

Progressive Delivery for Highways

Creating a connected, modern, and competitive Ontario



September 18, 2023

Agenda

Date: September 18, 2023

Location: Mississauga Convention Centre

Time	Description
9:00 - 9:30	Arrival and Continental Breakfast
9:30 - 9:40	Welcome and Introductions
9:40 - 10:00	Presentation part #1 (intro, disclaimer and purpose, procurement models, highway risks)
10:00 - 10:20	Open Discussion (highway risks)
10:20 - 10:35	Break
10:35 - 10:50	Presentation part #2 (Progressive DB model)
10:50 - 11:15	Open Discussion (progressive)
11:15 - 11:30	Next Steps and Closing Remarks
11:30 - 11:45	Open Conversation / Networking
11:45 - 13:00	Lunch



Welcome, Introductions, Opening Remarks



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Overview of Procurement Models on Highway projects

Ontario highway projects have employed a variety of procurement models to date



MTO Led Delivery Models – Brief Descriptions

Traditional Design-Bid-Build (DBB)

- DBB model has separate procurements for the engineering and construction services, both of which are qualified through MTO's qualification procedures. Engineering Service Provider carries out detailed design resulting in a contract tender package with individual contract bid items. Bid items are either unit rate (quantity based) or lump sum.

Design-Build (DB)

- DB team is procured for both engineering and construction services through a low bid-technically compliant (DB Minor) or "best value (DB Major) process. DB Minor can be single stage (RFP only) or two stage (EOI & RFP) procurement process. DB Major is a 2 stage (EOI & RFP) procurement process. Contractors are initially qualified through on MTO's qualification procedures. Contract pricing is lump sum.

Construction Manager General Contractor (CMGC)

- CMGC model has separate procurements for the engineering service provider and the Construction Manager (CM), who provides construction services. Both service provider procurements are qualified through MTO's qualification procedures. CM services are procured by a single-stage RFP, with technical and price components. The CM is retained early in the detail design process and actively collaborates with the design team and owner, to mitigate risks, identify opportunities for innovation/alternative technical approaches and provide construction expertise. The CM is compensated for CM services during design and is offered the opportunity to bid a fixed price on the final contract to become the General Contractor (GC).



MTO/IO Led Delivery Models - Brief Descriptions

Design-Build-Finance-Maintain (DBFM)

- The DBFM model involves the private sector consortium (Project Co) accepting responsibility for the design, construction, financing, regular maintenance and rehabilitation of the asset over the contract term to meet pre-defined performance specifications. The typical contract term for the maintenance work is 20 to 30 years. The public sector retains ownership of the assets. Project Co would not be fully paid for construction work following substantial completion but would be paid in instalments over the length of the maintenance term.

Design-Build-Finance (DBF)

- Similar to a Design-Build model, a DBF approach awards the design and construction under a single contract. Consortiums, joint ventures or subcontract agreements may be established between two or more companies to pool the resources and expertise necessary to deliver a DBF project. The consortium must obtain short-term construction financing from third-party lenders or use its own equity resources. A lump-sum payment at substantial completion is intended to pay off the consortium's design, construction and construction financing costs.

Progressive DBF

- In addition to maintaining the key attributes of the typical P3 models currently employed by IO, the Progressive P3 strategy also incorporates a Development Phase between the procurement and construction phases to a) collaboratively develop designs to advanced levels that allow for more efficient and accurate pricing and b) establish a committed fixed price to deliver the project based on transparent pricing and advanced designs. Upon confirmation of the fixed prices, the Development Company is responsible for raising private financing (debt and equity, where applicable) during the latter stages of the Development Phase with Commercial and Financial Close expected to coincide with the end of the Development Phase.

Progressive DB

- A Progressive Design-Build is not a P3 project, but it applies a similar collaborative approach between the owner and its contracting partner during the early work of projects such as project requirements and design work in the Development Phase. Unlike the Progressive P3s, a Progressive Design-Build model can employ a target-price rather than the fixed price enabled under a P3 model. The structure may also include a gain-share/pain-share mechanism where the pain-share for the contractor is capped at the profit and direct costs are paid to complete the project.

Further information on delivery models can be found at the following webpage: <https://www.infrastructureontario.ca/en/what-we-do/major-projects/model-selection/>



Projects Risks: Highway Projects

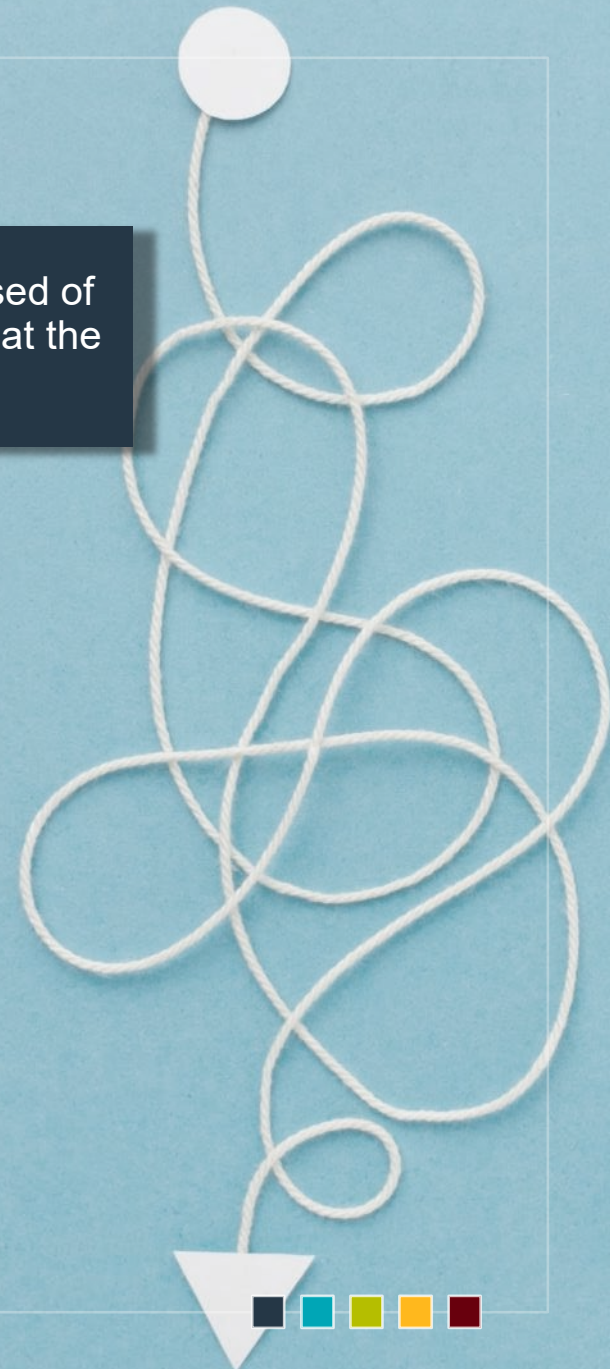
In March of 2023, IO and MTO organized “Project Structuring Meetings” which comprised of a webcast and a series of one-on-one meetings with industry firms to better assess what the market viewed as key risks and challenges on highway projects.

General Discussion:

- Key risks that continue to affect pricing and uncertainty are:
 - Geotechnical (i.e. contamination and foundations)
 - Utilities (stakeholder conditions and baseline information)
 - Timing of Permit, License, Approvals and Agreement
- Fixed price contracts (i.e. DBF and DBFM) can be challenging with a Reference Concept Design / preliminary design, where some risks are not fully understood.
- Concerns on traditional risk transfer that are impacted by drastic shifts in recent market, in other words, considerations for compensation for atypical cost changes on risks transfer (e.g., inflation, supply chain delays, etc.).
- Preference to hold the design contract (retain control of the designer)
- Continued resource and labor constraints due to the volume of work in the construction sector pipeline. This may squeeze the materials supply chain (particularly carpentry) and accompanied by a smaller labor force, and inflated cost of work.

Discussion on form of contracting:

- Traditional design contracts are too prescriptive - Participant's preference is to retain and integrate design to develop a design that is flexible, innovative and pragmatic
- Limited information provided during the RFQ stage on a traditional DBF procurement is creating hesitation in potential firms from making business decisions to participate
- PSPL insurance (project-specific professional liability) is quite expensive, premiums are up 50-60% and given current insurance market conditions there are concerns as to who should bear this risk



Review of Market Feedback

We have listened to industry and
are making changes to address
challenges



Addressing Highway Risks

In recent P3 contracts, MTO/IO acknowledged there are Highway-specific risks that are posing concerns for the market. Together, we have reviewed them and following steps were taken:

- Provided reliance on baseline reports and data to support design development during bid
- Facilitated open dialogue with stakeholders during in-market Commercial Confidential Meetings (“CCM”) and consultations
- Provided baseline utility document for accurate scope definition and removing unreasonable risk transfer for Mislocated and Unknown Utilities
- Provided timely deliverables of CA permits and proper risk transfer for Project Co’s permit and obligations
- Completed enhance due diligence on site conditions with feedback received during RFP in-market consultations

Through these measures, MTO/IO have received positive feedback and implemented acceptable risk transfer on P3 Highway projects. But....



Addressing New Risks

Recent feedback from the market expressed a further shift towards the collaborative models, driven by the following factors: changing preference to risk transfer; price/cost validation challenges; reliance on bidding documents; design maturity to price contract

While shifting to a progressive Design-Build model may be a viable solution, MTO/IO strive to review root concerns of the emerging risks and explore alternatives to best address these concerns with the following principles:

- Ensure a viable, competitive procurement, that generates interest within the private sector and addresses market capacity
- Incentivize project delivery to meet schedule commitments and timing constraints
- Achieve a desired degree of cost certainty and management of shared risks
- Develop a balanced regime that limits the Contractor's exposure to cost overruns to Corporate Overhead and Profit
- Appropriate risk management given the budget, scale and scope of the project



Open Discussion #1

Prompts:

- Risk discussion
- Current headwinds
- Other





Progressive Design-Build Model

Overview, Objectives, Structure,
and Timelines



Progressive Procurement Strategy

Progressive models are a method of collaborative contracting intended to identify, mitigate, and appropriately share design, schedule, and pricing risk through two-phases of project delivery: the collaborative Development Phase and the Implementation Phase

Key benefits of the Ontario Progressive Model:

- The procurement timeline could be reduced and there will be fewer design- and construction-related submittals during the Request for Proposals (RFP) stage.
- The Development Partner will work with Sponsors in a more collaborative manner and have the ability to shape the design and innovate
- Sponsors and Development Partners have an opportunity to work more collaboratively to develop the design, reduce risks, and finalize pricing before contracting for project implementation.
- Provisions will be included to hold both Sponsors and Development Partners accountable through the Development Phase and into the Implementation Phase.
- Where it makes sense, the value of private sector long-term capital continues to be recognized, with opportunities for private sector long-term equity and debt participation still available.

The progressive procurement model will enable the participation of a long-term, sustainable market of qualified firms, competing to deliver projects developed through more collaborative means.

The progressive procurement strategy maintains many features of the P3 model currently employed by IO. However, the strategy incorporates a Development Phase between the procurement and construction phases, where project sponsors (Sponsors) work with the Development Partner to:

- Collaboratively develop designs to advanced levels that allow for more efficient and accurate pricing
- Establish a fixed/target project price based on transparent pricing and advanced designs



Progressive Strategy for Highways

The progressive procurement strategy fosters collaboration between the owner and its contracting partner, with both parties working together to define the project requirements, design, pricing and risk, during the Development Phase of the project, before entering into a final Project Agreement

Objectives of the Progressive Design-Build Model for Highways

- Promotes continuous improvement by incorporating, as appropriate :
 - ✓ Best practices from collaborative and progressive contracts from IO's three Progressive P3 contracts and two Progressive DB (Target Price) projects with Metrolinx;
 - ✓ Lessons learned from IO's Progressive P3 and Progressive DB (Target Price) experience;
 - ✓ Best practices from MTO's construction management, oversight, quality, and commissioning; and
 - ✓ Best practices from other jurisdictions, as required.
- Is developed both for MTO's highway program (beginning with the Garden City Skyway project) and with opportunity to deploy for other projects to ensure consistency for common market players participating in future Progressive DB (Target Price) procurements
- Promotes consistency and predictability in commercial and legal terms, relevant commercial structures, and overall approach to procurement across all Progressive contract forms (Progressive P3 and Progressive DB) in Ontario



Progressive Procurement Portfolio

Infrastructure Ontario is applying a 'made-for-Ontario' Progressive Public Private Partnership (P3) & Progressive Design-Build (PDB) models across a variety of projects in its portfolio.

1. Weeneebayko Area Health Authority (WAHA) - Hospital Redevelopment
2. The Ottawa Hospital – Civic Campus Redevelopment
3. Trillium Health Partners - Mississauga Hospital
4. Scarborough Subway Extension
5. Ontario Line North
6. Garden City Skyway



Example of Progressive Contracts in Ontario

- Progressive contracts follow a similar structure where a **Development Partner is selected based largely on qualifications and ability to deliver the project** who then works with the owner during a Development Phase to develop the design, construction schedule, project costs, and optimize risk allocation between parties prior to executing the construction contract.



Progressive P3s (PDBF/M)

- N/A

- **Single stage RFP** with screening process
- Technical focused RFP based on qualifications and ability to deliver the project
- Bid fixed fee for Dev Phase
- Select Dev Partner

- **Development Phase Agreement (DPA)** governs Dev Phase
- Prescriptive Dev Phase (checkpoints, deliverables)
- Dev Phase concludes with fixed priced and financing

- **P3 Project Agreement** governs construction

Scarborough SRS (PDB/Target)

- **Two stage procurement**, shortlist three Proponents
- Quantification and experience focused

- Technical focused RFP based on ability to deliver the project
- Bid overhead and profit rates for Dev Phase and Construction
- Select Dev Partner

- **DPA** governs Dev Phase
- Fairly prescriptive Dev Phase (checkpoints, deliverables)
- Paid on a time and materials basis
- Concludes with Target Price
- Early/advance works paid on a time and materials basis under DPA

- **Target Price DB Agreement** governs construction on an open-book basis

OL North Civil (PDB/Target)

- **Two stage procurement**, shortlist three Proponents
- Quantification and experience focused

- Technical focused RFP based on ability to deliver the project
- Bid overhead and profit rates for Dev Phase and Construction
- Select Dev Partner

- **Development Master Construction Agreement (DMCA)** governs both Dev Phase and Construction Phase, the owner enters into multiple **Target Price Agreements (TPA)** under the DMCA to commence major work
- Dev Phase is flexible, paid on a time and materials basis during Dev Phase
- TPAs managed on an open-book basis
- Early/advance works paid on a time and materials basis under DMCA

Concept – Fixed Price for Development Phase

The Objective

- Sponsors aim to achieve cost certainty during the Development Phase
- Ensure efforts of both parties during the Development Phase are focused on design, schedule and construction estimate development, minimize administrative effort during the Development Phase

Summary

- Proponents will **bid a Fixed Price** for the Development Phase activities:
 - Sponsors will **prescribe Development Phase timeline, checkpoints and deliverables** in the upcoming RFP to allow for efficient pricing of a fixed fee
 - Development Phase focuses on design, schedule, quality management and cost development
 - With the Reference Concept Design available, Dev Co **will iterate design and develop a cost estimate in collaboration** with the Sponsors on a transparent and open-book basis
 - Dev Co will be paid monthly on an earned value basis against the fixed fee
- Unanticipated changes to the Development Phase scope of work will be administered through use of the variation process where Dev Co will be entitled to an adjustment to their fixed fee (use of pre-negotiated fixed staff rates and/or margin markups may be used to facilitate a variation estimate)
- If Sponsors and Dev Co identify early or advance works that could commence during Development Phase, Dev Co would submit a pricing and schedule proposal and if agreed upon, it is anticipated a separate form of contract will be entered with Dev Co to undertake this work

Progressive Design-Build Procurement Activities

Overview of RFQ and RFP
deliverables and activities



Development Phase Market Consultation Plan

Topic Meetings (TM)

- Topic Meetings enable Sponsors to share common information on specific topics related to the Project with Proponents
- Increase communication with, and receive feedback from, Proponents regarding specific subject areas of the RFP Documents
- Provide an opportunity for dialogue and collaboration with Proponents regarding key areas of the DPA Phase, including deliverables, timelines, procedures and Early Works; and
- Provide access to key stakeholders of the Project that Proponents are otherwise prohibited from contacting in a commercially confidential setting to further develop aspects of the Proponents' RFP Proposals

Commercially Confidential Meetings (CCM)

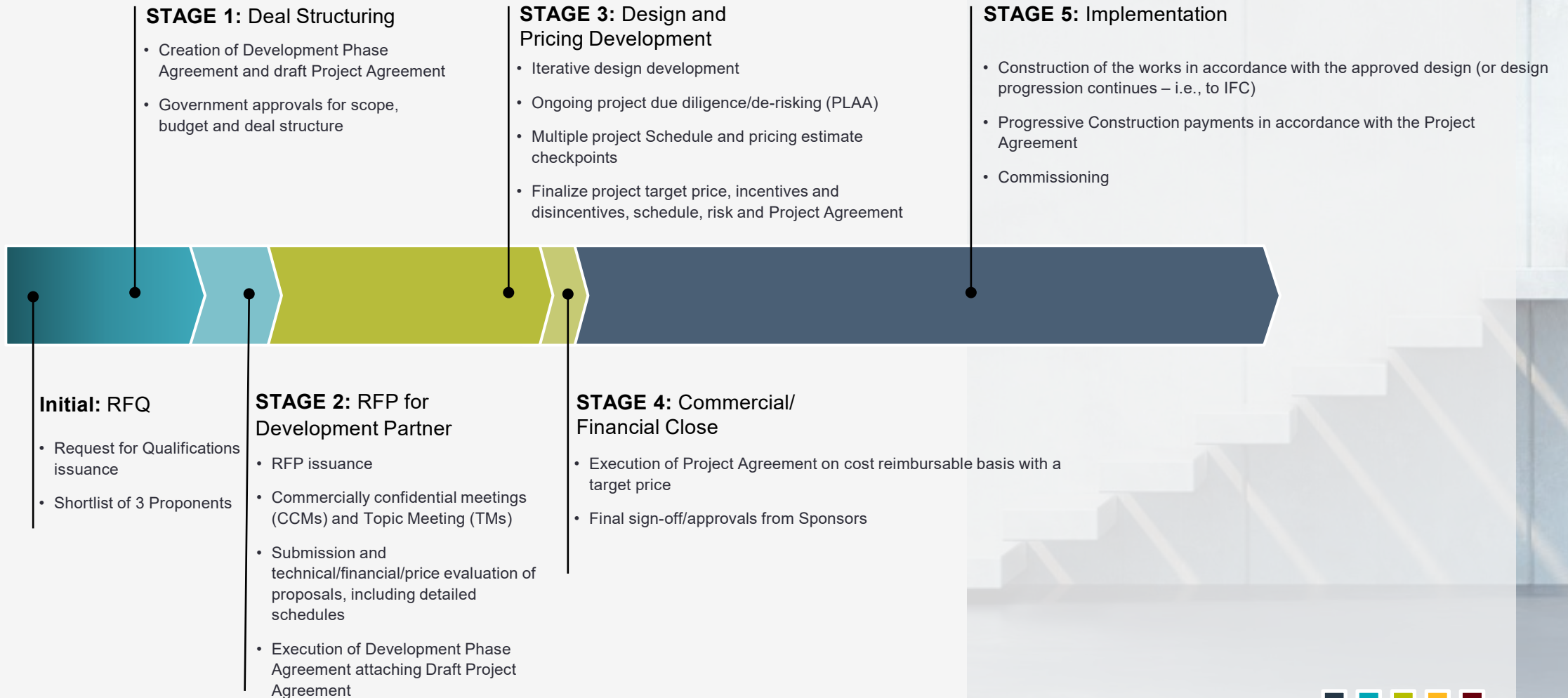
- Series of meetings to discuss the RFP Documents including Draft Development Phase Agreement which includes the Draft Project Agreement
- Provides Proponents opportunity to discuss any issues in respect of the RFP Documents and to address key legal and/or commercial issues

In-Market Information Strategy Sessions (IMISS)

- The in-market information strategy sessions are informal sessions and are generally held once a month
- These short meetings allow leads from Proponents to go over any areas of concerns or discussion relating to:
 - Outstanding information
 - Data Room
 - Due diligence
 - Status of RFIs
 - Bid timelines
 - Or bid costs
- Sponsors will have an open dialogue and may provide verbal feedback, but it may be requested that Proponents submit RFIs in accordance with procurement documents



Progressive Procurement indicative timeline & key activities



Anticipated Contract Structure

RFP/Procurement

- An RFP document will govern the procurement process, including technical/financial/price evaluation criteria for selection of the Preferred Development Partner.
- A form of the Development Phase Agreement and Project Agreement will be provided as part of the RFP document. If early works or preparatory activities are the responsibility of the Development Partner, a form of an Early Works Agreement will also be provided.
- Proponents will bid to a final form of the Development Phase Agreement and Project Agreement, with limited areas to be finalized throughout the Development Phase.

Development Phase

- The Preferred Proponent from the RFP process becomes the “Development Company” and enters into a Development Phase Agreement with the Sponsors to commence the Development Phase.
- The Development Phase Agreement will be entered into with the main contracting parties that form the Development Partner’s team, on a joint and several basis.
- Near the end of the Development Phase, the Sponsors and the Development Partner will commence closing process to:
 - Finalize the estimate and conclude on target price;
 - Finalize open commercial and legal terms in the Project Agreement; and,
 - Obtain performance security and insurance.
- At the conclusion of the closing process, the Sponsors and Development Company will enter into the Project Agreement to achieve Commercial and Financial Close.

Implementation

- The Project Agreement will govern implementation activities during construction and operations.
- The Project Agreement entered into at the end of the Development Phase will reflect existing P3 contract templates, where applicable.

Government approvals, consistent with existing policies, will continue to apply and will be required as relevant throughout the RFP and prior to execution of the Development Phase Agreement and the Project Agreement.



Anticipated Procurement Process - continued

Evaluation Approach

RFP evaluation will include financial/price and technical proposals:

- For the **RFP Technical Submission**, there will be no design development in-market
- Financial/price proposals, received for the development phase, will have a limited portion of points allocated from the total proposal score. The development fee will be scored as part of the financial evaluation, with consideration of a development fee cap and/or floor.
- Technical proposals will have the largest portion of the total proposal score. The final technical submission, which is project-focused/forward-looking, may be evaluated based upon the following core criteria/components:
 - Overall approach to partnering, collaboration, communications and integration (e.g., development phase partnering, risk allocation, detailed organization structure, resourcing strategy, design communications plan, etc.), with associated Key Individuals (KIs);
 - Design development plan (e.g., detailed work plan for design development, design quality plan, etc.), with associated KIs;
 - Construction management plan (e.g., detailed work plan for the construction team to support project outcomes, etc.), with associated KIs;
 - Approval strategy (e.g., detailed work plan, during the design and construction phases, for permits/licenses/approvals, etc.), with associated KIs; and,
 - Development Phase schedule and cost development plan (e.g., Development Phase schedule foundations, detailed design development schedule, detailed cost development/estimation plan, detailed work schedule, etc.), with associated KIs.

Proposal Fees

- A proposal fee will be offered to the unsuccessful Proponents that submit a compliant proposal as part of the RFP



Open Discussion #2

Prompts:

- Progressive model initial thoughts
- Comfort level with the model
- Other



Next Steps and Closing Remarks

*MTO/IO continues to gather and evaluate
market feedback*

