TDRP Clarification I (May 2005)

- ## Calculating the Baseline

As stated in the Market Manual: "the baseline for a ***trading hour*** on a ***business day*** will be based on the high ten of past eleven same ***trading hours*** on ***business days*** immediately preceding the provision of the DR, excluding any hours in which the three hour-ahead pre-dispatch price was equal to or greater than $120/MWh".

TDRP participants have stated that there is some confusion calculating the baseline when there are consecutive event hours. When consecutive event hours occur, each hour should be treated independently. For example, if HE 20, and 21 are TDRP event hours, the calculation of the baseline for HE 20 will only consider the high ten of the previous 11 days excluding any occurrences of HE 20 that were TDRP event hours. There is no need to remove entire days from the baseline calculation as a result of there being an event hour within that day. Referencing the chart below, there is no need to remove Day 2 from the baseline calculation of HE 20 as a result of the TDRP event occurring in HE21. Of course, Day 2 should be omitted from the baseline calculation for HE 21.

Example 1:

HE 20	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Baseline
Load (kWh)	350	310	345	320	330	370	300	350	320	320	295	315	328.5
TDRP Price ($)	110	50	170	90	115	72	68	95	74	69	118	85	n/a
HE 21													
Load (kWh)	360	210	350	310	330	300	340	345	330	315	330	n/a	331
TDRP Price ($)	110	250	72	89	64	85	115	95	64	103	97	n/a	n/a

These hours are excluded from the baseline as they are TDRP event hours.

These hours are excluded from the baseline as they are the lowest load days of the previous 11 days.

- Adjusting the Baseline

In order to more accurately reflect the true load a participant is reducing, the IESO has proposed a '***default baseline adjustment***' methodology. This methodology is proposed in an attempt to assist participants in capturing weather induced variations and fluctuations in the baseline that would not be captured by the baseline method detailed in the TDRP manual and Example 1 above.

Of course, participants are not required to perform a baseline adjustment. This option is being offered to TDRP participants to accurately compensate them for their achieved load reduction. Participants are free to submit their settlement requests (form 1567) using the unadjusted baseline.

How the default baseline adjustment works:

If the load reduction is meant to begin at 8:00 pm (HE 20 or the hour from 8-9pm), the baseline is calculated normally as in Example 1. This is the unadjusted baseline for HE 20. To calculate how the baseline will be adjusted you will need to calculate the baseline adjustment.

The baseline adjustment is calculated by taking the average of the two hours preceding the demand response hour excluding any hours which had TDRP responses. If one of the two preceding hours was a response hour, that hour should not be included in the average and the adjustment should be calculated as the average of the two most recent non-response hours.

In Example 1, the average of HE 18 and HE 19 of the same trade day is calculated. If the average of the two hours is greater than the baseline, the baseline adjustment may be applied. If the average of the two hours is less than the baseline the unadjusted baseline will be used to calculate demand reduction. The baseline adjustment can only increase the baseline and never lower it.

Once the unadjusted baseline and the two hour average have been calculated, you can determine what the actual adjustment will be. The actual adjustment will be the difference between the unadjusted baseline and the average of the two preceding hours. This difference is then added to the unadjusted baseline for the event hour.

If there are consecutive event hours, the baseline adjustment will be applied to all consecutive hours. Using the above example, if the load reduction was to take place for HE 20, 21, and 22, the baseline adjustment calculated using HE 18 and HE 19 would be applied to all the consecutive event hours. The baseline for HE 21 and HE 22 will be adjusted by the same amount as the baseline for HE 20.

Example 2:

HE	Actual Consumption (kW)	Unadjusted Baseline (kW)	Average of two preceding hours (kW)	Difference between Average and Unadjusted Baseline (kW)	Adjusted Baseline (kW)	Load Reduction (kW)
18	360	n/a	(360+340)/2 = 350	n/a	n/a	n/a
19	340	n/a		n/a	n/a	n/a
20	100	330		*20	350	250
21	100	360		n/a	380	280
22	100	380		n/a	400	300

Demand Response Hours

*Baseline Adjustment Value

- Completing Form 1567

According to the TDRP manual, form 1567 must be submitted no later than four business days after the last trading day of the month following the month in which the demand response was provided.

Within form 1567 there is a column entitled '***Base Line Load***'. It is this column where the baseline load would need to be recorded. If a baseline adjustment is used, the adjusted baseline value should be entered into the ***Base Line Load*** column of form 1567. There are three options available to TDRP participants for calculating the baseline, and only one (1) adjustment methodology may be utilized each month. This implies that all demand response activities within the month must utilize the same baseline adjustment methodology. However, participants are free to utilize different baseline adjustment methods for different months. Form 1567 will be modified to include a column where participants can indicate the baseline adjustment utilized for the respective month.

Baseline Options

- Unadjusted Baseline

  The unadjusted baseline is the baseline calculation that appears in the TDRP manual and Example 1 above.

- Default Baseline Adjustment

  The default baseline adjustment methodology is the average of the two hours previous to the demand response hour as discussed above. Important note: participants that elect to use the default baseline adjustment are required to submit two months of metering data to the IESO. This metering data will consist of the metering data for the month in which the demand response occurred and the month previous. This data is required to facilitate the verification of demand response.

- Customer Specific Baseline Adjustment

  As discussed in the TDRP market manual, TDRP participants are able to submit their own baseline adjustment methodology. Only those participants who have included a customer specific adjustment in their application are eligible for this option. This methodology can not be modified after the first demand response event, and is subject to IESO approval. Customers who elect to submit a customer specific baseline adjustment are free to use the unadjusted baseline, or the default baseline adjustment as outlined above. Important Note: Participants selecting a Customer Specific Baseline Adjustment must provide all supporting data required to calculate the baseline, the adjustment, and final settlement.

• Audit Requirements

As stated in the TDRP market manual, the IESO has the responsibility to Audit participants form submission to confirm proper settlement and actual demand reduction. The IESO requires three items from TDRP participants in order to gather the necessary information to confirm demand reduction and settlement.

Letter to LDC's

All TDRP participants will be required to sign and submit a letter to the relevant Local Distribution Company (LDC) to disclose the required data to the IESO. An example of this letter is attached to this communication and is entitled TDRPLetterToLDC.pdf.

Data Submission

Participants are required to submit two months of metering data for each form 1567 that is submitted to the IESO. This data should consist of the metering data for the month the demand response occurred and the month immediately preceding the demand response.

Audit Form

When a participant is selected for an audit, the information submitted on Form 1567 is verified with the submitted metering information. If a discrepancy is discovered, additional data will be requested from the participant. An excel template stipulating the required information will be distributed to the respective participant at that time. Once the request for additional information has been sent to the TDRP participant they will have 10 business days to provide the necessary information. The additional information required will be the data that the participant has used to calculate the baseline, baseline adjustment and final settlement.