

EPNR Working Group
Outage Coordination Meeting 2

14 October 2026

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Acknowledgement



Photo: Mayaga Consulting

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Agenda

- Welcome and introductions
- Overview of feedback from last meeting
- Planning criteria interactions
- Revised outage coordination process – high level
- Equipment list – revised principles
- Risk assessment and appetite – proposed structure

Welcome and Introductions



Purpose of Workshops

To provide information to Participants over intention and content of proposed **rule changes for planned outages**.

To provide opportunity for Participants to contribute to the codesign of the proposed rule changes and/or have opinions on the proposed rule changes transparently recorded.

To align on the need and content of a PNR change to accommodate implementation of:

1. a Risk Framework against which planned outages may be assessed by Participants and the ISO; and
2. criteria for inclusion of equipment that must be reported to the ISO if an outage of that equipment is planned by a Participant.

Desired Outcomes:

1. Agreed need for PNR change to improve outage coordination
2. Agreed structure/content for PNR change to improve outage coordination
3. Commencement of defining the next steps, such as risk framework construct and criteria for equipment inclusion

Key Assumptions of Rule Change

- No change to rule 5, Integrated Mining Networks
- No changes to the carve outs for Pluto Facility
- Needs to minimise need for ACCC authorisation to breach competition law

Competition law

Context

- Agreements between competitors and potential competitors can violate Australia's competition laws, e.g. *Competition and Consumer Act 2010 (Cth)*
- This can include "arrangements" and "understandings", as well as contracts
- Pilbara ISOCo and some other rules participants have *partial* and *conditional* protection under ACCC Authorisation AA1000666
- **But Pilbara ISOCo does not seek to rely on that protection in this meeting**

Rules for this meeting

- This meeting is to discuss possible rule changes
- **Do not discuss specific outages or other market conduct**
- **Do not disclose price or other commercially sensitive information including customer details**

Be especially careful when discussing compensation. Keep it generic.

- If you have ringfencing obligations under the PNR, ensure you comply with them
- Ensure you comply with all obligations under the PNR regarding confidential and commercially sensitive information

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For a successful meeting…beforehand

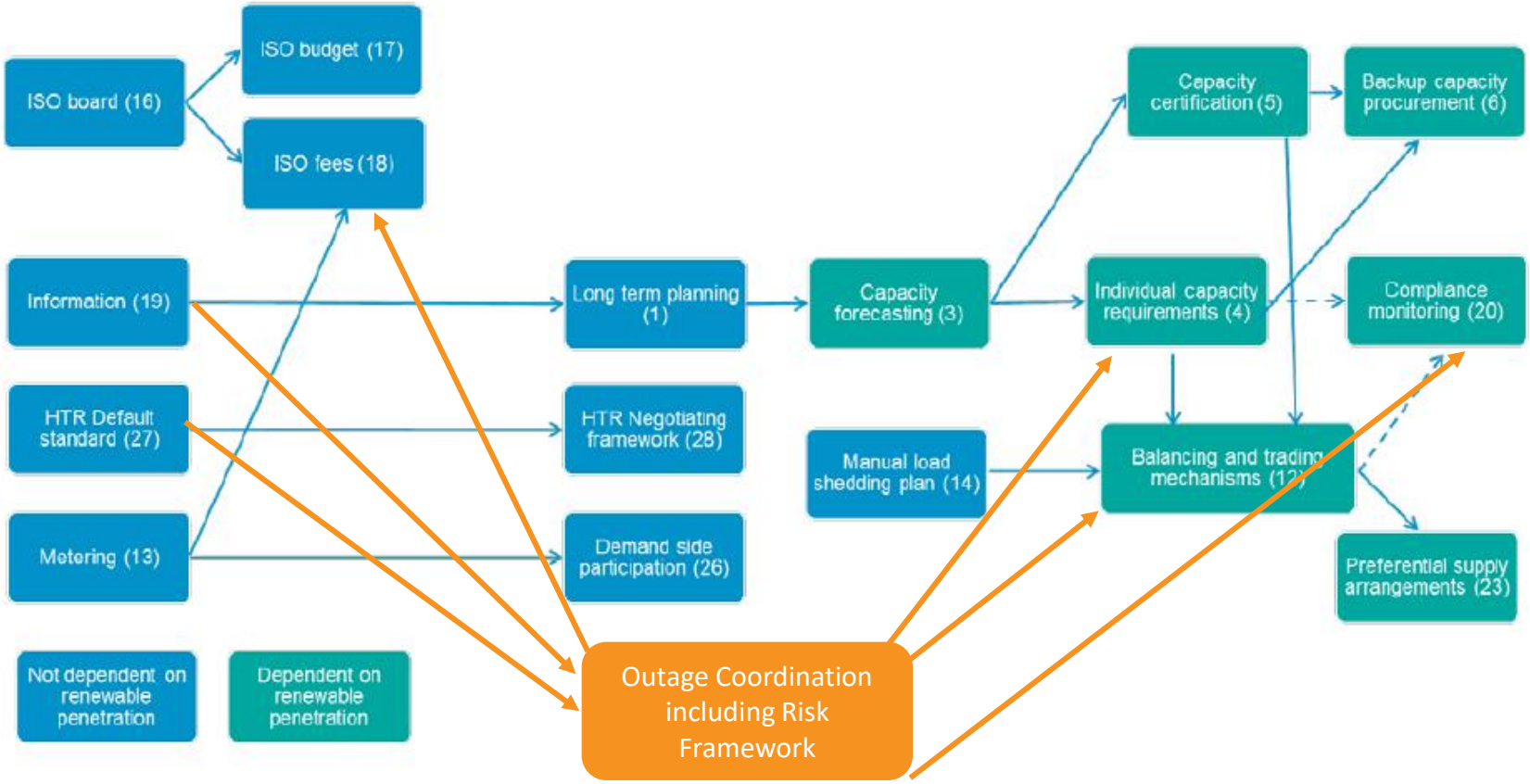
- Read this slide deck thoroughly
- Seek internal views before the meeting
- Come prepared to contribute meaningfully
- We want your input and ideas to find the best way forward
- Try to attend in person
- RSVP attendance and mode for catering requirements

For a successful meeting…during

- Stay on topic: Outage Coordination
- Parking lot of items out of scope that need to be captured
- 1 speaker at a time
- Make your point directly and succinctly
- Listen respectfully
- Be mindful of ACCC compliance
- Meeting is recorded for minutes

Dependencies to Parking Lot

Interdependencies are acknowledged. Items belonging in other scopes, shall be added to a 'parking lot' for safekeeping and addressing as the other implementations progress.



EPWA Draft Implementation Plan page 19

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Overview of Designing Rule Change

23 September
Foundations

- Agree purpose and outcomes
- Agree meeting processes
- ACCC lens applied to consultation process and outcome
- Review summary of consultations to date
- Agree areas of alignment
- 'Problem' statement
- High-level process map
- Rule change outline discussion
- 'Hurdles' to supporting rule change
- Establish 'parking lot' for items outside of rule change.

14 October
Design

- Potentially high-level co-design of the following depending on 'hurdles' raised in Foundations Meeting:
  - Principles of outage reporting to ISOCo decision (materiality criteria)
  - Principles of ISO risk/impact assessment process
  - Pathways for urgent, short outages
- Allocate matters for rules, procedures, guidance and drafting of proposed rule change
- Rule change draft and optionality if possible – discussion of benefits and risks.

4 November
Test and Commit

- Review consolidated high-level overview of framework, process and governance for rule change
- Scenario test high level processes
- Agree rule change terms

Documenting Participant positions

Items not addressed in this workshop

Feedback from Workshop 1



What we heard in meeting 1



Aligned

- Outage coordination to be underpinned by a NWIS risk appetite and standard assessment with a materiality threshold
- NSPs manage risk within own assets
- ISO role in outage coordination impacting other Registered Participants
- Detail of Risk Framework/Appetite is needed
- Transparent decisions and common templates
- Some risk on NWIS is acceptable that perhaps may not be on larger networks

Clarify

- Framework and risk appetite assessment and application
- Risk framework supporting resolution of modelling discrepancies (e.g. ISO v NSP differences)
- Urgent maintenance post storm/visual inspection
- Consultation with affected parties
- ISO ability to approve/ decline outage plan
- Alignment of timeframes with NSP maintenance planning timeframes
- Role of credible contingencies and NSP planning criteria



Objection

- Planned outages interfering with Integrated Mining Network/Pluto Facility operations and ISO rights to direct in these circumstances

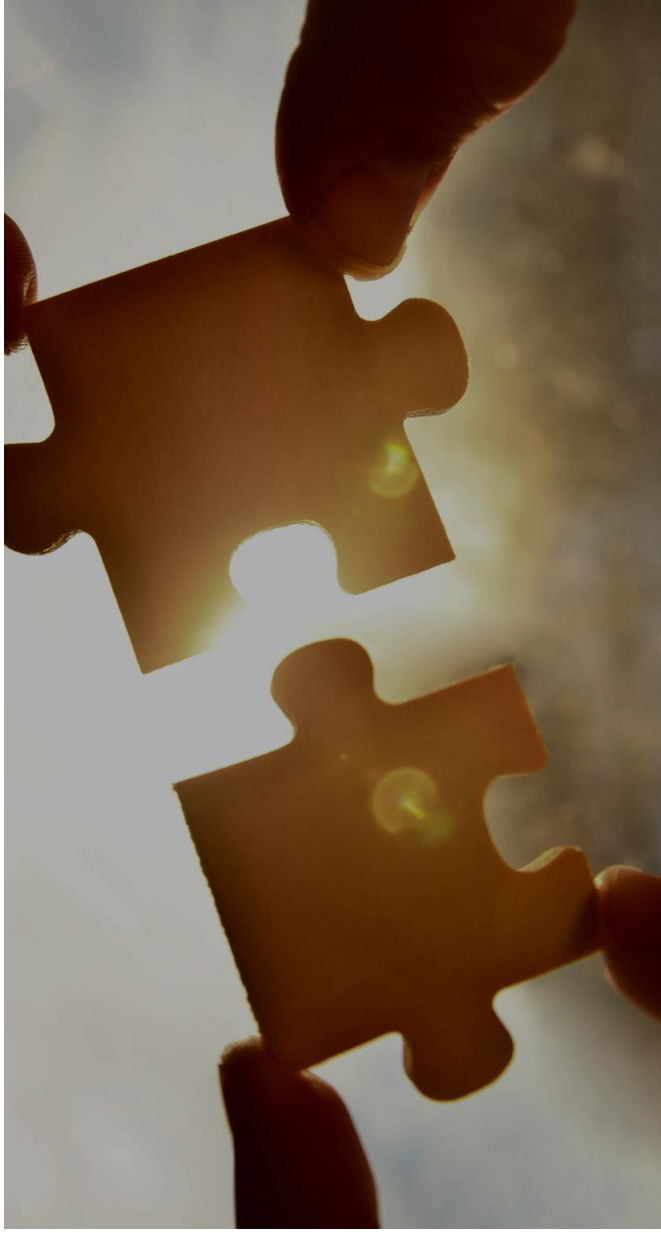
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Actions from meeting 1 feedback

Feedback	Action	Slide #
Clarify interaction between the PNR outage coordination and NSPs managing outages within planning criteria and the HTR.	Recognition in the process that NSP's planning criteria and HTR assessment are considered before commencing the PNR Outage Coordination.	15-16
Recognise that ISO involvement in outage coordination may only be a small number of times per annum.	Tightened equipment list proposed and further definition of risk framework.	17-20
The risk framework: • takes guidance from the Compliance Procedure's Risk Framework • sets appetite on key metrics such as UFLS acceptance across the NWIS	Consideration of Risk Framework against compliance procedure's framework is included in these papers. Clear appetite definition will require Participant input beyond the scope of the first stage of this process.	29-36
Further definition of credible contingencies in the Rules.	To be further considered as part of the development of the Risk Framework. This may have broader implications on the PNR than outage coordination.	Possibly work-shop 3
Consultation undertaken by ISO not interfering or overlapping with consultations conducted by NSPs with their own customers.	Adapted consultation process to Registered Participants only and will only allow for very specific 'objection' parameters.	18-20
Split between Rules and Procedures.	This will be considered once the process is more defined with the Working Group.	TBA
ISO role in 'approving' an outage plan interferes with Participant autonomy.	A consistent approach to the treatment of risk, while recognising respective roles and responsibilities. There are occasions where outages require coordination by the ISO between Participants to ensure a secure and reliable NWIS. Request: Participant suggestions as to how to resolve these matters without an ISO approval process.	18-36

Planning Criteria and Outage Coordination



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Planning Criteria in Outage Coordination

Planning criteria define network reliability — cannot manage cross-system outage risk.

WHAT PLANNING CRITERIA DO

Tell users how often network-service interruption can be expected from the network's current and future design.

Purpose: to enable users to determine the value represented by a reference service... [PNAC 41(1)(a)(iv)]

Focus on Reliability: delivering to consumption points and receiving from supply points within accepted standards and in the amount desired. [PNR]

WHERE OUTAGE COORDINATION GOES FURTHER

Network 2's outage can reduce Network 1's reliability even when Network 1 plans to meet its own planning standards.

The gap arises when the outage creates a system-security risk—the power system's ability to withstand disturbances.

Coordination must manage one party's effect on another's network services. Network-centric criteria miss the broader power-system impact.

WHY THE PLANNING CRITERIA INTERACTIONS (PCI) MECHANISM IS NOT SUITABLE

- **Requires ISO to forecast and manage every planned outage that might cause a PCI.**
- **Does not resolve differences in outage-planning risk appetite.**
- **Does not address non-network outages.**
- **Was designed to manage fundamental differences in planning criteria (for example, N-1 versus N-0).**

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Outage Coordination Process



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Discussion of ISO role

Outages that are:

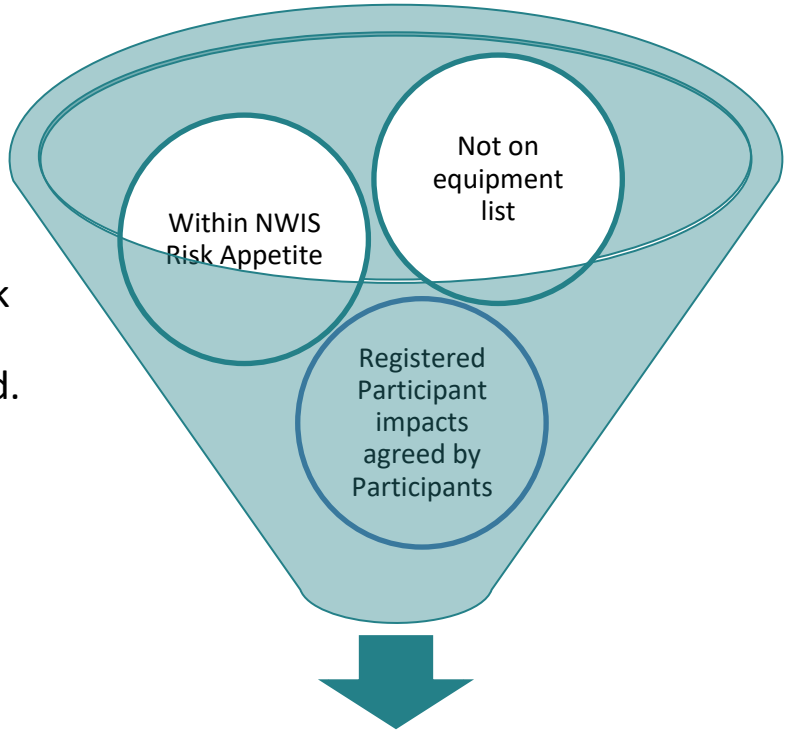
- Involving equipment on the equipment (outage impact – refer slides 23-26) list.
- Within the NWIS risk appetite with mitigations implemented and those mitigations are within your control.
- Verified by ISO as consistent with Risk Framework and there are no schedule conflicts.

could be automatically 'approved' by ISO and proceed.

All other jurisdictions require ISO approval to enable transparent scheduling of outages and to manage system security and reliability.

If no ISO approvals, what should the process be?
Particularly in the following circumstances:

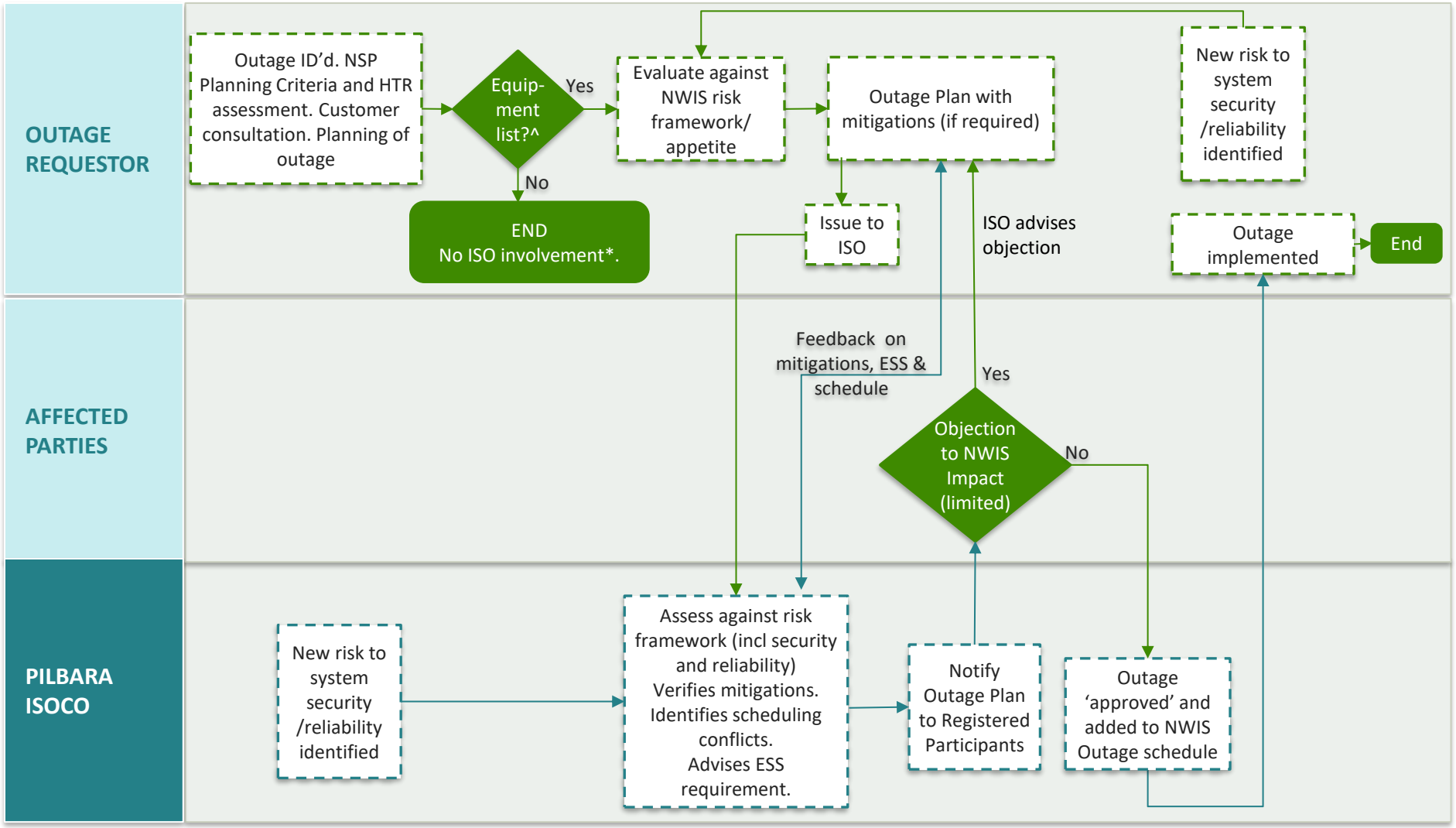
- The outage can not be delivered within the risk appetite (physically not possible)?
- The outage mitigations are so costly to bring within the risk appetite it is unreasonable?
- Mitigations are outside Outage Requestor's control?



Outage Plan proceeds

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Revised PNR Outage Coordination Process

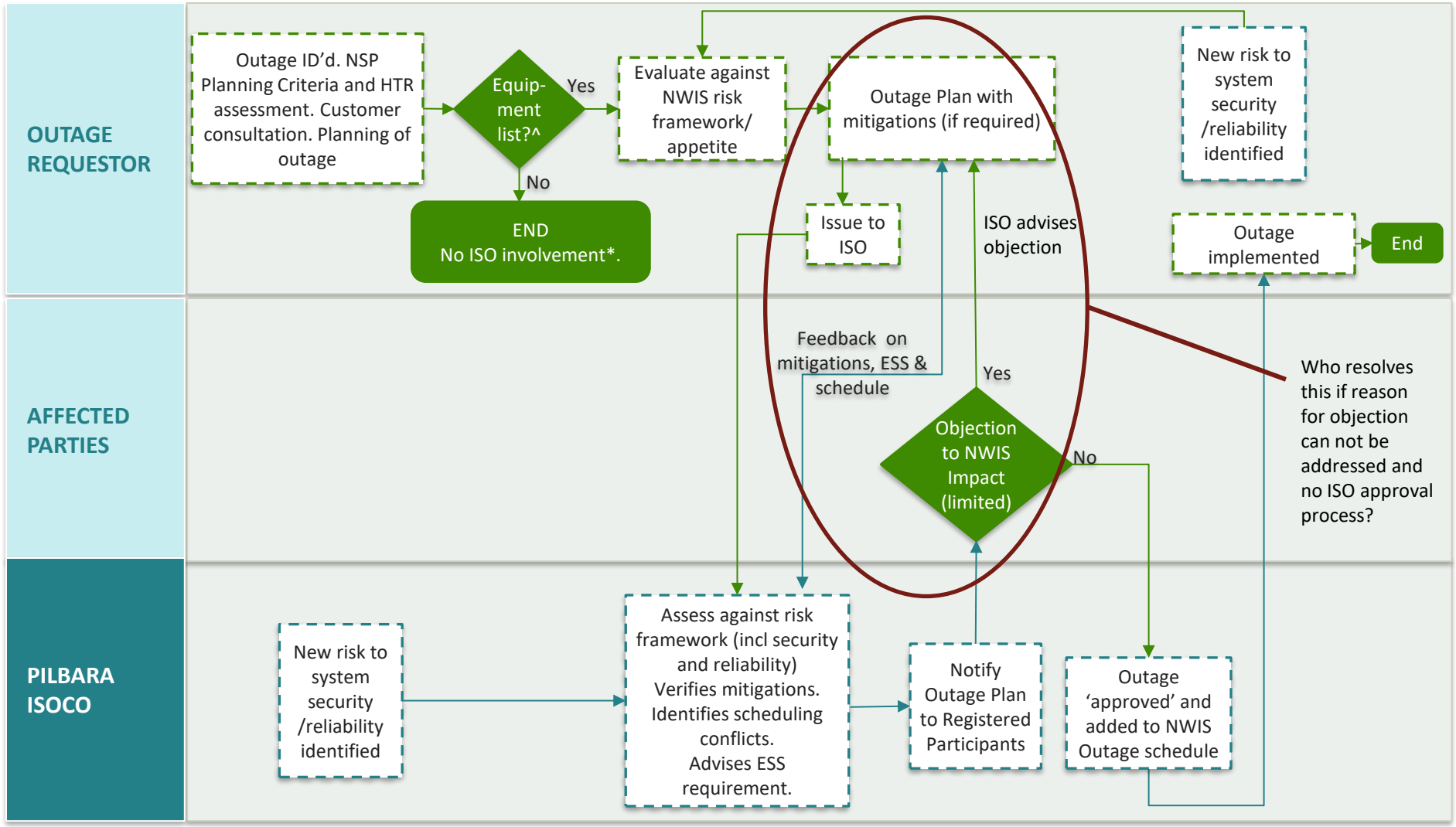


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^Outage Impact List, refer slides 23-26
*Notification may be required for select outages

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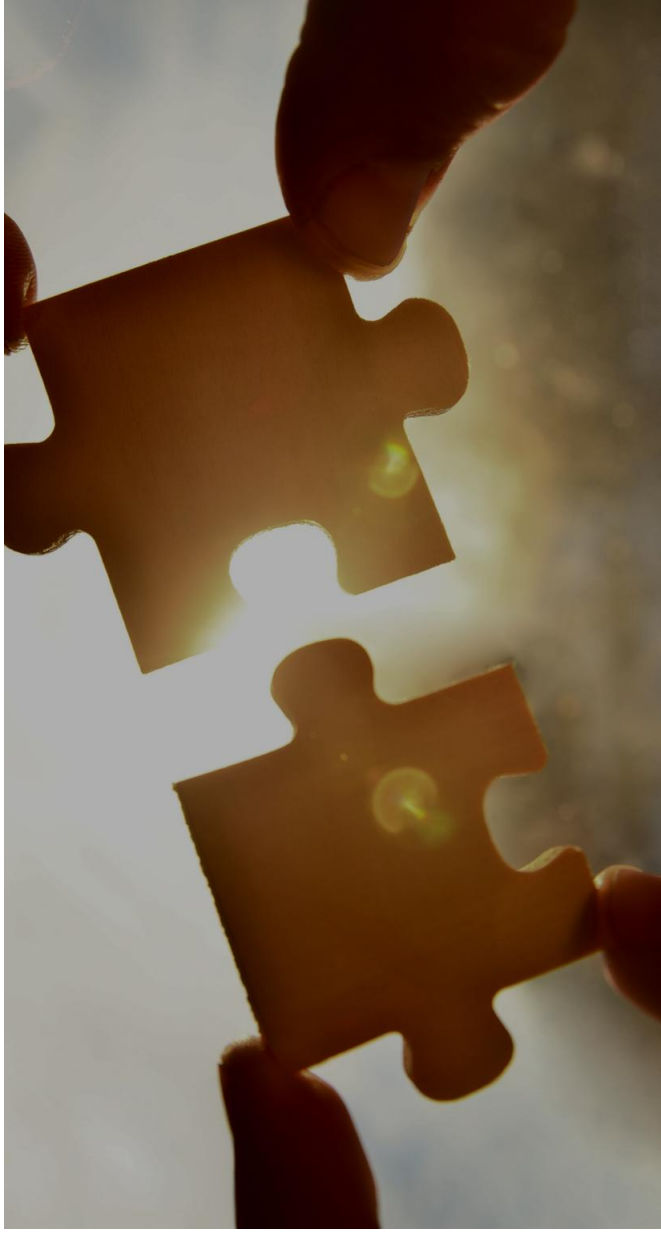
Revised PNR Outage Coordination Process



^Outage Impact List, refer slides 23-26
*Notification may be required for select outages

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Equipment (Outage Impact) List Drafting



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Equipment (Outage Impact) List – Updated
(Procedure content)

WORKSHOP 1 SIGNAL

Materiality threshold

- Not all equipment outages/risks should go through the process.
- Avoid assessing every individual asset; reduces administrative burden.

DESIGN RESPONSE

Decision shift from the asset to a binary (yes/no) functional impact assessment.

THE PROPOSED SHIFT

FROM	TO
Is this piece of equipment on the list?	**Will this outage or activity have a functional impact?**

REASONING

AUTONOMY & RISK	Higher-risk: the outage owner decides whether an outage falls within the Outage Impact List - without ISO oversight.
SCOPE GUARDRAIL	For generation/storage facilities and their critical auxiliary systems – to manage single point of failure activity.
CONTINUITY	Improves current practice where outage owners assess whether an outage might credibly adversely impact PSSR, with clearer guidance before escalation.

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Activities: 3 Types of PSSR Risk

Type 1

Loss of functionality

EXAMPLES

- Line outage from a circuit breaker or protection-scheme outage
- Generator maintenance outage
- Solar farm collector-circuit outage

RISK EFFECT

Guaranteed, immediate impacts — network reconfiguration or loss of generation capacity

Type 2

Loss of redundancy (non-electrical)

EXAMPLES

- Work on a redundant gas-pressure skid
- Outage of redundant DC supplies
- Outage of redundant communications pathway

RISK EFFECT

May reclassify a non-credible contingency to credible contingency

Type 3

Testing or commissioning

EXAMPLES

- Generation and storage facilities
- Transmission network elements

RISK EFFECT

Increased risk of power-system instability

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Type 1 – Loss of Functionality

Type 1

Loss of functionality

EXAMPLES

- Line outage from a circuit breaker or protection-scheme outage
- Generator maintenance outage
- Solar farm collector-circuit outage

Leads to guaranteed immediate impacts

EXAMPLES

- Network reconfiguration
- Loss of parallel network pathway
- Loss of generation capacity

RISK EFFECT

Guaranteed, immediate impacts — network reconfiguration or loss of generation capacity

ISO Coordination

Partial risk assessment/coordination:

- Single generating unit outages - notify-only assuming balancing nominees can maintain balance with 1 unit/facility out of service (as is currently the case)
- Needs schedule conflict assessment (e.g. lack of generation adequacy)
- Inverter based resource "outage" to be defined based on threshold for percentage available capacity.

Full risk assessment/coordination:

- Multiple concurrent generation outages by same party
- Distribution network outages only if they impact registered facilities or an interconnector.

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Type 2 – Loss of Redundancy

Type 2

Loss of redundancy (non-electrical)

EXAMPLES

- Work on a redundant gas-pressure skid
- Outage of redundant DC supplies
- Outage of redundant communications pathway

RISK EFFECT

May reclassify non-credible contingency into credible contingency

Leads to increased risk of non-credible contingency

EXAMPLES

- Loss of fuel supply
- Loss of mission critical auxiliary systems
- New single point of failure risk eventuating

ISO Coordination

All Type 2 outages need full risk assessment and coordination :

- risk of non-credible contingencies are not covered by security measures (ESS, constraint rules) for normal operating conditions

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Type 3 - Test/Commission

Type 3

Testing or commissioning

Leads to increased risk of power system instability

EXAMPLES

- Generation and storage facilities
- Transmission network elements

EXAMPLES

- Cross-network active power swings
- Unstable behaviour of voltage control systems
- Control interactions between user facilities

RISK EFFECT

Increased risk of power-system instability

ISO Coordination

Not all Type 3 outages need full risk assessment and coordination process

Scheduling assessment only:

- Non-synchronised (off-grid) tests present no PSSR risk (consider if this is a Type 1 event instead)

Full risk/coordination process for:

- Synchronised tests that involve changes in active or reactive power output at terminals/connection point of generator/storage >10 MW
- Commissioning/energisation/cut-over of new transmission equipment

Outage Impact List – Updated thoughts

(Procedure content)

Outage of/leading to	Covered Networks	Integrated Mining Networks
Transmission network element >33kV i.e. lines, circuit breakers, isolators, busbars, transformers	✓	Testing/ commissioning
Any interconnector network element i.e. lines, circuit breakers, isolators, busbars, transformers	✓	✓
Loss of transmission voltage control	✓	✓
Loss of voltage control of part of the distribution system used to connect generation/storage >10MW	✓	
Loss of ability to balance a portfolio	✓	
Network element or generation/storage facility used provide/deliver ESS to any network	✓	✓
Secondary equipment essential to operate interconnectors with other registered networks	✓	✓
Loss of visibility to ISO Control Desk	✓	✓
Generation >10MW (notify only for 1 unit/facility, full process for 2 or more units/facilities concurrently within the same portfolio)	✓	Testing/ commissioning
Storage >10MW (notify only for 1 facility, full process for 2 or more facilities concurrently within the same portfolio)	✓	Testing/ commissioning
Testing and commissioning of the above	✓	As marked above

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Q: Is there anything here that would prevent support of a Rule change given this is for a procedure?

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Indicative only – does not reflect conclusion in these workshops

Discussed

Outage Impact List – Updated thoughts

(Procedure content)

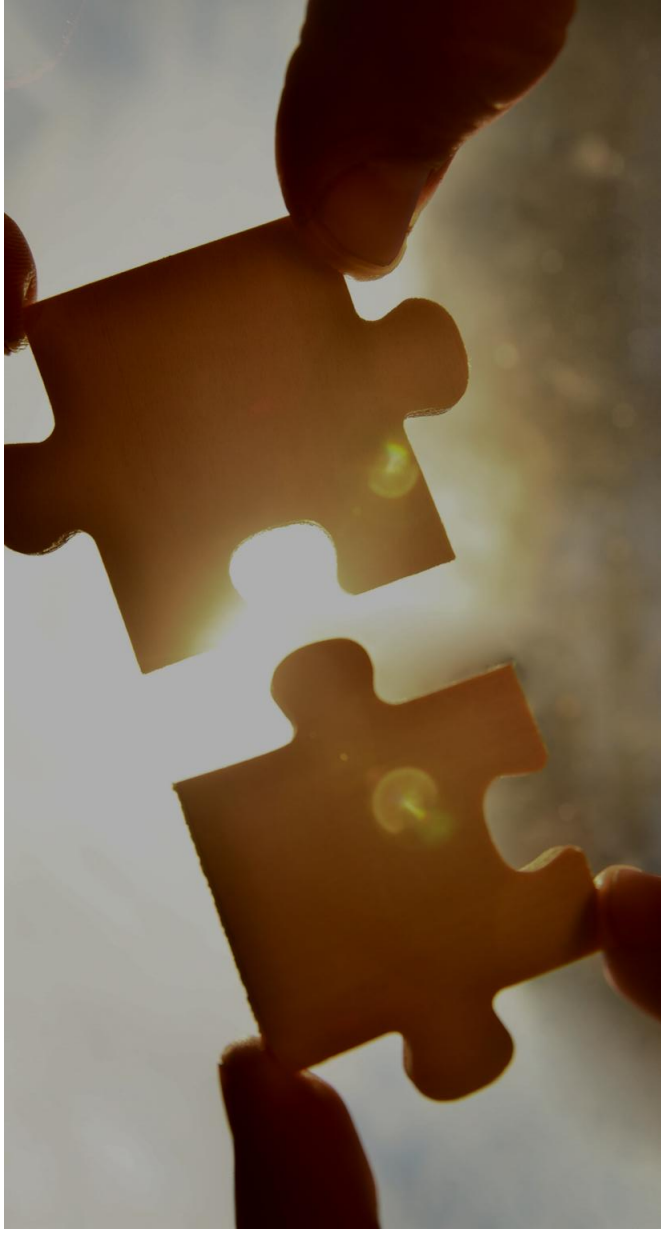
Outage of/leading to	Covered Networks	Integrated Mining Networks
Equipment in generation/storage > 10MW for which an outage has the potential to create a new single point of failure of the facility	✓	✓
Need for cooperation with another registered NSP or registered participant on another network (e.g. switching programmes, voltage control)	✓	✓
Equipment on an integrated mining network that might credibly be expected to present a material PSSR risk to a covered network (Rule 5 catch all)		✓

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Q: Is there anything here that would prevent support of a Rule change given this is for a procedure?

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Risk Framework Drafting



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Risk Framework – Starting point

(Compliance Procedure Table 5 content)

Level	Rank	Health and Safety	Damage to P & E	System Security/Reliability	Financial (direct and indirect)
1	Insignificant	First aid	No measurable damage to plant and equipment No plant outage	Power system secure state maintained [Rule 164] Technical non-compliance only No load shedding System remains within Frequency Band (49.75 to 50.25 Hz)	No direct or indirect financial impact to participants
2	Minor	Medical treatment only	Damage to plant and equipment resulting in a plant outage ≤1 day	No load shedding System is not within Frequency Band (49.75 to 50.25 Hz) but within Frequency Band (49.00 to 51.00 Hz)	Estimated financial consequences: • Offending participant gain ≤ $250k • Other participant loss ≤ $250k
3	Moderate	Injury requiring ≤ 5 days hospitalisation	Damage to plant and equipment resulting in a plant outage >1 day - ≤ 3 days	No load shedding System is not within Frequency Band (49.75 to 50.25 Hz) but	Estimated financial consequences:

Level	Rank	Health and Safety	Damage to P & E	System Security/Reliability	Financial (direct and indirect)
		Ongoing medical treatment	Facility fully restored within a week	within Frequency Band (49.00 to 51.00 Hz)	• Offending participant gain > $250k to ≤ $1m • Other participant loss > $250k to ≤ $1m
4	Major	Serious injury requiring > 5 days hospitalisation Localised impact on public safety	Damage to plant and equipment resulting in a plant outage > 3 days - ≤ 5 days Facility fully restored within month	Load Shedding occurs (up to 17%) System is not within Frequency Band (49.75 to 50.25 Hz) but within Frequency Band (48.75 to 51.00 Hz)	Estimated financial consequences: • Offending participant gain >$1m to ≤ $5m • Other participant loss >$1m to ≤ $5m
5	Catastrophic	Single fatality Permanent injury Widespread threat to public safety	Damage to plant and equipment resulting in a plant outage > 5days Facility cannot be fully restored	Load Shedding occurs (> 17%) System is not within Frequency Band (48.75 to 51.00 Hz) or black start required.	Estimated financial consequences: • Offending participant gain > $5m • Other participant loss > $5m

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Risk Framework – Initial thoughts

(Procedure content)

RISK ASSESSMENT WORKFLOW

01 CAPTURE THE WORK

Record affected electrical/control equipment, nature of works, recall time, duration, overnight return-to-service, concurrent outages, and prerequisite conditions.

02 IDENTIFY THE RISK CATEGORY

Identify which categories of risk apply from the Risk Framework.

03 ASSESS/RATE EACH PSSR RISK

List the risk, causes and consequences; set likelihood and consequence ratings; calculate inherent risk.

04 MITIGATION PROPOSED FOR EACH PSSR RISK

Identify the controllable mitigations.

05 ESCALATE IF REQUIRED

If residual risk remains above Moderate, propose higher controls such as ESS or constraints; identify affected registered participants.

Risk Framework – Assess each PSSR Risk

(Procedure content)

Could the unmitigated planned activity create any of these PSSR risks?

Assess the outage, testing or commissioning against expected network and environmental conditions.

Assess impacts on other participants on pre-contingent basis unless specified otherwise.

01 RELIABILITY

Reduced reliability in any part of a covered network or interconnections between registered networks.

02 RESERVE GENERATION

Insufficient online headroom or offline post-contingent balancing after single credible contingency.

03 CONTINGENCY

Elevated likelihood of a non-credible contingency.

04 ESS

Reduced contracted ESS available to any part of a covered network*.

05 VOLTAGE

Reduced voltage control on any part of a covered network.

06 FAULT LEVEL

A material fault-level reduction likely to affect inverter-based generation or storage stability.

07 BALANCE

Reduced participant ability to maintain balance; or any listed impact on an Integrated Mining Network caused by covered-network work (Rule 5(d)).

08 INSTABILITY

Interactions between user facilities and/or network devices leading to system instability.

09 INTEGRATED MINING NETWORK

Any listed impact on an Integrated Mining Network caused by covered-network work (Rule 5(d)).

*"any part" includes transmission and distribution used to connect generation, storage or consumer facilities >10 MW.

Risk Framework – Initial thoughts

(Procedure content)

STANDARDISED RISK MATRIX

CONSEQUENCE CATEGORIES	Compliance Procedure Table 5? PSSR only?
CONSEQUENCE · 1–5	Insignificant · Minor · Moderate · Major · Catastrophic
LIKELIHOOD · 1–5	Rare · Unlikely · Possible · Likely · Almost Certain
RISK RATING	**Low 1–5 · Moderate 6–9 · Significant 10–14 · Extreme 15–25**

Consequence and likelihood ratings on next slides are given for context and are indicative only – content to be consulted on separately

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Consequence Ratings –thoughts

(Procedure content)

Consequence	PSSR Impact
Insignificant (1)	• Power system secure state maintained [Rule 164] • No load shedding • System remains within Frequency Band (49.75 to 50.25 Hz) • No constraint directions
Minor (2)	• No load shedding • System is not within Frequency Band (49.75 to 50.25 Hz) but within Frequency Band (49.00 to 51.00 Hz) • No constraint directions
Moderate (3)	• No load shedding • System is not within 49.75 to 50.25 Hz but within 49.00 to 51.00 Hz • Constraint directions required
Major (4)	• Load Shedding stage 1 (up to 17%) • System is not within 49.75 to 50.25 Hz but within 48.75 to 51.00 Hz • Constraint directions required
Catastrophic (5)	• Load Shedding stage 2 or more (> 17%) • Underfrequency islanding • System is not within 48.75 to 51.00 Hz • Black start required

Likelihood Ratings – Initial thoughts

(Procedure content)

Likelihood	Description
Rare (1)	• < 1% probability • May occur in exceptional circumstances • May occur once every 10 years
Unlikely (2)	• 1 - 5% probability • Unlikely to occur in most circumstances • May occur once every 5 years
Possible (3)	• >5 - 50% probability • Not expected in most circumstances • May occur once every 2 years
Likely (4)	• >50 - 80% probability • Can be expected in most circumstances • May occur once every year
Almost Certain (5)	• > 80% probability • Will occur in most circumstances • Occurs once every 6 months

Risk Framework – Potential Escalation Points

(Procedure content)

CONTROLS AND MITIGATIONS TO BRING WITHIN NWIS APPETITE MAY REQUIRE ESCALATION

OUTAGE CAUSER PAYS

These are controls/mitigations within the Outage Requestor's control that successfully bring the NWIS within the Risk appetite.

Examples include rescheduling the activity, re-dispatching own generation fleet, utilising different fuels, utilising 3rd party providers/suppliers, adjusting outage timeframes to return assets to service between activities to reduce likelihood exposure

ESCALATION TO ISO

When Outage Requestor/Causer can not control the required mitigation/controls to bring NWIS within risk appetite.

Examples include when a Causer Pays mitigation such as those examples above are not available or insufficient and an ISO coordinated mitigation/control is required. This may include drawing on ESS or utilising the constraint rules.



Thank you

Please provide feedback on how things went today:

https://form.menti.com/s/aldkp5puhhda

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Department of
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GOVERNMENT OF WESTERN AUSTRALIA

EPNR Working Group

14 October 2026

ESS cost recovery in the PNR

FCESS (regulation) costs currently fall upon the party responsible for nominating energy volumes. By default, this is the network user. The allocation is calculated based on the size of the difference between maximum load and minimum load for the entire three-year reference period, even if their load is extremely predictable.

SRESS (contingency reserve raise) costs are recovered from connected parties based on the size of their largest generation unit, regardless of how many units the participant has or whether the largest unit actually operated in any particular time period.

These arrangements are reasonable when participants have similarly sized generation portfolios, large units are run at high-capacity factors, and there are few intermittent facilities. As renewables and storage enter the system these arrangements are not appropriate and will increasingly allocate costs to parties who do not drive the need for these services and cannot control their exposure to the costs.

EPNR Review outcomes: ESS cost recovery

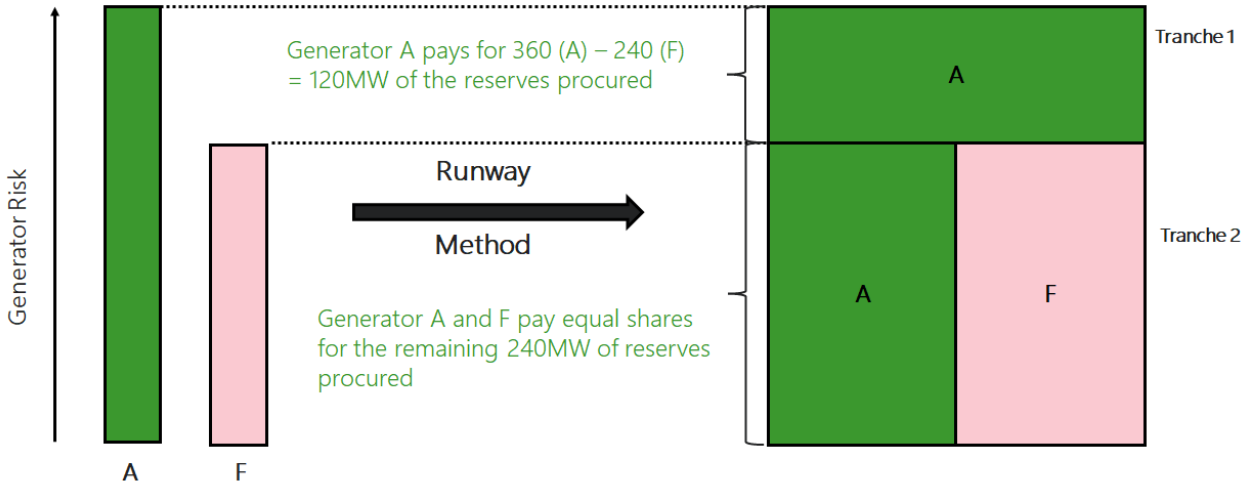
ID	Outcome
5.1	ESS costs will be recovered from causers, where practical, on a trading interval basis.
5.2	Regulation costs will be allocated to participants who vary, beyond an applicable tolerance, their generation or load from their balancing positions.
5.3	Contingency Reserve Raise costs will be allocated to supply facilities based on their output in each interval, according to the runway method.
5.4	Facilities will be exempt from Contingency Reserve Raise costs if they provide evidence that an Energy Producing Facility trip would be automatically offset by load curtailment on the same site.
5.5	Contingency Reserve Lower costs will be allocated to large loads based on their demand in each interval, according to a runway method.

CRR: The runway method

The runway method allocates contingency reserve costs to generators based on the MW needed to cover the risk of them tripping.

The current PNR approach uses the nameplate capacity of one facility for each participant. This approach is not suitable for a supply fleet where participants have different sized portfolios with increasing volumes of renewable generation.

The proposed approach uses actual generation in each half-hour interval.



Implementation: Contingency raise

In the NWIS, the ISO procures CRR in two ways: a contract for a base quantity that is always available, and supplementary service that can be enabled and disabled by system controllers as needed. We propose to determine a cost per interval as follows:

- Allocate costs of the base quantity evenly across all trading intervals.
- Allocate costs of supplementary services to the trading intervals in which they are used.

To determine the runway shares, we will need to collate half-hour interval generation data for each energy producing facility.

If a part of the NWIS is islanded, then supplementary services may be required solely for that island. It would be possible to calculate a separate runway allocation for each island, but the effort required likely outweighs the avoided distortion to causer allocation.

What implementation issues do members see for this approach?

Implementation: Regulation (1)

The ISO currently contracts for regulation on an annual basis. There is a primary provider, who provides the same quantity all year round, and secondary providers, who only provide service when the primary provider cannot (e.g. if it has an outage, or there is an islanding event).

When responding to frequency changes within a trading interval, a regulation provider may generate more or less energy than it had planned to. This additional energy is accounted for in energy settlement calculations, where participants pay penalty rates for their out of balance energy.

The remaining contract payments must still be recovered. Currently, these costs are allocated to participants based on the difference between their maximum load and their minimum load for the entire three-year reference period. This does not reflect the predictability of the load, and does not reflect what drives the regulation requirement.

Causers of the need for regulation are those whose net generation or consumption varies from their scheduled quantity within a dispatch interval – i.e. those with energy imbalances.

Implementation: Regulation (2)

There are two options to allocate costs based on energy imbalances. Both need interval level scheduling and meter data.

- Per trading interval:
  - divide regulation costs across half-hour intervals so that costs are higher in intervals where the requirement is higher
  - allocate those costs to participants based on the absolute value of the difference between the scheduled quantity and the metered quantity in that interval.
- Per settlement period:
  - Calculate regulation costs for the settlement period as a whole
  - Calculate the difference between the scheduled quantity and metered quantity in each interval
  - Allocate costs based on the sum of the absolute values of per-interval energy imbalances.

What implementation issues do members see for this approach?

Exemptions from funding ESS costs

- Contingency reserve:
  - where a participant provides its own reserve for a supply facility behind the connection point which does not export, then it need not contribute to system-wide ESS costs.
  - To exclude a supply facility behind a connection point from the runway allocation, the ISO must be satisfied that it need not provision reserve for that facility. That means that the participant must demonstrate that it has automated mechanisms in place to automatically shed load if the supply facility trips.
- Regulation:
  - Participants cannot be exempted from contributing to regulation costs.
  - Participants can theoretically reduce their exposure to zero by accurate operation.