

TOTAL ESTIMATED PROJECT COST

1. The total estimated project cost for the GTA Project is \$686.5 million, including Interest During Construction (“IDC”). Below is a summary description of the major cost areas of the project. /u

Table 1 – Summary Total Estimated Project Cost /u

<u>Item No.</u>	<u>Description</u>	<u>Cost</u> <u>(\$millions)</u> ^{1,2}
1.0	Base Project Cost (2013 dollars)	548.7
2.0	Contingency	84.5
3.0	Escalation	33.6
4.0	Interest During Construction	<u>19.8</u>
5.0	Total Estimated Project Cost	<u>686.5</u>

Table 2 shows the Detailed Total Estimated Project Costs.

This information has been filed in confidence as described in paragraph 6 below.

Estimated Project Costs

2. The estimated project costs were developed for the project in its entirety. The estimated costs provide a consistent approach to the design, development and construction of the pipelines and associated facilities. Using this approach allows project activities to be planned and managed to achieve economies of scale, scope,

¹ Items 1 to 4 do not exactly sum to Item 5 due to the rounding of costs for the purposes of this summary table.

² The Segment A pipeline cost estimate has been updated based on currently available information. Elements of Segment A have not yet had the same level of field survey and engineering work as the remainder of the GTA Project due to time constraints associated with preparing the cost estimate for Update No. 6. As such, there is greater uncertainty and variability on Segment A’s portion of the cost estimate.

and execution. Therefore the project cost estimate would not be valid by applying a simple division of project costs between the respective project segments or elements, nor would it be valid if the project schedule and timing were altered.

3. A dedicated multi-disciplinary team is in place to manage the project given its scope. The project has adopted a project management framework as described in Exhibit C, Tab 2, Schedule 3. This framework, and in particular the risk based methods outlined within it, have been utilized for the development of the project costs and to ensure governance, cost, and schedule controls.
4. The project cost estimate was developed according to the Association for the Advancement of Cost Engineering International (“ACEC”) guidelines, which are the industry standard in cost estimate development. The construction cost estimate is based on a contractor style crew by crew make up complete with all the tools and equipment required to perform the work. The materials estimate is based on budgetary quotes for all major equipment from various approved vendors. Key deliverables developed in order to determine the cost estimate include a detailed project execution plan, construction execution plans, schedule and a design basis memorandum.
5. Rigorous risk assessment sessions were held inclusive of constructability, process hazard analysis, system operability, and design basis reviews. Information from these sessions was then used to assess risk and subsequently contingency. Contingency was determined through the use of a proprietary parametric model based on Rand Corporation and Independent Project Analysis (“IPA”) studies of industrial projects over the past 40 years coupled with actual projects throughout the Enbridge group of companies. Using this information, the process is customized and calibrated, and takes into account systemic and project specific risks that would impact the capital cost or schedule. The estimate of potential market escalation has

been calculated using a set of predictive escalation indices that were developed by an external consultant (Global Insight) who specializes in macro-economic forecasting.

6. Assuming the Ontario Energy Board (the “Board”) grants leave to construct, further cost definition will continue during the procurement processes. The various costs are therefore summarized at a high level in order to avoid compromising any procurement processes required. A detailed summary will be filed with the Board confidentially.

7. The Company is taking steps to mitigate risks with construction delays to meet the required in-service dates and to also mitigate project costs and overruns. These steps include the advancement of work that would otherwise be performed in the detailed engineering and design phase. It also includes the continuation of environmental work, permit applications, and procurement planning. This is described in more detail in Exhibit A, Tab 3, Schedules 8 and 9.

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Table 2 – Detailed Total Estimated Project Costs

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WORK BREAKDOWN STRUCTURE		
<u>Summary Roll-up</u>	<u>Description</u>	<u>Cost</u>
<u>Project Engineering, Development, Execution and Administrative /General</u>		
	Project Development	
	Project Execution	
	Administrative and General	
	Insurance	
	Engineering	
<u>Total Project Engineering, Development, Execution and Administrative /General</u>		
<u>Mainline</u>		
<u>Parkway West to Albion</u>		
	Land and Easements	
	Pipe and Coating	
	Valves	
	Induction Bends	
	Fittings, Flanges, and Other	
	Construction, Testing, Surveys, and Construction Management	
	Commissioning and Start-Up	
<u>Keele/CNR to Don Valley Junction</u>		
	Land and Easements	
	Pipe and Coating	
	Valves	
	Induction Bends	
	Fittings, Flanges, and Other	
	Construction, Testing, Surveys, and Construction Management	
	Commissioning and Start-Up	
<u>Don Valley Junction to Sheppard Ave</u>		
	Land and Easements	
	Pipe and Coating	
	Valves	
	Induction Bends	

	Fittings, Flanges, and Other
	Construction, Testing, Surveys, and Construction Management
	Commissioning and Start-Up
<u>Total Mainline</u>	
<u>Facilities</u>	
Parkway West Initiation Point	
	Land and Easements
	Meter Runs
	Regulation Runs
	Heating
	Odourization
	Other Costs
	Construction and Construction Management
	Commissioning and Start Up
Parkway West Gate Station and Parkway Bypass Regulation	
	Land and Easements
	Meter Runs
	Regulation Runs
	Heating
	Odourization
	Other Costs
	Construction and Construction Management
	Commissioning and Start Up
Albion Road Gate Station	
	Land and Easements
	Meter Runs
	Regulation Runs
	Heating
	Odourization
	Other Costs
	Construction and Construction Management
	Commissioning and Start Up
Keele/CNR Feeder Station (Modifications)	
	Land and Easements
	Meter Runs
	Regulation Runs



	Heating
	Odourization
	Other Costs
	Construction and Construction Management
	Commissioning and Start Up
Buttonville/Highway 407 Meter and Regulation Station	
	Land and Easements
	Meter Runs
	Regulation Runs
	Heating
	Odourization
	Other Costs
	Construction and Construction Management
	Commissioning and Start Up
Jonesville/Eglinton Meter and Regulation Station	
	Land and Easements
	Meter Runs
	Regulation Runs
	Heating
	Odourization
	Other Costs
	Construction and Construction Management
	Commissioning and Start Up
<u>Total Facilities</u>	
<u>Base Project Cost</u>	
Contingency	
<u>Base Project Cost and Contingency</u>	
Escalation	
Interest During Construction	
<u>Grand Total</u>	

