

# Edig@s XML 5.1 guideline for Finland

VERSION 2.0

2.8.2023

## Changes

Version	Date	Change
1.0	26.6.2019	First version. Document will be updated when needed.
1.1	4.9.2019	EIC code for VTP and TSO Gasgrid Finland added. Added reminder that matching is done hourly.
1.2	13.9.2019	ZSO coding scheme removed. Corrections to the definitions of internal and external accounts. Contract reference removed from ACKNOW message example.
1.3	3.10.2019	Clarification added: "The external account must be left without a code, if the nomination is for Imatra entry point."
1.4	30.11.2019	Added specification for Balticconnector that the quantities for nominations in Balticconnector have to be equal for each effective hour of the gas day
2.0	2.8.2023	EIC codes for LNG Hamina and LNG Inkoo added. Raises from Gas transmission rules added. Clarification that Get Baltic trade notifications are only sent by Get Baltic. Clarification and reason for one point per NOMINT message added. Section Opening AS4 connection added.

## Sisällysluettelo

<b>1 EDIG@S XML 5.1 document guideline .....</b>	<b>3</b>
<b>2 Definitions .....</b>	<b>3</b>
<b>3 Nominations.....</b>	<b>3</b>
3.1 NOMINT 01G document .....	5
3.1.1 Start of document .....	5
3.1.2 Identification .....	5
3.1.3 Version .....	5
3.1.4 Type5 .....	
3.1.5 Date format and time intervals .....	5
3.1.6 CreationDateTime .....	6
3.1.7 Contract reference .....	6
3.1.8 Validity period .....	6
3.1.9 Market participants.....	6
3.1.10 Connection Point.....	6
3.1.11 Measure Unit.....	7
3.1.12 Nomination type .....	7
3.1.13 Internal Account.....	7
3.1.14 External Account .....	7
3.1.15 Time interval.....	8
3.1.16 Direction .....	8
3.1.17 Quantity .....	9
3.2 Example document on NOMINT .....	9
3.3 Example document on ACKNOW to NOMINT .....	15
3.4 Example document on NOMRES .....	17
3.5 Example document on ACKNOW to NOMRES .....	23
<b>4 Opening an AS4 connection .....</b>	<b>24</b>

## 1 EDIG@S XML 5.1 document guideline

This document describes in detail the contents of nomination, trade notification and confirmation documents exchanged between shippers, traders and transmission system operator (TSO) with Edig@s XML 5.1.

For exchanging documents, the TSO will use the internet combined with AS4 protocol. Shippers and traders can communicate nominations and trade nominations with the TSO by logging in the TSO portal or by sending Edig@s XML messages via AS4.

In case of introducing a new version of Edig@s or new documents, the TSO will inform shippers and traders of the go-live date.

Edigas XML 5.1 documents supported in this document are the following:

NOMINT	NOMination INTention (detailed description)
NOMRES	NOMomination RESponse
ACKNOW	ACKNOWLEDge

NOMINT has two utilisation purposes in the Finnish gas market. Firstly, they are used for nominating shippers' gas quantities to be transported at Balticconnector Entry and Exit Points, LNG Hamina Entry point and LNG Inkoo Entry point. Secondly, they are used for notifying the TSO about bilateral trades made by the market parties through the so-called virtual trading point.

## 2 Definitions

TSO	Transmission system operator with System Responsibility
VTP	Virtual Trading Point
EIC	Code given by Entsog or LIO (Local Issuing Office)
UTC	Universal Time Coordinated

An EIC code for foreign companies is provided by Entsog or the relevant LIO.

## 3 Nominations

Nominations are mandatory for shippers importing or exporting gas at Balticconnector Entry or Exit Point and importing gas at LNG Hamina Entry point and/or LNG Inkoo Entry point. The respective messages are presented below.

PLEASE NOTICE, Shippers DO NOT send trade notifications to TSO for trades done in Get Baltic Gas Exchange. Get Baltic trades are matched and delivered to TSO by Get Baltic. Information about the trades in total and NOMRES of those are visible at Gasgrid Portal, but NOMRES values through AS4 are only delivered to Get Baltic.

Message type	Description
NOMINT 01G	<p>The deadline for the receipt of shipper's Initial Nomination is before 13.00 UTC (wintertime) or 12.00 UTC (summertime) on the day before the Gas Day. The shipper may send a renomination NOMINT 01G every hour with a lead time of 2 hours. Renomination is allowed without initial nomination. In Inkoo LNG Entry point it is not allowed to submit renominations. (<i>Gas transmission rules, version 4.0</i>)</p> <p>Trade notifications are processed by the TSO starting from 13.00 UTC (wintertime) or 12.00 UTC (summertime) on the day before the Gas Day. The lead time for trade notifications after this is 30 min before every full hour.</p>
NOMRES 08G	<p>After receiving NOMINT, the TSO will send NOMRES 08G to the sender when the NOMINT has been matched with the sender's counterparty. NOMRES is sent every time there has been a change to the NOMRES.</p>
ACKNOW 294	<p>TSO sends an ACKNOW message in response to any received message. TSO expects to receive an ACKNOW message in response to any sent message within 10 minutes.</p>

At Inkoo LNG Entry Point, the Terminal user submits single-sided Nominations on behalf of the shipper. In order to do so, the Shipper must authorize the Terminal user to submit single-sided Nominations on his behalf in accordance with the Terminal rules. (*Gas transmission rules, version 4.0*)

At Hamina LNG Entry Point, the Shipper submits single-sided Nominations on behalf of the Terminal user. In authorization, the Terminal user authorizes the Shipper to nominate on behalf of the Terminal user. (*Gas transmission rules, version 4.0*)

If the Nomination or Renomination exceeds the combined capacity of the Shipper the Hamina LNG Entry Point, Transmission System Operator with System Responsibility rejects the Nomination or Renomination (NACK, negative ACKNOW). (*Gas transmission rules, version 4.0*)

Nominations for Hamina LNG and Inkoo LNG are delivered to TSO and TSO forwards the values to the LNG Terminal operator. ACKNOW messages to LNG points works differently than others, since LTO is the one doing matching for the values. TSO sends two ACKNOW messages for one NOMINT message, messages has different naming.

- 1<sup>st</sup> ACKNOW when NOMINT message has been received (and values are visible in Gasgrid Portal) by TSO
- 2<sup>nd</sup> ACKNOW when matched values has reached TSO's balance calculation system

For all other points, ACKNOW is sent when NOMINT message has reached TSO's balance calculation system.

### 3.1 NOMINT 01G document

#### 3.1.1 Start of document

The two lines below are the mandatory start of any nomination document.

```
<Nomination_Document xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationdocument:5:1"
release="3">
```

#### 3.1.2 Identification

The nomination document identification must be unique.

```
<identification>NOMINT20190409TVWDSN2DO5MI</identification>
```

#### 3.1.3 Version

First document starts with version '1'. Subsequent nomination documents must be incremented.

```
<version>1</version>
```

Earlier versions than already received will be rejected.

#### 3.1.4 Type

Nomination type must always be 01G

```
<type>01G</type>
```

#### 3.1.5 Date format and time intervals

UTC date time format is used for all date and time fields.

The time interval of a nomination period requires at least one full gas day. More than one full gas day is allowed, as long as the message represents multiples of gas days.

Gas day (EET)	UTC	Time of year
07.00 – 07.00	05.00 – 05.00	During standard time (24 hour gas day)
07.00 – 07.00	05.00 – 04.00	During change from official standard time to daylight saving time (23 hour gas day)
07.00 – 07.00	04.00 – 04.00	During daylight saving time (24 hour gas day)
07.00 – 07.00	04.00 – 05.00	During change from official daylight saving time to winter standard time (25 hour gas day)

### 3.1.6 CreationDateTime

CreationDateTime is to be filled out as follows:

```
<creationDateTime>2019-04-09T10:26:05</creationDateTime>
```

### 3.1.7 Contract reference

Contract reference must be the Gasgrid Finland's EIC code 21X000000001393X.

```
<contractReference>21X000000001393X </contractReference>
```

### 3.1.8 Validity period

Validity period must contain the same time interval as the sum of the time intervals (from the first hour to and the last hour).

```
<validityPeriod>2019-04-08T04:00Z/2019-04-09T04:00Z</validityPeriod>
```

### 3.1.9 Market participants

TSO identifies market parties by EIC codes only.

```
<issuer_MarketParticipant.identification codingScheme="305">21X-FI-A-SHIPPER</issuer_MarketParticipant.identification>
```

```
<recipient_MarketParticipant.identification codingScheme="305">21X000000001393X</recipient_MarketParticipant.identification>
```

Market participant role is the role of sender. It will always be either TSO or the market party's own.

Market party sending the message:

```
<issuer_MarketParticipant.marketRole.code>ZSH</issuer_MarketParticipant.marketRole.code>
```

TSO receiving the message:

```
<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
```

### 3.1.10 Connection Point

TSO only allows coding scheme 305 for identifying a connection point. The available connection points are shown in the table below.

Please notice that TSO recommends sending nominations for only one connection point / message. This recommendation has been formed through practice and guarantees a higher quality operation in case of possible errors in the NOMINT message content.

Location	Connection point EIC	Coding scheme	Nomination rule
Balticconnector	21Z0000000004952	305	Mandatory
Imatra	21Z000000000059M	305	Mandatory
VTP	21Y000000000078W	305	Mandatory for bilateral trades
LNG Hamina	21Z000000000529B	305	Mandatory
LNG Inkoo	21Z000000000531O	305	Mandatory

`<ConnectionPoint>`

`<identification codingScheme="305">21Z0000000004952</identification>`

### 3.1.11 Measure Unit

The only measuring unit allowed in a NOMINT is KW1 (kWh/h).

`<measureUnit.code>KW1</measureUnit.code>`

### 3.1.12 Nomination type

The nomination type has to be set to A02 for NOMRES messages

`<type>A02</type>`

### 3.1.13 Internal Account

Internal account is always the Finnish shipper's EIC code::

`<internalAccount codingScheme="305">21X-FI-A-SHIPPER </internalAccount>`

### 3.1.14 External Account

External account is the shipper's EIC code of the adjacent system, if Balticconnector is the connection point.

External account is the EIC code of the counterparty shipper or trader, if the connection point is VTP.

External account is the EIC code of the Terminal User, if the connection point is LNG Hamina or LNG Inkoo.

`<externalAccount codingScheme="350">21X-EE-B-SHIPPER </externalAccount>`



### 3.1.15 Time interval

Nominations must be sent in one hour intervals. All hours in the period must be included in the message time interval (e.g. up to 23, 24 or 25 periods in 1-hour intervals). There must be no overlapping hours. The recommendation is always to send a nomination for one complete gas day and not multiple gas days.

Example of a nomination for one hour of one gas day:

```
<timeInterval>2019-04-08T04:00Z/2019-04-08T05:00Z</timeInterval>
```

Example of a nomination for one gas day:

```
<timeInterval>2019-04-08T04:00Z/2019-04-09T04:00Z</timeInterval>
```

### 3.1.16 Direction

The nominating shipper must send a nomination direction as seen from the Finnish system point of view. The TSO will respond by sending messages containing the direction as seen from the Finnish system point of view.

The direction is given by the codes:

Z02: ENTRY TSO

Z03: EXIT TSO

If the nomination value is 0 (zero), the direction code can be either Z02 or Z03.

Buying and selling at VTP or gas exchange must comply with the following:

Z02: ENTRY TSO, market party buying gas from counterparty or at a gas exchange

Z03: EXIT TSO, market party selling gas to counterparty or at a gas exchange

```
<direction.code>Z02</direction.code>
```

Point	Connection point EIC	Directions applicable	Nomination rule	Capacity allocation rule
Balticconnector	21Z0000000004952	Z02, Z03	Double sided	Implicit capacity
Imatra	21Z000000000059M	Z02	Single sided by shipper	Capacity must be booked before nomination
VTP	21Y000000000078W	Z02, Z03	Double sided	-
LNG Hamina	21Z0000000000529B	Z02	Single sided by shipper	Capacity must be booked before nomination
LNG Inkoo	21Z0000000000531O	Z02	Single sided by terminal user	If not enough capacity booked → Capacity overrun

### 3.1.17 Quantity

Quantity is the quantity wished to be transferred by the market party. Values have to be positive or zero. Negative values are not allowed. Values has to be integer, no decimals allowed. Note that matching is done hourly therefore counterparties need to nominate similar hourly values to avoid lesser rule reductions in the matching process.

`<quantity.amount>30</quantity.amount>`

The shipper's Nominations must be the same size (flat) for each hour of the Gas Day and the Renominations must be the same size ("flat") for each remaining hour of the Gas Day. (*Gas transmission rules, version 4.0*).

## 3.2 Example document on NOMINT

The example NOMINT document is constructed as follows:

- Message contains one connection point with all directions where the issuer is the same shipper.
- Message includes a period for each hour inside the account for one gas day.
- If the connection point EIC code is same for entry (Z02) and exit (Z03) and the internal and external
  - accounts are the same for entry and exit there is only one connection point in the message.
  - contractReference: EIC code of recipient of the message, which is TSO in this case
  - issuer\_MarketParticipant.identification: Finnish shipper's EIC code
  - issuer\_MarketParticipant.marketRole.code: ZSH for Shipper
  - recipient\_MarketParticipant.identification: TSO EIC code
  - recipient\_MarketParticipant.marketRole.code: ZSO for TSO
  - ConnectionPoint-identification: connection point EIC code, in this example message Baltic
  - Connector Entry/Exit EIC codes are the same
  - NominationType: A02
  - Account-internalAccount: EIC code for the Finnish shipper
  - Account-externalAccount: EIC code for the Finnish shipper's counterparty in the adjacent
  - system
  - Account has period for each hour with time interval, direction and quantity amount

```
<Nomination_Document xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationdocument:5:1"
release="3">
<identification>NOMINT20190409TVWDSN2DO5MI</identification>
<version>1</version>
<type>01G</type>
<creationDateTime>2019-04-09T10:26:05</creationDateTime>
<validityPeriod>2019-04-08T04:00Z/2019-04-09T04:00Z</validityPeriod>
<contractReference>21X000000001393X </contractReference>
```

```
<issuer_MarketParticipant.identification codingScheme="305">21X-FI-ASHIPPER</issuer_MarketParticipant.identification>
<issuer_MarketParticipant.marketRole.code>ZSH</issuer_MarketParticipant.marketRole.code>
<recipient_MarketParticipant.identification
codingScheme="305">21X000000001393X</recipient_MarketParticipant.identification>
<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
<ConnectionPoint>
<identification codingScheme="305">21Z0000000004952</identification>
<measureUnit.code>KW1</measureUnit.code>
<NominationType>
<type>A02</type>
<Account>
<internalAccount codingScheme="305">21X-FI-A-SHIPPER </internalAccount>
<externalAccount codingScheme="305">21X-EE-B-SHIPPER </externalAccount>
<Period>
<timeInterval>2019-04-08T04:00Z/2019-04-08T05:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T05:00Z/2019-04-08T06:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T06:00Z/2019-04-08T07:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T07:00Z/2019-04-08T08:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T08:00Z/2019-04-08T09:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T09:00Z/2019-04-08T10:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T10:00Z/2019-04-08T11:00Z</timeInterval>
<direction.code>Z02</direction.code>
```

```
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T11:00Z/2019-04-08T12:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T12:00Z/2019-04-08T13:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T13:00Z/2019-04-08T14:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T14:00Z/2019-04-08T15:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T15:00Z/2019-04-08T16:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T16:00Z/2019-04-08T17:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T17:00Z/2019-04-08T18:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T18:00Z/2019-04-08T19:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T19:00Z/2019-04-08T20:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
```

```
</Period>
<Period>
<timeInterval>2019-04-08T20:00Z/2019-04-08T21:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T21:00Z/2019-04-08T22:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T22:00Z/2019-04-08T23:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T23:00Z/2019-04-09T00:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T00:00Z/2019-04-09T01:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T01:00Z/2019-04-09T02:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T02:00Z/2019-04-09T03:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T03:00Z/2019-04-09T04:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
</Account>
<Account>
<internalAccount codingScheme="305">21X000000001393X </internalAccount>
<externalAccount codingScheme="305">21X-EE-C-SHIPPER </externalAccount>
</Period>
```

```
<timeInterval>2019-04-08T04:00Z/2019-04-08T05:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>10</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T05:00Z/2019-04-08T06:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>20</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T06:00Z/2019-04-08T07:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T07:00Z/2019-04-08T08:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>20</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T08:00Z/2019-04-08T09:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T09:00Z/2019-04-08T10:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T10:00Z/2019-04-08T11:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T11:00Z/2019-04-08T12:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T12:00Z/2019-04-08T13:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T13:00Z/2019-04-08T14:00Z</timeInterval>
```

```
<direction.code>Z03</direction.code>
<quantity.amount>60</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T14:00Z/2019-04-08T15:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T15:00Z/2019-04-08T16:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T16:00Z/2019-04-08T17:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T17:00Z/2019-04-08T18:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>10</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T18:00Z/2019-04-08T19:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T19:00Z/2019-04-08T20:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T20:00Z/2019-04-08T21:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T21:00Z/2019-04-08T22:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T22:00Z/2019-04-08T23:00Z</timeInterval>
<direction.code>Z03</direction.code>
```

```
<quantity.amount>10</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T23:00Z/2019-04-09T00:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T00:00Z/2019-04-09T01:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T01:00Z/2019-04-09T02:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T02:00Z/2019-04-09T03:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T03:00Z/2019-04-09T04:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>60</quantity.amount>
</Period>
</Account>
</NominationType>
</ConnectionPoint>
</Nomination_Document>
```

### 3.3 Example document on ACKNOW to NOMINT

ACKNOW document is defined as follows:

- Message is sent as a response to NOMINT and NOMRES message
- TSO sends the response to NOMINT message and the market party generates and sends the message as a response to NOMRES message
  - type: 294
  - issuer\_MarketParticipant.identification: EIC code of the sender of the message, so it is TSO or shipper depending of the direction of the message
  - issuer\_MarketParticipant.marketRole.code: ZSO for TSO and ZSH for Shipper, depends of the direction of the message



- recipient\_MarketParticipant.identification: EIC code of the sender of the message, so it is TSO or shipper depending of the direction of the message
- recipient\_MarketParticipant.marketRole.code: ZSO for TSO and ZSH for Shipper, depends of the direction of the message
- receiving\_Document.identification: identification of the message (NOMINT, NOMRES) to which the ACKNOW is the response
- Reason-code:
  - 01G for positive message
  - Every other received code (eg. 48G, 68G) means there was an issue or some information other than normal. These codes may have reason-text attached in message. If there is any other code than 01G, the receiver of ACKNOW should check what issue may have caused that.

An example ACKNOW from the TSO to a shipper to an example NOMINT (see Section 3.2) is presented below:

```
<?xml version="1.0"?>
<Acknowledgement_Document xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" release="3"
xmlns="urn:easeegas.eu:edigas:general:acknowledgementdocument:5:1">
  <identification>ACKNOW20190409B131992684018365574</identification>
  <version>1</version>
  <type>294</type>
  <creationDateTime>2019-04-09T07:26:41Z</creationDateTime>
  <issuer_MarketParticipant.identification codingScheme="305"> 21X000000001393X
</issuer_MarketParticipant.identification>
  <issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
  <recipient_MarketParticipant.identification codingScheme="305">21X-FI-A-SHIPPER
</recipient_MarketParticipant.identification>
  <recipient_MarketParticipant.marketRole.code>ZSH</recipient_MarketParticipant.marketRole.code>
  <receiving_Document.identification>NOMINT20190409TVWDSN2DO5MI</receiving_Document.identification>
  <receiving_Document.version>1</receiving_Document.version>
  <Reason>
    <code>01G</code>
  </Reason>
</Acknowledgement_Document>
```

### 3.4 Example document on NOMRES

- Message contains one connection point with all directions where the issuer is the same shipper.
- Message includes a period for each hour inside the account for one gas day
  - contractReference: TSO's EIC code
  - issuer\_MarketParticipant.identification: TSO's EIC code
  - issuer\_MarketParticipant.marketRole.code: ZSO for TSO
  - recipient\_MarketParticipant.identification: Shipper's EIC code
  - recipient\_MarketParticipant.marketRole.code: ZSH for Shipper
  - ConnectionPoint.identification: connection point EIC code, in this case Baltic Connector EIC code. If the code is same for entry and exit there is only one connection point in the message.
  - NominationType: A02 for double-sided nomination
  - Account-internalAccount: EIC code for the Finnish shipper to whom the NOMRES is addressed to
  - Account-externalAccount: EIC code for the Finnish shipper's counterparty in the adjacent system
  - Account has period for each hour with time interval, direction and quantity amount

```
<NominationResponse_Document xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" release="3"
xmlns="urn:easeegas.eu:edigas:nominationandmatching:nominationresponsedocument:5:1">
<identification>NOMRES20190409B131992684502763991</identification>
<version>1</version>
<type>08G</type>
<creationDateTime>2019-04-09T07:27:30Z</creationDateTime>
<validityPeriod>2019-04-08T04:00Z/2019-04-09T04:00Z</validityPeriod>
<contractReference> 21X000000001393X </contractReference>
<issuer_MarketParticipant.identification codingScheme="305">21X000000001393X
</issuer_MarketParticipant.identification>
<issuer_MarketParticipant.marketRole.code>ZSO</issuer_MarketParticipant.marketRole.code>
<recipient_MarketParticipant.identification codingScheme="305">21X-FI-A-SHIPPER
</recipient_MarketParticipant.identification>
<recipient_MarketParticipant.marketRole.code>ZSH</recipient_MarketParticipant.marketRole.code>
<nomination_Document.identification>DEFAULT</nomination_Document.identification>
<nomination_Document.version>1</nomination_Document.version>
<ConnectionPoint>
<identification codingScheme="305">21Z0000000004952</identification>
<measureUnit.code>KW1</measureUnit.code>
<NominationType>
<type>A02</type>
<Account>
<internalAccount codingScheme="305">21X-FI-A-SHIPPER </internalAccount>
<externalAccount codingScheme="305">21X-EE-B-SHIPPER </externalAccount>
<InformationOrigin_TimeSeries>
<type>16G</type>
```

```
<Period>
<timeInterval>2019-04-08T04:00Z/2019-04-08T05:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T05:00Z/2019-04-08T06:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T06:00Z/2019-04-08T07:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T07:00Z/2019-04-08T08:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T08:00Z/2019-04-08T09:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T09:00Z/2019-04-08T10:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T10:00Z/2019-04-08T11:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T11:00Z/2019-04-08T12:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T12:00Z/2019-04-08T13:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
```

```
<timeInterval>2019-04-08T13:00Z/2019-04-08T14:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T14:00Z/2019-04-08T15:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T15:00Z/2019-04-08T16:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T16:00Z/2019-04-08T17:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T17:00Z/2019-04-08T18:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T18:00Z/2019-04-08T19:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T19:00Z/2019-04-08T20:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T20:00Z/2019-04-08T21:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T21:00Z/2019-04-08T22:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T22:00Z/2019-04-08T23:00Z</timeInterval>
```

```
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T23:00Z/2019-04-09T00:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T00:00Z/2019-04-09T01:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T01:00Z/2019-04-09T02:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T02:00Z/2019-04-09T03:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T03:00Z/2019-04-09T04:00Z</timeInterval>
<direction.code>Z02</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
</InformationOrigin_TimeSeries>
</Account>
<Account>
<internalAccount codingScheme="305">21X-FI-A-SHIPPER </internalAccount>
<externalAccount codingScheme="305">21X-EE-C-SHIPPER </externalAccount>
<InformationOrigin_TimeSeries>
<type>16G</type>
<Period>
<timeInterval>2019-04-08T04:00Z/2019-04-08T05:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>10</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T05:00Z/2019-04-08T06:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>20</quantity.amount>
</Period>
<Period>
```

```
<timeInterval>2019-04-08T06:00Z/2019-04-08T07:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T07:00Z/2019-04-08T08:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>20</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T08:00Z/2019-04-08T09:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T09:00Z/2019-04-08T10:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T10:00Z/2019-04-08T11:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T11:00Z/2019-04-08T12:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T12:00Z/2019-04-08T13:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T13:00Z/2019-04-08T14:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>60</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T14:00Z/2019-04-08T15:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T15:00Z/2019-04-08T16:00Z</timeInterval>
```

```
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T16:00Z/2019-04-08T17:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T17:00Z/2019-04-08T18:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>10</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T18:00Z/2019-04-08T19:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T19:00Z/2019-04-08T20:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T20:00Z/2019-04-08T21:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T21:00Z/2019-04-08T22:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T22:00Z/2019-04-08T23:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>10</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-08T23:00Z/2019-04-09T00:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T00:00Z/2019-04-09T01:00Z</timeInterval>
<direction.code>Z03</direction.code>
```

```
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T01:00Z/2019-04-09T02:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T02:00Z/2019-04-09T03:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>30</quantity.amount>
</Period>
<Period>
<timeInterval>2019-04-09T03:00Z/2019-04-09T04:00Z</timeInterval>
<direction.code>Z03</direction.code>
<quantity.amount>60</quantity.amount>
</Period>
</InformationOrigin_TimeSeries>
</Account>
</NominationType>
</ConnectionPoint>
</NominationResponse_Document>
```

### 3.5 Example document on ACKNOW to NOMRES

An example ACKNOW message from the shipper to the TSO for the NOMRES presented in Section 3.4 is presented below:

```
<Acknowledgement_Document release="3" xmlns="urn:easeegas.eu:edigas:general:acknowledgementdocument:5:1">
<identification>ACKNOW2019040913761041645058661</identification>
<version>1</version>
<type>294</type>
<creationDateTime>2019-04-09T07:27:30Z</creationDateTime>
<issuer_MarketParticipant.identification codingScheme="305">21X-FI-ASHIPPER</issuer_MarketParticipant.identification>
<issuer_MarketParticipant.marketRole.code>ZSH</issuer_MarketParticipant.marketRole.code>
<recipient_MarketParticipant.identification
codingScheme="305">21X000000001393X</recipient_MarketParticipant.identification>
<recipient_MarketParticipant.marketRole.code>ZSO</recipient_MarketParticipant.marketRole.code>
<receiving_Document.identification>NOMRES20190409B131992684502763991</receiving_Document.identification>
<receiving_Document.version>1</receiving_Document.version>
<receiving_Document.type>08G</receiving_Document.type>
<receiving_Document.creationDateTime>2019-04-09T07:27:30Z</receiving_Document.creationDateTime>
<Reason>
<code>01G</code>
</Reason>
</Acknowledgement_Document>
```



## 4 Opening an AS4 connection

If you are planning to start using AS4 connection, please contact [customerservice@gasgrid.fi](mailto:customerservice@gasgrid.fi) to start the process and get more information.

Opening AS4 connection roughly consists of the following steps

1. You'll receive excel sheet for AS4 connection to be filled
2. Connection test in test environment
3. NOMINT testing in test environment, cases will be planned considering at which points you are going to operate. In tests, counterparty Sandbox Balance Oy is used.
  - a. Send NOMINT
  - b. Receive ACKNOW
  - c. Receive NOMRES
  - d. Send ACKNOW
4. Connection test in production environment