

## Calculation of Imperfections K-Factor for inclusion in 2023/24 Tariff

The calculation of the Imperfections k-factor for inclusion in the 2023/24 tariff is made up of two elements:

- (1) Actual outturn for 2021/22
- (2) An estimated outturn for 2022/23

### (1) Actual Outturn for 2021/22

Market Imbalances	Notes	2021/22 Over/(Under) Recovery
Energy Imbalance	a	0
Imperfections excl OSC	b	(194,887,970)
Other System Charges	c	5,882,799
Capacity	d	0
Market Interest	e	0
Foreign Exchange	f	0
<b>Cash excess arising during year (market imbalance)</b>		<b>(189,005,170)</b>
The tariff for 2022/23 was reduced by a €10.175m k-factor, therefore this must be added here in order to arrive at the actual over/under recovery for 2021/22	g	10,175,674
<b>Actual outturn over (under) recovery for 2021/22 (true k-factor arising in year)</b>		<b>(178,829,497)</b>
An estimated under recovery of €150m was included in calculating the tariff for 2021/22, this must be taken into account to arrive at what is left to be taken into account in setting the k factor for 22/23	h	150,000,000
<b>Adjustment needed to correct estimate to actual</b>		<b>(28,829,497)</b>
<b>2021/22 k-Factor to be included in 2023/24 tariff</b>	<b>€m</b>	<b>(28.83)</b>

### (2) Estimate of over/(under) recovery for 2022/23

<b>Estimate for imperfections k-factor for 2022/23</b>	<b>€m</b>	<b>120.00</b>
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### Total Forecast K Factor to be applied in 2023/24

<b>Total Forecast K Factor to be applied in 2023/24 [over/(under) recovery]</b>	<b>€m</b>	<b>91.17</b>
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#### (1) Imperfections Outturn for 2021/22

There was a cash under recovery of €189 m in 2021/22 which included a previous over recovery forecast position of -€10.18m (Ref. SEM-21-061) k factor as built into the tariffs. Adding this k-factor from previous years gives an actual k-factor under recovery of €179m arising for the 2021/22 year. However, in calculating the 2022/23 tariff, there was an estimated €150m under-recovery for 2021/22 included (ref. SEM-22-045). Taking this figure into account results in an outturn **under recovery of €28.8m** for tariff year-2021/22. This under recovery will be added to the imperfections forecast revenue.

#### (2) Estimate Outturn 2022/23

The Estimated within year (Y) K-factor (2022/2023) is a forecast of the financial position, as reflected in the accounts, as at the end of September 2023. The estimated K therefore takes into consideration

- The actual imperfections costs against the forecast and forecast trend to year end.
- Any resettlement costs from previous periods ( M+13 etc.) that fall within the period

#### Imperfections Costs

There are two main factors influencing the within year forecast K factor for 2022/2023 - that is the estimated outturn expenditure against forecast and the estimated outturn revenue against forecast.

**Estimated Outturn Expenditure** - Fuel costs are a key factor in imperfections costs. The original forecast was finalised in May 2022 while fuel cost was volatile. Since Feb 23, wholesale fuel prices have reduced relative to that assumed and are at a level that is currently expected to persist to Sept 23. This is leading to an estimated underspend against forecast. While we have used wholesale fuel as a predictor, it should be noted that imperfections costs are based on many related factors including participant data submission, trading behaviour, SNSP and imbalance price. One such item of note is the delayed implementation of DSU energy payments.

**Estimated Outturn Revenue** - The forecast demand employed to set the imperfections changes was 38,200 GWh. Actual demand to date is lower than the forecast would have envisaged. As a result SEMO has not recovered the amount of revenue forecast. At this time SEMO expects to end the year with an under recovery against the ex ante Approved Revenue.

Considering the above 2 factors, the TSOs/SEMO are estimating a potential over recovery in 2022/2023 of **€120m**.

For completeness it is noted that the reason for the difference in the now forecast K factor to that estimated in March in the Mid-Year Report (estimated at that time at c.€60m) is arising from the continued delay in the implementation of DSU energy payments and an uptake in energy/ updated meter readings.

#### Resettlement

The settlement team has advised finance that no notable resettlement of imperfections costs are anticipated over the remainder of this tariff year.

**Estimated outturn 2022/23 = (€120m+€0) = €120m over recovery**

#### Total Forecast K Factor to be applied in 2023/24

The total forecast K is an over recovery of **€91.17m** which will be deducted from the Imperfections forecast revenues.

Under-recovery in tariff year 2019/20  
Estimated over-recovery for tariff year 2020/21  
Total Imperfections K factor to be applied in 2021/22 (monies owed)

€10.92m

€-21.1m

€-10.18m

(g)

The difference between the outturn and estimated under/over-recovery for the last five months of 2020/21 was €9.64m. Therefore, the total k-factor to be applied in Tariff Year 2022/23 is €140.36m (see Table 3).

Item	€ million
Actual over-recovery 2020/21	9.64
Estimated under-recovery 2021/22	-150.00
Total K-factor to be applied 2022/23	-140.36

Table 3. TSOs' K-factor calculation for 2022/23