

Inland Gas Upgrades (IGU) Project CPCN Application

Presentation and Q&A

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Agenda

- Introductions
- FEI to address the Panel's "four key issues"
- Question Period
- Discussion on further process (led by BCUC Panel)

Panel Issue 1

1. The BC Oil & Gas Commission (BC OGC) has found that FEI's existing risk assessment process requires corrective action, and that the corrective action encompasses all of FEI's pipeline assets in BC. Given the need for corrective action, the Panel is puzzled as to why it would be appropriate to proceed with the IGU project before such issues are resolved and a compliant risk assessment process is in place that could be applied to assessing the need and priority for the IGU project. In short, is it premature to proceed with the IGU project at this time?

Panel Issue 1 (cont'd)



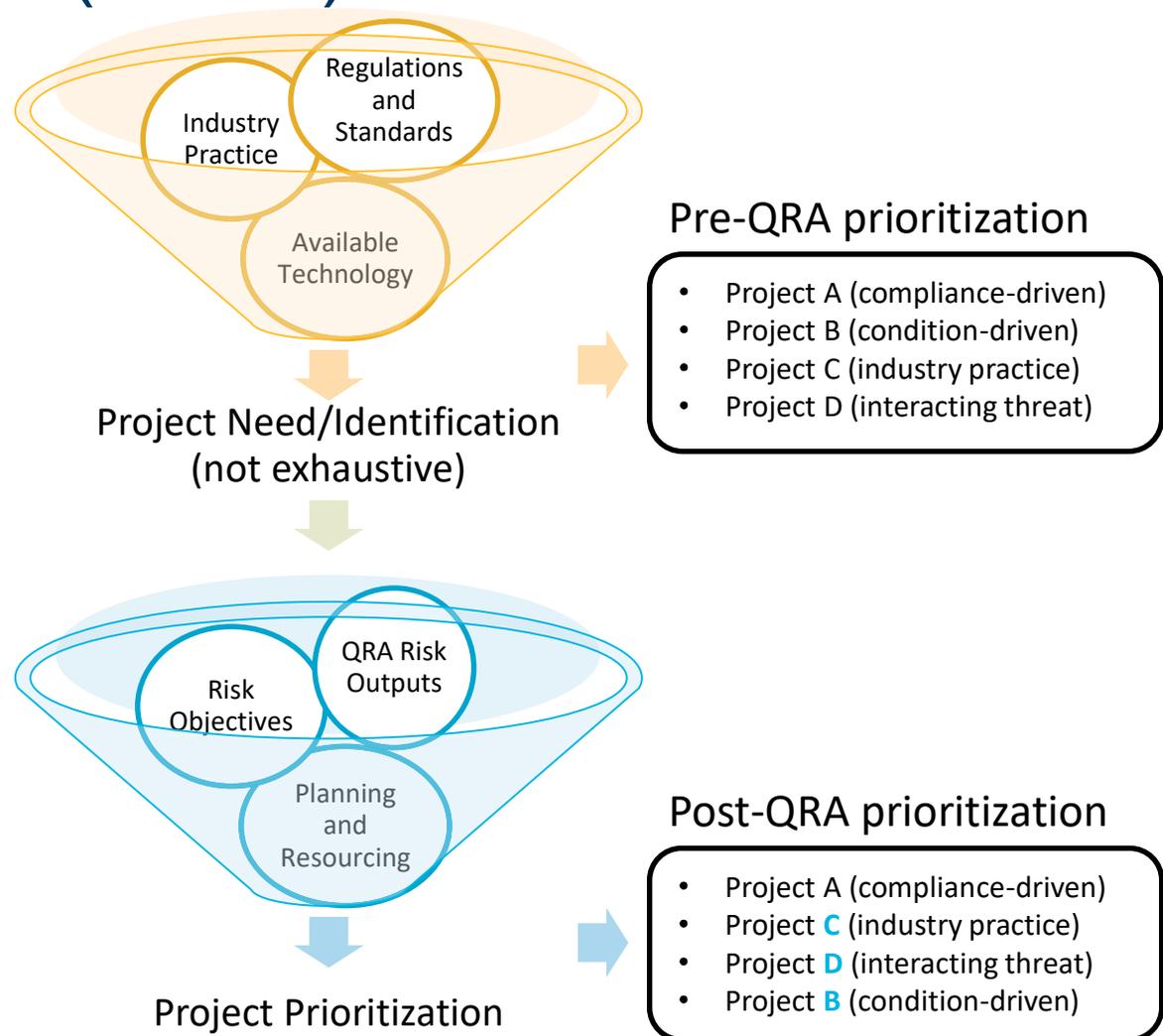
Panel Issue 1 (cont'd)



Panel Issue 1 (cont'd)

Risk Assessments:

- Qualitative and Quantitative (QRA)



Panel Issue 1

1. The BC Oil & Gas Commission (BC OGC) has found that FEI's existing risk assessment process requires corrective action, and that the corrective action encompasses all of FEI's pipeline assets in BC. Given the need for corrective action, the Panel is puzzled as to why it would be appropriate to proceed with the IGU project before such issues are resolved and a compliant risk assessment process is in place that could be applied to assessing the need and priority for the IGU project. In short, is it premature to proceed with the IGU project at this time?

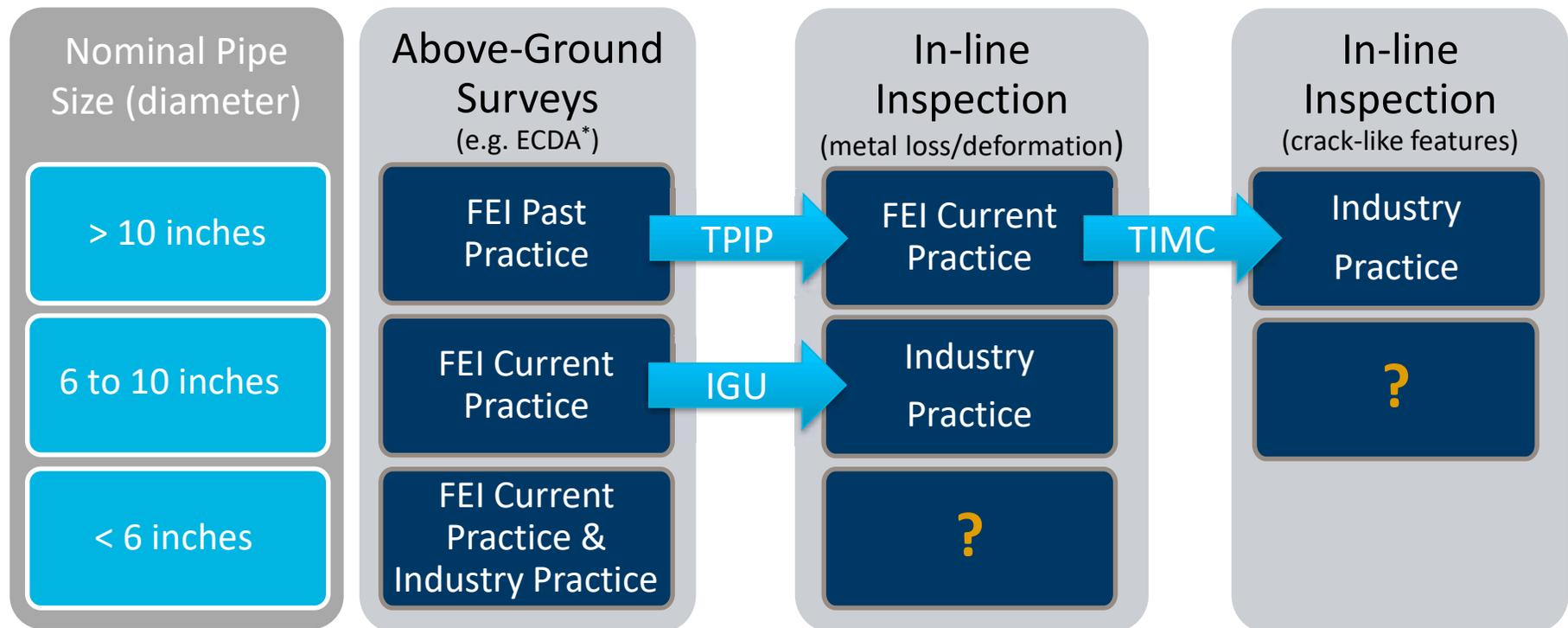
➤ **FEI response: The Quantitative Risk Assessment (QRA) under development is not necessary to justify the IGU Project. Compliance with industry standard practice, and codes and regulation are sufficient to support the need for the IGU project.**

Panel Issue 2

2. The Panel is unclear why FEI has selected the specific 29 transmission laterals for the IGU project while excluding other transmission pipelines that are operating at pressures above 30 percent Specified Minimum Yield Strength (SMYS) and are not capable of in-line inspection.

Panel Issue 2 (cont'd)

Evolution of Integrity Management Practices at FEI (for pipelines operating above 30% of SMYS*)



Notes:

SMYS = specified minimum yield strength
ECDA = external corrosion direct assessment

Panel Issue 2 (cont'd)

2. The Panel is unclear why FEI has selected the specific 29 transmission laterals for the IGU project while excluding other transmission pipelines that are operating at pressures above 30 percent Specified Minimum Yield Strength (SMYS) and are not capable of in-line inspection.
- **FEI response: The IGU Project is consistent with the approaches FEI is using on larger diameter pipelines that have been previously approved by the Commission. Despite concerns with ECDA methods, for pipelines smaller than NPS 6, ECDA methods are the common and industry-accepted practice at this time.**

Panel Issue 3

3. FEI states that it relied on data taken from in-line inspection driven integrity digs of other pipelines (i.e. not the 29 transmission laterals) to determine the need for the IGU project while also stating information from in-line inspection driven integrity digs could not be used to identify and prioritize potential corrosion locations on the 29 transmission laterals because the drivers that contribute to corrosion are unique to a specific site along a pipeline. The Panel is concerned that these two statements appear to be inconsistent.

Panel Issue 3 (cont'd)

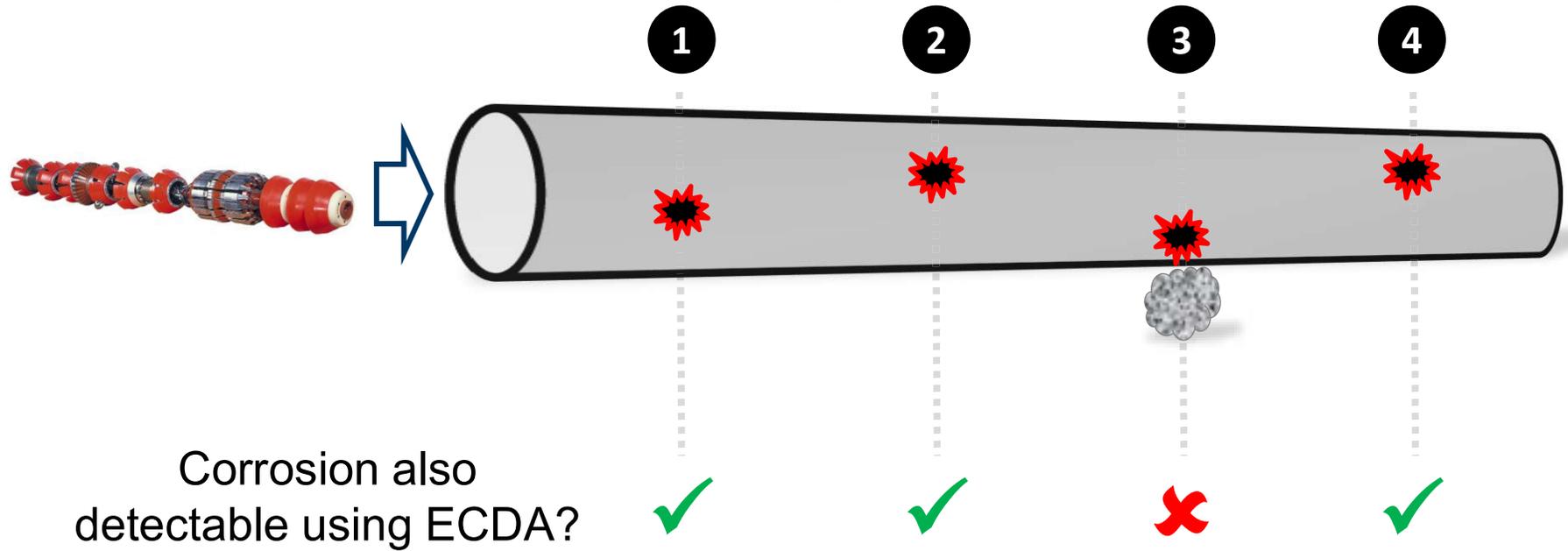
- FEI has identified evidence of cathodic protection (CP) shielding on its transmission pipeline system - e.g. rocks, disbonded coating
 - ILI-driven digs have identified active corrosion on cathodically protected pipe



Panel Issue 3 (cont'd)

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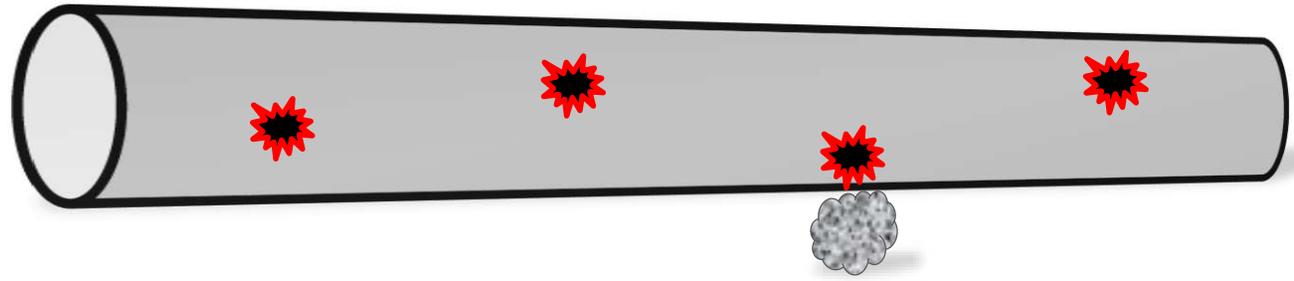


Panel Issue 3 (cont'd)

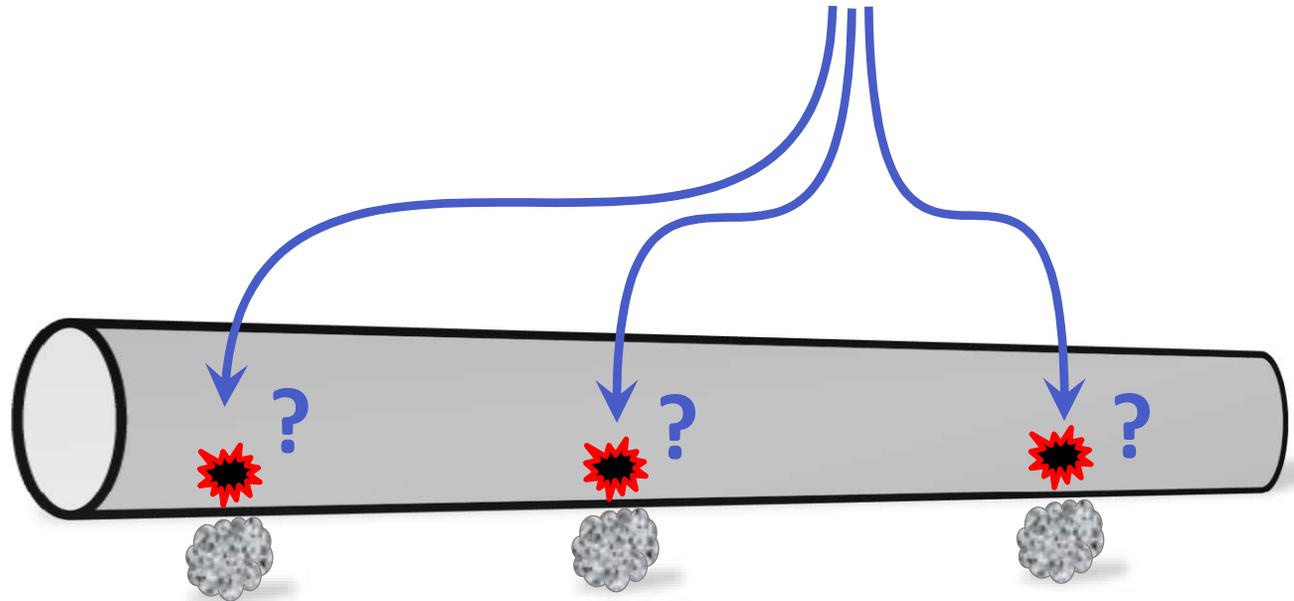
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- **FEI response: FEI has found numerous examples of external corrosion (on ILI-inspected pipelines) that could not have been detected using ECDA. Similar hazards are expected to be present on the 29 Transmission Laterals.**

Panel Issue 3 (cont'd)

Pipeline A



Pipeline B



- **FEI Response: Feature location information from pipeline A (ILI-inspected pipelines) does not inform the location of features on pipeline B (the IGU pipelines).**

Panel Issue 3 (cont'd)

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➤ **FEI Response: The statements are not inconsistent.**

Panel Issue 4

4. In response to various questions asked in IR No. 2, and without prior indication of such intention, FEI stated that it has retained JANA Corporation to provide an independent, expert opinion on the value of performing a QRA on the 29 transmission laterals for the purposes of project justification and assessing scheduling and prioritization of the IGU project. Due to FEI's introduction of expert witness opinion late into the evidentiary process, the BCUC and interveners have not had the opportunity to test this expert witness's statements..

➤ **FEI Response: FEI has made JANA available to address questions.**

Thank you



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