

Market Trials: Schedule and Forecasts in the Market Information Management (MIM) tool

August 7, 2024

Version 2.0

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Introduction

This document outlines the test cases to be executed using the Market Information Management (MIM) web services as part of Market Trials Phase 1. In this phase of testing, the primary objective is for Market Participants to confirm that certain functionality to the submission of Schedules and Forecast dispatch data in the MIM tool are working as intended.

Please note that Market Participants who are self-scheduling generation resources, intermittent generation resources in the physical market should be submitting schedules and forecasts in MIM.

It is highly recommended that Market Participants start with the Standing Bid submission test cases and then execute test cases in the following order: Daily Dispatch Data (DDD), Real-Time Energy Market (RTEM), Forebay, Operating Reserve (OR) and Schedules.

Market Participants should ensure that they submit any defects via qTest or in the Market Trials Issue Log Template. This will contribute significantly to the overall improvement of the IESO tools. For more information on how submit defects via qTest, Market Participants can refer to the [Quick Take: Submission of Test Case Results and Defects in qTest](#) on the [Market Participant Testing](#) web page.

Preconditions:

1. User has an API account that has access to the MIM Sandbox application and is able to connect to the MRP endpoint: <https://webservices-sandboxmrp.ieso.ca/emim>.
2. Dispatch data can be submitted using the following options: using the Market Participant's API tool and/or using the IESO's MWT Toolkit.
3. Connectivity to MIM using an API tool has been confirmed. Refer to the test case from Connectivity Testing, which is posted on the MRP webpage: <https://www.ieso.ca/Market-Renewal/Market-Participant-Readiness/Market-Participant-Testing>
4. Market Participants can send web service requests to MIM using their own API tool of choice.
5. Connectivity to MIM using MWT Toolkit has been confirmed. Refer to the test case from Connectivity Testing, which is posted on the MRP webpage: <https://www.ieso.ca/Market-Renewal/Market-Participant-Readiness/Market-Participant-Testing>
6. For Query and Cancel requests there must be existing data available in the system for the selected resource.

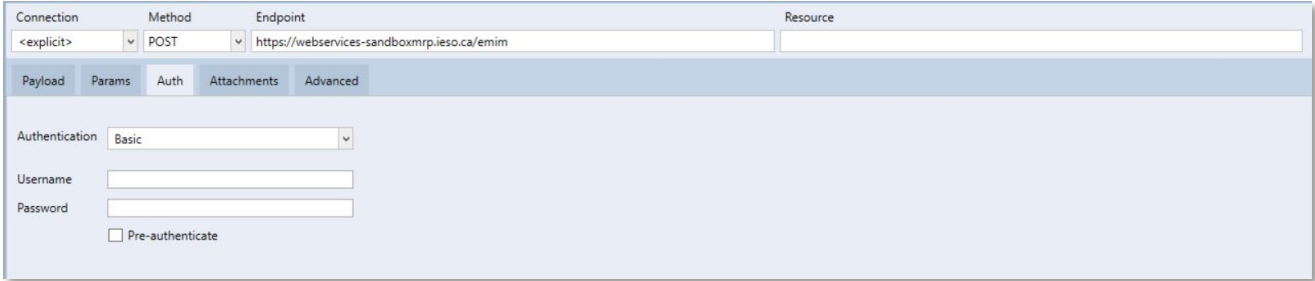
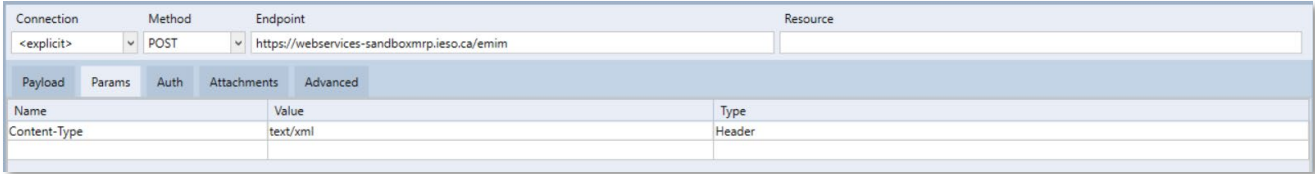
Notes:

1. The API tool used to demonstrate the test cases in this document is Tosca's API Scan. Users may choose to test with this tool or any other web service tool of their choice.

Common Functional Steps

This section lists out the common functional steps when submitting Schedules and Forecast dispatch data in MIM. This section will be referenced in the following test cases.

CFS-01: Submitting a Bid

Step	User Instruction	Expected Result
1	<p>If using an API tool:</p> <p>Set the following configurations within the API Tool to connect:</p> <p>Method: POST</p> <p>Endpoint: https://webservices-sandboxmrp.ieso.ca/emim</p> <p>Authentication: Basic</p> <p>Username: [API username]</p> <p>Password: [API password]</p> <p>Enter the following details under "Params" section</p> <p>Name: Content-Type</p> <p>Value: text/xml</p> <p>Type: Header</p>	<p>Within Tosca's API Scan tool, the configurations would look as per attached image</p>  

Step	User Instruction	Expected Result
2	<p>If submitting a "Normal" type bid using either an API tool or MWT toolkit:</p> <p>Prepare an XML submission file for a Schedule Non-Standing (Normal) bid data for a selected resource and schedule type.</p>	<p>XML submission file has been prepared successfully.</p> <pre> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://webservices.ieso.ca/emim-types/" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>3</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> <Hourly> <Hour>10</Hour> <ZeroPrice>200.00</ZeroPrice> <Quantity>5.6</Quantity> </Hourly> <Hourly> <Hour>22</Hour> <ZeroPrice>50.00</ZeroPrice> <Quantity>6.6</Quantity> </Hourly> </ScheduleBidSubmit> </pre>

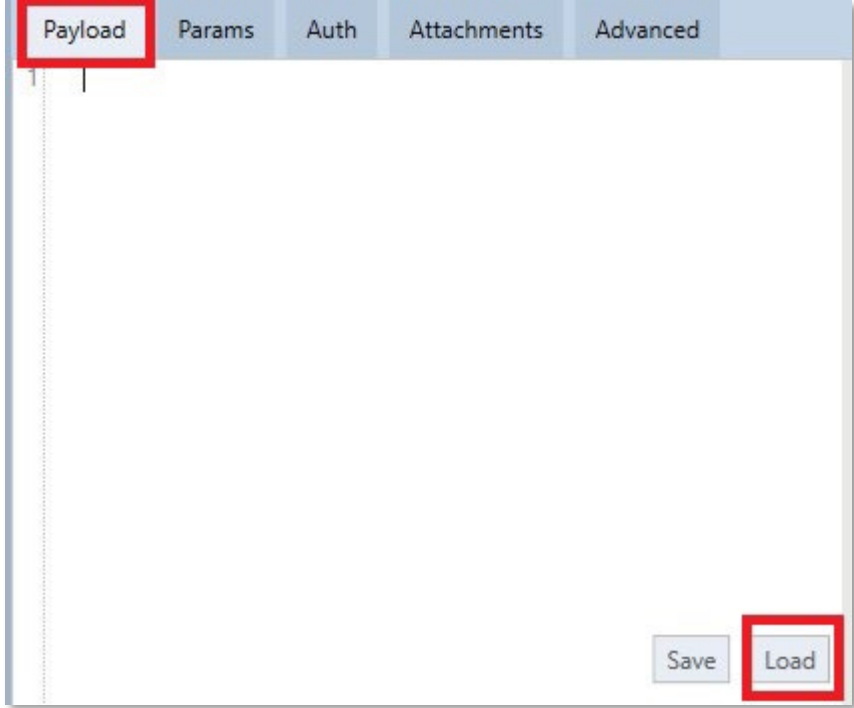
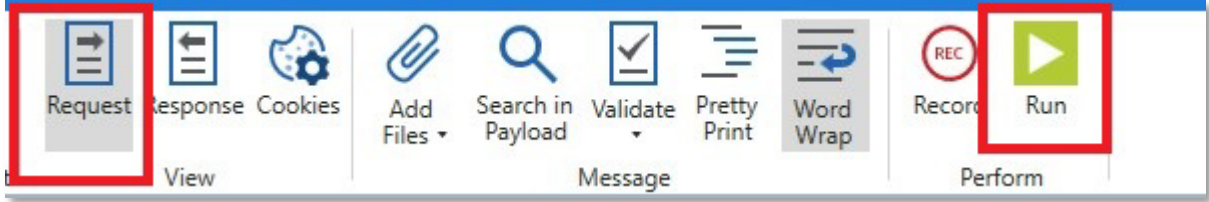
Step	User Instruction	Expected Result
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3 If submitting a "Standing" type bid using either an API tool or IESO's MWT toolkit:

Prepare an XML submission file for a Schedule Standing bid data.

XML submission file has been prepared successfully.

```
<ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://webservices.ieso.ca/emim-types/"
xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd">
  <ActAsMarketParticipant>
    <Participant>PNAME</Participant>
    <User>UNAME</User>
  </ActAsMarketParticipant>
  <Date>
    <Standing>
      <DayOfWeek>WED</DayOfWeek>
      <ExpiryDate>2030-01-01</ExpiryDate>
    </Standing>
  </Date>
  <ScheduleType>SELFGEN</ScheduleType>
  <ResourceName>RNAME</ResourceName>
  <Hourly>
    <Hour>1</Hour>
    <ZeroPrice>99.99</ZeroPrice>
    <Quantity>2.6</Quantity>
  </Hourly>
  <Hourly>
    <Hour>3</Hour>
    <ZeroPrice>300.00</ZeroPrice>
    <Quantity>3.6</Quantity>
  </Hourly>
  <Hourly>
    <Hour>10</Hour>
    <ZeroPrice>200.00</ZeroPrice>
    <Quantity>5.6</Quantity>
  </Hourly>
  <Hourly>
    <Hour>22</Hour>
    <ZeroPrice>50.00</ZeroPrice>
    <Quantity>6.6</Quantity>
  </Hourly>
</ScheduleBidSubmit>
```

Step	User Instruction	Expected Result
4	Submit the prepared XML file that has been prepared using MWT toolkit or through the API tool.	<p>If using an API tool, load the XML file into the payload section.</p>  <p>The screenshot shows the API tool interface with the 'Payload' tab selected. The 'Load' button is highlighted with a red box. The 'Save' button is also visible.</p> <p>Run the request by clicking Run within the API tool.</p>  <p>The screenshot shows the API tool interface with the 'Run' button highlighted with a red box. The 'Request' button is also highlighted with a red box.</p>

Step

User Instruction

Expected Result

If using the MWT Toolkit, submission of dispatch data is successful, and response or output file has been generated successfully.

```
C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat
INFO: Started web service client...
INFO: Reading configuration info from: ../request-files/ws-client.properties
INFO: Endpoint:
INFO: Started processing request: schedule/SCH_SUBMIT.xml
INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\schedule\SCH_SUBMIT-out.xml
INFO: Finished processing request: schedule/SCH_SUBMIT.xml
INFO: Finished client.
```

> This PC > OS_C (C:) > MIM2 > mi-wsc-ieso-4.1.2 1 > response-files > schedule

Name	Date modified	Type	Size
SCH_SUBMIT-out.xml	2024/07/05 7:32 PM	Microsoft Edge HT...	1 KB

- 5

Verify that the response file contains a successful message.

Output file confirms that the SCHEDULE submission was successfully processed.
For API tool:

Status Code200 200Response Time (ms)411

Payload

Attachments

1<ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/">

2<ns1:SubmissionTime:<div></div>/ns1:SubmissionTime>

3<ns1:TransactionId:<div></div>/ns1:TransactionId>

4<ns1:Message>

5<ns1:Severity>INFO</ns1:Severity>

6<ns1:Code:<div></div>/ns1:Code>

7<ns1:Description>Successfully processed the SCHEDULE submission.</ns1:Description>

8</ns1:Message>

9</ns1:BidProcessingStatus>

Step	User Instruction	Expected Result
		<div>For MWT tool:</div> <div><pre><?xml version='1.0' encoding='UTF-8'> <ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-07-05T18:32:22.702-05:00</ns1:SubmissionTime> <ns1:TransactionId>'</ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_SUBMIT-SUCCESS</ns1:Code> <ns1:Description>Successfully processed the SCHEDULE submission.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus></pre></div>

CFS-02: Query Bid data

Step	User Instruction	Expected Result
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1

If using an API Tool:

Set the following configurations within the API Tool to connect:

Method: POST

Endpoint:

<https://webservices-sandboxmrp.ieso.ca/emim>

Authentication: Basic

Username: [API username]

Password: [API password]

Enter the following details under "Params" section

Name: Content-Type

Value: text/xml

Type: Header

Within Tosca's API Scan tool, the configurations would look as per attached image.

The screenshot shows the Tosca API Scan tool configuration for a POST request. The 'Connection' tab is selected, showing the following fields:

Connection	Method	Endpoint	Resource
<explicit>	POST	https://webservices-sandboxmrp.ieso.ca/emim	

Below the tabs, the 'Auth' section is expanded, showing:

- Authentication: Basic
- Username: [text input]
- Password: [text input]
- ☐ Pre-authenticate

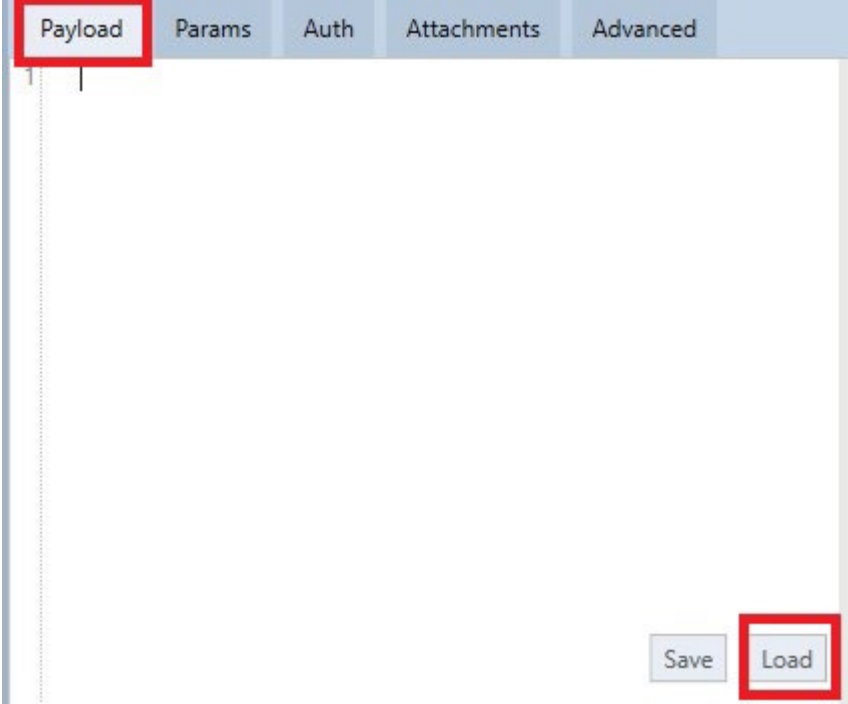
The screenshot shows the Tosca API Scan tool configuration for a POST request, with the 'Params' tab selected. The configuration is as follows:

Connection	Method	Endpoint	Resource
<explicit>	POST	https://webservices-sandboxmrp.ieso.ca/emim	

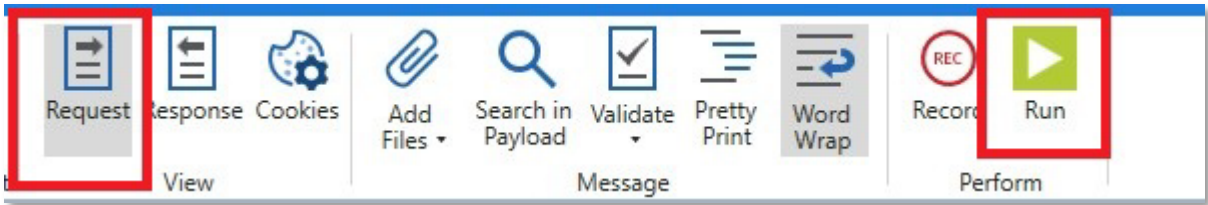
Below the tabs, the 'Params' section is expanded, showing a table of parameters:

Name	Value	Type
Content-Type	text/xml	Header

Step	User Instruction	Expected Result
2	<p>If submitting a “Normal” type bid using either an API tool or IESO’s MWT toolkit:</p> <p>Prepare an XML query file.</p>	<p>XML submission file has been prepared successfully</p> <pre> ▼<ScheduleBidQuery xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://webservices.ieso.ca/emim-types/" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd"> ▼<ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> ▼<Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>3</Hour> </ScheduleBidQuery> </pre>
3	<p>If submitting a “Standing” type bid using either an API tool or IESO’s MWT toolkit:</p> <p>Prepare an XML query file.</p>	<p>XML query file has been prepared successfully</p> <pre> ▼<ScheduleBidQuery xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://webservices.ieso.ca/emim-types/" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd"> ▼<ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> ▼<Date> ▼<Standing> <DayOfWeek>ALL</DayOfWeek> </Standing> </Date> <ScheduleType>INTGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>2</Hour> <Hour>3</Hour> </ScheduleBidQuery> </pre>

Step	User Instruction	Expected Result
4	Submit the XML file using MWT toolkit or through the API tool.	<div>If using an API tool, load the XML file into the payload section. <p>The screenshot shows a web-based API tool interface. At the top, there is a horizontal tab bar with five tabs: 'Payload', 'Params', 'Auth', 'Attachments', and 'Advanced'. The 'Payload' tab is currently selected and is highlighted with a red rectangular box. Below the tabs is a large, empty text area for entering the payload. In the bottom right corner of this text area, there are two buttons: 'Save' and 'Load'. The 'Load' button is highlighted with a red rectangular box. The overall interface has a light blue header and a white main content area.</p></div> <div>Run the request by clicking Run within the API tool.</div>

Step	User Instruction	Expected Result
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If using the MWT Toolkit, submission of dispatch data is successful, and response or output file has been generated successfully.

```

C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat
INFO: Started web service client...
INFO: Reading configuration info from: ../request-files/ws-client.properties
INFO: Endpoint:
INFO: Started processing request: schedule/ScheduleQuery.xml
INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\schedule\ScheduleQuery-out.xml
INFO: Finished processing request: schedule/ScheduleQuery.xml
INFO: Finished client.

```

> This PC > OS_C (C:) > MIM2 > mi-wsc-ieso-4.1.2 1 > response-files > schedule

Name	Date modified	Type	Size
ScheduleQuery-out.xml	2024/07/05 8:17 PM	Microsoft Edge HT...	2 KB

5	Open the response file and verify that it contains the queried data.	Output file contains the queried data for the resource.
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Step	User Instruction	Expected Result
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For API Tool:

Status Code	Response Time (ms)
200 200	411

Payload	Attachments
<pre> 1 <ns1:ScheduleBidSet xmlns:ns1="http://webservices.ieso.ca/emim-types/"> 2 <ns1:ScheduleBidSubmit> 3 <ns1:ActAsMarketParticipant> 4 <ns1:Participant> <input type="text" value="" /> </ns1:Participant> 5 <ns1:User> <input type="text" value="" /> </ns1:User> 6 </ns1:ActAsMarketParticipant> 7 <ns1:Date> 8 <ns1:DeliveryDate> <input type="text" value="" /> </ns1:DeliveryDate> 9 </ns1:Date> 10 <ns1:ScheduleType> <input type="text" value="" /> </ns1:ScheduleType> 11 <ns1:ResourceName> <input type="text" value="" /> </ns1:ResourceName> 12 <ns1:Hourly> 13 <ns1:Hour> <input type="text" value="" /> </ns1:Hour> 14 <ns1:ZeroPrice> - <input type="text" value="" /> </ns1:ZeroPrice> 15 <ns1:Quantity> <input type="text" value="" /> </ns1:Quantity> 16 </ns1:Hourly> 17 <ns1:Hourly> 18 <ns1:Hour> <input type="text" value="" /> </ns1:Hour> 19 <ns1:ZeroPrice> <input type="text" value="" /> </ns1:ZeroPrice> 20 <ns1:Quantity> <input type="text" value="" /> </ns1:Quantity> 21 </ns1:Hourly> 22 <ns1:Hourly> 23 <ns1:Hour> <input type="text" value="" /> </ns1:Hour> 24 <ns1:ZeroPrice> <input type="text" value="" /> </ns1:ZeroPrice> 25 <ns1:Quantity> <input type="text" value="" /> </ns1:Quantity> 26 </ns1:Hourly> 27 <ns1:Hourly> 28 <ns1:Hour> 4 </ns1:Hour> 29 <ns1:ZeroPrice> -2000 </ns1:ZeroPrice> 30 <ns1:Quantity> 0.1 </ns1:Quantity> </pre>	

Step	User Instruction	Expected Result
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For MWT Toolkit (for a "Normal" bid type):

```
<ns1:ScheduleBidSet xmlns:ns1="http://webservices.ieso.ca/emim-types/">
  <ns1:ScheduleBidSubmit>
    <ns1:ActAsMarketParticipant>
      <ns1:Participant>[REDACTED]/ns1:Participant>
      <ns1:User>[REDACTED]/ns1:User>
    </ns1:ActAsMarketParticipant>
    <ns1:Date>
      <ns1:DeliveryDate>[REDACTED]/ns1:DeliveryDate>
    </ns1:Date>
    <ns1:ScheduleType>[REDACTED]uleType>
    <ns1:ResourceName>[REDACTED]/ns1:ResourceName>
    <ns1:Hourly>
      <ns1:Hour>1</ns1:Hour>
      <ns1:ZeroPrice>-2000</ns1:ZeroPrice>
      <ns1:Quantity>5</ns1:Quantity>
    </ns1:Hourly>
    <ns1:Hourly>
      <ns1:Hour>2</ns1:Hour>
      <ns1:ZeroPrice>2000</ns1:ZeroPrice>
      <ns1:Quantity>4</ns1:Quantity>
    </ns1:Hourly>
    <ns1:Hourly>
      <ns1:Hour>3</ns1:Hour>
      <ns1:ZeroPrice>0</ns1:ZeroPrice>
      <ns1:Quantity>3</ns1:Quantity>
    </ns1:Hourly>
    <ns1:Hourly>
      <ns1:Hour>4</ns1:Hour>
      <ns1:ZeroPrice>-1999.99</ns1:ZeroPrice>
      <ns1:Quantity>2.3</ns1:Quantity>
    </ns1:Hourly>
    <ns1:Hourly>
      <ns1:Hour>5</ns1:Hour>
      <ns1:ZeroPrice>1999.99</ns1:ZeroPrice>
      <ns1:Quantity>2.2</ns1:Quantity>
    </ns1:Hourly>
  </ns1:ScheduleBidSubmit>
</ns1:ScheduleBidSet>
```


Step	User Instruction	Expected Result
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For MWT Toolkit (for a "Standing" bid type):

```
<ns1:ScheduleBidSet xmlns:ns1="http://webservices.ieso.ca/emim-types/">
  <ns1:ScheduleBidSubmit>
    <ns1:ActAsMarketParticipant>
      <ns1:Participant>PNAME</ns1:Participant>
      <ns1:User>UNAME</ns1:User>
    </ns1:ActAsMarketParticipant>
    <ns1:Date>
      <ns1:Standing>
        <ns1:DayOfWeek>ALL</ns1:DayOfWeek>
        <ns1:ExpiryDate>2025-03-16-05:00</ns1:ExpiryDate>
      </ns1:Standing>
    </ns1:Date>
    <ns1:ScheduleType>INTGEN</ns1:ScheduleType>
    <ns1:ResourceName>RNAME</ns1:ResourceName>
    <ns1:Hourly>
      <ns1:Hour>1</ns1:Hour>
      <ns1:ZeroPrice>-500</ns1:ZeroPrice>
      <ns1:Quantity>10.3</ns1:Quantity>
    </ns1:Hourly>
    <ns1:Hourly>
      <ns1:Hour>2</ns1:Hour>
      <ns1:ZeroPrice>-500</ns1:ZeroPrice>
      <ns1:Quantity>10.3</ns1:Quantity>
    </ns1:Hourly>
    <ns1:Hourly>
      <ns1:Hour>3</ns1:Hour>
      <ns1:ZeroPrice>-500</ns1:ZeroPrice>
      <ns1:Quantity>10.3</ns1:Quantity>
    </ns1:Hourly>
  </ns1:ScheduleBidSubmit>
</ns1:ScheduleBidSet>
```

CFS-03: Cancel Bids

Step	User Instruction	Expected Result
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- | | | |
|---|---|--|
| 1 | <p>If using an API Tool:</p> <p>Set the following configurations within the API Tool to connect:</p> <p>Method: POST</p> <p>Endpoint: https://webservices-sandboxmrp.ieso.ca/emim</p> <p>Authentication: Basic</p> <p>Username: [API username]</p> <p>Password: [API password]</p> <p>Enter the following details under "Params" section</p> <p>Name: Content-Type</p> <p>Value: text/xml</p> <p>Type: Header</p> | |
|---|---|--|

Within Tosca's API Scan tool, the configurations would look as per attached image

The screenshot shows the 'Auth' tab in the Tosca API Scan tool. The 'Connection' is set to '<explicit>', 'Method' is 'POST', and 'Endpoint' is 'https://webservices-sandboxmrp.ieso.ca/emim'. The 'Resource' field is empty. Under the 'Auth' tab, 'Authentication' is set to 'Basic'. There are input fields for 'Username' and 'Password', and a checkbox for 'Pre-authenticate' which is currently unchecked.

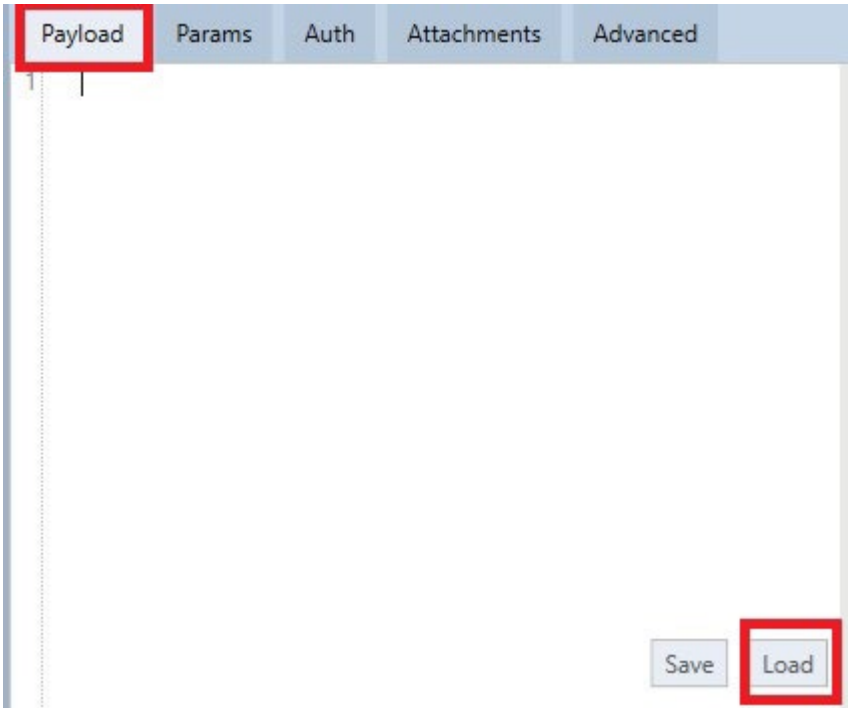
The screenshot shows the 'Params' tab in the Tosca API Scan tool. The 'Connection', 'Method', and 'Endpoint' are the same as in the previous image. Under the 'Params' tab, there is a table with the following content:

Name	Value	Type
Content-Type	text/xml	Header

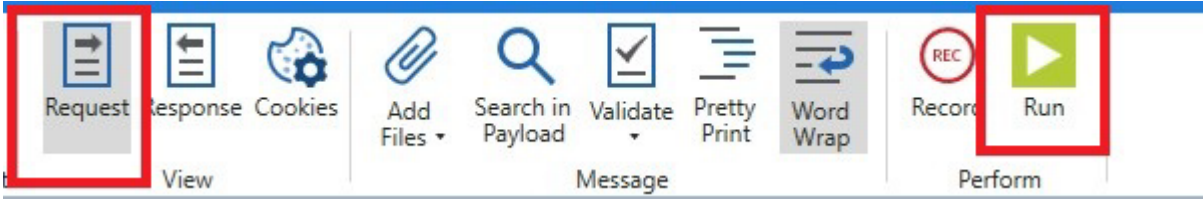
Step	User Instruction	Expected Result
2	<p>For a "Normal" bid type and submitting using either an API tool or MWT toolkit:</p> <p>Prepare an XML cancellation file.</p>	<p>XML submission file has been prepared successfully</p> <pre> ▼<ScheduleBidCancel xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://webservices.ieso.ca/emim-types/" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd"> ▼<ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> ▼<Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>3</Hour> </ScheduleBidCancel> </pre>

Step	User Instruction	Expected Result
3	<p>For a "Standing" bid type and submitting using either an API tool or MWT toolkit:</p> <p>Prepare an XML cancellation file.</p>	<p>XML cancellation file has been prepared successfully.</p> <pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidCancel xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <Standing> <DayOfWeek>ALL</DayOfWeek> <ExpiryDate>2030-01-01</ExpiryDate> </Standing> </Date> <ScheduleType>INTGEN</ScheduleType> <ResourceName>ResourceName</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> </ScheduleBidCancel> </pre>
4	<p>Submit the XML file using MWT toolkit or submit the XML file through the API tool of your choice.</p>	<p>If using an API tool, load the XML file into the payload section.</p>

Step	User Instruction	Expected Result
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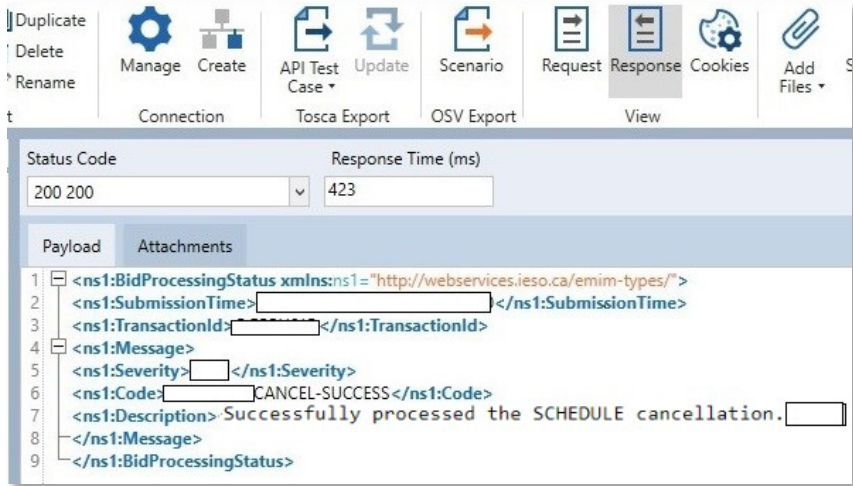


Run the request by clicking Run within the API tool.



If using the MWT Toolkit, submission is successful, and response or output file has been generated successfully.

Step	User Instruction	Expected Result
		<pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720454293519 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleCancel.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleCancel-out.xml INFO: Finished processing request: Schedule/ScheduleCancel.xml INFO: Finished client. </pre>

5	Verify that the response file contains a successful message.	<p>The output file confirms that Schedule data has been cancelled successfully.</p> <p>For API Tool:</p> 
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Step	User Instruction	Expected Result
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For MWT Tool:

```
▼<ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/">
  <ns1:SubmissionTime>2023-11-29T07:12:00.000Z</ns1:SubmissionTime>
  <ns1:TransactionId>123456789</ns1:TransactionId>
  ▼<ns1:Message>
    <ns1:Severity>INFO</ns1:Severity>
    <ns1:Code>PMPROC_I_CANCEL-SUCCESS</ns1:Code>
    <ns1:Description>Successfully processed the SCHEDULE cancellation.</ns1:Description>
  </ns1:Message>
</ns1:BidProcessingStatus>
```

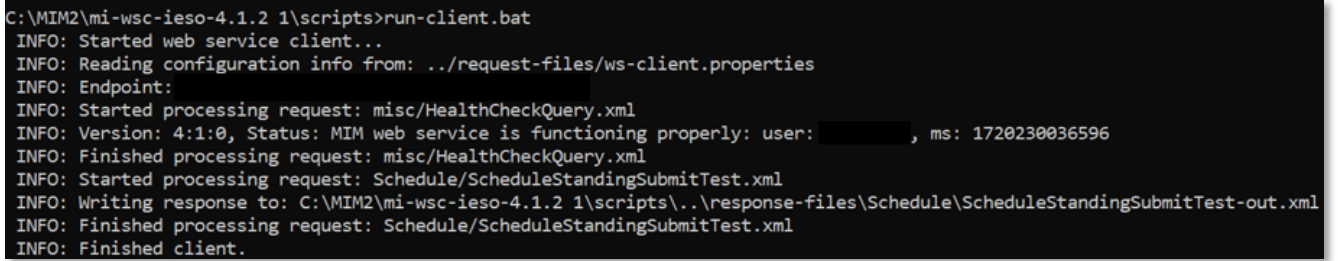
Test Cases

TC01: Verify that Schedule Non-Standing (Normal) bid data can be successfully submitted for a specific resource and schedule type

Step	User Instruction	Expected Result
1	Execute Step 2 from CFS-01 from the Common Functional Steps section.	
2	<p>Submit the prepared XML file using MWT Toolkit or submit the XML file through API tool of your choice. The submitted delivery date should be in the DA_INITIAL window.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre>C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: schedule/SCH_SUBMIT.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\schedule\SCH_SUBMIT-out.xml INFO: Finished processing request: schedule/SCH_SUBMIT.xml INFO: Finished client.</pre>

Step	User Instruction	Expected Result
3	Execute Step 5 from CFS-01 from the Common Functional Steps section.	

TC02: Verify that Schedule Standing bid data can be successfully submitted for a specific resource and schedule type

Step	User Instruction	Expected Result
1	Execute Step 3 from CFS-01 from the Common Functional Steps section.	
2	Submit the prepared XML file using MWT Toolkit or submit the XML file through API tool of your choice. The submitted delivery date should be in the DA_INITIAL window. Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.	Submission is successful, and response or output file has been generated successfully. 
3	Execute Step 5 from CFS-01 from the Common Functional Steps section.	

TC03: Verify the following for the submission of Schedule data: if the RT window state for the specified hour in the file is in Daily Restricted Window (DA_Restricted) and there is a change in the data field values, then the submission is subject to operator approval

Step	User Instruction	Expected Result
1	Prepare XML submission file for Schedule with required data fields.	<p>XML submission file has been prepared successfully.</p> <pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>2</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> </ScheduleBidSubmit> </pre>

Step	User Instruction	Expected Result
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice. The submitted delivery date should be in the RT_INITIAL window.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
3	<p>Execute Step 5 from CFS-01 from the Common Functional Steps section.</p>	
4	<p>Submit the same file from Step 1 with no changes and where the specified delivery hour is in the DA Restricted Window. The file can be submitted using MWT Toolkit or submit the</p>	<p>Submission is successful, and response or output file has been generated successfully.</p>

Step	User Instruction	Expected Result
	XML file to API tool of choice.	<pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
5	Verify that the response file contains a successful message.	<p>Output file does not contain any Operator Approval message.</p> <pre> <?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-07-05T20:24:54.311-05:00</ns1:SubmissionTime> <ns1:TransactionId></ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_SUBMIT-SUCCESS</ns1:Code> <ns1:Description>Successfully processed the SCHEDULE submission.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus> </pre>
6	Submit the same file from Step 1 but with a change in either Zero Price or Quantity and where any specified delivery hour is in the Daily Restricted Window (DA_Restricted).	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>

Step	User Instruction	Expected Result
7	Verify that the response file contains a successful message but with a condition.	<p data-bbox="669 310 1860 337">Output file displays message "Submission is successful and is waiting for operator approval."</p> <pre data-bbox="676 367 1976 570"> <?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-05-21T14:15:12.150-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_SUBMIT-APPROVAL-NEEDED</ns1:Code> <ns1:Description>Submission is successful and is waiting for operator approval.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus> </pre>

TC04: Verify that an error message is returned for a Schedule data submission with an invalid Schedule Type

Step	User Instruction	Expected Result
1	Prepare an XML submission file for a Schedule data. The request file should contain an invalid Schedule Type in the RT initial window.	<p>XML submission file has been prepared successfully.</p> <pre><?xml version="1.0" encoding="UTF-8"?> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>InvalidType</ScheduleType> <ResourceName>RNAME</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>2</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> </ScheduleBidSubmit></pre>

Step	User Instruction	Expected Result
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice. The submitted delivery date should be in the RT_INITIAL window.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is unsuccessful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2\1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml ERROR: Processing failed: org.apache.axiom.core.stream.StreamException: com.ctc.wstx.exc.WstxUnexpectedCharException: Unexpected character ''' (code 34) in DOCTYPE declaration; expected a space between public and system identifiers at [row,col {unknown-source}]: [1,50] INFO: Writing response to: ../response-files\misc/HealthCheckQuery-out.xml INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Found schema validation errors. Please fix below errors and retry! ERROR: cvc-enumeration-valid: Value 'SELFGENN' is not facet-valid with respect to enumeration '[SELFGEN, INTGEN, NONDLOAD]'. It must be a value from the enumeration. cvc-type.3.1.3: The value 'SELFGENN' of element 'ScheduleType' is not valid. INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
3	<p>Verify that the response file contains an error or failure message.</p>	<p>Output file contains an error message about the invalid Schedule Type "Schedule Type:<Invalid Bid Offer> is not valid for the Resource of Resource Type:<Resource Type>"</p> <pre> cvc-enumeration-valid: Value 'SELFGENN' is not facet-valid with respect to enumeration '[SELFGEN, INTGEN, NONDLOAD]'. It must be a value from the enumeration. cvc-type.3.1.3: The value 'SELFGENN' of element 'ScheduleType' is not valid. </pre>

TC05: Verify that an error message is returned for a Schedule data submission with an invalid Resource Name

Step	User Instruction	Expected Result
1	Prepare an XML submission file for Schedule data. The request file should contain an invalid Resource Name in the RT initial window.	<p>XML submission file has been prepared successfully.</p> <pre><?xml version="1.0" encoding="UTF-8"?> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>InvalidResoureName</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>2</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> </ScheduleBidSubmit></pre>

Step	User Instruction	Expected Result
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice. The submitted delivery date should be in the RT_INITIAL window.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is unsuccessful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: [REDACTED], ms: 1720226513361 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml ERROR: unknown, see output file for details INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
3	<p>Verify that the response file contains an error or failure message.</p>	<p>Output file contains an error message about the invalid Resource Name "Resource:<Invalid Resource Name> is not valid for Date: <Delivery Date>"</p> <pre> <?xml version="1.0" encoding="UTF-8"?> <ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-07-05T19:41:53.710-05:00</ns1:SubmissionTime> <ns1:TransactionId>[REDACTED]</ns1:TransactionId> <ns1:Message> <ns1:Severity>ERROR</ns1:Severity> <ns1:Code>PMVAL_E_RESOURCE-DDATE-INVALID</ns1:Code> <ns1:Description>Resource:[REDACTED] is not valid for Date:2024-07-06</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus> </pre>

TC06: Verify that an error message is returned for a Schedule data submission where the dispatch hours are non- unique (i.e., duplicate hours in the XML file)

Step	User Instruction	Expected Result
1	Prepare an XML submission file for Schedule data with non-unique hours in the RT initial window.	<p>XML submission file has been prepared successfully.</p> <pre><?xml version="1.0" encoding="UTF-8"?> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>1</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> </ScheduleBidSubmit></pre>

Step	User Instruction	Expected Result
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice. The submitted delivery date should be in the RT_INITIAL window.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is unsuccessful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720226727727 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml ERROR: unknown, see output file for details INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
3	<p>Verify that the response file contains an error or failure message.</p>	<p>Output file contains an error response: "Hours must be unique."</p> <pre> <?xml version="1.0" encoding="UTF-8"><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-07-05T19:45:28.061-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>ERROR</ns1:Severity> <ns1:Code>PMVAL_E_HOURS-DUPLICATE</ns1:Code> <ns1:Description>Hours must be unique.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus> </pre>

TC07: Verify that an error message is returned for a Schedule data submission where the RT Market window for the delivery date and hours are in 'RT_CLOSE' state

Step	User Instruction	Expected Result
1	Prepare an XML submission file for Schedule data where the RT Market window for the delivery date and hours are in 'RT_CLOSE' state.	<p>XML submission file has been prepared successfully.</p> <pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>2</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> <Hourly> <Hour>3</Hour> <ZeroPrice>200.00</ZeroPrice> <Quantity>5.6</Quantity> </Hourly> </ScheduleBidSubmit> </pre>

Step	User Instruction	Expected Result
2	<p>Submit the XML file to MIM (using MWT Toolkit or submit the XML file through API tool of your choice) when the RT Market window for the delivery date and hours are in 'RT_CLOSE' state. Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to preconditions.</p>	<p>Submission is unsuccessful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml ERROR: unknown, see output file for details INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
3	<p>Verify that the response file contains an error or failure message.</p>	<p>Output file contain an error message regarding the hours in the RT_CLOSE window. "RT Market is closed for hour:<Delivery Hours submitted in RT_CLOSE window>"</p> <pre> <?xml version="1.0" encoding="UTF-8"> <ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emin-types/"> <ns1:SubmissionTime>2024-01-15T14:27:11.757-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>ERROR</ns1:Severity> <ns1:Code>PMVAL_E_MARKET-RT-CLOSED</ns1:Code> <ns1:Description>RT Market is closed for hour:1</ns1:Description> <ns1:Hour>1</ns1:Hour> </ns1:Message> <ns1:Message> <ns1:Severity>ERROR</ns1:Severity> <ns1:Code>PMVAL_E_MARKET-RT-CLOSED</ns1:Code> <ns1:Description>RT Market is closed for hour:2</ns1:Description> <ns1:Hour>2</ns1:Hour> </ns1:Message> <ns1:Message> <ns1:Severity>ERROR</ns1:Severity> <ns1:Code>PMVAL_E_MARKET-RT-CLOSED</ns1:Code> <ns1:Description>RT Market is closed for hour:3</ns1:Description> <ns1:Hour>3</ns1:Hour> </ns1:Message> </ns1:BidProcessingStatus> </pre>

TC08: Verify that Schedule Non-Standing (Normal) bid data can be successfully queried for a resource

Step	User Instruction	Expected Result
1	Execute Step 2 from CFS-02 from the Common Functional Steps section, for a Schedule Non-Standing bid data.	
2	Execute Step 4 from CFS-02 from the Common Functional Steps section.	
3	Execute Step 5 from CFS-02 from the Common Functional Steps section.	

TC09: Verify that Schedule Standing bid data can be successfully queried for a resource

Step	User Instruction	Expected Result
1	Execute Step 3 from CFS-02 from the Common Functional Steps section, for a Schedule Standing bid.	
2	Execute Step 4 from CFS-02 from the Common Functional Steps section.	
3	Execute Step 5 from CFS-02 from the Common Functional Steps section.	

TC10: Verify that an error message is returned when querying for Schedule data with an invalid Schedule Type

Step	User Instruction	Expected Result
1	Prepare an XML query file for Schedule data with an invalid Schedule type.	<p>XML query file has been prepared successfully.</p> <pre><?xml version="1.0" encoding="UTF-8"?> <ScheduleBidQuery xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2024-07-05</DeliveryDate> </Date> <ScheduleType>InvalidType</ScheduleType> <ResourceName>ResourceName</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>3</Hour> </ScheduleBidQuery></pre>
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice</p>	Submission is unsuccessful, and response or output file has been generated successfully.

Step	User Instruction	Expected Result
	to submit data to MIM. Refer to the list of preconditions.	<pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml ERROR: Processing failed: org.apache.axiom.core.stream.StreamException: com.ctc.wstx.exc.WstxUnexpectedCharException: Unexpected character ''' (code 34) in DOCTYPE declaration; expected a space between public and system identifiers at [row,col {unknown-source}]: [1,50] INFO: Writing response to: ../response-files/misc/HealthCheckQuery-out.xml INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleQuery.xml INFO: Found schema validation errors. Please fix below errors and retry! ERROR: cvc-enumeration-valid: Value 'InvalidType' is not facet-valid with respect to enumeration '[SELFGEN, INTGEN, NONDLOAD]'. It must be a value from the enumeration. cvc-type.3.1.3: The value 'InvalidType' of element 'ScheduleType' is not valid. INFO: Finished processing request: Schedule/ScheduleQuery.xml INFO: Finished client. </pre>
3	Verify that the response file contains an error or failure message.	<p>Output file contains an error message about the invalid Schedule Type. "Schedule Type:<Invalid Bid Offer> is not valid for the Resource of Resource Type:<Resource Type>"</p> <pre> cvc-enumeration-valid: Value 'InvalidType' is not facet-valid with respect to enumeration '[SELFGEN, INTGEN, NONDLOAD]'. It must be a value from the enumeration. cvc-type.3.1.3: The value 'InvalidType' of element 'ScheduleType' is not valid. </pre>

TC11: Verify that an error message is returned when querying for Schedule data with an invalid Resource Name

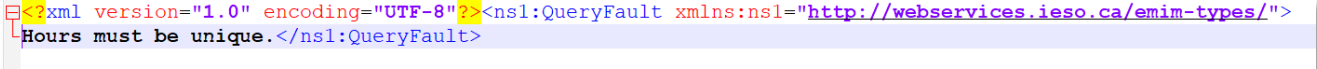
Step	User Instruction	Expected Result
1	Prepare an XML query file for Schedule data with an invalid Resource Name.	<p>XML query file has been prepared successfully.</p> <pre><?xml version="1.0" encoding="UTF-8"?> <ScheduleBidQuery xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://webservices.ieso.ca/emim-types/" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2024-07-05</DeliveryDate> </Date> <ScheduleType>INTGEN</ScheduleType> <ResourceName>InvalidResource</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>3</Hour> </ScheduleBidQuery></pre>
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM.</p>	Submission is unsuccessful, and response or output file has been generated successfully.

Step	User Instruction	Expected Result
	Refer to the list of preconditions.	<pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: SVCAPPMI, ms: 1720228081879 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleQuery.xml ERROR: Query failed: unknown INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleQuery-out.xml INFO: Finished processing request: Schedule/ScheduleQuery.xml INFO: Finished client. </pre>
3	Verify that the response file contains an error or failure message.	<p>Output file contains an error message about the invalid Resource Name "Resource: <Invalid Resource Name> is not valid for Date: <Delivery Date>."</p> <pre> <?xml version="1.0" encoding="UTF-8"?><ns1:QueryFault xmlns:ns1="http://webservices.ieso.ca/emim-types/"> Resource:InvalidResource is not valid for Date:2024-07-05</ns1:QueryFault> </pre>

TC12: Verify that an error message is returned when querying for Schedule data where the specified dispatch hours are non-unique (duplicate hours)

Step	User Instruction	Expected Result
1	Prepare an XML query file for Schedule data with non-unique hours in the RT initial window.	XML query file has been prepared successfully.

Step	User Instruction	Expected Result
		<pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidQuery xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant> </Participant> <User> </User> </ActAsMarketParticipant> <Date> <DeliveryDate>2024-07-05</DeliveryDate> </Date> <ScheduleType>INTGEN</ScheduleType> <ResourceName> </ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>1</Hour> </ScheduleBidQuery> </pre>
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is unsuccessful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720228402095 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleQuery.xml ERROR: Query failed: unknown INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleQuery-out.xml INFO: Finished processing request: Schedule/ScheduleQuery.xml INFO: Finished client. </pre>

Step	User Instruction	Expected Result
3	Verify that the response file contains an error or failure message.	Output file contains an error message: "Hours must be unique." 

TC13: Verify that Schedule Non-Standing (Normal) bid data can be successfully cancelled for a resource

Step	User Instruction	Expected Result
1	Execute Step 2 from CFS-03 from the Common Functional Steps section.	
2	Execute Step 4 from CFS-03 from the Common Functional Steps section.	
3	Execute Step 5 from CFS-03 from the Common Functional Steps section.	

TC14: Verify that Schedule Standing bid data can be successfully cancelled for a resource

Step	User Instruction	Expected Result
1	Execute Step 3 from CFS-03 from the Common Functional Steps section, for cancelling schedule Standing bid data.	
2	Execute Step 4 from CFS-03 from the Common Functional Steps section.	
3	Execute Step 5 from CFS-03 from the Common Functional Steps section.	

TC15: If the RT window for the specified hour is in DA_RESTRICTED state, then a Schedule data cancellation is subject to operator approval

Step	User Instruction	Expected Result
1	Prepare a valid XML cancellation file for Schedule data.	XML cancellation file has been prepared successfully.

Step	User Instruction	Expected Result
		<pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidCancel xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>3</Hour> </ScheduleBidCancel> </pre>
2	<p>Submit the XML file to MIM using MWT Toolkit or submit the XML file to API tool of choice when the RT window for the specified hour is in DA_RESTRICTED state. Note: Market Participants may use MWT Toolkit or an API tool of their choice for MIM submission of data. Refer to preconditions.</p>	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720230901829 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleCancel.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleCancel-out.xml INFO: Finished processing request: Schedule/ScheduleCancel.xml INFO: Finished client. </pre>

Step	User Instruction	Expected Result
3	Verify that the response file contains a successful message.	<p>Output file contains the message: Cancellation is Subject to Operator Approval.</p> <pre><?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-05-21T12:06:29.637-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_CANCEL-APPROVAL-NEEDED</ns1:Code> <ns1:Description>Cancellation is successful and is waiting for operator approval.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus></pre>

TC16: If the window state for the specified hour in file is in the Hourly RT Mandatory Window and there is a change in the values, then the Schedule data submission is subject to operator approval

Step	User Instruction	Expected Result
1	Prepare a valid XML submission file for Schedule data with all the required data fields populated	XML submission file has been prepared successfully.

Step	User Instruction	Expected Result
		<pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidSubmit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <Hourly> <Hour>1</Hour> <ZeroPrice>99.99</ZeroPrice> <Quantity>2.6</Quantity> </Hourly> <Hourly> <Hour>3</Hour> <ZeroPrice>300.00</ZeroPrice> <Quantity>3.6</Quantity> </Hourly> <Hourly> <Hour>10</Hour> <ZeroPrice>200.00</ZeroPrice> <Quantity>5.6</Quantity> </Hourly> <Hourly> <Hour>22</Hour> <ZeroPrice>50.00</ZeroPrice> <Quantity>6.6</Quantity> </Hourly> </ScheduleBidSubmit> </pre>

Step	User Instruction	Expected Result
2	<p>Submit the XML file using MWT Toolkit or submit the XML file to API tool of choice. The submitted delivery date should be in the RT_INITIAL window.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720229093914 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>
3	<p>Execute Step 5 from CFS-01 from the Common Functional Steps section.</p>	
4	<p>Submit the same file from step 1 with no changes. The specified delivery hour in the RT_WINDOW should be in RT_MANDATORY state.</p>	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre> C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720229093914 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client. </pre>

Step	User Instruction	Expected Result
5	Verify the contents of the response file.	<p>Output file does not contain any message requesting for Operator Approval.</p> <pre><?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-07-05T20:24:54.311-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_SUBMIT-SUCCESS</ns1:Code> <ns1:Description>Successfully processed the SCHEDULE submission.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus></pre>
6	Submit the same file from step 1 with a change in some attribute or data field values. The specified delivery hour in the RT_WINDOW should be in RT_MANDATORY state.	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre>C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720229093914 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleSubmit.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleSubmit-out.xml INFO: Finished processing request: Schedule/ScheduleSubmit.xml INFO: Finished client.</pre>
7	Verify the contents of the response file.	<p>Output file contains the message: Submission is successful and is waiting for operator approval."</p> <pre><?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-01-22T13:49:29.304-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_SUBMIT-APPROVAL-NEEDED</ns1:Code> <ns1:Description>Submission is successful and is waiting for operator approval.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus></pre>

TC17: If the RT window for the specified hour is in RT_MANDATORY state, then the cancellation of Schedule data is subject to operator approval

Step	User Instruction	Expected Result
1	Execute Step 2 from CFS-03 from the Common Functional Steps section, for a Schedule data.	
2	<p>Submit the XML file using MWT Toolkit or submit the XML file to API tool of choice, when the RT window for the specified hour is in RT_MANDATORY state.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice to submit data to MIM. Refer to the list of preconditions.</p>	<p>Submission is successful, and response or output file has been generated successfully.</p> <pre>C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: INFO: Started processing request: misc/HealthCheckQuery.xml INFO: Version: 4:1:0, Status: MIM web service is functioning properly: user: , ms: 1720454293519 INFO: Finished processing request: misc/HealthCheckQuery.xml INFO: Started processing request: Schedule/ScheduleCancel.xml INFO: Writing response to: C:\MIM2\mi-wsc-ieso-4.1.2 1\scripts\..\response-files\Schedule\ScheduleCancel-out.xml INFO: Finished processing request: Schedule/ScheduleCancel.xml INFO: Finished client.</pre>
3	Verify that the response file contains a successful message but with a condition.	Output file contains the message: Cancellation is successful and is waiting for operator approval

Step	User Instruction	Expected Result
		<pre><?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-05-21T12:23:08.206-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>INFO</ns1:Severity> <ns1:Code>PMPROC_I_CANCEL-APPROVAL-NEEDED</ns1:Code> <ns1:Description>Cancellation is successful and is waiting for operator approval.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus></pre>

TC18: Verify that an error message is returned for a Schedule data cancellation request where the dispatch hours are non- unique (duplicate hours in the XML file)

Step	User Instruction	Expected Result
1	Prepare an XML cancellation file for a Schedule data. The request should contain any one dispatch hour as duplicate entry.	<p>XML submission file has been prepared successfully.</p> <pre> <?xml version="1.0" encoding="UTF-8"?> <ScheduleBidCancel xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://webservices.ieso.ca/emim-types/ emim.xsd" xmlns="http://webservices.ieso.ca/emim-types/"> <ActAsMarketParticipant> <Participant>PNAME</Participant> <User>UNAME</User> </ActAsMarketParticipant> <Date> <DeliveryDate>2023-01-01</DeliveryDate> </Date> <ScheduleType>SELFGEN</ScheduleType> <ResourceName>RNAME</ResourceName> <!-- Minimum of 1 must be present and maximum of 24 Hour elements can be specified --> <Hour>1</Hour> <Hour>1</Hour> </ScheduleBidCancel> </pre>
2	<p>Submit the XML file using MWT Toolkit or submit the XML file through API tool of your choice.</p> <p>Note: Market Participants may use MWT Toolkit or their own API tool of choice</p>	<p>Submission is unsuccessful, and response or output file has been generated successfully.</p> <pre> D:\Project\MIMRelease2Latest\scripts>run-client.bat INFO: Started web service client... INFO: Reading configuration info from: ../request-files/ws-client.properties INFO: Endpoint: http://MRPMIMWS501P-V:8181/emim INFO: Started processing request: schedule/ScheduleCancel.xml ERROR: unknown, see output file for details INFO: Writing response to: D:\Project\MIMRelease2Latest\scripts\..\response-files\schedule\ScheduleCancel-out.xml INFO: Finished processing request: schedule/ScheduleCancel.xml INFO: Finished client. </pre>

Step	User Instruction	Expected Result
	to submit data to MIM. Refer to the list of preconditions.	
3	Verify that the response file contains an error or failure message.	<p>Output file contains the error message: "Hours must be unique."</p> <pre data-bbox="674 638 1978 834"><?xml version="1.0" encoding="UTF-8"?><ns1:BidProcessingStatus xmlns:ns1="http://webservices.ieso.ca/emim-types/"> <ns1:SubmissionTime>2024-01-16T13:04:17.680-05:00</ns1:SubmissionTime> <ns1:TransactionId> </ns1:TransactionId> <ns1:Message> <ns1:Severity>ERROR</ns1:Severity> <ns1:Code>PMVAL_E_HOURS-DUPLICATE</ns1:Code> <ns1:Description>Hours must be unique.</ns1:Description> </ns1:Message> </ns1:BidProcessingStatus></pre>

Additional Resources

- [MRP Market Trials Test Plan](#)
- Energy Market Interface/Market Information Management (MIM)
 - [Submitting and Revising Daily Dispatch Data](#)
 - [Submitting, Revising and Cancelling Energy Bids](#)
 - [Submitting, Revising and Cancelling Energy Offers](#)
 - [Submitting, Revising and Cancelling Import Offers and Export](#)
 - [Submitting and Revising Forebay Dispatch Data](#)
 - [Submitting, Revising and Cancelling Operating Reserve Offers](#)
 - [Submitting, Revising and Cancelling Schedules and Forecasts](#)
- [Test Cases for Connectivity Testing \(.zip\)](#)
- [Quick Take: Submission of Test Case Results and Defects in qTest](#)

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