
Additional Compensation Under Administrative Pricing #28-1

1. Introduction and Purpose

The following discussion paper addresses the issue of additional compensation for loads under administrative pricing and outlines the following three key questions to be considered by the IESO Market Pricing Working Group:

- What are the circumstances in which dispatchable loads should and should not be eligible for additional compensation under administrative pricing?;
- Who should pay the costs of any additional compensation that may be provided to loads?; and
- Should non-dispatchable entities be eligible for additional compensation?

To aid the Market Pricing Working Group in developing related recommendations, this paper offers “strawman” options to each of these questions.

Prior to addressing these questions, it is worthwhile reviewing current administrative pricing practices. Awareness of these practices will facilitate further discussion on the matter.

2. Background

2.1 What is Administrative Pricing and When is it Used?

The IESO Market Rules provide that the IESO shall establish administrative prices for energy and operating reserve when¹:

- The energy or operating reserve market has been suspended;
- The IESO is unable to publish prices due to a failure in or planned outage of software, hardware, or communications equipment that supports the operation of the dispatch algorithm; or
- An incorrect price has been published due to incorrect inputs that affected the outcome of the dispatch algorithm.

Administrative prices established by the IESO are used as the basis for settlement.

¹ See Chapter 7, ss. 8.4A.1 - 8.4A.2

2.2 How are Administrative Prices Established?

2.2.1 When Markets are not Suspended, and when the Administrative Pricing Event lasts Less than 48 intervals²

In establishing administrative prices and corresponding market schedules for a non-market-suspension event, the IESO shall set the administered price and market schedule for a given dispatch interval equal to the price and schedule from either:

- the closest preceding dispatch interval that has not been administered, up to a maximum of 24 dispatch intervals, i.e. “copy forward” from “last good” interval;
- the closest subsequent dispatch interval that has not been administered, up to a maximum of 24 dispatch intervals, i.e. “copy back” from “next good” interval; or
- a combination of the closest preceding and closest subsequent dispatch intervals that have not been administered, provided that neither the preceding nor subsequent dispatch intervals are selected for more than 24 dispatch intervals.

2.2.2 When Markets are not Suspended, and when the Administrative Pricing Event Exceeds 48 Intervals³

When the need to administer prices extends beyond 48 dispatch intervals, the IESO will establish administrative prices for the remaining dispatch intervals of the event, using an average HOEP for the energy market and the hourly average of the operating reserve prices for the applicable dispatch intervals for the operating reserve markets. The hourly average values will be determined from the corresponding hour or hours from each of the 4 most recent business days or non-business days, as the case may be, excluding those hours from any day in which administrative pricing has been established. Where the IESO establishes an administrative price for a dispatch interval beyond 48 dispatch intervals, a market schedule is not established and no congestion management settlement credit payments are determined for that dispatch interval.

2.2.3. When Markets are Suspended⁴

In circumstances that result in market suspension and where the operations of the IESO-controlled grid are being conducted without regard to the market, the IESO will establish administrative prices in an identical manner as when the administrative pricing event exceeds 48 intervals (i.e. use prices of the corresponding hour or hours from each of the 4 most recent business days or non-business days, as the case may be).

² See IESO Market Rules Chapter 7, ss. 8.4A5 - 8.4A.5.3; IESO Market Manual 5, Part 5.5, s. 1.8.8; IESO Market Manual 4, Part 4.3 s. 1.10 & Appendix B;

³ See IESO Market Rules Chapter 7, ss. 8.4A6 - 8.4A.7; IESO Market Manual 4, Part 4.3 s. 1.10

⁴ See IESO Market Rules Chapter 7, ss. 8.4A8 - 8.4A.82; IESO Market Manual 4, Part 4.5 Appendix B, s. B.1

2.3 “Settlement Amount Adjustments” under Administrative Pricing

Where the markets are in operation and prices have been administered for less than 48 intervals, a market participant that has complied with dispatch instructions issued by the IESO may be eligible – subject to applicable materiality limits – for an “adjustment to its settlement amounts” as described in sections 8.4A.13 – 8.4A.16 of the IESO Market Rules (see Table 1 below for synopsis)⁵. These types of adjustments relate to circumstances where, for example, a market schedule “copied forward” under administrative pricing conditions results in a participant being “out of pocket” as a result of being assessed a negative hourly Congestion Management Settlement Credit (see Table 1 below for synopsis).

2.4 “Additional Compensation” under Administrative Pricing

Where the markets are in operation and prices have been administered for *more than 48 intervals* or, when prices have been administered due to market suspension, a market participant that has complied with dispatch instructions issued by the IESO may be eligible for “additional compensation” - subject to applicable materiality limits and to the extent that the administrative prices do not adequately compensate the market participant⁶.

In such circumstances, the IESO may provide additional compensation to a market participant, based on a calculation of the aggregate of:

- the fuel costs incurred by the market participant in complying with the IESO’s dispatch instructions;
- the variable operating and maintenance costs incurred by the market participant in complying with the IESO’s dispatch instructions; and
- an amount equal to 10% of the above costs,

less the amount of the administrative price already paid, or payable to the market participant during the administrative pricing period in question.

Where this compensation is in respect of a generation facility that is energy limited by design or by a contractual commitment, the IESO may accept an assessment of the expected future value or the opportunity costs of the fuel or water consumed:

- during the period while administrative pricing was in effect; and
- in order to comply with the dispatch instructions,

⁵ Materiality Limits for Administrative Pricing events lasting less than 48 intervals, greater than 48 intervals, and during market suspension are outlined in Market Manual 5, part 5.5 s. 1.8.8; Market Manual 4, part 4.3 s. 1.10; and Market Manual 4, part 4.5 Appendix B, s. B.2, respectively.

⁶ See IESO Market Rules Chapter 7, ss. 8.4A.9 - 8.4A.12.

in lieu of the costs outlined above⁷. If this “future value” assessment is applied, then the amount representing 10% of that assessment is not payable if, in the IESO’s opinion, the assessment amount includes or adequately covers such amount (See Table 1 for synopsis).

Table 1. Settlement Amount Adjustment and Additional Compensation Under Administrative Pricing

Market Not Suspended		Market Suspended
< 48 Intervals	> 48 Intervals	
Basis for Settlement Amount Adjustment	Basis for Additional Compensation	Basis for Additional Compensation
<p>(a) If market participant is assessed negative hourly CMSC that is not offset by IOG;</p> <p>(b) If market participant overcharged or underpaid hourly net energy market settlement credit that is not offset by CMSC or IOG.</p> <p><u>Materiality Threshold:</u> \$50/delivery point; and</p> <p>Total must exceed \$400/ each administrative pricing event request.</p>	<p>(a) Fuel and variable operating and maintenance costs incurred in complying w/ dispatch instructions;</p> <p>(b) + 10% of the above;</p> <p>or</p> <p>(c) Expected future value of fuel/water consumed in lieu of (a) if facility is energy limited (+10% may not be payable).</p> <p>Less the amount of the administrative price paid or payable to the market participant.</p> <p><u>Materiality Threshold:</u> \$1000/trade day and registered facility; and</p> <p>\$200/trade day and registered facility and equivalent of \$2/MWh.</p>	<p>(a) Fuel and variable operating and maintenance costs incurred in complying w/ dispatch instructions;</p> <p>(b) + 10% of the above;</p> <p>or</p> <p>(c) Expected future value of fuel/water consumed in lieu of (a) if facility is energy limited (+10% may not be payable).</p> <p>Less the amount of the administrative price paid or payable to the market participant.</p> <p><u>Materiality Threshold:</u> \$1000/trade day and registered facility; and</p> <p>\$200/trade day and registered facility and equivalent of \$2/MWh.</p>

2.5 What is the Current Treatment for Dispatchable Generators with respect to Additional Compensation?

2.5.1 Dispatchable Generators are Eligible for Additional Compensation for Certain Types of Costs

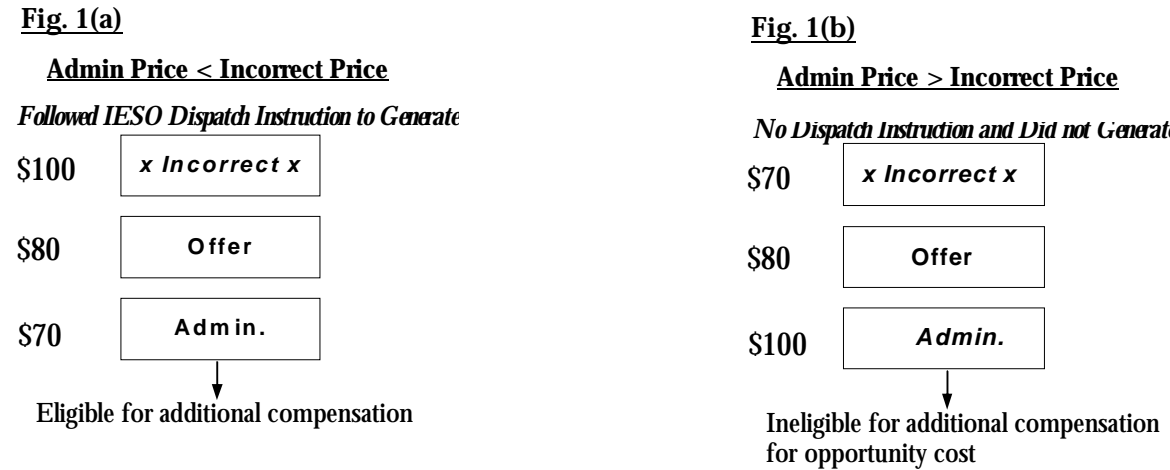
The IESO Market Rules provide for additional compensation under administrative pricing to generators that follow dispatch instructions. Generators are compensated for provable costs in circumstances where they are dispatched on as a result of an incorrect high market price that is later administered below their offer price [see figure 1(a) for illustration].

⁷ See Appendix B of IESO *Guidelines for Additional Compensation during Administrative Pricing* for methodology to establish compensation for hydroelectric facilities.

2.5.2 Dispatchable Generators are Ineligible for Additional Compensation for Foregone Opportunities

The Market Rules limit additional compensation to certain provable costs and do not provide compensation for forgone opportunities. For example, a generator might be dispatched off as a result of an incorrect low market clearing price. Should the administered price later turn out to be higher than the generator’s offer price, no allowance is made for recovery of costs in respect of any associated forgone opportunities [see figure 1(b) for illustration].

Figure 1 (a) & (b). Illustration of one circumstance during an Administrative Price Event exceeding 48 Intervals in which a Dispatchable Generator would be *Eligible* for Additional Compensation and another circumstance in which it would not be *Eligible*.



6. Additional Compensation for Dispatchable Loads under Administrative Pricing

Eligibility of dispatchable loads for additional compensation under administrative pricing (e.g. where administered prices extend beyond 48 intervals) is currently restricted to situations where a dispatchable load receives and follows IESO dispatch instructions which require running (load displacing) generation equipment connected to the dispatchable load facility. In this case, the dispatchable load may be eligible – subject to applicable materiality limits - for additional compensation in relation to the fuel or other variable costs for that generation.

IESO stakeholders have expressed interest in revisiting this restriction. For instance, the issue of additional compensation for loads has been recorded in the IESO Participant Issues Log (as issue #924 – January 21, 2004) and has been discussed in the IESO Market Pricing Working Group (August, December 2004)⁸. In both forums, the question has been raised as

⁸ See Issue #924 of the IESO Participant Issues Log at: http://www.ieso.ca/imoweb/implementation/description.asp?id=924&Sort=LAST_UPDATED&Status=all

to whether or not dispatchable loads should be eligible for additional compensation under administrative pricing beyond the additional compensation already enabled under the IESO Market Rules (i.e. beyond additional compensation relating to running generation equipment).

-- FOR DISCUSSION PURPOSES ONLY --

Question 1: In View of the Additional Compensation Currently Afforded to Generators where the Administrative Pricing Event Exceeds 48 Intervals, what might be a Comparable Treatment for Dispatchable Loads?

Strawman options 1-1 offers the view that, should dispatchable loads become eligible for additional compensation under administrative pricing (where the event exceeds 48 intervals), they should be compensated in a manner analogous or comparable to that currently afforded to dispatchable generators under the IESO Market Rules. That is, dispatchable loads would be compensated for certain provable costs (with their bid prices serving as a proxy for those costs), but would not be compensated for foregone opportunities.

Strawman Option # 1-1:

(a) Circumstance in which a Dispatchable Load would be Eligible for Additional Compensation

A dispatchable load might be dispatched on as a result of an incorrect low price and then later be required to pay an administered price for electricity consumed that is higher than the load's bid price. In this circumstance, the dispatchable load is "out-of-pocket" because it incurs a higher energy cost than it was willing to pay based on its bid price (this is analogous to the situation illustrated in figure 1(a), where a generator was dispatched to run at a price that did not recover the generator's additional costs associated with producing a given incremental unit of energy). In this circumstance, were the load eligible for additional compensation, the compensation amount might be equivalent to the difference between the load's bid price and the administered price [see figure 2(a) for illustration].

In circumstances where the market has been suspended and where, consequently, no bid is available to determine the eligible additional compensation amount, a historical bid benchmark might be used in proxy. This concept would need to be developed.

(b) Circumstance in which a Dispatchable Load would be Ineligible for Additional Compensation

A dispatchable load might be dispatched off as a result of an incorrect high market clearing price. Should the administered price later turn out to be lower than the load's bid price, no allowance would be made for recovery of costs in respect of any associated foregone

See related IESO Market Pricing Working Group Discussion Paper at:
http://www.ieso.ca/imoweb/pubs/consult/mep/MP_WG_2004Aug20_ISS28_AdmpricingComp.pdf

opportunities [see figure 2(b) for illustration]. This is analogous to the situation illustrated in figure 1(b), where a generator was not eligible for additional compensation.

Figure 2 (a) & (b). Strawman Illustration of one circumstance during an Administrative Price Event exceeding 48 Intervals in which a Dispatchable Load would be *Eligible* for Additional Compensation and another circumstance in which it would not be *Eligible*.

Fig. 2(a)

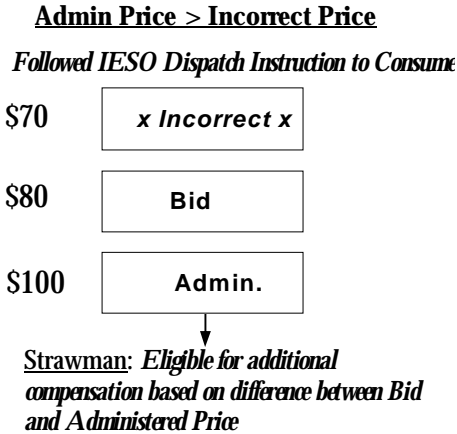
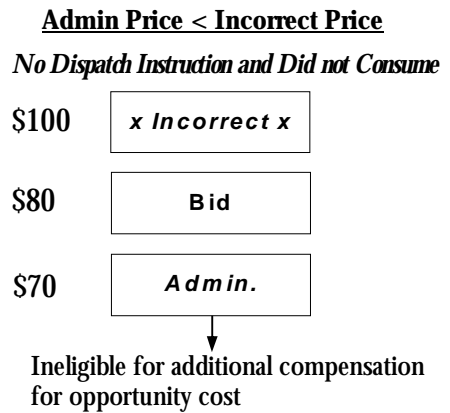


Fig. 2(b)



Strawman Option # 1-2: Status Quo

Under this strawman option, dispatchable loads would not receive any new type of additional compensation under administrative pricing beyond the additional compensation already enabled through the IESO Market Rules (i.e. in relation to situations where a dispatchable load receives and follows IESO dispatch instructions which require running generation equipment connected to the dispatchable load facility). This option offers the perspective that dispatchable loads *already* receive somewhat comparable treatment to dispatchable generators under administrative pricing. Further, this option might be argued on the basis that, in view of the relatively infrequent historic occurrence of administrative pricing events in excess of 48 intervals, development of procedures to accommodate a new type of additional compensation for dispatchable loads would not be merited at this time (such procedures would of necessity require resolution of the question of “who pays?”).

Question 2: Who Should Pay for Any Additional Compensation for Dispatchable Loads?

Prior to outlining strawman options on this question, it would be of use to review the issue of who currently pays for additional compensation for dispatchable generators. Where generators are paid additional compensation as described in section 2.5, those sums are recovered from loads across allocated quantities of energy withdrawn⁹. One straightforward and practical principle of this “price guarantee” is that generators should not be put out of

⁹ See IESO Market Rules Chapter 9, s. 4.8.1

pocket for the energy they produce following dispatch instructions, and that loads who consume energy should compensate generators for the cost of that energy (as implied through the generators' offer prices).

Strawman Option # 2-1: Loads Pay

Under this option, additional compensation paid to loads would be recovered from other loads. This would be consistent with the existing practice and rationale for recovering the costs of Congestion Management Settlement Credit payments that may be paid to specific loads from other loads. The underlying rationale in this case relates to the principle that loads are seen as the ultimate benefactors of security-constrained economic dispatch and power system balance. Since loads benefit from measures taken to balance the power system, where such measures require the IESO to issue dispatch instructions to a dispatchable load under administrative pricing, it is appropriate that loads pay the costs of any associated additional compensation for that dispatchable load

Strawman Option # 2-2: Generators Pay

Under this option, additional compensation paid to loads would be recovered from generators. This option is premised on the notion that while loads pay the out of pocket costs of generators under administrative pricing on the basis of energy consumed, the same rationale might not apply with respect to loads paying the out of pocket costs of other loads. Strawman option #2-2 offers the perspective that since an exchange of service does not occur among loads on the basis of payments for energy, it would be inappropriate that loads should fund additional compensation payments made to other loads. The argument concludes that just as loads provide a price guarantee to generators in the context of additional compensation, so too should generators provide a price guarantee to loads.

Strawman Option # 2-3: Both Loads and Generators Pay

This option is of the view that while loads are indeed benefactors of security-constrained economic dispatch and power system balance (as posited in Strawman Option #2-1 above), generators also benefit from reliability in that it enables them to move their product to market. Accordingly, this option proposes that generators should pay for some of the costs dispatchable loads might incur in complying with dispatch instructions under administrative pricing that would otherwise see those loads out of pocket.

Question 3: Should Non-Dispatchable Loads that are Market Participants be Eligible for Additional Compensation under Administrative Pricing?

Strawman Option # 3-1: Compensation Not Available

Where the IESO establishes an administrative price for a dispatch interval beyond 48 dispatch intervals, a market schedule is not established and, consequently, no Congestion Management Settlement Credit payments are made in respect of that dispatch interval. To the extent that the administrative prices established beyond 48 intervals do not adequately compensate a market participant for complying with IESO dispatch instructions, the IESO

Market Rules entitle that market participant to additional compensation (subject to the conditions described in the Market Rules).

The intent and function of additional compensation where a market schedule has not been established is analogous to that of the constrained-on payment available to dispatchable market participants in circumstances where a market schedule has been established. Non-dispatchable entities are not issued dispatch instructions by the IESO and are therefore ineligible for constrained-on payments. Accordingly, non-dispatchable entities are also ineligible for additional compensation under administrative pricing. In view of the overall intent and function of additional compensation under administrative pricing within the IESO-administered markets, this option offers the view that only dispatchable market participants should be eligible for any such additional compensation.

Strawman Option # 3-2: Some Compensation Available

This option offers the perspective that non-dispatchable loads may monitor real-time prices and base their production/consumption plans on those prices. Under conditions of administrative pricing, non-dispatchable loads might take actions that they would not otherwise have taken (for example, such as consuming based on an incorrect low price which is eventually administered to a higher price). In this option, non-dispatchable loads would be compensated in a manner analogous to the compensation provided to dispatchable loads under strawman option 1-1(a) and 1-1(b). Under this option, non-dispatchable loads would be required to provide proof that they would not have otherwise taken the action if not for the incorrect price.