



INFRAWATTS DECISION OPS

InfraWatts decision audit

Executive readout: decision, risk, confidence and controlled execution.

GLOBAL DECISION

Controlled validation required

Infrastructure is structurally underused, but peak validation, business arbitration and operational prerequisites are required.

MATURITY

consolidated / high

168.0 h (consolidated)

ESTIMATED IMPACT

Not demonstrated by available cost data.

Only when sources are available

Reference	SYNTHETIC-EXAMPLE
Detected period	168.0 h (consolidated)
Generated on	12/10/2026 21:00
Environment	example-vm-001
Client	InfraWatts — Example

GENERAL CONTEXT

Consultant context: 1 probe(s) analyzed over 168 h (example-vm-001). The profile shows 22.0% average CPU and 41.0% average RAM: this is a prepare before action decision, not a passive observation.

GLOBAL DECISION

Decision	■ PREPARE
Reason	Infrastructure is structurally underused, but peak validation, business arbitration and operational prerequisites are required.
Main blocker	Complete memory history; memory projection usable. ; no strong memory pressure detected.
Next step	Prepare technical validation, FinOps/GreenOps arbitration, maintenance window, backup and rollback.



Why this is not an automatic GO

Positive signal	Positive signal: average CPU 22.0% and average RAM 41.0%; the host appears structurally underused.
Real blocker	Blocker: no significant peak is established (p95 42.0%, p99 62.0%, max 91.0%), but application prerequisites, maintenance window and rollback need validation. Complete memory history supports a memory projection.
Probable cause	Peaks appear linked to application runtime bursts. Observed workloads: api.
Why not GO	This is not automatic GO because business and operational gates remain open despite a technically favorable simulation.
Why not NO-GO	This is not NO_GO because average and/or p95 remain contained and available signals do not prove irreversible sustained saturation.
Preparation toward validated execution	• Identify the containers/processes responsible for peaks. • Check whether peaks match cron, Celery, backup, batch, CI/CD or maintenance. • Prepare snapshot/backup. • Execute outside critical hours. • Monitor p95/p99 for 24 to 72h. • Rollback if p95/p99 exceed validated thresholds.

Business / FinOps / GreenOps reading

Economic decision	Economic KEEP: keep current configuration — Keep the current configuration. No net cloud saving is demonstrated. Peak diagnostics are required before any action.
FinOps	No cloud saving is demonstrated.
Probes analyzed	1
example-vm-001 / example-vm-001	■ PREPARE

Executive opening

Decision: PREPARE. Policy: controlled execution permitted after prerequisite validation. Current state: Validation pending; next validation: maintenance window, backup/snapshot, rollback plan, workload and target price.

**Executive truth**

Main decision	Controlled validation required
Execution policy	Execution blocked until gates are validated
Automation level	Controlled automation after validation
Lifecycle	Validation pending
Primary blocker	Complete memory history; memory projection usable. ; no strong memory pressure detected.
Next validation	after maintenance window, backup/snapshot, rollback plan, workload and target price validation
Confidence	high / metrics high / remediation medium
Confidence explanation	Analysis high, metrics high, remediation medium.
Estimated avoided costs	Not demonstrated by available cost data.
Why safe	The recommendation is governed by human validation, rollback and monitoring.

Recommended final decision

Decision	KEEP
Immediate action	Keep the current instance.
Why	Average CPU/RAM are low, but CPU peaks must be diagnosed before any automatic rightsizing.
Condition before action	Workload identified, backup/snapshot, rollback, maintenance window and 72h supervision.
FinOps status	No cloud saving is demonstrated.
GreenOps status	No priority GreenOps scenario demonstrated.

Final decision: keep the current configuration in the short term. The infrastructure is underused on average, but simulated CPU peaks make automatic rightsizing unacceptable. The next step is to identify the workloads responsible for peaks, smooth or isolate short-running jobs, then rerun the simulation. No net cloud saving is demonstrated at this stage.



Executive summary

- Decision: PREPARE. Policy: controlled execution permitted after prerequisite validation.
- Current state: Validation pending; next validation: maintenance window, backup/snapshot, rollback plan, workload and target price.
- Estimated avoided costs: Not demonstrated by available cost data.
- The recommendation is governed by human validation, rollback and monitoring.

Confidence explanation

- Available metrics are sufficiently reliable to analyze the signal.
- Remediation remains controlled because blocking prerequisites still need validation.
- Rollback is required before any controlled execution.
- Business/technical audit blockers reduce remediation confidence.

Concrete before / after cases

Scope	Before	After	Validation
example-vm-001	observed current profile	Confirm workload, maintenance window, target pricing, backup and rollback.	gates + supervision post-action

Why this recommendation is safe

- Decision and execution policy are separate.
- Active policy: controlled execution permitted after prerequisite validation.
- Automatic execution is not permitted while blocking prerequisites remain open.
- Documented rollback is mandatory before execution.
- 72h post-action monitoring governs closure.

**Recommended workflow**

Step	Type	Status	Blocking	Automatable	Expected output
10. Spike diagnostics	Diagnostic	Pending	Yes	Automated diagnostic	Spike profile classified as isolated, recurrent or unsafe.
20. Workload correlation	Diagnostic	Pending	Yes	Semi-automated	Workload identity and peak cause are documented.
30. Business criticality review	Validation	Pending	Yes	Manual validation	Criticality and allowed risk level are approved.
40. Maintenance window validation	Validation	Pending	Yes	Manual validation	Execution window is scheduled.
50. Snapshot / backup validation	Validation	Pending	Yes	Manual validation	Rollback prerequisite is available.
60. Controlled execution	Execution	Pending	Yes	Controlled automation	Target profile is applied through a controlled provider or manual change.
70. Post-change supervision 24-72h	Supervision	Pending	Yes	Automated monitoring	Stability score is sufficient for closure or rollback decision.
80. Rollback monitoring	Rollback	Pending	No	Automated monitoring	Rollback is triggered or kept available until closure.
90. Decision closure	Verification	Pending	No	Manual validation	Decision closed, failed or rollback executed.



Execution gates

Gate	Status	Blocking	Expected evidence
Workload identified	Pending	Yes	Workload, process, container or service correlated with the metric signal.
Business criticality validated	Pending	Yes	Application owner or business criticality validation.
Maintenance window confirmed	Pending	Yes	Approved maintenance window reference.
Snapshot/backup available	Pending	Yes	Identifiant de snapshot, sauvegarde ou point de restauration.
Documented rollback plan	Pending	Yes	Rollback method, previous profile and owner documented.
Target price validated	Pending	Yes	Target profile price checked in the current catalog.
Post-action monitoring active	Pending	Yes	Active CPU p95/p99, memory, disk, heartbeat and service health monitoring.

Rollback policy

Rollback required	Yes
Method	Snapshot or provider resize back
Window	72 h
Triggers	CPU p95/p99, memory or disk above limits; increased error rate, offline probe, missing heartbeat or degraded service health
Thresholds	Thresholds must be validated before execution
Estimated time	15-30 min
Tested	Unknown
Owner	Ops owner



Post-change supervision

Duration	72 h
Metrics	cpu_p95, cpu_p99, ram_used_pct, disk_usage_pct, agent_heartbeat, service_errors
Rollback triggers	CPU p95 above threshold, CPU p99 above threshold, RAM above threshold, Disk above threshold, Error rate increase, Agent offline, Heartbeat absent, Service health failed
Closure condition	The decision can close after 72 h below validated limits without regression.

Decision	Reading
Controlled validation required	Infrastructure is structurally underused, but peak validation, business arbitration and operational prerequisites are required.
Confidence high	Analysis high, metrics high, remediation medium.

Decision frame

Decision	Controlled validation required
Execution policy	Execution blocked until gates are validated
Scheduled shutdown	Potential window to confirm after additional observation.
Rollback	Yes

Decision scenarios

Scenario A — Economic KEEP

Primary selected option

Target profile: Current configuration

Reading: This scenario keeps the current configuration because no net saving is demonstrated. It optimizes budget stability, not CO2.

Estimated impact: Cloud cost: 0 | CO2: No change | Risk: low | Confidence: medium

Rightsizing technique: No rightsizing executed: current capacity is retained.

Lecture FinOps: Not demonstrated — cost impact is stable or too small.

Lecture GreenOps: Secondary — GreenOps is not the main driver.

Lecture CarbonOps: CO2 reduction is not demonstrated.

Migration provider / architecture: No explicit provider/architecture migration required.

When to choose this option?: Choose when stability and lack of proven saving matter more than strategic migration.

InfraWatts position: Best known economic option: current configuration. Primary selected option: keep the current configuration. No net cloud saving is demonstrated. Peak diagnostics are required before any action.



Simulation

CPU p95 projected on target profile: OK - Insufficient data

CPU p99 projected on target profile: OK - Insufficient data

CPU max projected on target profile: OK - Insufficient data

RAM: INCOMPLETE - Insufficient data

These values represent estimated usage after applying the simulated target profile. They must not be read as the current raw CPU load.

Technical simulation reading: Controlled validation required. Validation required: duration, CPU percentiles, frequent spikes, RAM or business criticality block automatic execution.

Global operational decision: Controlled validation required. Deterministic decision: simulation never triggers an automatic action by itself.

Per-probe decisions

Probe	example-vm-001 Host: example-vm-001 Provider: AWS / t3.large
Decision	■ PREPARE
Policy	Execution blocked until gates are validated Automation: Controlled automation after validation Workflow: Controlled rightsizing workflow
Key metrics	CPU avg 22.0 %; RAM avg 41.0 %; CO2 134.40 g CO2; Energie 2.64 kWh
Posture	Prepare the optimization, validate peaks and execute only with rollback ready.
Why	Peaks appear linked to application runtime bursts. Observed workloads: api.
Blockers	• Complete memory history; memory projection usable. ; no strong memory pressure detected. • Target configuration and provider pricing must be confirmed. • Workload role and business criticality must be validated before execution.
Action	Confirm workload, maintenance window, target pricing, backup and rollback.



Action plan

Step	Status	Blocking	Automatable	Expected evidence
Identify processes/containers responsible for peaks.	To do	Yes	Partial	Timestamped process/container top or unavailability message.
Correlate peaks with cron, Celery, backup, batch, CI/CD, maintenance or report generation.	To do	Yes	Partial	Peak times correlated with logs or operations calendar.
Smooth or isolate short jobs.	To do	Yes	No	Validated application or scheduler change plan.
Rerun the simulation.	To do	Yes	Yes	New p95/p99/max/RAM simulation.
Validate business criticality.	To do	Yes	No	Application owner approval.
Create snapshot/backup.	To do	Yes	Partial	Snapshot, backup or restore point identifier.
Prepare rollback.	To do	Yes	Partial	Previous profile, method and owner documented.
Execute only outside critical hours.	To do	Yes	No	Approved maintenance window.
Monitor p95/p99/RAM/errors/heartbeat for 72h.	To do	Yes	Yes	Active and exportable post-action monitoring.
Rollback if thresholds are exceeded.	To do	No	Partial	Triggers and thresholds validated before execution.

Likely peak origin

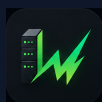
Top Docker containers by CPU max / p99

Type	Name	Probe	CPU max	CPU p99	Source
Docker container	api	example-vm-001	27.0 %	Unavailable	container metrics

Rollback thresholds

Thresholds must be validated before execution

Metric	Trigger	Threshold
CPU p95	cpu_p95_above_threshold	To validate
CPU p99	cpu_p99_above_threshold	To validate



Metric	Trigger	Threshold
RAM	ram_above_threshold	To validate
Disk	disk_above_threshold	To validate
Application errors	error_rate_increase	To validate
Probe offline	agent_offline	To validate
Heartbeat absent	heartbeat_absent	To validate
Degraded service health	service_health_failed	To validate

Operational execution

Estimated time	30-60 min preparation
Complexity	MEDIUM
Risk	MODERATE
Rollback	Yes
Automation	Can be scripted via Terraform / Ansible / provider API.
Prerequisites	Confirmed business window, backup or snapshot available, rollback tested.

Implementation effort

Estimated effort: low to moderate. These durations are estimates.

- Preparation: 30–60 min
- Script: 1–2 h
- Test: ~30 min
- Monitoring: 24–72 h
- Rollback: immediate

Impact summary

Estimated savings	0.0 USD/month
CO2 impact	0 %
Risk	Low, subject to validation
Scenario interpretation	Additional validation required

AUTOMATED REPORT: Observed metrics and scenarios are calculated deterministically. This document supports decisions; it is not a regulatory certification or a savings guarantee.

