

# Gemini API Specification

## *Add / Update Nominations*

*Copyright National Grid, all rights reserved.*

*No part of this publication may be reproduced in any material form (including photocopying and restoring in any medium or electronic means and whether or not transiently or incidentally) without the written permission of National Grid except in accordance with the provisions of the Copyright, Designs and Patents Act 1998.*

*For further information on the use of this document please refer to the Information Services Management System (ISMS) or contact the Quality Systems Group.*

Author (for this version):	National Grid IS
Owner:	National Grid O&T
Document Reference:	4055.5
Version:	2
Status:	<del>For Approval</del> For Representation
Date:	<del>29 September 2005</del> 07 September 2005



## Table of Contents

<b>1</b>	<b>API Specification</b>	<b>3</b>
1.1	Overview	3
1.2	API URLs	3
1.3	XML Specifications	3
1.3.1	API Request	3
1.3.2	API Response	5
1.4	API Specific Error Messages	7
<b>2</b>	<b>Document Control</b>	<b>8</b>
2.1	Superseded Documents	8
2.2	Version History	8

## 1 API Specification

### 1.1 Overview

**This API is used to create or update nominations for Entry and Exit Meters. Unlike Gemini screens where Nominations may be entered for a range of Gas Days, this API will permit Nominations only for a single Gas Day at a time for a given Service Id. (Input / Output Nominations are differentiated by Service Id.)**

### 1.2 API URLs

**All URLs are expressed relative to the root URL for the API service. BAs are advised to parameterise URLs to minimise the impact of change.**

URL to Access the API

**API clients must invoke this URL to access this API's functionality:**  
**/gemini/controllers/UpdateNominationsControllerAPI/**

URL for Request XSD

**The XSD found at this URL can be used to validate the request XML format:**

**/gemini/api/schema/geminiapiupdatenominationsreq.xsd**

URL for Response XSD

**The XSD found at this URL can be used to validate the response XML format:**

**/gemini/api/schema/geminiapiupdatenominationsres.xsd**

### 1.3 XML Specifications

#### 1.3.1 API Request

Element Table

Hierarchy	Data Element	Screen Label	Description	Data Type	Data Length	Mandatory
0	UPDT_NM	Top-level hierarchy for Update Nominations.				

1	GAS_DAY	Gas Day	The Gas Day for which nominations are to be created / updated.  The date should be in YYYY-MM-DD format.	Date	10	Y
1	SERV_ID	Service Id	Unique ID associated to a BA's service.	String	15	Y
1*	UPDT_NM_IN_DTL	Top-level hierarchy for Update Nominations for Gas Day.				
2	ACTVTY_NBR	Activity Number	Unique number within a Service that defines the flow of gas through a meter.	Integer	6	Y
2	REQ_NRG	Requested Energy	Quantity of energy requested for the Gas Day for the Service / Activity in kWh.	Long	13	Y
2	IGNR_TLRNCE	Ignore Tol Check	Flag to indicate whether the tolerance check must be carried out for the record.  Permissible values are: Y - Ignore tolerance check N - Perform tolerance check	String	1	Y

## Schema Definition

*Name of file:* geminiapiupdatenominationsreq.xsd

```

<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="UPDT_NM">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="GAS_DAY" type="xs:date"/>
        <xs:element name="SERV_ID">
          <xs:simpleType>
            <xs:restriction base="xs:string">
              <xs:minLength value="1"/>
              <xs:maxLength value="15"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="UPDT_NM_IN_DTL" minOccurs="0" maxOccurs="unbounded">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="ACTVTY_NBR">
                <xs:simpleType>
                  <xs:restriction base="xs:nonNegativeInteger">
                    <xs:totalDigits value="6"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element name="REQ_NRG">
                <xs:simpleType>
                  <xs:restriction base="xs:unsignedLong">
                    <xs:totalDigits value="13"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>

```

```

</xs:simpleType>
</xs:element>
<xs:element name="IGNR_TLRNCE">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="Y"/>
      <xs:enumeration value="N"/>
      <xs:length value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

### 1.3.2 API Response

#### Element Table

Hierarchy	Data Element	Screen Label	Description	Data Type	Data Length
0	UPDT_NM_OUT	Top-level hierarchy for output elements.			
1	METADATA	Top-level hierarchy for meta information elements.			
2	TMSTMP		Time stamp of API access	DateTime	19
1	DTL	Top-level hierarchy for Details			
2	GAS_DAY	Gas Day	The Gas Day for which nominations are to be created.  The date should be in YYYY-MM-DD format.	Date	10
2	SERVC_ID	Service Id	Unique ID associated to a BA's service.	String	15
2*	UPDT_NM_INF	Top-level hierarchy for Physical Renominations			
3	ACTVTY_NBR	Activity Number	Unique number within a Service that defines the flow of gas through a meter.	Integer	6
3	REQ_NRG	Requested Energy	Quantity of energy requested for the Gas Day for the Service / Activity in kWh.	Long	13
3	STS		The status of the records  Expected values are: S - Success F - Failure	String	1

3	MSG_CD		This field gives the corresponding message code, in the case of success as well as failure.	String	18
3	MSG_DESC		This field provides further descriptive information on the status of the record.  Indicates if record is successful or has failed. In case of failure, a reason is provided.	String	

## Schema Definition

*Name of file:* geminiapiupdatenominationsres.xsd

```

<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="UPDT_NM_OUT">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="METADATA">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="TMSTMP" type="xs:dateTime"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="DTL">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="GAS_DAY" type="xs:date"/>
              <xs:element name="SERVC_ID">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:maxLength value="15"/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element name="UPDT_NM_INF" minOccurs="0"
maxOccurs="unbounded">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element name="ACTVTY_NBR">
                      <xs:simpleType>
                        <xs:restriction base="xs:nonNegativeInteger">
                          <xs:totalDigits value="6"/>
                        </xs:restriction>
                      </xs:simpleType>
                    </xs:element>
                    <xs:element name="REQ_NRG">
                      <xs:simpleType>
                        <xs:restriction base="xs:long">
                          <xs:totalDigits value="13"/>
                        </xs:restriction>
                      </xs:simpleType>
                    </xs:element>
                    <xs:element name="STS">
                      <xs:simpleType>
                        <xs:restriction base="xs:string">
                          <xs:enumeration value="S"/>
                          <xs:enumeration value="F"/>
                          <xs:length value="1"/>
                        </xs:restriction>
                      </xs:simpleType>
                    </xs:element>
                    <xs:element name="MSG_CD">
                      <xs:simpleType>
                        <xs:restriction base="xs:string">

```

```

        <xs:maxLength value="18"/>
        </xs:restriction>
        </xs:simpleType>
        </xs:element>
        <xs:element name="MSG_DESC">
        <xs:simpleType>
        <xs:restriction base="xs:string"/>
        </xs:simpleType>
        </xs:element>
        </xs:sequence>
        </xs:complexType>
        </xs:element>
        </xs:sequence>
        </xs:complexType>
        </xs:element>
        </xs:sequence>
        </xs:complexType>
        </xs:element>
        </xs:schema>
    
```

## 1.4 API Specific Error Messages

This API can return the following specific messages. These are in addition to any generic error messages that the API can return. See the API Usage Guidelines section 4.1.4. Where different APIs return messages with the same code, the meaning will be the same.

The messages below will be reported in the response XML structure for this API in the MSG\_CD and MSG\_DESC elements, whereas generic error messages, which represent a more fundamental failure, will be reported in the error XML structure. Note that the messages below include the report of successful updates.

Note that, though message codes will stay fixed, message descriptions can be changed without formal notification to improve clarity.

Table 1 - API Specific Messages

Message Code	Message
GEM_API_ERROR_0051	Invalid Service Id for the BA.
GEM_API_ERROR_0316	Gas Day is not within the nomination window.
GEM_API_ERROR_0057	Invalid Activity for entered Contract.
GEM_API_ERROR_0058	Cannot create Nomination for NDMA meters.
GEM_API_ERROR_0059	The meter on this Activity is inactive.
GEM_API_ERROR_0060	Opposite flow nomination cannot be added.
GEM_API_ERROR_0317	Tolerance validation has failed for this Activity.
GEM_API_MSG_0318	Nomination Added/Updated Successfully.
GEM_API_ERROR_0056	Nomination for the Activity Number-Special Function Combination already exists.
GEM_API_ERROR_0084	The data you require is currently locked by another user.

## 2 Document Control

### 2.1 Superseded Documents

Title	Reference	Version	Date
Gemini API Specifications – Additional API's Entry Capacity & Energy Balancing	Gemini API Specifications – Additional API's for Entry Capacity and Energy Balancing	1	26-Nov-2004

### 2.2 Version History

Version	Status	Date	Author(s)	Summary of Changes
1	For Representation	28-Jan-2005	NGT IS	Baseline version generated from contents of superseded document.
1	For Representation	03-Feb-2005	NGT IS	Various changes as follows: <ul style="list-style-type: none"> <li>- Removed superfluous "s" from XSD file names.</li> <li>- Various request &amp; response XSD changes.</li> <li>- Various success and error message changes.</li> </ul>
1	For Representation	15-Feb-2005	NGT IS	Changes following NGT internal review as follows: <ul style="list-style-type: none"> <li>- Section reference to API Usage Guidelines document for generic error messages corrected.</li> </ul>
1	Approved	17-Mar-2005	NGT IS	Approved at UK-Link Committee.
2	For Representation	07-Sep-2005	National Grid IS	Corrections highlighted during Gemini trials as follows: <ul style="list-style-type: none"> <li>- Missing "s" in URL in section 1.2;</li> <li>- REQ_NRG in request XSD changed to unsignedLong as negative values not valid.</li> </ul> <p>Also references to NGT changed to National Grid.</p>
2	<a href="#">For Approval</a>	<a href="#">29-Sep-2005</a>	<a href="#">National Grid IS</a>	<a href="#">No representation comments received. Submitted "For Approval" without further modification.</a>