



**ANNUAL IMPROVEMENT TARGETS
SUMMARY REPORT –
REPORTING YEAR 2024**

BAE SYSTEMS

**GLASCOED MUNITIONS FACTORY,
GLASCOED, USK, MONMOUTHSHIRE,
NP15 1XL**

PERMIT REFERENCE EPR/LP3731SU

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ACRONYMNS/ABBREVIATIONS IN THE TEXT

BAE Glascoed	BAE Systems Glascoed Munitions Factory
ECL	Environmental Compliance Limited
IMS	Integrated Management System
KPI	Key Performance Indicator
NRW	Natural Resources Wales

1. Introduction

- 1.1. The following report has been produced in accordance with Condition 4.2.1.(b) of Environmental Permit Reference LP3731SU. Conditions 4.2.1.(b) states:
*“A report or reports on the performance of the activities over the previous year shall be submitted to the Agency [now Natural Resources Wales (“NRW”)] by 31st January or other date agreed in writing by the Agency each year. The report shall include as a minimum:
(b) where the operator’s management system encompasses annual improvement targets, a summary report of the previous year’s progress against such targets.”*
- 1.2. BAE Systems Glascoed Munitions Factory (“BAE Glascoed”) has an Integrated Management System (“IMS”) which includes the setting and monitoring of key performance indicators (“KPIs”) to achieve continual environmental improvement.
- 1.3. The summary report below discusses the set environmental KPIs, strategies undertaken to achieve the KPIs, the observed performance against each target in 2024 and any limitations encountered.

2. KPI Performance

2.1. Gas Consumption

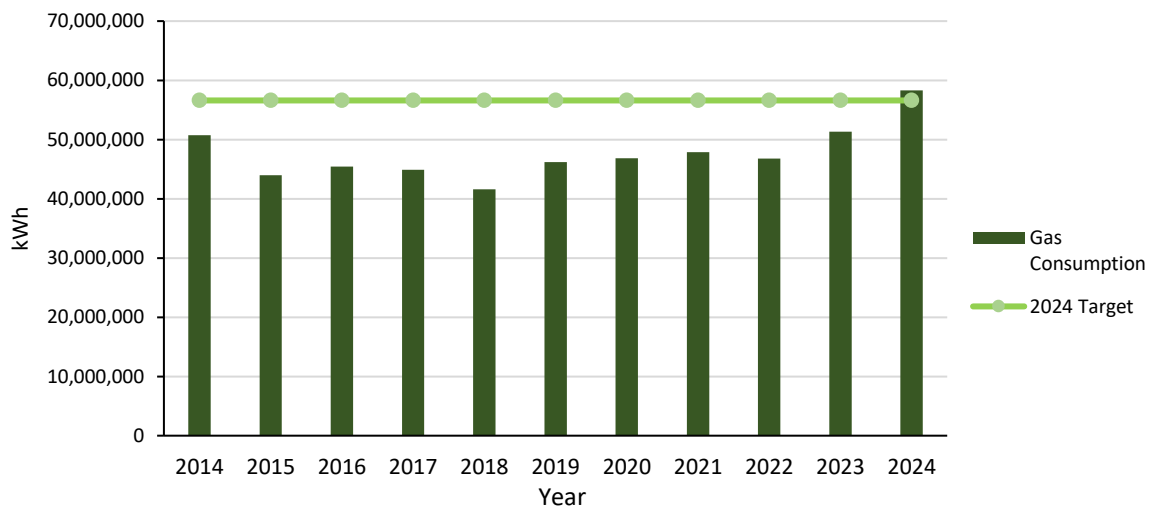
2.1.1. BAE Glascoed set a target to reduce gas consumption by 2% in 2024 compared to 2024 forecast figures.

2.1.2. In order to reduce gas consumption at the site as part of the Net Zero Carbon programme, a new Energy Centre is in the process of undergoing commissioning works. This Energy Centre is expected to provide gas efficiency savings for the Glascoed site. Works are still ongoing and therefore behind plan of the expected April 2024 handover date.

2.1.3. A gas consumption target of 56,604,800kWh was set for 2024. This figure was a 2% reduction from the 2024 forecast data of 57,760,000kWh based on the manufacturing plan.

2.1.4. Gas consumption for the last 11 years is shown below in Figure 1, together with the target of 56,604,800kWh.

Figure 1: BAE Glascoed Gas Consumption – 2014-2024



2.1.5. The data in Figure 1 shows BAE Glascoed were unable to achieve the 2% target set for 2024 when compared to the 2024 forecast.

2.1.6. The measured gas consumption in 2024 of 58,295,938kWh compared to the 56,604,800kWh target for 2024 shows a 3.0% increase against target. However, this is an improvement on the 8.6% increase against the 2023 target. This failure to meet target is due to snagging issues within the Energy Centre being commissioned. The expected handover date was April 2024, however snags are still being resolved. In addition, issues were encountered with site steam pipework due to PSSR concerns, this has resulted in limiting the amount of steam zoning that has been applied. Steam mains have been left live for longer to reduce the risk of water hammer occurrence.

2.1.7. A target of 2% decrease on the 2025 forecast gas consumption has been set for 2025.

2.2. Electricity Consumption

2.2.1. BAE Glascoed set a target to reduce electricity consumption by 2% in 2024 compared to the 2024 forecast data.

2.2.2. In order to reduce electricity consumption at the site, BAE Glascoed have carried out a number of energy reduction initiatives as part of a wider Net Zero Carbon programme. The key 2024 projects comprised of LED lighting replacement and upgrades to electrical metering systems.

2.2.3. Electricity consumption for the last 11 years is shown below in Figure 2, together with the target of 7,062.272MWh.

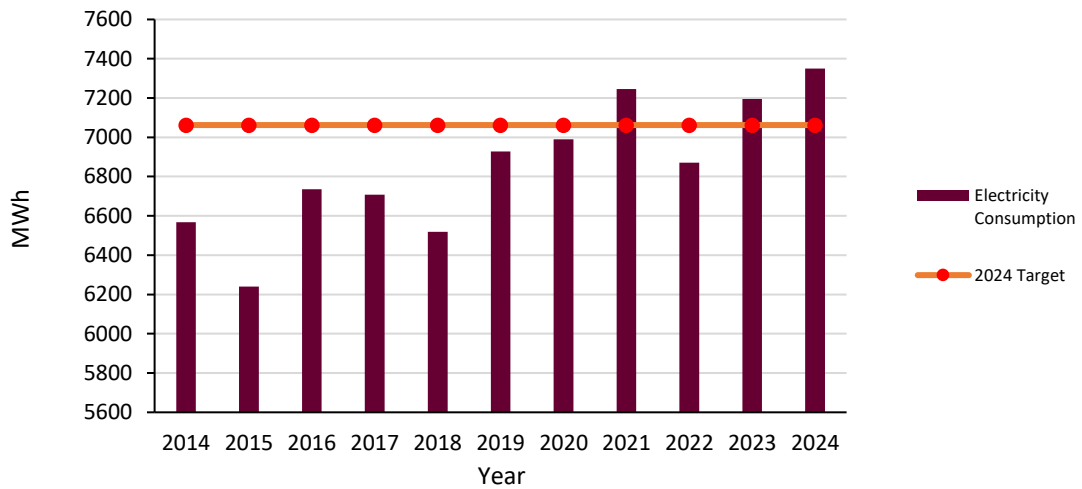


Figure 2: BAE Glascoed Electricity Consumption – 2014-2024

2.2.4. The data in Figure 2 shows BAE Glascoed have been unable to achieve the 2024 target of 7,062.272MWh. The actual electricity consumption in 2024 of 7,350.053MWh was 4.1% above the target, however this is an improvement on the realised 2023 6.5% above target figure.

2.2.5. BAE Systems have confirmed that the total site electrical consumption has increased, however, there have been reductions for specific processes.

2.2.6. A target representing a 2% decrease from the 2025 forecast electricity consumption has been set for 2025.

2.3. Water Consumption

2.3.1. BAE Glascoed set a target to reduce mains water consumption by 2% in 2024 compared to 2024 forecast data. This is a change from previous years where the target was set as a reduction against the total consumption the previous year.

2.3.2. The following strategies were implemented to reduce water consumption at the site:

- continued leak detection; and
- monitoring of the base load which has been integrated into the Building Management System.

2.3.3. Water consumption for the last 11 years is shown below in Figure 3, together with the target of 73,990m³.

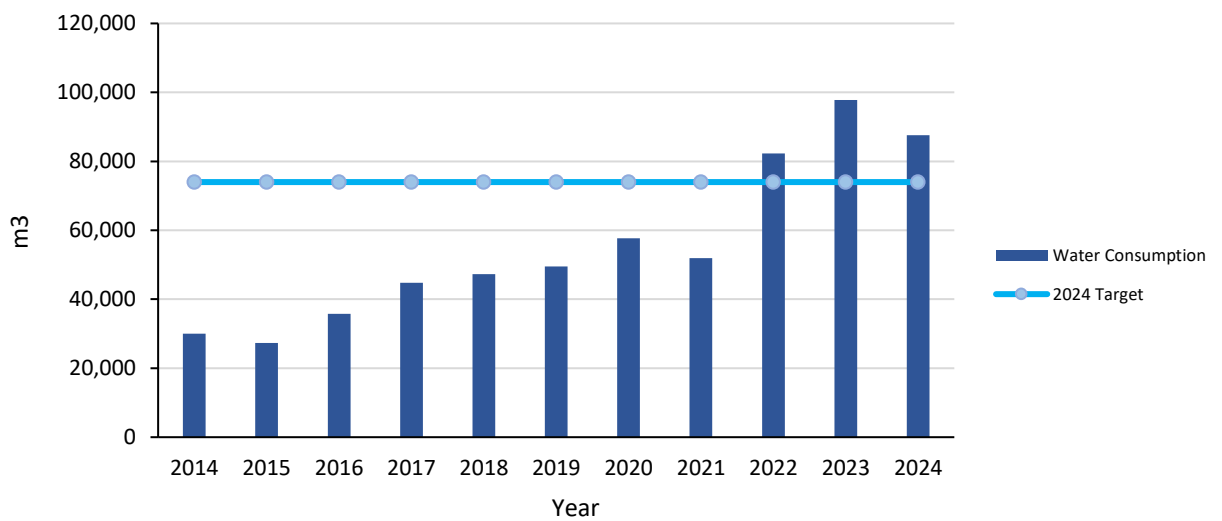


Figure 3: BAE Glascoed Water Consumption – 2014- 2024

2.3.4. The data in Figure 3 shows BAE Glascoed was unable to achieve the 2024 target. The observed water consumption in 2024 of 87,600m³ compared to target of 73,990m³ is 18.3% higher than target, however compared to the actual consumed water of 97,805m³ in 2023 there is a decrease of 10.4% of water consumed.

2.3.5. The increase compared to 2024 forecast can be accounted for by a number of domestic water leaks. Consequently, water consumption in 2025 is anticipated to decrease because of the successful repairs completed in 2024.

2.3.6. A water consumption target for 2025 is set as a 2% decrease based on 2025 forecast data.

3. Conclusion

- 3.1. As part of BAE Glascoed's IMS, annual improvement targets are set to enhance environmental performance and achieve continual improvement. The targets which were set in 2024 related to gas, electricity and water consumption aiming to achieve a reduction of 2% for gas, electricity and water in comparison to 2024 forecast figures.
- 3.2. Unfortunately, BAE Glascoed were unable to achieve the set KPIs for gas, electricity and water consumption in 2024. Delays in the Net Zero Carbon programme meant that results were not actualised in 2024, however, the benefits of the programme should be experienced in 2025. Furthermore, significant water leaks resulted in a much greater water consumption than anticipated, however, the repairs have been undertaken and the consumption is set to reduce in 2025.
- 3.3. Following evaluation of the performance in 2024, new KPIs have been set for 2025. A reduction of 2% has been set for gas, electricity and water based on forecast data.
- 3.4. The performance of 2025 will be discussed and interpreted based on the actual performance data for gas, electricity and water as part of next year's annual returns reporting.