

STATUS OF SYSTEM INTEGRITY PROGRAM

1. Within the EB-2012-0459 Custom IR Decision (p. 81), the Board indicated that Enbridge was to report on the status and expenditures for the System Integrity Program.
2. In the Decision, the Board approved Enbridge's forecasts of required capital expenditures for each of the 2014 through 2018 fiscal years. With respect to the System Integrity Program, the Board indicated its concerns about uncertainty and lack of external evidence in relation to the program drivers and estimates. The Board indicated that it expected these concerns to be addressed through future refinements within Enbridge's Asset Management Planning and Benchmarking processes. In the meantime, the Board required Enbridge to report annually on the status and expenditures of System Integrity Program.
3. Enbridge's System Integrity and Reliability program remains a key priority for the Company in terms of understanding and proactively mitigating potential threats to the distribution system.
4. System Integrity and Reliability consists of those programs, projects and activities focused on:
 - Maintaining the entire natural gas storage, transmission and distribution pressurized system at or above adopted standards for continued safe and effective operation (System Integrity);
 - Ensuring the dependable delivery of natural gas to Enbridge's customers and end-users (Reliability);

5. The Company undertook many initiatives in 2016 to continue to address known issues and proactively maintain a safe and reliable distribution and storage system.

Over the period of 2014 to 2016, significant efforts were focused on:

- Gaining a better understanding of the health and condition of assets as it pertains to risk and risk reduction
- designing appropriate risk reduction strategies
- developing risk based assessment methodologies
- developing an asset management framework in order to make effective decisions in terms of prioritizing capital spend with the outcomes being spending the right money on the right asset at the right time.

6. As shown below within Table 1, Enbridge's actual System Integrity spend within 2016 was \$134M versus the \$141.1M which the Board approved within the EB-2012-0459 proceeding.

Table 1

ASSET CATEGORY	2014			2015			2016			Cumulative VAR
	ACT	IRM	VAR	ACT	IRM	VAR	ACT	IRM	VAR	
Mains	31,584	24,594	(6,990)	26,762	24,088	(2,674)	35,833	22,099	(13,734)	(23,398)
Services	20,661	21,128	467	24,744	25,021	277	22,651	41,227	18,576	19,320
Stations	12,690	23,990	11,301	23,823	26,442	2,619	26,319	24,517	(1,802)	12,118
Meters/Records/Envision	42,142	41,808	(334)	45,885	42,650	(3,235)	34,388	35,810	1,422	(2,147)
SIR Direct Resource Costs	18,347	20,813	2,466	12,419	16,925	4,506	14,610	17,449	2,839	9,811
Total	125,424	132,333	6,909	133,632	135,127	1,494	133,801	141,102	7,301	15,705

ASSET CATEGORY	2014			2015			2016			Cumulative VAR
	ACT	IRM	VAR	ACT	IRM	VAR	ACT	IRM	VAR	
Reinforcements	3,595	11,393	7,798	4,715	16,958	12,243	7,879	8,743	864	20,905
Relocations	767	15,236	14,470	4,954	13,386	8,431	13,844	12,603	(1,241)	21,660

7. The Company continues to evaluate the System Integrity program work relative to the anticipated requirements as outlined in the EB-2012-0459 proceeding. Where there are changes in circumstances such as delays in readiness by third parties, or

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land acquisition issues, or as more information becomes known, Enbridge may be required to re-prioritize originally anticipated program work.

8. The 2016 \$7.3M underspend variance represents a 5.2% variance versus the approved budget of \$141.1M.
9. Mains: Capital dollars were re-allocated across the mains portfolio through risk-based assessments and portfolio prioritization. A capital overspend of \$13.7M occurred on mains replacement and integrity mains assessments.
10. Services: Capital was re-allocated to higher risk leaking / poorly performing assets rather than the anticipated proactive programs that were designed to stay ahead of the failure curve. Spend in leaking services exceeded the approved budget by \$15M, while an underspend of \$31M occurred on proactive service replacement. Spend in the Sewer Safety program (\$1.69M) was allocated to the Customer Growth spend as this is where the program is executed.
11. Stations: Efforts were focused on high risk initiatives such as Regulators located inside Customers' buildings, Risk prioritization of District & Header stations, Records, Station Capacity and Compliance items such as: Fire Protection, Access, Communications, and Gas Pre-Heat system Mitigation.
12. SIR Direct Resource Costs: Departmental labour costs are primarily capitalized salaries and employee expenses. The favorable variance is due to a reduced workforce. The Company committed in its CIR application to find productivity in this area. Targeted hiring practices in place have led to delays in filling vacancies which also factors into the variance.

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