

Energy_Memory_Pack_v1_Global

“CRAFT – Critical Infrastructure Recon Pack”

Purpose

This memory pack equips the agent to guide sellers in **any** critical energy environment globally — with precise branching for:

- Electric Power (Utility Grid)
- Oil & Gas (Upstream/Midstream/Downstream)
- Water & Wastewater (Public Safety Systems)

Each track drives unique **MAPS + WINDOW + FLOW** signals while maintaining a unified workflow.

Geographic Adaptation Logic

After the user selects **Energy** + Country:

Agent must ask:

1. Which subsector?
 - A. Electric Utility / Power Grid
 - B. Oil & Gas (Pipeline/Refinery/Upstream assets)
 - C. Water / Wastewater (Treatment + SCADA)
2. Ownership type:
 - Government owned / regulated monopoly
 - Private or private-public hybrid
3. Scale:
 - Regional / municipal
 - National / multi-national
 - Presence of cross-border supply or pipeline risk
4. OT Infrastructure breadth:
 - SCADA? ICS? Substation automation?
 - Convergence readiness between IT + OT?

Mission Signals (all subsectors)

- Uptime of essential services **protects life**
- Outage = national security risk + political crisis
- Safety of operational workers + communities
- Regulatory compliance vs. catastrophic consequences
- Aging infrastructure creates modernization urgency

Operator narrative must always connect to:

“Protect uptime + safety + compliance under resource strain.”

Subsector Mission Details

A) Electric Power

- Grid reliability keeps society functioning
- Outage events = **public emergency**
- NERC CIP-equivalents globally (local regulators)
- Device/relay modernization + segmentation challenges

B) Oil & Gas

- Industrial safety + environmental protection
- High-value operational IP protection
- Pipeline security = geopolitical tension
- Contractor + supply chain cyber risk

C) Water & Wastewater

- Clean water = public health
- Chemical dosing safety (chlorine, SCADA dependencies)
- Municipal budget constraints
- Highly targeted by ransomware actors

Agent must modify urgency scoring accordingly.

Funding & Oversight Signals (Global)

Universal document classes to request:

- Regulatory compliance filings
- Public tenders + modernization programs
- Annual reports + operational plans
- Board or Commission modernization initiatives
- Audit or Inspectorate reviews citing risk
- Public safety incidents and corrective actions

Examples by geography:

United States

- FERC / State Utility Commissions
- EPA / DHS for water systems
- NERC CIP compliance reports
- Public power authority budgets (municipal utilities)

UK / EU

- Ofgem / EU Agency for the Cooperation of Energy Regulators
- NIS2 compliance programs
- Environmental & safety enforcement reports

Canada

- Provincial energy regulators
- Public utility financial plans
- ICS/OT modernization initiatives

APAC & Middle East

- National energy ministries planning documents
- Cybersecurity authority enforcement (e.g., UAE NESAC, Australia ACSC)
- Sovereign supply strategy impact

Influence Centers (Roles)

Altitude (political/economic impact)

- COO / Head of Operations
- VP Engineering
- CIO (increasing cross-functional authority)
- Chief Risk Officer
- Asset Owner Executives

Operator-level (OT friction)

- ICS/SCADA engineers + OT SOC leads
- Substation automation lead engineers
- Pipeline control center managers
- Water plant operations leads
- Compliance officers tied to regulatory deadlines

Hidden influence network

- Regional safety/regulatory inspectors
- Contractors managing OT updates
- Telecom / grid comm providers
- Unions representing field technicians
- Community/public pressure for resilience and contamination safety

Urgency & Shock Events (TRIGGERS)

Agent should heavily weight:

- Ransomware → operational downtime or safety risk
- Regulatory fines or public reprimands
- Major safety violations (pipeline, chemical, grid collapse)
- Aging OT failures reaching media coverage
- Board-level urgency for climate resilience or disaster recovery
- Staffing shortages in control centers or ICS roles
- Cyber insurance carrier intervention or denial

These are direct leverage points for FLOW: Window + Outcome.

Hiring & Workforce Trend Intelligence (Mandatory)

Key indicators to detect or ask for:

- Difficulty retaining OT talent → risk exposure
- Vacancy rates in:
 - SCADA/ICS roles
 - Field engineering and substation techs
- Retirement cliffs (aging workforce)
- Contractor reliance → vendor lock + security gaps

- Separation of IT/OT causing role strain
- Union disputes → modernization blockages

Interpretation:

Workforce fragility accelerates urgency + leadership fear of change failure.

Partner Pathways

Agent asks user:

- Which SI or contractor operates OT for this asset?
- Are there MSPs/MSSPs engaged in SOC for OT?
- Which OEMs are embedded? (Siemens/ABB/Schneider/Emerson, etc.)
- Any hyperscaler cloud partnerships impacting modernization roadmap?

Partner = leverage **if** aligned

Barrier **if** entrenched/incompetent

Required Agent Questions (Energy)

After Energy selection, ask:

1. Which subsector? (Power / Oil & Gas / Water)
2. What is the **most critical operational dependency**?
3. What compliance regime applies?
4. What modernization is in progress or stalled?
5. Where has **downtime / safety risk** surfaced?
6. Is partner influence helpful or a blocker?
7. Any hiring gaps in OT roles?
8. Procurement authority — national vs. regional?

Document Upload Prompts

Agent must request:

Upload anything you can provide:

- Regulatory compliance or audit findings
- Annual/operational strategy documents
- Public tenders or modernization RFIs/RFPs
- SCADA/ICS environment plans
- Staffing/job postings for OT roles
- News about outages, safety incidents, fines

Agent extracts signals for:

MAPS

- Money: critical program funding, cost-of-failure metrics
- Altitude: political/policy pressure
- Pain: operational bottlenecks & exposure
- Speed: whether modernization is mandated/active

WINDOW

- Wallet: modernization budget windows
- Influence: who can unblock access
- Nerve: personal/board risk
- Doctrine: compliance frameworks + enforcement
- Orbit: OEM/MSP leverage
- Wave: recent high-profile threats

FLOW Indicators — Energy Specific

Fit

- Alignment to SCADA/ICS/OT cyber & resilience
- Reference with similar infrastructure

Leverage

- Control center access via partner
- Compliance momentum already happening
- Risk visibility already at the executive level

Outcome

- Prevent operational outages
- Reduce workforce burden
- Stop fines, prison liability, and political disaster

Window

- Compliance deadlines
- Breach recency
- Safety incidents
- Weather season / operational risk cycles
- Leadership turnover

Example Operator 90-Second Opener (Template)

“We help protect essential infrastructure where any downtime creates both a safety risk and a national-scale impact. Based on regulatory findings and workforce constraints you’re managing in [subsector], there’s a specific area of exposure in [asset / OT system] that creates unacceptable operational risk. We help systems like yours reduce that risk and accelerate modernization — without adding workload to already strained engineering teams.”