

# Environmental AI Governance and Reporting Framework

Type: Framework

Target Audience: Sustainability Officers, AI Platform Teams, ESG Reporting

This framework provides a structure for tracking, mitigating, and reporting the environmental impact of AI operations. Align AI development with organizational sustainability commitments.

## 1. Environmental AI Policy

Establish organizational commitments and targets for sustainable AI development.

### Policy Commitments

- Set annual AI carbon footprint reduction target (e.g., 10% YoY)
- Require environmental impact assessment for new AI projects
- Establish energy efficiency standards for model training
- Commit to renewable energy for AI compute where available
- Include AI environmental metrics in ESG reporting

## 2. Procurement Standards

Sustainability criteria for selecting cloud and AI vendors.

Criterion	Requirement	Weight
Renewable Energy	Vendor commits to 100% renewable energy	High
Carbon Reporting	Vendor provides carbon usage reports	High
PUE Rating	Data center PUE < 1.4	Medium
Water Usage	Water usage effectiveness (WUE) disclosed	Medium
E-waste Policy	Responsible hardware disposal program	Low
Carbon Offsets	Credible offset program (if not carbon-free)	Low

- Include sustainability criteria in AI vendor RFPs
- Prefer vendors with science-based emissions targets
- Request carbon impact data before major AI procurements

## 3. Development Standards

Efficiency requirements for new models and "right-sizing" justifications.

## **Efficiency Requirements**

- Document compute budget before training begins
- Require justification for model size (why not smaller?)
- Evaluate smaller/distilled models before large model training
- Use efficient training techniques (mixed precision, checkpointing)
- Set maximum training run duration limits

## **Right-Sizing Checklist**

- Can the task be accomplished with a smaller model?
- Has model quantization been evaluated?
- Is caching/batching optimized for inference?

## 4. Environmental Metric Reporting

Track and report key environmental metrics for AI operations.

Metric	Unit	Current	Target	Notes
Training Energy	kWh			Per model/project
Inference Energy	kWh/month			Production systems
Carbon Emissions	kg CO2e			Scope 2 + Scope 3
Water Usage	Liters			Data center cooling
GPU Utilization	%			Target: >70%
Model Count	Number			Active in production

### Reporting Cadence

- Monthly: Track training and inference energy consumption
- Quarterly: Report AI carbon footprint to sustainability team
- Annually: Include AI environmental impact in ESG disclosures

## 5. Optimization Review Process

Regular processes for retiring unnecessary models and consolidating deployments.

### Quarterly Review Checklist

- Identify models with <10% utilization for retirement review
- Evaluate consolidation of similar models
- Review inference optimization opportunities
- Assess model compression/quantization for production models
- Review and terminate unused development environments

### Model Retirement Criteria

- Utilization below threshold for 3+ months
- Superseded by more efficient model
- Business use case no longer active

Reporting Period: \_\_\_\_\_ to \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_