

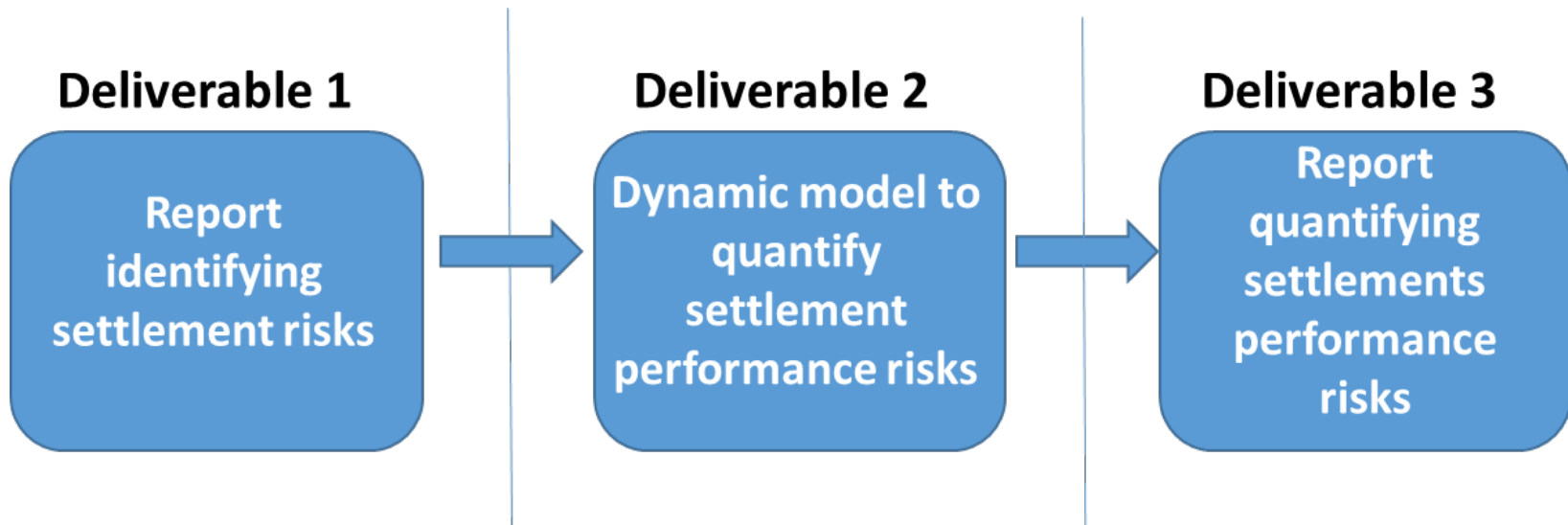


**Performance Assurance
Independent Study**



Introduction

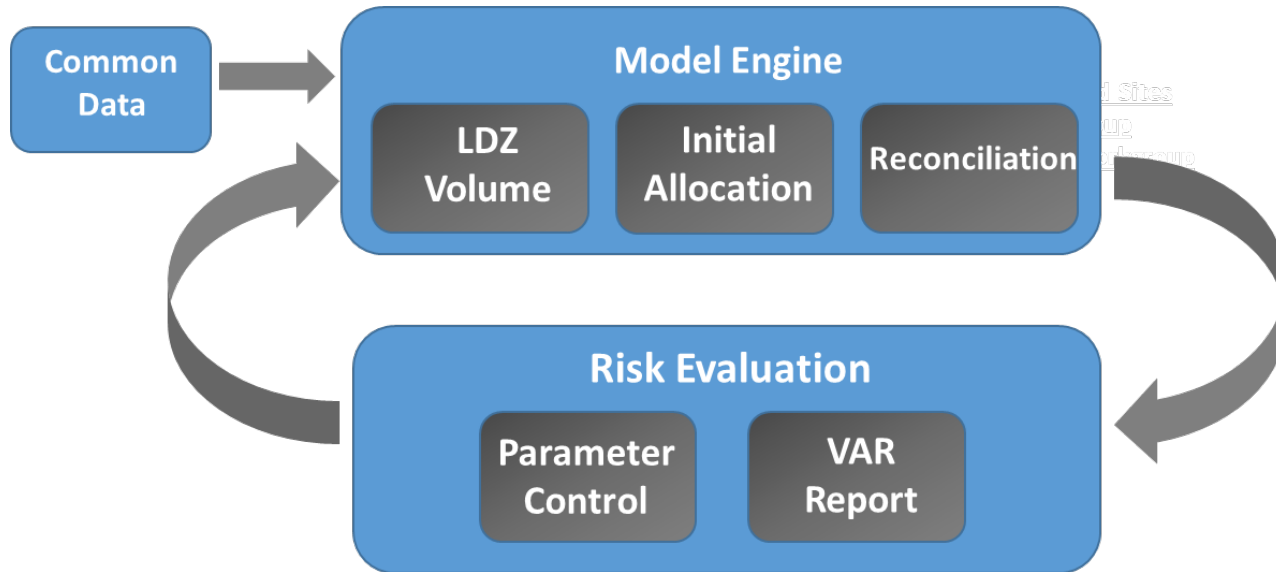
- 2013/2014 – Engage Consulting completed an independent review of risks that affect fair and accurate settlement post Nexus



Deliverable 1

- A written report based on analysis of the post Nexus settlement arrangements. This included analysis of the Nexus BRDs, UNC Modifications comparing it to the current processes documented within the UNC.
- Risks to fair and equitable initial allocation and reconciliation were identified and categorised by; rules based risks, data input risks, transporter performance risks and shipper performance risks.

Deliverable 2



- Dynamic model quantifies the 15 performance risks identified in the first report.
- The Value at Risk is determined based on an averaged sized LDZ over a year.
- The user can update the model and run scenarios.

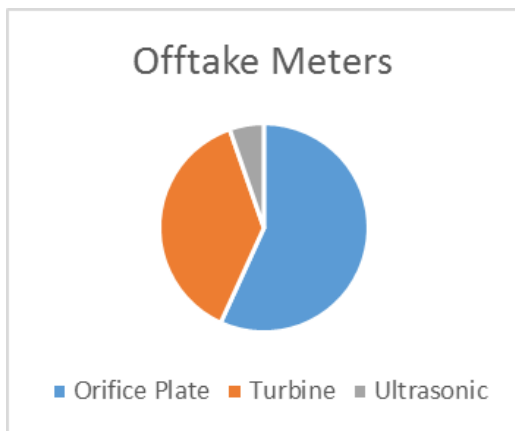
Deliverable 3

- Summary report ranking each of the risk
- Report determined how they effected settlement

Ranking	Risks		Products affected				EUC affected									Range of risk to allocation	Range of risk to reconciliation	
			P1	P2	P3	P4	1	2	3	4	5	6	7	8	9			
1	11	Theft of Gas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	£42,218,000	£43,046,000
2	12	Use of the AQ Correction Process	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		£32,218,000	£32,836,000
3	5	Use of Estimated Read for Product 1 and 2	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓		£23,555,000	£47,000
4	1	LDZ Allocation Error - Corrected	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		£21,152,000	-
5	7	Incorrect asset data on the supply point register	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		£13,987,000	£14,073,000
6	13	Use of WAR for EUC 3 - 08	x	x	x	✓	x	x	✓	✓	✓	✓	✓	✓	x		£8,908,000	-
7	2	LDZ Allocation Error - no correction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		£7,051,000	£7,051,000
8	15	Unregistered Sites	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		£2,481,000	£621,000
9	10	Shipperless Sites	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		£2,326,000	-
10	3	Meter Read Validation Failure	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		£1,439,000	-
11	9	Late Check Reads	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		£1,437,000	£467,000
12	6	Read Submission Frequency for Product 4	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		£1,350,000	-
13	8	Change of Shipper estimated reads	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		£408,000	£410,000
14	4	Failure to Obtain a Meter Reading	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		£79,000	£79,000
15	14	Approach to Retrospective Updates	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x		-	£5,000

Independent Study

- Each Distribution Network Operator is responsible for measuring and determining the volume of energy entering their network. This includes establishing;
 - Volume of LDZ shrinkage and
 - Amount of own use gas
- 187 offtake meters or inter LDZ meters across the networks
- A combination of ultrasonic, turbine or orifice meters, with varying degrees of accuracy and reliability.
- Accuracy determined in Measuring Instruments Directive



Meter Type	Accuracy
Orifice Plate	0.75 - 1.5%
Turbine	0.5 - 1%
Ultrasonic	0.30%

Offtake Meter Errors

- 124 offtake metering errors identified between Sept 2008- Sept 2013
- 8 offtake meter errors quantified since 2013
- The offtake arrangements UNC committee appoint two independent expert to investigate meter errors greater than 50GWh
- Adjustment will occur between NTS shrinkage and Unidentified Gas reconciliation, rather than RbD post Nexus

Summary Statistics

- We split these risks into two categories

LDZ Offtake Errors which have been corrected

- Average number of meters per LDZ– 14
- Average days per error 297
- 1 in 20 worst case
 - 3 errors on any given day
 - 290,342 kWh per day error

LDZ Offtake Errors which have not been identified

- Probability of an error being detected – 90%
- 1 in 20 worst case
 - 1 errors on any given day
 - 96,781 kWh per day error

Conclusions

Ranking	Risks		Products affected				EUC affected									Range of risk to allocation	Range of risk to reconciliation	
			P1	P2	P3	P4	1	2	3	4	5	6	7	8	9			
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4	1	LDZ Allocation Error - Corrected	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	£21,152,000	-	
5	7	Incorrect asset data on the supply point register	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	£13,987,000	£14,073,000	
6	13	Use of WAR for EUC 3 - 08	x	x	x	✓	x	x	✓	✓	✓	✓	✓	✓	x	£8,908,000	-	
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15	14	Approach to Retrospective Updates	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	-	£5,000	

- Engage recommend that the transporters are targeted on completing their inspection visits within the timescales set in UNC OAD.
- Engage also recommend that the OAD is reviewed to ensure it is fit for purpose.