NuEnergy AI Sovereignty Assessment Framework

White paper: Public Contribution under CC BY-NC-SA 4.0
 Version 0.3 – September 15 2025

1. Purpose

This white paper outlines NuEnergy.ai's (NewEnergy Community Inc) contribution to the Canadian AI Sovereignty & Innovation Cluster (CAISIC) by openly sharing selected components of its AI Sovereignty Assessment Framework under the **Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)** license.

Our aim is to foster transparency, collaboration, and public-interest innovation in the field of AI governance and sovereignty measurement.

2. Why AI Sovereignty Matters

As artificial intelligence becomes deeply embedded in national infrastructure, healthcare, finance, education, and public services, the need for **AI sovereignty**—the ability for nations, organizations, and institutions to autonomously govern and control AI systems—is urgent and growing.

Without sovereignty, AI systems may:

- Operate in legal gray zones beyond national jurisdiction

- Depend on external infrastructure, creating foreign control dependencies

- Present risks like algorithmic bias, lack of explainability, and security vulnerabilities

NuEnergy believes advancing AI sovereignty is essential for:

- **Protecting national values and data**

- **Promoting ethical and accountable AI use**

- **Building trusted digital ecosystems**

Our contribution aims to empower organizations to evaluate their current standing and take actionable steps toward AI self-determination.

3. Components Shared Under CC BY-NC-SA License

The following materials are released as open resources:

AI Sovereignty Questions

A curated set of high-level questions designed to assess AI use cases and deployments across **four critical sovereignty dimensions**, pillars, layers or "stacks":

- **Business Stack**: Focused on legal incorporation, Canadian control, alignment with domestic laws, and board or investment influence.

- **Tech Stack**: Addresses infrastructure hosting, data localization, access control, and security measures within Canadian jurisdiction.

- **Lifecycle Stack**: Evaluates who develops, trains, and operates the AI, including IP ownership, explainability, development and usage control.

- **Governance and Mitigation Stack**: Covers regulatory compliance, mitigation strategy, oversight bodies, ethics policies, and alignment with national AI strategies.

These questions help organizations evaluate their overall sovereignty posture.

Configurable Sub-Questions

Each sovereignty question is supported by detailed configurable sub-questions to:

- Assess mitigation strategies

- Quantify jurisdictional risk

- Evaluate resilience and oversight

- Clarify domestic versus foreign involvement

- Identify regulatory or external exposure

These deepen and refine the assessment process.

Rubrics

We are also sharing rubrics that help organizations categorize their sovereignty readiness quantitatively. While configurable, these rubrics enable consistency in assessments and allow benchmarking over time.

4. License Summary

5. Attribution

For inquiries or collaborations, contact:
 info@nuenergy.ai
 https://nuenergy.ai

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