

Market consultation: Settle 2.0

Product Design Group

10 December 2024

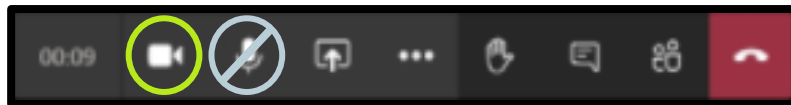
Welcome in the call; meeting starts at 09.00



Hybrid meeting rules

Please keep your camera on (to the extent possible)

Please turn off the microphone when you do not want to intervene



Questions:

- Post your questions in the chat (with slide number if applicable)
- Interactions are foreseen

Agenda

Introduction

1. Context & objective of the meeting
2. Summary of concepts presented on 10/10

Deep Dive on content

1. ToU measure vs ToU settle
2. Residue & Net Losses management
3. Compensation with Digital Meters (WAL)

Transition practicalities

Conclusion



Context & objective of the meeting

PDG Settle 2.0 : Further development of settlement-related market processes, in order to:

- Integrate regulatory requirements: 15' data capture Flanders and Tariff Wallonia
- Ensure a more future-proof model, resilient to market evolution: advancing roll-out of digital meters, more volatile and less predictable Grid user patterns,...

First information session held on 10/10 and feedback received by Febeg on 4/11

Objective for today

- Respond to feedback received by clarifying some concepts or proposing suitable solutions (small adaptation of the initial proposal)
- Introduce new subjects that are also part of the settle 2.0 project

Summary of concepts presented on 10/10

Overview

Reminder

Settle 2.0: High level principles

15' values will be the new normal

One joint model for all regions

But flexibility to adjust to different regional realities

Settle 2.0 is a starting point → Other innovations to follow



Changes to be consulted

Implementation of regulatory requirements

- 1 Tariff Wallonia
→ For all Non Profiled allocations: aggregation to Settle Time of Use Total Hour for all DSOs.
- 2 Capture of 15'
→ Settlement method non-profiled SMR1. Use of SMR1 15' data in the allocation process.

Improvement

- 3 Daily photo provisional allocation

Summary of concepts presented on 10/10

1 *Tariff Wallonia (Grid Fee Electricity)*

Reminder

Tarification standard - par défaut

Pour tous les utilisateurs du réseau basse tension

Puissance de raccordement au réseau ≤ 56 kVA

- ✓ Compteur électromécanique
- ✓ Compteur digital avec ou sans fonction communicante

Puissance de raccordement au réseau > 56 kVA

- ✓ Uniquement compteur électromécanique sans mesure de la puissance de prélèvement

Monohoraire - 1 tarif
Applicable du lundi au dimanche, 24h/24h

Bihoraire - 2 tarifs

- 07H00 - 11H00 : LES HEURES PLEINES
- 11H00 - 17H00 : LES HEURES CREUSES
- 22H00 - 07H00

PAR DÉFAUT, VOTRE CHOIX DU PASSÉ CONTINUE DE S'APPLIQUER EN 2026

Changement

Du lundi au dimanche

Tarification incitative

Pour ceux qui veulent renforcer leur rôle d'acteurs de la transition énergétique

2 conditions :

1. Puissance de raccordement au réseau ≤ 56 kVA
2. Etre équipé d'un compteur digital dont la fonction communicante est active

5 plages horaires - 3 tarifs

- 17H00 - 22H00 : LES HEURES ROUGES (€€€)
- 07H00 - 11H00 : LES HEURES ORANGE (€€)
- 22H00 - 01H00
- 11H00 - 17H00 : LES HEURES VERTES (€)
- 01H00 - 07H00

NOUVEAU CHOIX POSSIBLE À PARTIR DE 2026

Du lundi au dimanche

Summary of concepts presented on 10/10

Reminder

1 *Tariff Wallonia (Grid Fee Electricity)*

- **New measure calendar HI/LO in Wallonia for all customers, but not for AMR (> 56 kVA with measured power)**
- **The mapping between incentive ToU Measure and ToU Settlement is not possible, to keep a federal settlement model**
- **For all Non-Profiled allocations : aggregation to Settle ToU TH for all DSOs (Wallonia, Flanders, Brussels)**



Feedback received

Impact on the VI (linked to settle ToU), which are used to invoice the customer.

→ Proposition of solution detailed further in the presentation

Sector	SettlementMethod	TimeOfUse Measure	TimeOfUse Settlement
Electricity	Non-Profiled (AMR, SMR3 & SMR1)	All Time Of Uses	ToUS TH (Total Hours)
	Profiled (EAV, EMV & RMV)	ToU HI (High)	ToUS HI (High)
		ToU NPH (Non Peak High)	
		ToU PH (Peak High)	
		ToU PE (Peak)	
		ToU EX (Exclusive Night)	ToUS EX (Exclusive Night)
		ToU NPK (Non Peak)	
		ToU TH (Total Hours)	ToUS TH (Total Hours)
		ToU LO (Low)	ToUS LO (Low)
	ToU NPL (Non Peak Low)		
ToU PL (Peak Low)			

Summary of concepts presented on 10/10

2 Capture of 15' (Electricity)

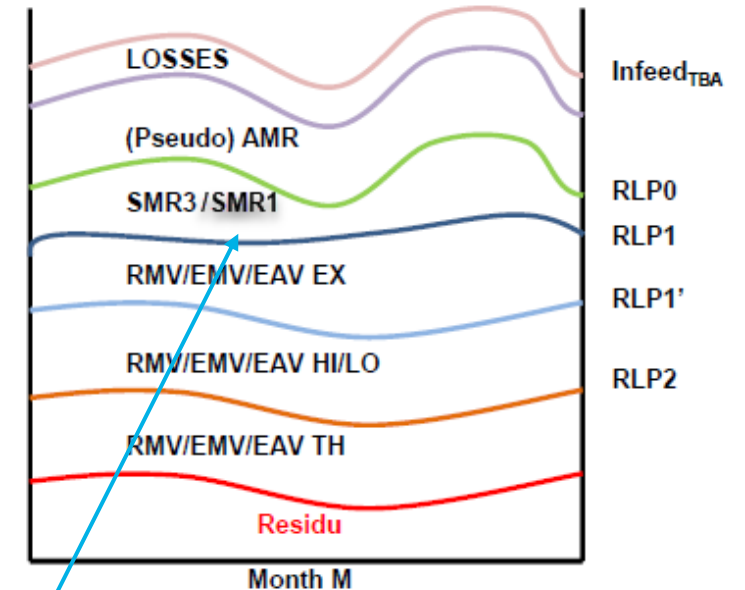
Reminder

Implementation of a new settlement method: **Non-Profiled, SMR1**

- Headpoint category = SMART; metering regime = R1

Use of the SMR1 15' in the allocation calculation

- Flanders: all HP's with communicating DM (SMR1 as of 2026)
- Wallonia: only for customers choosing **incentive tariff** (as of 2026)
- Brussels : N/A for the moment (new tariffs not before 2028)



- #### Settlement methods
- Non-profiled
 - Non-profiled - SMR3
 - **Non-profiled - SMR1**
 - Profiled, Monthly Estimate
 - Profiled, Monthly Meter Read
 - Profiled

Summary of concepts presented on 10/10

3 *Daily photo for provisional allocation*

Reminder

The provisional allocation will be calculated on a daily photo

- Daily update of the TMD/RMD data
Also for the non-AMR Headpoints
- Daily update of the measure data
Use of SMR3 15' and SMR1 15' (Electricity) from the start of the provisional allocation
- Timeline stays as is
Start M+5CD end (M+1)+10WD

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ToU measure vs ToU settle (VI)

Adapted proposition: Total Hour Financial Settlement

DAV's, MAV's & VI's are calculated on Settle ToU

- Aggregation of ToU Settle on TH for non-profiled customers (as proposed on 10/10) will have an impact on VIs !

Outside Settlement, VI's are also used for:

- Bill Split (On Measure TOU level)
- Invoicing by Supplier (On Measure TOU level)

Proposal: Align the Settle ToU with Measure ToU for Non-Profiled

- DAV's, MAV's & VI's are calculated per Measure/Settle TOU
- The volumes are summed up to TH during Reconciliation

ToU measure vs ToU settle (VI)

Adapted proposition: Total Hour Financial Settlement

Sector	SettlementMethod	TimeOfUse Measure	TimeOfUse Settlement	Reconciliation
Electricity	Non-Profiled (AMR, SMR3 & SMR1)	ToU HI (High)	ToUS HI (High)	Total Hour
		ToU LO (Low)	ToUS LO (Low)	
		ToU TH (Total Hours)	ToUS TH (Total Hours)	Total Hour
		ToU EX (Exclusive Night)	ToUS EX (Exclusive Night)	Total Hour
		ToU Vert	ToUS Vert	Total Hour
		ToU Orange	ToUS Orange	
		ToU Rouge	ToUS Rouge	
		<i>New ToUx</i>	<i>New ToUSx</i>	<i>Total Hour</i>
	Profiled (EAV, EMV & RMV)	ToU HI (High)	ToUS HI (High)	ToUS HI (High)
		ToU NPH (Non Peak High)		
		ToU PH (Peak High)		
		ToU PE (Peak)		
		ToU EX (Exclusive Night)	ToUS EX (Exclusive Night)	ToUS EX (Exclusive Night)
		ToU NPK (Non Peak)	ToUS TH (Total Hours)	ToUS TH (Total Hours)
		ToU TH (Total Hours)		
		ToU LO (Low)		
		ToU NPL (Non Peak Low)	ToUS LO (Low)	ToUS LO (Low)
		ToU PL (Peak Low)		

- ✓ Federal Financial Settlement safeguarded
- ✓ Bill Split with VI possible (on ToU level)
- ✓ No transformation of invoicing at Supplier side

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Residue & Net Losses management

Problem setting

DM roll-out and IMV use will influence residue and residue factor.

- With more digital meters
 - **Residue will decrease**
 - **Residue factor will increase**
 - **Residue impacted more by model errors** (in terms of losses, correction factors, fraud, etc.)
 - **Residue less impacted by estimation errors**
- ➔ It therefore no longer makes sense to attribute these common 'errors' only to profiled customers.

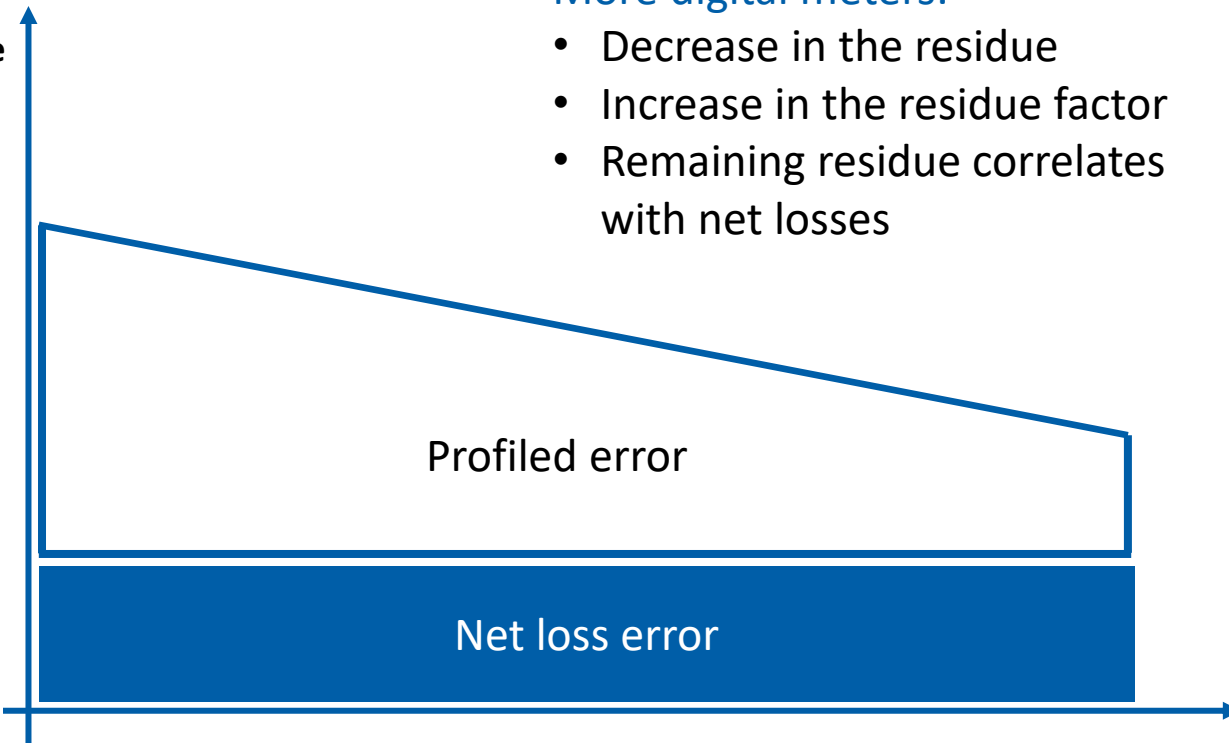
An additional challenge of settlement gas is the “metrology”.

- The total **final measured volume (in kWh) at end users is not equal to the infeed measured by Fluxys**. The main cause for this can be attributed to the conversion of m³ to kWh via agreed standard temperature and pressure values.

Residue & Net Losses management

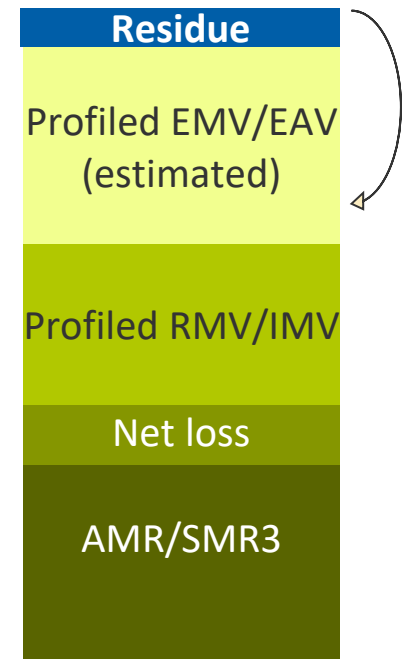
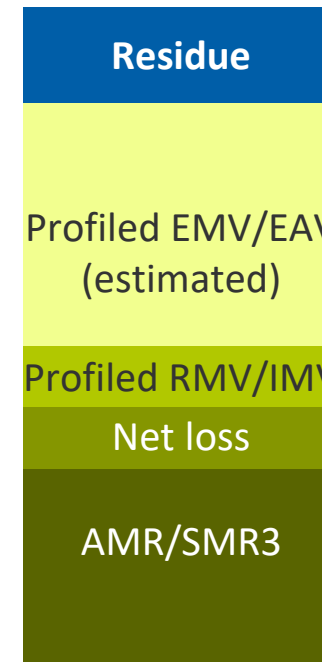
Electricity – Origin of residue

Size of Residue



More digital meters:

- Decrease in the residue
- Increase in the residue factor
- Remaining residue correlates with net losses



Roll-out
Digital meters

Residue & Net Losses management

Electricity – Residue analysis

The expected effect is confirmed by simulations:

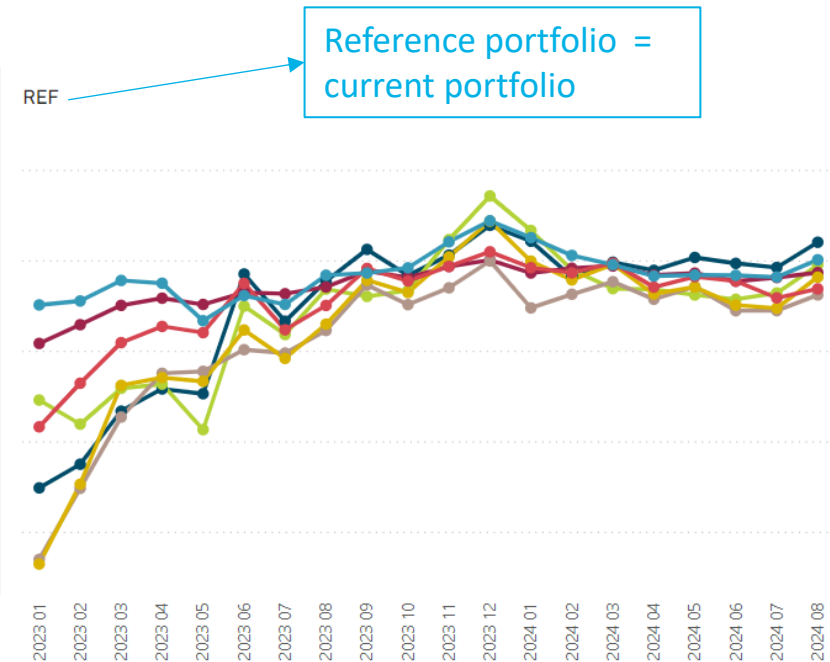
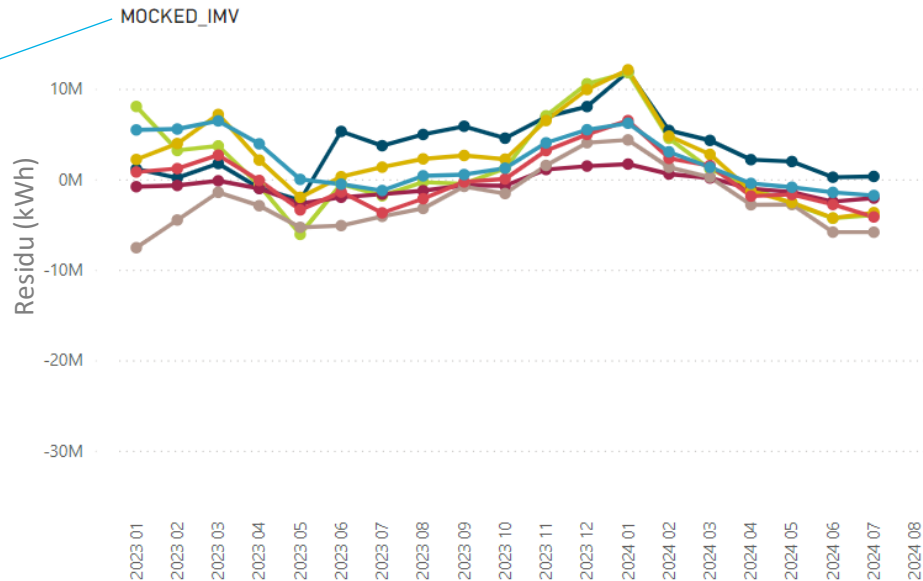
With more digital meters, the **residue will decrease**

Residu (in kWh) Elektriciteit per GAP

Residu (in kWh) per GAP

GAP ● Fluvius Antwerpen ● Fluvius Limburg ● Fluvius West ● GASELWEST ● IMEWO ● INTERGEM ● Iveka

Projection of 80% of DM rolled-out on the portfolio analysed



Residue & Net Losses management

Electricity – Residue analysis

The expected effect is confirmed by simulations:

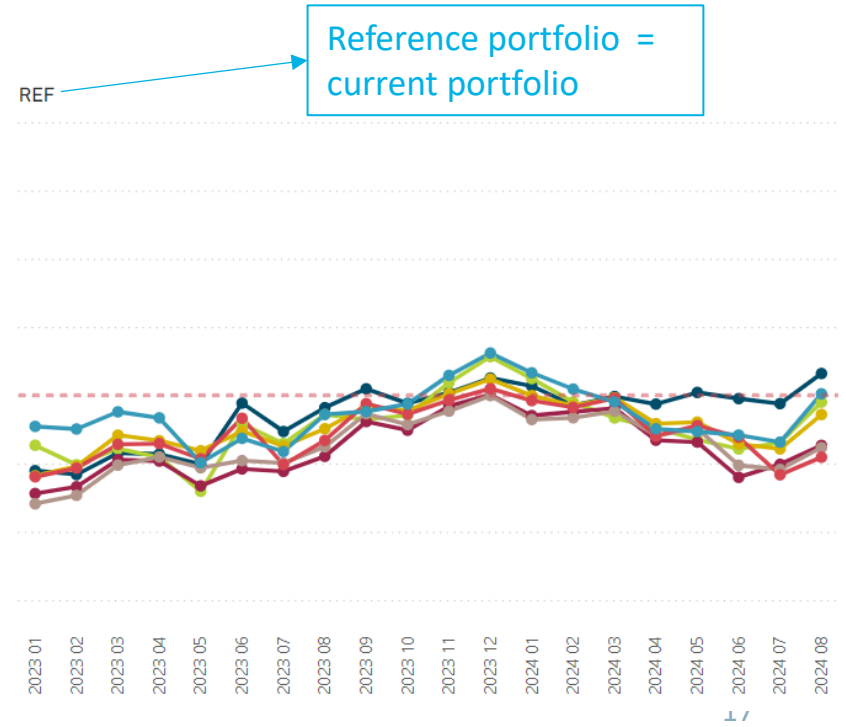
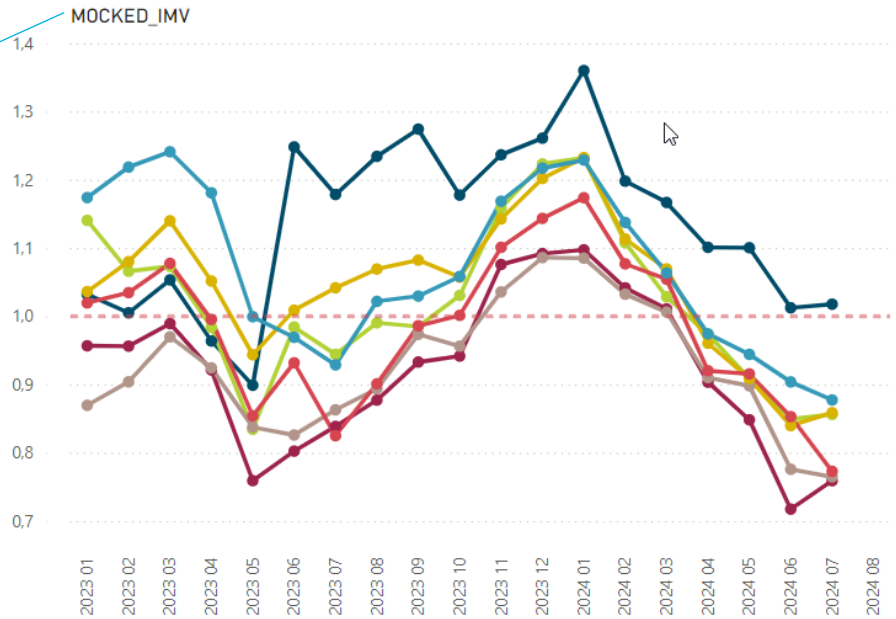
With more digital meters, the **residue factor will increase**

Gemiddelde residufactor per run type per GAP

Overzicht gemiddelde Residufactor per GAP

GAP ● Fluvius Antwerpen ● Fluvius Limburg ● Fluvius West ● GASELWEST ● IMEWO ● INTERGEM ● Iveka

Projection of 80% of DM rolled-out on the portfolio analysed



Reference portfolio = current portfolio

Residue & Net Losses management

Electricity – Proposed solution

Calculation of net losses:
Difference between infeed and offtake (i.e. residue) instead of theoretical % of infeed

INFEED

BOTTOM UP ALLOCATION

	AMR	IMV	MMR	Profiled	sum
Supplier 1	12	20	4	7	43
Supplier 2	9	34	2	6	51
Netloss	10				10
					104

RESIDUE

AS-IS ALLOCATION

	AMR	IMV	MMR	Profiled	sum
Supplier 1	12	20	3,16	5,53	40,68
Supplier 2	9	34	1,58	4,74	49,32
Netloss	10				10
					100

TO-BE ALLOCATION

	AMR	IMV	MMR	Profiled	sum
Supplier 1	12	20	4	7	43
Supplier 2	9	34	2	6	51
Netloss	6				6
					100

METERING (VIA)

	AMR	IMV	MMR	Profiled	sum
Supplier 1	12,00	20,00	3,50	8,00	43,50
Supplier 2	9,00	34,00	2,50	6,00	51,50
Netloss	10,00				10,00
Restterm					

RECONCILIATION

	2,82
	2,18
	0,00
	-5,00

METERING (VIA)

	AMR	IMV	MMR	Profiled	sum
Supplier 1	12	20	3,50	8,00	43,50
Supplier 2	9	34	2,50	6,00	51,50
Netloss	6				6,00
Restterm	-1,00				-1,00
					100

RECONCILIATION

	-0,50
	-0,50
	0,00
	1,00
	0,00

Residue & Net Losses management

Electricity – Summary

DM roll-out and IMV use will influence residue and residue factor

- The current way of distributing the residue is no longer tenable with a very low number of profiled customers (DM roll-out). The remaining residue is linked to model errors (in terms of losses, correction factors, fraud, etc.)

Proposed solution for Electricity

- Calculation of net losses as the difference between infeed and offtake (i.e. residue) instead of theoretical % of infeed
- See also what is happening in other countries.

Residue & Net Losses management

Gas – Residue analysis

The same expected effect of DM roll-out is also confirmed by simulations for Gas:

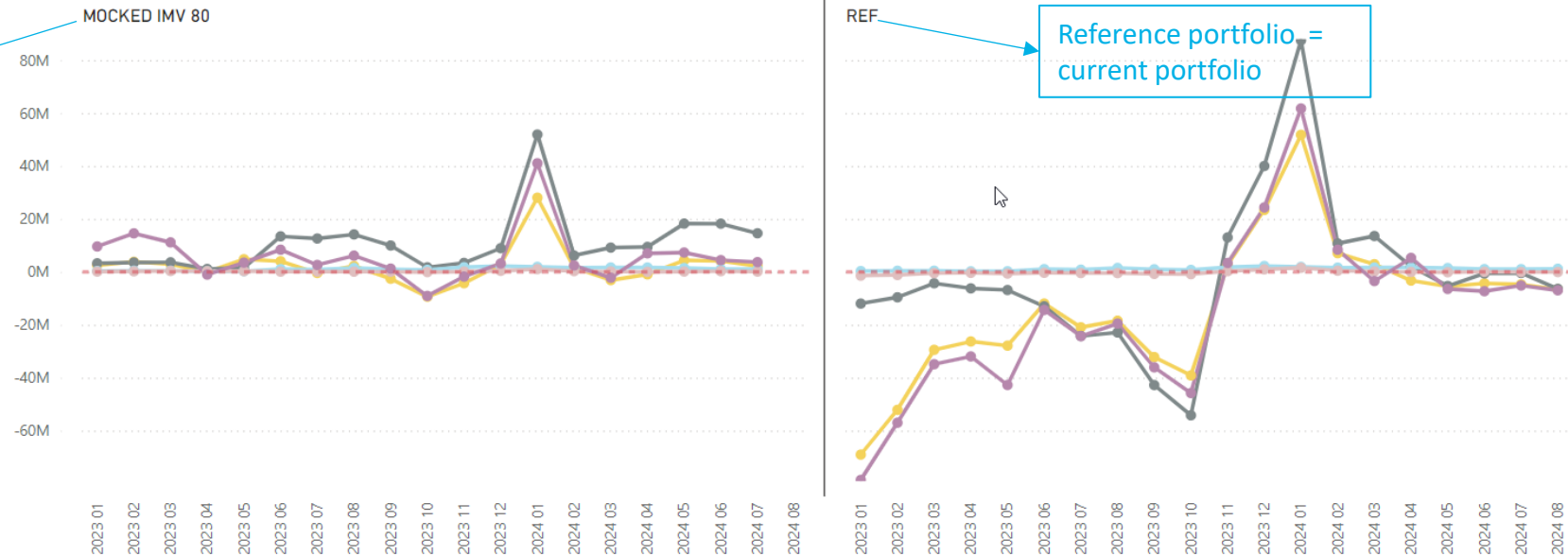
With more digital meters, the **residue** is **more stable and smaller**

Projection of 80% of DM rolled-out on the portfolio analysed

Residu per run type per GOS

Som van RESIDU per jaar, maand, GOS en RUN_TYPE

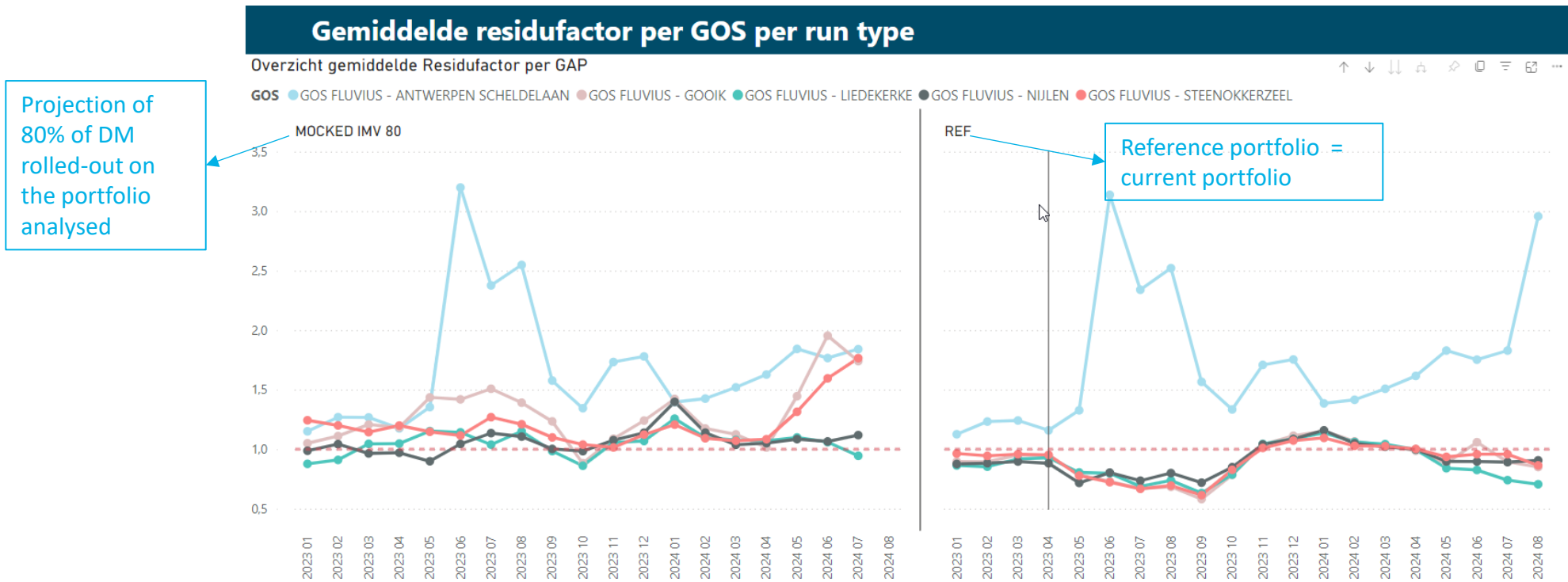
GOS ● GOS FLUVIUS - AALST ● GOS FLUVIUS - ANTWERPEN ● GOS FLUVIUS - ANTWERPEN SCHELDELAAN ● GOS FLUVIUS - GOOIK ● GOS FLUVIUS - HASSELT



Residue & Net Losses management

Gas – Residue analysis

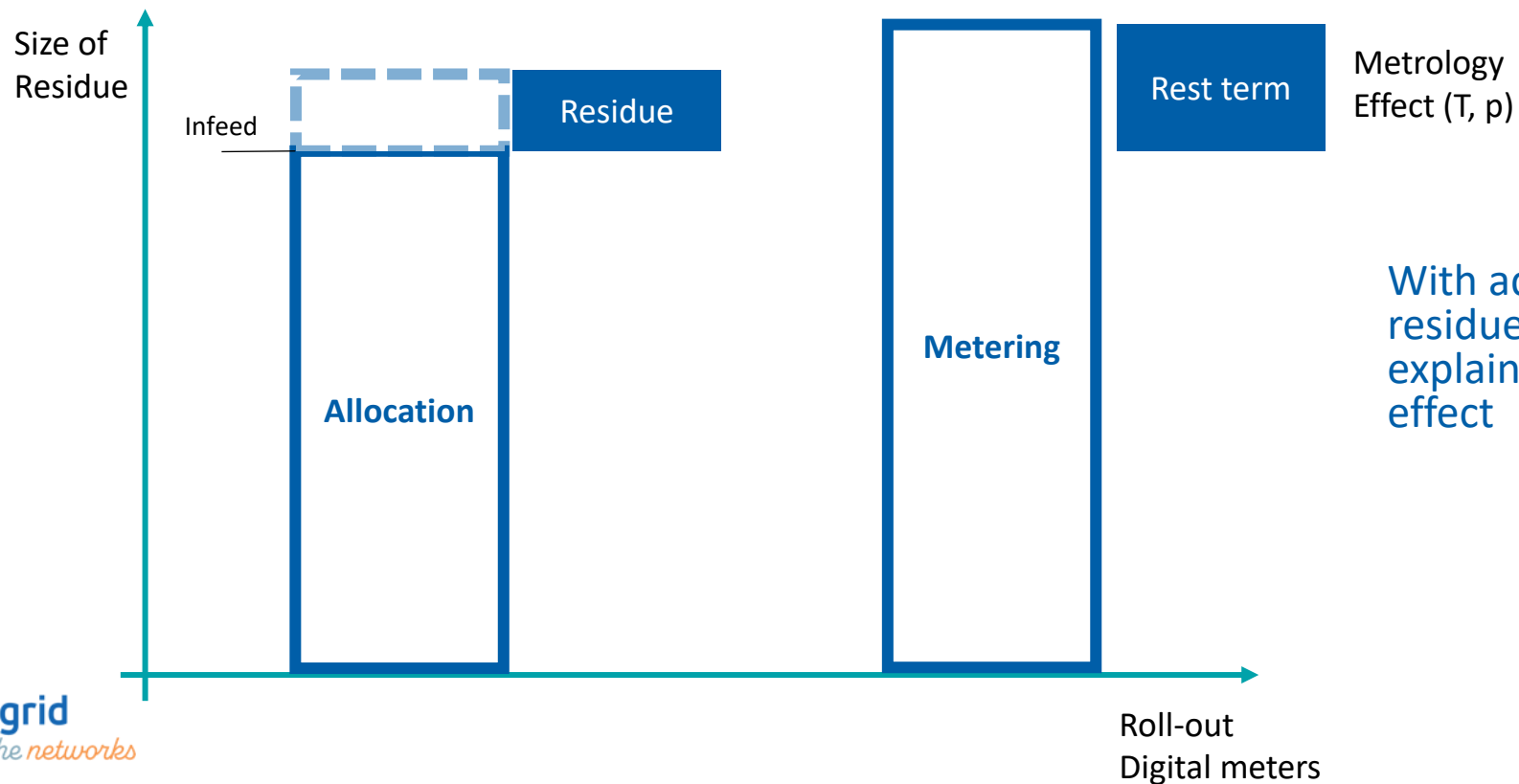
The same expected effect of DM roll-out is also confirmed by simulations for Gas:
 With more digital meters, the **residue factor increases**



Residue & Net Losses management

Gas – Origin of residue

For Gas, the residue is also due to **metrology effect** (not applicable for Electricity)



Residue & Net Losses management

Gas – Proposed solution

Redistribution of the residue for gas on all settlement methods excl. AMR (*) & Accelerated (financial) reconciliation (**)

BU	INFEED	100				
	AMR	IMV	MMR	YMR	sum	
supplier 1 - BRP1	10	27	9	4	50	
supplier 2 - BRP2	20	19	19	2	60	
sum					110	
RESIDUE					10	
RF					0,875	

VIA/RMV volumes	AMR	IMV	MMR	YMR	sum
supplier 1	10	27	7	3,5	47,5
supplier 2	20	19	15	1,75	55,75

TD	AMR	IMV	MMR	YMR	sum
supplier 1 - BRP1	10,00	23,6250	7,8750	3,5000	45,0000
supplier 2 - BRP2	20,00	16,6250	16,6250	1,7500	55,0000

recon volumes	AMR	IMV	MMR	YMR	sum
supplier 1	0,00	-3,38	0,88	0,00	-2,50
supplier 2	0,00	-2,38	1,63	0,00	-0,75
restterm					-3,25

Residue & Net Losses management

Gas – Summary

DM roll-out and IMV use will influence residue and residue factor (as for Electricity) but the origin of the residue is different.

- The final measured volume at end users (measure) is not equal to the infeed measured by Fluxys (allocation). The difference is covered by the residue (reconciliation).
- When the roll-out of DM is high, the residue is mainly due to a metrology effect which affects all but AMR customers (which have their own T in conversion to kWh).

Proposed solution for Gas.

- Keep allocation process AS IS with a residue distribution over all settlement methods excl. AMR.
- Distribute residue risk across all (excl. AMR) shippers: MMR/YMR/RMV.

Residue & Net Losses management

Conclusion

Proposed solution to manage residue & net losses with advanced DM roll-out

- Electricity: Calculation of net losses as the difference between infeed and offtake (i.e. residue) instead of theoretical % of infeed
- Gas: Allocation process AS IS with a residue distribution over all settlement methods excl. AMR
 - Remark: In parallel, a thorough analysis of the meteorological impact on the residue must be launched in order to confirm the accuracy of the conversion factors currently used (cf. T and p).
- Accelerated reconciliation: timing to be discussed within FeReSO

Practical implementation

- The threshold from which the new methodology is applied (in each region) still needs to be defined.
- Concrete impact:
 - Introduction of new model for Flanders at go-live settle 2.0 (2026)
 - For Wallonia and Brussels, the application date will depend on the 'threshold'

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Compensation with Digital Meters (WAL)

Terminology

Gross: The total consumed or produced energy by the EAN.

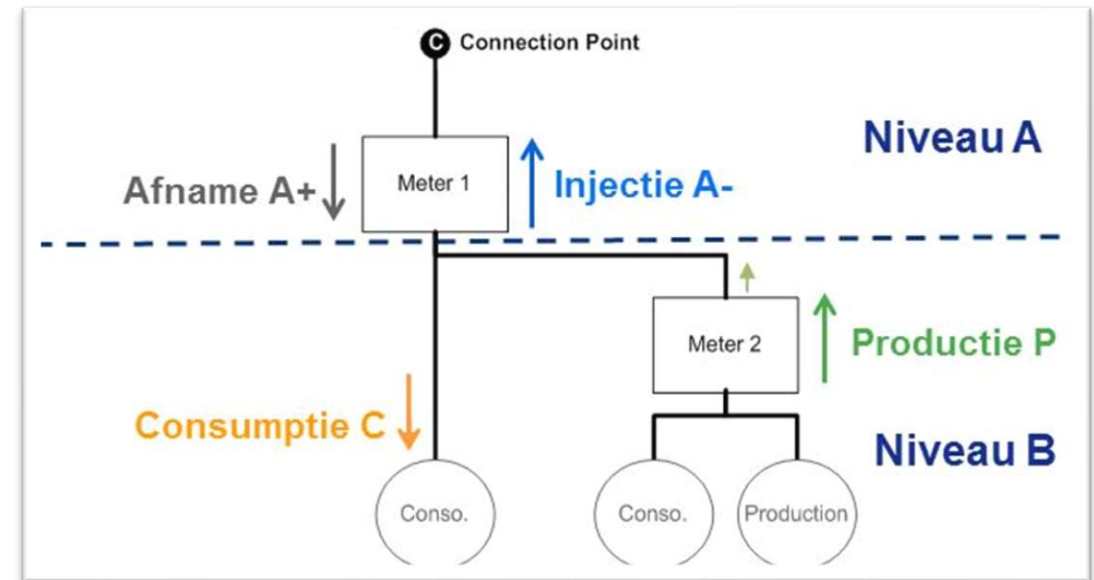
- Consumption C
- Production P

Net: The measured energy by the meter on the level of the Grid.

- Offtake A+
- Injection A-

Compensated Net: The difference between Offtake and Injection

- CMA+
- CMA-



Compensation with Digital Meters (WAL)

Current methodology

Currently, the allocation methodology is defined by the service component and the data to be used by the meter type & regime:

- Allocation MIG6 is done on the 2 directions separately, per '15
 - Classical Compensated (reversing) meters only have 1 compensated net position at moment M
- ⇒ For Compensation, Allocation calculates the gross production and consumption per '15

- The meter type & regime define which metering is used in Allocation
- The goal is to always use to most granular and correct value (= '15) possible
- Note : In Settle 2.0, '15 values will also be used for some SMR1 configurations (not visible on the current screenshot)

Headpoint service	Service Component	Production Allocation	Consumption Allocation
Compensation	SC_COMPOFF	P	C
Valorisation	SC_COMPOFI	P	C
Constraint Commercialisation of injection	SC_OFFINJE	A ⁻	A ⁺
Commercialisation of injection	SC_COMMOFF		A ⁺
	SC_COMMINJ	A ⁻	
Constraint Commercialisation of production	SC_CONPROD	P	C
Commercialisation of production	SC_CONSUMP		C
	SC_PRODUCT	P	

Head Meter Configuration Type	Photo (M+1)+20jo
Smart Meter Regime 3 - Monthly	$1/4h_{\text{validated}} > 1/4h_{\text{unvalidated}}$
Smart Meter Regime 3 - Yearly	$1/4h_{\text{validated}} > 1/4h_{\text{unvalidated}}$
Smart Meter Regime 1 - Monthly	$RMV > EMV_Y > EMV_{Y-1} > EMV_{\text{Def}}$
Smart Meter Regime 1 - Yearly	$EAV > EAV_{\text{Def}}$
Classic Meter Non-Continu – Monthly Remote Reading	$RMV > EMV_Y > EMV_{Y-1} > EMV_{\text{Def}}$
Classic Meter Non-Continu - Monthly	$EMV_Y > EMV_{Y-1} > EMV_{\text{Def}}$
Classic Meter Non-Continu - Yearly	$EAV > EAV_{\text{Def}}$

Compensation with Digital Meters (WAL)

Conflicting scenario

We then have a conflict if we want to activate 15' data on SMR1

When combining Compensation with Smart Metering

- The Service wants to allocate on gross positions
- The metering regime wants to allocate on measured intervals or RMV's
 - The meter measures only net positions

Complication

- New ToU: vision is to do allocation on 15'
 - To be the most accurate possible
 - To avoid introducing new RLP's/ToU's in the model
- Clients opting for new Time-of-Uses and keeping their Compensation would enter in the "conflicting scenario"

Headpoint service	Service Component	Production Allocation	Consumption Allocation
Compensation	SC_COMPOFF	P	C
Valorisation	SC_COMPOFI	P	C
Constraint Commercialisation of injection	SC_OFFINJE	A ⁻	A ⁺
Commercialisation of injection	SC_COMMOFF		A ⁺
Commercialisation of injection	SC_COMMINJ	A ⁻	
Constraint Commercialisation of production	SC_CONPROD	P	C
Commercialisation of production	SC_CONSUMP		C
Commercialisation of production	SC_PRODUCT	P	

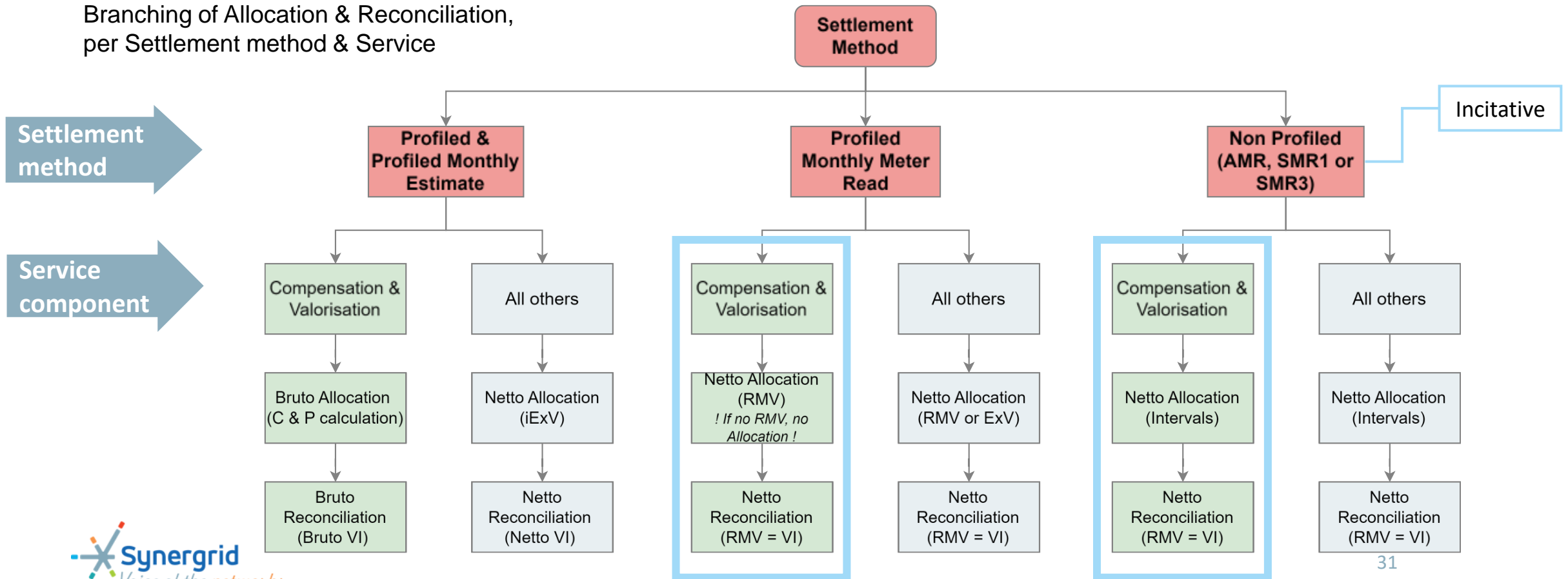
Head Meter Configuration Type	Photo (M+1)+20jo
Smart Meter Regime 3 - Monthly	$1/4h_{\text{validated}} > 1/4h_{\text{unvalidated}}$
Smart Meter Regime 3 - Yearly	$1/4h_{\text{validated}} > 1/4h_{\text{unvalidated}}$
Smart Meter Regime 1 - Monthly	$RMV > EMV_Y > EMV_{Y-1} > EMV_{\text{Def}}$
Smart Meter Regime 1 - Yearly	$EAV > EAV_{\text{Def}}$
Classic Meter Non-Continu – Monthly Remote Reading	$RMV > EMV_Y > EMV_{Y-1} > EMV_{\text{Def}}$
Classic Meter Non-Continu - Monthly	$EMV_Y > EMV_{Y-1} > EMV_{\text{Def}}$
Classic Meter Non-Continu - Yearly	$EAV > EAV_{\text{Def}}$

Compensation with Digital Meters (WAL)

Electricity - Proposed solution

The Smart Meter in Compensation will communicate net 15' and/or net RMV's, per direction

Branching of Allocation & Reconciliation,
per Settlement method & Service



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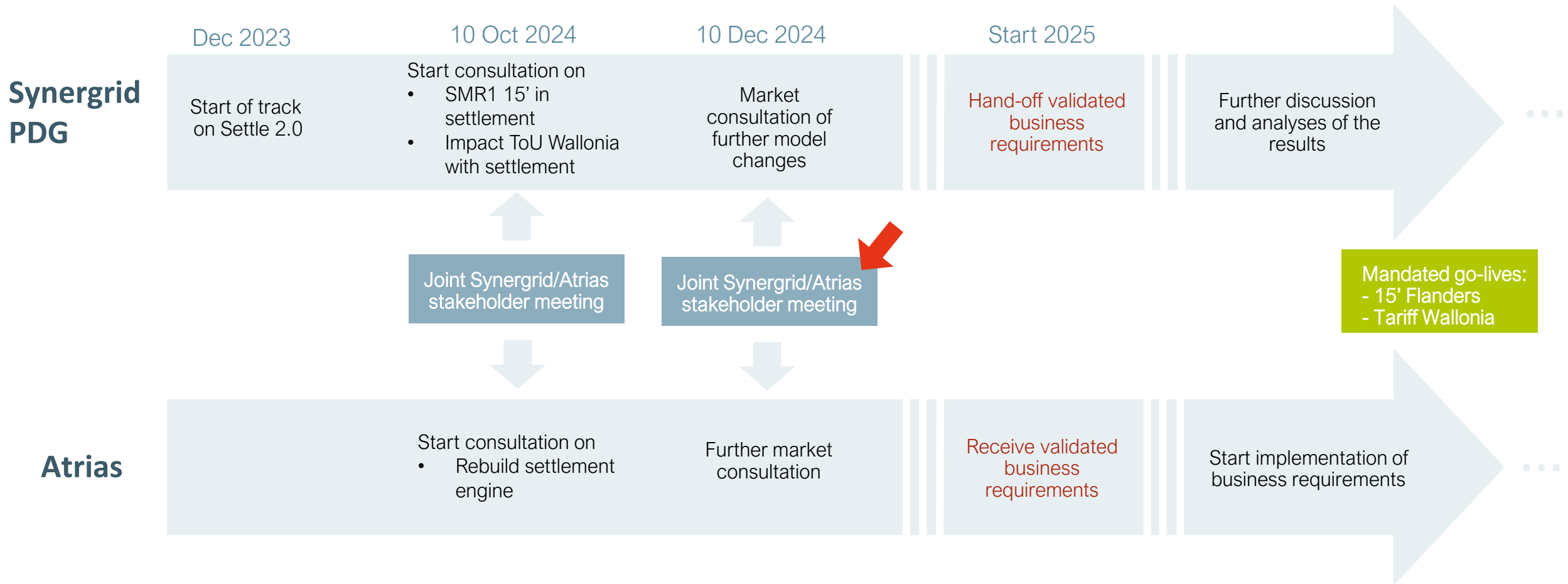
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Settle 2.0: Timeline



Data availabilities

- To ensure market stakeholders can anticipate potential impacts of Settle 2.0 and to allow proper testing of implemented changes, they will need analytical data, including:
 - 15' data from a representative portfolio
 - Simulation on the impact of
 - Residue & net losses mangement modification
 - Incitative tariff
 - DM in compensation
 - ...
- Analyses are underway to see what can be provided by the project team during 2025.

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Settle 2.0 is a long-term project

Consultation made in 2024 covers the most crucial elements (to be implemented: 2026)

- Tariff Wallonia
- Capture of 15' data from digital meter
- Residue & net losses management
- Compensation with digital meter

The above is only a starting point. To ensure a resilient process in line with market evolution, further reflections on the settlement process are planned in the future. Including (for example):

- Improvement of SPP curve
- Improvement of the KCF methodology
- Actions to decrease the remaining residue
- New net losses calculation methodology
- Pre-allocation re-design
- ...

Supporting analysis will be executed on these topics, any resulting proposed model changes will be consulted later

Next Step: Changes to be consulted

Proposed implementation

- Tariff Wallonia (revised proposal) → Time of Use (ToU) Measure vs Time of Use (ToU) Settle
- Residue & net losses management (with DM roll-out)
- Compensation with digital meter

Give feedback by **07/01** via email: marketconsultation@synergrid.be

Slides available on Synergrid website:

<https://www.synergrid.be/nl/marktoverleg/pdg-settlement> or
<https://www.synergrid.be/fr/concertation-du-marche/pdg-settlement>

Thank you !



Annex: List of terms and abbreviations

Abbreviation	
AMR	Automatic Meter Reading
CD	Calendar Day
CMA	Corrected Monthly Afname + (Off-take)/Afname- (Injection)
DAV	Daily Allocated Volume
DM	Digital Meter
EAV	Estimated Allocation Volume
EMV	Estimated Monthly Volume
ExV	EAV/EMV
HI/LO	High / Low
HP	Head Point
IMV	Informative Monthly Volume
KCF	Klimaat correctie factor
MAV	Monthly Allocated Volume

Abbreviation	
MMR	Monthly Meter Reading
RLP	Real Load profile
RMD	Relational Master Data
RMV	Real Monthly Volume
SMR	Smart Metering Regime
SPP	Synthetic Production Profile
TH	Total Hours
TMD	Technical Master Data
ToU	Time of Use
VHI	<u>V</u> olum <u>e</u> herleidingsinstrument
VI	Volume Index
VLA	Vlaanderen
WAL	Wallonie
WD	Working Day