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1 Summary

This chapter addresses those non-commercial aspects of the Project affecting the operating business: through its dependence on and potential impact on the operating conditions of the existing Scheme assets, the structure of the future operating business required to benefit from the constructed Facilities, the relationship between Project governance and corporate governance, and the need to engage Snowy Hydro's stakeholders during the course of the Project.

Management assessed how the Project will affect operating conditions in the Scheme, particularly water availability and operating levels in Tantangara and Talbingo Reservoirs, and concluded the net effect of the Project is neutral or positive to existing operations. Management also concluded the execution of the Project will have a long-term positive benefit to the business in enhancing its resilience to changes in future climatic conditions, due to the additional capability to generate from existing water through pumping.

Snowy Hydro considered the period of transition from construction and commissioning of the Project through to the early years of operation, and identified the required changes to operating systems and organisation structure required to support the new Facilities. Management concluded the Facilities can be smoothly and successfully integrated into the current Scheme.

Management designed a governance framework to transition from the framework adopted and accepted for lead-up to the Final Investment Decision (***FID***) to a framework suitable for a Project of this scale and complexity. Management is satisfied the governance framework design will appropriately inform and enable decision-making by the Board and the Shareholder as the Project progresses,

and will smoothly transition back into the existing corporate governance process on completion.

Management considered its internal and external stakeholders and developed a comprehensive engagement plan. The purpose of this plan is not only to ensure harmonious stakeholder relationships in the course of the Project, but to ensure these relationships continue into operations, and the Project continues to reinforce the legacy of the Scheme, and is seen as having a lasting positive effect on the Snowy Mountains region and the National Electricity Market (***NEM***).

1.1 Outline

This chapter is one of four core chapters:

1. **Chapter One** - Health and Safety;
2. **Chapter Two** - Commercial business case;
3. **Chapter Three** - Project execution; and
4. **Chapter Four** - Project and consolidated business operability (this chapter).

Four topics are covered within this chapter. References within are to the other core chapters, but each chapter section has a corresponding supporting chapter of the same name with additional detail, available on request. The chapter numbers are given below:

1. Hydrology - note all actual data is presented in the supporting chapter (*Supporting Chapter Eighteen*);
2. Operations Readiness (*Supporting Chapter Nineteen*);
3. Governance (*Supporting Chapter Twenty*); and
4. Stakeholder strategy and engagement (*Supporting Chapter Twenty-One*).

1.2 Introduction

Understanding and managing the interface between the Project and the Business-As-Usual (BAU) operations is critical to ensuring the ongoing success of the Project. Snowy Hydro leveraged management experience and industry knowledge on similar projects to identify the key components of this interface (see Figure 1), and developed a pathway for managing these interfaces post-FID.

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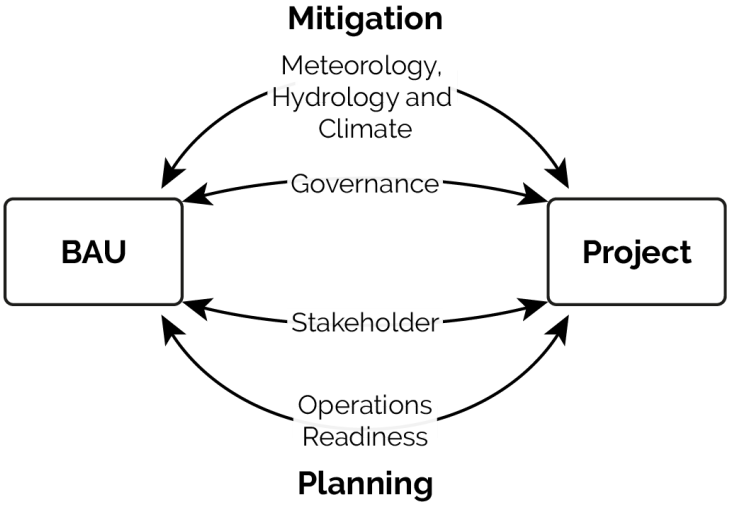

Figure 1: Project and BAU interface

1.2.1 Meteorology, hydrology and climate

Meteorology, hydrology and climate characteristics are key considerations for numerous phases of the Project, including the design, approvals, construction, operations and revenue modelling. Snowy Hydro's hydro-meteorological data dates back to the early investigation phase prior to construction of the original Snowy Mountains Scheme (the ***Scheme***). High-quality observations have been recorded through to the present as part of Snowy Hydro's routine operations. The Project utilised the records to establish weather and climate-related operating conditions and identify potential risks.

Notable impacts from changes in climatic conditions have been observed in Australia and the Snowy Mountains over the last century, are expected to continue and will likely affect future BAU operations. The Project design acknowledged the impact of the potential changes over the next century to ensure the infrastructure is resilient to future change.

Management assessed how the Project will affect operating conditions in the Scheme, particularly water availability and operating levels in Tantangara and Talbingo Reservoirs, and concluded the net effect of the Project is neutral or positive to existing operations. Management also concluded the execution of the Project will have a long-term positive benefit to the business in enhancing its resilience to future changes in climatic conditions, due to the additional capability to generate from existing water through pumping.

1.2.2 Operations Readiness

As a major transition point in the design and construction of new infrastructure facilities, handover represents a profound shift in structure, skills and culture from an executing organisation (the Project) to the BAU operating organisation.

The successful transition depends on incorporating operating expectations early in the design and construction process. These expectations need to be planned in detail and incorporated in the Operations Readiness process. Transition and handover activities will commence ~18 months prior to the completion of the

Project with a Handover Plan setting out responsibilities for handover and the documents to be supplied.

Snowy Hydro's operational data, systems and processes will need to be created, updated or modified to successfully incorporate the new Facilities as a working asset and be supported by a team with the appropriate experience. This will be assisted by the development of a framework, functions and processes guiding project management activities to meet organisational, strategic and operational goals.

Management has considered the period of transition from construction and commissioning of the Project through to the early years of operations, and determined the required changes to operating systems and organisation structure required to support the new Facilities. Management concluded the Facilities can be smoothly and successfully integrated into the current Scheme.

1.2.3 Governance

An effective governance framework ensures appropriate oversight, accountability and risk management at all levels of the Project.

Snowy Hydro established a fit-for-purpose governance framework tailored to the nature, scale and complexity of the Project. In doing so, Snowy Hydro engaged extensively with its key governance stakeholders, being the Board and Shareholder, to ensure the framework would facilitate the provision of timely and comprehensive governance information to both parties.

As at FID, Snowy Hydro had an effective, tailored and appropriate governance framework over the Project. This included dedicated governance bodies that supported the Board in discharging its responsibilities, and the implementation of targeted monitoring, reporting and assurance activities to facilitate effective governance. All governance bodies received relevant information, including timely updates on all material aspects of the Project, to discharge their governance responsibilities over the Project and to make an informed FID.

The existing governance framework will be retained from FID through to the execution of the Civil and E&M EPC Contracts (or a single 'wrapped' Contract). Subsequently, a revised governance framework will be implemented to reflect the evolving nature of the Project while continuing to maintain timely oversight and effectively meet the needs of governance stakeholders.

1.2.4 Stakeholder management

Effective stakeholder engagement is fundamental to Snowy Hydro's success and continues to be led from the top by Snowy Hydro's CEO, Chief Operating Officer, General Counsel, and the wider Executive Team.

Snowy Hydro's stakeholders are segmented into four broad groups: the local community, governments, industry groups and the media. Some stakeholders have direct involvement in the Project allowing Snowy Hydro to partner with them, others are public influencers or policymakers who contribute in parallel.

Snowy Hydro considered its internal and external stakeholders and developed a comprehensive engagement plan. The purpose of this plan is not only to ensure harmonious stakeholder relationships in the course of the Project, but to ensure these relationships continue into operations, and the Project continues to reinforce the legacy of the Scheme, and is seen as having a lasting positive effect on the Snowy Mountains region.

2 Meteorology, hydrology and climate

2.1 Introduction

Snowy Hydro has hydro-meteorological data dating back to the early investigation phase prior to construction of the Scheme. High-quality observations continue to be recorded as part of Snowy Hydro's routine operations. Snowy Hydro's records have been utilised by the Project to identify weather and climate-related operating conditions and potential risks.

2.2 Scope and exclusions

The hydro-meteorological information collected is from Snowy Hydro-operated weather stations and reservoir recordings. Snowy Hydro is fortunate to have two accurate and long-term weather stations close to the proposed Project alignment. Due to the changes in elevation across the alignment (approximately 1,000 m elevation drop), localised climate variability exists and thus information can only be used as a guide.

The hydrology section utilises long-term inflow records from Tantangara and Talbingo Reservoirs to plot the monthly average inflows. Peak flood levels are also estimated using previous dam safety modelling at both Reservoirs.

Snowy Hydro reviewed relevant climate change literature and regional changes in climatic conditions projections and presented a summary of expected regional climate within the operating life (100 years) of the Facilities based on the current state of scientific knowledge.

2.3 Activities undertaken

Hydrology, meteorology and Reservoir inflow data has been updated from Feasibility to include the latest data acquired between the Feasibility Study in December 2017 and FID.

A regulatory and operational water constraint review was undertaken to support market modelling (see *Core Chapter Two*).

Wind generation versus water inflow and wind versus solar generation correlation analysis was conducted to assist in understanding future market drivers (see *Supporting Chapter Five - Market modelling*).

2.4 Meteorology

Mean monthly temperatures and precipitation for Tantangara and Talbingo have been determined based on data from Snowy Hydro-operated weather stations and Reservoir recordings. This data has been used to assess design and construction risks.

2.5 Hydrology

Historical monthly inflows at Tantangara and Talbingo Reservoir and an overview of the flood hydrology at each of the Reservoirs were determined. The captured hydrology information provided the key design flood levels for both Reservoirs used in the design of the intake structures, for construction and long-term operational use.

As required by the *Dams Safety Act 2015*,[1] Snowy Hydro as a dam owner is required to undertake flood hydrology assessments of its dams in order to develop and implement a dam emergency plan. Tantangara and Talbingo have been recently assessed.

2.6 Future changes in climatic conditions in the Snowy Mountains

Global climate is changing, with notable observed changes in Australia and the Snowy Mountains over the last century..

Long-term changes in climatic conditions projections for the Project need to be considered in conjunction with historical observations. In summary, the following can be inferred from relevant climate change literature and regional changes in climatic conditions projections:

1. **Rising temperature** - The mean, maximum and minimum air temperatures are projected to rise by an average of ~2°C (by 2060 - 2079) with an increased frequency of extreme hot days;
2. **Decreasing precipitation** - Generally precipitation is projected to decrease on average, dominated by reduced cool-season precipitation (and snow cover);
3. **Increasing drought** - Drought frequency is projected to increase;
4. **Decreasing inflows** - Long-term inflows and water resources for generation in the Scheme are likely to decrease on average over the next century;
5. **Increased precipitation event intensity**- Precipitation events are projected to become more intense. More extreme flood events present increased physical risks to Scheme infrastructure and operations; and
6. **Increasing bushfire risk** - The bushfire risk in the Snowy Mountains and the general region of the National Energy Market (***NEM***) is expected to increase with the projected warmer and drier climate.

[1] ("NSW, 2015. Dams Safety Act 2015," n.d.).

The Project design will consider potential changes in climatic conditions over the next century to ensure the infrastructure is resilient to future change. The proposed Facilities will be utilising Tantangara Reservoir existing water storage for generation, and then discharging into Talbingo Reservoir before pumping the utilised water back to Tantangara. Therefore no additional water is required. The Facilities' ability to recycle available water via pumped storage will be critical during periods of lower inflow and drought.

3 Operations readiness

3.1 Introduction

The transition or handover from the Project to operations is one of the biggest challenges in the design and construction of new infrastructure facilities,[2] with a profound shift in structure, skills and culture from an executing organisation to the BAU operating organisation.

A successful transition depends on incorporating operating expectations early in the design and construction process. These expectations need to be planned in detail and incorporated early in the Operations Readiness process.

The transition from execution into operations is potentially where high-value leakage occurs. Case studies have found up to 30% of the initial expected value can be lost in this period.[3] The relatively short duration of the ramp-up in the overall Project life cycle highlights how critical the handover management phase is in retaining as much of the value of the Project.

Operations Readiness assures this element of the Project has been identified and defined, with the system and supporting documentation required to deliver the Project on schedule, within budget, and with due consideration for health, safety and the environment.

For the Project, Operations Readiness is divided into:

1. **Design input** - Providing input to design, and safeguarding the implementation;
2. **Planning** - Developing an Operations Management plan in preparation for start-up and commissioning, covering the operations, maintenance, and integrity management;
3. **Commissioning support** - Providing Operations input and coordination for the commissioning and start-up leading to acceptance by Snowy Hydro BAU; and
4. Securing the operating budget, organisational design, staff training and competency, materials and logistics provision, and other operational requirements needed to operate the Facilities.

Operations Readiness considers the Facilities from the perspective of an operating asset (rather than from a design or construction perspective as

[2] (Zerjav et al. 2015).
[3] (DiStefano, Goetz, and Storino 2012).

described in *Core Chapter Three*). Commissioning (arguably a construction activity) is described here rather than with the construction discussion, as it represents the first major milestone in the transition from construction to operation and is the point when the operating business becomes directly engaged in the completion of the future Facilities.

To achieve Operations Readiness objectives, the Operations Readiness Team will consist of personnel with extensive experience in operations, maintenance and asset management.

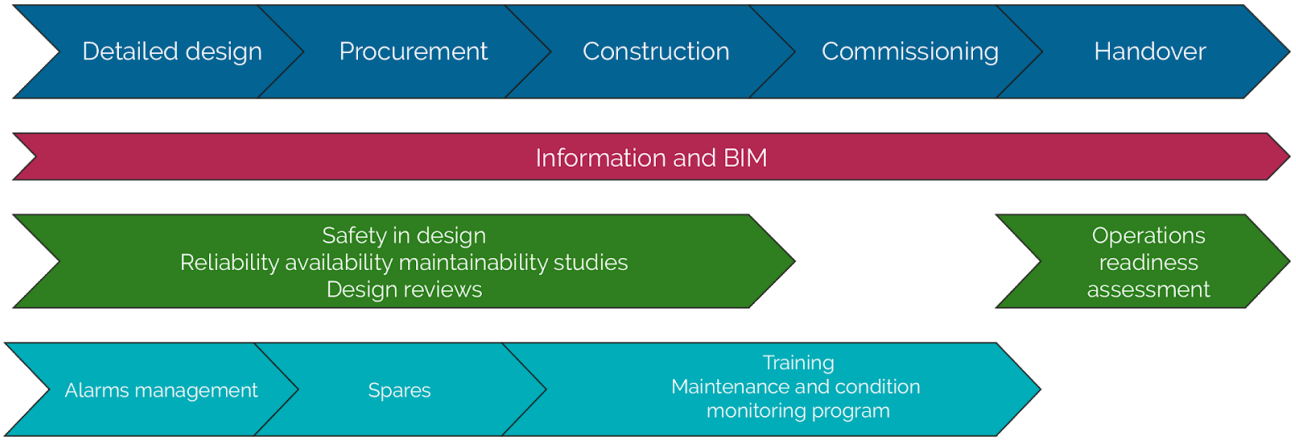

Figure 2: Project life cycle

For the organisational structure to be successful and efficient, each member must remain within the responsibilities of their position and interact at the designated interface points. Extending beyond these undermines the validity of the information and working relationships and puts the Project at risk.

Reliability, risk and safety will be fundamental to the design process to eliminate major hazard risks and minimise the lifecycle cost. The Contractors will conduct the appropriate investigations and include in their design a 'safety-in-design' process to address the legal and organisational requirements.

The protocols for handover are set out with appropriate authorities, responsibilities and expectations.

3.2 Activities undertaken

Recent Snowy Hydro internal experience from a number of smaller projects highlighted the importance of ensuring the Facilities are operationally ready when the Project is ready for handover. Snowy Hydro's Operations Readiness approach incorporates the key lessons learnt from those projects. Key personnel in the operations and asset management teams helped contribute to the Employer's Requirements that set out the Operational Readiness requirements for the Project.

3.3 Key interfaces between BAU and Project

Consulting with BAU, their engagement and input to the Project is necessary and important but must be carefully managed through the agreed processes. The key interface points are:

1. Change management process;
2. Operational readiness assessment; and
3. Pre-commissioning & commissioning.

3.4 Design

The Contractors must ensure the engineering design is safe, reliable, available, maintainable and operable through various studies and design reviews. See *Core Chapter Three* for further details.

3.5 Operations and maintenance requirements

Snowy Hydro's operational data, systems and processes will need to be created, updated or modified to successfully incorporate the new Facilities as a working asset. This includes the development of the maintenance program and condition monitoring plans, alarms, critical and routine spares, detailed training programs and operations and maintenance manuals.

Snowy Hydro must update multiple operating systems to incorporate the Facilities, including:

1. Enterprise Resource Planning (***ERP***);
2. Asset Performance Management (***APM***);
3. Supervisory control and data acquisition (***SCADA***) Generation Management System (***GMS***);
4. Outage Management System (***OMS***);
5. Historian (historical real-time monitoring data); and
6. Various market and bidding systems.

The Contractors will:

1. Define the asset hierarchy and classification of all equipment in the Project and will provide the information in a format suitable for integration with Snowy Hydro systems;
2. Develop a Reliability, Availability and Maintainability (***RAM***)-based maintenance strategy and program to integrate with Snowy Hydro systems;
3. Undertake Hazard and Operability (***HAZOP***) and maintenance strategy work to determine the condition monitoring requirements for non-generation assets;
4. Design alarms to conform to the requirements of Snowy Hydro's procedure *QP09-94 Alarm philosophy* and the requirements of IEC 62682;[4]

[4] (International Electrotechnical Commission 2014).

5. Identify and recommend necessary spares (including insurance and capital spares) for commissioning, warranty period and ongoing operation;
6. Provide a comprehensive inventory of all spares either supplied or recommended for ongoing operation, including an appropriate storage and preservation regime;
7. Provide suitable operation and maintenance manuals for the Facilities;
8. Provide the overall SCADA/GMS requirements for the Facilities;
9. Provide all information deliverables to Snowy Hydro (including from all Subcontractors) in alignment with Snowy Hydro systems and procedures; and
10. Provide a comprehensive Building Information Model (***BIM***).

3.6 Commissioning

Commissioning and Start-up is defined as the transitional phase between facility construction completion and commercial operations. It encompasses all activities bridging the two phases, including systems turnover, checkout of systems, commissioning of systems and performance testing. The approach taken to commissioning is outlined in the Employer's Requirements and will be further detailed by the Contractors when developing their design and construction methodology.

The Contractors are responsible for providing assets compliant to requirements, as demonstrated through testing. Contractors will provide detailed test and commissioning plans and all necessary equipment and personnel required to carry out the tests. Snowy Hydro, the Australian Energy Market Operator (***AEMO***) and the Network Service Providers (***NSP***) will be present to observe and participate in tests at site as necessary.

The commissioning sequence will depend on the installation and energisation sequence developed by the Contractors in alignment with Sections of Works outlined in the Contract. The works will be commissioned and taken over progressively.

The works will be gated by a sequence of tests (preliminary, commissioning, reliability and performance) defining the main stages of acceptance through performance, reliability and safety.

3.7 Operational handover

Transition and handover activities will commence ~18 months prior to the completion of the Project. The Project will not be operationally taken over until the Whole of Works is complete. As each individual Section of Works is complete. the Contractor will maintain control and risk of the individual Sections, including maintenance and physical operations.

The Owner's Team is expected to continue to operate and lead the Project until formal handover is made and the Facilities are under the full control of Operations.

Snowy Hydro may commercially operate and bid individual generating units into the electricity market after Completion, while the Contractor continues to maintain the Facilities until Snowy Hydro is best placed to assume control and risk of the Site.

A Handover Plan will proportion responsibilities for handover and documents to be supplied. As each section is completed and handed over or closed-out, the Contractors will deliver the associated information to Snowy Hydro, along with the necessary updates to the BIM model, Geographic Information System (***GIS***) model or other information management models in use on the Project.

The Contractors will facilitate progressive delivery of manufacturing data for major equipment items to inform operations readiness planning.

An independent entity will undertake an Operations Readiness Assessment at a suitable time. This assessment will:

1. Verify completeness of required documentation;
2. Outline criteria for unit acceptance; and
3. Review readiness of internal processes, procedures and documentation.

The Contractors will train nominated operations personnel to operate and maintain the Facilities. Personnel being trained will join the Contractors' testing and commissioning teams.

A Defects Notification Period (***DNP***) (the period for notifying Defects or damage in the Works) will apply for up to two years from Completion of the Works. The Owner's Team will develop a clear process for management of defects during the DNP.

At Project closure, the Contractor(s) will produce a closeout report. The Owner's Team will ensure all Project-related matters have been closed-out, including:

1. Documentation;
2. Contracts;
3. Residual materials and construction equipment;
4. Environmental works; and
5. Financial close.

3.8 Staffing of facilities

The Operations team will take over the Whole of Works once the Project is closed-out and the Facilities are handed over to Snowy Hydro BAU.

While the (pre-)commissioning and handover stages require a sizeable contractor workforce onsite, the operations team forming part of the Snowy Hydro BAU organisation will be comparatively small . This staffing level is consistent with the Snowy Hydro BAU philosophy of stations being unstaffed, with the exception of required attendance by maintenance and operations personnel. This will be primarily during normal business hours and for an on-call response.

The operations team will operate as per Snowy Hydro BAU working conditions, arrangements, and under current workplace agreements as in effect at the time of handover.

3.9 Further information

The approach taken to commissioning is outlined in the Employer's Requirements within the Civil and E&M Contracts. The Employer's Requirements set out Snowy Hydro's expectations of the Contractors for commissioning and handover. The approach will be further detailed by the Contractors when developing their design and construction methodology.

The Contractors' design and responsibilities are not included here but can be found in *Core Chapter Three*.

4 Governance

4.1 Introduction

Snowy Hydro's Board and stakeholders including its Shareholder, investment stakeholders and the community expect robust governance over the Project to deliver transparency, accountability and success.

An effective governance framework facilitates appropriate oversight, accountability and risk management at all levels of the Project.

On 13 December 2017, the Snowy Hydro Board noted the completion of the Snowy 2.0 Feasibility Study Report into the construction of the Project and approved the Project proceeding to FID. Following this, Snowy Hydro commenced preparation to seek Board approval for FID on the Project. As part of this process, Snowy Hydro reviewed and adapted its governance framework to facilitate fit-for-purpose governance tailored to the complexity, nature and scale of the proposed Project.

This included the establishment of additional governance bodies dedicated to the Project to support the Board in discharging its responsibilities, and the implementation of targeted monitoring, reporting and assurance activities to facilitate effective governance.

Snowy Hydro as Owner assumed accountability for the governance of the Project. Snowy Hydro's preparatory work and due diligence between the completion of the Feasibility Study and FID, progressing the Project in preparation for Board consideration, is referred to as the FID Preparation Process.

A dedicated Oversight & Governance structure has been established to ensure Snowy Hydro's obligations as Owner are being discharged by the Owner's Team. Fiduciary, legal, commercial, environmental, and health and safety oversight of Project activities is facilitated by this structure.

The Project's governance structure is appropriate and fit for purpose, and facilitated the provision of timely information to the Board and Shareholder to assist them in discharging their governance responsibilities ahead of FID.

4.2 Scope and exclusions

Governance describes the governance framework and activities applicable to the Project and Snowy Hydro. It does not include specific detail of the Contractors' and Owner's Team's obligations in support of the governance framework, or Project controls systems and processes used to meet governance requirements (see *Core Chapter Three*).

4.3 Activities undertaken

For the Pre-FID phase of the Project, Snowy Hydro established and implemented an effective governance framework over the Project. In doing so, Snowy Hydro engaged extensively with its Board and Shareholder to ensure the framework would facilitate the provision of timely and comprehensive governance information to both parties.

Snowy Hydro adopted a five-step governance framework based on effective project governance recommendations from the Project Management Institute (***PMI***):[5]

1. **Initiate** - Snowy Hydro developed a fit-for-purpose governance structure to support Board oversight of the Project through to FID, comprising a Project Board Committee, a Funding Board Committee, a Project Governance Committee, and a Project team;
2. **Plan** - Snowy Hydro established mechanisms for engaging with each of its governance stakeholders, particularly the Board and Shareholder, with the nature and frequency of these mechanisms tailored to meet stakeholder needs;
3. **Execute** - following the completion of the Feasibility Study, the governance framework was implemented and has operated since early 2018. The Shareholder has received regular Project updates from Snowy Hydro. The Board has been kept updated on material developments and risks, and key outcomes arising from Shareholder engagement. Similarly, the various Committees have received comprehensive formal progress updates on matters within their purview;
4. **Monitor and control** - the Project Director is accountable for controlling the Project management process with assistance from the workstream leads and the broader Project Team. Key outcomes of the control process have been communicated to governance bodies via formal governance reports; and
5. **Close (Assurance)** - the Project implemented a robust risk management framework developed in conjunction with a third-party subject matter

[5] (Alie 2015).

expert and engaged a number of expert advisors to provide independent advice and quality assurance.

4.4 Governance status as at FID

This Project was subject to a clear and tailored governance structure. The frequency and provision of information at each of the committee meetings of governance bodies was aligned to the needs of the Project.

All governance bodies received all relevant information to discharge its governance responsibilities over the Project and to make an informed FID. The Project's governance is considered to be appropriate at each level of the structure for the effective development of the investment case for FID.

4.5 Approach Post-FID

4.5.1 Overview

The existing governance framework will be retained from FID through to the execution of the Civil and E&M EPC Contracts (or a single wrapped Contract) The frequency of meetings for governance bodies will be tailored to align with key milestones during this phase of the Project.

Subsequently, a revised governance framework will be implemented to reflect the evolving nature of the Project. The revised framework will continue to facilitate timely oversight of strategic developments and risks and will be tailored to effectively addresses changing Project needs and milestones.

The governance framework will provide timely information and assurance to governance stakeholders, being the Board and the Shareholder.

5 Stakeholder strategy and engagement

5.1 Introduction

Effective stakeholder engagement is fundamental to Snowy Hydro's success and delivers a tailored engagement strategy in the lead-up to FID. Well-targeted stakeholder engagement contributed to the achievement of many Project milestones and has been critical in overcoming the challenges faced.

The stakeholders are segmented into four broad groups: the local community, governments, industry groups and the media. Some stakeholders have direct involvement in the Project allowing Snowy Hydro to partner with them, others are public influencers or policymakers who contribute in parallel.

The energy market is changing rapidly and strong relationships across the sector enable Snowy Hydro to understand and adapt to the changes. The increasing level of regulatory scrutiny and intervention in the energy market continues to be unprecedented. Climate, environment and energy policies are rapidly evolving.Regular participation in industry forums and policy working groups

ensures that Snowy Hydro contributes to and influences policy outcomes.

Public interest in (and scrutiny of) Snowy Hydro is also at a new height, particularly since the announcement of the Project in March 2017.

Being in the public and media spotlight exposes Snowy Hydro to increased risks and stakeholder sensitivities. While managing the numerous and sometimes conflicting interests of all stakeholders presents challenges, Snowy Hydro's proactive and effective stakeholder management led to widespread support amongst key stakeholders, positive media coverage, the ability to contribute to the the policy debate and maintaining goodwill and trust within the community.

This success is attributed to the value proposition of the Project as a solution to a national problem, and the strength of Snowy Hydro's existing relationships, particularly within the community. Snowy Hydro has a clear stakeholder engagement strategy implemented across the business and tailored to meet the needs of each stakeholder group.

5.2 Scope and exclusions

The consultation and engagement process for the Project evolved as it transitioned through the Feasibility Study to FID. Various impacts and issues emerged, and Snowy Hydro continues to manage its stakeholders through the different stages of the Project.

The framework is described with its application to the identification and engagement of groups.

5.3 Activities undertaken

Since the Feasibility Study, stakeholder engagement retained the existing elements of awareness, identification, engagement and communication defining the phased approach, and developed the process into a more individual application of the strategic themes. Engagement is still key to success, but the stakeholders have varying requirements for and are at varying stages of interaction.

Positive engagement has been maintained through monitoring community sentiment via ongoing market research, evaluating the effectiveness of the strategy and activities and adapting as required.

5.4 Stakeholder group identification and engagement activities

The awareness generated from the initial announcement of the Project attracted four major stakeholder groups.

Stakeholder feedback about the Project, ongoing media monitoring and recent market research have enabled Snowy Hydro to evaluate the success of the engagement strategy and address any emerging stakeholder issues or concerns.

5.5 Engagement status as at FID

Stakeholder engagement continues to be led from the top by Snowy Hydro's CEO, COO, General Counsel, and the wider Executive Team. They have been supported by the Corporate Affairs Team who work with business units across the Snowy Hydro Group (particularly the regulatory, community, water and environment and legal teams).

Stakeholder engagement will remain critical to the Project as it progresses. On a broad level, continued efforts must be maintained to raise general awareness of the Project in the wider community and the productive relationships built to date with those groups directly involved as well as continuing to reach out to new groups. Snowy Hydro will work closely with the Principal Contractors to align and audit expectations.

5.6 Further information

Snowy Hydro's governance requirements are detailed in *Supporting Chapter Twenty*, and the responsibilities and regulations applicable to the Contractor are set out in *Supporting Chapter Fifteen - Contractor's execution approach*.

6 Definitions

AEMO	Australian Energy Market Operator
BAU	Business-As-Usual
BIM	Building Information Model
COO	Chief Operating Officer
DNP	Defects Notification Period
E&M	Electrical/Mechanical
EPC	Engineer-Procure-Construct
FID	Final Investment Decision
GIS	Geographic Information System
HAZOP	Hazard and Operability
NEM	National Energy Market
NSP	Network Service Providers
PMI	Project Management Institute
SCADA	Supervisory control and data acquisition

7 Bibliography

1. Alie, Salina Sandra. 2015. "Project Governance #1 Critical Success Factor." In *PMI® Global Congress 2015—North America*. Project Management Institute. https://www.pmi.org/learning/library/project-governance-critical-success-9945.
2. DiStefano, Robert, Will Goetz, and Bruno Storino. 2012. "Operational Readiness: Bridging the Gap Between Construction and Operations for New Capital Assets." Reliabilityweb: A Culture of Reliability. 2012. https://reliabilityweb.com/articles/entry/bridging_the_gap_between_con

struction_and_operations.
3. Iap2. n.d. “IAP2’s Public Participation Spectrum.” https://www.iap2.org.au/About-Us/About-IAP2-Australasia-/Spectrum.
4. International Electrotechnical Commission. 2014. “IEC 62682:2014 Management of Alarm Systems for the Process Industries.” IEC 62682:2014 . International Electrotechnical Commission. https://webstore.iec.ch/publication/7363.
5. “NSW, 2015. Dams Safety Act 2015,.” n.d. Accessed November 15, 2017. https://legislation.nsw.gov.au/acts/2015-26.pdf.
6. Project Management Institute. 2016. “Governance of Portfolios, Programs, and Projects: A Practice Guide.” Project Management Institute.
7. Zerjav, Vedran, Andrew Davies, Andrew Edkins, and Philip Jones. 2015. “Building Progressive Confidence: The Transition from Project to Operational Opening in the Case of a Major New International Airport Terminal.” In . UCL STEaPP.

