Winter Annual Ratio (WAR) bands

- It is mandatory for supply points with an annual consumption >293 MWh to be monthly-read.
- For NDM monthly-read sites where the relevant meter reading history is available, a **Winter Annual Ratio (WAR)** value is calculated.
  - The WAR for a gas year is calculated based on reads loaded during the months of the **previous winter**.
  - Calculation based on the ratio of the supply point's consumption from **December to March** to its AQ.

The supply point is then assigned to a **WAR Band** (either W01, W02, W03 or W04) based on its WAR value;

EUC Code	Annual Load (MWh)	Winter Annual Ratios (WAR)			
		W01	W02	W03	W04
xx:E1501W0y	0 to 73.2	-	-	-	-
xx:E1502W0y	73.2 to 293	-	-	-	-
xx:E1503W0y	293 to 732	0.00 - 0.449	0.449 - 0.551	0.551 - 0.659	0.659 - 1.00
xx:E1504W0y	732 to 2,196	0.00 - 0.449	0.449 - 0.551	0.551 - 0.659	0.659 - 1.00
xx:E1505W0y	2,196 to 5,860	0.00 - 0.398	0.398 - 0.481	0.481 - 0.584	0.584 - 1.00
xx:E1506W0y	5,860 to 14,650	0.00 - 0.347	0.347 - 0.432	0.432 - 0.543	0.543 - 1.00
xx:E1507W0y	14,650 to 29,300	0.00 - 0.331	0.331 - 0.364	0.364 - 0.461	0.461 - 1.00
xx:E1508W0y	29,300 to 58,600	0.00 - 0.331	0.331 - 0.364	0.364 - 0.461	0.461 - 1.00
xx:E1509W0y	> 58,600	-	-	-	-

As per the reference table above, the WAR band of the supply point determines its EUC code – for example, determines whether E1503**W01,** E1503**W02,** E1503**W03** or E1503**W04**.

- The EUC code then determines the supply point's **Load Factor**.
  - The Load Factor then determines the supply point's **SOQ**.

Therefore ultimately the SOQ for such NDM supply points is determined by its WAR band.

Default EUC codes

In order for a WAR to be calculated, the supply point must have **2 valid reads** in order to calculate its **Winter Consumption**;

- **Start Read**: Between 1st November and 31st December.
- **End Read**: Between 1st March and 30th April.

What happens if there isn't a valid read in both of these periods?

- If the required meter reading information is not available, the supply point is instead allocated to a default or **"bucket" EUC code.**
- The default EUC code yields a load factor that is somewhere in between that of W02 and W03.

EUC code	WAR value	Load Factor	SOQ
W01	Low	High	Low
W02	Medium-low	Medium-high	Medium-low
Default	Unknown	Medium	Medium
W03	Medium-high	Medium-low	Medium-high
W04	High	Low	High

In particular this presents a risk around supply points that should be WAR band W01 or W04 based on their consumption pattern, but end up in a default EUC code through lack of valid reads.

- **These sites will end up with an SOQ that is very different to what it should be.**
- **This can result in dramatic year-on-year swings in a supply point's SOQ, simply as a result of whether valid reads exist for the previous winter.**

Case study

MPRN A, of Exit Zone SW1

In gas year 14/15 this supply point was allocated to WAR band W01, based on its Winter 13/14 reads.

- However there were no valid winter consumption reads made for MPRN A during Winter 14/15.
- Inline with the current regime, this meant that the supply point then automatically slipped into the **default EUC code** for gas year 15/16.

Gas Year	Valid winter reads available?	EUC code	Supply point AQ	Load Factor	SOQ
14/15	Yes	W01	31,677,204	88.80%	97,733
15/16	No	Default	30,601,488	55.90%	149,982

- As a result its **SOQ increased by over 50%** in 15/16 (despite a marginal decrease in AQ).
- **This swing is purely an artefact of lack of meter reads during the winter period, rather than a change in consumption pattern.**
- Resulted in a **~£15k Gas Transportation annual cost increase** for this supply point.

Case study

MPRN B, of Exit Zone EA2

For at least 3 years in succession, this supply point was allocated to WAR band W01, based on its Winter reads.

- However there were no valid winter consumption reads for MPRN B during Winter 14/15 – this meant that the supply point then slipped into the **default EUC code** for gas year 15/16.

Gas Year	Valid winter reads available?	EUC code	Supply point AQ	Load Factor	SOQ
12/13	Yes	W01	2,602,221	56.80%	10,515
13/14	Yes	W01	1,884,924	67.80%	9,092
14/15	Yes	W01	2,965,440	67.80%	11,983
15/16	No	Default	3,134,036	37.90%	22,655

- As a result we saw its **SOQ almost double** in 15/16.

Case study

MPRN C, of Exit Zone EM3

For at least 2 years in succession, this supply point was allocated to WAR band W04, based on its Winter reads.

- However there were no valid winter consumption reads made for MPRN C during Winter 14/15 – this meant that the supply point then slipped into the **default EUC code** for gas year 15/16.

Gas Year	Valid winter reads available?	EUC code	Supply point AQ	Load Factor	SOQ
13/14	Yes	W04	542,881	22.00%	6,761
14/15	Yes	W04	552,633	22.60%	6,699
15/16	No	Default	565,896	31.20%	4,969

- As a result we saw a **windfall decrease in SOQ of over 25%** in 15/16 (despite a marginal increase in AQ).

Potential alternative approach

- Unnecessary swings and instability in SOQ are not favourable for either suppliers or the customer.
  - The current regime results in year-on-year fluctuations in Gas Transportation charges that are purely an **artefact of data availability and not indicative of a change in the supply point behaviour**.
- A better way of handling such cases could be to make use of WAR values from the previous year in the absence of current year reads.
  - Whilst out-of-date data is not ideal, it is arguably superior to not considering any of the available data.
    - i.e. a better default would be a band based on the last known winter consumption value.

This would then work on the principle that no new data meant a roll-forward of the previous position, rather than immediately reverting to a default position.

  - This method would then provide protection against unnecessary SOQ instability.

- This would not completely eradicate the issue, and bucket bands would still be required (for instance in the case of new connections), however we feel they are more suited as a last resort option rather than as a standard default.

- Any other suggestions or alternative approaches?