



Annual Environmental Report (AER) 2023

Company Name: ESB West Offaly Power

Licence Number: P0611-02

Address: ESB West Offaly Power, Cloniffeen,
Shannonbridge, Co. Offaly

Class of Activity¹: 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 activities² 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 documents³ 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

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Glossary

Abatement Equipment	Technology used to reduce pollution
AER	Annual Environmental Report.
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, Jim Luntley, Environmental Coordinator for West Offaly Power, 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.

West Offaly Power is a 152 MW power station that generated electricity by combusting peat and biomass. The station was permanently closed on 11th December 2020 and did not generate electricity in 2023. There were no minor environmental incidents and 0 complaints received in 2023.

Contact Us

If you have any questions or would like further information on any aspect of this report, please contact us directly.

See below details:

West Offaly Power
Cloniffeen
Shannonbridge
Co. Offaly

2) How we Manage our Facility

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
Water – Termination of station usage	Q4 2022	100%
Ash Disposal Facility – Implement closure plans	Q4 2023	100%
Ash Disposal Facility – Commence Integrated Constructed Wetlands	Q4 2024	10%

Add rows as necessary

Comment

Mains water to the site was disconnected in 2022.
 Closure of the Ash Disposal Facility was completed in Q4 of 2023. All ash cells are now capped.
 The ICW project is scheduled to commence in spring of 2024 and be substantially completed by Q4 of 2024. Preparation works have commenced in the form of vegetation clearance from the site.

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 2 Energy Used

Energy Used (GJ)	Quantity	% Increase/ decrease on previous year
Electricity	0	-100%
Heavy Fuel Oil	0	No change
Light Fuel Oil	0	No Change
Natural Gas	0	No change
Coal / Solid Fuel	0	No change
Peat	0	No Change
Renewable Biomass	0	No Change
Renewable Energy Generated On-site	0	No change
Total Energy Used	0	-100%

Comment

The only energy usage at West Offaly Power (WOP) in 2023 was electrical consumption required to provide power to essential site systems such as IT, security and minor items of plant. The feed for the site power is from the

adjacent Dalton Centre building. As such, WOP has consumed no direct electricity for the station itself.

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

Table 3 Energy Generated

Energy Generated (GJ)	Quantity (GJ)	% Increase/ decrease on previous year
Energy	0	N/A
Renewable Energy	0	N/A
Total Energy Generated	0	N/A

Comment

No energy was generated at West Offaly Power in 2023 as the power station closed.

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 4 Water Used

Source of Water Used	Quantity (m³/year)	% Increase/ decrease on previous year
Groundwater	0	No change
Surface Water	0	No Change
Public Supply	0	-100%
Recycled Water	0	No change
Rainwater	0	No change
Total Water Used	0	-100%

Comment

There was no requirement for surface water (from the River Shannon) for use at West Offaly Power in 2023 due to the station closure.
A 100% reduction in usage from the public supply was achieved due to lower occupancy levels on site in 2023 and the water main being disconnected.

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 us⁴ directly. You can also contact the EPA⁵ 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 5 Summary of All Environmental Complaints Received in 2023

Type of Complaint	Number of Complaints Received	Number Closed
Odour / Smells	0	
Noise	0	
Dust	0	
Water Quality	0	
Air Quality	0	
Waste	0	
Litter	0	
Vermin/Flies/Birds	0	
Soil Contamination	0	
Vibration	0	
Other	0	

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

There were no complaints received for West Offaly Power in 2023.

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 6 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					
Odour					
Spillage					
Breach of trigger Level					
Uncontrolled Release					
Other					

Comment

There were no environmental incidents recorded in 2023.

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 EPA⁶.

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. car parks, 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;

There is a settlement pond on site that holds stormwater prior to its release to the River Shannon. There are weekly visual checks completed on the settlement pond to ensure there is no contamination of the water present.

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

The River Shannon

Table 7 Summary of Storm Water Monitoring

Parameter measured	No. of Samples	% Compliant ⁷	Comment
PS-SW6 & PS-SW7 pH	12 (Monthly)	95.8%	No level at SW7 in June 2023
PS-SW6 & PS-SW7 Conductivity	12 (Monthly)	95.8%	No level at SW7 in June 2023
PS-SW6 & PS-SW7 Suspended Solids	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 COD	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 Ammonia	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 Nitrogen	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 Total Dissolved Solids	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 Mineral oil	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 Oils, fats and greases	4 (Quarterly)	100%	
PS-SW6 & PS-SW7 Visual Inspection	52 (Weekly)	100%	

Add rows as necessary.

Comment

West Offaly Power was 98.7% compliant in 2023 on parameter limits on storm water emission as outlined by the IE licence P0611-02. Two samples were unobtainable at SW7 in June 2023 due to no level at the sampling point.

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.

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;

There is a neutralisation sump under the water treatment plant on site, process waste-water is directed into this sump before discharge to the River Shannon. The process water is treated by alkaline or acid depending on the pH level of the sump, there is a maximum allowable daily limit of 300m³ that can be discharged with a maximum allowable flow rate of 50m³/hr. Foul waste water is treated in a puraflo w peat treatment cell before passing out to the surface water drainage network.

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

The River Shannon

Table 8 Summary of Waste-Water Monitoring

Parameter measured	No. of Samples	% Compliant	Comment
PS-SW3 Flow	Continuous	N/A	
PS-SW3 BOD	4 (Quarterly)	N/A	
PS-SW3 Temperature	4 (Quarterly)	N/A	
PS-SW3 Suspended Solids	4 (Quarterly)	N/A	

Add rows as necessary

Comment

PS-SW3 has been removed from the WOP site due to the construction of the Shannonbridge Temporary Emergency Generation installation.

PS-SW5 is the process water discharge point, the last discharge took place 11th February 2021 in line with IE licence emission limit values.

Since then both discharge points have been removed as monitoring locations as there has been no more process water nor foul water discharges taking place following the closure of West Offaly Power.

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 ambient dust levels from the following number of sampling points at our facility.

DM01, DM02, DM03, DM04

Table 9 Summary of Air Emissions Monitoring

Parameter measured	No. of Samples	% Compliant	Comment
DM01 Particles (mg/m ²)	12 (Monthly)	100%	
DM02 Particles (mg/m ²)	12 (Monthly)	100%	
DM03 Particles (mg/m ²)	12 (Monthly)	100%	
DM04 Particles (mg/m ²)	12 (Monthly)	100%	

Add rows as necessary

Comment

Air emission points PS-A1 and PS-A2 were removed as monitoring locations due to zero air emissions on site in 2021 from the closure of West Offaly Power.

Dust sampling has been removed from IE licence P0611-02 as there has been no air emissions at West Offaly Power since its closure.

Table 10 Summary of Odour Assessments Carried Out

Assessment Conducted By	No. of Odour Assessments	% Compliant⁸	Comment
Licence Holder	0	NA	
EPA	0	NA	

Add rows where necessary

Comment

There is no requirement to complete odour assessments at West Offaly Power.

⁸ A compliant odour assessment is based on EPA Odour Impact Assessment Guidance available at <http://www.epa.ie/pubs/advice/air/emissions/ag5-odourassessment.html>

Fugitive Solvent Emissions

Are you are 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) Regulations⁹. 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 11 Summary of Fugitive Solvent Emissions

Quantity of Solvents Used (Kg)	% Fugitive Solvent Emissions	Compliant
Not Applicable		

Comment

N/A

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 12 List of Groundwater Pollutants Identified

Pollutants
N/A

Add rows as necessary

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

N/A

Comment

N/A

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:

Noise monitoring was not carried out on site this year. A noise monitoring exemption request was approved (See LR062354) by the EPA due to the power station closure in December 2020.

2. Was the noise monitoring carried out at:

- i. the boundary of our facility,
- ii. noise sensitive locations off-site, or
- iii. both?

N/A

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?

N/A

Comment

N/A

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 13 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 13 Waste Generated

Type	Quantity (Tonnes)	% Increase/ decrease on previous year	% Recovery
Hazardous	569.54	+100%	
Non-Hazardous	53,306.73	+106,613,360%	
Inert	257.04	+100%	
Total Tonnes	54,133.31	+108,266,520%	

Comment

There was a significant increase in waste in 2023 due to the construction of Shannonbridge Temporary Emergency Generation plant within the West Offaly Power licence boundary.

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 14 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 14 Waste Accepted

Type	Quantity (Tonnes)	% Increase/ decrease on previous year	% Recovery
Hazardous	0	No change	
Non-Hazardous	0	No change	
Inert	0	-100%	
Total Tonnes	0	-100%	

Comment

As the power station closed in December 2020, there was no inert waste accepted into at the Ash Disposal Facility in 2023.

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 facility¹⁰ 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?

2020

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

2013

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?

Yes

No

N/A

¹⁰ See Appendix II

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 <http://www.epa.ie/pubs/advice/aerprtr/aerguid/>

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.

<http://www.epa.ie/pubs/advice/licensee/fp/epaapproachtoenvironmentalliabilitiesandfinancialprovision.html>