|------|
| Offer Price | NEMA | SEMA | WCMA | RI | CT | NH | VT | ME |
| \$ 50 | 4821 | 4640 | 5051 | 4760 | 5117 | 4583 | 5055 | 3348 |
| \$ 75 | 545 | 403 | 460 | 423 | 608 | 397 | 463 | 232 |
| \$ 100 | 131 | 102 | 121 | 103 | 131 | 96 | 124 | 72 |
| \$ 125 | 53 | 49 | 52 | 49 | 59 | 49 | 50 | 44 |
| \$ 150 | 35 | 35 | 37 | 35 | 43 | 35 | 37 | 27 |
| \$ 175 | 22 | 22 | 22 | 22 | 27 | 22 | 22 | 21 |
| \$ 200 | 18 | 18 | 19 | 18 | 25 | 18 | 19 | 17 |
| \$ 225 | 17 | 17 | 17 | 17 | 18 | 17 | 17 | 17 |
| \$ 250 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 16 |
| \$ 275 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| \$ 300 | 15 | 14 | 15 | 15 | 15 | 15 | 14 | 13 |
| \$ 325 | 12 | 12 | 13 | 13 | 13 | 12 | 12 | 9 |
| \$ 350 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 |
| \$ 375 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 3 |
| \$ 400 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| \$ 425 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| \$ 450 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| \$ 475 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| \$ 500 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 0 |
| \$ 525 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| \$ 550 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| \$ 575 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| \$ 600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

For example, had the Day-Ahead Option been available in Connecticut in 2004 and your offer price was \$250/MWh for the entire year and your minimum interruption duration was 1 hour, your offer would have likely cleared a total of 17 hours.

**Q: What are my costs to participate?**

A: There are no additional metering and transaction costs to participate in the Day-Ahead Option. The metering and reporting requirements for the Day-Ahead Option are the same as the Real-Time Demand Response program you are enrolled in.

However, unlike the Real-Time programs, there are risks associated with the Day-Ahead Option for non-performance. If you are unable to reduce consumption by your offer amount when scheduled, you will be charged the difference between your actual reduction and offer reduction at the Real-Time LMP in your load zone.

Q: What happens if my offer is accepted and the next day the Real-Time Price or Demand Response program is activated? Will I get paid twice?

A: No. If you are enrolled in the Real-Time Demand or Profiled Response program, you are expected to reduce your consumption whenever those programs are activated. If you have already reduced consumption because your Day-Ahead offer was accepted, your reduction will count towards your Real-Time Demand or Profiled performance. If your Day-Ahead offer amount of curtailment was less than your Real-Time enrolled curtailment, then you are expected to interrupt to the full Real-Time enrolled curtailment during the event.

Since the Real-Time Price response program is voluntary, you would not be expected to participate in a price event if it coincides with the period over which your Day-Ahead offer is accepted. However, you can participate in a Real-Time Price response event and the Enrolling Participant would be paid for any additional voluntary interruption in accordance with the Real-Time Price response program rules.

In no case, will you be paid twice by ISO New England for the same reduction.

Q: I am currently participating in one of the Real-Time Demand Response Programs. Do I have to participate in the Day-Ahead Option?

A: No. The Day-Ahead Option is completely optional.

Q: Why is ISO New England offering this program?

A: As more and more customers participate in the Day-Ahead Option, their scheduled load reductions will help reduce the volatility in the Day-Ahead Energy Market, which helps keep wholesale electricity costs down for all consumers.

Q: When does the program start?

A: The Day-Ahead Option will go into effect on June 1, 2005.

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