
RISK AND CONTROL, AS THE WORK IS DONE

Connecting trustworthy field data to dynamic critical-risk management in electricity distribution

A companion addendum to the FY26 briefing From Built to Run by It

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ABOUT THIS COMPANION NOTE**Why this companion note**

Across the electricity distribution sector, organisations are sharpening their focus on the small set of critical risks that can kill or seriously injure and investing in digital field platforms and governance reporting to manage them. The proposed 2026 HSWA amendments, with their explicit prioritisation of critical risk, reinforce that direction. The harder question, as the main briefing From Built to Run by It set out, is no longer whether to build these systems. It is how far the data beneath them can be trusted, because every decision made above the field, whether by supervisors, managers and boards or increasingly by analytics and AI, is only as sound as the data it rests on.

This note works one part of that question. It sets out where trustworthy field data comes from, why building around the task gives that data its reliability, and how Risk Mentor's four operational hazard groupings connect the activity risk that field work generates with the location risk that completes the picture. The argument is illustrated, as the rest of the suite is, with PowerNet's delivered outcomes.

One framing point at the outset. This is not an argument for task-based field systems instead of risk and control management. The two are complementary, and the opportunity lies in combining them. The argument is about order, and why building the field foundation first is what makes the risk and control view worth relying on.

DATA CONFIDENCE**Where good data comes from**

A governance model, and any analysis built on it, is only as good as the data beneath it. The most reliable field data is generated as a by-product of tools that field staff genuinely use to plan and execute their work, not assembled afterwards to satisfy a reporting requirement, nor reconstructed from checklists or notes after the fact. This is the principle the main briefing calls work-as-done: the data is structured, contextual and trustworthy because it is produced in the ordinary course of doing the job.

That distinction shapes system design. A field tool built to support the task, providing task-specific information and confirming controls at the moment they matter, generates rich and reliable data.

There is a second reason the task-out build produces better data, and it is about people rather than technology. When the tool is shaped around what crews actually need to plan a job, execute it safely and provide specific feedback, it gives them agency over their own work. They are not completing a form for someone else; they are using a tool that is theirs. And because a skilled worker observes, judges and resolves a situation before a single field is completed, what the record captures is already shaped by expert judgment: high signal rather than high volume, the opposite of raw telemetry. That is the intent. We do not monitor people as an asset to be controlled; we support them to make good decisions, and the trustworthy record is a by-product of doing exactly that.

None of this sets risk and control against the task. A focus on critical risk is exactly the right priority, and the risk and control view is essential. The point is where that view gets its data: it is most trustworthy when it is generated by the work, not asked for on top of it.

INSIGHT

Good decisions need good data. The most trustworthy field data is a by-product of the work, not a report assembled beside it.

THE INTEGRATIVE RECORD

An event, not a category

A task is an event, not a category. When a crew plans and executes a job, the work order, the assets and vehicles in use, the people assigned, the location, the activity and the outcome required in the real world are bound together, because the work itself binds them. They co-occur before any system records them. Capture quality data at the task and that integration is inherited, not constructed: the record is a trace of something that actually happened, carrying its real identifiers and reality's own structure. That is what makes task-generated data inherently sound.

A risk and control model built by the risk function is a different kind of object. It supplies something valuable the raw record cannot: the judgment about which of those integrated facts matter: which risk states are critical, and which controls count. But the risk-in model's correspondence to work-as-done has to be established and maintained separately. Even with the best design and intent, the organisational challenge is how to apply risk-in judgment consistently to influence what happens on any given job. The task-out record holds the data, built outward from the work; the risk-in model holds the judgment, built inward from the register. They belong together: the task should record the work, and the model should read that record.

Because each task carries those identifiers, every record arrives pre-tagged on many dimensions at the point of capture. One workflow tells you about one job. Hundreds, sharing those dimensions, can be read from perspectives the individual worker never had in mind, and the analytical lens is chosen when the question is asked, not when the data is captured. That is only possible because the integration was inherited from the work, rather than designed into a form for a single purpose.

The same body of task data can therefore be put to many questions: reviewing planning processes, understanding network characteristics, testing the practicality of the controls for critical risks and finding opportunities to improve them, informing equipment selection and fleet maintenance, and more, each a different lens on one trustworthy dataset. This is the deeper contrast with a risk-in dataset, which can usually only be read back along the axis it was built on: whether controls were reported against the register they were designed to populate. Task-out data is multi-perspective by default; a model-shaped dataset answers mainly the question it was made to answer.

INSIGHT

A task is an event, not a category. Captured well, its data is integrated by reality itself: one trustworthy record of work, open to questions no one had in mind when it was captured.

COMPLEMENTARY VIEWS

Complementary, in the right order

Risk and control management and task-based field systems are often presented as alternatives. They are not. They are complementary, and the real opportunity is in combining them: a rigorous critical-risk view, resting on a field foundation that generates data worth trusting. The question worth asking is not which to choose. It is which to build first.

The two run in opposite directions. A task-out approach moves from operational reality to risk: the crew plans and executes the work, and the risk intelligence emerges from what they actually do. A risk-in approach moves the other way, from the register toward the work, asking the field to report against a picture of risk decided in advance. The first runs with the grain of how work presents; the second runs against it.

That direction has a practical effect on the data. A risk-in lens captures what the register already anticipates, valuable but bounded by what was foreseen. A task-out lens captures the operational reality first and lets the risk signal emerge from it, including the signals no register predicted. The wider and more honest picture comes from starting with the work.

This is why sequence matters. The task-out foundation is mature and proven: at PowerNet it has been generating trustworthy work-as-done data at scale for years. Build that first, and the risk and control view an organisation already values, the register, the critical-risk catalogue and the board's quarterly framework, sits on a sound, current, field-generated foundation rather than a thin one. Nothing invested in risk and control is wasted; it gains the reliable data it was always missing.

INSIGHT

The question is not risk-in or task-out. It is which comes first. Build the foundation that generates trustworthy data, and the risk and control view sits on solid ground.

ACTIVITY AND LOCATION

Two kinds of risk

With the order settled, the next question is what a complete risk picture needs that foundation to capture. Risk in field operations has two distinct sources, and a complete picture has to hold both.

Activity risk arises from what the crew is doing: switching, lifting, working at height, working on or near live apparatus. It is generated by the task and travels with it. A task-based field platform, workflows built around the work as at PowerNet, captures activity risk exceptionally well, because the risk and the task are described in the same place, at the same moment.

Location risk arises from where the work is done: the persistent conditions of a site that are present regardless of the task in hand: substation terrain, a confined yard, an exposed rural site, an urban street. Location risk does not travel with the task; it waits at the place.

A field-data stream generated purely from tasks is rich on activity risk but can under-represent location risk, simply because the worker's frame is the job in front of them. To run a complete and dynamic critical-risk picture, an organisation needs a way to connect the two, taking the sound, task-generated activity data and relating it to the location risk it sits

within. Without that connecting layer, even excellent task data stays activity-bound, and cannot be fully leveraged.

THE INTERFACE

Grouping hazards by how they present

Risk Mentor's response is to classify hazards not only by their technical type, the electrical, mechanical and gravity categories of the risk register, but also by how they present in operation. That view produces four groups, and those four groups are the interface between activity risk and location risk. They run from the location end, where a hazard belongs to the place, through to the activity end, where it belongs to a phase of the work or to the moment of work itself.

Hazard group	How it presents	Activity–location span	What task-based capture looks like
Persistent area hazards	Present in a place whatever the task; they belong to the location, not the job.	<i>Location end</i>	Task data related to site and area records, so a known location condition is surfaced to every crew that works there.
Conditionally persistent hazards	Present only while certain conditions hold, such as exposed conductors during a maintenance window.	<i>Bridges the two</i>	The workflow recognises the condition the task creates or encounters, and captures its status.
Episodic or phase-based hazards	Tied to a phase of an operation, such as use of helicopters, or arborists managing MAD.	<i>Activity end</i>	Captured directly in the task workflow at the phase where the hazard lives.
Task-interaction hazards	Arise from the interaction of worker, task and environment, such as handling stresses during cable pulling.	<i>Activity end</i>	Captured at the point of work, where the interaction actually occurs.

Two distinctions keep the framing clean. First, hazard source is not the same as control type: a control such as isolation may appear against more than one group depending on whether it is managing a state change or verifying an interface, so the groups classify where the hazard comes from, not which control answers it. Second, operating contexts such as public safety during routine work, public safety in an emergency, or a lone technician on a fault callout are best treated as overlays on these groups rather than as separate hazard sets: they change the stakes and the conditions, not how the hazard itself presents.

The reason this matters is leverage. PowerNet's field data is, by design, activity-structured and sound. But sound activity data only becomes a complete critical-risk picture when it is connected to location risk, and this grouping is what makes that connection possible. Think at this level and the task-generated data can be related to the places where the work happens, the conditions that recur, and the phases where control is most fragile. Without location and context, even the richest field-data is only a stream of activity records that the organisation cannot fully use.

INSIGHT

The four groups are the interface between activity risk and location risk. Without it, even sound task data cannot be fully leveraged.

PRIMARY SIGNALS

What the field can see

Grouping hazards by how they present also changes what is worth asking the field to report. Rather than a static rating of a risk's severity, the worker captures observable signs that a control is weakening, the kind of thing a person can actually see in the flow of the task. A short illustrative set:

- **Boundary drift and loss of separation.** The clearest signal of a control under stress is a boundary that is moving. In electricity distribution, separation between people and energy is the fundamental control: when that gap closes, even incrementally, the protection is eroding before any incident occurs. Boundary drift is the observable version of that process: a safe clearance that has shortened, an exclusion zone that is no longer holding, a handover point that has crept, a demarcation between energised and de-energised that is no longer clear to everyone present. These are things a field worker can see. Asking them to report what they observe, rather than to rate a probability, produces a signal the organisation can act on while there is still time.
- **An abnormal condition lasting longer than expected.** A deviation from the plan that is present and unresolved: a state that should have been temporary has persisted. The duration itself is the signal, because it indicates either that recovery is slower than anticipated or that the condition has become accepted.
- **An unstable transition between task phases.** The handover between phases, de-energising to working, working to restoration, is where sequential control is most fragile. A transition that is incomplete, contested, or poorly understood by the crew is a sign that the control sequence is not closed.
- **Incomplete or assumed verification, where assumption replaces proof.** A step that was not confirmed but was treated as confirmed: an isolation that was not tested, a communication that was not acknowledged, a permit that was signed on the assumption it had been read. The substitution of assumption for proof is one of the most reliable precursors to a serious event.
- **Public encroachment, or deteriorating scene stability.** The work environment has changed in a way that the original plan did not account for. A member of the public inside the exclusion zone, a site that is no longer secured, a crowd or traffic condition that has developed: the boundary between the work and the world around it is weakening.
- **Restoration or schedule pressure bearing on a sequence.** External pressure, whether time, a restoration deadline, or a client expectation, is influencing decisions about how a sequence is completed. The signal is not the pressure itself but its effect: steps being compressed, checks being abbreviated, sequence being negotiated rather than followed.

These are leading indicators, not lagging counts. Capturing them is what makes the risk picture dynamic: the organisation sees the live state of its controls as work proceeds, rather than a point-in-time assessment made before it began. This is the foundation for the drift reporting described in the main briefing: the nudge, inform, escalate sequence that surfaces a weak signal to the field user, informs the supervisor, and escalates where no action is taken. It aligns directly with the prioritisation expectation in the proposed HSWA section 25B.

THE EVIDENCE**Anchored in PowerNet**

PowerNet's deployment shows what this produces at scale, and that the foundation is genuinely activity-structured. The critical-risk model was built from the work outward: co-design workshops identified Required Operating States, Credible Failure Modes and the Business Inputs that counter them, across thirteen activity types involving critical risk. That bow-tie logic is organised by activity, which is why the data it generates is activity-rich.

The FY26 figures, used with PowerNet's permission, show the scale: 11,685 task planning and execution workflows completed by field staff, generating 71,368 prompts to confirm whether a critical risk was present and its controls in place, an average of 196 a day. Each confirmation carries real structural depth: hazard details, operating conditions, competencies, PPE, equipment status, photographs and a site ranking.

Critically, every record is analysable by location, depot, network and vehicle as well as by date, user and work order. These identifiers are carried by the task itself, not added by a reporting step. That is why the same records can be read back by any of them: the integration was inherited from the work, not built into a form. More than three million work-as-done data points now sit behind one trusted operational picture.

This is the data asset sound enough to leverage. The reason it is sound is that it was generated by tools the field helped build and genuinely uses, not assembled to satisfy a report.

DECISIONS, AND WHAT COMES NEXT

Why this matters

The payoff is decisions. Trustworthy work-as-done data that connects activity and location risk is what lets a supervisor manage by exception with confidence, a manager see where control is fragile across a distributed operation, and a board evidence its own due diligence over critical risk. That last point matters under the proposed HSWA sections 22A and 25B, and in light of the Gibson judgment, which holds that policies and procedures alone are not enough: what is required is entrenched systemic process and personal knowledge of how work is actually done. Data generated as a by-product of the work is precisely that kind of evidence; data assembled to satisfy a report is weaker ground to stand on.

There is a forward point worth stating briefly. Analytics, and in time AI, amplify whatever data they are given: a trustworthy work-as-done foundation sharpens an already-capable operation, while data assembled to satisfy a report reproduces its gaps at scale. The quality of the foundation is not a detail to be corrected later; it is the precondition for everything built on top. The organisations best placed for what comes next are those whose field data is trustworthy because it is a by-product of the work, the same reason their operations are safer today.

INSIGHT

The foundation decides what everything above it is worth. Build the record from the work, and every decision that rests on it has something true to stand on, whether human or, in time, machine.

ABOUT RISK MENTOR

Working with Risk Mentor

Risk Mentor New Zealand designs and deploys field, data and governance platforms that embed critical-risk management into operational work, so the data that runs the business is generated as a by-product of doing it well. We assist organisations to build the proven task-out foundation first, then bring their risk and control view to rest on it, combining the two rather than choosing between them. The operational hazard groupings set out here are part of how we connect task-generated activity data to location risk, so that a sound field-data foundation can be fully leveraged: for operational performance, for governance and assurance, and for the analysis that builds on them.

We would welcome a conversation with any organisation considering how to ground its critical-risk management in trustworthy work-as-done data.

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This companion note is illustrative. It accompanies the FY26 briefing From Built to Run by It and develops Risk Mentor analytical framing. PowerNet operating figures are used with permission and do not represent any other organisation's deployment.

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