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# UKLP – Gemini Consequential Changes (GCC) Workstream

## External Stakeholder Presentation 26/11/2014

# Introduction to GCC

- The UKLink Programme is split into multiple Workstreams.
- The Gemini Consequential Changes (GCC) Workstream is responsible for delivering and building the consequential changes to the Gemini system that have arisen from the NEXUS Requirements.
- Gemini is the only National Grid System which is impacted by the changes.

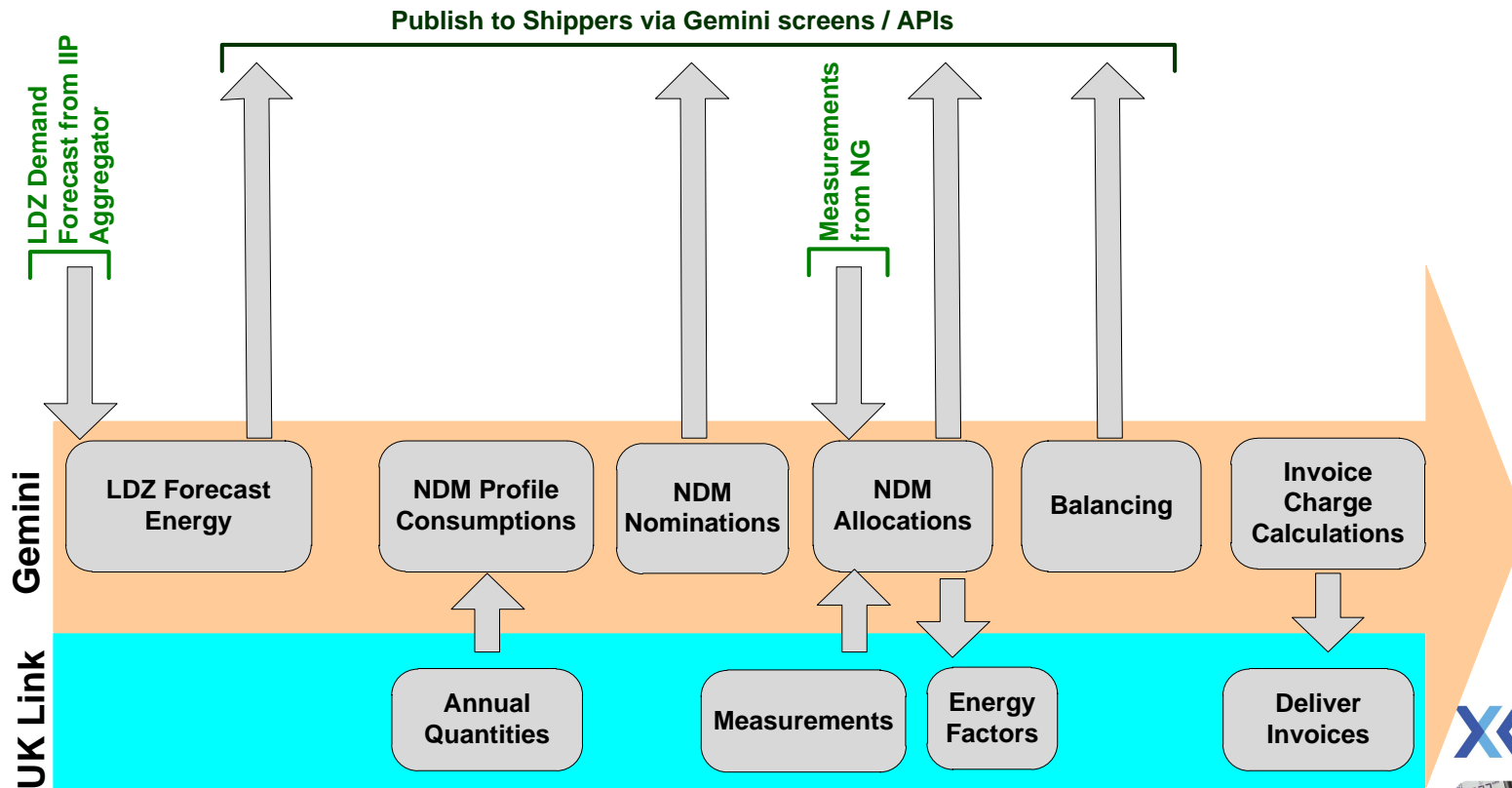
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# Gemini Processes AS IS

## Demand Attribution, NDM Nominations and NDM Allocations Process - AS-IS



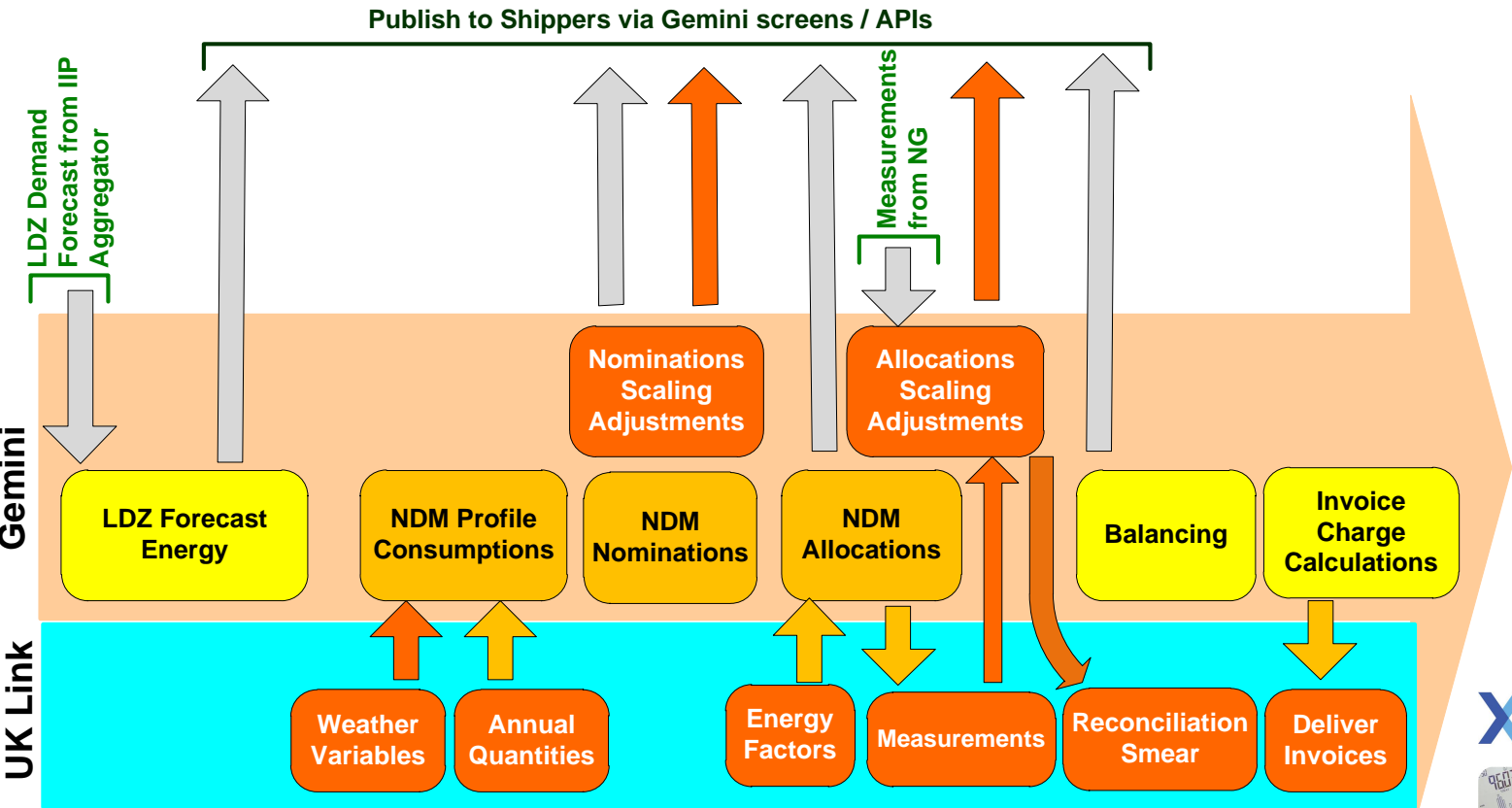
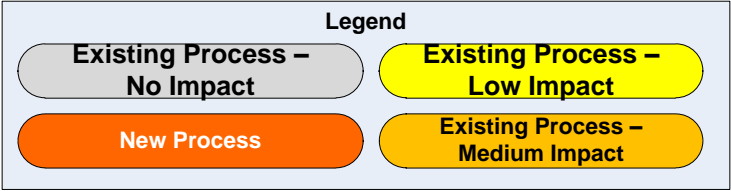
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# Gemini Processes TO BE

## Demand Attribution, NDM Nominations and NDM Allocations Process - TO-BE



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# High Level Overview of GCC

- The consequential changes that have been identified can be categorised in the following areas and are explained on the subsequent slides:
  - Demand Attribution
  - NDM Nominations
  - NDM Allocations
  - APIs

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# Scope and Key Activities (1)

- Nominations - Demand Attribution:
  - Create Nominations for Non-Daily Meters
  - Create DM Nomination Estimate
  - Calculate Forecast Unidentified Gas
  - Calculate Share of Unidentified Gas for Gas Nominations
  
- Allocations - Demand Attribution:
  - Create Allocations for Non-Daily Meters
  - Calculate Actual Unidentified Gas
  - Calculate Share of Unidentified Gas for Gas Allocations
  
- APIs:
  - Shipper Preliminary Balance
  - View Renomination Details
  - View Renominations
  - View WCF/SF Values

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# Scope and Key Activities (2)

- The GCC Workstream are responsible for the following activities:
  - Management of Requirement Definitions.
  - Gemini Build and Testing outside of the UKLP (up to and including System Testing).
  - Workstream Planning.
  - Interfacing with other current projects e.g. EU Phase 2.
  - Liaising with the UKLP Testing Workstream to integrate GCC into the mainstream UKLP System Integration Testing plan.
  - Supporting the UKLink Programme for testing stages and successive stages.

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# Gas Nominations and Allocations

## End to End Process

- The following slides captures the end to end process for the Gas Nominations and Allocations.
- The end to end process diagrams are illustrated using the below key:

An information  
only call out.

Denotes a change  
in the process.

A BRD  
reference.

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# Calculate NDM Output Nominations

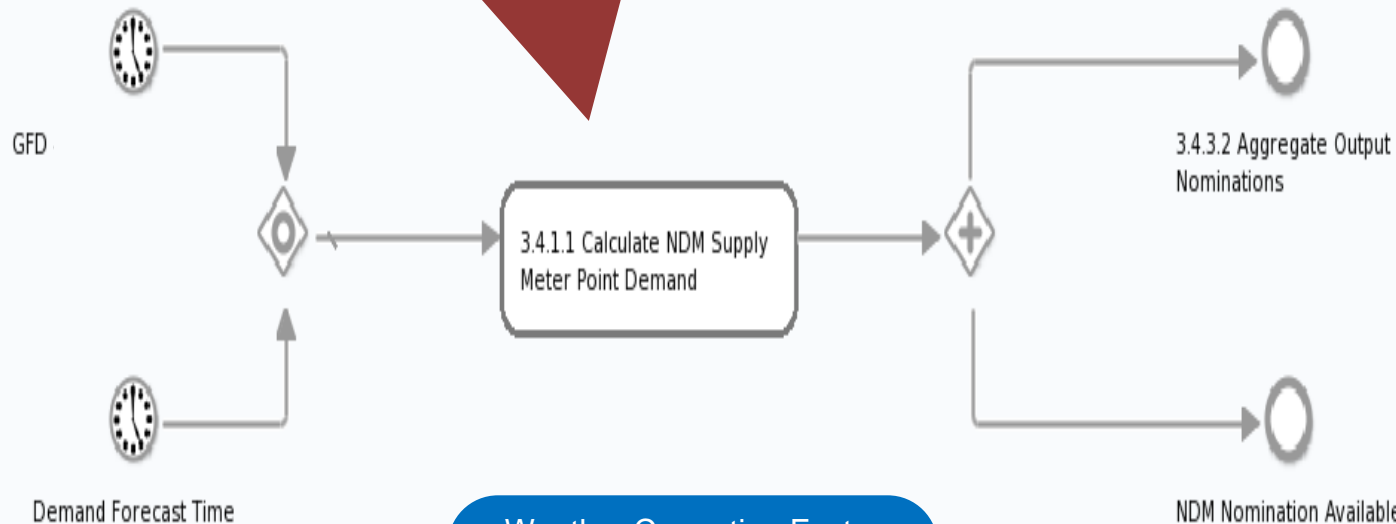
NDM Demand estimation formula; the formula will no longer use the Scaling Factor and will apply a Weather Correction Factor calculated from the Forecast Weather data.

Formula:  $(AQ/365)*ALP*(1+[DAF*WCF])$

## UNC Ref

H2.2- Formula  
C2.5 – Principles of NDM  
Nominations

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## Note

There are no file formats associated with this Business Process.

Weather Correction Factor adjusts for the difference between the Daily Composite Weather Variable and the Daily Seasonal Normal Composite Weather Variable per LDZ.

Settlement BRD  
Ref:  
5.1, 5.3

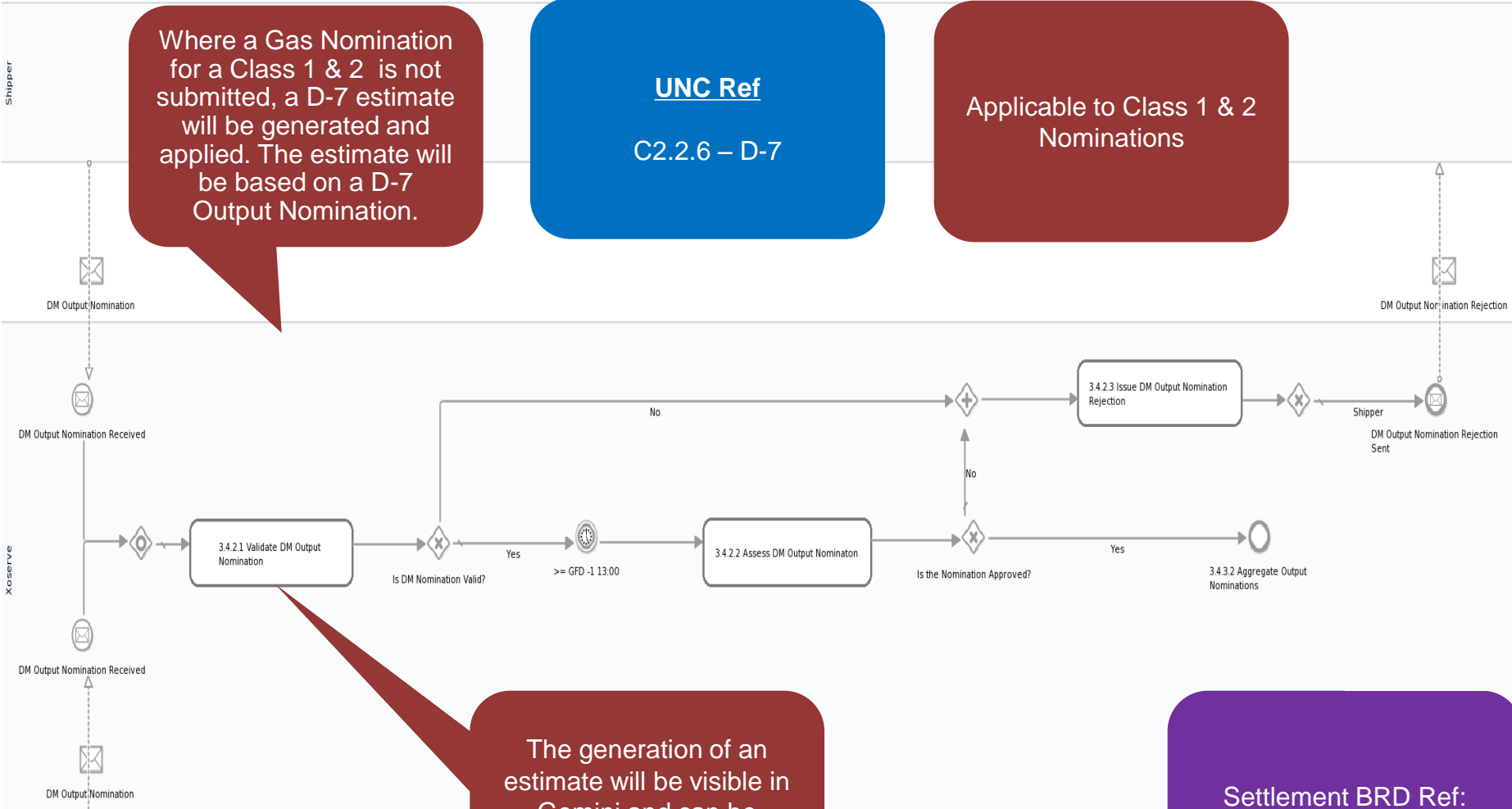
# Validate DM Output Nominations

Where a Gas Nomination for a Class 1 & 2 is not submitted, a D-7 estimate will be generated and applied. The estimate will be based on a D-7 Output Nomination.

**UNC Ref**

C2.2.6 – D-7

Applicable to Class 1 & 2 Nominations



**Note**

There are no file formats associated with this Business Process.

The generation of an estimate will be visible in Gemini and can be replaced within the Gas Nomination timescales.

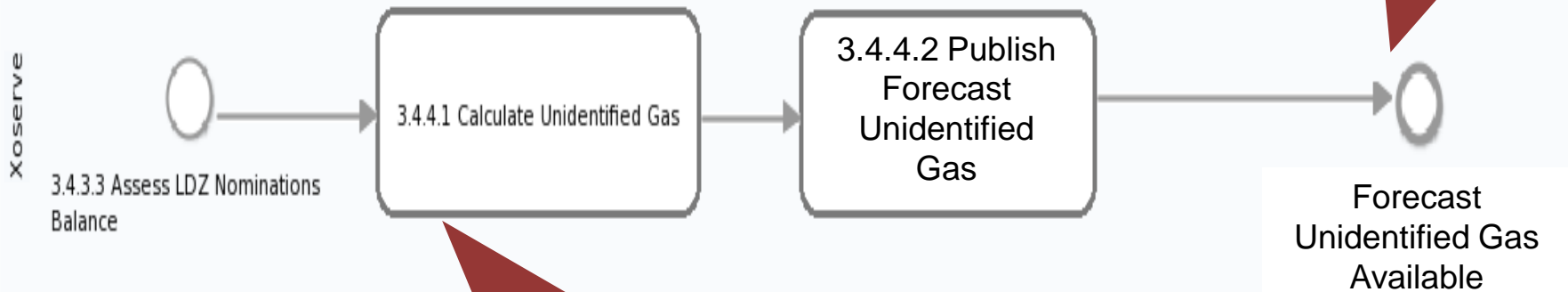
Settlement BRD Ref: 5.1.2

# Calculate Forecast Unidentified Gas

## UNC Ref

H2.6 – Unidentified Gas

The Forecast Unidentified Gas will be apportioned to Shippers using the Allocation Adjustment Factors. A Unidentified Gas 'Meter ID' will be created per Shipper per LDZ / Exit Zone.



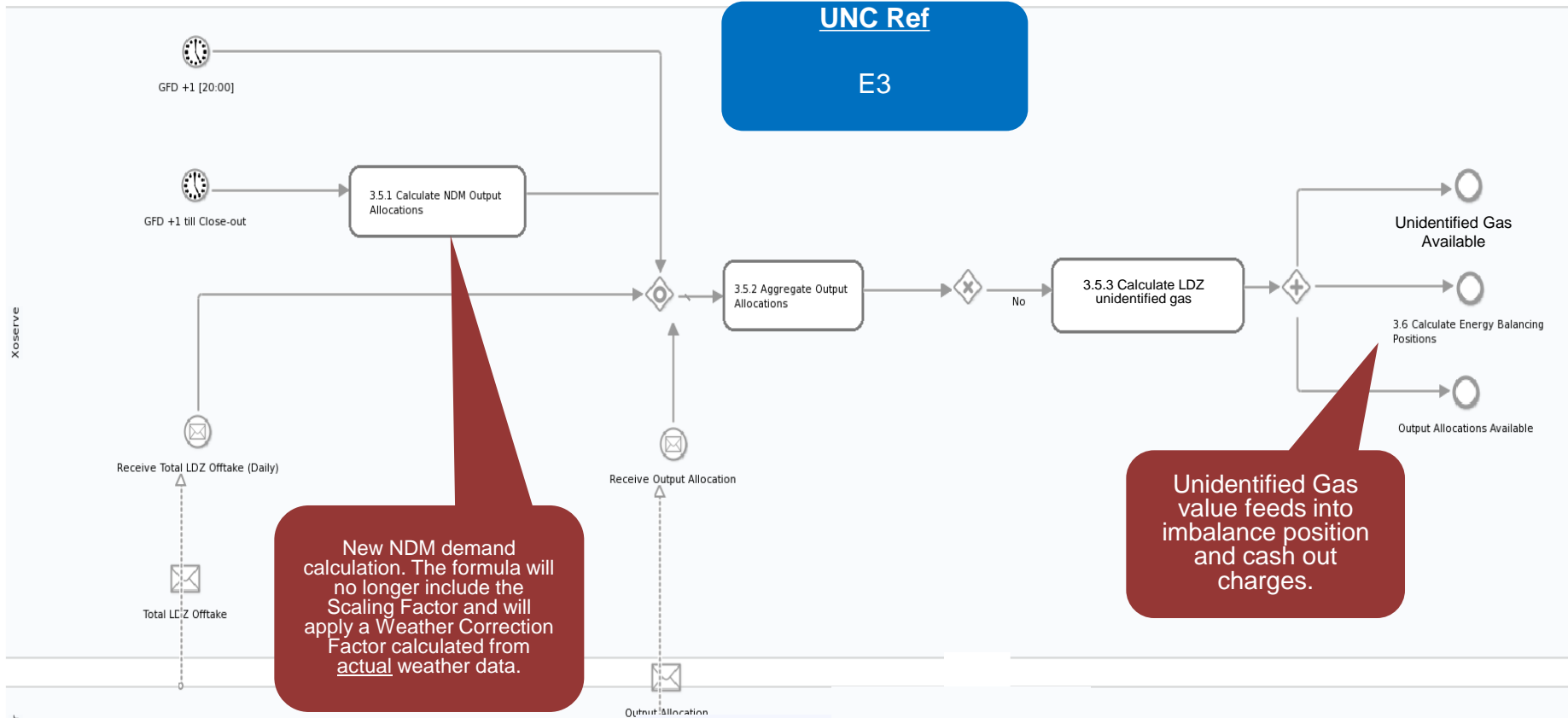
The LDZ Forecast Unidentified Gas is calculated at D-1 for the Gas Flow Day.

### Calculation

$$\text{LDZ Forecast Demand} - (\text{LDZ shrinkage} + \text{Total DM Nominations} + \text{Total NDM Nominations})$$

Settlement BRD Ref:  
5.4

# Calculate Energy Allocations



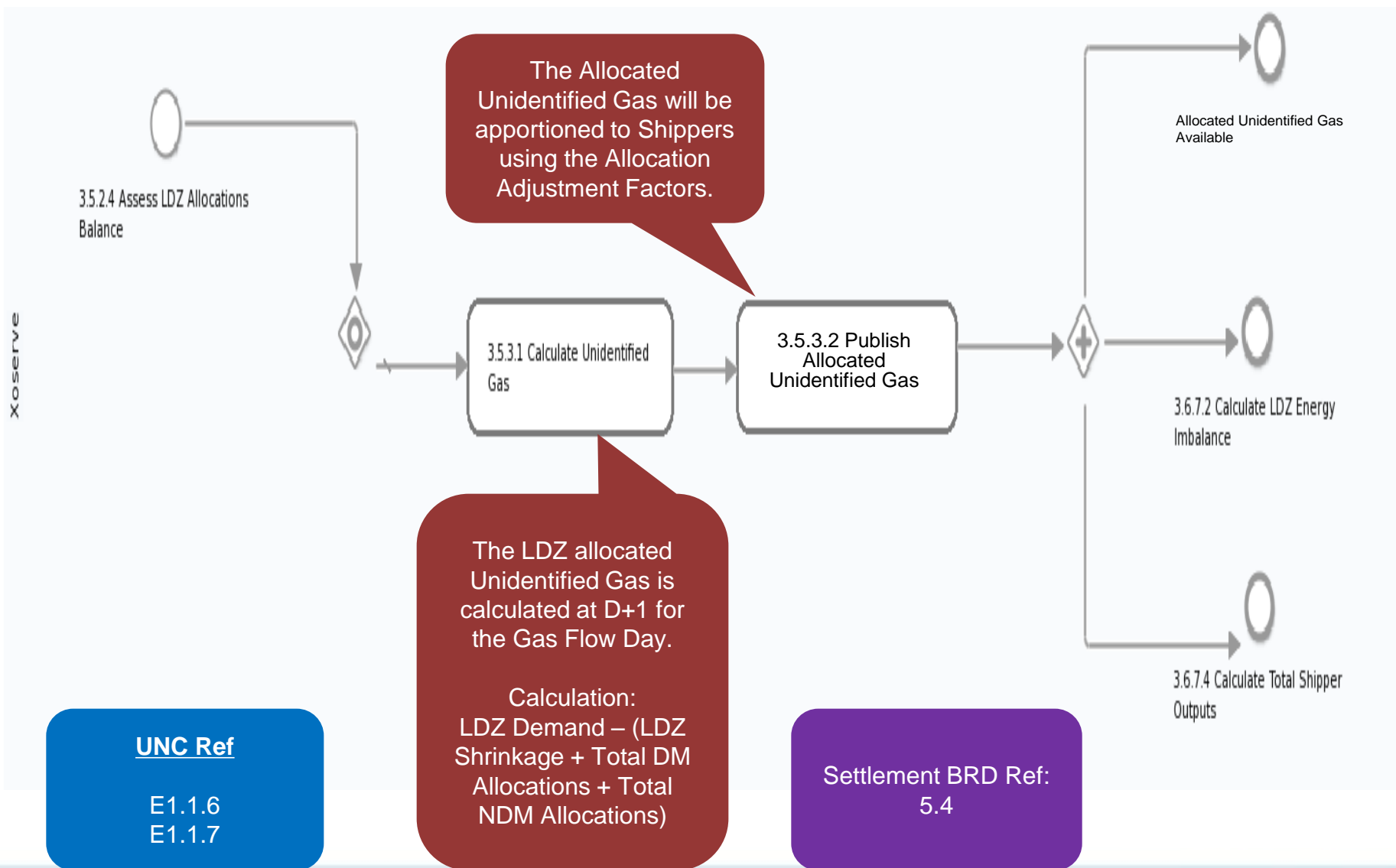
New NDM demand calculation. The formula will no longer include the Scaling Factor and will apply a Weather Correction Factor calculated from actual weather data.

Unidentified Gas value feeds into imbalance position and cash out charges.

Weather Correction Factor adjusts the difference between the daily CWV and the daily seasonal normal CWV per LDZ.

Settlement BRD Ref: 5.3

# Calculate Unidentified Gas Allocation



# Gemini Screens

- The subsequent slides depict the following new and amended Gemini Screens\*:
  - DM Nomination Estimation
  - Shipper Balance
  - Allocation by Meter ID
  - Shipper Unidentified Gas (UIG) Share

*\* Please note that these screens are subject to changes as the Workstream progresses*

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# DM Nomination Estimation



Contract Product Trade Deal Constraints Meter Details Nominations OCM Measurements Allocations Invoice IMS

Messages - 0    User Name: IONT1301    BA: TRA    User Role: IGMS013

GEMINI    Environment: Prototype    You are here : Home > Nominations > Nominations    Nominations

**View Nominations**

BA\*: ABC    ABC Plc    ABC Plc LTD    Rate Schedule\*: Exit    Service Id\*: BG-SS-000001  
 Eff Start Date\*: 02-Oct-2015    Eff End Date\*: 20-Oct-2015    View By\*: Gas Trades Excluded    Requested Status: --Select--  
 Search: --Select--    By:

Activity Number	SF	Meter Id	Requested		Scheduled		Reason Code	Opp Flow	Actions
			Energy(kWh)	Status	Energy(kWh)	Status			
000001		100000001	31,811,000	A	31,811,000	A		N	A V
000002		100000002	11,078,000	A	11,078,000	A		N	A V
000003		100000003	0	N	0	N		N	A V
000004		100000004	51,190,328	E	0	A		N	A V
000005		100000005	3,743,056	N	0	N		N	A V
000006		100000006	9,411,111	N	0	N		N	A V
000007		100000007	38,091,533	N	0	N		N	A V
000008		100000008	0	N	0	N		N	A V
000009		100000009	0	N	0	N		N	A V
<b>Total:</b>			<b>145,325,028</b>		<b>94,079,328</b>				
			<b>Number of Activities: 9</b>						

# Shipper Balance



Smell Gas ? Call free on 0800 111 999  
all calls are recorded and may be monitored

[Contract](#) | [Product](#) | [Trade](#) | [Deal](#) | [Constraints](#) | [Meter Details](#) | [Nominations](#) | [OCM](#) | [Measurements](#) | [Allocations](#) | [Invoice](#) | [IMS](#)

Messages - 0 | User Name: IONT1301 | BA: TRA | User Role: IGMS013

**GEMINI** Environment: Prototype You are here : Home > Nominations > Balance > Business Associate Balance Nominations

## Business Associate Balance

Gas Day\*: 01-Oct-2015   BA\*

**Available**

ABC - ABC - ABC GAS SHIP LTD

**Selected**

ABC - ABC - ABC GAS SHIP LTD

	Requested (kWh)	Scheduled (kWh)	
<b>Input Balance(kWh)</b>			
Transport Input	547,669,805	547,669,805	V
Storage Input	0	0	V
Trades Buy	272,988,474	272,988,474	V
OCM NBP Buys	59,845,104	59,845,104	V
OCM Physical/Flexibility	0	0	V
<b>Total Input:</b>	<b>880,503,383</b>	<b>880,503,383</b>	
<b>Output Balance(kWh)</b>			
DMCs/DMA's/Shrinkage	240,287,490	240,287,490	V
Non-Daily Metered	280,801,498	280,801,498	V
Storage Output	58,348,880	58,348,880	V
Total Unidentified Gas	280,801,498	280,801,498	V
Trades Sell	0	0	V

Note: - The total UIG has been introduced from gas day 01<sup>st</sup> October 2015 onwards



# Allocation by Meter ID



[Contract](#) | [Product](#) | [Trade](#) | [Deal](#) | [Constraints](#) | [Meter Details](#) | [Nominations](#) | [OCM](#) | [Measurements](#) | [Allocations](#) | [Invoice](#) | [IMS](#)

Messages - 0 | User Name: IONT1301 | BA: TRA | User Role: IGMS013

**GEMINI** Environment: Prototype You are here : Home > Allocations > Allocation Details > By Meter ID Allocations

**Allocations By Meter ID**

Gas Day From\*: 01-Oct-2015 | Gas Day To\*: 01-Oct-2015 | Input / Output: Output

**Shipper:** Available: ABC-ABC -ABC GAS SHIPPING SERVICES I

**Meter Type:** Available: ST-SUB TERMINAL, DF-DAILY METERED AGGREGATE FIRM, UG-UNIDENTIFIED GAS

**Meter ID:** ABCWM1UG

**Selected:** ABC-ABC -ABC GAS SHIPPING SERVICES

**Selected:** UG-UNIDENTIFIED GAS

Agg. By ID |  View By Date

|  |

Gas Day	Meter ID	Meter Type	I/O	BA	Nominations (kwh)	Allocation (kwh)	Opp Flow
01-Oct-2015	ABCWM1UG	UG	O	ABC	34,856	35,004	N
<b>Total:</b>					34,856	35,004	

# Shipper UIG Share



[Contract](#) | [Product](#) | [Trade](#) | [Deal](#) | [Constraints](#) | [Meter Details](#) | [Nominations](#) | [OCM](#) | [Measurements](#) | [Allocations](#) | [Invoice](#) | [IMS](#)

Messages - 0 | User Name: IONT1301 | BA: TRA | User Role: IGMS013

**GEMINI** Environment: Prototype You are here : Home > Allocations > Shipper Balance > Shipper Allocation UIG Share Report **Allocations**

## Shipper Allocation UIG Share Report

Shipper\*: ABC Gas Day\*: 01-Oct-2015 LDZ\*: EA-EASTERN LDZ Exit Zone: EA1 -EASTERN 1 EZ

Query Clear

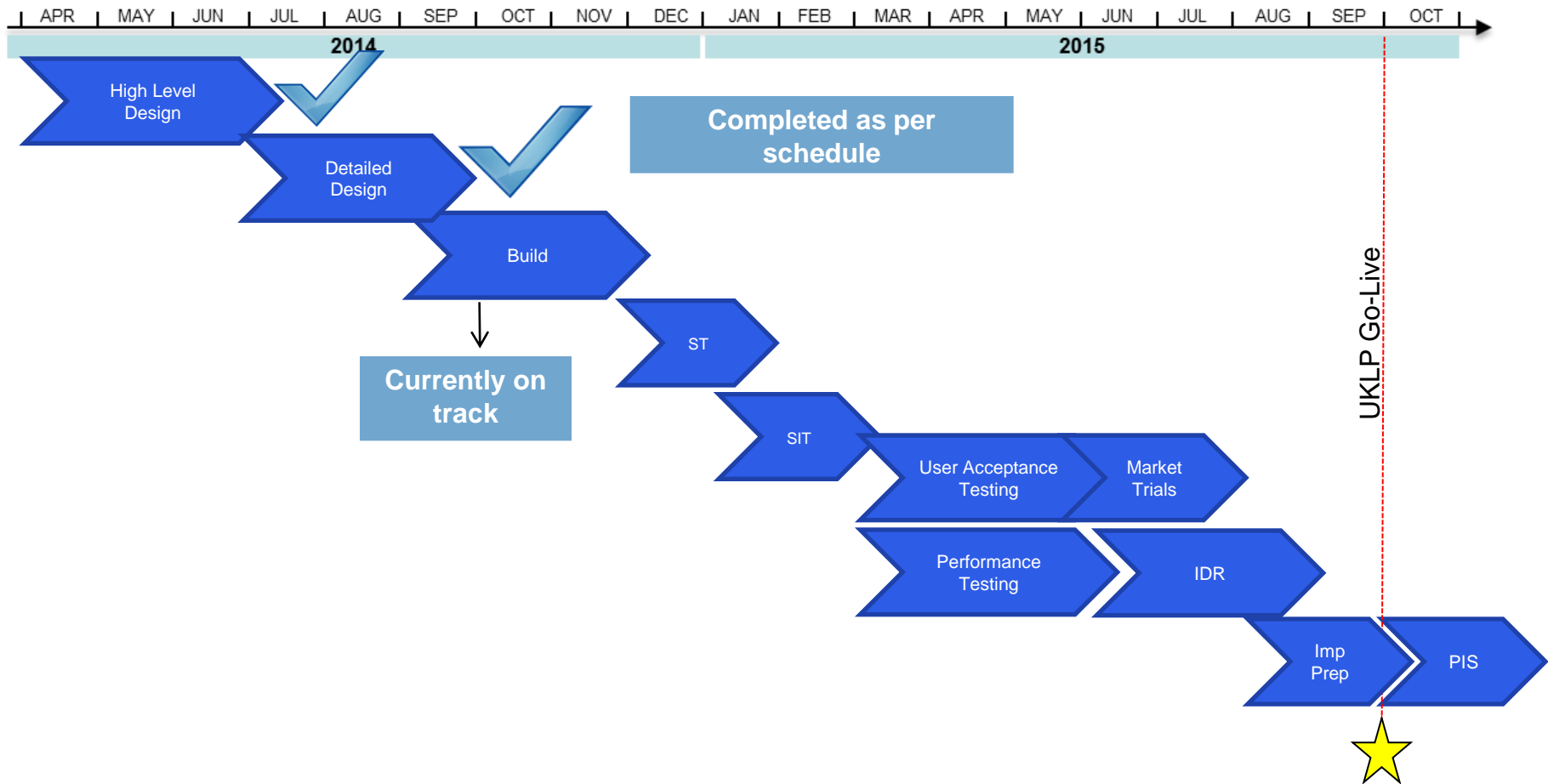
Meter Type	Shipper	Exit Zone	EUC	Class	UIG Share Factor	UIG Share
DC	ABC	EA1	EA:E1509B	Class 1	1	43,592
DF	ABC	EA1	EA:E1508B	Class 2	1	48,390
DF	ABC	EA1	EA:E1507B	Class 2	1	56,247
DF	ABC	EA1	EA:E1506B	Class 2	1	67,188
NA	ABC	EA1	EA:E1507B	Class 3	1	63,437
NA	ABC	EA1	EA:E1506B	Class 3	1	63,325
NA	ABC	EA1	EA:E1504B	Class 3	1	47,107
NA	ABC	EA1	EA:E1505B	Class 4	1	45,199
NA	ABC	EA1	EA:E1504B	Class 4	1	44,903
NA	ABC	EA1	EA:E1503B	Class 4	1	49,072
NA	ABC	EA1	EA:E1502B	Class 4	1	59,700
NA	ABC	EA1	EA:E1501B	Class 4	1	60,767

Total UIG 648,927

Generate Report Cancel

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# GCC Timeline



- The UKLP-GCC will complete several stages of testing; System Testing, System Integration Testing and User Acceptance Testing.
- GCC will form part of the UKLP Market Trials which will be facilitated by the UKLP Testing Workstream.
- The UKLP Testing Workstream are working to the following high level timelines:
  - Registration Process for Market Trials will be available in Q1 2015
  - The Market Trials Approach will be issued in Q1 2015
  - Market Trials will commence in Q2 2015



# Next Steps

- We'll keep in regular contact with the Industry through already established touch points, such as the UK Link Industry Engagement Forum.
- Please direct questions to the Gemini Consequential Workstream using the following email address:  
[box.xoserve.geminichange@xoserve.com](mailto:box.xoserve.geminichange@xoserve.com)

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# Questions



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