THIRD PARTY OBSERVATION — PA07.324113

Cashla Peaker Plant, Rathmorrissy, Athenry, Co. Galway — Veterinary Observation

Submitted by: Kelly Veterinary Clinic

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Membership: Veterinary Council of Ireland, membership number: 70/07

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Planning Reference: PA07.324113 — Deadline: 5:00 PM Friday 24 April 2026

Dear Members of An Coimisiún Pleanála,

Kelly Veterinary Clinic submits this formal observation in our professional capacity as the primary veterinary practice serving Athenry and the surrounding agricultural and rural community of East Galway. We are members of the Veterinary Council of Ireland. We operate a 24-hour emergency service from Old Church Street, Athenry, serving thousands of farm animals, companion animals, and equine patients across the townlands immediately surrounding the proposed development site.

We make farm calls across the road network that will be affected by this development. We treat the animals of the families who live in its emission footprint. We serve the organic and conventional farmers, the horse-owners, the pet-keeping families, and the wildlife habitats of the Athenry hinterland. We are not submitting as concerned residents. We are submitting as the qualified veterinary professionals who will see the clinical consequences of this decision in our patient population — and who will be treating those consequences on emergency call, 24 hours a day, for the next 25 years.

We formally object to the grant of planning permission for the proposed Cashla Peaker Plant at Rathmorrissy, Athenry, Planning Reference PA07.324113, and we request that An Coimisiún Pleanála refuse this application. Our grounds are set out below.

1. The EIAR Does Not Assess Animal Health

The applicant's Environmental Impact Assessment Report runs to 823 pages. In those 823 pages, there is no assessment of the impact of the proposed development on any animal — farm, equine, companion, or wildlife — as a sensitive receptor to air quality, noise, or artificial light. The human health chapter (EIAR Volume 2, Chapter 4) assesses residential receptors and construction workers. Farm holdings, livestock buildings, stables, and pet-owning households do not appear. No AERMOD air quality receptor has been placed at any farm, any barn, any stable, or any field in the study area.

This is a material omission in an EIAR for a combustion facility proposed in the middle of an active agricultural landscape, surrounded by certified organic farms, dairy operations, beef and suckler enterprises, equestrian properties, and the domestic animals of the rural community. The prevailing wind direction confirmed in the applicant's own EIAR (Volume 2, Chapter 7, p.374) is westerly to south-

westerly. The farms and homes of our clients sit directly in the downwind corridor. Their animals have been entirely overlooked.

> **An EIAR that acknowledges prevailing westerly winds carrying NOx and PM2.5 emissions across an agricultural landscape, and then fails to assess any agricultural receptor, is not a reliable environmental assessment. It is a gap that this Board cannot fill by inference.**

2. Farm Animal Health — The Peer-Reviewed Evidence

2.1 Cattle Mortality and NOx

Cox et al. (2016) conducted an epidemiological study of 87,108 cattle deaths in Belgium and found that a 10 $\mu g/m^3$ increase in same-day NO_2 was associated with a 9.2% increase in cattle mortality, with the effects of PM10 accumulating over a 26-day lag period. This means a single emission event from a peaker plant dispatch — a start-up, a full-load run, a shutdown — creates health consequences in a herd that persist for nearly a month after the event.

The proposed plant will emit NOx as a primary stack emission. The EIAR (Volume 2, Chapter 8, Section 8.7.2) confirms that there are no specific measures proposed to mitigate the operational emissions. The farms in our catchment area are in the downwind corridor of those unmitigated emissions for 25 years. The mortality risk documented by Cox et al. has never been assessed for any of them.

> ***Cox et al. (2016), Epidemiology, PMC5400059*** — 9.2% cattle mortality increase per 10 $\mu g/m^3$ NO_2; PM10 effects cumulate over 26-day period

2.2 Beef Cattle Performance

Bautista et al. (2024) demonstrated in a two-year study of beef steers that PM2.5 exposure significantly reduces feed intake, average daily gain, and body weight. For a suckler or beef farmer, a reduction in average daily gain translates directly into lighter calves at sale, lower prices per head, and a measurable loss of income per animal. In our professional experience, a consistent and unexplained drop in thrive across a beef enterprise is one of the most financially damaging and diagnostically challenging presentations we encounter. The EIAR has not assessed this risk for a single beef farm in the study area.

> ***Bautista et al. (2024), Frontiers in Veterinary Science, PMC10943418*** — PM2.5 significantly reduces beef cattle feed intake, average daily gain, and body weight

2.3 Barn Air Quality

A common misconception in planning assessments is that housed livestock are protected from outdoor air quality events. Nieckarz et al. (2023) recorded a near-perfect correlation ($r = +0.95$) between outdoor PM concentrations and particulate levels inside cattle housing. Cattle in winter housing are not sheltered from the air outside. They breathe it. When a peaker plant dispatches and PM2.5 rises in the field, it rises inside the barn too. There is no refuge.

Nieckarz et al. (2023), Scientific Reports, PMID 37391588 — r = +0.95 outdoor PM to barn PM; heavy metal content in animal products linked to ambient pollution

2.4 NO_2 Inhalation Toxicity

Cutlip (1966, Veterinary Pathology, 3(5)) documented that NO_2 inhalation in cattle causes methemoglobinaemia, pulmonary oedema, and in acute cases death. The MSD Veterinary Manual identifies NO_2 as a cause of atypical interstitial pneumonia in cattle — a condition experienced veterinarians will recognise as a serious and sometimes fatal presentation, particularly in young stock. A peaker plant does not emit steadily. It spikes hard at start-up and during part-load operation. These transient peaks are precisely the emission profile most likely to produce acute rather than chronic toxicity in housed or grazing cattle. The EIAR does not assess transient emission spikes for any agricultural receptor.

3. Equine Health — A Directly Documented Risk

Horses are among the most respiratory-sensitive large animals in veterinary practice. Inflammatory airway disease (IAD) and recurrent airway obstruction (heaves/RAO) are already among the most common conditions we treat in the equestrian properties of the Athenry area. The peer-reviewed literature now directly links ambient NO_2 and PM2.5 to lower airway inflammation in horses at concentrations typical of areas near combustion sources.

Brankston et al. (2020) conducted a case-crossover study of 154 horses presenting to veterinary practices in Ontario for respiratory evaluation. They found that a single unit increase in 3-week lagged weekly mean NO_2 was associated with a 24% greater risk of identifying increased lower airway granulocytes — a direct cellular marker of IAD. A single unit increase in 2-week lagged PM2.5 was associated with an 11% greater risk of the same outcome. These are not laboratory exposure studies with artificially elevated concentrations. They are real-world clinical presentations in horses exposed to ambient air pollution at levels directly comparable to what the proposed plant will produce.

Brankston et al. (2020), Frontiers in Veterinary Science, PMC7214617

> *"Single unit increases in 2- and 3-week lagged weekly mean PM2.5 and NO_2 were associated respectively with an 11% and 24% greater risk of identifying increased lower airway granulocytes. These findings suggest that exposure to increased ambient pollutants is associated with lower airway inflammation in horses."*

We have equestrian clients within the downwind corridor of the proposed plant. Their horses graze in open paddocks and are exercised outdoors. The EIAR has assessed no stable, no yard, and no equestrian property as a sensitive receptor. This is a clinical and professional failure in the EIAR that we are drawing to the Board's attention.

4. Companion Animals — Dogs, Cats, and the UK Evidence

In June 2025, the Proceedings of the National Academy of Sciences published the most comprehensive study to date on air pollution and companion animal health. Jarvis, Dechezleprêtre and Jha used five years of data from over seven million veterinary visits across the United Kingdom — drawn from the Small

Animal Veterinary Surveillance Network at the University of Liverpool — to analyse the relationship between ambient PM2.5 and vet attendance. Their finding was unambiguous: increases in PM2.5 are associated with significant increases in the number of vet visits for both cats and dogs. The conditions that most commonly flared up included cardiovascular disease, respiratory illness, and neurological problems. Existing conditions were generally exacerbated.

> ***Jarvis et al. (2025), PNAS, DOI 10.1073/pnas.2504553122*** — PM2.5 increases associated with significant rises in vet visits; conditions include cardiovascular, respiratory, and neurological presentations

A separate case-control study at the National Taiwan University Veterinary Hospital (Lin et al., 2018) found that cats living in households with PM2.5 above 35 μg/m³ were more than four times more likely to have respiratory disease than cats in acceptable air quality environments (OR = 4.13, 95% CI 1.12–15.27). The most common diagnoses were lower airway disease, upper airway disease, and pneumonia.

The pet-owning families of Athenry — those who live along the L3103, those whose children attend local schools, those whose farms adjoin the proposed development — bring their animals to us. Those animals will breathe the same air as their owners. A development operating until 2050 will affect every generation of pets owned by every family in the emission footprint. Not one of those animals has been assessed in the EIAR.

5. Wildlife Health and the Applicant's Own Ecological Data

The applicant's own breeding and wintering bird survey (Delichon Ecology, Appendix 5.1, 2025) records the following species using the site and its immediate environs: Snipe (Red-listed, BoCCI 2020–2026), Golden Plover (Annex I, EU Birds Directive / Red-listed, peak count of 46 individuals), Mallard, Moorhen, Swallow, Sand Martin, and House Martin. The survey identifies two circular groundwater-fed ponds approximately 260 metres west of the proposed access road as the most valuable wildlife habitat in the study area.

These are not background species. Snipe is Red-listed as a bird of high conservation concern in Ireland. Golden Plover at Annex I of the EU Birds Directive is afforded the highest level of legal protection in Europe. The applicant found 46 of them on this site. The survey was commissioned by the applicant, paid for by the applicant, and is part of the planning application. Having documented these birds and their habitat, the applicant has not assessed the impact of air quality, artificial light, or groundwater contamination on them.

Air pollution research (Elsen et al., 2021, PNAS) demonstrates that PM2.5 and ozone are associated with declines in bird abundance at the population level, with air quality improvements in the United States estimated to have averted the loss of approximately 1.5 billion birds over 40 years. La Sorte et al. (2022) specifically identified the combined hazard of artificial light at night and ambient PM2.5 for nocturnally migrating birds, noting that artificial light attracts birds into higher-concentration PM2.5 zones during migration — a dual exposure pathway of direct relevance to the Snipe and Golden Plover recorded at this site.

Delichon Ecology Bird Survey, Appendix 5.1 (applicant's own survey)

> *"Two circular ponds, most likely fed by groundwater, are located ca. 260m west/north-west of the proposed access road. These ponds and their margins provide the most suitable habitat for wintering birds within the study areas and environs."*

The proposed plant will operate with 2.4-metre security fencing, CCTV, access lighting, and gate controls (EIAR Volume 2, Chapter 2). It will be activated and lit during dispatch events, including overnight and evening events that coincide with the foraging and roosting hours of Snipe and Golden Plover. No artificial light impact assessment has been carried out for any wildlife species at or adjacent to the site. This is required under Irish planning guidance and CIEEM ecological assessment standards.

6. Agricultural Traffic, Emergency Access, and the L3103

Kelly Veterinary Clinic responds to emergencies across the Athenry hinterland 24 hours a day. Our vets use the L3103 to reach farms on the Pollnagroagh and Rathmorrissy townlands. This is the same road on which the applicant proposes to construct the main access to the Cashla Peaker Plant.

The EIAR (Volume 2, Chapter 10, Table 10-3, p.484) confirms that during construction, peak HGV traffic on the L3103 will reach 28 two-way trips per hour between 9:00 a.m. and 4:00 p.m. The EIAR (Volume 2, Chapter 4, p.254) confirms the road is "typically bordered by low walls and narrow grass verges" with no hard shoulder and no passing bays. The EIAR explicitly acknowledges that Coffey Civil Engineering — an existing industrial operation — is also accessed from the L3103 adjacent to the proposed project boundary (EIAR Volume 2, Chapter 4, p.192), meaning the baseline traffic is already significantly above the rural norm.

A veterinary vehicle responding to an emergency calving, a colicking horse, or a farm accident on this corridor is travelling under time pressure on a road that cannot safely accommodate two HGVs passing each other. Farm traffic — tractors, slurry tankers, silage equipment, livestock trailers — uses this road throughout the working day and in the early morning hours. The combination of 28 two-way HGV construction trips per hour, existing Coffey Construction industrial traffic, normal agricultural use, and a 24-hour emergency veterinary service represents a cumulative road safety conflict that the EIAR has not assessed.

> **There is no road safety assessment in the EIAR that addresses the interaction between the proposed HGV movements, existing agricultural traffic, and the 24-hour emergency access requirements of the farms in the surrounding area. For a veterinary practice that must reach patients without delay, this is not a planning abstraction. It is a clinical necessity.**

7. The One Health Principle — Animals as Environmental Sentinels

The One Health framework — formally adopted by the World Health Organisation, the Food and Agriculture Organisation, and the World Organisation for Animal Health (OIE) — recognises that human, animal, and environmental health are inseparable. Animals share the same air, water, and land as the human communities around them. Their health responses to environmental stressors are often the earliest measurable signal of harm that will, in time, be reflected in human health data.

Farm animals and companion animals have served as environmental sentinels throughout the history of industrial pollution. The cattle deaths in the Meuse Valley fog of 1930 preceded the human deaths by hours. The dogs of Mexico City with documented PM2.5-related brain abnormalities preceded the recognition of the same pathology in human children. In a modern planning context, the One Health principle requires that an EIAR for a combustion facility in an agricultural landscape must assess the health of the animals in that landscape. This EIAR has not done so.

We are the practitioners who will document what this development does to the animals in its footprint. We will see it in our clinical records. We will recognise the increase in respiratory presentations in cattle, the worsening of equine IAD, the feline lower airway disease in the cats of families living along the L3103, the decline in the wildlife that we and our farming clients observe across this landscape every day. We are telling An Coimisiún Pleanála now, before permission is granted, that the EIAR has not assessed these outcomes and that they are foreseeable, documented, and clinically serious.

8. Peer-Reviewed Evidence Summary

The following studies form the scientific basis for this objection. All are peer-reviewed, all are directly applicable to species in our client base, and none have been referenced or assessed in the EIAR.

Study	Species	Key Finding	Relevance to Kelly Vets Clients
Cox et al. (2016) PMC5400059	Cattle	9.2% mortality increase per 10 µg/m³ NO_2 increase; PM10 effects cumulate over 26 days	Directly applicable to all cattle farms in the emission footprint
Bautista et al. (2024) PMC10943418	Beef cattle	PM2.5 significantly reduces feed intake, average daily gain, and body weight	Directly applicable to beef and suckler farms in catchment
Nieckarz et al. (2023) PMID 37391588	Dairy cattle	r = +0.95 correlation between outdoor PM and barn PM; heavy metals in milk	Outdoor air quality = barn air quality for housed livestock
Brankston et al. (2020) PMC7214617	Horses	Each unit increase in 3-week lagged NO_2 associated with 24% greater risk of lower airway inflammation	Equine IAD and RAO — most common equine respiratory presentations in practice
Jarvis et al. (2025) PNAS DOI 10.1073/pnas.2504553122	Dogs & cats	PM2.5 increases associated with significant rises in vet visits; cardiovascular, respiratory, neurological	Every pet-owning household in the emission footprint
Lin et al. (2018) PMC5980393	Cats	PM2.5 >35 µg/m³ associated with 4× greater risk of feline respiratory disease (OR = 4.13)	Feline lower airway disease — an existing common presentation
Elsen et al. (2021) PNAS DOI 10.1073/pnas.2013568117	Wild birds	Air quality improvements averted loss of ~1.5 billion birds over 40 years; PM2.5 and ozone linked to population decline	Red-listed Snipe and Golden Plover recorded at site by applicant's own ecologist

9. What We Are Asking For

We formally object to the grant of planning permission for the proposed Cashla Peaker Plant, Planning Reference PA07.324113, and request that An Coimisiún Pleanála refuse this application.

If An Coimisiún Pleanála is minded to consider permission, we ask that no determination issue until:

- A full air quality assessment is conducted with AERMOD receptors placed at representative farm holdings, livestock buildings, equestrian facilities, and domestic properties within the downwind corridor, assessing NOx and PM2.5 impacts for both steady-state and transient (start-up, part-load) emission conditions
- A specific veterinary health impact assessment is provided by a suitably qualified animal health specialist, addressing the effects of the predicted emission profile on cattle, equine, and companion animal health across the study area
- An artificial light at night impact assessment is conducted for the Red-listed and Annex I bird species recorded by the applicant's own ecologist at the groundwater-fed ponds 260 metres from the access road boundary, in accordance with CIEEM and CMS International Light Pollution Guidelines
- A cumulative road safety assessment is conducted addressing the interaction between HGV construction traffic, existing agricultural traffic, farm machinery movements, and 24-hour emergency veterinary access on the L3103 and surrounding roads serving the Pollnagroagh and Rathmorrissy townlands
- A groundwater contamination pathway assessment is completed, including dye tracing from the development footprint to the groundwater-fed ponds identified as the primary wildlife habitat in the study area, before any permission is granted

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The animals in the catchment of this proposed development did not get a say in whether it is built beside their farms, their stables, and their homes. We are their veterinarians. This is our professional say. We are asking An Coimisiún Pleanála to protect them.

Yours faithfully,

Brendan Kelly, MVB.
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Old Church Street, Athenry, Co. Galway H65 X407
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