



Future Reporting Proof of Concept

Background

- The Performance Assurance Report Register (PARR) suite continues to evolve, as PAC identifies additional pieces of information that would add context to existing performance measures
- Requirements originally raised in XRN4876 were added to during the workshop hosted by PAFA in Q4 2019 and have now been converted into 'User Stories' and placed in the Data Discovery Platform (DDP) backlog
- There are 24 User Stories currently listed (including recent / as yet unapproved mod requirements)
- In order to help PAC prioritise order of delivery, the CDSP and PAFA have been reviewing the user story list to help prioritise delivery order and recommend the appropriate content, frequency and platform for each user story
- This review has included a 'Proof of Concept' exercise of producing prototype reporting

User Stories - Proof of Concept

1. *I want to see how AQs are changing as a result of AQ Corrections (to assess whether inappropriate use might be causing settlement risk)*
2. *"I want to see the number of AQ corrections that are rejected (T98) per reason code (to understand how many AQ calculations aren't being processed and why)"*
3. *"I want to know what AQ volumes are associated with standard correction factors that are above the non-standard threshold of 732,000 KWh (to understand the materiality of volume associated with this potential settlement risk)"*
4. *"I want to see how many bypass flags are 'Open' and 'Closed' across the industry (to determine if there may be a settlement risk)"*
5. *"I want to view the total estimated consumption per shipper, per month, per product class (So that I can determine the consumption resulting from estimated reads and assess the related settlement risk)"*
6. *"I want the ability to view the data in No Meter Recorded dashboard by Product Class and EUC Bands. I want the report to include associated AQ and be able to distinguish between sites that have had a meter removed and sites where no meter has ever been installed. The report should stipulate which dataflows have been received"*
7. *"I want a quarterly report which compares the view in UK Link with the DCC"*
8. *"I want a report that enables me to determine the accuracy of nomination in comparison with D+5 Allocation and Subsequent reconciliation"*

1. “I want to see how AQs are changing as a result of AQ Corrections (to assess whether inappropriate use might be causing settlement risk)”

- Currently PAC only gets to see the number of AQ corrections being done by each shipper, split by reason code and tracked across the preceding 6 months. This doesn't provide materiality involved with these transactions

POC – Industry AQ Movement Per Reason Code (AQIs processed in one sample month)

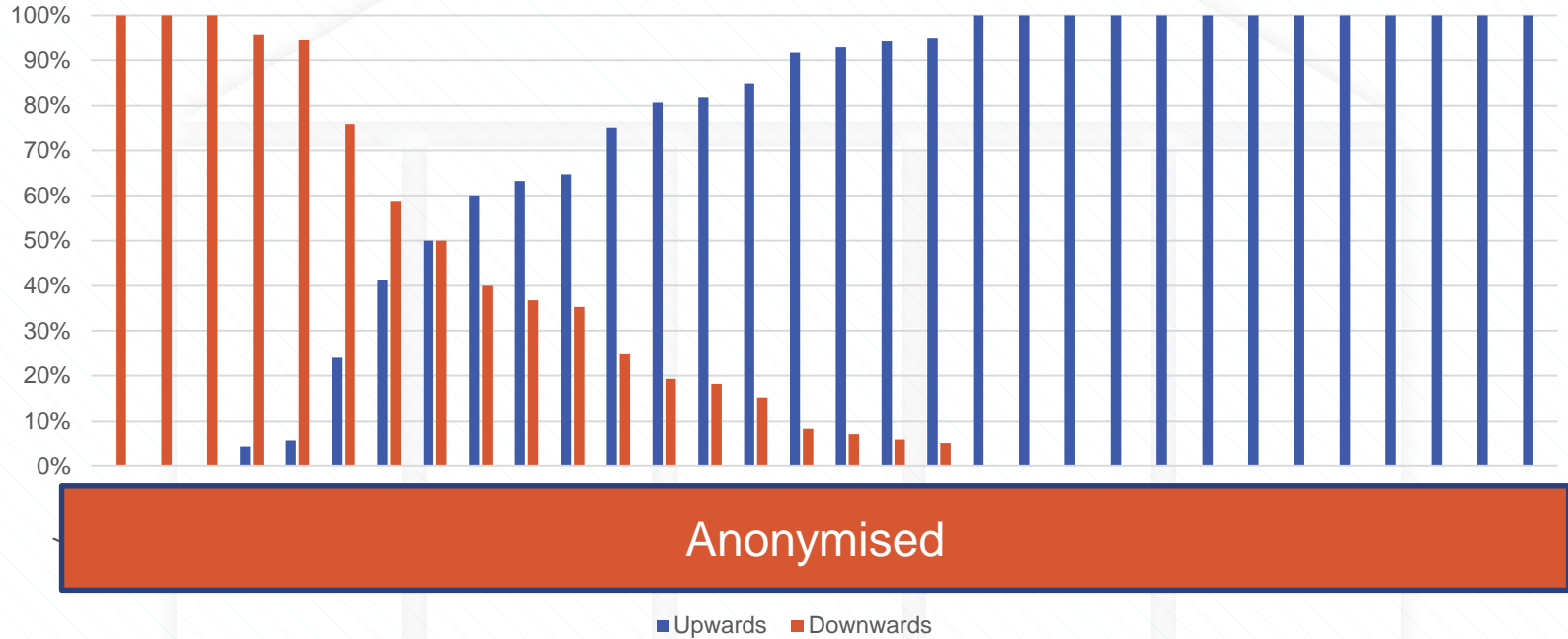
Reason Code	Number of AQIs	Net AQ Impact	% Instances Down	% Instances Up
1 - Confirmed Theft	1	20,636	0%	100%
2 - Change in Consumer Plant	1274	-144,692,801	61%	39%
3 - Commencement of New Business	97	-9,087,944	77%	23%
4 - Tolerance Change	262	95,222,197	5%	95%
5 - Winter Consumption Correction	2	-4,348,293	100%	0%
Grand Total	1636	-62,906,841	53%	47%

POC – Shipper Comparison AQ Movement Per Reason Code (AQIs processed in one sample month)

Shipper	1 - Confirmed Theft	2 - Change in Consumer Plant	3 - Commencement of New Business	4 - Tolerance Change	5 - Winter Consumption Correction	Grand Total
Anonymised			-72,500	5,423,357		5,350,857
		0				0
		-94,192,578	-4,777,959	9,742,392		-89,228,145
		-6,689,808	-1,436,898	1,710,467		-6,416,239
				18,691		18,691
		47,174				47,174
		-3,344,772		343,594		-3,001,178
					-4,348,279	-4,348,279
			-9,357,543			-9,357,543
			13,141,201			13,141,201
		20,636	1,141,104		302,661	1,464,401
					377,297	377,297
			370,343		506,188	876,531
			-21,168,692			-21,168,692
				-1,136,493	3,139,877	2,003,384
			31,783,285	-1,664,094		-14
			801,530		3,698,235	4,499,765
			-406,889		201,086	-205,803
					45,453	45,453
			-684			-684
					36,591	36,591
			203,136			203,136
			-56,655,780		6,976	-56,648,804
			154,245			154,245
					8,555,813	8,555,813
					5,726	5,726
		-245,323		60,144	-185,179	
		114,219			114,219	
		565,441		59,999,999	60,565,440	
		-960,219			-960,219	
				1,047,650	1,047,650	
		7,809			7,809	
	20,636	-144,692,801	-9,087,944	95,222,197	-4,348,293	-62,886,205

POC – Shipper Comparison Upward v Downward AQIs (AQIs processed in one sample month)

Percentage Split Up / Down AQI



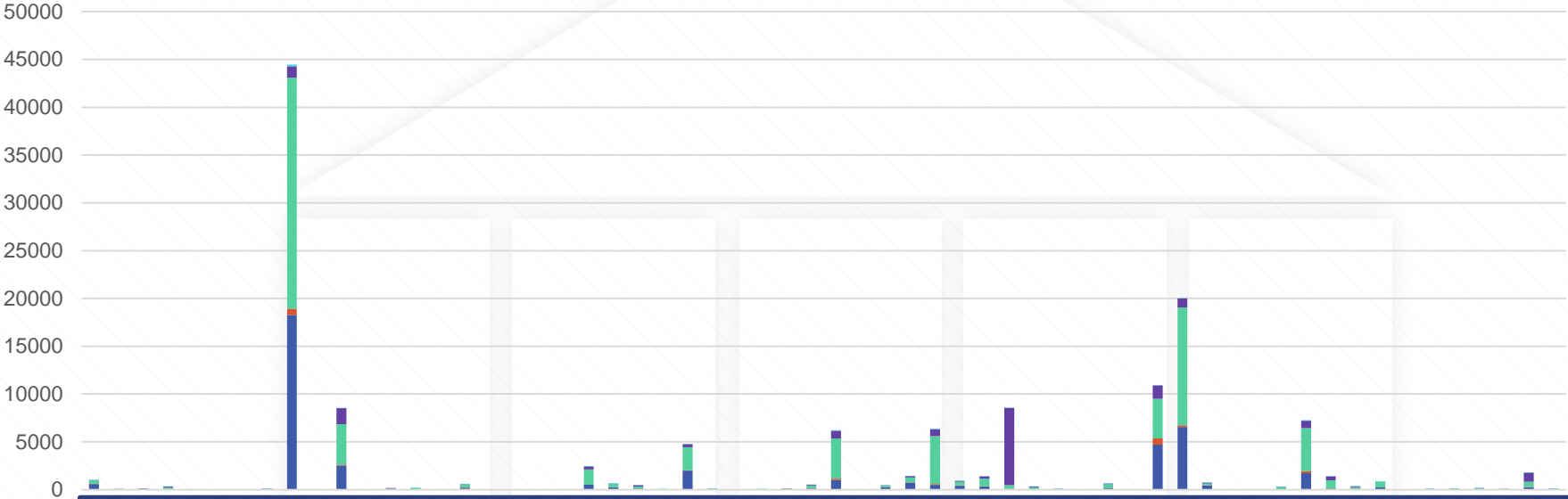
2. “I want to see the number of AQ corrections that are rejected (T98) per reason code (to understand how many AQ calculations aren’t being processed and why)”

- Currently PAC doesn’t see any reporting that indicates where an AQ Calculation has been rejected. There are numerous reasons this can occur

POC – Activity Per Class and Rejection Reason Split by Number of Rejections a Current AQ

<u>Sum of AQ Volume</u>	Class					
Reason	1	2	3	4	Grand Total	
Backstop date within 9 months	7,900,812,157	11,089,941	468,655,627	2,706,043,187	11,086,600,912	
Insufficient consumption data due to isol. or a fa			2,136,964	44,733,478	46,870,442	
Insufficient Consumption to calculate AQ	9,463,701,669		135,930,525	2,414,661,353	12,014,293,547	
Negative Consumption during metered period. AQ not			68,602,513	199,307,212	267,909,725	
Revised AQ value failed market breaker tolerance c			334,151	9,011,211	9,345,362	
Grand Total	17,364,513,826	11,089,941	675,659,780	5,373,756,441	23,425,019,988	
<u>Number of Rejections</u>	Class					
Reason	1	2	3	4	Grand Total	
Backstop date within 9 months		5	1	1679	41056	42741
Insufficient consumption data due to isol. or a fa				109	2277	2386
Insufficient Consumption to calculate AQ		3		3769	67316	71088
Negative Consumption during metered period. AQ not				6017	13183	19200
Revised AQ value failed market breaker tolerance c				47	566	613
Grand Total		8	1	11621	124398	136028

POC – Number of AQ Calculation Rejections By Shipper & Reason Code



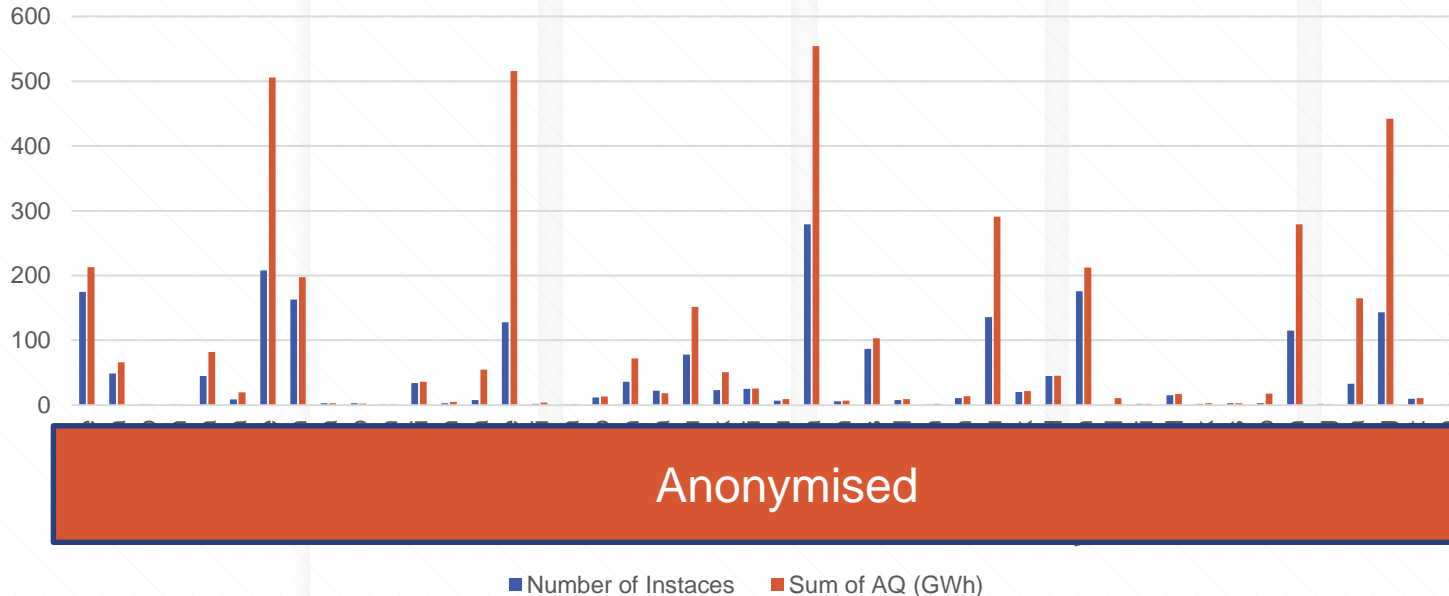
Anonymised

- Backstop date within 9 months
- Insufficient consumption data due to isol. or a fa
- Insufficient Consumption to calculate AQ
- Negative Consumption during metered period. AQ not
- Revised AQ value failed market breaker tolerance c

3. “I want to know what AQ volumes are associated with standard correction factors that are above the non-standard threshold of 732,000 KWh (to understand the materiality of volume associated with this potential settlement risk)”

- Currently PAC see number of MPRNs with a standard CF and an AQ >732,000. This doesn't provide any materiality in terms of AQ at risk. AQ volumes associated with the number of MPRNs provides some additional context but other detail would add to this (see below yellow text)

POC – Number of Standard CFs with AQ > Threshold and associated AQ (GWh)



Lower-level data supports analysis into how long an AQ has been above the threshold which provides further context

4. “I want to see how many bypass flags are ‘Open’ and ‘Closed’ across the industry (to determine if there may be a settlement risk)”

- There is currently no reporting on how many Bypass flags are reportedly ‘Open’ that also assess whether this is a settlement risk

POC – Industry Total by Sites and Related AQ (GWh)

Bypass Status	Number of Sites	Total RAQ (GWh)
Closed	13752	9,023
Open	156	1,480
Total	13908	10,503

POC – Open Bypass Split by Age of Last Read and Related AQ (GWh)

Read Age Profile	Number of Sites	Sum of RAQ (GWh)
Within Last 3 Months	99	1,308.1
Within Last 6 Months	17	36.8
Within Last 12 Months	11	82.0
Within Last 18 Months	6	1.7
Within Last 24 Months	9	33.8
Within Last 36 Months	3	0.4
Within Last 48 Months	5	3.4
48 Months +	6	14.0
Total	156	1,480.2

POC – Top 10 Shippers with Open Bypass split by count and associated AQ (GWh)

Sum of Associated AQ (GWh)				Number of MPRNs			
SSC	Closed	Open	Grand Total	SSC	Closed	Open	Grand Total
Anonymised	3,231	327	3,559	Anonymised	1158	33	1191
	1,178	318	1,495		399	27	426
	221	216	437		862	20	882
	740	174	914		5506	15	5521
	1,233	165	1,398		130	8	138
	1,130	159	1,289		190	8	198
	31	61	92		189	8	197
	576	42	618		604	5	609
	30	6	36		65	5	70

5. “I want to view the total estimated consumption per shipper, per month, per product class (So that I can determine the consumption resulting from estimated reads and assess the related settlement risk)”

- Currently reporting doesn’t provide necessary materiality around the effect of poor performance

POC – Industry Total C1 and C2 Volume Settled by estimates (GWh)

LDZ	November			December		
	<i>Estimate Volumes</i>	<i>Total Volumes</i>	<i>% of Estimate Volume</i>	<i>Estimate Volumes</i>	<i>Total Volumes</i>	<i>% of Estimate Volume</i>
EA	2.0	55.7	3.68%	7.5	61.9	12.12%
EM	11.4	86.6	13.19%	9.7	76.6	12.70%
LS	0.2	0.6	36.25%	0.1	0.4	17.09%
NE	4.6	49.5	9.33%	6.0	48.3	12.50%
NO	5.4	38.1	14.06%	4.4	37.4	11.71%
NT	1.1	16.5	6.88%	0.7	18.5	3.95%
NW	6.4	100.8	6.35%	17.0	106.5	16.00%
SC	4.8	52.0	9.27%	6.0	54.7	11.05%
SE	8.1	38.6	20.86%	6.9	29.0	23.66%
SO	0.7	19.3	3.55%	0.2	16.7	1.18%
SW	2.7	31.1	8.65%	1.6	27.2	5.87%
WM	2.9	37.5	7.61%	3.5	33.4	10.38%
WN	0.8	12.1	6.43%	0.9	12.1	7.18%
WS	3.4	40.0	8.48%	3.2	34.5	9.35%
Total	54.5	578.5	9.42%	67.8	557.4	12.16%

POC – Shipper view of Volume Settled by estimates (GWh)

	November			December		
Shipper	Estimate Volumes	Total Volumes	% of Estimate Volume	Estimate Volumes	Total Volumes	% of Estimate Volume
Anonymised	6.5	102.1	6.36%	12.7	107.6	11.78%
	0.1	0.4	25.39%	0.1	0.1	100.00%
	0.5	7.4	7.05%	0.3	6.8	4.30%
	0.0	0.9	0.00%	0.2	1.0	23.22%
	1.8	44.1	4.14%	0.9	34.2	2.63%
	0.0	2.9	0.00%	0.0	2.2	0.26%
	2.0	48.5	4.02%	1.5	40.0	3.68%
	0.0	6.7	0.00%	0.0	7.4	0.00%
	3.9	33.6	11.72%	9.9	31.1	31.86%
	0.1	5.3	1.01%	0.0	4.1	1.20%
	1.6	8.9	17.57%	2.4	9.1	26.66%
	12.6	142.6	8.85%	15.3	146.5	10.45%
	0.0	0.0	*100.00%	0.0	0.0	*100.00%
	0.0	0.0	100.00%	0.0	0.0	100.00%
	0.0	0.3	0.00%	0.0	0.4	0.00%
	0.1	5.9	1.35%	0.1	5.6	1.85%
	0.0	0.5	0.23%	0.0	0.4	0.64%
	0.0	3.1	0.00%	0.0	4.4	0.00%
	14.8	104.2	14.23%	16.9	100.1	16.85%
	0.4	0.6	61.10%	0.1	0.7	16.74%
10.1	60.5	16.75%	7.4	55.7	13.20%	
Total	54.5	578.5	9.42%	67.8	557.4	12.16%

POC – Shipper % Share of Total Volume Settled by Estimates

Shipper	% Share of Total Estimated Volume (Nov & Dec)
Anonymised	25.93%
	22.85%
	15.68%
	14.31%
	11.32%
	3.27%
	2.80%
	2.23%
	0.67%
	0.38%
	0.18%
	0.15%
	0.13%
	0.08%
	0.01%
	0.00%
0.00%	
0.00%	
0.00%	
0.00%	
0.00%	
0.00%	

6. I want the ability to view the data in No Meter Recorded dashboard by Product Class. I want the report to include associated AQ **and be able to distinguish between sites that have had a meter removed and sites where no meter has ever been installed.* The report should stipulate which dataflows have been received

- Currently reporting doesn't provide necessary materiality around the effect of poor performance

POC – Shipper Class3 Associated AQ KWh

Class 3				
Shipper	Count of MPRs	Count of RGMA Flows	Count of Read Flows	Sum of ROLLING AQ
Anonymised	3	3	3	871,435
	61	53	58	724,360
	7	7	7	668,586
	3	3	3	370,443
	1		1	100,000
	2	1	2	47,801
	4	4	4	23,984
	1	1	1	9,551
Grand Total	82	72	79	2,816,160

*Coming soon

POC – Associated AQ (KWh) Class 4 Shipper View of No Asset Data flows

Shipper	Count of MPRs	Count of RGMA Flows	Count of Read Flows	Sum of ROLLING AQ
	6,312	4,865	4,281	85,244,720
	1,732	1,365	1,372	82,166,989
	53	15	53	49,583,937
	32	4	32	40,379,358
	1,331	435	1,327	17,319,353
	31	19	30	7,672,032
	37	19	37	4,439,700
	99	68	96	2,539,139
	131	65	125	2,069,748
	99	20	93	1,519,789
	11	6	11	1,338,381
	78	45	76	1,298,598
	13	10	12	1,004,541
	6	2	6	725,818
	5	3	5	500,519
	23	11	18	403,060
	16	9	13	389,075
	12	5	12	189,550
	11	5	9	136,438
	13	12	13	135,510
	2	2	2	113,543
	6	5	6	106,372
	6	3	5	103,902
	2	2	1	86,827
	3	1	3	65,662
	2		2	36,608
	1	1		23,440
	1		1	20,600
	1	1		14,429
	1	1		11,804
	2	1	2	9,602
	1	1	1	2,277
Grand Total	10,073	7,001	7,644	299,651,321

Anonymised

7. I want a quarterly report which compares the view in UK Link with the DCC

- Currently there is no reporting that compares the number of smart meters in UK Link with the DCC

POC – Industry Total Smart Live in UK Link v DCC

CDSP Smart Meter Summary Oct 2019	
LDZ	Count of MPRs
EA	455,137
EM	732,258
LC	114
LO	54
LS	862
LT	372
LW	249
NE	462,926
NO	468,781
NT	386,129
NW	883,119
SC	563,589
SE	560,896
SO	416,982
SW	404,041
WM	667,233
WN	36,333
WS	242,853
Totals	6,281,928
BEIS Q3 DOM	5,995,365
BEIS Q3 Non DOM	4,129
	5,999,494
Diff	282,434

8. I want a report that enables me to determine the accuracy of nomination in comparison with D+5 Allocation and Subsequent reconciliation

- Currently there is no PAC reporting that compares volumes that are nominated and volumes that are allocated

POC – NDM (C3 / C4) comparison between nomination and final allocation

https://www.xoserve.com/media/7884/ndm_nomination_accuracy_report_2018-19.xlsx

POC –DM (C1 / C2) comparison between nomination and final allocation

<https://www.xoserve.com/media/1496/9-dm-nomination-accuracy.pdf>