

EFU GOVERNMENT EFFICIENCY LICENCE v1.0

Public Administration Biophysical Efficiency Audit Standard

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0. Overview

The **EFU Government Efficiency Licence (EFU-GOV)** is an experimental biophysical audit framework for evaluating public administrations, including central and local governments and state agencies.

- **Purpose:** Focuses on measuring physical footprint and decision-making entropy, instead of traditional financial audits.
 - **Key question:** Does an agency consume more than it generates?
 - **Answer:** The EFU-GOV metric provides an objective measure.
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1. Normative references

This is an EFU-specific standard. Currently, there are no mandatory references. Future **EFU Core Methodology** documents may be cited here if available.

2. Terms and definitions

Term	Definition
EFU (Equivalent Flux Unit)	Biophysical unit representing human impact on Earth system functions.
EFU-GOV vector	Institution-specific components: EFU_P, EFU_E, EFU_M, EFU_T, EFU_D. Represents annual metabolic impact.
TEFU_GOV	Weighted sum of the vector components: $TEFU_GOV = 1.1 \times EFU_P + 1.3 \times EFU_E + 1.2 \times EFU_M + 1.0 \times EFU_T + 2.5 \times EFU_D$
Decision Entropy (EFU_D)	Energy loss due to administrative delays: $EFU_D \propto (Delay \times Case\ Volume) / Administrative\ Capacity$
RGCC_GOV	Regional Government Carrying Capacity – biophysically sustainable EFU allocation for public administration

Term	Definition
SS_GOV	Government Sovereignty Gap: $SS_GOV = TEFU_GOV_total - RGCC_GOV$
MROI_GOV	Metabolic ROI: $MROI_GOV = (\text{Public Service Accessibility} \times \text{Legal Certainty}) / TEFU_GOV$
Institutional parasitism	Condition where $TEFU_GOV$ persistently exceeds $RGCC_GOV$ and $MROI_GOV$ falls below threshold.

3. EFU-GOV Methodology

3.1 Vector components

Component	Definition
EFU_P	Paper & logistics – administrative waste, mailings, printing
EFU_E	Office energy – energy consumption of IT systems, servers, and buildings
EFU_M	Hardware & fleet – vehicle and equipment amortization
EFU_T	Travel & inspection – kinetic energy of official movement and site visits
EFU_D	Decision entropy – metabolic overhead caused by backlog and delays

3.2 Master formula (Word-friendly)

$$TEFU_GOV = 1.1 \times EFU_P + 1.3 \times EFU_E + 1.2 \times EFU_M + 1.0 \times EFU_T + 2.5 \times EFU_D$$

- **Weighting:** Decision entropy has the highest weight – delays cause the largest societal energy loss.
- **Normalization options:** per 1,000 inhabitants, per FTE staff, or per 10,000 cases.
- **Measurement period:** typically 1 calendar year.

4. Strategic indicators

Indicator	Definition	Interpretation
SS_GOV	$TEFU_GOV_total - RGCC_GOV$	$\leq 0 \rightarrow \text{SOVEREIGN}; > 0 \rightarrow \text{overshoot}$
MROI_GOV	$(\text{Public Service Accessibility} \times \text{Legal Certainty}) / TEFU_GOV$	$< 1.0e-3 \rightarrow \text{the agency consumes more societal energy than it protects}$

5. Licence levels

Level	SS_GOV	MROI_GOV	Label	Interpretation	Color
1	≤ 0	$\geq 1e-2$	EFU-GOV SOVEREIGN	Optimized e-government	<input type="checkbox"/> Green
2	$0 < SS \leq 15,000$	$\geq 5e-3$	EFU-GOV BALANCED	Hybrid digital-analog systems	<input type="checkbox"/> Yellow
3	$15,000 < SS \leq 75,000$	$\geq 1e-3$	EFU-GOV DEFICIT	Significant bureaucratic friction	<input type="checkbox"/> Orange
4	$> 75,000$	$< 1e-3$	EFU-GOV CRITICAL	Institutional parasitism / systemic crisis	<input type="checkbox"/> Red

Benchmark examples:

- **e-Estonia:** High digital adoption, low EFU_D → **SOVEREIGN**
 - **Centralized Legacy Admin:** High EFU_P + delays EFU_D → **CRITICAL**
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6. Data sources & Applications

6.1 Data sources

- **Tier 1:** Direct measurement – energy bills, paper usage, GPS fleet data, meters
- **Tier 2:** System logs – case management, days/deadline ratios, digital service adoption rates

6.2 Use cases

- Procurement reform audits
- Public sector downsizing analysis
- Digital transition benchmarking
- Cross-country governance comparison

6.3 Licence terms

- **Permitted:** self-audits, independent audits, academic benchmarking, public dashboards
- **Required attribution:**

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- **Prohibited:** greenwashing, data suppression, misuse of SOVEREIGN/BALANCED labels
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7. Informative Annex A – Pilot Audit Example

BUDAPEST MUNICIPAL ADMIN – 2026

Component Value (EFU)

EFU_P 450

EFU_E 1200

EFU_M 380

EFU_T 250

EFU_D 1800

TEFU_GOV 5125

RGCC_GOV 4200

SS_GOV 925 (>0)

MROI_GOV 4.2e-3

Level: EFU-GOV DEFICIT (Level 3)

Recommendations:

- Accelerate case digitization (reduce EFU_D)
 - Consolidate office space (reduce EFU_E)
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