

Risk Management Framework

Summary

This document details TransGrid’s Enterprise Risk Management (ERM) framework which provides an integrated and structured approach to managing risks within the risk appetite established by the TransGrid Board.

The ERM Framework provides guidance on expected Board, management and staff behaviours when managing risks as they arise in our pursuit of strategic and operational objectives.

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1. Purpose

Risk management is a central part of strategic and operational management. TransGrid undertakes risk management processes to understand and manage risk by controlling uncertainty to a tolerable level in line with TransGrid's Risk Appetite Statement (RAS).

This ERM framework outlines the requirements for risk management within TransGrid. The objective of TransGrid's ERM framework is to enable a consistent, efficient and effective approach to the management of risk at all levels of the organisation.

This framework applies to the Board, Executive Managers, the Senior Leadership Team, staff and contractors at TransGrid for both current and future activities.

2. Principles and Commitments

TransGrid is committed to being proactive and maintaining leading approaches and tools to support our people to effectively manage risk at all levels of the organisation. The objective of TransGrid's ERM framework is to provide guidance in developing a consistent and effective approach to Risk Management including policies, systems and procedures.

The Board is responsible for defining TransGrid's strategy and approving the RAS. Management is responsible for execution of risk management activities.

The guiding principles for this ERM framework are to:

- > Provide a fit for purpose risk model that includes management of strategic, operational and project risk.
- > Promote a culture of risk management where staff and management demonstrate positive risk behaviours.
- > Embed a pragmatic approach to identifying, assessing, managing and monitoring risks.
- > Clearly identify that risk applies to all levels of TransGrid from the Board, Executive managers, managers, staff and contractors, and should drive and inform decision making.
- > Establish a clear and transparent approach to identifying and managing strategic risks that drive positive outcomes for TransGrid.

To achieve the guiding principles, the ERM framework will enable the following:

- > Create a heightened **awareness** of the risks faced by TransGrid and the importance of the risk management process for decision making and contributing to the control of these risks;
- > Create clear **accountability** for the ownership of risks and risk actions;
- > Provides guidance on the risk **appetite** and monitor exposures against the risk appetite levels determined by the Board; and
- > Take **action** to reduce risk and enhance opportunities.

3. Definitions

Term	Definition
Context	Describes the goals, objectives and depth of analysis for the area of review. It considers the external and internal environment in which TransGrid seeks to achieve its objectives.

Term	Definition
Control	Current measures that are modifying or treating a risk such as processes, policies, practices or other actions that act to minimise negative risks or enhance positive opportunities.
Consequence	The outcome of an event.
Control owner	A control owner is responsible for the implementation of a control which mitigates a risk that they may not own.
Cost Effective Treatment	Describes actions that are good value, where the benefits and usage are worth at least what they cost to implement and maintain. A Control is cost effective if the benefit is considered to be greater than the cost. The level of review and justification should be in proportion to the level of Risk and proposed expenditure.
Impact	The amount of loss or gain that is sustained from the Consequence of a risk.
Inherent Risk	The level of risk that exists prior to control measures being introduced or applied, or the level of risk that exists if controls and risk treatments were removed or not applied.
Planned Risk	Forecast of where the risk could be if all controls are effective.
Residual Risk	The level of risk remaining after control measures/treatments have been implemented. The risk rating to be applied to a residual risk is based on the current controls and their level of effectiveness.
Risk	The effect of uncertainty on achieving TransGrid's objectives, noting that effect is a deviation from the expected and may be positive and/or negative. Risk is measured in terms of Impact and likelihood.
Principal Risk	A risk or combination of risks that can seriously affect the performance, future prospects or reputation of the entity.
Risk Assessment	A systematic process of Risk identification analysis and evaluation.
Risk Event	An occurrence or change in a particular set of circumstances.
Risk Likelihood	The chance of a Risk happening.
Risk Management	The culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects. Risk management provides greater assurance that TransGrid is achieving its objectives by minimising threats and seizing opportunities.
Risk Owner	The position with accountability and authority to manage a Risk. For Strategic Risks across TransGrid, the assigned Executive Manager will be the Risk Owner.
Risk Treatment	Selection and implementation of appropriate actions for modifying Risk.
Risk Register	Part of the Risk Management plan that identifies risks, evaluates them and identifies current or future risk treatments and controls to modify the risk.
Risk Appetite	The level of risk that TransGrid is willing to retain in pursuit of its strategic objectives.
Risk Tolerance	The maximum level of risk that TransGrid is willing to retain in pursuit of its strategic objectives.

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4. Risk Culture

TransGrid is committed to establishing and promoting an environment which fosters positive risk behaviours throughout the organisation.

The effectiveness of the ERM framework rests on a strong risk culture. The risk culture at TransGrid is underpinned by a set of behaviours that ensure that risk management is embedded into decision making processes across the organisation.

TransGrid's risk culture attributes include:

- > Engagement of the Board, the CEO, Executive Management and the Senior Leadership Team in the risk process;
- > Evidenced based decision making that takes account of the range of possible outcomes for future events;
- > Constructive challenging of assumptions, biases and preconceptions;
- > Collaborative approach to risk management that engages the right skills when identifying, analysing and managing risks;
- > Proactive and honest approach to identifying and addressing potential problems, supported by senior leaders; and
- > Appropriate escalation and transparent reporting of risks which could have a material impact on TransGrid's objectives.

TransGrid's risk culture will be supported by providing role specific risk management training to all staff. The Risk and Insurance function will continually monitor TransGrid's risk culture to ensure the required behaviours are demonstrated.

5. Risk Appetite

TransGrid has a RAS which is set by the Board and reflects the Board's expectation on the amount of risk that TransGrid is willing to take in pursuing its strategic objectives. All staff are required to understand the RAS and apply it to their day-to-day decision making processes.

An individual Risk Appetite Statement (RAS) is developed for each principal risk on an annual basis. This statement outlines the level of risk (likelihood and consequence) that is and isn't acceptable.

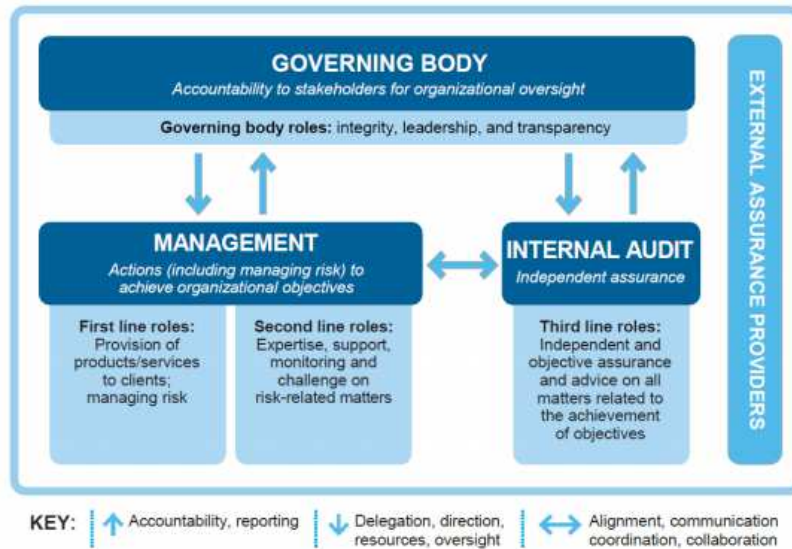
The RAS is operationalised by the consequence scale, likelihood scale and the risk matrix. This enables any risk identified within TransGrid to be plotted on the risk matrix so that the risk owner can determine whether the risk is acceptable or not. The residual risk rating determines the risk management activities that are required (see section 7.2.5).

6. Governance

6.1 Three Lines Model

TransGrid has adopted the "Three Lines Model" to ensure clearly defined responsibilities in relation to risk ownership, assurance and independent audit. Each of these lines has a distinct role in TransGrid's governance and oversight.

Institute of Internal Auditors outlines the "Three lines Model".



First Line – Risk Owners

The first line comprises those roles which are directly aligned with the delivery of projects, products and services as well as those providing support functions. These roles are responsible for managing risks in accordance with the ERM Framework.

The role of the first line is to:

- > Leads and directs actions (including managing risk) and application of resources to achieve the objectives of the organization.
- > Maintains a continuous dialogue with the governing body, and reports on: planned, actual, and expected outcomes linked to the objectives of the organization.
- > Establishes and maintains appropriate structures and processes for the management of operations and risk (including internal control).
- > Ensures compliance with legal, regulatory, and ethical expectations. That is, a key responsibility of the first line is to direct the implementation of and ensure compliance with, the policies and procedures set out by TransGrid.

Second Line – Advise, Review and Challenge

The second line comprises of numerous specialist functions within TransGrid who perform risk management. The Risk and Insurance function’s second line role is to ensure the implementation of the ERM framework and Project Risk Management Procedure throughout TransGrid and to provide assurance to Executive Management regarding the effectiveness risk management activities.

The Head of Risk and Insurance who has been appointed by the CEO as the primary risk officer for TransGrid, is responsible for providing guidance to the Executive Managers and management/staff on material risks and the conduct of risk assessment processes. In addition, this role will monitor and challenge the business on the progress of risk management activities.

Third Line - Independent Assurance

The third line is set by the Executive / Board to satisfy themselves, from a fully independent perspective, that the organisation will deliver against corporate / project objectives. The third line of defence is delivered by Internal Audit, and may be supported by external, independent experts so long as these are managed by Internal Audit.

- > Maintains primary accountability to the governing body and independence from the responsibilities of management.

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- > Communicates independent and objective assurance and advice to management and the governing body on the adequacy and effectiveness of governance and risk management (including internal control) to support the achievement of organizational objectives and to promote and facilitate continuous improvement.
- > Reports impairments to independence and objectivity to the governing body and implements safeguards as required.
- > Primarily provides assurance over the effective implementation and operation of governance and risk management controls conducted at the 2nd line of defence and at times at the 1st line of defence.

6.2 Roles and Responsibilities

The roles and responsibilities that underpin the ERM framework at TransGrid are detailed below.

Title	Responsibilities and Accountabilities
Board	<ul style="list-style-type: none"> > Sets tone on risk management culture. > Determine the nature and extent of the principal risks in achieving strategic objectives. > Review and approve the ERM framework. > Review and approve TransGrid's RAS. > Build risks / rewards when defining the TransGrid strategy. > Review the risk profile of the company and approve the policies and systems implemented for the ongoing identification and management of risks.
Board Audit and Risk Committee (BARC)	<ul style="list-style-type: none"> > Review and recommend the ERM framework to the Board. > Assist in promoting a risk aware culture. > Approve the annual risk management plan. > Approve the principal and emerging risks, as developed by the Executive Managers.
Board Health, Safety and Environment Committee	<p>Specific responsibilities are to:</p> <ul style="list-style-type: none"> > Monitor TransGrid's health and safety risks and performance. > Ensure TransGrid implements processes for complying with duties under the any relevant workplace rules, laws and regulations.
Board Regulatory Committee	<p>Specific responsibilities are to:</p> <ul style="list-style-type: none"> > Monitor TransGrid's risks and performance in relation to revenue reset. > Oversee TransGrid's activities in relation to regulatory changes arising from the National Electricity Law and the National Electricity Rules and Regulations.
Board Remuneration and Structure Committee	<p>Specific responsibilities are to:</p> <ul style="list-style-type: none"> > Support the Board in fulfilling its obligations in relation to Non-Enterprise Agreement of the remuneration and organisational structure. > Advise the Board on remuneration strategies including the overall framework for long and short term incentives for TransGrid's Executive and Senior Management. > Advise the Board on organisational structure and succession arrangements for TransGrid's Executive and Senior Management.
CEO	<p>The CEO has overall accountability and ultimate responsibility for risk management at TransGrid. Specific responsibilities are to:</p>

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Title	Responsibilities and Accountabilities
	<ul style="list-style-type: none"> > Review and promote the ERM framework; > Hold the Executive Managers and the Head of Risk and Insurance to account for risk management responsibilities; > Ensure alignment of risk management to business strategy; > Set the tone by driving a positive risk management culture; and > Communicate risk management roles and responsibilities.
Executive Managers	<ul style="list-style-type: none"> > Provide a positive risk management culture within their business or functional unit. > Provide risk management leadership within their business or functional unit, including ownership of principal and emerging risks. > Provide oversight of risk management activities with their business or functional unit, including functional unit risks and the implementation of business management systems. > Provide input to the enterprise wide risk management plans. > Lead risk management across TransGrid. > Identify and assess the strategic risks to TransGrid. > Ensure implementation of controls and management of assigned strategic risks. > Integrate risk management into their business or functional unit planning. > Report to the Head of Risk and Insurance and BARC on identified material risks and the adequacy of systems to manage these risks on a quarterly basis.
Senior Leadership	<ul style="list-style-type: none"> > Be accountable for assigned operational risks. > Promote the risk management principles and risk culture at the business or functional unit level. > Provide risk management leadership within their business unit, including ownership of business unit risks.
Managers / Project Managers	<ul style="list-style-type: none"> > Identify, assess and manage operational and project risks. > Drive risk management culture at a business unit and a project level.
Head of Risk and Insurance	<ul style="list-style-type: none"> > Develop the annual risk management plan and oversee implementation of the ERM framework and RAS. > Provide assurance to the Board (via the BARC) that the risk management principles and risk culture are being demonstrated across the organisation. > Provide assurance that exposures are aligned to risk appetite. > Report material and emerging risks to the BARC. > Provide guidance to the Executive Managers and management/staff on material risks and the conduct of risk assessment processes. > Monitor and challenge business progress on the implementation of risk management activities. > Consolidate risk reporting from Business Unit and Project level to the Board Audit and Risk Committee on material and emerging risks. > Provide guidance to the Executive Leadership (Executive Managers) and management/staff on material risks and the conduct of risk assessment processes.

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Title	Responsibilities and Accountabilities
	<ul style="list-style-type: none"> > Monitor and challenge business progress on the implementation of risk management activities.
Head of Internal Audit	<ul style="list-style-type: none"> > Develop the annual Internal Audit Strategy and Plan. > Conduct internal audits and monitor implementation of internal audit actions. > Support the BARC in evaluating the effectiveness of risk mitigation strategies implemented by management.
All Staff, Contractors	<p>All staff and contractors are responsible for the management of risk within their sphere of influence. Specific responsibilities are to:</p> <ul style="list-style-type: none"> > Use the ERM framework to support risk management activities and decision making. > Participate in the identification, assessment, reporting and management of risk. > Keep abreast with the TransGrid risk management process and its application within their area of responsibility. > Apply risk plans in their areas of responsibility by identifying, communicating and responding to expected or emerging risks.

7. Enterprise Risk Management Strategy

Effective risk management enables TransGrid to meet its strategic objectives. TransGrid's risk management process is aligned to ISO 31000:2018, the globally accepted standard for risk management.

7.1 ERM Structure

Risk Level	Enterprise Risk Management level	Accountability	Risk Register
1	Strategic Level	CEO Executive Managers	Principal and Emerging Risk Registers
2	Business Unit Level	Executive Manager Senior Leadership Team	Operational Risk Registers
3	Project/Asset Level	Project Manager	Project / Asset Risk Registers

7.1.1 Strategic level

At the Strategic level, the Executive Managers participate in an annual risk workshop to identify and assess the principal and emerging risks. This workshop is facilitated by the Head of Risk and Insurance and aligns to the business planning process. The principal and emerging risks are recorded in Camms, are owned by the relevant Executive Manager and are linked to the strategic objectives.

The Risk and Insurance function will work with the owners of the business unit operational level risks to map their controls to each principal risk. These controls will be given a control rating by the control owner and partially effective or ineffective controls will require improvement plans to be captured in Camms.

In addition, principal risks owners are responsible for developing and maintaining key risk indicators (KRI's) for their principal risks.

The Risk and Insurance function will report the status of each principal and emerging risk, along with the status of controls, risk actions and KRI's to the BARC on a quarterly basis.

7.1.2 Business Unit level

At the Business Unit level, the Executive and the Senior Leadership Team are responsible for conducting an annual risk identification and assessment to determine the material risks to their Business Unit's objectives and those of the wider business. These risks are recorded in Camms and will have the appropriate aspects of the business management system mapped to each risk. Each identified control will be rated by the control owner and where a control is rated as partially effective or ineffective, an improvement plan will be captured in Camms.

Each business unit risk will be linked to the relevant principal risk to demonstrate TransGrid's top-down bottom-up approach to risk management.

The main types of risk, without limitation, that may be identified in the Operational risk register at a Business/Functional Unit level are:

- > Investment Risks
- > Project Risks
- > Safety, Health and Environment Risks
- > IT Risks
- > Fraud Risks
- > Security Risks (Confidentiality, Integrity and Availability)
- > Financial Risks
- > Legal and compliance Risks
- > Reputational Risks.

As part of this ERM framework, Business/Functional Units may develop specific policies or procedures for managing risk in an area of operation. These procedures should only be developed where this framework does not fully cover the requirement or further explanation is necessary.

The Risk and Insurance function will report the status of operational risks and controls to the Board Audit and Risk Committee on a quarterly basis.

7.1.3 Project level

Project risk management is to be performed in accordance with the Project Risk Management Procedure. This procedure also includes a project specific consequence table that enables projects to analyse their risks against more appropriate scales related to a project's cost and time objectives.

Where business units have developed specific project risk management requirements, these must be implemented and complied with by the 1st line. An area of particular significance includes HSE. The Risk and Insurance function will report the progress of material project risks where the risk data resides in Camms, along with status of controls and risk actions to the Board Audit and Risk Committee on a quarterly basis.

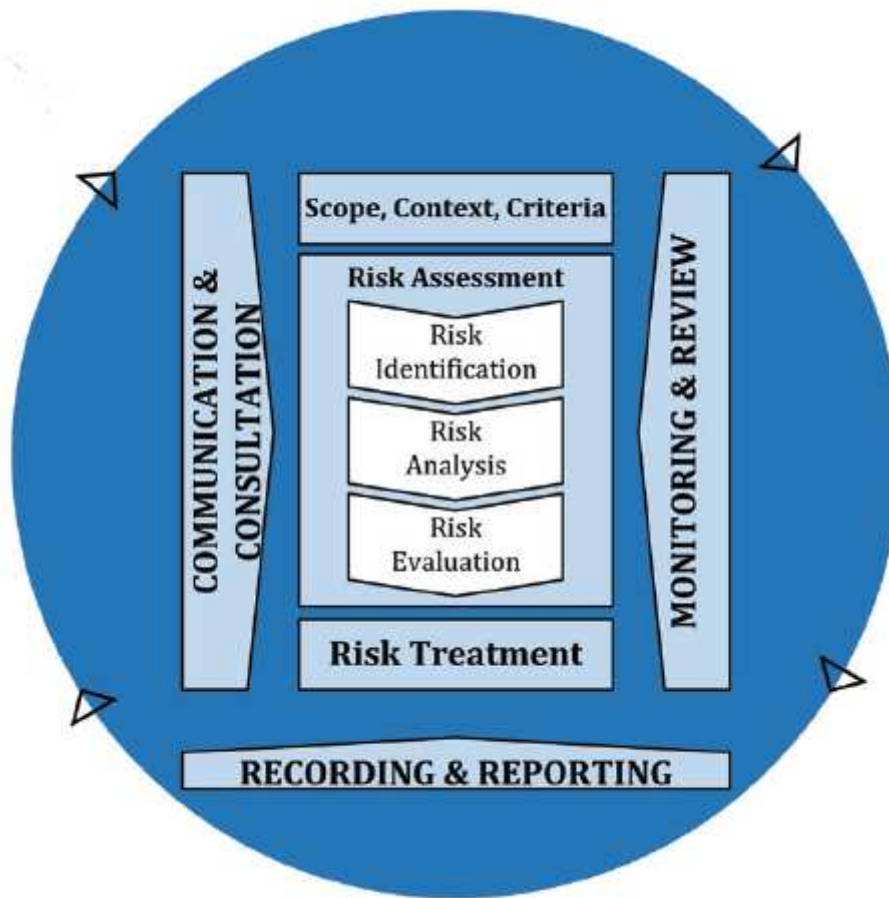
7.1.4 Asset level

TransGrid assets have significant safety, reliability, environmental and financial risks to the business throughout their operating and maintenance life cycles. These risks need to be assessed for major asset classes where key hazards are present which can impact the business objectives. The outcomes of these risk assessments would trigger operational controls, maintenance changes, refurbishment and replacement works.

The asset risks are assessed using the Network Asset Risk Assessment Methodology based on condition data (being an indicator of the probability of failure) and the impacts of failure (that is the consequence).

7.2 TransGrid Risk Management Process

TransGrid follows the process as outlined below in 'AS/NZS ISO 31000:2018 Risk Management – Guidelines. To ensure consistency, all TransGrid staff follow this same process:



Risks assessments must include input by stakeholders or experts who have detailed knowledge of the functional area being assessed, persons with overall responsibility and where practical:

- > For principal risks the Head of Risk and Insurance or delegate; and
- > For business unit and project risks the relevant risk owner.

7.2.1 Scope, Context, Criteria

Establishing scope, context and criteria involves customising the risk management process to TransGrid as well as defining the scope of the process, and understanding the external and internal context.

This stage defines how the risk management process should be applied in terms of the balance of costs, risks/opportunities and performance, considering:

- > Type and level of resource allocation;
- > Relevant stakeholder engagement; and
- > Risk reporting requirements.

The outcome of this stage is a plan that defines the scope and context of risk management activities and how it will apply.

7.2.2 Risk Identification

Find, recognise and describe risks that might help or prevent an organisation achieving its objectives.

Effective identification is achieved by establishing the uncertainties that exist in relation to TransGrid's strategic, business unit and project objectives. Appropriate subject matter experts should be engaged in a collaborative way to effectively identify material risks.

7.2.3 Risk Analysis

Understand the nature of risk and its characteristics including, where appropriate, the level of risk. This involves a detailed consideration of uncertainties, risk sources, consequences, likelihood, events, scenarios, controls and their effectiveness. To ensure there is a consistent approach to risk analysis, consequence (Appendix A) and likelihood (Appendix B) scales have been developed that can be applied regardless of where the risk is identified within TransGrid.

The Likelihood and Consequence tables (**Appendices A and B**) must be considered separately before using **Appendix C - TransGrid's Risk Matrix** to determine whether the Risk is:

- > Extreme
- > High
- > Medium
- > Low.

When determining the consequence, you should consider the risk against each of the consequence criteria in the consequence scale, and the most severe one should be utilised.

Each risk is to be analysed using the following three scenarios:

- > **Inherent Risk:** where controls are excluded in the management of the risk, i.e. the worst case outcome should the risk arise, assuming controls have not been implemented or have failed.
- > **Residual Risk:** current level of risk given the effectiveness of the controls currently applied.
- > **Planned Risk:** forecast of where the risk could be if all controls are effective.

**Emerging risks are not analysed in this way as they are not suitable for prediction and control.*

***Project risks are only analysed to determine their residual risk position. Assessment of the inherent risk position is not required and assessment of the planned risk position is optional.*

7.2.4 Risk Evaluation

Evaluating the results of the risk analysis with the established risk criteria to determine where additional action is required.

The risk evaluation stage involves using the results of the risk analysis to determine the risk rating for each scenario described above. This is achieved by using the risk matrix (Appendix C). The purpose of this process is to prioritise the risks for further risk management action.

7.2.5 Risk Treatment

Select and implement options for addressing risk.

All risks with a **residual risk rating** of Extreme or High must have plans in place to treat, transfer or terminate the risk. The following guidance has been produced to outline the action and escalation requirements for individual risks.

Residual Risk Rating	Risk Treatment	Risk Review Frequency
Extreme	Intolerable: to be avoided except in extraordinary circumstances. Risk owners must demonstrate that they are actively treating, transferring or terminating the risk. Where these risks are tolerated, approval must be obtained from the relevant Executive Manager (See Memorandum of Risk Acceptance in Appendix D).	Monthly
High	Undesirable: only tolerated if it is not reasonably practicable to reduce the risk further. High risks are considered on the verge of being unacceptable and risk owners must demonstrate that they are actively treating, transferring or terminating the risk. Where these risks are accepted, approval must be obtained from the relevant Executive Manager (See Memorandum of Risk Acceptance in Appendix D).	
Medium	Tolerable: so long as it is not reasonably practicable to reduce the risk further.	Bi-annually
Low	Acceptable: where options exist for further risk reduction and costs are proportionate to the benefit, then these options should be considered.	Annually

There are number of ways of responding to risks:

- > **Treat:** implement actions to reduce the likelihood of occurrence and/or minimise the risks impact;
- > **Transfer:** pass the risk to another party via contract;
- > **Terminate:** stop the activity which gives rise to the risk; and
- > **Tolerate:** accept and retain the risk.

7.2.6 Monitor and Review

TransGrid’s risk monitoring and review processes are aimed at ensuring that the identified risks, controls and actions remain up to date, develop awareness of the status of risk management activities and demonstrate those who are accountable for those risk management activities.

It is for this reason that risks must be reviewed in accordance with the following timeframes;

- > Principal and emerging risks: reviewed bi-annually by risk owners;
- > Operational risks: reviewed bi-annually by the risk owners;
- > Project risks: reviewed monthly by risk owners.

All risk reviews shall cover the following areas:

- > Changes to risk likelihood or impact;
- > Changes to identified controls, e.g. new controls, revised control ratings, etc.
- > Changes to risk actions, e.g. new actions, completed actions, etc.

2nd line assurance activities will be performed by the Risk and Insurance function on a quarterly basis. This will focus on compliance with the requirements of the ERM framework and the Project Risk Management Procedure. These assurance activities will focus on the implementation of the requirements of the ERM framework or Project Risk Management Procedure.

The Risk & Insurance team will review its risk management training, processes and system on an annual basis.

7.2.7 Communicate and Consult

Effective communication and consultation enable:

- > Heightened awareness of the threats and opportunities that the business faces and whether exposures are aligned to the approved risk appetite; and
- > Assurance that risk management activities are being appropriately implemented and the business management system is effectively addressing identified risks;

Consultation with stakeholders should take place during all stages of the risk management process. This is to ensure:

- > The context in which TransGrid is operating is fully understood;
- > The interests of stakeholders are understood and considered;
- > That sufficient expertise and viewpoints have been utilised when identifying, analysing and evaluating risks; and
- > Endorsement and support for risk treatment plans are secured.

Communication will principally be achieved via Camms reports for risk data that is recorded in Camms. The Risk & Insurance team will produce a variety of risk reports for internal stakeholders.

8. Recording & Reporting

	Risk Workshop	Formal Risk review agenda item	Risk Reporting content	Risk reporting frequency
Board	N/A	Quarterly	<ul style="list-style-type: none"> > Approves RAS; > Approves Business Plan; > Approve Board Audit Risk Committee Charter; and > Review and approve ERM framework > Review and approve principal and emerging risks. > 	Annually
Board Audit and Risk Committee	N/A	Quarterly	<ul style="list-style-type: none"> > Enterprise risk report, including: <ul style="list-style-type: none"> – Principal and emerging risks; – Control and treatment status summary; – Risk management implementation update; – Business continuity management update; and – Insurance update. > Review and recommend the ERM framework and RAS to the Board. 	Quarterly Annually
Executive Committee	Annually	Monthly	<ul style="list-style-type: none"> > Enterprise risk report, including: <ul style="list-style-type: none"> – Principal and emerging risks; – Business unit risks; – Control and treatment status summary; – Risk management implementation update; – Business continuity management update; and – Insurance update. > Review and recommend the ERM framework and RAS to the Board 	Quarterly Annually
Business Unit	Annually	Monthly	<ul style="list-style-type: none"> > Business Unit Report including: <ul style="list-style-type: none"> – Business Unit risks; and – Control and treatment status summary. 	Quarterly
Project	Ongoing from Project Inception	Weekly	<ul style="list-style-type: none"> > Project Risk Reports – see Project Risk Management Procedure. 	Monthly

Risk recording and reporting is the responsibility of the Risk and Insurance where the risk data is recorded in Camms. The completeness and currency of data in Camms is the responsibility of the individual risk owner. Risk owners are required to attend committee meetings to present on their risks, controls and actions as required by the relevant committee chair.

9. Review

This ERM framework is to be reviewed by management at a minimum on an annual basis.

10. Change from previous version

Revision no	Approved by	Amendment
13	Board	<ul style="list-style-type: none">> Risk management principles based on the 4 A's model (awareness, accountability, appetite and action);> The behaviours that underpin TransGrid's risk culture have been updated to reinforce the importance of quantitative risk assessment in decision making;> Updated roles and responsibilities to include Executive Committees generally, rather than attempting to name each one;> Definition for the planned risk rating has been included, along with further clarity around the scenarios under which each level of risk is to be analysed;> Risk response strategies based on the 4 T's model (transfer, terminate, tolerate and treat) included;> Risk response requirements guidance included to guide management on the actions required for particular residual risk ratings; and>
12	Board	<ul style="list-style-type: none">> Clarification on definitions for Risk Appetite and Risk Tolerance> Definition update and references to ISO31000> General updates
11	Board	<ul style="list-style-type: none">> Updated Appendix A – Qualitative Measures of Consequence, specifically the categories on:<ul style="list-style-type: none">– Compliance / Regulation– Financial> Updated Section 6.1.4 in relation to Project-level risk reflecting the new Prescribed Capital Investment Process.> Minor updates to reflect TransGrid organisational structure as at 1 January 2019.
10	Board	Updated Appendix C – Risk Matrix, where a risk having an impact of 'Catastrophic' and a Likelihood of 'Rare' has been revised down from High to Medium.

11. Appendices

Appendix A – Consequence Table

Appendix B – Likelihood Table

Appendix C – Risk Matrix

Appendix D – Memorandum of Risk Acceptance

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Appendix A – Consequence Table

	Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
HEALTH & SAFETY	Illness, first aid or injury not requiring medical treatment.	Illness or minor injuries requiring medical treatment.	Single recoverable lost time injury or illness, alternate/restricted duties injury, or short-term occupational illness.	Multiple recoverable lost time injuries or life-changing illness Major injury requiring hospitalisation and numerous days lost Medium-term occupational illness.	Single fatality Multiple major injuries Permanent disabilities/chronic diseases.
	Minimal, localised environmental impact which can be rectified in the short-term with no discernible impact on environment. - Addressed at site with spill kits - Not a reportable incident under the POEO Act (NSW) or similar acts in other jurisdictions - <\$1k cost to remediate	Minor, localised environmental impact which can be rectified in the short-term. - Addressed at site, but may require additional resources to address the impact (e.g. bunding oil) - Not a reportable incident under the POEO Act (NSW) or similar acts in other jurisdictions - <\$10k cost to remediate	Reportable environmental incident - Substantial spill - Damage to Aboriginal Heritage Site - Veg. clearance results in clearance of unapproved and/or endangered flora/fauna. - Reportable to EPA and/or OEH in NSW (with similar requirements in other jurisdictions).	Damage to significant Aboriginal Site. Massive loss of oil from transformer that breaches containment systems and pollutes sensitive environmental areas (e.g. National Parks, water catchments). Destruction of Endangered Ecological Communities (EEC) or damage/destruction of threatened species of flora/fauna.	Significant extent of environmental damage. Destruction of significant Aboriginal Site. Significant damage across multiple sites. Permanent, irreversible environmental Impact.
SOCIAL LICENCE	Public concern restricted to local complaints or local media inquiry or minor reports.	Minor, adverse local public, government or media attention and complaints.	Adverse one off national attention from media and/ or sustained concern by a local community and government. Increased oversight burden or loss of a project.	Significant adverse national media reporting and public attention. Loss of strategic business from a key sector in the prescribed or non-prescribed growth area.	Serious public outcry, heightened government concern or media coverage with extensive national coverage. Loss of business from a key sector in the prescribed or non-prescribed area. Loss of Transmission License.
COMPLIANCE	Minor technical breach of regulation Adverse assurance report with minor findings.	Non-compliance with obligations with no civil penalty provisions. Directions on non-compliance as a result of regulatory compliance audit findings or investigation. Breach or non-compliance with obligations with regulator notification to improve operations through implementation of remedial plan.	Breach or material non-compliance with obligations with fines up to \$1.1 million. Breach or material non-compliance with obligations with multiple civil penalty provisions due to systemic failure. Breach or material non-compliance with obligations resulting in regulator enforcement action. Compliance near misses on operating licences, FIRB obligations, NEL/NER obligations related to regulated revenue.	Threat of suspension or loss of other operating licences due to breach or material non-compliance (ACT, VIC, Telco). Breach or material non-compliance with obligations with penalties between \$1.1 - 10 million Breach or material non-compliance with obligations resulting in court ordered enforcement action. Breach or material non-compliance with any instrument impacts access to financing or capital.	Threat of suspension or loss of NSW operating licence due to breach or material non-compliance. Threats from FIRB due to inability to comply with FIRB conditions. Breach leading to likely imprisonment of Director, Officer, or Employee or criminal penalties against company. Breach or material non-compliance of obligation with penalties of >\$10 million.
	Loss of supply to an average-size rural town for up to 1 hour or large rural town for up to ½ hour (up to 20MWh)	Loss of supply to a large rural town, urban local government area or small industrial customer for up to 4 hours (< 400MWh)	Loss of supply to majority of capital city CBD (Sydney or Canberra) for up to 4 hours, or large rural town for up to 24 hours (< 2000MWh).	Event leading to a system “black start”. Loss of supply to majority of capital city CBD (Sydney or Canberra) for up to 48 hours, or large rural town for longer than 24 hours.	Extended “system black” Loss of supply to majority of capital city CBD (Sydney or Canberra) for over 48 hours.
NETWORK RELIABILITY	Single generation customer constrained due to unplanned transmission network outage for up to 24 hours.	Single generation customer constrained due to unplanned transmission network outage for over 24 hours.	Significant impact to the national electricity market due to unavailability of transmission network elements or SCADA for up to 1 week.	Significant impact to the national electricity market due to unavailability of transmission network elements or SCADA for longer than 1 week.	
	Load Customers	Single generation customer constrained due to unplanned transmission network outage for up to 24 hours.	Significant impact to the national electricity market due to unavailability of transmission network elements or SCADA for up to 1 week.	Significant impact to the national electricity market due to unavailability of transmission network elements or SCADA for longer than 1 week.	

	Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
FINANCIAL PERFORMANCE	<p>Deterioration in debt financing covenant headroom.</p> <p>TAT: EBITDA Impact: < \$2m and/or Balance Sheet Impact: < \$10m</p> <p>TGS: EBITDA Impact: <\$1m CAPEX Cost Overrun: <\$5m</p>	<p>Significant deterioration in debt financing covenant headroom or credit rating metrics.</p> <p>TAT: EBITDA Impact: \$2m to \$5m and/or Balance Sheet Impact: \$10m to \$25m</p> <p>TGS: EBITDA Impact: \$1m to \$2m CAPEX Cost Overrun: \$5m to \$10m</p>	<p>Potential financing event of default.</p> <p>TAT: EBITDA Impact: \$5m to \$15m and/or Balance Sheet Impact: \$25m to \$50m</p> <p>TGS: EBITDA Impact: \$2m to \$3.5m CAPEX Cost Overrun: \$10m to \$15m</p>	<p>Any one of a financing event of default, breach of debt financing covenants or a credit rating downgrade.</p> <p>TAT: EBITDA Impact: \$15m to \$40m Balance Sheet Impact: \$50m to \$100m</p> <p>TGS: EBITDA Impact: \$3.5m to \$5m CAPEX Cost Overrun: \$15m to \$25m</p>	<p>Financing event of default, breach of debt financing covenants and a credit rating downgrade.</p> <p>TAT: EBITDA Impact: > \$40m (i.e., > than 5% impact) Balance Sheet Impact: (particularly RAB) impact > \$100m</p> <p>TGS: EBITDA Impact >\$5m p.a. (i.e. > than 20% projected annual impact) CAPEX Cost Overrun: \$25m single project or in aggregate (i.e. >10% of projected aggregate CAPEX to end 2020)</p>
PEOPLE	<p>Consequence of an event that is restricted to a project where the concerns arose.</p>	<p>Consequence of an event restricted to a single part of the business unit.</p>	<p>Consequence of an event restricted to one business unit.</p>	<p>Consequences of an event affecting more than one business unit within TransGrid.</p>	<p>Consequences of an event, with significant disruption / Impact to the TransGrid ability to operate.</p>

Appendix B – Likelihood table

	Likelihood	Qualitative	Probability	Frequency of occurrence
5	Almost certain	The event is expected to occur in most circumstances.	90 - 100%	Expected to occur every year
4	Likely	The event will probably occur in most circumstances	50 - 90%	Expected to occur at least every second year
3	Possible	The event may occur, but is not expected to.	30 - 50%	Expected to occur every 2-3 years
2	Unlikely	The event could occur at some time.	5 - 30%	Expected to occur every 3-20 years
1	Rare	The event may occur in exceptional circumstances.	0 - 5%	Expected to occur every 20 to 100 years

Appendix C – Risk Matrix

Likelihood/Consequence	Minimal	Minor	Moderate	Major	Catastrophic
Almost Certain	Low	Medium	High	Extreme	Extreme
Likely	Low	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Medium	Medium	Medium

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Appendix D – Memorandum of Risk Acceptance

<Insert the name of the risk>

Date:	dd/mm/yyyy
Subject:	Risk Acceptance
Purpose:	The purpose of this document is to evaluate and formally accept the current residual risk level for the identified risk
Required Sign-Off:	Name - Position
	Name - Position
	Name - Position
	Name - Position
Outcome	<i>Approved or Declined</i>

Risk Assessment

The current risk levels for “insert risk name” are:

Inherent	Inherent Risk Rating	Residual Risk Rating
Likelihood	4 – Likely	3 – Possible
Consequence	5 - Catastrophic	4 - Major
Risk Rating	Extreme	High

Risk Assessment Commentary

Using the relevant qualitative likelihood and consequence definitions from Appendices A&B, provide management commentary regarding status of risk, (i.e. historical data, basis of assessment)

Category	Inherent Risk Rating	Residual Risk Rating
Health and Safety	<i>e.g. Single fatality should key controls fail</i>	<i>e.g. No fatality on condition that existing controls continue to operate effectively. There have been 0 fatalities in past x years, the number of high consequence incidents stands at x annually.</i>
Social Licence		
Compliance		
Network Reliability		
Financial Performance		
People		
Environment		

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Existing Key Controls

The existing key controls to mitigate this risk and an assessment of their effectiveness are listed below:

	Key Control Description	Control Owner	Control Assessment
1.			Effective
2.			Partially Effective
3.			Ineffective

Control Assessment Commentary

Provide relevant management commentary regarding control assessments (i.e results of audits, investigations, control performance measures)

Risk Treatment Options

Potential risk treatments to improve the existing key controls or to create additional controls necessary to reduce the residual risk are listed below:

	Risk Treatment/Action Description	Estimated Cost	Resources required	Timeframe	Approved/ Declined
1.					<i>Approved</i>
2.					<i>Declined</i>

Risk Treatment Commentary

Provide relevant management commentary outlining any details of the potential risk treatments and the level of risk reduction the proposed treatments are expected to deliver.

Recommendation

Based on the evaluation of the existing controls, the potential and expected impacts and the available risk treatment options, it is recommended that the residual risk level for "insert risk" be accepted for a period of 12 months.

Date of Acceptance: dd/mm/yyyy

Closure Date: 12 months from acceptance

Name:

Name:

Position:

Position:

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