Annual Environmental Report (AER)

2023

Company Name: ESB Aghada Generating Station

Licence Number: P0561-05

Address: Whitegate, Midleton. Co. Cork

Class of Activity[1]: Class 2 Energy

[1] See Appendix I

Purpose of this Report

One of the functions of the Environmental Protection Agency (EPA) is to licence and regulate the activities[2] of large scale industrial (e.g. chemical, food processors, power plants) and waste facilities. Submitting an Annual Environmental Report (AER) is a requirement of all EPA licences.

An AER is a public document. To this end, this format has been developed for industrial and waste licence holders (other than the intensive agriculture sector) to use as a template. This is to assist any member of the public to interpret and understand the environmental performance of the licensed facility.

The AER is a **summary** of environmental information for a given year. It includes:

- Details of the licence holder's environmental goals achieved, goals to maintain compliance and/or improve their environmental performance;
- Answers to questions regarding their facility's activities;
- Tables of results from monitoring emissions such as air, water, noise, and odour; and
- Details of waste generated, accepted and treated.

An AER does **not** provide detailed technical data. Such information is available in three ways:

1) Contacting the licence holder directly. The Contact Us section of this template enables the licence holder to provide details of where a member of the public can obtain further information on topics reported in this document.

[2] See Appendix I

2) Some documents[3] are available on the EPA website via the licence details page for each individual licence. This can be found by browsing either the http://www.epa.ie/licensing/ or http://www.epa.ie/enforcement/ pages of the EPA website.

3) All formal enforcement correspondence exchanged between the EPA and a licence holder during the regulatory process is available for public viewing by appointment at any EPA Office.

If you have a question or query about an AER or an individual EPA licensed facility see the EPA's website or contact the relevant EPA office. See http://www.epa.ie/about/contactus/ for contact details.

[3] This includes EPA site inspection and compliance monitoring reports, licence holders' self-monitoring reports, AERs and special reports

Contents

Glossary

Abatement Equipment	Technology used to reduce pollution
AER	Annual Environmental Report.
Beyond Compliance	Beyond compliance is concept to help deliver greater organisational performance and long-term value for the environment, society and the economy.
CRAMP	Closure, Restoration and Aftercare Management Plan.
ELRA	Environmental Liability Risk Assessment.
Emission Limit Value	Limits set for specified emissions, typically outlined in Schedule B of an EPA licence.
EMS	Environmental Management System.
Environmental Goal	An objective or target set by a licensee as part of an environmental management system (EMS).
Environmental Pollutant	Substance or material that due to its quantity and/or nature has a negative impact on the environment.
Facility	Any site or premises that holds an EPA industrial or waste licence.
FP	Financial Provision.
GJ	Giga joules, an international unit of energy measurement.

Groundwater	All water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.
Incident	As defined by an EPA industrial or waste licence.
Inert Waste	Is waste that will not undergo physical, chemical or biological change thereby, is unlikely to cause environmental pollution or harm human health.
List of Wastes (LoW)	A list of wastes drawn up by the European Commission and published as Commission Decision 2014/955/EU.
Noise Sensitive Location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Non-Renewable Resource	A resource of economic value that cannot be replaced at the same rate it is being consumed e.g. coal, peat, oil and natural gas.
Oil Separator	Separator system for light liquids (e.g. oil and petrol).
PRTR	Pollutant Release and Transfer Register.
Renewable Resource	Wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.
Sanitary Waste	Waste water from toilet, washroom and canteen facilities.

Storm Water	Rain water run-off from roof and non-process areas.
Surface Water	Lakes, rivers, streams, estuaries and coastal waters.
Trigger Level	A value set for a specific parameter, the achievement or exceedance of which requires certain actions to be taken by the licence holder.
Volatile Organic Compounds	Gases produced from solids or liquids that evaporate readily in ambient conditions.
Waste	Any substance or object which the holder discards or intends or is required to discard.

Disclaimer

These are **not** legal definitions. Legal definitions can be found in the corresponding legislation.

Declaration

I, Elizabeth Stack, Chemical & Environmental Manager, confirm that by ticking the box below, all information in this report is truthful and accurate to the best of my knowledge and belief.

In addition, I confirm that all monitoring and performance reporting required by our EPA licence and summarised herein is available for inspection by the EPA.

Tick here 

1) Introduction

See below a brief description of our facility and a summary of our environmental performance this year.

ESB Aghada Generating station is situated at Long Point near the village of Whitegate on the eastern shorelines of lower Cork Harbour. The Midleton-Whitegate public road (R630) bisects the site, separating the gas turbines and oil storage facility from the CCGT (Combined Cycle Gas Turbine).
ESB Aghada comprises of three separate plant components, which consist of the following:
• A 270 MWe gross capacity boiler/turbine plant fired only on natural gas. This discharges via a 152m stack- closed on
the 30/9/18.
• Three GE Frame 9B Open Cycle Gas Turbines, each of 85 MWe gross capacities firing either natural gas or gasoil. These discharge via individual 65m stacks.
• A 430 MWe Combines Cycle Gas Turbine.
The station's Environmental Management system (EMS) has been ISO 14001 accredited since January 2000. Successful recertification of the Environmental Management System took place in February 2024. ESB Aghada had a good environmental performance in 2023 and continues to comply
with the requirements of its Industrial emissions Licence.
Waste figures increased by 44% on 2022 figure due to outages & water usage for the site decreased by 25% on 2022 figure as leaks were identified & repaired.

Contact Us

If you have any questions or would like further information on any aspect of our licensed activity, please contact us directly.

See below details:

ESB Aghada Generating Station

Whitegate
Midelton
Co. Cork
P:+ 355 21 4662322
E: Elizabeth.stack@esb.ie

2) How we Manage our Facility

Environmental Management System

Explanation
To ensure our facility's activities do not cause environmental pollution we are required to have detailed documentation systems in place to help us manage and track our environmental performance. These systems are referred to as Environmental Management Systems (EMS). We review our EMS every year and set up-to-date **environmental goals** to continually improve our environmental performance.

The information below sets out the environmental goals for our facility to help us prevent environmental pollution and reduce our impact on the environment. Target dates for completing each goal and progress towards achieving the goal are outlined in Table 1.

Table 1 Environmental Goals

Environmental Goal	Target Date	Progress
Leadership: Management visibility – Environmental leadership will be part of performance management, raise general level of Environmental awareness & involvement through active communication between management and staff.	2023	100%
Leadership: Aghada will utilise the SHIELD system when appropriate for managing Environmental Incidents. The ISO14001 internal audit schedule is also be managed	2023	100%

through Shield.		
Leadership: Ensure all incidents and licence non-compliances reported to the EPA asap. Continue reviewing all environmental incidents, complaints etc , establish root causes and implement actions to prevent a reoccurrence	2023	100%
Compliance obligations: Emissions to Air -CEMS/ PEMS review & maintenance	2023	100%
Compliance obligations: Noise Emissions- Monitoring Boundary noise measurements to be carried out year as per IEL	2023	100%
Compliance obligations: Reduce the potential for discharge of pollutants to surface and ground water. • Carry out 3 yearly retention tests as per bund test schedule and carry out repairs to defective bunds as required. • Portable bunds included • Drainage repair and hydrostatic testing schedule. •Sumps to be inspected and tested	2023	95%
Emergency procedures: Emergency Preparedness- drills completed	2023	100%
Resource Use Energy Conservation Waste Management • Wasterecover/reuse target% • This is for non-hazardous contract waste (General, timber, glass, compost and WEEE waste) Does not	2023	ongoing throughout the year

include project waste. • Water usage Energy Efficiency target CTS, AD1 & AD2%		
Environmental Awareness and Communication • Training to be carried out as per training schedule. The following training to be carried out in 2020 • • General awareness for Ops team as required. • Waste training • Staff briefing • • Spill training- exercise • Env. Coordinator to attend waste contractors training sessions as appropriate Community stakeholder management	2023-	100% all training requirements met
Complete all IEL report requirements and compliance	2023	100%

Add rows as necessary

Comment

A very successful year in relation to the sites goals and environmental management programme.

Beyond Compliance

Explanation
We are legally required to comply with our environmental licence. However, the EPA realise that some sites go further than just complying with their environmental licence requirements. Some projects carried out at facilities can have long term positive impacts on the environment and local communities.
The EPA's beyond compliance initiative is encouraging us to identify and report on these environmental and sustainability projects. For example, the project could involve renewable energy, biodiversity, water conservation or exemplar community engagement.

Did any project completed on your site in the reporting year go beyond your licence requirements?

Yes ☑ No ☐

If yes, provide details of one case study in Appendix III that demonstrates how the project went beyond compliance of your licence.

3) Energy & Water

Energy

Explanation
Fossil fuels such as coal, gas and oil are non-renewable resources. As a result, our EPA licence requires that we measure our energy use and set targets to improve the energy efficiency of our activities and reduce our overall use, where possible. Where we have the means and technology on-site to generate energy, this is also captured in this report.

The information below summarises the energy used this year compared to the previous year and includes renewable and non-renewable energy types.

Table 3 Energy Used

Energy Used	Quantity (GJ)	% Increase/ decrease on previous year
Electricity		
Heavy Fuel Oil		
Light Fuel Oil	30508	9.9 % decrease
Natural Gas	14183050	13 %decrease
Coal / Solid Fuel		
Peat		
Renewable Biomass		
Renewable Energy Generated On-site		
Total Energy Used	14213558	13% decrease

Comment

Decrease in energy usage due to the lack of running on the CT units – A1-2, A1-3 & A1-4.

The information below summarises the energy we generated on our site this year with specific focus on renewable energy generation.

Table 4 Energy Generated

Energy Generated	**Quantity (GJ)**	**% Increase/ decrease on previous year**
Renewable Energy	Not Applicable	
Total Energy Generated		

Comment

Not Applicable

Water

Explanation
Water is a natural resource and we are required by our EPA licence to identify ways to reduce our use where possible. Water used in industry can be extracted from groundwater, rivers, and lakes (surface water), taken from public water supplies (Irish Water), recycled from the facility's processes or harvested from rainwater.

The information below summarises and compares the quantity of water used this year compared to the previous year.

Table 5 Water Used

Source of Water Used	Quantity (m^3/year)	% Increase/ decrease on previous year
Groundwater		
Surface Water		
Public Supply	37365	25% decrease
Recycled Water		
Rainwater		
Total Water Used		

Comment

Decrease mainly due to prompt identification & repair of water leaks in 2023.

4) Environmental Complaints

Explanation
Our EPA licence requires that activities do not cause environmental nuisance such as odour, dust, or noise. Our licence also requires that we have procedures in place to record, investigate and respond to environmental complaints if or when they arise.
We have an environmental complaints procedure in place where you can contact us[4] directly. You can also contact the EPA[5] if you wish to make an environmental complaint, confidentially or not.

See the information below for a summary of **all** the environmental complaints relating to our activities made directly to us and to the EPA this year.

Table 6 Summary of All Environmental Complaints Received in

Type of Complaint	Number of Complaints	Number Closed
Odour / Smells		
Noise		
Dust		
Water Quality		
Air Quality		
Waste		
Litter		
Vermin/Flies/Birds		
Soil Contamination		
Vibration		
Other		

[4] See Section 1, Introduction – Contact Us

[5] If you wish to contact the EPA to make an environmental complaint about an EPA licenced facility, please go to https://lema.epa.ie/complaints

Comment

ESB Aghada did not receive any Environmental Complaints during the duration of the 2023 calendar year.

5) Environmental Incidents

Explanation
It is our responsibility as an EPA licensed facility to ensure we have systems in place to prevent incidents that have the potential to cause environmental pollution. If an incident occurs, we are required to report it to the EPA, investigate the cause and fix the problem.
The EPA classify environmental incidents into 5 categories based on the potential impact on the environment:

- Minor
- Limited
- Serious
- Very Serious
- Catastrophic

See Table 6 for the number of the environmental incidents we reported to the EPA this year.

Table 7 Number of Environmental Incidents

Incident Category	Minor	Limited	Serious	Very Serious	Catastrophic
Abatement Equipment Offline					
Breach of Ambient ELV					
Breach of Emission Limit					
Explosion					
Fire					
Monitoring Equipment Failure	1				
Odour					
Spillage					
Breach of trigger Level					
Uncontrolled Release	2				

Incident Category	Minor	Limited	Serious	Very Serious	Catastrophic
Other					

Comment

ESB Aghada as a licenced EPA facility ensures we have the systems in place to prevent incidents that have the potential to cause an environmental impact. If an incident does occur, it is reported immediately to the EPA, investigated. fully and corrective actions put in place in a timely manner to the satisfaction of the Agency. In total, 3 minor incidents were reported to the EPA in 2023. 2 minor spillage incidents were reported to the EPA during 2023, the 1st INCI025852 was in relation to a release of sodium hypochlorite through a potable water line near the Electro chlorination plant & the 2nd INCI025802 a leak from a T2002 transformer into a bund. Cleanup & corrective actions and in the case of the incident ear the Electro chlorination plant a full review by a 3rd party was completed of the local environment & no evidence of contamination or non compliance with the IEL was found. The 3rd incident INCI025752 was the malfunction of the Main Cooling water flow meter, this meter was replaced in 2023. The pump curve details for the main cooling water ensured relevant compliance during downtime.

6) Our Environmental Emissions

Explanation

We are required to ensure the emissions from our activities do not cause environmental pollution.

We are required to monitor any of the following emissions that we make:

- Storm water
- Waste water
- Air
- Groundwater
- Noise

We regularly test any such emissions for specific pollutants and materials to ensure they do not contain levels of pollution that exceed emission limit values (ELVs) or cause environmental pollution. If monitoring of an emission indicates an ELV is exceeded, we are required to report this to the EPA[6].

The next sub-sections of this report summarise our compliance with any ELVs set in our EPA licence. Some emissions monitored do not have specific ELVs, but we still carry out monitoring and report all incidents that may give rise to environmental pollution.

[6] See section 5, Incidents

Storm Water

Explanation
Storm water is rain water run-off from roof and non-process areas of a facility, e.g. carparks, and generally shall not contain any pollution.
Storm water is usually released into a local water body after a basic form of treatment. Our EPA licence requires that we manage storm water to ensure no polluting substances or materials are released into the environment.

The information below summarises how the storm water from our facility is treated, where it is released and the results of monitoring this year.

1. **Storm water from our facility is managed prior to release by;**

Surface water from the facility is collected through various drains on site. before passing through Class 1 interceptors & discharging to emission points SW12, SW27 & SW22. In relation to SW1 & SW10 (tidal flow), these drains are associated with the AD1- decommissioned unit, they continue to be monitored as per IEL requirements.

2. **Storm water from our facility is released into the following water bodies:**

Cork Harbour

Table 8 Summary of Storm Water Monitoring

Parameter measured	No. of Samples	% Compliant[7]	Comment
SW1-pH	4	*	*Dry (flow only recorded 5% of the year)
SW1-BOD	4	*	*Dry (flow only recorded 5% of the year)
SW1-visual	52	100%	Visual completed weekly. (flow only recorded 5% of the year)
SW10-pH	4	100%	
SW10-BOD	4	100%	
SW10-visual	52	100%	
Sw10 – Total Ammonia	4	100%	
SW22-pH	4	*	*Dry (flow only recorded 21% of the year)
SW22-BOD	4	*	*Dry (flow only recorded 21% of the year)
SW22-visual	52	100%	Visual completed weekly.
SW22 – Residual Chlorine	52	*	*Dry (flow only recorded

[7] % compliant = [(number of samples compliant) / (number of samples taken)] x 100. Compliance could refer to emission limit values or trigger levels. The EPA commonly use trigger levels on stormwater discharges.

			21% of the year)
SW12-Mineral oil	12	100%	
SW12-visual	52	100%	
SW27-Mineral oil	12		*Dry (flow only recorded 13% of the year)
SW27-visual	52		Dry on occasion

Add rows as necessary

Comment

There is no evidence of contamination of water bodies observed during 2023. Weekly visual inspections of all drains took place during the year and all were compliant. All results were well within & comply with agreed SW warning & action limits.

Waste Water

Explanation

There are two types of waste water that can be produced:

- Process waste water produced from the activities and;
- Sanitary waste water from toilets, washrooms and canteens.

Our EPA licence requires us to manage our waste water on or off-site and ensure that it does not cause environmental pollution when discharged into the environment.

The information below summarises how we treat the waste water produced from our activities, where it is released and the results of monitoring this year.

1. **Waste water produced by our activities is treated as follows before discharge to a receiving waterbody**;

Both Process and Foul waste water are produced by the site and managed under the IEL emission limit values.

The CCGT unit uses cooling water in the generation of electricity and this is chlorinated and ultimately discharged to PE19.

The waste from the Water treatment plant is discharged from PE24 and ultimately leaves site through PE19.

The waste from the boiler blowdowns is directed to PE25 and ultimately leaves site through PE19.

A PE23(bio cycle unit) treats the foul waste on the CCGT side of the site and ultimately leaves site through PE19.

At SE3 (foul macerator) treats foul waste on the AD1 side of the station.

PE2 takes the drains from the decommissioned AD1 unit.

PE14 (Boiler drains AD1) & PE15 (WTP AD1) are associated with decommissioned AD1 unit. PE4 is the cooling water discharge for decommissioned AD1 unit.

2. **Treated waste water from our facility is released into the following water bodies:**

Cork Harbour

Table 9 Summary of Waste Water Monitoring

Parameter measured	No. of Samples	% Compliant	Comment
SE3- BOD	4	*	*Dry (flow only recorded 9% of the year)
SE3- Suspended Solids	4	*	*Dry (flow only recorded 9% of the year)
SE3- visual	52	100%	
PE23- BOD	4	100%	
PE23- Suspended Solids	4	100%	
PE23- Visual	52	100%	
PE25- Phosphate (as P)	12	100%	
PE25- Ammonia (as N)	12	100%	
PE25- pH	42*	100%	*Outage & off load (8weeks)
PE25- visual	42*	100%	*Outage & off load (8 weeks)
PE24- pH	74	100%	
PE24- Visual	74	100%	
PE24- Suspended solids	74	100%	
PE2- BOD	4	*	*Dry (no flow recorded)
PE2- pH	4	*	*Dry (no flow recorded)
PE2- Ammonia	4	*	*Dry (no flow recorded)
PE2- Mineral oil	4	*	*Dry (no flow recorded)

PE2- Visual	52	100%	No flow recorded
PE19-pH	48*	100%	Outage and off load some weeks
PE19- Mineral oil		100%	*Outage & off load (8 weeks)
PE19-visual	42*	100%	*Outage & off load (8 weeks)
PE19- Temperature	Continuous*	100%	*Outage & off load (8 weeks)
PE14- visual	52	100%	Dry -no flow AD1 decommissioned unit
PE15- visual	52	100%	Dry -no flow AD1 decommissioned unit
PE4- Visual	52	100%	Dry -no flow AD1 decommissioned unit

Add rows as necessary

Comment

There is no evidence of contamination of water bodies observed during 2023. Weekly visual inspections of all drains took place during the year and all were compliant. All results were well within & comply with IEL limits.

Air

Explanation
Generally, three types of air emissions are monitored from industry in Ireland: gases, dust (particulates) and odour. Our EPA licence requires us to ensure that any air emissions from our activities do not cause air pollution or create an odour nuisance.

The information below details the number of air emission points we monitor, the results from testing the air emissions and any odour assessments carried out by us and the EPA this year.

1. **We monitor air emissions from the following number of emission points at our facility.**

Open cycle Gas turbines: A1-2 (CT11), A1-3 (CT12), A1-4 (CT14) & CCGT A2-1 (AD2)

Table 10 Summary of Air Emissions Monitoring

Parameter measured	No. of Samples	% Compliant	Comment
A2-1 NOx	Continuous	100%	
A2-1 SOx	Continuous	100%	
A2-1 Dust	Continuous	100%	
A2-1 CO	Continuous	100%	
A1-2 NOx	Continuous	100%	
A1-2 SOx	Biannual	100%	*
A1-2 CO	Biannual	100%	*
A1-3 NOx	Continuous	100%	
A1-3 SOx	Biannual	100%	*
A1-3 CO	Biannual	100%	*
A1-4 NOx	Continuous	100%	

A1-4 SOx	Biannual	100%	*
A1-4 CO	Biannual	100%	*

Add rows as necessary

Comment

Completed as part of ASTs in Q1 2023. No downtime reported during 2023. New software installed in Q4 on PEMS & CEMS to ensure compliance with TA issued on the 8/6/23.

Table 11 Summary of Odour Assessments Carried Out

Assessment Conducted By	No. of Odour Assessments	% Compliant[8]	Comment
Licence Holder	Not applicable to ESB Aghada P0561-05		
EPA			

Add rows where necessary

Comment

Not applicable to ESB Aghada P0561-05

[8] A compliant odour assessment is based on EPA Odour Impact Assessment Guidance available at Air Enforcement | Environmental Protection Agency (epa.ie)

Fugitive Solvent Emissions

Are you required to monitor fugitive solvent air emissions from your facility?

Yes ☐ No ☑

Explanation
The use of solvents is regulated under Irish and European Union (EU) Regulations[9]. Solvents are chemicals that, by their nature, are volatile (evaporate readily under ambient conditions). Solvents can be found in many inks, glues and cleaning agents. Due to the volatility of solvents some emissions may be released into the atmosphere during our activities before being captured in our air treatment system. This type of emission is called a **fugitive solvent emission**.

The information below summarises the quantity of solvents used this year, the percentage of fugitive solvent emissions (% of total quantity used) and whether the percentage complied with the targets set in the EU Regulations.

Table 12 Summary of Fugitive Solvent Emissions

Quantity of Solvents Used (Kg)	% Fugitive Solvent Emissions	Compliant

Comment

Not applicable to ESB Aghada P0561-05

[9] See Annex VII of the Industrial Emissions Directive
https://ec.europa.eu/environment/industry/stationary/ied/legislation.htm

Groundwater

Explanation
Groundwater is an important and sensitive resource in Ireland. Our EPA licence requires that we monitor groundwater to ensure our activities do not cause groundwater pollution.
Understanding how groundwater flows through soil and rock layers and eventually into surface and coastal waters is a complex science. Sometimes groundwater pollution that occurred in the past can take years and even decades to disappear. Therefore, it is important that experts help us monitor and interpret results from groundwater monitoring and testing.

The information below is a basic summary of the condition of the groundwater this year.

1. **Do you have a groundwater monitoring programme in place?**

Yes ☑ No ☐

2. **Have the groundwater monitoring results over the last 5 years indicated the presence of groundwater pollution?**

Yes ☐ No ☑

Table 13 List of Groundwater Pollutants Identified

Pollutants

Add rows as necessary

3. Give details of the investigations and subsequent actions taken, where applicable, to manage the groundwater pollution.

Not applicable

Comment

ESB Aghada carries out groundwater monitoring as per Schedule C: Control & Monitoring C.6 of the licence. Groundwater monitoring results indicate that ESB Aghada is having no effect on the groundwater on the site. The boreholes are beside Cork Harbour and the high conductivity recorded is attributed to the estuarine environment. There were no significant upward or downward trends in analysis from previous years.

Noise

Explanation
Our EPA licence requires that we monitor noise emissions from our facility. Noise monitoring can be conducted at the boundary of our facility and/or at locations beyond the boundary referred to as “noise sensitive locations”. Noise monitoring requires the use of special noise monitoring equipment. Our EPA licence requires that noise produced by our facility shall not exceed the noise limit values and/or give rise to nuisance.

The information below gives a summary of when and where we conducted noise monitoring this year and if results complied with our EPA licence limits.

1. **We conducted noise monitoring on the following dates this year:**

17th of January 2023 and 8th March 2023

2. **Where was the noise monitoring carried out?**
   - i. **the boundary of our facility;**
   - ii. **noise sensitive locations off-site; or**
   - iii. **both.**

Noise sensitive locations off-site at NSL1 & NSL2.

3. **Were measured noise levels compliant with your EPA licence limits?**

Yes ☑ No ☐

If No, we took the following actions to address the noise level exceedances?

150 word limit

Comment

The day, evening and night-time noise limits as set out in IEL P0561-05 for Aghada Power Station were not breached at the nearest noise sensitive locations by the noise emanating from the facility. ESB Aghada Power Station

demonstrated compliance with the noise limits outline in IEL P0561-05 and Guidance Note for Noise (NG4).

7) Waste

Waste Generated

Explanation
Our EPA licence requires us to manage the waste we generate in a manner that does not cause environmental pollution.
We manage, store, and record hazardous, non-hazardous and inert waste we generate in accordance with our licence. We ensure that this waste is subsequently treated or disposed of in accordance with the relevant waste Regulations.

The information in Table 14 is a summary of waste we generated this year and the percentage increase or decrease on the previous year. The percentage recovery is the amount of total waste generated that was reused, recycled or recovered.

Table 14 Waste Generated

Type	Quantity (Tonnes)	% Increase/ decrease on previous year	% Recovery
Hazardous	153.397	223.3% increase	
Non-Hazardous	919.535	31.9% increase	
Inert			
Total Tonnes	1072.932	44.1% increase	

Comment

The increase in waste during 2023 was due to outages and an incident INCI025802.

Waste Accepted

Did you accept waste onto your facility for storage, treatment, recovery or disposal this year?

Yes ☐ No ☑

Explanation
Our EPA licence requires us to manage the waste we accept in a manner that does not cause environmental pollution.
We manage, store and record all incoming and outgoing hazardous, non-hazardous and inert waste. The waste we accept may be treated, recovered, disposed or stored at our facility depending on our licence requirements.

The information in Table 15 provides a summary of waste we accepted this year and the percentage increase or decrease on the previous year. The percentage recovery is the amount of total waste accepted that was reused, recycled or recovered.

Table 15 Waste Accepted

Type	Quantity (Tonnes)	% Increase/ decrease on previous year	% Recovery
Hazardous			
Non-Hazardous			
Inert			
Total Tonnes			

Comment

Not applicable

8) Financial Provision

Explanation
Our EPA licence requires us to assess the risk our activities pose to the environment if we cease our activities or if an incident occurred. If we are identified as a high risk facility[10] by the EPA, we are required to put provision in place such as a financial bond or insurance to cover the cost of restoring our site to a satisfactory condition. This financial provision can then be used to cover the cost of managing the restoration or clean up should such an event occur.

1. Are you required to have an agreed financial provision in place?

Yes ☑ No ☐

2. What year was your Closure, Restoration and Aftercare Management Plan (CRAMP) last agreed by the Agency?

2022

3. What year was your Environmental Liability Assessment Report (ELRA) agreed by the Agency?

2018

4. Has there been any significant changes on your site since the last agreements?

Yes ☐ No ☑

If yes, have you submitted details to the EPA?

[10] See Appendix II

Yes ☐ No ☐ N/A ☑

Appendix I

Class of Activity

Industrial and waste facilities are classed into different sectors depending on the nature of their activity and its potential impact on the environment. The EPA Act 1992 as amended, outlines these as follows:

Class 1	Minerals and other materials
Class 2	Energy
Class 3	Metals
Class 4	Mineral fibres and glass
Class 5	Chemicals
Class 6	Intensive Agriculture[11]
Class 7	Food and drink
Class 8	Wood, paper, textiles and leather
Class 9	Fossil fuels
Class 10	Cement, lime and magnesium oxide
Class 11	Waste
Class 12	Surface Coatings
Class 13	Other Activities

[11] This reporting template is not applicable to the **intensive agriculture sector**. Their annual environmental reporting structure is different and can be found at Compliance & Enforcement: Licensees: Reporting Publications | Environmental Protection Agency (epa.ie)

Appendix II

High Environmental Risk Categories

If an industrial or waste licence falls into one of these categories it is deemed, by the EPA, as a high environmental risk. As a result, the licence holder is required to have financial provision in place. See section 8, Financial Provision.

1. Landfills
2. Non-Hazardous Waste Transfer Station
3. Incineration and Co-Incineration Waste Facilities
4. Category A – Extractive Waste Facilities
5. Upper and Lower Tier Seveso Facilities
6. Hazardous Waste Transfer Stations
7. High Risk Contaminated Land
8. Exceptional Circumstances

NOTE:

This list is subject to change.

See the link below for further information.

Compliance & Enforcement: Financial Provisions Publications | Environmental Protection Agency (epa.ie)

Appendix III

Beyond Compliance

The case study below shows how we went beyond the requirements of our licence in the reporting year.

In line with the Sustainable Development Goals, ESB will continue to develop and connect renewables to decarbonise the electricity system by 2040. ESB is continually striving to reduce its carbon intensity in its generation fleet. In addition, ESB group is in the process of developing its ESG (Environment and Social Governance) goals.

As part of ESB's plans to Develop an energy storage capability of scale, Aghada generating station commissioned 19MW Battery Energy Storage System & has started to commission a 159MW Battery Energy Storage System. Delivery of such projects is a key part of our renewable's strategy and the drive for zero emissions by 2040. In addition, in relation to the development of a Hydrogen economy planning permission was applied for to construct a H_2 Research & Development pilot plant -the lighthouse H2 FastTrack project. As a consequence, ESB Aghada completed a review for the H2 FastTrack project in relation to the Bee orchids and possible translocation.

ESB Aghada continues to maintain an Environmental Management system that is fully certified to ISO14001.

ESB Aghada has a waste framework agreement in place for both Haz and Non Haz waste to optimise waste removal from site and ensure it is recycled and recovered in as afar as possible.

Corporate and Social responsibility and community activities post Covid include St Patricks day parade, Clean Coasts initiative. Community sponsorship of the Peoples path/ recreational facility.

The IEL is managed locally at the station. There is and Environmental management programme that is reviewed annually by station management and reviewed quarterly by the environmental management group. In addition, on a quarterly basis, Environmental KPIs are reported centrally to the ESB Group.

ESB Aghada staff did a foreshore litter pick in Summer 2023 retrieving waste plastic and washed-up waste from Cork harbour.

ESB Aghada acquired another electric vehicle to add to its station fleet & installed Also installed *extra electric car charge points.*

ESB Aghada changed the lighting on site to LEDs in turbine hall and workshop.

ESB Aghada planted trees around the boundary of of the BESS 2 site in plots of land 700 square meters – 13.4m x 52.3m & 350 square meters –9.5m x 40.6m. The project planted Oak, scots pine, Hazel' Corylus avellana, Hawthorn, Crategus monogyna, Blackthorn' Prunus spinosa, Elder, Sambucus nigra, Crab apple, Malus sylvestris as well as Honeysuckle & Holly.