



Gassco - Allocation of gas ownership

Hydrocarbon Management Workshop 2026

Kjell Einar Apeland, Principal Engineer

Organization

Gassco: Frode Leversund



System operation (SO): Alfred Skår Hansen



Product Control (PC): Silje Aamot Haga
- Monthly allocation systems



Capacity Management (CM): Nina Ljones
- Daily allocation systems



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Karl Johan Sjøen



Hege M. Eide



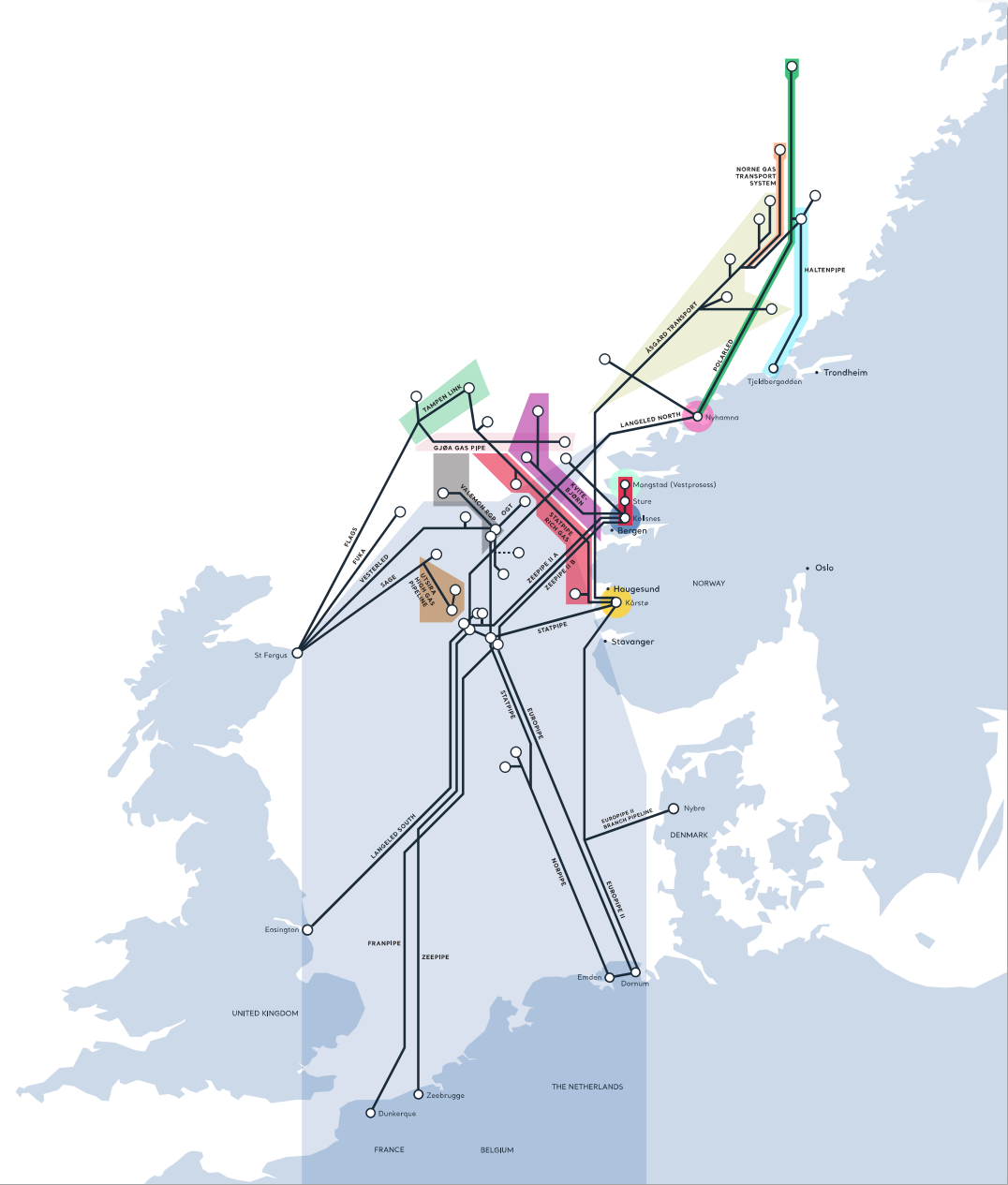
Mona Spångberg



Mette A. Jansen



Gassco Transport System



Processes



Process Planning /
Prognosis



Booking /
Capacity Management



Metering



Dispatching



Allocation



Shipment Planning



Tariff

Abbreviations and terms we use in Gassco

Abbreviation	Name	Description
FMRA / SMRA	Fifteen/Six Months Rolling Availability Forecast	From field operator to Gassco (Process Planning)
WAF	Weekly Availability Field	From field operator to Gassco (Dispatch)
WAS	Weekly Availability Shipper	From Gassco to shipper (Dispatch)
DLRF / SDT	Daily Lifting Shipper / Shipper Daily Nomination	From shippers to Gassco (Dispatch) Shipper nominations Field and Exit
DPRF / MPRF	Daily/Monthly Production Report Field	From field operator to Gassco (Metering, Dispatch, Allocation)

The screenshot displays the ORIGO2 energy components interface. On the left is a navigation menu with options like Process Check List, Schedules, Manage Scheduler, Message Journal, and various production and reporting tools. The main area shows a 'MESSAGE JOURNAL' table with columns for I/O, Received Date, Loaded Date, Message Type, Subject, Status, Rec, Sender, Recipient, Valid From, Valid To, and Revision. A red box highlights a specific message entry with Message Type 'DPRF' and Subject 'Production report field - Brage'. Below the table, a 'VIEW ORIGINAL' button is visible. A secondary window shows the raw XML data for this message, including details like 'Msg Type="DPRF"', 'Revision="0"', 'Priority="3"', and a list of production properties such as 'C1', 'C2', 'C3', 'C4', 'C5', and 'C6' with their respective quantities and units.

Abbreviation	Name	Description
FLR	Field Lifting Report	Monthly report from Gassco to field operator (Allocation)
PIM	Production Imbalance	Account between Field and Transportation System. = Allocated Field Production – (shipper nominations + Metering deviation + Opflex + Linepack)
Metering Deviation		Sum metered out of Area D – Sum metered into Area D
GREP	Gassco Reports	Web based portal where shippers, field operators, authorities etc. can download reports (end of life 2027)
Gassco API	Application Programming Interface	Portal for communication machine-to-machine. Allocation data are available via Gassco API. Replaces GREP

GASSCO

Gasso Reports

grip v4.12.1

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ORIGO REPORTS ▼

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[Dispatching](#)
[Process Planning](#)
[Shipment Planning Kårstø](#)
[Shipment Planning Nyhamna](#)
[Shipment Planning Vestprosses](#)
[Tariff](#)

June ▼ 2023 ▼

Company ▲	Group ▾	Start ▾	End ▾	Filename ▾	Size ▾	Created ▾	Downloads ▾
AKER BP	FIELD_OPERATOR	01.06.2023		Fld_Lifting_BP_BP_2023-06_Final.xlsx	18 Kb	02.08.2023 14:20	3
AKER BP	FIELD_OPERATOR	01.06.2023		Fld_Lifting_BP_BP_2023-06_Prelim.xlsx	17 Kb	10.07.2023 08:05	2
CONOCO	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_CO			
CONOCO	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_CO			
CONOCO	FIELD_OPERATOR	01.06.2023		Verif_day_req_flds			
DNO NORGE AS	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_RG			
DNO NORGE AS	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_RG			
EQUINOR	FIELD_OPERATOR	01.06.2023	30.06.2023	MARA_2023-06.xlsx			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_HP_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_RG			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_RG			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_SLIP_ST			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_TAMPE			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_LF_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_ER_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Troll_Copex_2023			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fram_Copex_2023			
EQUINOR	FIELD_OPERATOR	01.06.2023		Nepune Energy Norge AS			
EQUINOR	FIELD_OPERATOR	01.06.2023		Vla Energi ASA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_HP_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_ER_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_SLIP_ST			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_STA			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_TAMPE			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_RG			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_DG_RG			
EQUINOR	FIELD_OPERATOR	01.06.2023		Troll_Copex_2023			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fram_Copex_2023			
EQUINOR	FIELD_OPERATOR	01.06.2023		Fld_Lifting_PUKA			

AutoSave Off

Fld_Lifting_DG_RG_STAT_2023-06_Final.xlsx Internal

File Home Insert Draw Page Layout Formulas Data Review View Automate Developer Add-ins Help

K33

Field Lifting Report			
Shipper	Mth	Acc. CY	Acc. CBS
AKS Shipper	1523 005	-4 689 671	-14 493 380
Equinor ASA	0	0	0
Shipper Energy AS	0	0	0
AS Shipper	-23 267 883	-56 162 615	-80 068 491
INPEX Identisxu Norge AS	1 326 267 367	8 185 182 559	12 444 763 567
Nepune Energy Norge AS	0	0	0
Vla Energi ASA	0	0	0
Sum	1 391 664 293	8 222 638 229	12 377 577 995

Rich Gas Transactions			
Shipper	Mth	Acc. CY	Acc. CBS
Rich gas metering deviation	-1523 005	-4 689 671	-14 493 380
Rich gas for Unpeak	0	0	0
Rich gas for Opleks	0	0	0
Rich gas production imbalance (PIM)	-23 267 883	-56 162 615	-80 068 491
Rich Gas Field Production	1 326 267 367	8 185 182 559	12 444 763 567

Drq Gas Requirements			
Shipper	Mth	Acc. CY	Acc. CBS
Rich gas metering deviation	-1523 005	-4 689 671	-14 493 380
Rich gas for Unpeak	0	0	0
Rich gas for Opleks	0	0	0
Rich gas production imbalance (PIM)	-23 267 883	-56 162 615	-80 068 491
Rich Gas Field Production	1 326 267 367	8 185 182 559	12 444 763 567



Home - Gassco developer portal

https://apiportal.gassco.no

Microsoft Services... DevOps Mimir ORG-SO-PC - Doc... Jira (EC) JIRA (gbs,gmp,idc) Other favorites

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Gassco APIs

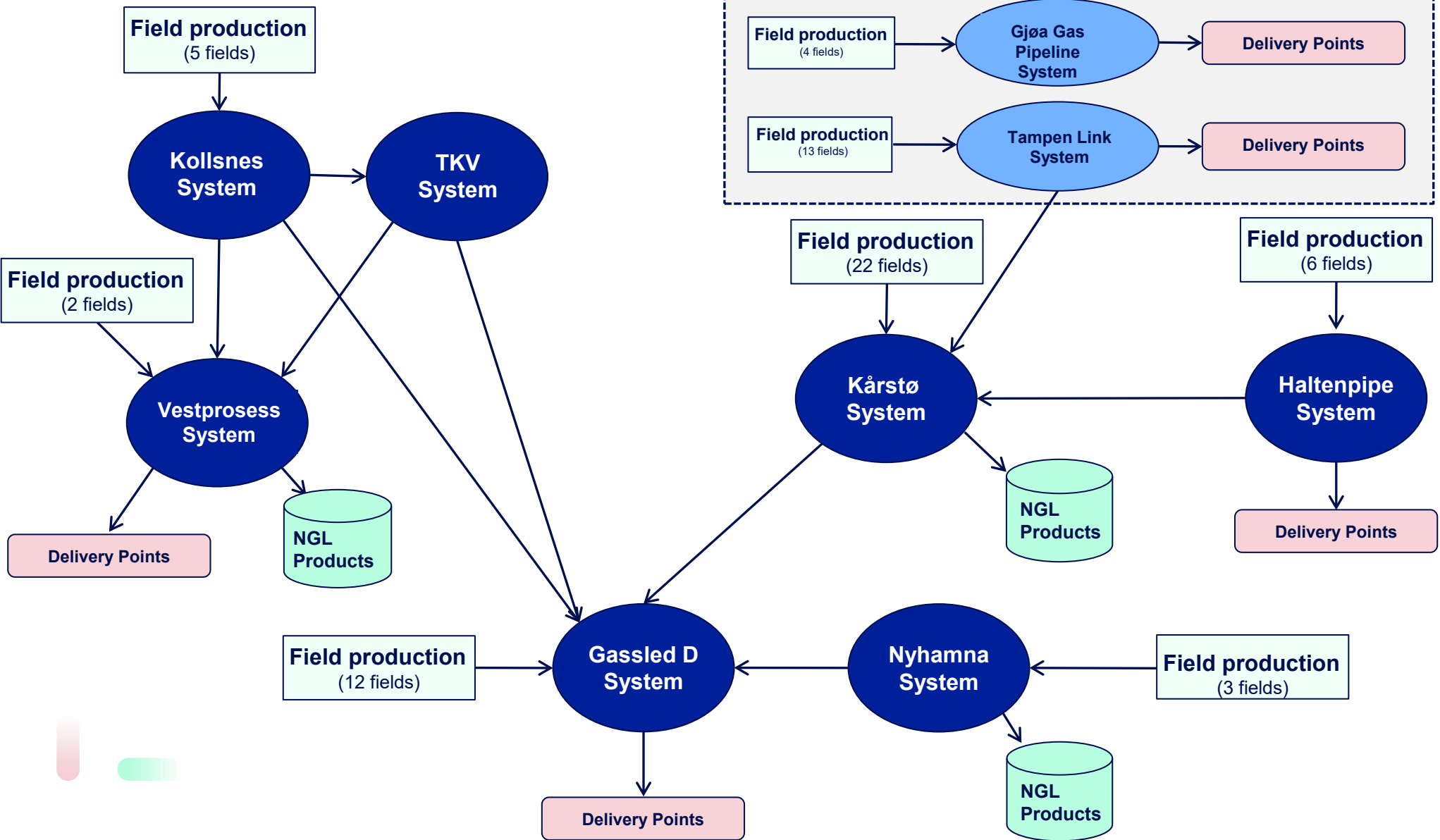
Several REST APIs are now available for Shippers and Field Operators.

The long term plan is that APIs will replace the reporting via Gassco Reports (GREP).

Information about the APIs is available by selecting API or Products in the menu above, and in the documentation provided below.

[Onboarding document](#)

Allocation Systems



Daily Allocation

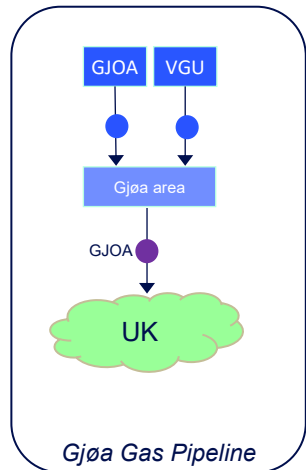
DPRF within 09:00

Daily allocation runs automatically 10:00

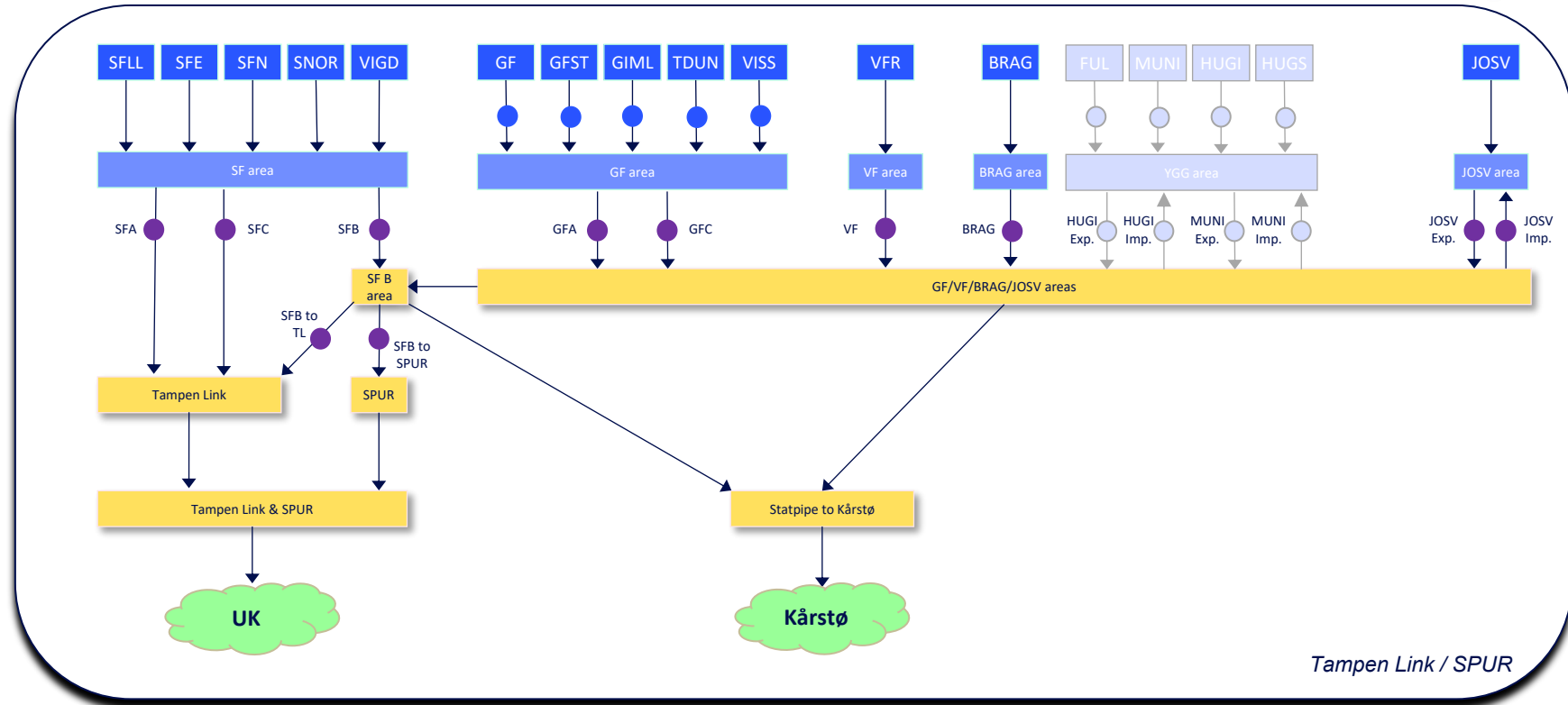
Daily reporting to down stream operator in UK is D+1

In case of issues, there are some flexibility within five days

- Re-allocations are manual
- Revised DPRF → Gassco need to be notified



- Field production
- Fiscal meter



Daily Allocation: Tampen Link

- Interface between fields and British/Norwegian-transportation systems.
- No imbalances between nominated and physically delivered volumes to UK. Nominated volumes are adjusted pro rata to match physical volumes.
- All fields except Statfjord Late Life will be allocated Shipper quantities in TL/SPUR according to their nominations and the field composition. Statfjord Late Life is allocated the component difference between measured quantities and the allocated quantities to the other fields.
- Field production to Kårstø is calculated as total field production less allocated field production to TL/SPUR.

Monthly allocation

Example: Input to Monthly Allocation Kårstø:

- Shippers field nominations
 - SDT / DLRF
- Meterings / Field production
 - Monthly Production Report Field – Njord (MPRF)
 - Mass
 - Mol %
 - Sum field = sum metered (mass-pr-component)
 - Metered volumes at Kårstø
 - Dry gas, fuel and flare
 - Lifted products (ethane, propane, butane, naphta and condensate)
 - Tank inventories
 - Pipeline inventories in Statpipe and Åsgard transport

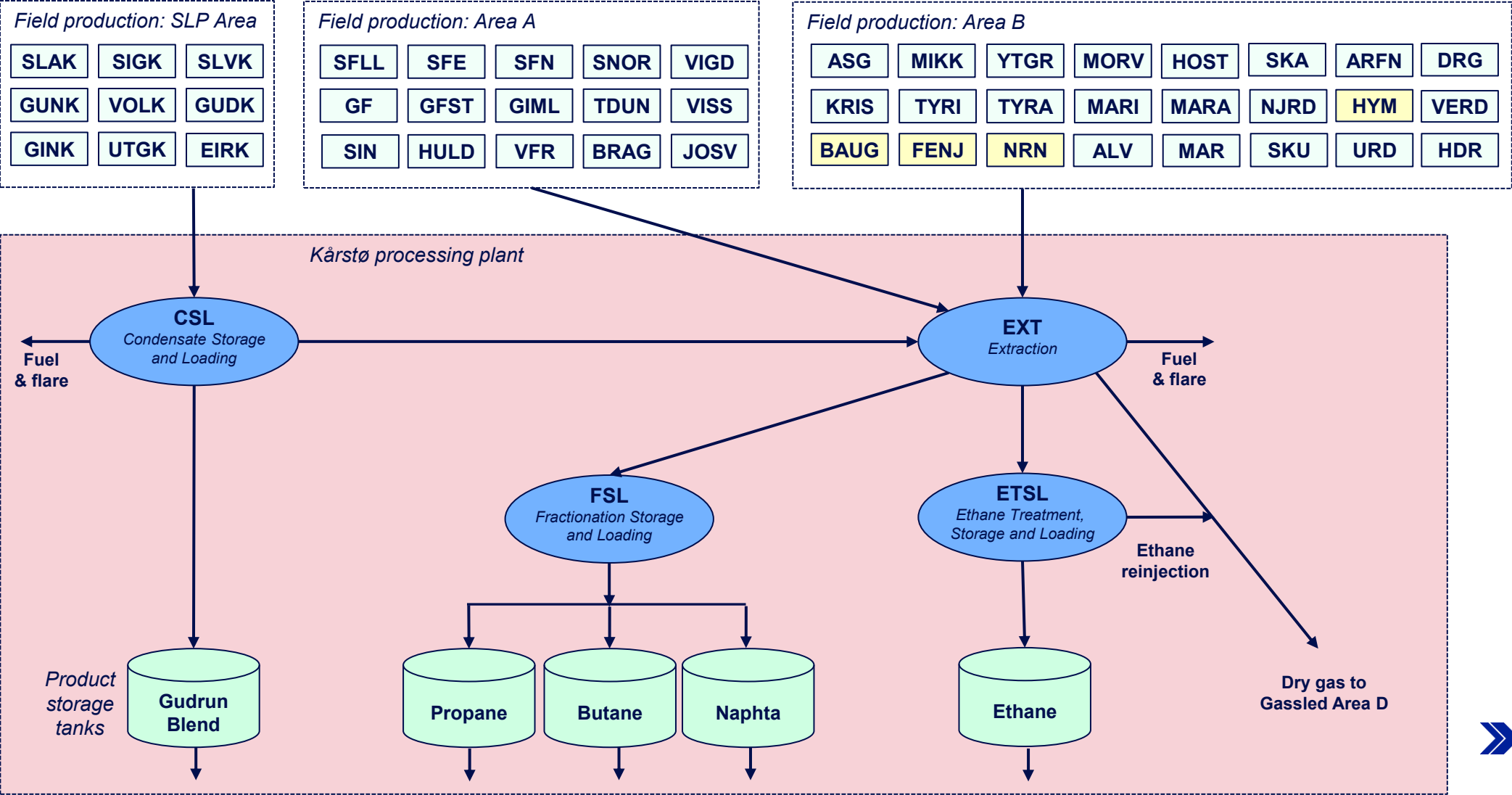
Njord Mass Balance @ Njord network
◀ Oct 2025 ▶

Measured Balance Allocated Balance Validation reports Show all details

Measured Balance with node validation

Incoming	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	IC5 [Tonnes]	NC5 [Tonnes]	C6+ [Tonnes]	Sum
Bauge Rich Gas	187.1881	150.000	1.0895000	788.7118	15.0000000	1887.827	17.71878	118.71878	118.71878	118.71878	8.81878
Fenja	118.71878	118.71878	1.1871878	887.1878	11.871878	1187.1878	11.871878	118.71878	118.71878	118.71878	8.81878
Hyme Rich Gas	34.000	34.000	1.095000	381.000	480.740	80.000	340.000	50.000	70.700	44.400	1201.740
Njord Rich Gas	118.71878	118.71878	1.1871878	887.1878	11.871878	1187.1878	11.871878	118.71878	118.71878	118.71878	8.81878
Sum	118.71878	118.71878	1.1871878	887.1878	11.871878	1187.1878	11.871878	118.71878	118.71878	118.71878	8.81878
Outgoing	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	IC5 [Tonnes]	NC5 [Tonnes]	C6+ [Tonnes]	Sum
Njord Exp	118.71878	118.71878	1.1871878	887.1878	11.871878	1187.1878	11.871878	118.71878	118.71878	118.71878	8.81878
Sum	118.71878	118.71878	1.1871878	887.1878	11.871878	1187.1878	11.871878	118.71878	118.71878	118.71878	8.81878
Difference	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	IC5 [Tonnes]	NC5 [Tonnes]	C6+ [Tonnes]	Sum
Difference	-0.031	-0.115	0.219	0.044	0.052	-0.063	-0.102	0.045	-0.039	-0.007	-0.001
Difference (%)	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %

Monthly Allocation: Kårstø System



Basic allocation principles

Field production

A shipper's fractional share of a field's production entering Gassled is equal to the shipper's fractional share of the nominations at that field.

Processing plants

Allocate the fields and shippers ownership of **products**, fuel, flare and dry gas.

- Field allocation:

Mass per component basis. Components: N₂, CO₂, C₁, C₂, C₃, iC₄, nC₄, iC₅, nC₅ and C₆+. A field's fractional share of a component out of a commingled stream, is equal to the field's fractional share of that component entering the commingled stream.

- Shipper allocation:

A shipper's fractional share of a component allocated to a field, equals the shipper's fractional share of the nominations at that field.

Fuel used in Gassled Area D

A shipper's fractional share of the fuel used in Gassled Area D is equal to the shipper's fractional share of the exit nominations in Area D.

Examples

Field nomination at Njord:

Nomination Shipper A = 500 kWh
Sum all shippers nominations = 1000 kWh

Shipper A allocated 50% of field production

Allocation of components in **Propane product at Kårstø**:

Rich gas production into Kårstø plant

Sum all fields = 100 ton C₃, 200 ton iC₄
Njord field = 5 ton C₃, 2 ton iC₄

- **Propane at Kårstø - FIELD**

Total produced Propane: C₃=80ton, iC₄=10ton

Njord field allocation of Propane:

Comp = Propane * Njord
C₃ = 80 ton * 5% = 4.0 ton
iC₄ = 10 ton * 1% = 0.1 ton

- **Propane at Kårstø - SHIPPER**

Shipper A at Njord field:

Comp = Njord mass * nom share
C₃ = 4.0 ton * 50% = 2.00 ton
iC₄ = 0.1 ton * 50% = 0.05 ton

Allocated Area D fuel gas:

Shipper A Exit nom. = 6 000 kWh
Sum all shippers Exit nom. = 100 000 kWh

Shipper A is allocated 6% of all area D fuel gas

Ownership Allocation - Monthly process (1/2)

1. Collect and verify all necessary input data

- 1 - 5 working day
- Verification of fiscal metering data done in cooperation with the metering department

2. Run and verify allocation calculations

- 5th working day

3. Reporting

- Miscellaneous overviews: 1-5 working day
- Gassled Allocation results: 5-7 working day
- Other: from 8th working day
- Note: receivers of data/reports have their own deadlines; e.g., tariff and invoicing 7th business day

4. Revise allocation calculations

- If revised input data are received, the allocation calculations are rerun during the last week in following month
- Yearly reallocation:
 - Collect input data (e.g., revised field production/metering) within **1st of April**
 - Quality checks and allocation rerun in May
 - Reporting May/June

	Business day in M+1										Last 1-2 weeks in M+1
	1	2	3	4	5	6	7	8	9	...	
Input data											
Calculation				Preliminary							Final
Reporting T&C											
Reporting other											

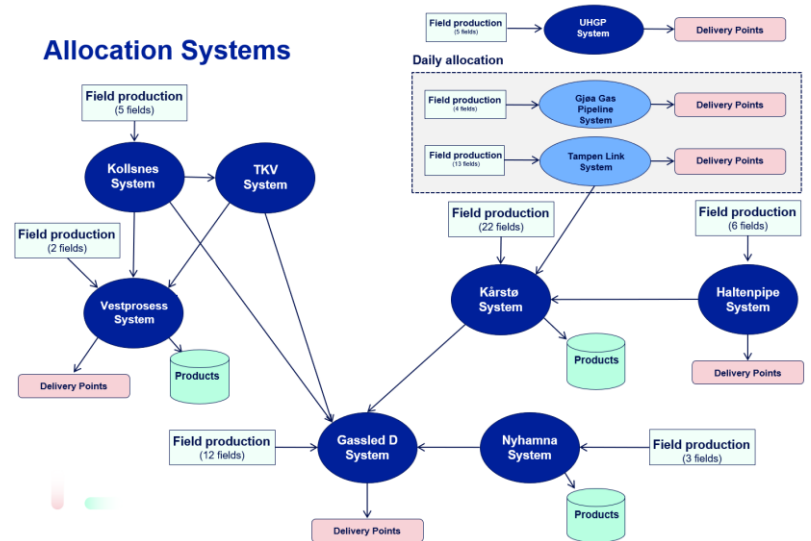
Ownership Allocation - Monthly process (2/2)

Check of input data

- Several departments involved: TCC, Dispatch, Metering, Allocation
- Compare of data from several sources: DPRx, MPRx, online data
- Trending, look for abnormal values
- Mass balances / energy balances for areas and process plants
- Compare sum of components for fields vs total metered from field area
- Imbalances: “shipper-nomination balance”, exit point imbalances, field imbalances and change of inventory

Dependencies

- **All** input data must be loaded into the system before we can run allocation
- Allocation systems must run in sequence
- Delays will impact further in the chain



IT Systems

Origo Energy Components

Process planning	Shipment planning	Message handling	Daily Allocation
Dispatching	Monthly Allocation	Tariff	Metering

energy components ORIGO2

Monthly Composition Mol

From Month
2025-07

To Month
2025-07

Business Unit
Gassco

Meter

Measurement Status

Month	Meter	Meter Type	Category	Meas Status	Source	Mass [MT]	Volume [Sm3]	Energy [kWh]	Density [MT/Sm3]	N2 [%]	CO2 [%]	C1 [%]	C2 [%]	C3 [%]	IC4 [%]	NC4 [%]	IC5 [%]	NC5 [%]	C6+ [%]	Sum [%]	Metered	Check	Lock
2025-07	Area G Inv	Inventory	Inventory	Approved	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	MT	☒	☐
2025-07	Hallenpipe Inv	Inventory	Inventory	Approved	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	MT	☒	☐
2025-07	Fram Production	Entry	Kollsnes Field Fisc	Non Approvable	Monthly Production Report Field - Fram	102.770000	73.260000	894.120000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kvitbjørn Exp	Entry	Kollsnes Field Fisc	Approved	Monthly Production Report Field - Kvitbjørn	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Visund Exp	Entry	Kollsnes Field Fisc	Approved	Monthly Production Report Field - Visund	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kvitbjørn Field Rich Gas	Field	Kollsnes Field Pro	Non Approvable	Monthly Production Report Field - Kvitbjørn	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Valemon To Kol Rich Gas	Field	Kollsnes Field Pro	Non Approvable	Monthly Production Report Field - Kvitbjørn	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes Flare HP	Exit	Kollsnes Plant	Non Approvable	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes Flare LP	Exit	Kollsnes Plant	Non Approvable	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes Flare Maint	Exit	Kollsnes Plant	Non Approvable	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes MPL	Exit	Kollsnes Plant	Approved	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes NGL Fuel	Exit	Kollsnes Plant	Non Approvable	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes NP	Exit	Kollsnes Plant	Approved	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes Sture NGL	Plant	Kollsnes Plant	Approved	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	wt %	☒	☐
2025-07	Kollsnes Troll Fuel	Exit	Kollsnes Plant	Non Approvable	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes VP NGL	Plant	Kollsnes Plant	Approved	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	wt %	☒	☐
2025-07	Kollsnes ZP2A	Plant	Kollsnes Plant	Approved	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Kollsnes ZP2B	Plant	Kollsnes Plant	Approved	Monthly Production Report Plant - Kollsnes	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Zeepeipe 2A Inv	Inventory	Kollsnes Plant	Approved	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	MT	☒	☐
2025-07	Zeepeipe 2B Inv	Inventory	Kollsnes Plant	Approved	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	MT	☒	☐
2025-07	Aasgard Exp	Entry	Kårstø Field Fiscal	Approved	Monthly Production Report Field - Aasgard	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Aasgard Imp	Entry	Kårstø Field Fiscal	Approved	Monthly Production Report Field - Aasgard	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Brage Exp	Entry	Kårstø Field Fiscal	Non Approvable	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☐	☐
2025-07	Draugen Gas Export to AAT	Entry	Kårstø Field Fiscal	Approved	Monthly Production Report - DRAUGEN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	mol %	☒	☐
2025-07	Gulfaks A Exp	Entry	Kårstø Field Fiscal	Non Approvable	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	wt %	☐	☐
2025-07	Gulfaks C Exp	Entry	Kårstø Field Fiscal	Non Approvable	No reference to Message Journal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	wt %	☐	☐

RECORD STATUS

REVISION INFO

APPROVAL STATUS

HINTS & TIPS

VALIDATION

TRENDING

ATTACHMENTS

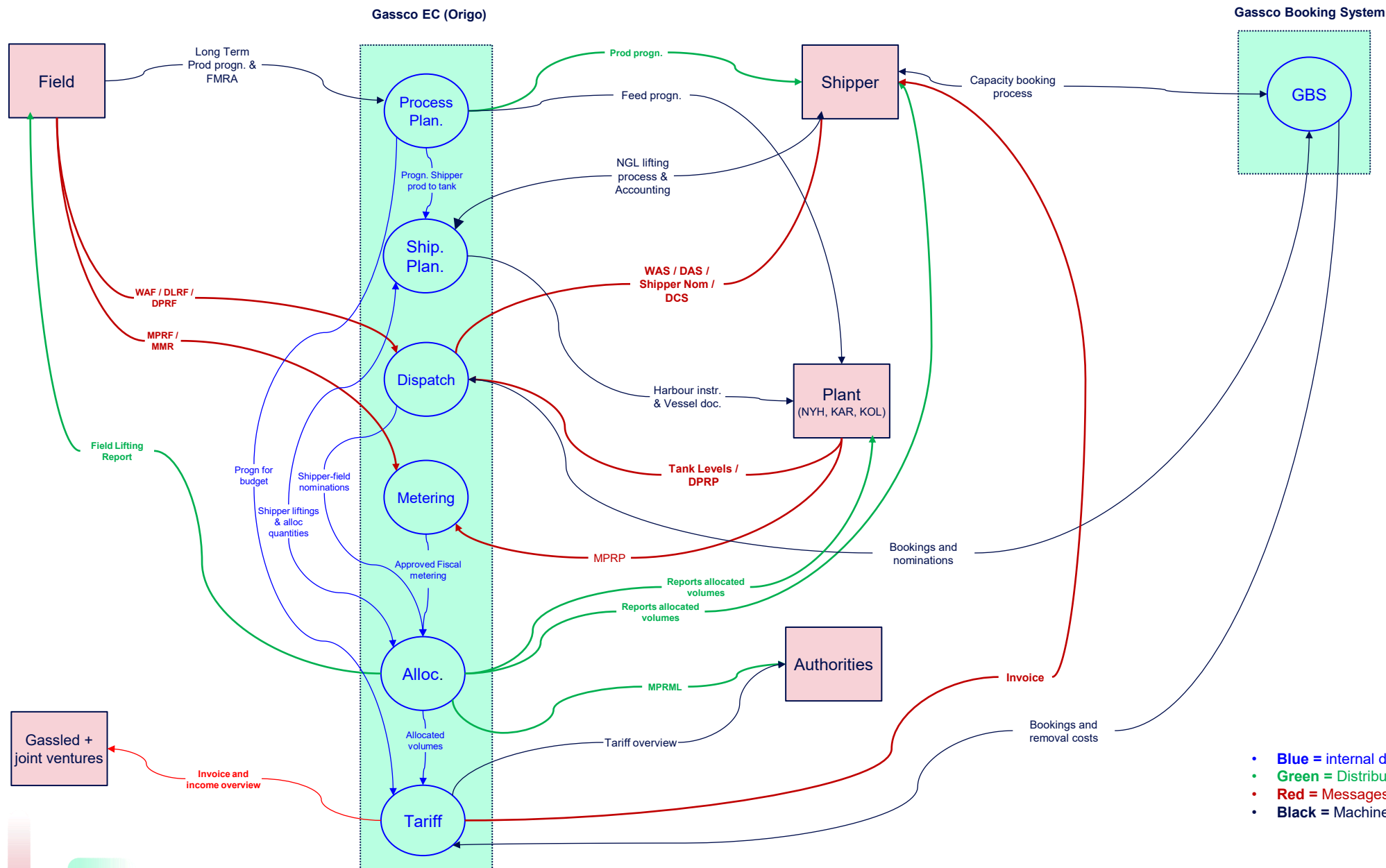
Created by

Record status

Last updated by

Revision text

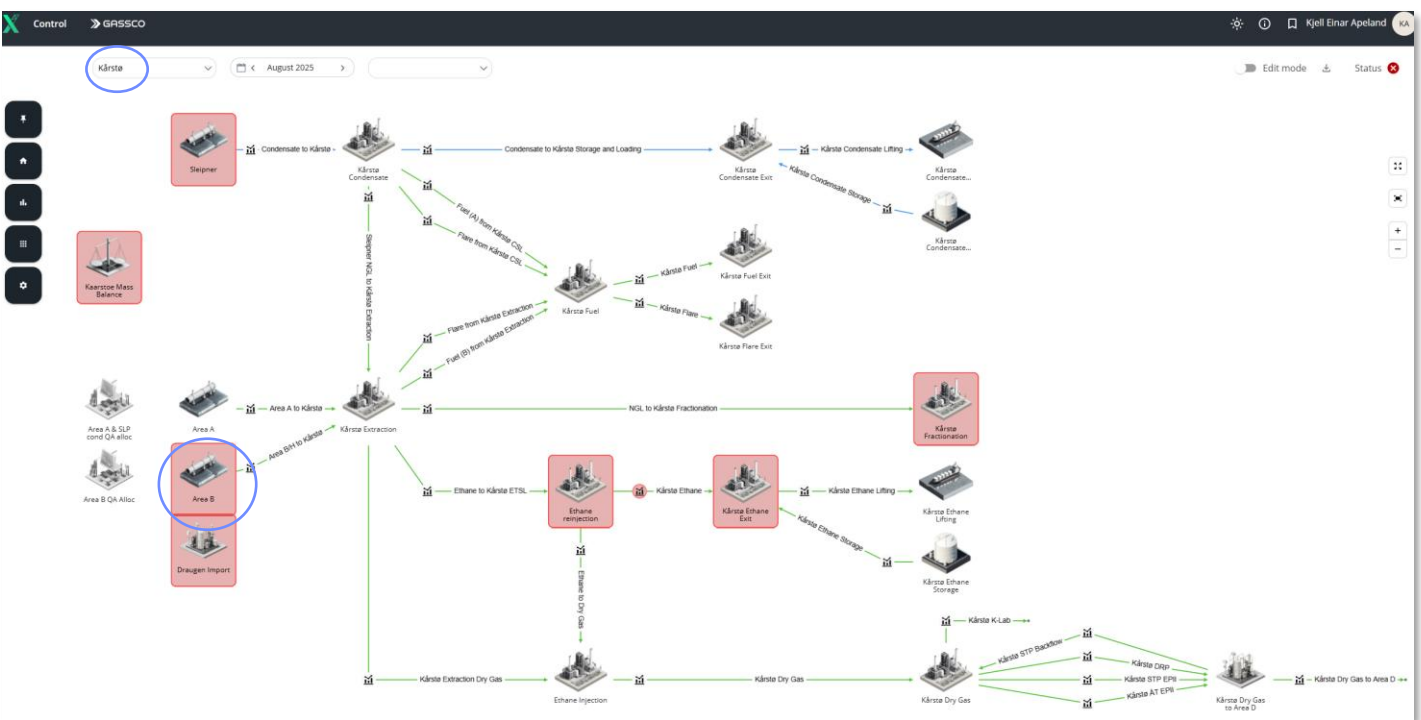
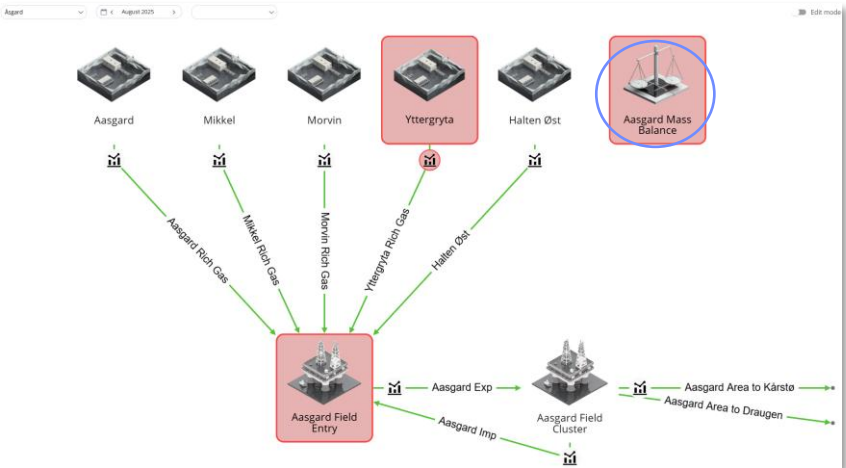
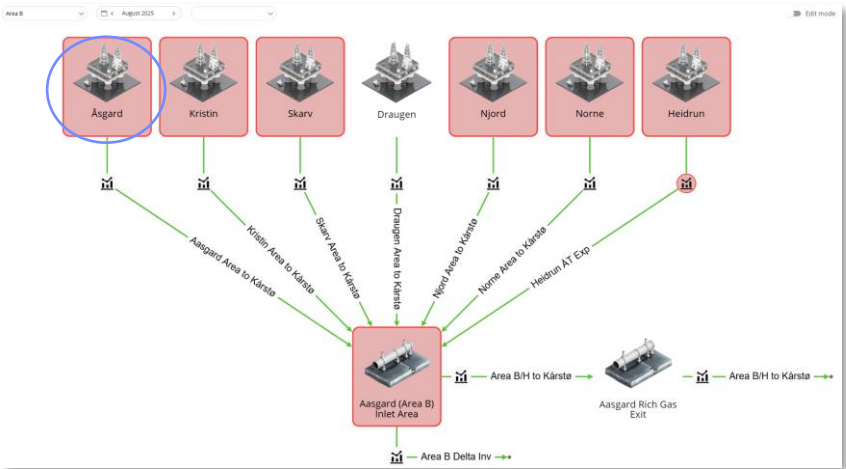
Revision Event



- **Blue** = internal data flow (common database)
- **Green** = Distributed to receiver on API or GREP
- **Red** = Messages handled via Message Handling module
- **Black** = Machine to machine, e-mail or manual input

IT Systems

EnergyX Control



Aasgard Mass Balance @ Aasgard network

Measured Balance With Node Validation

Incoming	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	ICS [Tonnes]	NCS [Tonnes]	C6+ [Tonnes]	Sum
Aasgard Imp											
Aasgard Rich Gas											
Halten Øst											
Mikkel Rich Gas											
Morvin Rich Gas											
Sum											
Outgoing	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	ICS [Tonnes]	NCS [Tonnes]	C6+ [Tonnes]	Sum
Aasgard Exp											
Sum											
Difference	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	ICS [Tonnes]	NCS [Tonnes]	C6+ [Tonnes]	Sum
Difference	147.661	1,172.767	-1,304.529	-134.503	43.338	19.743	-929.674	246.279	295.907	443.012	0.001
Difference (%)	N2 [Tonnes]	CO2 [Tonnes]	C1 [Tonnes]	C2 [Tonnes]	C3 [Tonnes]	IC4 [Tonnes]	NC4 [Tonnes]	ICS [Tonnes]	NCS [Tonnes]	C6+ [Tonnes]	Sum
Difference (%)	3.45 %	3.74 %	-0.4 %	-0.18 %	0.08 %	0.18 %	-4.17 %	7.76 %	10.46 %	13.19 %	0 %

%

Aug 2024 Sep Oct Nov Dec Jan 2025 Feb Mar Apr May Jun Jul Aug

⇒ NCS Imbalance - %

Imbalance

0	%
0.001	Tonnes
537,872.041	Incoming
537,872.042	Outgoing

- Gassco Reports (GREP)



Gassco Reports

grep v13.11

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[ORIGO REPORTS](#)
[USER MAINTENANCE](#)
[LOG OUT](#)

ORIGO REPORTS

[Allocation](#)
[Process Planning](#)
[Shipment Planning](#)

October
2016

Company	Group	Start	End	Filename	Size	Created
STATOIL	SHIPPER	01.10.2016		Nom_cond_fds_2016-10.xls	11 Kb	10.11.2016 15:07
STATOIL	SHIPPER	01.10.2016	31.10.2016	Dry_Gas_Deliveries_2016-10_Prelim.xls	33 Kb	10.11.2016 13:55
STATOIL	SHIPPER	01.10.2016		Kaarsto_Densities_STAT_2016-10_Prelim.xls	11 Kb	10.11.2016 11:59
STATOIL	SHIPPER	01.10.2016	31.10.2016	Basis_for CO2_tax_STAT_2016-10.xlsx	30 Kb	10.11.2016 11:29
STATOIL	SHIPPER	01.10.2016		Rich_Gas_Alloc_GGP_STAT_2016-10.xls	9 Kb	10.11.2016 10:29
STATOIL	SHIPPER	01.10.2016		Gassled_AreaD_Fuel_STAT_2016-10.xls	9 Kb	10.11.2016 08:53
STATOIL	SHIPPER	01.10.2016		Rich_Gas_Alloc_Kollsnes_STAT_2016-10_Prelim.xls	46 Kb	10.11.2016 08:47

- API

Home - Gassco developer portal

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Gassco APIs

Several REST APIs are now available for Shippers and Field Operators.

The long term plan is that APIs will replace the reporting via Gassco Reports (GREP).

Information about the APIs is available by selecting API or Products in the menu above, and in the documentation provided below.

Onboarding document

The onboarding document summarizes the process field operators and shippers must follow to get access to the Gassco APIs, and how to use the APIs.

Transition document for allocation APIs

The transition document describes the new Allocation API and gives an overview of relevant GREP reports and where to find the matching information in the APIs.

Fields in allocation systems and APIs

This document has figures that show the physical routing of gas from fields and the different APIs reporting this data

Postman collection

A Postman example collection (a JSON file provided by Gassco) is provided to consumers of the APIs. This collection include calls (with example payloads) to all the existing methods in the API.

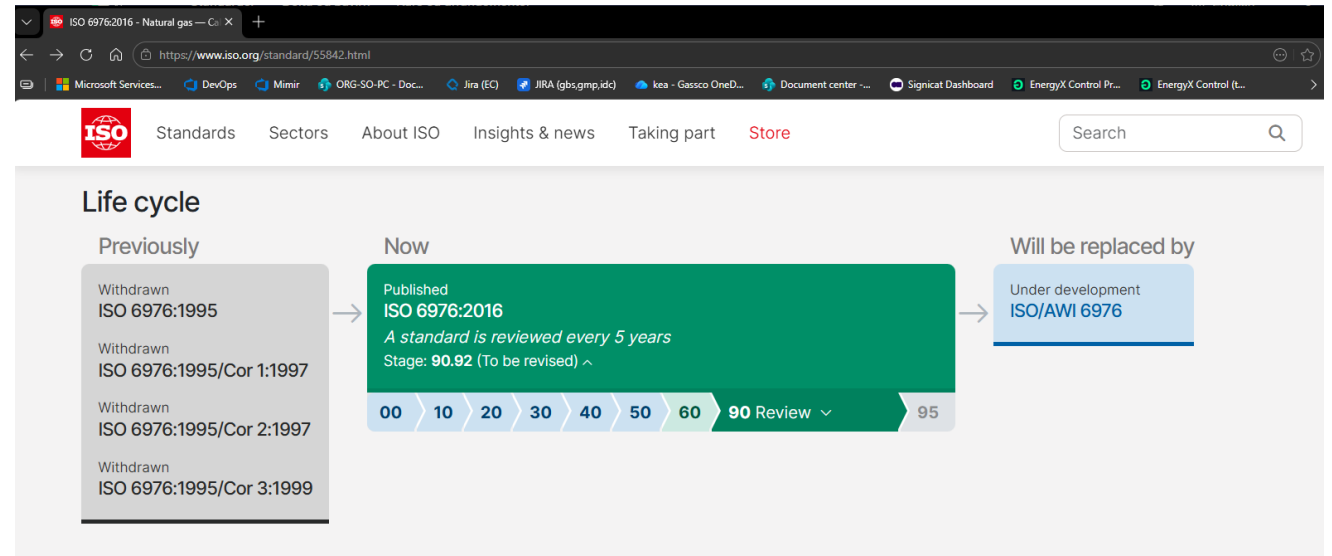
Also see the corresponding [environment file](#).

Please note that this collection is meant to be an example, and will not fully document the API. I.e. be aware of any changes in the API and use the API spec in this portal as a

Table	JSON
	<pre>{ "report_name": "Field Lifting Report (MTH)", "field": "CF_FIA_SIGK", "field_operator": "STAT", "location_code": "DG_PIM_TRANS", "daytime": "2020-05-01", "last_updated_date": "2022-06-02 21:53:41", "energy": 4.0, "p_revision_no": 0, "p_status": "F", "revision": 0, "revision_time": "2025-02-14 09:44:00" }</pre>
	<pre>{ "report_name": "Field Lifting Report (MTH)", "field": "CF_FIA_SIGK", "field_operator": "STAT", "location_code": "DG_PROD", "daytime": "2020-05-01", "last_updated_date": "2022-06-02 21:53:41", "energy": 4.0, "p_revision_no": 0, "p_status": "F", "revision": 0, "revision_time": "2025-02-14 09:44:00" }</pre>
	<pre>{ "report_name": "Field Lifting Report (MTH)", "field": "CF_FIA_SIGK", "field_operator": "STAT", "location_code": "DG_PROD_ERI", "daytime": "2020-05-01", "last_updated_date": "2022-06-02 21:53:41", "energy": 4.0, "p_revision_no": 0, "p_status": "F", "revision": 0, "revision_time": "2025-02-14 09:44:00" }</pre>
	<pre>{ "report_name": "Field Lifting Report (MTH)", "field": "CF_FIA_SIGK", "field_operator": "STAT", "location_code": "KAR_ERI", "daytime": "2020-05-01", "last_updated_date": "2022-06-02 21:53:41", "energy": 4.0, "p_revision_no": 0, "p_status": "F", "revision": 0, "revision_time": "2025-02-14 09:44:00" }</pre>

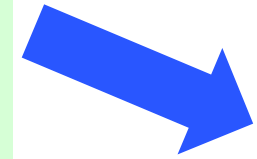
ISO 6976

- Input to allocation in mass (kg) and composition (mol%) from MPRF, DPRF and MPRP
- Use ISO 6976:1995 to calculate mass pr component, volume, energy, GCV etc.
- Why do we not use the 2016 version?
 - The changes from 1995 to 2016 are small
 - It is recommended to use the 2016 version, but it is not a requirement
 - Only the 1995 version is implemented in our Energy Components system (allocation system)

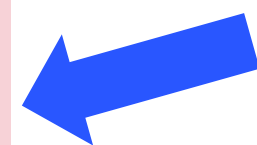




Collect and verify all necessary input data



Run and verify allocation calculations

An illustration featuring a purple abacus with red and green beads, a green book with math problems like $1+1=$, $2-1=$, and $4-2=$, and large, colorful numbers 2, 3, and a plus sign.

Reporting to shippers, operators, authorities

The collage displays a variety of data visualization and reporting tools. It includes several spreadsheets with complex formulas and data tables, such as one titled 'Sales Summary' and another 'Sales by Category'. There are also numerous charts and graphs, including bar charts, line graphs, and pie charts, used to present financial and operational data. Some reports feature logos and branding, suggesting they are part of a corporate reporting system. The overall theme is the integration and presentation of diverse data sources for different stakeholders.

