

## **PRINCIPLES FOR PUBLICATION ON FLOW.GASSCO.NO**

### **1. BACKGROUND**

Gassco is publishing operational information pertaining to the gas transportation system on and from the Norwegian Continental Shelf. The following information aims at giving a background for understanding the context of these messages.

The system comprises more than 8800 km of high pressure pipelines, gas treatment plants, riser platforms, receiving terminals and crossover pipelines securing a high degree of flexibility and gas routing alternatives.

With this degree of flexibility and the long distance from the production units to market where the gas is delivered, the physical transportation time varies between 3 and 7 days depending on flowrate and field location.

There is currently above 65 producing units delivering into the system, with variations in flow due to changing nominations, events at the field or events in the transportation system. Reductions with a short duration or a minor impact are dealt with through operational flexibility, since the field availability is given as a daily volume. Consequently, many of the events will have no volume impact, i.e. shippers are not curtailed and gas is delivered as planned.

Publications of unplanned events will be performed before information is available on the volume impact of the event. Therefore many of the published unplanned events may have no impact on gas delivered, and then be updated with the status "No consequence".

The publication of real time- and historical flow includes entry flows, exit flows and system flow balance. This balance may vary during the day due to variations in field production, flow rates and use of operational flexibility. Changes in system flow balance could occur in normal operation or due to planned or unplanned events.

## 2. REAL-TIME DATA

Publication of real-time flow information, updated every 5 minutes:

- Dornum
- Aggregated Europe Metering Station
- Dunkerque
- Zeebrugge
- Easington
- St Fergus/Vesterled (measured as entry Vesterled Pipeline)
- Aggregated entry SEGAL system (Gjøa Gas Pipe, Knarr Gas Pipeline and Tampen Link)
- Aggregated other exit flows (field injection points and Norwegian exit points)
- Aggregated exit flow (the sum of the above exit points)
- Aggregated entry flow (the sum of production into relevant areas)
- System Flow Balance – the delta between the Aggregated entry flow and Aggregated exit flow.

## 3. HISTORICAL DATA

Publication of historical flow information is graphically presented as a daily average flowrate for up to two years back in time for:

- Dornum
- Aggregated Europe Metering Station
- Dunkerque
- Zeebrugge
- Easington
- St Fergus/Vesterled (measured as entry Vesterled Pipeline)
- Aggregated entry SEGAL system (Gjøa Gas Pipe, Knarr Gas Pipeline and Tampen Link)
- Aggregated other exit flows (field injection points and Norwegian exit points)
- Aggregated exit flow (the sum of the above exit points)
- Aggregated entry flow (the sum of production into relevant areas)

System Flow Balance – the delta between the Aggregated entry flow and Aggregated exit flow is based in calculations performed every 5 minutes.

## 4. UNPLANNED EVENTS

For unplanned incidents affecting entry and exit points as listed above under 2 (fields, processing plants or terminals) an outage that may affect the daily nomination or daily availability above 5 MSm<sup>3</sup> will be published. The following information will be provided:

Event ID / Asset affected<sup>1</sup> / Status / Time of Publication / Start of event / End of event / Volume Impact Within-day<sup>1</sup> / Volume Impact Day-ahead<sup>1</sup> / Changed Availability Within Day<sup>1</sup> / Changed Availability Day-ahead<sup>1</sup> / Comments

<sup>1</sup> Information will only be provided after shipper curtailment.

“Volume Impact Within-day” and “Changed Availability Within Day” will always represent the actual gasday, updated at start of each gasday. “Volume Impact Day-ahead” will be based upon nomination before event.

When referring to a producing field, “Asset affected” refers to the field where gas enters the transportation system as a node, and the outage may be at any one or more fields/licenses delivering through the node. Volume impact is aggregated impact at the node.

The first publication of unplanned outages will take place simultaneously with information provided to the shippers about such outage. This message will not disclose the field name, expected duration and consequences for the daily nomination and availability. The update disclosing the field name, the reduced volume impact and availability will be done as soon as practically possible, but not later than one hour after the shippers have been informed about the curtailment. Unplanned outages with no consequence will be updated with status “No consequence” and be published to start of next gasday.

## **5. PLANNED OUTAGES**

Planned maintenance affecting entry and exit flows (as listed above under 2) on fields, processing plants or terminals that affect daily booked capacity or availability above 5 MSm<sup>3</sup> will be published. The following information will be provided:

Event ID / Asset affected / Status / Time of Publication / Start of event / End of event / Planned Reduced Availability / Comments

Information on maintenance will be published simultaneously with information provided to the shippers of such planned maintenance.

The Norwegian fields and processing plants undertake planned maintenance coordinated by Gassco, hence maintenance at processing plants may be carried out in parallel with upstream fields. In the table “Planned Events Fields and Processing Plants” all relevant maintenance will be published. However the figure “Fields and Processing Plants” shows the net impact of all maintenance listed, taking these dependencies into account.

Regarding planned outages on fields and in the transport system, it is important to note that planned outages do not necessarily involve a corresponding shortage of gas. The term “Planned Changed Availability” in this respect refers to the changes in maximum available capacity at that specific field or part of the transportation system.

In addition the net impact of all changed availability, planned and unplanned, is shown in the table “Aggregated Changed Availability” for within-day and day-ahead.

Bygnes, 01 November 2018