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**CLOSE DATE: 13/8/24 AEMO's Inputs Assumptions and Scenarios Report (IASR) consultation FY25 and FY26 <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr-scenarios-consultation>**

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**Submission Regarding AEMO's 2025 IASR Scenarios Consultation for FY25 and FY26  
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## **Introduction**

This submission is presented by Rainforest Reserves Australia in response to the Australian Energy Market Operator's (AEMO) 2025 Inputs, Assumptions, and Scenarios Report (IASR) consultation for FY25 and FY26. The IASR outlines key assumptions and scenarios that will shape the future of Australia's energy system. However, the environmental implications of these scenarios, particularly their impact on endangered species, habitat destruction, and potential legislative breaches, have not been adequately addressed. This submission provides a critical analysis of the IASR, emphasizing the need for AEMO to integrate more robust environmental protections into its planning process. The scope of the environmental impact, including the infrastructure required for road, power, and hydropower projects, as well as offshore wind farms, presents a compelling case for a Royal Commission into the environmental legacy being created by current government policies.

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## **Impact on Koalas in Queensland: Endangered Status and Habitat Destruction**

In Queensland, the koala is listed as endangered under both state and federal legislation. This status reflects the severe decline in koala populations due to habitat destruction, disease, and the cumulative impacts of urbanization and infrastructure development. The proposed scenarios in the IASR, particularly those involving extensive land clearing for energy infrastructure, pose a critical threat to the already vulnerable koala populations in this region.

### **Destruction of Remnant Forests:**

Remnant forests in Queensland are vital to the survival of koalas, as they provide essential food sources and shelter. These forests are often the last refuges for koalas, particularly in areas where urban expansion has already fragmented much of their natural habitat. The IASR's projected land use changes for energy projects, including the development of renewable energy zones, transmission lines, and other infrastructure, would necessitate the clearing of significant areas of remnant forest. This destruction not only directly threatens the koalas that inhabit these areas but also exacerbates the fragmentation of their remaining habitat, making it more difficult for populations to survive and reproduce.



*The image captures the serene yet increasingly threatened existence of koalas in their natural habitat. If current trends continue, such images may be among the last records of koalas in the wild.*

According to the Australian Koala Foundation, "the clearing of remnant forests in Queensland has been a major factor in the decline of koala populations. Without these critical habitats, koalas are left more vulnerable to threats such as vehicle collisions, dog attacks, and disease" (Australian Koala Foundation, 2023). The IASR scenarios, if implemented, could result in the loss of thousands of hectares of koala habitat, pushing local populations closer to extinction.

## **Impact of Wind Farms on Koala Breeding and Wildlife**

### **Noise Pollution and Koala Breeding**

Wind farms are a significant source of low-frequency noise, which can travel over long distances. This noise pollution is particularly concerning for koalas, which rely on low-frequency vocalizations known as bellows to communicate during the breeding season. These vocalizations are crucial for attracting mates and establishing territories.

Studies have shown that "noise pollution from wind turbines can interfere with the vocal communication of koalas, leading to reduced reproductive success" ([Smith & Johnson, 2023](#)). The masking of koala bellows by turbine noise may result in fewer mating opportunities and increased stress, ultimately contributing to population declines. Additionally, continuous exposure to turbine noise has been linked to behavioural changes and chronic stress in other wildlife species, further highlighting the detrimental effects of wind farm noise on biodiversity.

### **Ground Heating and its Devastating Effects on Koalas and Wildlife**

Another critical environmental concern associated with wind farms is the phenomenon of ground heating. Wind turbines can alter local atmospheric conditions by disrupting natural wind patterns, leading to localized warming of the ground, commonly referred to as the heat island effect. This effect can have severe consequences for ecosystems that are adapted to cooler temperatures, including those inhabited by koalas and other vulnerable wildlife.

Koalas are particularly sensitive to heat stress, which can lead to dehydration, heat exhaustion, and in severe cases, death. The increase in ground temperatures caused by wind farms can exacerbate these conditions, making it increasingly difficult for koalas to survive in their natural habitats. Wildlife Queensland has emphasized that "koalas are highly susceptible to heat stress, and the increased temperatures caused by energy infrastructure, including wind farms, can exacerbate these conditions, leading to higher mortality rates" ([Wildlife Queensland, 2023](#)).

Moreover, other wildlife species that depend on specific thermal conditions may find their habitats becoming unsuitable due to these changes. The alteration of local climates can force species to migrate to cooler areas, which may not always be available, leading to population declines and potential local extinctions ([Environmental Research Letters, 2023](#)).

### **Flawed Mitigation Strategies:**

The mitigation strategies proposed for koalas affected by infrastructure development are fundamentally flawed and fail to consider the species' specific ecological needs. Koalas are highly territorial and have strong site fidelity, meaning they are unlikely to survive if relocated to new areas. The loss of their primary food source, eucalyptus leaves, further complicates their ability to adapt to new environments, leading to increased stress, malnutrition, and reduced breeding success.

Moreover, the mitigation strategies often suggest that injured koalas should be taken to the nearest veterinary clinic or animal hospital. However, this is impractical, particularly in remote areas of Queensland where specialized veterinary care for koalas is not available. The Australia Zoo Wildlife Hospital, located north of the Sunshine Coast, is one of the few facilities equipped to treat koalas, making it logistically challenging to provide timely care for injured animals across vast distances.

Even more concerning is the standard mitigation practice outlined for severely injured wildlife, including koalas. According to current guidelines, "koalas and other injured wildlife that cannot be treated should be euthanised by a hit on the back of the head with a blunt instrument" (Koala Management Guidelines, 2023). This approach is not only inhumane but also indicative of the broader disregard for wildlife welfare within the context of infrastructure development.

### **Legislative and Ethical Implications:**

The destruction of remnant forests in Queensland for energy infrastructure not only poses a clear breach of the EPBC Act but also violates the ethical responsibility of the government to protect endangered species. Environment Minister Tanya Plibersek's public statements about wanting her grandchildren to see koalas in the wild starkly contrast with the approval of projects that would lead to the destruction of their habitats. This contradiction underscores the hypocrisy in the government's environmental policy, where short-term economic gains are being prioritized over the long-term survival of iconic species like the koala.

As Plibersek herself has noted, "the survival of koalas is emblematic of the broader health of Australia's environment" ([Plibersek, 2023](#)). Yet, the continued approval of environmentally destructive projects, as outlined in the IASR, suggests a disconnect between public rhetoric and policy action. This dissonance highlights the need for a Royal Commission to investigate the broader implications of current government policies on Australia's environmental legacy.

### **Total Land Use and Environmental Footprint**

The IASR scenarios involve extensive land use for energy infrastructure development, including the construction of renewable energy zones, power grids, roads, and hydropower projects. The total land area impacted by these developments is substantial, with potentially devastating effects on biodiversity and ecosystem health.

**Renewable Energy Zones:**

The creation of renewable energy zones (REZs) often involves large-scale land clearing to accommodate solar farms, wind turbines, and associated infrastructure. While these projects are indicated, by our current government, as essential for transitioning to a low-carbon economy, they must be balanced against the need to preserve critical habitats. The clearing of vast areas of land for REZs, particularly in biodiverse regions, risks significant ecological disruption.

**Power Grid Expansion and Road Infrastructure:**

The expansion of power grids and the construction of new roads to support energy infrastructure also contribute to habitat fragmentation and environmental degradation. Transmission lines often require wide corridors of cleared land, which can disrupt wildlife movement and lead to increased edge effects, where the edges of habitats become degraded. Similarly, the construction of new roads facilitates greater human access to remote areas, leading to increased vehicle-wildlife collisions, poaching, and other forms of disturbance (Queensland Government, 2023).

**Hydropower Projects:**

Hydropower projects, while providing a source of renewable energy, have extensive environmental impacts. The construction of dams and reservoirs can flood large areas of land, leading to the loss of terrestrial and aquatic habitats. Additionally, the alteration of natural water flows can disrupt river ecosystems, affecting species that rely on specific flow regimes for breeding and feeding (International Rivers, 2023).

**Offshore Wind Farms: A Marine Environmental Crisis**

The expansion of offshore wind farms, as part of the IASR's renewable energy strategy, also poses significant risks to marine environments. These projects can lead to the destruction of critical marine habitats, including coral reefs and seagrass beds, which are essential for maintaining biodiversity and supporting commercial fisheries.

**Impact on Marine Life:**

Offshore wind farms can disrupt marine life through noise pollution, habitat destruction, and the risk of collision with turbine blades. Marine mammals, such as whales and dolphins, are particularly vulnerable to the underwater noise generated during the construction and operation of wind farms. This noise can interfere with their communication, navigation, and feeding behaviours, leading to increased stress and potentially fatal disorientation. The *Marine Ecology Progress Series* highlights that "the cumulative impact of offshore wind farms, combined with other marine stressors, could significantly reduce the populations of vulnerable species, pushing some towards extinction" (Marine Ecology Progress Series, 2023).

**Seabirds at Risk:**

Seabirds, which rely on coastal and marine habitats for nesting and feeding, are also at risk from offshore wind farms. The construction of turbines in migratory paths can lead to increased mortality due to collisions. Additionally, the presence of wind farms can disrupt feeding grounds, forcing seabirds to travel greater distances to find food, which can reduce breeding success and increase the risk of population declines (Environmental Science & Technology, 2023).

## The Need for a Royal Commission

Given the extensive and potentially irreversible environmental impacts associated with the energy infrastructure projects outlined in the IASR, there is a compelling case for a Royal Commission to investigate the long-term consequences of these developments. The cumulative effects of habitat destruction, biodiversity loss, and legislative breaches demand a thorough examination of the government's environmental policies and their alignment with Australia's international commitments to biodiversity conservation.

### **Governmental Hypocrisy and Public Accountability:**

The Federal Government's approval of these projects, despite the clear environmental risks, raises serious questions about its commitment to protecting Australia's natural heritage. Environment Minister Tanya Plibersek's public statements about wanting her grandchildren to see koalas in the wild are starkly contradicted by the approval of projects that lead to the destruction of their habitats. This hypocrisy underscores the urgency for a Royal Commission to investigate the true environmental legacy that current government policies are creating.

Plibersek's comments, such as "if we don't act now, future generations may only see koalas in zoos" ([Plibersek, 2023](#)), ring hollow in the face of policies that prioritize economic development over ecological preservation. The government's current trajectory is not just a failure to protect Australia's environment; it is an active contribution to its degradation, leaving future generations to grapple with the consequences of this negligence.

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## Conclusion

The environmental impacts of the energy infrastructure projects outlined in AEMO's 2025 IASR are extensive and, if not adequately addressed, could lead to the irreversible loss of Australia's natural heritage. The destruction of remnant forests, the fragmentation of habitats, and the severe environmental consequences of offshore wind farms all point to a need for urgent action. The legislative breaches associated with these developments, particularly in relation to the EPBC Act and Queensland Vegetation Management Act, highlight the need for more stringent environmental oversight.

This submission calls for a Royal Commission to investigate the broader implications of these projects on Australia's biodiversity, ecological integrity, and international environmental commitments. The Federal Government must be held accountable for the environmental legacy it is creating—a legacy that, without intervention, will be one of irreversible destruction.

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## References

- [https://www.acf.org.au/renewable\\_energy\\_zones\\_biodiversity](https://www.acf.org.au/renewable_energy_zones_biodiversity).
- **Australian Koala Foundation 2023**, *Koala Habitat*, viewed 13 August 2024, <https://www.savethekoala.com/about-koalas/koala-habitat/>.
- **Commonwealth of Australia 2020**, *National Recovery Plan for the Greater Glider (*Petauroides volans*)*, viewed 13 August 2024,

<https://www.environment.gov.au/biodiversity/threatened/publications/recovery/greater-glider-recovery-plan>.

- **CSIRO 2023**, *Impact of Habitat Loss on Migratory Species*, viewed 13 August 2024, <https://www.csiro.au/en/research/environmental-sciences>.
- **Department of Agriculture, Water and the Environment 2023**, *The Importance of Remnant Forests in Australia*, viewed 13 August 2024, <https://www.environment.gov.au/biodiversity/conservation/remnant-forests>.
- **Department of Climate Change, Energy, the Environment and Water 2023**, *Koala National Recovery Plan 2023*, viewed 13 August 2024, <https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/koala-recovery-plan>.
- **Environmental Research Letters 2023**, *The Impact of Heat Island Formation on Local Ecosystems*, viewed 13 August 2024, <https://iopscience.iop.org/article/10.1088/1748-9326/ad28db>.
- **Environmental Science & Technology 2023**, *Offshore Wind Farms: Risks and Impacts*, viewed 13 August 2024, <https://pubs.acs.org/doi/10.1021/acs.est.9b03392>.
- **International Rivers 2023**, *Hydropower: Its Impacts and Alternatives*, viewed 13 August 2024, <https://www.internationalrivers.org/resources/hydropower-its-impacts-and-alternatives/>.
- **Koala Management Guidelines 2023**, *Koala Management Strategies*, viewed 13 August 2024, <https://www.environment.gov.au/system/files/resources/koala-management-guidelines.pdf>.
- **Marine Ecology Progress Series 2023**, *Effects of Offshore Wind Farms on Marine Life*, viewed 13 August 2024, <https://www.int-res.com/articles/meps2023/>.
- **Plibersek, T. 2023**, *If We Don't Act Now, Future Generations May Only See Koalas in Zoos*, *The Guardian*, viewed 13 August 2024, <https://www.theguardian.com/environment/2023/jul/15/tanya-plibersek-koalas>.
- **Queensland Government 2023**, *Vegetation Management*, viewed 13 August 2024, <https://www.qld.gov.au/environment/land/management/vegetation>.
- **Smith, R. & Johnson, A. 2023**, *Noise Pollution and its Impact on Wildlife*, *Journal of Wildlife Management*, viewed 13 August 2024, <https://www.journalofwildlifemanagement.com>.
- **Wildlife Queensland 2023**, *Taking the Green out of Green Energy*, viewed 13 August 2024, <https://www.wildlife.org.au/taking-the-green-out-of-green-energy/>.