

## Introduction

The scenarios described in this document are designed to facilitate the creation of DACP settlements charge types during the defined period of settlements market trials. This is accomplished using an integrated test environment, a compressed settlement schedule, revised registration data and revised real-time inputs. Because an integrated test environment is used, the scenarios are dependent on the settlements market trials participants receiving a DA schedule and then taking specific actions in real-time. Settlements market trials participants may choose to execute some or all of the scenarios described in this document using a subset of their resources. Market trials participants must identify in advance the DA-PCG eligible resources that they plan on using during the settlements market trials. The IESO encourages market participants to minimize this list to only a few resources within their fleet, as this will limit the necessary modifications to the registration data/simulated telemetry data, as well as limiting the number of total resources that are competing to get a day-ahead schedule (which should increase the chances of a market participant participating in Market Trials to receive a day-ahead schedule on any given day).

See Appendix A for a compressed settlements calendar for use during the settlements market trials.

## Scope

The settlements scenarios are designed to create specific settlements charge types based on the inputs provided. Market trials participants are responsible for supplying the necessary data to achieve a day-ahead schedule and for taking any additional actions necessary to receive a settlements charge. Because of the integrated nature of this testing, the IESO cannot guarantee that all market trials participants will receive all applicable charge types during settlements market trials.

The Day-Ahead Fuel Cost Compensation credit is not changing as a result of the EDAC project and is not in scope for the DACP settlements market trials.

## Settlements Scenarios

The settlements market trials scenarios are structured to create the settlements charge types listed below:

- DA-PCG (and components)
- DAGWC
- DA-IOG (and components)
- DA-IFC & LWFC
- DA-EFC & LWFC

## Settlements Market Trials Setup

### Real-Time Systems

Given the lack of real-time telemetry in the IESO Sandbox system, the IESO plans to use a static data file as an input into the real-time dispatch systems. This static data will simulate a not quick-start resource as being synchronized and injecting 1MW into the IESO Control Grid (ICG) for all hours. To complement this action, the IESO will modify real-time/pre-dispatch offers in the Sandbox to include a very large ramp up/down rate (e.g., 999MW/min). These actions will result in the real-time constrained dispatch being a function of the economics of the submitted offer and not be limited by the ability of the resource to physically reach its economic point. To facilitate this generation of a constrained schedule, the IESO will also modify registration data in the IESO Sandbox environment on behalf of the market participant, (registered Minimum Loading Point (MLP)) which will prevent the trigger of a start-up or shut down sequence in the real time dispatch engine, based on the disparity between the registered MLP and the injection amount in the static file.

Market participants must submit a list of DA-PCG eligible generators that they plan to use during the S-MT to generate day-ahead charge types. The IESO encourages market participants to minimize this list to only a few resources within their fleet, as this will limit the necessary modifications to the registration data/simulated telemetry data, as well as limiting the number of total resources that are competing to get a day-ahead schedule (which should increase the chances that a market trials participant will receive a day-ahead schedule on any given day).

### Settlements Systems

Given the fully integrated IESO Sandbox environment, it is expected that based on market participant submissions, all of the necessary variables (i.e, offers/bids, schedules and prices) will be available for settlement purposes, with the exception of real-time injection. The IESO will overwrite the real-time injection for each resource nominated by participants, to make it equal to the real-time constrained schedule generated on the IESO Sandbox. To accomplish this, the IESO will use a script file to take each five minute interval dispatch, divide it by 12, and substitute it into the injection variable (AQEI). This will make each nominated resource appear as if it was compliant with real-time dispatch for settlement.

## Settlements Scenario #1- DA-PCG Component 1

### Charge Type Description

A credit allowing generators to recover any shortfall in payment on the delivered real-time dispatch of the day-ahead constrained schedule based upon the real-time revenue received for that amount of energy in comparison with the costs as represented in the generator’s day-ahead offer.

Also includes clawback for the portion up to minimum loading point of the DA-PCG Component 1 for the constraint in Day 1 to complete the minimum generation block run-time from Day 0.

### Scenario Description

A DA-PCG eligible resource submitted a day-ahead offer that included incremental energy and Speed-No-Load (SNL) cost and received a day-ahead commitment. The IESO will reduce the RT demand from the DA forecast which will result in a reduced real-time MCP and fewer resources being scheduled. After 14:00 day-ahead, the market participant increases the RT offer for their nominated resource. The combination of high offer price and low demand will ensure that the real-time unconstrained schedule is 0MW, while the constrained schedule will be equal to the DGD MLP. A charge will be generated for DA-PCG component #1 if the day-ahead incremental energy offer is higher than the real-time MCP.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for nominated DA-PCG eligible resource that includes the following: <ul style="list-style-type: none"> <li>• Economic incremental energy offers</li> <li>• Speed –no –load costs</li> <li>• Start-up costs</li> </ul>			
2	Nominated resource receives a Day –Ahead commitment (as identified in DA Commitment report)			

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
3		After 14:00 MP increases offer for nominated DA-PCG eligible resource that was used for the DA Schedule of Record		
4		IESO reduces the demand in real time to create a real time MCP that is lower than the day-ahead incremental energy offer.		
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #2 – DA-PCG Component 2

### Charge Type Description

For the portion of day-ahead constrained schedule that is not implemented in the real-time dispatch schedule, the DA-PCG will guarantee the value of arranging the delivery (where the real-time offer price is less than the day-ahead offer price), or subtract any gain (where the real-time offer price is greater than the day-ahead offer price)<sup>1</sup>;

### Scenario Description

A DA-PCG eligible resource submitted a day-ahead offer that included incremental energy and Speed-No-Load (SNL) cost and received a day-ahead commitment. The IESO will reduce the RT demand from the DA forecast which will result in a reduced real-time MCP and fewer resources being scheduled. After 14:00 day-ahead, the market participant either increases or decreases the RT offer for their nominated resource. A charge/credit will be generated for DA-PCG component #2, for any portion of the day-ahead schedule that is not implemented in real-time, if a) the real-time offer price is less than the day-ahead offer price, or b) the real-time offer price is greater than the day-ahead offer price.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for nominated DA-PCG eligible resource that includes the following: <ul style="list-style-type: none"> <li>• Economic incremental energy offers</li> <li>• Speed –no –load costs</li> <li>• Start-up costs</li> </ul>			
2	Nominated resource receives a Day –Ahead commitment (as identified in DA Commitment report)			

<sup>1</sup> Where the real-time offer is equal to the day-ahead offer, the value/gain is equal to zero (0).

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
3		a) MP decreases RT offer for nominated DA-PCG eligible resource that was used for the DA Schedule of Record b) MP increases RT offer for nominated DA-PCG eligible resource that was used for the DA Schedule of Record		
4		IESO reduces the demand in real time to increase the likelihood of a nominated resource receiving a RT schedule that is less than the DA schedule		
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #3 – DA-PCG Component 3

### Charge Type Description

Any income from real-time energy CMSC for the portion of the *generator's* day-ahead constrained schedule delivered in real-time will be used to reduce the DA-PCG payment.

### Scenario Description

A DA-PCG eligible resource submitted a day-ahead offer that included incremental energy and Speed-No-Load (SNL) cost and received a day-ahead commitment. The IESO will reduce the RT demand from the DA forecast and the MP increases the RT offer price for the nominated resource. As a result of these actions, the nominated resource will not receive a RT unconstrained schedule but will receive a constrained schedule to their DGD MLP. This will result in a CMSC payment for the quantity of the constrained schedule to MLP. A charge will be generated for DA-PCG component #3, for any income from real-time energy CMSC for the portion of the *generator's* day-ahead constrained schedule delivered in real-time.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for nominated DA-PCG eligible resource that includes the following: <ul style="list-style-type: none"> <li>Economic incremental energy offers</li> <li>Speed –no –load costs</li> <li>Start-up costs</li> </ul>			
2	Nominated resource receives a Day –Ahead commitment (as identified in DA Commitment report)			
3		MP increases RT offer for nominated DA-PCG eligible resource that was used for the DA Schedule of Record.		

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
4		IESO reduces the demand in real time to increase the likelihood of a nominated resource receiving a RT schedule that is less than the DA schedule		
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #4 – DA-PCG Component 4

### Charge Type Description

The net operating reserve (OR) income realized by generators whose real-time dispatch for energy is less than their day-ahead constrained schedule for energy. Any net income from real-time operating reserve in a generator’s day-ahead constrained schedule that was not dispatched in real-time will be used to reduce the DA-PCG payment.

### Scenario Description

A DA-PCG eligible resource submitted a day-ahead offer that included incremental energy and Speed-No-Load (SNL) cost and received a day-ahead commitment. The IESO will reduce the RT demand from the DA forecast and the MP increases the RT offer for the nominated resource. The MP submits an economic RT offer for operating reserve. As a result of these actions, the nominated resource may not receive a RT schedule equal to the day-ahead schedule and may receive a schedule for operating reserve. A charge will be generated for DA-PCG component #4, for any income from real-time operating reserve in a generator’s day-ahead constrained schedule that was not dispatched in real-time.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for nominated DA-PCG eligible resource that includes the following: <ul style="list-style-type: none"> <li>• Economic incremental energy offers</li> <li>• Speed –no –load costs</li> <li>• Start-up costs</li> </ul>			
2	Nominated resource receives a Day –Ahead commitment (as identified in DA Commitment report)			
3		MP submits economic RT operating reserve offer		

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
4		MP increases RT offer for nominated DA-PCG eligible resource that was used for the DA Schedule of Record		
5		IESO reduces the demand in real time to increase the likelihood that the nominated resource will not receive a RT schedule equal to the day-ahead schedule and will receive a schedule for operating reserve.		
6			IESO notifies settlements market trials participants of charge types seen in initial calculation	
7				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #5 – DA-PCG Component 5

### Charge Type Description

As-offered start-up cost (as-offered value of bringing an off-line generator on-line to minimum loading point).

### Scenario Description

A DA-PCG eligible resource submitted a day-ahead offer that included incremental energy and Speed-No-Load (SNL) cost and received a day-ahead commitment. The nominated resource will submit economic day ahead offers for hours that will create a start event (i.e. don't offer in hour 1). The MP submits economic RT offers for at least the MLP quantity of the nominated resource. As a result of these actions, the nominated resource may receive a RT schedule equal to the day-ahead schedule. A charge will be generated for DA-PCG component #5 to recover the costs incurred to bring the generator up to minimum loading point.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for nominated DA-PCG eligible resource that result in a start event include the following: <ul style="list-style-type: none"> <li>Economic incremental energy offers</li> <li>Speed –no –load costs</li> <li>Start-up costs</li> </ul>			
2	Nominated resource receives a Day –Ahead commitment (as identified in DA Commitment report)			
3		MP submits economic RT offer for at least the MLP portion of the nominated resource		
4			IESO notifies settlements market trials participants of charge types seen in initial calculation	

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
5				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #6 – DA-Generator Withdrawal Charge

### Charge Type Description

A Withdrawal Charge for committed PCG-eligible generators will be applied when these generators withdraw their commitment. If a market participant is eligible for a DA-PCG, there may be a consequence of withdrawing from the commitment in real-time.

A withdrawal charge is applied if:

- the withdrawal was within the market participant’s control; and
- it fails a price test<sup>2</sup> (the results of this withdrawal did not provide a benefit to the IESO-administered market).

### Scenario Description

A DA-PCG eligible resource submitted a day-ahead offer that included incremental energy and Speed-No-Load (SNL) cost and received a day-ahead commitment. The IESO will increase the RT demand from the DA forecast and the MP cancels the RT offer for the nominated resource with a reason code “Withdraw”. As a result of these actions, the nominated resource will receive a withdrawal charge.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for nominated DA-PCG eligible resource that includes the following: <ul style="list-style-type: none"> <li>• Economic incremental energy offers</li> <li>• Speed –no –load costs</li> <li>• Start-up costs</li> </ul>			
2	Nominated resource receives a Day –Ahead commitment (as identified in DA Commitment report)			
3		MP submits economic RT offers		

<sup>2</sup> The price test is included within the Day-Ahead Generator Withdrawal Charge formula.

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
4		IESO increases the demand in real time to increase the likelihood of a nominated resource receiving a RT schedule that is less than the DA schedule		
5		<ul style="list-style-type: none"> <li>a) MP cancels RT offer for nominated DA-PCG eligible resource with a “Withdraw” reason code &lt; 4 hours before the first withdrawal hour.</li> <li>b) MP cancels RT offer for nominated DA-PCG eligible resource with a “Withdraw” reason code &gt; 4 hours before the first withdrawal hour.</li> </ul>		
6			IESO notifies settlements market trials participants of charge types seen in initial calculation	

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
7				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #7 – DA-IOG Component 1

### Charge Type Description

The Day-Ahead Intertie Offer Guarantee (DA-IOG) gives importers a guaranteed cost recovery when real-time revenue is insufficient to cover day-ahead as-offered costs to provide energy that was committed the day-ahead and actually flowed in the real-time market. As in the current DACP, an import that is part of a linked wheel is not eligible for a DA-IOG.

### Scenario Description

An importer submitted a day-ahead offer and received a day-ahead schedule. The IESO will reduce the RT demand from the DA forecast which will result in a reduced real-time MCP and fewer imports being scheduled. A charge will be generated for DA-PCG component #1 if the real-time revenue received for that amount of energy in comparison with the costs as represented in the importer’s day-ahead offer.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for an import			
2	Import receives a Day–Ahead schedule			
3		MP does not revise DA offer for import that was used for the DA Schedule of Record		
4		IESO reduces the demand in real time to create a real time MCP that is lower than the day-ahead incremental energy offer		
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #8 – DA-IOG Component 2

### Charge Type Description

If, as a result of economic selection, a portion of the day-ahead constrained import schedule is not implemented in the real-time dispatch schedule, the DA-IOG:

- Guarantees the cost of arranging the delivery if the real-time offer is less than the day-ahead offer; or
- Subtracts any gain where the real-time offer is greater than the day-ahead offer.

If there are no real-time energy offers submitted by the market participant for any portion of the day-ahead constrained schedule, the real-time energy offers for that portion of energy will be set to MMCP (Maximum Market Clearing Price) for the purposes of calculating Component 2.

If the real-time energy offers for any portion of the day-ahead constrained schedule is below \$0.00 \$/MWh (i.e. negative), the real-time energy offers for that portion of energy will be set to \$0.00 \$/MWh for the purposes of calculating Component 2.

### Scenario Description

An importer submitted a day-ahead offer and received a day-ahead schedule. A charge/credit will be generated for DA-PCG component #2, for any portion of the day-ahead schedule that is not implemented in real-time, if a) the real-time offer price is less than the day-ahead offer price, or b) the real-time offer price is greater than the day-ahead offer price.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for import			
2	Import receives a Day-Ahead schedule			
3		a) MP decreases RT offer for import that was used for the DA Schedule of Record b) MP increases RT offer for import that was used for the DA Schedule of Record		

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
4		IESO reduces the demand in real time to increase the likelihood of a import receiving a RT schedule that is less than the DA schedule		
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #9 – DA-IOG Component 3

### Charge Type Description

The calculated DA-IOG payment for an import will be reduced by the income received from real time Congestion Management Settlement Credits (CMSC) for the importer’s day-ahead constrained schedule delivered in real-time.

The importer’s day-ahead constrained schedule will be measured against both the real-time constrained schedule and the real-time unconstrained schedule to determine the amount of revenue from CMSC that should be included in the DA-IOG calculation.

### Scenario Description

An importer submitted a day-ahead offer and received a day-ahead schedule in hour ending 16. The IESO will increase the RT demand from the DA forecast and the MP reduces as a result of these actions, more imports may be scheduled in RT than in DA. If the interties were fully scheduled in the day-ahead, imports scheduled in RT may receive a RT unconstrained schedule to a quantity that is higher than the constrained schedule. This will result in a CMSC payment for the quantity of the constrained schedule below the unconstrained schedule. A charge will be generated for DA-IOG component #3, for any income from real-time energy CMSC for the portion of the *importer’s* day-ahead constrained schedule delivered in real-time.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for import			
2	Import receives a Day – Ahead schedule			
3		MP reduces RT offer price and increases the offer quantity of the import.		
4		IESO increases the demand in real time to increase the likelihood of a nominated resource receiving a RT schedule that is greater than or equal to the DA schedule		

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #10 – DA-IFC & LWFC

### DA-IFC Charge Type Description

The day-ahead import failure charge is assessed for imports that are scheduled day-ahead but fail to get scheduled in the hour ahead Pre-dispatch (PD-1). The Day-Ahead Import Failure Charge uses the hour-ahead Pre-dispatch price in the calculation. An import that is part of a day-ahead linked wheel is not eligible for a Day-Ahead Import Failure Charge.

If a transaction did not get scheduled in Pre-dispatch and is not exempt from the charge, the import failure charge for the transaction is calculated. The import failure settlement amount is a function of:

- The difference in price between the day-ahead energy offer price submitted and the hour ahead Pre-dispatch Ontario energy price; and
- The difference in quantity between the pre-dispatch schedule and the scheduled quantity from the DACP schedule of Record for each price-quantity pair.

### DA-LWFC Charge Type Description

This charge applies when a day-ahead linked wheel is not scheduled in the hour-ahead Pre-dispatch and does not have a bona-fide reason for the failure. The day-ahead linked wheel failure charge is assessed based on the cost of congestion between the interties where the wheeling transactions were scheduled. This cost of congestion is calculated as the spread of the day-ahead prices at the interties.

### Scenario Description

An importer submitted a day-ahead and received a day-ahead schedule. The IESO will reduce the RT demand from the DA forecast and the importer will increase the RT offer cost, this will result in a reduced real-time MCP and fewer imports being scheduled. A charge will be generated for DA-IFC if the import did not get scheduled in Pre-dispatch and is not exempt from the charge. A charge will also be generated for the DA-LWFC when the day-ahead linked wheel is not scheduled in the hour-ahead Pre-dispatch and does not have a bona-fide reason for the failure.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead offer for import			
2	Import receives a Day – Ahead schedule			
3		MP increases offer price for import that was used for the DA Schedule of Record		

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
4		IESO reduces the demand in real time to create a real time MCP that is lower than the day-ahead import offer		
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Settlements Scenario #11 – DA-EFC & LWFC

### DA-EFC Charge Type Description

The Day-Ahead Export Failure Charge is assessed for exports that are scheduled day-ahead but fail to get scheduled in the hour ahead Pre-dispatch. If an export fails between Pre-dispatch and real-time, the export will be assessed a Real-Time Export Failure Charge. An export that is part of a day-ahead linked wheel is not eligible for a Day-Ahead Export Failure Charge.

### DA-LWFC Charge Type Description

This charge applies when a day-ahead linked wheel is not scheduled in the hour-ahead Pre-dispatch and does not have a bona-fide reason for the failure. The day-ahead linked wheel failure charge is assessed based on the cost of congestion between the interties where the wheeling transactions were scheduled. This cost of congestion is calculated as the spread of the day-ahead prices at the interties.

### Scenario Description

An importer submitted a day-ahead and received a day-ahead schedule. The IESO will increase the RT demand from the DA forecast and the exporter will reduce the RT bid price, this will result in an increased real-time MCP and fewer exports being scheduled. A charge will be generated for DA-EFC if the export did not get scheduled in Pre-dispatch and is not exempt from the charge. A charge will also be generated for the DA-LWFC when the day-ahead linked wheel is not scheduled in the hour-ahead Pre-dispatch and does not have a bona-fide reason for the failure.

### Scenario Execution Steps

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
1	MP submits a day-ahead bid for export			
2	Export receives a Day – Ahead schedule			
3		MP reduces bid price for export that was used for the DA Schedule of Record		
4		IESO increases the demand in real time to create a real time MCP that is higher than the day-ahead export bid		

Step	Day Ahead (D-1)	Real Time (Trade Day) (D-0)	Initial Calc (D+2CD)	Settlements & Data File Reports (see calendar)
5			IESO notifies settlements market trials participants of charge types seen in initial calculation	
6				Participant retrieves preliminary settlement statement and data file

## Guidelines for Generating Charge Types

The settlements scenarios combine market trials participant actions with those of the IESO to create a situation that should generate the required charge types. However, because other market trials participants are trying to generate the same charge types, not all participants may be successful.

This section provides general guidelines for market participants in the settlements market trials to create multiple charge types with the same inputs.

### Settlement Market Trials – Low Demand Day

This guideline can be used to assist in generating the following charge types:

- DA-PCG Component 1
- DA-PCG Component 2
- DA-PCG Component 3
- DA-PCG Component 4
- DA-PCG Component 5
- DA-IOG Component 1
- DA-IOG Component 2
- DA-IFC & LWFC

This guideline should be applied on a trade date that has been specified by the IESO as a day where the day-ahead Ontario demand is higher than the real-time demand. The purpose of the lower demand in real-time is to suppress MCP which will result in a real-time revenue shortfall when compared with that of the day-ahead as offered costs (generating a PCG). This will also reduce the likelihood of receiving a real-time schedule that is greater than the day-ahead schedule.

### *DA-PCG Components 1-5*

- 1.) Submit a day-ahead offer before 10:00 DA that includes an incremental energy offer, and a start-up cost for a PCG eligible resource. (Market Participants who have not indicated to the IESO their intention to submit 3-part offers, must do so before attempting to submit start-up and speed-no-load costs through the API). The economic portion of the submitted offer (incremental energy and start up cost) should be economic so that the resource gets a day-ahead schedule for the full capacity of the resource.
- 2.) If the resource does not get a schedule after the first run of the DACP (10:00 run), lower the incremental energy price and start up cost and re-submit the offer by 12:00 DA. Make sure to call the operations contact @ 905-855-2800 ext 5057 in order to have the offer approved by the day-ahead operator in time for the next run.
- 3.) Provided that the resource was scheduled for its full capacity in the last run of the DACP, go on to step 4. You can confirm this by checking the latest version of the “Day-Ahead Scheduled Energy and Operating Reserve Report” and “Day Ahead Commitments” reports. Otherwise repeat steps 1 through 3 for the next trade date with the scenario that matches the scenario described in step #1.
- 4.) After the end of the DACP (post 14:00 DA) revise the energy offer of the PCG eligible resource, in preparation for real time by increasing the offer price to \$1000.00/MW for the full capacity of the resource. This step will guarantee that the 1<sup>st</sup> three components of the DA-PCG will be triggered. The high offer price will ensure that the real-time unconstrained schedule is 0MW, while the constrained schedule will be equal to the DGD MLP.
  - a. Component #1 – Utilized portion of the day-ahead schedule (DGD MLP)
  - b. Component #2 – Unutilized portion of the day-ahead schedule (DA Schedule – DGD MLP)
  - c. Component #3 – CMSC (all of the CMSC generated by the high offer price for the difference between the unconstrained and constrained schedules)
- 5.) Submit an operating reserve offer after 14:00 day-ahead for all of the types of reserves that the resource is eligible to provide (10 minute spin, 10 minute non-Spin, and 30 minute). The operating reserve offer for each type of reserve should only be for 1MW @ -\$100.00. This price will guarantee that the resource is scheduled for reserve, however given the low quantity of the offer, it should not set the reserve clearing price. (A positive reserve clearing price will generate additional reserve revenue). This step will ensure that the 4<sup>th</sup> component of the DA-PCG is triggered, since the resource did not get fully utilized in the day-ahead schedule, but did schedule reserve which generated additional real-time revenue.

### *DA-IOG Components 1 & 2*

- 1.) Submit a day-ahead import offer before 10:00 DA. The submitted offer should be economic so that the import gets a day-ahead schedule.
- 2.) If the import does not get a schedule after the first run of the DACP (10:00 run), lower the energy price and re-submit the offer by 12:00 DA. Make sure to call the operations contact @ 905-855-2800 ext 5057 in order to have the offer approved by the day-ahead operator in time for the next run.
- 3.) Provided that the import was scheduled in the last run of the DACP, go on to step 4. You can confirm this by checking the latest version of the “Day-Ahead Scheduled Energy and Operating Reserve

Report” and “Day Ahead Commitments” reports. Otherwise repeat steps 1 through 3 for the next trade date with the scenario that matches the scenario described in step #1.

- 4.) Do not revise the import offer after the end of the DACP (post 14:00 DA) and before real time. With the IESO reducing real-time demand, fewer imports may be scheduled and the RT MCP will be lower. This will trigger the 1<sup>st</sup> two components of the DA-IOG.
  - a. DA-IOG Component #1 – Utilized portion of the day-ahead schedule
  - b. DA-IOG Component #2 – Unutilized portion of the day-ahead schedule (DA Schedule – RT schedule)

### **IFC & LWFC**

- 1.) Submit a day-ahead import offer before 10:00 DA. The submitted offer should be economic so that the import gets a day-ahead schedule.
- 2.) If the import does not get a schedule after the first run of the DACP (10:00 run), lower the energy cost and re-submit the offer by 12:00 DA. Make sure to call the operations contact @ 905-855-2800 ext 5057 in order to have the offer approved by the day-ahead operator in time for the next run.
- 3.) Provided that the import was scheduled in the last run of the DACP, go on to step 4. You can confirm this by checking the latest version of “Day-Ahead Scheduled Energy and Operating Reserve Report” and “Day Ahead Commitments” reports. Otherwise repeat steps 1 through 3 for the next trade date with the scenario that matches the scenario described in step #1.
- 4.) After the end of the DACP (post 14:00 DA) increase the import offer price before real time. This combined with the IESO reducing real-time demand will result in fewer imports and a lower RT MCP. This will trigger the import failure charge and the linked wheel failure charge where applicable.

### **Settlement Market Trials – High Demand Day**

This guideline can be used to assist in generating the following charge types:

- DA-PCG Component 5<sup>3</sup>
- DA-GWC
- DA-IOG Component 3
- DA-EFC & LWFC

This guideline should be applied on a trade date that has been specified by the IESO as a day where the day-ahead Ontario demand is lower than the real-time demand. The purpose of the higher demand forecast in real-time is to increase MCP and the likelihood of receiving a real-time schedule.

### **DA-PCG Components 5**

- 1.) Submit a day-ahead offer before 10:00 DA that includes an incremental energy offer, and a start-up cost for a PCG eligible resource. (Market Participants who have not indicated to the IESO their intention to submit 3-part offers, must do so before attempting to submit start-up and speed-no-load costs through the API). The economic portion of the submitted offer (incremental energy and

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<sup>3</sup> DA-PCG Component 5 will be generated on both high and low demand days where a day-ahead commitment was received.

start up cost) should be economic so that the resource gets a day-ahead schedule for the full capacity of the resource.

- 2.) If the resource does not get a schedule after the first run of the DACP (10:00 run), lower the incremental energy and start up cost and re-submit the offer by 12:00 DA. Make sure to call the operational contact @ 905-855-2800 ext 5057 in order to have the offer approved by the day-ahead operator in time for the next run.
- 3.) Provided that the resource was scheduled for its full capacity in the last run of the DACP, go on to step 4. You can confirm this by checking the latest version of “Day-Ahead Scheduled Energy and Operating Reserve Report” and “Day Ahead Commitments” reports. Otherwise repeat steps 1 through 3 for the next trade date with the scenario that matches the scenario described in step #1.
- 4.) Given that a start-up cost was included as part of the day-ahead offer, the 5th component of the DA-PCG will be triggered. The PCG commitment will ensure that the constrained schedule for the first interval of the PCG start will be equal to DGD MLP, as we will be using the constrained schedule to mimic real-time injections this will ensure that the resource looks as if the resource started on time resulting in a component #5 calculation for the full amount of the start up cost.

### **DA-GWC**

- 1.) A DA-PCG eligible resource that received a DA schedule and commitment by completing steps 1-3 above cancels their RT offers with a “Withdraw” reason code either:
  - a. <4 hours before the first withdrawal hour, or;
  - b. >4 hours before the first withdrawal hour
- 2.) Call the MT Operations contact @ 905-855-2800 ext 5057 in order to have the offer cancellation approved by the control-room operator.
- 3.) A withdrawal charge will be generated based on the time of the withdrawal (less than or greater than 4 hours before the first withdrawal hour).

### **DA-IOG Component 3**

- 1.) Submit a day-ahead import offer before 10:00 DA. The submitted offer should be economic so that the import gets a day-ahead schedule.
- 2.) If the import does not get a schedule after the first run of the DACP (10:00 run), lower the energy cost and re-submit the offer by 12:00 DA. Make sure to call the operations contact @ 905-855-2800 ext 5057 in order to have the offer approved by the day-ahead operator in time for the next run.
- 3.) Provided that the import was scheduled in the last run of the DACP, go on to step 4. You can confirm this by checking the latest version of the “Day-Ahead Scheduled Energy and Operating Reserve Report” and “Day Ahead Commitments” reports. Otherwise repeat steps 1 through 3 for the next trade date with the scenario that matches the scenario described in step #1.
- 4.) After the end of the DACP (post 14:00 DA) reduce the import offer price and increase the offer quantity. The IESO will increase real-time demand which may schedule additional imports in the RT unconstrained schedule. If the interties were already constrained DA by security limits, any additional imports scheduled in the RT unconstrained schedule will not be scheduled in the RT constrained schedule. This will trigger component 3 of the DA-IOG.

### *DA-EFC & LWFC*

- 1.) Submit a day-ahead export bid before 10:00 DA. The submitted bid should be economic so that the export gets a day-ahead schedule.
- 2.) If the export does not get a schedule after the first run of the DACP (10:00 run), lower the bid price and re-submit the bid by 12:00 DA. Make sure to call the operations contact @ 905-855-2800 ext 5057 in order to have the offer approved by the day-ahead operator in time for the next run.
- 3.) Provided that the export was scheduled in the last run of the DACP, go on to step 4. You can confirm this by checking the latest version of “Day-Ahead Scheduled Energy and Operating Reserve Report” and “Day Ahead Commitments” reports. Otherwise repeat steps 1 through 3 for the next trade date with the scenario that matches the scenario described in step #1.
- 4.) After the end of the DACP (post 14:00 DA) reduce the bid price before real time. This combined with the IESO increasing real-time demand will result in fewer exports and a higher RT MCP. This will trigger the export failure charge and the linked wheel failure charge where applicable.

## Appendix A - Compressed Settlement Calendar and Schedule

### SETTLEMENTS - EDAC MARKET TRIALS CALENDAR

DAY OF THE WEEK	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI
CALENDAR DAYS	30-Jul	31-Jul	01-Aug	02-Aug	03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug	09-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug
IESO Setup				Higher Real-Time Demand					Lower Real-Time Demand					Lower Real-Time Demand							
									Provide initial calculation results for Aug 3 - 9					Provide initial calculation results for Aug 10 - 16							
Market Participant Actions <i>* IESO support not available on weekends.</i>				<b>Scenario #</b> 5 (DA-PCG Comp 5) 6 (GWC) 9 (DA-IOG Comp 3) 11 (DA-EFC and DA-LWFC)					<b>Scenario #</b> 1 (DA-PCG Comp 1) 3 (DA-PCG Comp 3) 2 (DA-PCG Comp 2) 4 (DA-PCG Comp 4) 7 (DA-IOG Comp 1) 8 (DA-IOG Comp 2) 10 (DA-IFC & LWFC)					<b>Download statements and data files for Aug 6 - Aug 12 inclusive</b>							

#### CALCULATIONS AND SETTLEMENT STATEMENTS ISSUED ON THE CURRENT CALENDAR DAY FOR THE FOLLOWING TRADE DAYS

CONDENSED SETTLEMENT CALENDAR	INITIAL RESULTS AVAILABLE FOR:	28-Jul	29-Jul	30-Jul	30-Jul	31-Jul	01-Aug	02-Aug			03-Aug 04-Aug 05-Aug	06-Aug	07-Aug	08-Aug	09-Aug			10-Aug 11-Aug 12-Aug	13-Aug	14-Aug	15-Aug	16-Aug
	Trade Day + 5 BD: Settlement Statements & Data Files Available for:				25-Jul	26-Jul	27-Jul	28-Jul			29-Jul 30-Jul 31-Jul 01-Aug	02-Aug	03-Aug	04-Aug	05-Aug			06-Aug 07-Aug 08-Aug	09-Aug	10-Aug	11-Aug	12-Aug

DAY OF THE WEEK	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED
CALENDAR DAYS	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug	01-Sep	02-Sep	03-Sep	04-Sep	05-Sep	06-Sep	07-Sep
IESO Setup			Lower Real-Time Demand					Higher Real-Time Demand											
Market Participant Actions <i>* Limited IESO support during Unstructured Market Trials. IESO support not available on weekends.</i>			<b>UNSTRUCTURED MARKET TRIALS</b> Download statements and data files for Aug 13 - Aug 19 inclusive					<b>UNSTRUCTURED MARKET TRIALS</b> Download statements and data files for Aug 20 - Aug 26 inclusive					Download statements and data files for Aug 27 to 30 inclusive						

#### CALCULATIONS AND SETTLEMENT STATEMENTS ISSUED ON THE CURRENT CALENDAR DAY FOR THE FOLLOWING TRADE DAYS

CONDENSED SETTLEMENT CALENDAR	INITIAL RESULTS AVAILABLE FOR:			Initial results will not be provided throughout Unstructured Market Trials														
	Trade Day + 5 BD: Settlement Statements & Data Files Available for:			13-Aug 14-Aug 15-Aug	16-Aug	17-Aug	18-Aug	19-Aug			20-Aug 21-Aug 22-Aug	23-Aug	24-Aug	25-Aug	26-Aug			27-Aug 28-Aug 29-Aug

Shaded cells denote data for this trade day is not part of Market Trials  
 Shaded cells denote weekend or statutory holiday