



Midcontinent Independent System Operator

Financial Transmission Rights System

API Definitions for FTR Auction Data Exchange with MISO Customers

Version 0.2



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1 INTRODUCTION

1.1 Revision History

Date	Version	Description	Author
08/15/2013	0.1	Initial Version	Nexant
07/16/2021	0.2	Correct XSD to include required assetOwner for new bid, existing bid, new offer, existing offer, new self-scheduled ARR, and new self-scheduled ARR	Nexant

1.2 Purpose

This is draft document. None of the information should be considered 'FINAL'. The purpose of this document is to give members a forward look at the Nexant i-HEDGE™ FTR System interfaces for FTR Auctions. This document should only serve as a planning tool. In this document, only the high level API definitions are described without considering the actual message structure.

1.3 SOAP Message Structure

The SOAP message structure used in the Nexant i-HEDGE FTR System is compliant with versin 1.1 of the WS-I Basic Profile specification¹. Therefore, the WSDL 1.1 schema and XML 1.0 (second edition) are used.

1.4 References

Document Name	Version	Description	Author
FtrAuctionSchema_v1_0.xsd	1.0.0	XML schema definitions for FTR auction APIs	Nexant
FtrAuctionService_v1_0.wsdl	1.0.0	Web Service definitions for FTR auction APIs	Nexant
NexantCommonStructuresSchema_v1_0.xsd	1.0.0	XML schema defintions for FTR Service Exceptions and some common simpleType	Nexant

¹ <http://www.ws-i.org/Profiles/BasicProfile-1.1.html>



2 API DEFINITIONS

The SOAP 1.1 based Web Service provides a programmatic means of interacting with the MUI Subsystem of the Nexant i-HEDGE FTR System. The interface is backed by XML Schema definitions (XSDs). The input SOAP requests and the corresponding SOAP responses adhere to the defined XSD. The error responses containing the validation error messages would be provided as SOAP Fault messages following the standard SOAP based communication mechanism.

In general, all the operations will have a success and an error response messages backed by an XSD.

- Success - A message along with any uniquely generated IDs are provided as the response
- Error - A message along with invalid requests and detailed error message are provided as the response. The error message would match with the MUI Web interface error report in its content.

When a MISO customer desires to participate in a FTR Auction, the processes involve creating one or multiple portfolios containing FTR Bids, FTR Sell Offers and/or Self-scheduling ARRs and submitting the portfolios to a particular period and round of an auction. Additional functionalities that are available for the market participants include downloading an existing portfolio, retracting a portfolio from being submitted to a period and round of an auction, checking the status of the portfolio or deleting the portfolio. This section addresses the services for all of these FTR Auction data exchange functionalities.

2.1 Auction Portfolio Creation

2.1.1 API Description

postPortfolioCreation(new portfolio data) is an API for creating a portfolio and saving it to the data store. The new portfolio data are the input argument of this API. The portfolio name must be unique among portfolios for the same market name, period name and round identifier. The market name, period name and round identifier must reflect the round and the period associated to the auction market set up by MISO FTR Market Operator has already. In future transactions related to the portfolio, the combination of the portfolio name, market name, round identifier and period name will be used to uniquely identify it.

The response of this API, ***postPortfolioCreationResponse***, is 'PortfolioStatus'. If one or multiple bids/offers/self-schedules in the portfolio fails the validations during the portfolio creation, the description in 'PortfolioStatus' will contain the error messages for the violating FTR buy bids/FTR sell offers/self-scheduling ARRs.

2.1.2 Schema Description

The schema descriptions in the tables 1 - 6 are for the new portfolio data. Although bids, selfSchedules and offers elements are optional but a portfolio must contain at least a bid, a self-schedule or an offer. Table 7 contains the schema descriptions for the 'PortfolioStatus'.

Table 1: New Portfolio

Element Name	Element Description	Required/ Optional	Data Type
NewPortfolio	Container element for a new auction portfolio		
portfolioName	Name of the new portfolio. The portfolio name must be unique among portfolios for the same market name, period name and round identifier.	Required	String (50 characters max)
marketName	Name of auction market to which the portfolio will be submitted	Required	String (50 characters max)
periodName	Name of period in the auction market to which the portfolio will be submitted	Required	String (20 characters max)
roundLevel	Identifier of round in the auction market to which the portfolio will be submitted	Required	RoundLevel (ROUND_1, ROUND_2 or ROUND_3)
bids	FTR buy bids	Optional	NewBid
selfSchedules	Self-scheduling ARRs	Optional	NewSelfSchedule
offers	FTR sell offers	Optional	NewOffer

Table 2: New Buy Bid

Element Name	Element Description	Required/ Optional	Data Type
NewBid	Container element for a new FTR buy bid		
assetOwner	Name of asset owner	Required	String (100 characters max)
source	Name of source (settlement location) of the FTR buy bid	Required	String (40 characters max)
Sink	Name of sink (settlement location) of the FTR buy bid	Required	String (40 characters max)

Element Name	Element Description	Required/ Optional	Data Type
Tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF- PEAK)
bidCurve	Bid curve	Required	BidCurve
description	Bid description. This can be used to hold any user's unique identifier or user defined bid ID (which is not system generated bidId assigned when the bid is saved to the data store)	Required, Can be empty	String (50 characters max) If it is not blank, it can contain alphanumeric, space, underscore, or hyphen only.

Table 3: New Sell Offer

Element Name	Element Description	Required/ Optional	Data Type
NewOffer	Container element for a new FTR sell offer		
assetOwner	Name of asset owner	Required	String (100 characters max)
ftrId	Identifier of FTR for sale	Required	Number (Long)
source	Name of source (settlement location) of the FTR sell offer	Required	String (40 characters max)
Sink	Name of sink (settlement location) of the FTR sell offer	Required	String (40 characters max)
Tou	Time-of-use	Required	TimeOfUse (PEAK or OFF- PEAK)
bidCurve	Bid curve	Required	BidCurve

Element Name	Element Description	Required/ Optional	Data Type
description	Offer description. This can be used to hold any user's unique identifier or user defined offer ID (which is not system generated bidId assigned when the offer is saved to the data store).	Required, Can be empty	String (50 characters max) If it is not blank, it can contain alphanumeric, space, underscore, or hyphen only.

Table 4: New Self-Schedule

Element Name	Element Description	Required/ Optional	Data Type
NewSelfSchedule	Container element for a new Self-Schedule		
assetOwner	Name of asset owner	Required	String (100 characters max)
arrId	Identifier of ARR allocated in a round of an allocation. This arrId can be obtained from Allocation Results Download.	Required	Number (Long)
source	Name of source (settlement location) of the FTR buy bid	Required	String (40 characters max)
sink	Name of sink (settlement location) of the FTR buy bid	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
selfScheduleMw	Self-scheduling ARR MW amount. This amount must be less than or equal to the ARR MW.	Required	MwValue (Float number with format restriction of one decimal place)

Element Name	Element Description	Required/ Optional	Data Type
description	Self-schedule description. This can be used to hold any user's unique identifier or user defined self-schedule ID (which is not system generated bidId assigned when the self-schedule is saved to the data store).	Required, Can be empty	String (50 characters max) If it is not blank, it can contain alphanumeric, space, underscore, or hyphen only.

Table 5: Bid Curve

Element Name	Element Description	Required/ Optional	Data Type
BidCurve	Container element for a bid curve		
BidPoints	A bid point in a bid curve. Minimum number of bid points = 2; Maximum number of bid points = 10; A bid curve for a buy bid must be in monotonically decreasing. A bid curve for a sell offer must be in monotonically increasing.	Required	BidPoint

Table 6: Bid Point

Element Name	Element Description	Required/ Optional	Data Type
BidPoint	Container element for a bid point		
mw	MW amount	Required	MwValue (Float number with format restriction of one decimal place)
price	Price in US Dollars per MW	Required	PriceValue (Float number with format restriction of two decimal places)

Table 7: Portfolio Status

Element Name	Element Description	Required/ Optional	Data Type
PortfolioStatus	Container element for portfolio status		
portfolioName	Name of the new portfolio.	Required	String (50 characters max) It can contain alphanumeric, space, underscore, or hyphen only.
marketName	Name of auction market to which the portfolio will be submitted or have already been submitted	Required	String (50 characters max)
periodName	Name of period in the auction market to which the portfolio will be submitted or have already been submitted	Required	String (20 characters max)
roundLevel	Identifier of round in the auction market to which the portfolio will be submitted or have already been submitted	Required	RoundLevel (ROUND_1, ROUND_2 or ROUND_3)

Element Name	Element Description	Required/Optional	Data Type
status	Status of portfolio	Required	PortfolioStatusType (NEW, INVALID, VALID, SUBMITTED, REJECTED and DELETED)
errorMessage	A text file containing detailed error messages from portfolio creation, portfolio submission or portfolio credit evaluation.	Optional	Base64 arbitrary binary data (base64Binary)

2.1.3 Fault Response

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 *"Market name does not exist in the system"*: This indicates that the market name associated with the portfolio is not valid in the FTR system. The name may be misspelled or the market has not been created by the MISO FTR Market Operator.

MKT0002 *"Round name does not exist or is not associated with the specific market"*: This indicates that the round level associated with the auction for the portfolio is not valid. It must match the predefined RoundLevel, i.e. ROUND_1, ROUND_2 or ROUND_3 must be applicable to the auction market. For example, a monthly auction has only one round; thus ROUND_2 or ROUND_3 is not applicable to the monthly auction.

MKT0003 *"Period name does not exist or is not associated with the specified market"*: This indicates that the period associated with the auction for the portfolio is not valid. The possible causes include 1) the period name may be misspelled, 2) the period is not applicable to the auction market, 3) the period name does not match the name pre-defined by the MISO FTR team, etc.

AUC0101 *"Portfolio by name xxx already exists for the request Market/Period/Round"*: This indicates that the portfolio name has been used by an existing portfolio for the same round and period of the associated auction.

The detail error message of an individual bid, offer or self-schedule which fails a data validation will be in the description of 'Portfolio Status'. All bids/offers/self-schedules in the portfolio will not be saved if one or multiple errors are found.

2.1.4 Sample of Portfolio Creation Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ftr="http://api.miso.org/schema/ftr/FtrAuction/v1">
  <soapenv:Header/>
```



```
<soapenv:Body>
  <postPortfolioCreation>
    <portfolio>
      <portfolioName>AO1_2012_Annual_June</portfolioName>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
      <bids>
        <assetOwner>AO1</assetOwner>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <bidCurve>
          <!--2 to 11 repetitions:-->
          <bidPoints>
            <mw>0</mw>
            <price>20</price>
          </bidPoints>
          <bidPoints>
            <mw>5</mw>
            <price>20</price>
          </bidPoints>
        </bidCurve>
        <!--Optional:-->
        <description>AO1_Bid_1</description>
      </bids>
      <!--Zero or more repetitions:-->
      <selfSchedules>
        <assetOwner>AO1</assetOwner>
        <arrId>100</arrId>
        <source>A</source>
        <sink>B</sink>
        <tou>PEAK</tou>
        <selfScheduleMw>20</selfScheduleMw>
        <!--Optional:-->
        <description>AO1_Bid_2</description>
      </selfSchedules>
      <!--Zero or more repetitions:-->
      <offers>
        <assetOwner>AO1</assetOwner>
```

```

    <ftrId>200</ftrId>
    <source>A</source>
    <sink>B</sink>
    <tou>PEAK</tou>
    <offerCurve>
      <!--2 to 11 repetitions:-->
      <bidPoints>
        <mw>0</mw>
        <price>20</price>
      </bidPoints>
      <bidPoints>
        <mw>20</mw>
        <price>20</price>
      </bidPoints>
    </offerCurve>
    <!--Optional:-->
    <description>AO1_Bid_3</description>
  </offers>
</portfolio>
</postPortfolioCreation>
</soapenv:Body>
</soapenv:Envelope>

```

2.1.5 Sample of Portfolio Creation Response

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Body>
    <postPortfolioCreationResponse xmlns:ns2="http://api.miso.org/schema/ftr/Common/v1"
  xmlns="http://api.miso.org/schema/ftr/FtrAuction/v1">
      <return>
        <portfolioName>AO1_2012_Annual_June</portfolioName>
        <marketName>2012_Annual_Auction</marketName>
        <periodName>June2012</periodName>
        <roundLevel>ROUND_1</roundLevel>
        <status>VALID</status>
      </return>
    </postPortfolioCreationResponse>
  </soapenv:Body>
</soapenv:Envelope>

```



2.1.6 Sample of Fault Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Server</faultcode>
      <faultstring>Market name does not exist in the system.</faultstring>
      <detail>
        <ftrServiceException xmlns="http://api.miso.org/schema/ftr/Common/v1"
xmlns:ns2="http://api.miso.org/schema/ftr/ArrNomination/v1">
          <severity>ERROR</severity>
          <description>Market name does not exist in the system.</description>
          <errorCode>MKT0001</errorCode>
          <serviceVersion>1.0.0</serviceVersion>
        </ftrServiceException>
      </detail>
    </soap:Fault>
  </soap:Body>
</soap:Envelope>
```

2.2 Download of an Existing Auction Portfolio

2.2.1 API Description

getPortfolio(portfolio name, market name, round identifier, period name) is an API for downloading an existing portfolio for a specified portfolio name, market name, round identifier and period name. If the portfolio name matches an existing portfolio for the specified market name, round identifier and period name for the asset owner, the response, ***getPortfolioResponse***, will return a portfolio. The portfolio contains portfolio name, market name, period name, round identifier and FTR buy bids, FTR sell offers and/or self-scheduling ARRs. The system generated bid IDs of all buy bids, FTR sell offers and/or self-scheduling ARRs are also included in the portfolio.

2.2.2 Schema Description

The schema descriptions in the table below are for an existing portfolio data.

Table 8: An Existing Portfolio

Element Name	Element Description	Required/ Optional	Data Type
Portfolio	Container element for an existing auction portfolio		

Element Name	Element Description	Required/ Optional	Data Type
portfolioName	Name of the new portfolio. The portfolio name must be unique among portfolios for the same market name, period name and round identifier.	Required	String (50 characters max)
marketName	Name of auction market to which the portfolio will be submitted or have already been submitted	Required	String (50 characters max)
periodName	Name of period in the auction market to which the portfolio will be submitted or have already been submitted	Required	String (20 characters max)
roundLevel	Identifier of round in the auction market to which the portfolio will be submitted or have already been submitted	Required	RoundLevel (ROUND_1, ROUND_2 or ROUND_3)
bids	FTR buy bids	Optional	Bid
selfSchedules	Self-scheduling ARRs	Optional	Self Schedule
offers	FTR sell offers	Optional	Offer

Table 9: An Existing Buy Bid

Element Name	Element Description	Required/ Optional	Data Type
Bid	Container element for an existing FTR buy bid		
bidId	Identifier of a bid (unique ID across buy bids, sell offers and self-schedules)	Required	Number (Long)
source	Name of source (settlement location) of the FTR buy bid	Required	String (40 characters max)
sink	Name of sink (settlement location) of the FTR buy bid	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)

Element Name	Element Description	Required/ Optional	Data Type
assetOwner	Name of asset owner	Required	String (100 characters max)
bidCurve	Bid curve	Required	BidCurve
description	Bid description. This can be used to hold any user's unique identifier or user defined bid ID (which is not system generated bid Id).	Required, Can be empty	String (50 characters max) If it is not blank, it can contain alphanumeric, space, underscore, or hyphen only.

Table 10: An Existing Sell Offer

Element Name	Element Description	Required/ Optional	Data Type
Offer	Container element for an existing FTR sell offer		
bidId	Identifier of an offer (unique ID across buy bids, sell offers and self-schedules)	Required	Number (Long)
ftrId	Identifier of FTR for sale	Required	Number (Long)
source	Name of source (settlement location) of the FTR sell offer	Required	String (40 characters max)
sink	Name of sink (settlement location) of the FTR sell offer	Required	String (40 characters max)
tou	Time-of-use	Required	TimeOfUse (PEAK or OFF-PEAK)
assetOwner	Name of asset owner	Required	String (100 characters max)
bidCurve	Bid curve	Required	BidCurve

Element Name	Element Description	Required/ Optional	Data Type
description	Offer description. This can be used to store any user's unique identifier or the offer ID defined by the user (which is not system generated bidId).	Required, Can be empty	String (50 characters max) If it is not blank, it can contain alphanumeric, space, underscore, or hyphen only.

Table 11: An Existing Self-Schedule

Element Name	Element Description	Required/ Optional	Data Type
SelfSchedule	Container element for an existing Self-Schedule		
bidId	Identifier of a self-schedule (unique ID across buy bids, sell offers and self-schedules)	Required	Number (Long)
arrId	Identifier of ARR allocated in a round of an allocation. This arrId can be obtained from Allocation Results download.	Required	Number (Long)
source	Name of source (settlement location) of the FTR buy bid	Required	String (40 characters max)
sink	Name of sink (settlement location) of the FTR buy bid	Required	String (40 characters max)
tou	Time-of-use (PEAK and OFF-PEAK)	Required	TimeOfUse (PEAK or OFF-PEAK)
assetOwner	Name of asset owner	Required	String (100 characters max)
selfScheduleMw	Self-scheduling ARR MW amount. This amount must be less than or equal to the ARR MW.	Required	MwValue (Float number with format restriction of one decimal place)

Element Name	Element Description	Required/ Optional	Data Type
description	Self-schedule description. This can be used to hold any user's unique identifier or user defined self-schedule ID (which is not system generated bidId).	Required, Can be empty	String (50 characters max) If it is not blank, it can contain alphanumeric, space, underscore, or hyphen only.

2.2.3 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 see description in 2.1.3.

MKT0002 see description in 2.1.3.

MKT0003 see description in 2.1.3.

AUC0100 "Portfolio Name does not exist for the specified market, period and round": this indicates that no portfolio by the portfolio name associated with the specified market, round, period and asset owner is found in the FTR system.

Sample of fault response is provided in 2.1.6.

2.2.4 Sample of Portfolio Download Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ftr="http://api.miso.org/schema/ftr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getPortfolio>
      <portfolioName>AO1_2012_Annual_June</portfolioName>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
    </getPortfolio>
  </soapenv:Body>
</soapenv:Envelope>
```



2.2.5 Sample of Portfolio Download Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Body>
    <getPortfolioResponse xmlns:ns2="http://api.miso.org/schema/ftr/Common/v1"
      xmlns="http://api.miso.org/schema/ftr/FtrAuction/v1">
      <return>
        <portfolioName>AO1_2012_Annual_June</portfolioName>
        <marketName>2012_Annual_Auction</marketName>
        <periodName>June2012</periodName>
        <roundLevel>ROUND_1</roundLevel>
        <!--Zero or more repetitions:-->
        <bids>
          <bidId>500</bidId>
          <source>A</source>
          <sink>B</sink>
          <tou>PEAK</tou>
          <assetOwner>AO1</assetOwner>
          <bidCurve>
            <!--2 to 11 repetitions:-->
            <bidPoints>
              <mw>0</mw>
              <price>20</price>
            </bidPoints>
            <bidPoints>
              <mw>5</mw>
              <price>20</price>
            </bidPoints>
          </bidCurve>
          <!--Optional:-->
          <description>AO1_Bid_1</description>
        </bids>
        <!--Zero or more repetitions:-->
        <selfSchedules>
          <bidId>501</bidId>
          <arrId>100</arrId>
          <source>A</source>
          <sink>B</sink>
          <tou>PEAK</tou>
          <assetOwner>AO1</assetOwner>
```

```

    <selfScheduleMw>20</selfScheduleMw>
    <!--Optional:-->
    <description>AO1_Bid_2</description>
</selfSchedules>
<!--Zero or more repetitions:-->
<offers>
    <bidId>502</bidId>
    <ftrId>200</ftrId>
    <source>A</source>
    <sink>B</sink>
    <tou>PEAK</tou>
    <assetOwner>AO1</assetOwner>
    <offerCurve>
        <!--2 to 11 repetitions:-->
        <bidPoints>
            <mw>0</mw>
            <price>20</price>
        </bidPoints>
        <bidPoints>
            <mw>20</mw>
            <price>20</price>
        </bidPoints>
    </offerCurve>
    <!--Optional:-->
    <description>AO1_Bid_3</description>
</offers>
</return>
</getPortfolioResponse>
</soapenv:Body>
</soapenv:Envelope>

```

2.3 Download of Names and Statuses of Existing Portfolios

2.3.1 API Description

getPortfolioList(*market name*, *round identifier*, *period name*) is an API for downloading a list of portfolio names and their status for a specified market, period and round. The response, ***getPortfolioListResponse***, returns a list of 'PortfolioStatus' described in Table 7. The following list shows the possible statuses of a portfolio.

- NEW: This status indicates that the portfolio is blank (it does not contain any bids/offers/self-schedules).



- **INVALID:** This status indicates that at least one buy bid, sell offer or self-schedule in the portfolio is invalid. The description in 'PortfolioStatus' will contain detailed error messages.
- **VALID:** This status indicates that all buy bids, sell offers and/or self-schedules in the portfolio are valid and the portfolio has not been submitted to the specified round and period of the auction. This status is also assigned to a portfolio that has been successfully retracted from being submitted to an auction.
- **SUBMITTED:** This status indicates that the portfolio submission and the buy bids, sell offers and/or self-schedules in the portfolio are submitted to the FTR auction.
- **REJECTED:** This status indicates that the portfolio submission has been rejected.
- **DELETED:** This status indicates that the portfolio has been successfully deleted.

2.3.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 see description in 2.1.3.

MKT0002 see description in 2.1.3.

MKT0003 see description in 2.1.3.

Sample of fault response is provided in 2.1.6.

2.3.3 Sample of Portfolio List Download Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ftr="http://api.miso.org/schema/ftr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getPortfolioList>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
    </getPortfolioList>
  </soapenv:Body>
</soapenv:Envelope>
```

2.3.4 Sample of Portfolio List Download Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Body>
    <getPortfolioListResponse xmlns:ns2="http://api.miso.org/schema/ftr/Common/v1"
xmlns="http://api.miso.org/schema/ftr/FtrAuction/v1">
      <!--Zero or more repetitions:-->
```



```
<return>
  <portfolioName> AO1_2012_Annual_June_ON </portfolioName>
  <marketName>2012_Annual_Auction</marketName>
  <periodName>June2012</periodName>
  <roundLevel>ROUND_1</roundLevel>
  <status>VALID</status>
</return>
<return>
  <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
  <marketName>2012_Annual_Auction</marketName>
  <periodName>June2012</periodName>
  <roundLevel>ROUND_1</roundLevel>
  <status>SUBMITTED</status>
</return>
</getPortfolioListResponse>
</soapenv:Body>
</soapenv:Envelope>
```

2.4 Auction Portfolio Submission

2.4.1 API Description

postPortfolioSubmission(portfolio name, market name, round identifier, period name) is an API for submitting an existing portfolio to the market/period/round associated during the creation process. The portfolio must be submitted to the associated auction, round and period in order for bids, offers and self-schedules in the portfolio to be included in the FTR auction executed by the MISO FTR Market Operator. The portfolio can be submitted when the bidding window of the particular round is open. Note that the portfolio can be created for a specific market, round and period before the bidding window of the particular round is open (after the market is set up by the MISO FTR Market Operator).

The response, ***postPortfolioSubmissionResponse***, for the auction portfolio submission is 'PortfolioStatus' described in Table 7. If the portfolio is valid, the portfolio has not been submitted to an auction, the auction round is open and there is no validation error (e.g. the total number of bids and offers from submitted portfolio and this portfolio does not exceed the limit per market participant, market, round, and period), the required credit based on bids and offers in the portfolio is evaluated against the market participant's available credit. If there is no violation in any validations including the credit check, the response of this API request, ***postPortfolioSubmissionResponse***, returns 'PortfolioStatus' which has status as 'SUBMITTED'.

2.4.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 see description in 2.1.3.



MKT0002 see description in 2.1.3.

MKT0003 see description in 2.1.3.

ATH0001 see description in 2.1.3.

ATH0002 see description in 2.1.3.

AUC0100 see description in 2.2.3.

MKT0004 *"Market round is closed for submission of bids/nominations"*: this indicates that the specified round of the auction is not open for any auction portfolio to be submitted to.

AUC0040 *"Portfolio "xxx" has already been submitted to period "xxx" and round "xxx" of auction "xxx" or it is still in pending retraction"*: this indicates that the portfolio has already been submitted to an auction or the portfolio is being submitted or retracted to/from the auction.

Sample of fault response is provided in 2.1.6.

2.4.3 Sample of Portfolio Submission Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:fttr="http://api.miso.org/schema/fttr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <postPortfolioSubmission>
      <portfolioName> AO1_2012_Annual_June_ON </portfolioName>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
    </postPortfolioSubmission>
  </soapenv:Body>
</soapenv:Envelope>
```

2.4.4 Sample of Portfolio Submission Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Header/>
  <soapenv:Body>
    <postPortfolioSubmissionResponse xmlns:ns2="http://api.miso.org/schema/fttr/Common/v1"
xmlns="http://api.miso.org/schema/fttr/FtrAuction/v1">
      <return>
        <portfolioName> AO1_2012_Annual_June_ON </portfolioName>
        <marketName>2012_Annual_Auction</marketName>
        <periodName>June2012</periodName>
```



```
<roundLevel>ROUND_1</roundLevel>
<status>SUBMITTED</status>
</return>
</postPortfolioSubmissionResponse>
</soapenv:Body>
</soapenv:Envelope>
```

2.5 Auction Portfolio Retraction

2.5.1 API Description

postPortfolioRetraction(portfolio name, market name, round identifier, period name) is an API for retracting (cancelling) an earlier successfully submitted portfolio. If the portfolio is in 'SUBMITTED' status before, the response of this API request, ***postPortfolioRetractionResponse***, returns 'PortfolioStatus' which has status as 'VALID'.

2.5.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 see description in 2.1.3.

MKT0002 see description in 2.1.3.

MKT0003 see description in 2.1.3.

AUC0100 see description in 2.2.3.

MKT0004 see description in 2.4.3.

AUC0038 *"Portfolio "xxx" is not in SUBMITTED status and cannot be retracted"*: this indicates that the portfolio is not in 'SUBMITTED' status; thus portfolio cannot be retracted.

Sample of fault response is provided in 2.1.6.

2.5.3 Sample of Portfolio Retraction Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ftr="http://api.miso.org/schema/ftr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <postPortfolioRetraction>
      <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
```




```
</postPortfolioRetraction>
</soapenv:Body>
</soapenv:Envelope>
```

2.5.4 Sample of Portfolio Retraction Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" >
  <soapenv:Body>
    <postPortfolioRetractionResponse xmlns:ns2="http://api.miso.org/schema/ptr/Common/v1"
  xmlns="http://api.miso.org/schema/ptr/FtrAuction/v1">
      <return>
        <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
        <marketName>2012_Annual_Auction</marketName>
        <periodName>June2012</periodName>
        <roundLevel>ROUND_1</roundLevel>
        <status>VALID</status>
      </return>
    </postPortfolioRetractionResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.6 Status Check of Auction Portfolio

2.6.1 API Description

getPortfolioStatus(portfolio name, market name, round identifier, period name) is an API for checking the status of an existing portfolio in any states. The main use of this API is checking the result of a portfolio credit evaluation. Since the credit evaluation is an asynchronous process performed by the Credit Management System (an external system), this API is used to check the results of the portfolio submission or the portfolio retraction. The response of this API, ***getPortfolioStatusResponse***, returns 'PortfolioStatus'.

2.6.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 see description in 2.1.3.

MKT0002 see description in 2.1.3.

MKT0003 see description in 2.1.3.

AUC0100 see description in 2.2.3.

Sample of fault response is provided in 2.1.6.



2.6.3 Sample of Portfolio Status Check Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ftr="http://api.miso.org/schema/ftr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <getPortfolioStatus>
      <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
    </getPortfolioStatus>
  </soapenv:Body>
</soapenv:Envelope>
```

2.6.4 Sample of Portfolio Status Check Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <getPortfolioStatusResponse xmlns:ns2="http://api.miso.org/schema/ftr/Common/v1"
xmlns="http://api.miso.org/schema/ftr/FtrAuction/v1">
      <return>
        <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
        <marketName>2012_Annual_Auction</marketName>
        <periodName>June2012</periodName>
        <roundLevel>ROUND_1</roundLevel>
        <status>VALID</status>
      </return>
    </getPortfolioStatusResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

2.7 Auction Portfolio Deletion

2.7.1 API Description

deletePortfolio(portfolio name, market name, round identifier, period name) is an API for deleting an existing portfolio provided it is not in 'SUBMITTED' status. The portfolio must be retracted from being submitted to an auction prior to the deletion.



2.7.2 Fault Responses

SOAP fault will contain the fault code, fault string and detail of the fault. The fault response can be due to the following fault codes.

MKT0001 *see description in 2.1.3.*

MKT0002 *see description in 2.1.3.*

MKT0003 *see description in 2.1.3.*

AUC0100 *see description in 2.2.3.*

AUC0042 *"Portfolio "xxx" cannot be deleted because it is in SUBMITTED status or it is in submission process"*

Sample of fault response is provided in 2.1.6.

2.7.3 Sample of Portfolio Deletion Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:fttr="http://api.miso.org/schema/fttr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <deletePortfolio>
      <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
      <marketName>2012_Annual_Auction</marketName>
      <periodName>June2012</periodName>
      <roundLevel>ROUND_1</roundLevel>
    </deletePortfolio>
  </soapenv:Body>
</soapenv:Envelope>
```

2.7.4 Sample of Portfolio Deletion Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:fttr="http://api.miso.org/schema/fttr/FtrAuction/v1">
  <soapenv:Header/>
  <soapenv:Body>
    <deletePortfolioResponse xmlns:ns2="http://api.miso.org/schema/fttr/Common/v1"
xmlns="http://api.miso.org/schema/fttr/FtrAuction/v1">
      <return>
        <portfolioName> AO1_2012_Annual_June_OFF </portfolioName>
        <marketName>2012_Annual_Auction</marketName>
        <periodName>June2012</periodName>
        <roundLevel>ROUND_1</roundLevel>
      </return>
    </deletePortfolioResponse>
  </soapenv:Body>
</soapenv:Envelope>
```



```
<status>DELETED</status>
</return>
</deletePortfolioResponse>
</soapenv:Body>
</soapenv:Envelope>
```

2.8 Miscellaneous

2.8.1 Version of Web Service for FTR Auction

getFtrAuctionServiceVersion() is an API used to check version number of FTR Auction Web Service artifact. The response will contain the current version in <Major>.<Minor>.<Patch>.

2.8.2 Ping

ping() is an API used to check connectivity. It returns true if the service can be reached.