ONTARIO POWER GENERATION

Manual

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|---|---|
| Document Number: OPG-MAN-00120-0019 | Usage Classification: INFORMATION |
| Sheet Number: NA | Revision: R000 |

Title: PROJECT PHASE-GATE MANAGEMENT

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# PROJECT PHASE-GATE MANAGEMENT

**OPG-MAN-00120-0019-NA-R000**

2019-03-26

Project ID: N/A

**Internal Use Only**

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## Revision Summary

| Revision Number | Date | Comments |
|---|---|---|
| R000 | 2019-03-26 | Initial issue. |

## 1.0 DIRECTION

Phase-Gating is one of the most powerful ways an executive team can formalize oversight of a project. A gating framework defines points during the life of a project, from the early concept to post implementation phases, when executive management carefully considers the project status and grants approval to proceed to the next decision point or "gate." Early project examination is especially crucial. Application of these quality control check points provides executives with an informed assessment of progress and issues; validation of the business case; and ultimately leads to better decisions on future plans and investments.

This document receives authority from Project Management standard [R1] and is a component of the overall Enterprise Project Management governance framework. The Enterprise Project Management governance is applicable to all projects planned and executed within OPG. This document interfaces with Organizational Authority Register (OAR) [R2] and Developing and Documenting Business Cases [R3].

Each project needs to fulfil the specific phase-gating requirements for the different project levels as defined in the Scalable Project Delivery Model [R4]. This includes the use of established Project Management Information Systems (PMIS) tools and software for managing related project work.

The Scalable Project Delivery Model [R4] provides a scaled application of project management principles and processes reflective of a projects complexity and cost. The model provides the minimum requirements for a project by knowledge area. It is expected that Project Managers will apply the intent of the knowledge area and exceed the minimum requirements as appropriate. The Business Unit Execution Line Management and/or Project Management Office may define additional requirements based on the specific project and portfolio requirements.

All project information and documentation that does not exist within PMIS should be maintained and stored within SharePoint in a standardized project working folder structure. Related project records and controlled documents should be managed in accordance with the Project Communication and Stakeholder Management manual [R5].

Note: ***Strategic Projects and/or Programs*** may have additional or varied expectations or requirements for projects within the program, and for the overall program itself. These should be documented in a project controls plan (or equivalent) for the program.

### 1.1 Overview

Effective executive-level discipline and control over large and complex projects require that projects be structured in a manner that allows those accountable to clearly, comprehensively, and objectively assess how the project is performing against planned goals at all stages.

Two elements are critical to ensuring effective results: (1) dividing the project delivery process into a series of manageable ***phases*** and (2) ensuring that resource implications

and results are made fully visible to executives at logical, predetermined checkpoints or "***gates***."

The elements of Phase-Gating are:

- Project Life cycle Phases (Section 2.1)
- Phase-Gates (Section 2.2)

The Phase-Gating processes are:

- Plan Gate Strategy (Section 3.1)
- Manage Phase-Gating (Section 3.2)
- Monitor Phase-Gating Commitments (Section 3.3)

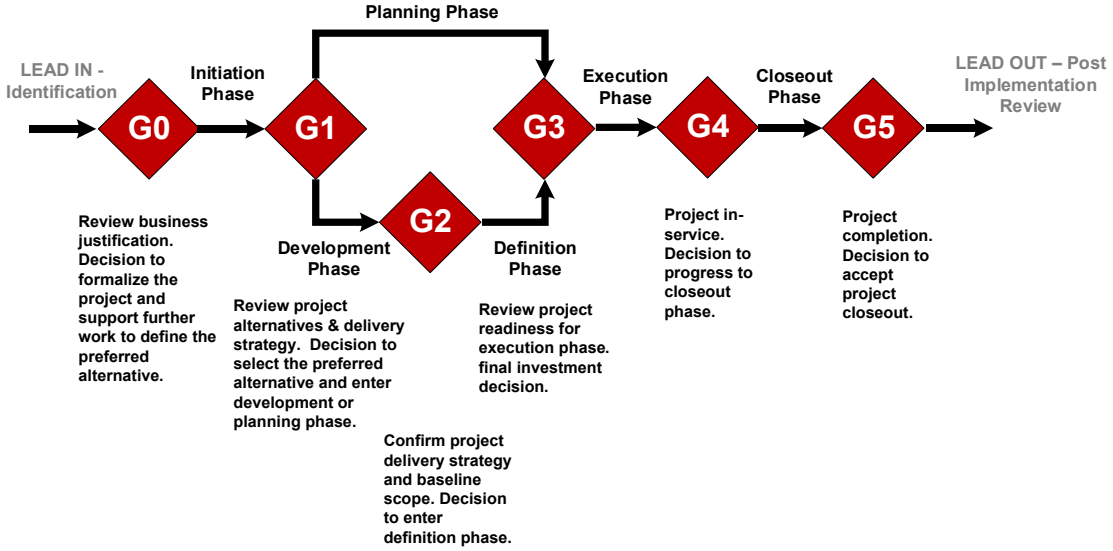
Desktop guides and templates associated with this manual are available on the Enterprise Project Management website.

## 2.0 FRAMEWORK

### 2.1 Project Life cycle Phases

A ***project phase*** is a period of time during which a logical grouping of activities will be performed and deliverables completed and approved (deliverables are tangible, verifiable work products). Within the enterprise, projects have been divided into discrete phases such as initiation, planning (development and definition), execution, and closeout. Collectively, *project phases* represent the **project life cycle** as shown in Figure 1.

*Figure 1: Project Life cycle Phases & Gates*



Although there may be some overlap of phase deliverables, most projects progress through the *project phases* in series. As a project progresses through the life cycle, there is a progressive elaboration and refinement of the project scope, schedule and cost. At the commencement of the execution phase, the project should have reviewed project alternatives, defined the scope of work, completed adequate design activities, procured required material and resources, and completed all planning activities.

The full project life cycle model defines five phases that might logically be present in every project. Its actual application, however, will depend on each project. The five phases, plus lead-in (Identification) and lead-out (Post Implementation Review) activities are summarized below. Detailed requirements and associated processes are provided in the Phase-Gating Roadmap in Appendix A and the suite of Enterprise Project Management governance.

**Note:** For complex projects and/or projects with multiple execution phases across multiple units, more than one phase-gate per phase may be included in the *project gate strategy*.

**Identification [lead-in] –** Identify the business need, strategic considerations and other core project requirements. Conduct a preliminary analysis of technical and financial feasibility, and prepare an initial project charter.

**Note:** The systematic identification and screening of potential projects for inclusion in the portfolio is governed by Investment Management [R6].

**Initiation Phase –** Develop project objectives, including quality objectives and project outcomes, operability/sustainability aspirations, project budget, and other parameters or constraints. Perform assessment of project alternatives, select the preferred alternative, prepare a conceptual design report (or equivalent), and undertake any feasibility studies (as required). The updated project charter should be issued including the gate strategy and, upon successful completion of this phase, and Gate 1 approval, project funding will be released, and project performance monitoring against established project *performance measurement baselines* will commence.

**Development Phase –** Develop the preliminary design (utilizing value engineering analysis if required) and the Scope of Work document. Outline the specifications and preliminary schedule and cost information along with relevant project strategies in accordance with the design requirements. Identify and assess project risks. Issue the Project Management Plan (PMP) including initial project delivery strategies. Any changes to scope, schedule and cost following this phase will require utilization of the project change management process.

**Definition Phase –** Prepare the detailed design and complete all work planning activities. Work planning includes the procurement of engineered material, work assessments and documentation to support field execution, establishment of execution phase contracts and the refinement of the scope, schedule and cost *performance measurement baselines* for the execution phase. At the completion of the definition (or planning) phase, the *performance measurement baselines* for the remainder of the project execution are set.

**Execution Phase** – Complete onsite construction and installation, and resolution of any design queries from site as they arise. Complete testing and commissioning, declaration of equipment in-service, and transfer the completed project to the sponsor, or station controlling authority. For capital projects, the Report of Equipment In Service (REIS) [R7] must be prepared and approved as soon as is reasonably achievable following the sign-off of each major in-service, acceptance and/or turn-over report in order to stop any associated interest charges.

**Closeout Phase –** Perform administrative closeouts of contracts, financial requirements and the project. The project is complete when all the closeout activities are completed and a Project Closeout Report (PCR) [R8] has been approved by the project sponsor. Project closeout should be completed within 6 months of the in-service/acceptance report.

**Post Implementation Review Phase [lead-out] –** Perform Post Implementation Review (PIR) as per requirements within the Post Implementation Review [R9]. Review should include confirmation of project completion, assessment of the extent to which the project has achieved its goals, and an assessment of value for money. The PIR should be completed in accordance with the timeframe described in the PIR Plan section of the most recent approved BCS, normally within one year following the project closeout.

## 2.2 Project-Gates

A ***project gate*** is a key decision and control point that occurs before the next *project phase* begins. The gate represents a logical point at which executive "gatekeepers" can determine whether and how to proceed. *Project gates* effectively "open" or "close" the path leading to a subsequent *project phase*. Gates also provide an opportunity to assess the project performance to date and to alter the course of the project and take remedial actions as necessary.

The implementation of a formalized project gating structure and process subjects a project to senior management scrutiny at predetermined points in its life cycle to ensure the project's readiness to continue to the next gate. Central to this process is the discipline of the gate decision forum.

The objective of the gate decision forum is to assess the project in the following areas:

- **Project Performance:** Verifies whether the previous phase/scope was executed to the specified safety, quality, cost and schedule requirements.
- **Business rationale**: Confirms that the project continues to align with the strategic plan set out at the enterprise level and is prudent given the context of the overall investment portfolio.
- **Project planning:** Confirms that the proposed future phase work/scope is adequately planned and the requested resources reasonable.

The ***gate deliverables*** are established for each gate and summarized in the Phase-Gating Roadmap (Appendix A). The roadmap describes the purpose of the gate; issues to be addressed; items for assessment; expected deliverables; and reflects the expected progressive elaboration and refinement of scope, schedule and cost estimates. The gate requirements and deliverables are scaled to align the level of effort of the gate

progression strategy with the projects potential impact to safety, quality, cost, and schedule.

The gate decision forum is a ***gate decision meeting*** (or equivalent review) which involves convening the *governing body* (gatekeepers) as necessary, to decide whether the project will pass through a given gate and proceed to the next phase and what conditions, if any, will apply. Following gate progression approval, project funding is obtained in accordance with the Organizational Authority Register (OAR) [R2] and Developing and Documenting Business Cases [R3]. The *governing body* is defined by each business unit (BU) and is comprised of key stakeholders and resource owners.

The meeting or equivalent review may be pre-scheduled or ad-hoc to avoid delaying the project and causing it to incur unnecessary costs. The members of the *governing body* are expected to be knowledgeable and well informed with respect to their areas of responsibility and should be fully prepared to make necessary and timely decisions.

In preparation for *gate decision meetings* or reviews, participants should be informed of and able to confirm the following:

(a) The business imperative, strategic alignment, and business case

(b) Project performance up to the gate in question, including confirmation of delivery and acceptance of expected deliverables

(c) The appropriate mitigation of risks, management of changes, initiation of action plans to address outstanding issues, and identification of any requirements for broader mid-course corrections

(d) The scope and detailed plan for the next phase and the criteria to be met before proceeding to the next gate

(e) An updated high-level plan to take the project through the remaining steps to successful completion

(f) The necessary supporting action and decisions, including firm resource allocation commitments

The *governing body* should assess all input from the project team and stakeholders and the outcome of the meeting or review is a decision on whether the project passes the gate unconditionally, passes with conditions, or is suspended or terminated. Additional decisions may deal with specifics relevant to how the project will move forward.

The *gate decision meeting* or review is also an opportunity to assess the adequacy of the monitoring and control mechanisms in place for the project and to plan advisable reviews.

## 3.0 PROCESSES

### 3.1 Plan Gate Strategy

A ***project gate strategy*** identifies in advance when gates will occur in the project schedule. The gate strategy is established at the onset of the project and no later than the point at which the business case is approved. The strategy is normally reconfirmed at each subsequent gate. The gating strategy sets out a series of checkpoints

throughout the project's life cycle at which, as a result of progressive elaboration, the following benefits are achieved:

- A greater degree of detail for project definition and planning;
- Fewer uncertainties and unknowns;
- A decreased number of unmitigated risks;
- More precise estimates; and
- A greater understanding of the specific business outcomes, including how they will be assessed.

As the project proceeds through phases and gates, the probability of a project achieving its commitments increases as risk and uncertainty decrease. In general gates should occur at points when the project is expected to have progressed significantly—as evidenced by documented results—in terms of the previously listed checkpoints.

The full phase-gate model is described in section 2.1. This model follows the traditional waterfall methodology where the entire scope of the project passes through each phase of work prior to work beginning on the next phase. However, the positioning of gates can be adapted to various methodologies, overlapping phases, and multiple-releases.

Deciding which gates to use for a project is important. The recommended practice is that projects go through all five gates; however, a less rigorous course may be acceptable depending on the project risk to the enterprise and the organization risk threshold.

3.1.1 The gate strategy should be determined by the Business Unit Execution Line Management, reviewed by Finance, and accepted by the sponsor.

3.1.2 The gate strategy should be risk based, and reflective of the cost and complexity of the project (project level), the specific project details, as well as the risk to the portfolio.

For example, for projects that are low complexity and cost, the sponsor may determine that one gate with a full release of funding is appropriate. For more complex and risky projects, the gate strategy will include all standard phase-gates, and potentially multiple gates in each phase (e.g. G3a, G3b etc.).

3.1.3 The gate strategy should align with planned funding requests and approvals as documented in Organizational Authority Register (OAR) [R2] and Developing and Documenting Business Cases [R3].

3.1.4 The gate strategy should initially be documented in the project charter and updated within the PMP as per Project Integration Management [R10] manual. Milestones reflecting the gate strategy should be included in the project schedule as per Project Schedule Management [R11]. The strategy should be reassessed periodically throughout the project as needed.

### 3.2 Manage Phase-Gating

Manage Phase-Gating is the process of ensuring the appropriate collection and presentation of project information (***gate packages***) in alignment with the gate definition requirements, and as per the *project gate strategy*. *Gate packages* provide information

on the project performance, business rational and project planning. The key benefit of this process is that it enables an efficient and effective information flow between the project team and *governing body* allowing for informed risk-based decision making.

3.2.1 Gate package preparation should align with the gate strategy and planned funding requests. An additional gate package may be required for a Superseding Business Case Summary (SBCS) as defined in Developing and Documenting Business Cases [R3] or for a project over-variance as appropriate. The requirement is at the discretion of the governing board and/or sponsor.

3.2.2 *Gate packages* should be prepared by the Business Unit Execution Line. For Gate 1 packages, where the executing organization has not been determined, the Sponsor may prepare the gate package and *Business Case Summary* (BCS).

3.2.3 Projects should be planned and managed in accordance with the Scalable Project Delivery Model [R4] as defined in the set of Enterprise Project Management governance. This includes the engagement of subject matter experts (SME) from the Enterprise Project Management Office for input or review.

3.2.4 Project planning should commence well in advance of the targeted *gate decision meeting* or review to ensure that requirements as per the gate definition are achieved. For project level A and B, a 12 week planning period is recommended [Appendix B].

3.2.5 Gate packages requiring Enterprise Project Management Office SME input or review should conduct a Pre-Gate Project Planning Kickoff Meeting at least 12 weeks in advance of the targeted *gate decision meeting* submission date. This kickoff meeting is mandatory for project level A and B.

> A Pre-Gate Project Planning Kickoff Meeting is recommended to engage all SME who are typically not involved in the day-to-day management of the project. The intent of the meeting is to share relevant information on the project including scope of work, life-to-date status and performance, contracting strategy etc., and to gain commitment from the SME and Project Team on required actions and timeline.

3.2.6 *Gate packages* should be prepared using the standardized gate template aligned with the project level, and provide information on the project performance, business rational and project planning for future work. Information should be accurate, representative of all the information to-date, and reflect the status and performance of the project.

In the event that a project cannot achieve all of the gate requirements as intended; however, needs to proceed to the gate, the gate package should be prepared with the actual status/achievements. Where the requirement was not achieved, the project manager should clearly identify the exception, and document why it cannot be achieved at this time, a forecast of when it will be achieved (if applicable), and an assessment of the impact and resulting risk. The exception should be reviewed by the *governing body* during the *gate decision meeting* or review.

3.2.7 *Gate packages* and any supporting documents (e.g. draft BCS, *project definition rating index*) should be reviewed by the applicable SMEs and submitted to the appropriate approval authority (*governing body*) as per the Scalable Project Delivery Model [R4].

Note: Project planning (and the resulting gate package) are to form the basis of the BCS. Details on BCS preparation and overall funding approval is defined in the Organizational Authority Register (OAR) [R2] and Developing and Documenting Business Cases [R3].

3.2.8 Gate decisions resulting from the *gate decision meeting* or review should be recorded in the gate package. Any actions resulting from a conditional approval should be recorded in the gate package and additional systems (such as RMO) as required. All actions are to be tracked to completion and presented to the *governing body* for acceptance prior to final gate approval.

3.2.9 Completed *gate packages* (unconditionally passed, conditionally passed, suspended or terminated) should be submitted to records as per document management requirements within Communication and Stakeholder Management [R5].

3.2.10 *Gate packages* and *gate decision meetings* or reviews are not typically required for Gate 4 and Gate 5 as they are not usually associated with funding releases. Projects successfully transition into the closeout and post implementation review phases by completing the required activities and documentation.

3.2.11 Confidentially, integrity and availability of the completed *gate packages* are to be maintained throughout the lifecycle of the project.

### 3.3 Monitor Phase-Gating Commitments

Monitor Phase-Gating Commitments is the process of monitoring scope, schedule and cost commitments made at the previous gate(s); ensuring that the project progresses in accordance with the plan; and performing integrated change control when appropriate. The key benefit of this process is a clear understanding between the project team and stakeholders on commitments and success criteria, and early identification of any deviations to plan allowing for timely course correction and remedial actions as necessary.

3.3.1 The scope, schedule and cost commitments within the gate package will form the *performance measurement baseline* for which future performance will be measured against. Details on how to establish and control the project performance against the baselines are provided in Project Scope Management [R12], Project Schedule Management [R11] and Project Cost Management [R13] manuals.

3.3.2 Changes within the boundaries of the approved gate package (and BCS) should be made in accordance with Project Integrated Change Control [R14]. Material changes, outside of the boundaries of the approved gate package, may require the project to go to an unplanned gate as determined by the sponsor or the *governing body.*

## 4.0 ROLES AND RESPONSIBILITIES

### 4.1 Project Sponsor

(a) Accepts the gate strategy as prepared by the Project Manager

(b) Where no Project Manager is yet assigned, prepares gate 1 package.

(c) Ensures that necessary financial evaluations of the project are conducted.

(d) Reviews the continued viability of the project at each stage gate in the project life cycle to ensure that the Project meets the business objectives within the approved cost and schedule constraints.

### 4.2 Governing Body

(a) Acts as primary gatekeepers that review project phase or gate outputs to ensure that the project has the required level of definition and financial justification and has met the deliverables of the current phase, in order to progress to the next phase of project implementation.

(b) Provides a gate progression recommendation to the OAR approving authorities.

### 4.3 Project Manager

(a) Prepares and presents gate packages for review and approval by governing bodies.

(b) Monitors gate commitments (scope, schedule, and cost) and ensures changes are processed in accordance with integrated change control.

### 4.4 BU Executing Line

(a) Determines gate strategy and obtains acceptance by the Sponsor.

(b) Ensures gate packages are prepared for review and endorsement.

### 4.5 BU PMO

(a) Reviews gate packages in conjunction with the Project Manager to ensure rigor, quality, standardization, consistency and readiness for gate progression prior to a decision gate.

### 4.6 Enterprise PMO

(a) Acts as single point of contact and SME for gate methodologies, processes, and associated tools and templates.

(b) Provides subject matter (e.g. scope, estimating, scheduling, risk and cost) expertise review and support for alignment of planning deliverables and provides an assessment of the level of readiness for gate progression.

(c) Supports Project Managers in developing the deliverables for each phase and updating of project management systems.

(d) Participates in pre-gate project kick-off meetings for gate packages which require SME input or review.

### 4.7 Finance – Investment Management

(a) Ensures BCS has been reviewed and accepted for inclusion in gate package submission to governing body.

## 5.0 DEFINITIONS AND ACRONYMS

### 5.1 Definitions

| | |
|---|---|
| **Business Case Summary** | Document prepared in order to provide a concise summary of the business need, alternatives considered, economic evaluation, proposed solution, and the benefits and risks of a proposed investment. |
| **Gate Decision Meeting** | Convening of the *governing body* (gatekeepers) as necessary, to decide whether the project will pass through a given gate and proceed to the next phase and what conditions, if any, will apply. |
| **Gate Deliverables** | End products established for each gate and summarized in the Phase-Gating Roadmap [Appendix A]. |
| **Gate Packages** | The appropriate collection and presentation of project information in alignment with the gate definition requirements, and as per the *project gate strategy*. |
| **Governing Body** | Act as primary gatekeepers and decide whether a project will pass through a given gate and proceed with the next phase of the project. The body is defined by each business unit and is comprised of key stakeholders and resources. |
| **Performance Measurement Baseline** | Formed by the scope, schedule and cost commitments within the gate package. |
| **Project Definition Rating Index** | A research-validated self-assessment tool developed by the Construction Industry Institute (CII) that is used to measure the level of scope definition achieved on a project. |
| **Project Gates** | A key decision and control point that occurs before the next project phase begins. Gates also provide an opportunity to assess the project performance to date and the project plan and to alter the course of the project and take remedial actions as necessary. |
| **Project Gate Strategy** | Identifies in advance when gates will occur in the project schedule. |

**Project Phases** A period of time during which a logical grouping of activities are performed and deliverables completed and approved. Within the enterprise, projects have been divided into phases of initiation, planning (development and definition), execution and closeout that collectively, represent the project life cycle.

## 5.2 Abbreviations and Acronyms

| | |
|---|---|
| BCS | Business Case Summary |
| BU PMO | Business Unit Project Management Office |
| CII | Construction Industry Institute |
| EPMO | Enterprise Project Management Office |
| OAR | Organizational Authority Register |
| PCR | Project Closure Report |
| PIR | Post Implementation Review |
| PMBOK | Project Management Body of Knowledge (6th edition) |
| PMIS | Project Management Information Systems |
| PMP | Project Management Plan |
| SBCS | Superseding Business Case Summary |
| SME | Subject Matter Expert |
| REIS | Report of Equipment in Service |
| RMO | Risk Management and Oversight Tool |

# 6.0 REFERENCES

## 6.1 References

### 6.1.1 Performance References

| Ref # | Document Number | Document Title |
|---|---|---|
| R1 | OPG-STD-0148 | Project Management Standard |
| R2 | OPG-STD-0017 | Organizational Authority Register (OAR) |
| R3 | OPG-STD-0076 | Developing and Documenting Business Cases |
| R4 | OPG-MAN-00120-0010 | Project Integration Management – Appendix A: Scalable Project Delivery Model |
| R5 | OPG-MAN-00120-0017 | Project Communication and Stakeholder Management |
| R6 | OPG-PROG-0006 | Investment Management |
| R7 | FIN-FORM-PA-004 | Report of Equipment in Service |
| R8 | FIN-FORM-PA-005 | Project Closure Report |
| R9 | OPG-PROC-0056 | Project Implementation Review |
| R10 | OPG-MAN-00120-0010 | Project Integration Management |
| R11 | OPG-MAN-00120-0014 | Project Schedule Management |
| R12 | OPG-MAN-00120-0011 | Project Scope Management |
| R13 | OPG-MAN-00120-0013 | Project Cost Management |
| R14 | OPG-MAN-00120-0016 | Project Integrated Change Control |

### 6.1.2 Developmental References

A Guide to Project Gating for IT Enabled Projects, Treasury Board of Canada Secretariat, 2010

RIBA Plan of Work 2013 Overview

PMBOK Guide – Project Management Body of Knowledge

CII Implementation Resource 322-2

## Appendix A: Phase-Gating Roadmap

ENTERPRISE PROJECT MANAGEMENT | PHASE-GATING | REV 0

### Phase-Gating Roadmap

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| Tasks / Phases | Identification | G 0 | Initiation | G 1 | Development | G 2 | Definition | G 3 | Execution | G 4 | Closeout | G 5 | Post Implementation Review |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Core Objectives | Identify **Business Need,** strategic considerations and other core project requirements. Conduct preliminary analysis of technical and financial feasibility. | | Develop **Project Objectives,** including **Quality Objectives** and **Project Outcomes, Operability/Sustainability Aspirations, Project Budget**, and other parameters or constraints. Perform assessment of project alternatives and prepare **Conceptual Design Report** (or equivalent). Undertake **Feasibility Studies** (as required). Update the Project Charter as required | | Develop **Preliminary Design**, via **Value Engineering** analysis (if required) and detailed **Scope of Work**. Outline specifications and preliminary **Schedule and Cost Information** along with relevant **Project Strategies**. Develop the **Project Management Plan**. | | Prepare the **Detailed Design** and complete all **Work Planning** activities. Refine the **Schedule and Cost Performance Baselines** for the project execution. | | Completion of onsite **Construction** and installation and resolution of any **Design Queries** from site as they arise. Completion of testing and Commissioning, declaration of **Equipment in Service,** and transfer of the completed project to the Sponsor/ Station/ Controlling Authority. | | Administrative closeouts of contracts, financial requirements and project. Preparation of **Project Closure Report**. | | Perform **Post Implementation Review** including confirmation of project completion, assessment of the extent to which the project has achieved business needs, and an assessment of value for money. |
| Suggested Key Support Tasks | - Define problem (or opportunity)<br><br>- Assign project number and enter project into facility/business plan.<br><br>- **Develop project schedule and cost estimate (for Initiation Phase).** | | - Assign sponsor, executing organization and Project Manager.<br><br>- Prepare Conceptual Design Report (or Equivalent) including analysis of alternatives. **Preferred Alternative selected**.<br><br>- Develop Business Case Summary (BCS) and Post Implementation (PIR) criteria and plan (if applicable).<br><br>- Prepare preliminary scope and project WBS<br><br>- **Develop project schedule and cost estimate (for next phase and entire project) as per the Scalable Project Delivery Model.** | | - Develop Project Management Plan (PMP) including scope, assumptions, constraints, risk assessment, stakeholder identification, initial project delivery strategy, project level, gate progression strategy and contracting strategy.<br><br>- Complete preliminary engineering. This may include value engineering analysis, and modification design requirements<br><br>- Prepare project scope baseline (Scope of Work document).<br><br>-Perform integrated change control on scope, cost and schedule.<br><br>- Finalize procurement/ contracting strategy and prepare contract management plan (if required). Include any major engineered equipment.<br><br>- Develop Business Case Summary (BCS) and preliminary PIR objectives and plan (A B C).<br><br>- **Update project schedule and cost estimate (for next phase and entire project) as per the Scalable Project Delivery Model.** | | - Update PMP including regulatory approvals.<br><br>- Review/update project scope baseline (Scope of Work document).<br><br>-Perform integrated change control on scope, cost and schedule.<br><br>- Ensure key contracts are identified, evaluated, and ready for award. Issue purchase orders for engineered equipment.<br><br>- Complete detailed scope definition and detailed design work (as applicable), and PDRI workshop (A B).<br><br>- Complete work assessment and planning activities including labour assignments, safety and quality plans, and COMS review (if applicable).<br><br>- Develop Business Case Summary (BCS) with final economic assessment, and finalise PIR objectives and plan (A B C).<br><br>- Obtain any regulatory approvals and plan for approvals not obtained to-date<br><br>- Integrate vendor schedules and cost estimates with project schedule and cost estimate and update for next phase and entire project as per the Scalable Project Delivery Model. | | - Key contracts in place (signed and approved) and vendors mobilized.<br><br>- Complete detailed design and procurement (as applicable).<br><br>-Perform integrated change control on scope, cost and schedule.<br><br>- Work assessed, Construction Work Packages (CWPs), Work Packages (WPs), Work Orders (WOs), Inspection & Test Plans (ITPs) and commissioning plans ready.<br><br>- Regulatory approvals & permits approved/ ready.<br><br>- Complete all field work and construction/ installation including construction completion declaration and all testing and commissioning.<br><br>- Deliverables/scope verification & acceptance by Sponsor and Customer (Operator).<br><br>- Develop/update Operations & Maintenance documentation (incl. PMs, manuals, procedures etc.)<br><br>- Complete Available For Service (AFS), Turnover document.<br><br>- Ensure critical spare parts available.<br><br>- Develop demobilization & closeout plans. | | - Complete any outstanding deficiencies and action items from AFS / Turnover and Gate 4.<br><br>- Perform contractual, financial, and administrative closeouts per corporate process.<br><br>- Perform final deliverables/scope verification & acceptance by Sponsor and Customer (Operator).<br><br>- Disposition remaining materials as spares, surplus or obsolete.<br><br>- Issue new and updated drawings and close engineering changes.<br><br>- Complete (or disposition) regulatory actions dispositioned (as required).<br><br>- Complete all records and documents filing and ensure Information Managed Systems updated.<br><br>- Review Post Implementation Review (PIR) plan<br><br>- Review and document lessons learned.<br><br>- Prepare Project Closure Report. | | - Assess project performance, variances and benefits realization.<br><br>- Prepare final PIR report. |
| Information Exchanges (Input to gate decision meeting at phase completion) | - Initial Project Charter<br>- Request for OM&A Funding (if required). | | - Development (or Planning) BCS<br>- Project Charter. | | - Definition Phase BCS<br>- Project Management Plan.<br>- Scope of Work (SOW) Document (A, B)<br>- Detailed Schedule (A, B, C) | | - Execution Phase BCS<br>- Project Management Plan<br>- Scope of Work (SOW) Document (A, B)<br>- Detailed Schedule (A B C) | | - Final Available For Service/ Turnover document<br>- Report of Equipment In-Service (REIS) | | - Project Closure Report. | | - Post Implementation Review (PIR). |

Note: Standardized report templates and supporting desk top guides are provided on the Enterprise Project Management website.

ENTERPRISE PROJECT MANAGEMENT | PHASE-GATING | REV 0

# Phase-Gating Roadmap

ONTARIOPOWER GENERATION

| Tasks / Phases | | Identification | G 0 | Initiation | G 1 | Development | G 2 | Definition | G 3 | Execution | G 4 | Closeout | G 5 | Post Implementation Review |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phase-Gate Template (OPG-TMP-0025) | A | N/A | | Gate 1 A/B | | Gate 2 A/B | | Gate 3 A/B | | N/A | | | | |
| | B | | | | | | | | | | | | | |
| | C | | | Gate 1 C | | Gate 2 C | | Gate 3 C | | | | | | |
| | D | | | Gate 1 D | | Gate 2 D | | Gate 3 D | | | | | | |
| Key Phase Deliverables | | → PROGRESSIVE ELABORATION → | | | | | | | | | | | | |
| Planning | All | Initial Project Charter | | Project Charter | | Project Management Plan | | | | | | | | N/A |
| Financial | A | Business Plan | | BCS | | | | | | Available For Service /Turnover Doc Return Equipment In Service (REIS) | | Project Closeout Report | | Post Implementation Review (PIR) |
| | B | | | | | | | | | | | | | |
| | C | | | | | | | | | | | | | |
| | D | | | | | | | | | | | | | N/A |
| Design/Engineering | All | N/A | | Conceptual | | Preliminary | | Preliminary/Detailed | | Field Design Changes/As-Built | | Design Close-out | | N/A |
| Scope Definition | A | N/A | | Preliminary | | Detailed | | Detailed + PDRI | | N/A | | | | |
| | B | | | | | | | | | | | | | |
| | C | | | | | | | Detailed | | | | | | |
| | D | | | | | | | | | | | | | |
| Schedule (Project, Next Phase) | A | N/A | | Level 1, Level 3 | | Level 2, Level 3 | | Level 3, Level 3 | | N/A | | | | |
| | B | | | Level 1, Level 2 | | Level 2, Level 3 | | Level 3, Level 3 | | | | | | |
| | C | | | Level 1, Level 2 | | Level 2, Level 2 | | Level 3, Level 3 | | | | | | |
| | D | | | Key Milestones | | Key Milestones | | Key Milestones | | | | | | |
| Estimate (Project, Next Phase) | A | N/A | | Class 5 , Class 3 | | Class 4, Class 3 | | Class 3, Class 3 | | N/A | | | | |
| | B | | | Class 5 , Class 4 | | Class 4, Class 3 | | Class 3, Class 3 | | | | | | |
| | C | | | Class 5 , Class 4 | | Class 5, Class 4 | | Class 3, Class 3 | | | | | | |
| | D | | | Class 5 , Class 5 | | Class 5, Class 4 | | Class 3, Class 3 | | | | | | |
| Risk Management | | N/A | | Risks identified | | Risk Management Plan | | | | | | | | N/A |
| Procurement /Contracts | | N/A | | | | Contract Management Plan | | | | | | | | N/A |

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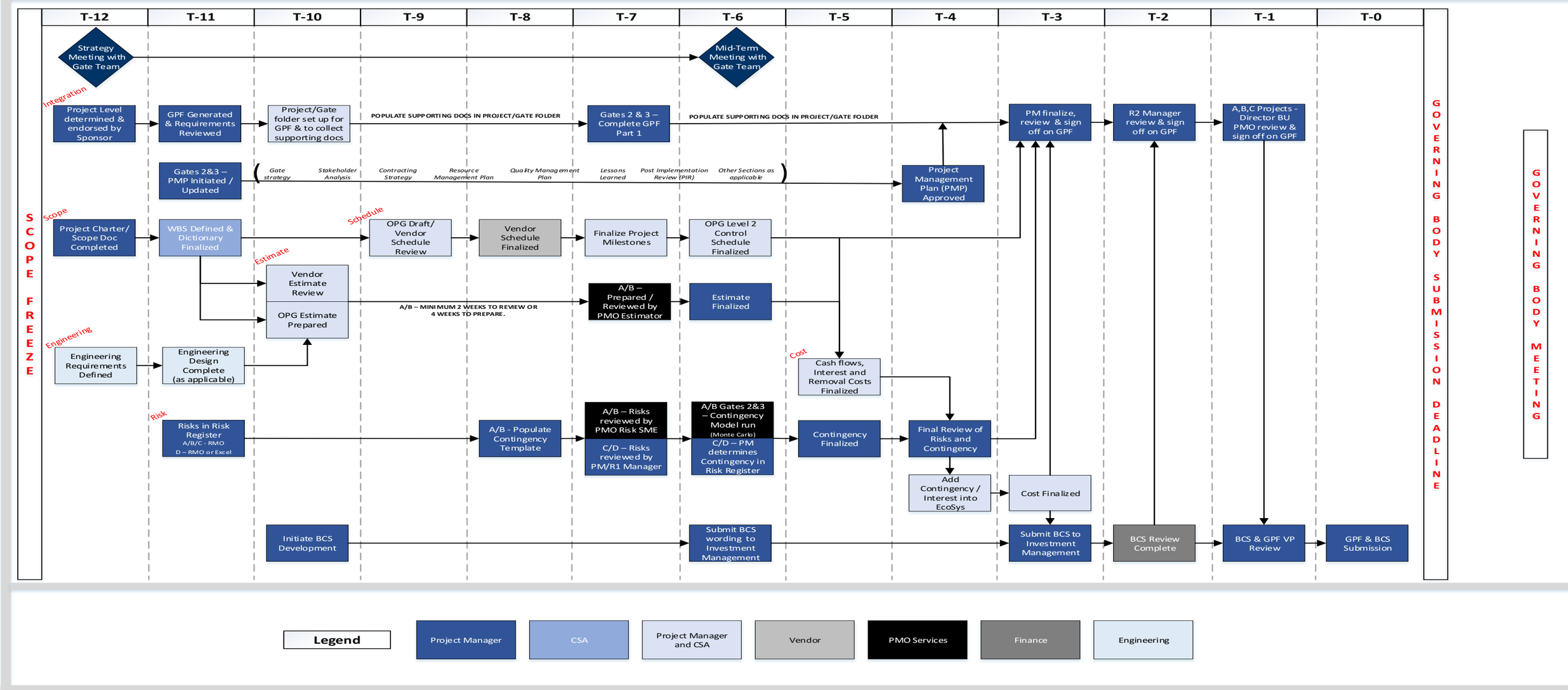
## Appendix B: Project Planning – 12 Week Process

### Gated Process-Gate Progression Form (GPF) Preparation Flow Chart