

2023 Energy Matters Information Session

Alberta Securities Commission

January 24, 2023



Agenda

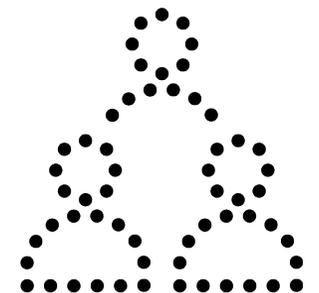
1	Introduction
2	Regulatory framework
3	Reviews
4	Environmental sustainability disclosure
5	Energy & the Alberta capital market
6	Questions?

Introduction: Alberta Securities Commission

- Administers Alberta’s securities laws
 - Entrusted to:
 - foster a fair and efficient capital market
 - protect investors
- Member of the Canadian Securities Administrators (**CSA**)
 - Improve, coordinate and harmonize regulation
- CSA’s lead oil and gas (**O&G**) regulator

Introduction: Energy Group

- We apply our expertise to energy-related matters
 - “All things energy” approach
 - Ongoing commitment to O&G



Introduction: Energy Group

- Focus includes:
 - O&G
 - exploration and production
 - midstream (including pipelines)
 - services
 - helium and hydrogen
 - lithium from oilfield brines
 - carbon capture, utilization and storage
 - environmental sustainability; greenhouse gas emissions
 - renewable energy
 - renewable hydrocarbons
 - electrical generation, transmission and storage
 - related environmental liabilities

Introduction: Energy Group

- In pursuit of compliant disclosure, we:
 - Conduct reviews
 - incorporate disclosure and technical evaluations
 - assess compliance with securities legislation
 - Develop and maintain
 - securities legislation
 - technical guidance
 - Communicate with Alberta capital market participants

Regulatory framework

Regulatory framework: O&G

- National Instrument 51-101 Standards of Disclosure For Oil and Gas Activities (**NI 51-101**)
 - Applies to reporting issuers (**RIs**) engaged in O&G activities (**O&GA**¹)
 - Addresses general standards and specific annual requirements
 - Technical standard: Canadian Oil and Gas Evaluation Handbook (**COGE Handbook**)

¹Secs.1.1 and 1.3 of NI 51-101

Regulatory framework: O&G

- Related forms² for filing on SEDAR³ include:
 - 51-101F1 *Statement of Reserves Data and Other Oil and Gas Information (F1)*
 - 51-101F2 *Report on [Reserves Data][,] [Contingent Resources Data] [and] [Prospective Resources Data] by Independent Qualified Reserves Evaluator or Auditor (F2)*
 - Affirms COGE Handbook compliance
 - 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure (F3)*
 - Affirms content and filing of F1 and F3 and filing of F2

²Per sec. 2.1 of NI 51-101, to be filed no later than the date required to file audited financial statements for the most recent financial year

³System for Electronic Analysis and Retrieval (SEDAR.com)

Regulatory framework: O&G

- Companion Policy 51-101CP *Standards of Disclosure For Oil and Gas Activities*
- CSA staff notices (**SN**), including:
 - SN 51-324 *Revised Glossary to NI 51-101 (CSA SN 51-324)*
 - SN 51-327 *Revised Guidance on Oil and Gas Disclosure*
- COGE Handbook
 - Society of Petroleum Evaluation Engineers (Calgary Chapter)

Regulatory framework: Other

- Includes:
 - *Securities Act* (Alberta)
 - Energy Matters Report⁴
 - Corporate Finance Disclosure Report⁴
 - Financial Reporting Bulletins⁵
 - Office of the Chief Accountant

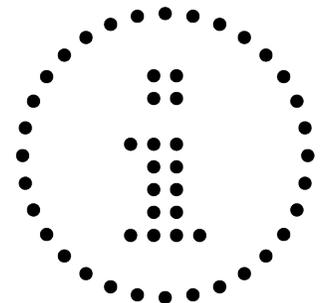
⁴2022 editions published in December, available at asc.ca

⁵Available at asc.ca

Reviews

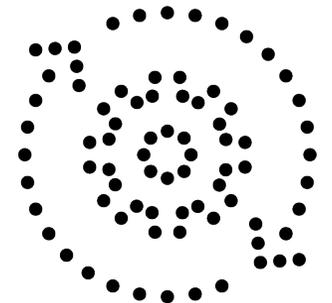
Reviews: Purpose

- Assess if disclosure:
 - Is misleading, including by omission;
 - Focuses on material information; and
 - Otherwise complies with all disclosure requirements.



Reviews: Process

- Incorporate disclosure and specific support material
 - Prioritize RIs for which the ASC is the principal regulator (**PR**)
 - Assess disclosure where other jurisdictions are the PR
 - Proactively assist with O&G matters
 - Assist as requested with other energy-related matters



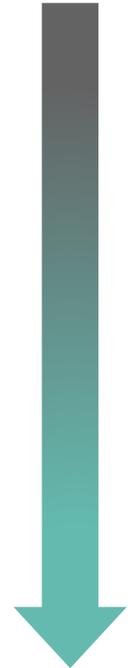
Reviews: Types

- Include:
 - Screening
 - O&G
 - For RIs engaged in O&GA (NI 51-101-filers)
 - Incorporate F1, F2 and F3
 - Press Release
 - Environmental Sustainability Technical
 - Assess baseline information concerning GHG emissions and other matters

Reviews: Types

- Press Release
- Continuous Disclosure
 - Incorporate all disclosure
- Prospectus (short form, long form and shelf)
 - RIs engaged in O&GA
 - Other energy-related RIs
- Technical
 - Incorporate evaluations and related disclosure

Reviews: Outcomes



- No action
- Advisory comment(s)
- Identification of deficiencies
 - requirement to correct and refile
 - RI placed in default
 - management cease trade order
 - cease trade order
 - referral to ASC Enforcement division

Reviews: O&G

Introduction

- We'll focus on NI 51-101 disclosure
- Overall, disclosure remains pretty good
 - Few RIs have consistently problematic disclosure
 - Most issues are addressed via awareness
 - Areas of concern mostly involve smaller RIs
 - Often long-established, with experienced management and directors
 - Those principally regulated by other jurisdictions
 - Newer RIs

Reviews: O&G

Introduction

- We'll address concerns involving:
 - Form 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure*
 - Qualified reserves evaluators (**QREs**) and qualified reserves auditors (**QRAs**)
 - Navigating NI 51-101 and COGE Handbook conflicts

Reviews: O&G

Form 51-101F3

Concern: Non-compliant reports due to filing issues, errors and material modifications

- Specifically, situations where reports:
 - Are filed when they shouldn't be
 - Are absent when they are required to be filed

Reviews: O&G

Form 51-101F3

- Contain execution errors:
 - required signatures are absent
 - signatories are unqualified
 - dates are missing or incorrect
- Are prepared using the incorrect alternative
- Are materially modified, which isn't permitted

Reviews: O&G

Form 51-101F3

- Key requirements:
 - File a report in accordance with the F3 no later than when audited financial statements must be filed.
 - Only identify a report as an F3 if it's for annual filing requirements.
 - The report must be executed by:
 - Two officers, one of whom is the chief executive officer, and
 - Any two directors other than those above.
 - If there are three directors, two referred to above, all must execute the report.

Reviews: O&G

Form 51-101F3

- Prepare the report using the correct alternative:
 - Alternative A: Reserves Data to Report or Contingent Resources Data or Prospective Resources Data to Report
 - Use when there's at least one.
 - Alternative B: No Reserves to Report and No Resources Other Than Reserves to Report
 - Use when there's none.
- It must in all material respects be in the required form.
 - Don't modify or remove representations or add others.

Reviews: O&G

QREs & QRAs

Concern: Disclosure not prepared or audited by QREs or QRAs, as required

- Specifically, situations where disclosure:
 - Isn't prepared or audited by at least one QRE/QRA, as required
 - Isn't prepared by those qualified to perform QRE/QRA duties
 - Qualification to perform similar tasks isn't sufficient

Reviews: O&G QREs & QRAs

- Key requirements:
 - Reserves or other information of a type specified in the F1 must be prepared/audited in accordance with the COGE Handbook.⁶
 - Anticipated results from resources other than reserves, including an estimated value attributed to an estimated quantity, must be prepared by a QRE/QRA.⁷

⁶Sec. 5.2 of NI 51-101

⁷Sec. 5.9 of NI 51-101

Reviews: O&G QREs & QRAs

- An RI must:
 - Appoint one or more independent QREs/QRAs and direct each to report to the board of directors on the reserves data, contingent resources data and prospective resources data in the F1.⁸
 - Have the independent QRE/QRA execute the F2.⁹

⁸Sec. 3.2 of NI 51-101

⁹Sec. 2.1.2 of NI 51-101

Reviews: O&G QREs & QRAs

- A QRE is an individual who:

- a) in respect of particular *reserves data, resources* or related information, possesses professional qualifications and experience appropriate for the estimation, evaluation and *review* of the *reserves data, resources* and related information; and
- b) is a member in good standing of a *professional organization*¹⁰; [Emphasis added]

- Has at least 5 years of practical petroleum experience, including 3 recent years of evaluation experience.¹¹
 - Evaluation experience occupies the majority of the practical experience; very few will satisfy it.

¹⁰Sec.1.1 of NI 51-101

¹¹Sec. 5.4.3.1.1 of the COGE Handbook

Reviews: O&G QREs & QRAs

- A QRA is an individual who:

- a) in respect of particular *reserves data, resources* or related information, possesses professional qualifications and experience appropriate for the estimation, *evaluation, review* and audit of the *reserves data, resources* and related information; and
- b) is a member in good standing of a *professional organization*¹²;

- Has at least 10 years of practical petroleum experience, including 5 recent years of evaluation experience.¹³
 - Evaluation experience occupies the majority of the practical experience; exceedingly few will satisfy it.

¹²Sec.1.1 of NI 51-101

¹³Sec. 5.4.3.1.2 of the COGE Handbook

Reviews: O&G QREs & QRAs

- An evaluation is:

[T]he process whereby an economic analysis is made of a *property* to arrive at an estimate of a range of net present values of the estimated *future net revenue* resulting from the *production* of the *reserves* or *resources other than reserves* associated with the *property*.¹⁴

- An audit is:

[T]he process whereby an *independent qualified reserves auditor* carries out procedures designed to allow the *independent qualified reserves auditor* to provide reasonable assurance, in the form of an opinion that the *reporting issuer's reserves data* (or specific parts thereof) have in all *material* respects, been determined and presented in accordance with the *COGE Handbook* and are, therefore, free of *material* misstatement¹⁴. [...]

¹⁴CSA SN 51-324

Reviews: O&G QREs & QRAs

- A professional organization is:
 - A self-regulating organization of engineers, geologists or other professionals, whose professional practice includes reserves evaluations or audits and who meet certain criteria.¹⁵
 - Examples:
 - The Association of Professional Engineers and Geoscientists of Alberta
 - Society of Petroleum Evaluation Engineers

¹⁵Sec. 1.1 of NI 51-101

Reviews: O&G

QREs & QRAs

- In summary:
 - A QRE/QRA is a specialist who meets the following requirements:
 - Has professional qualifications and experience in the estimation, evaluation and review of reserves data, resources and related information
 - Must relate to NI 51-101 and the COGE Handbook
 - Is a member in good standing of a professional organization
 - RIs must ensure those they appoint as QREs/QRAs are qualified.

Reviews: O&G

Navigating NI 51-101 & COGE Handbook conflicts

Concern: Disclosure errors and deficiencies due to conflicts between NI 51-101 and the COGE Handbook

- Specifically, situations where:
 - NI 51-101 directs disclosure preparation or audit differently than the COGE Handbook; Canadian securities requirements must be met.
 - The COGE Handbook discusses specific disclosure expectations and requirements that conflict with Canadian securities requirements.

Reviews: O&G

Navigating NI 51-101 & COGE Handbook conflicts

- Key requirement:
 - Interpret the COGE Handbook consistent with Canadian securities requirements, including principles, requirements and restrictions.
 - NI 51-101 directs disclosure for RIs engaged in O&GA.
 - Evaluations must be fit for purpose and meet regulatory requirements.¹⁶

¹⁶Sec. 5.1 of the COGE Handbook

Reviews: O&G

Navigating NI 51-101 & COGE Handbook conflicts

- Examples:
 - Abandonment and reclamation costs (**ARC**)
 - The COGE Handbook directs the accounting of some restoration costs/decommissioning liabilities as ARC that aren't per NI 51-101.
 - Erroneous disclosure of ARC and future net revenue can result.

Reviews: O&G

Navigating NI 51-101 & COGE Handbook conflicts

- Annual reserves reconciliations¹⁷
 - Specified reserve change categories¹⁸ must be used.
 - Don't use product type transfers and resource transfers.

¹⁷Item 4.1 of Form 51-101F1

¹⁸Item 4.1.2(c) of Form 51-101F1 and instruction (4) of item 4.1

Reviews: O&G

Navigating NI 51-101 & COGE Handbook conflicts

- Terminology
 - NI 51-101, National Instrument 14-101 *Definitions* (**NI 14-101**) and the securities statute define specified terms.
 - For terms used in but undefined in these, refer to definitions or interpretations in the COGE Handbook.¹⁹
 - If conflict or inconsistency arises, definitions in NI 51-101, NI 14-101 or the securities statute, apply.¹⁹

¹⁹Sec. 1.2 of NI 51-101

Reviews: Other energy-related Introduction

- We'll address expectations involving:
 - helium
 - renewable hydrocarbons
 - environmental sustainability

Reviews: Other energy-related Helium

- Interest in helium (**He**) is growing.
- It's found with substances like nitrogen and hydrocarbons (**HC**).
- Post recovery:
 - He is separated, purified and sold.
 - HC are used in operations, reinjected or sold.

Reviews: Other energy-related Helium

- Finding, developing and transporting He and HC is similar.
- Due to their association, RIs:
 - Engaged in O&GA may become involved with He.
 - Pursuing He may become engaged in O&GA.

Reviews: Other energy-related Helium

- RIs engaged in O&GA that produce He from a property²⁰ as a by-product²¹ must provide He disclosure per NI 51-101.
 - By-products are recovered via producing a product type.
- RIs otherwise involved with He aren't engaged in O&GA.
 - Not subject to NI 51-101.
 - However, we strongly encourage adapting the principles and requirements of NI 51-101 for disclosing material He information.

²⁰CSA SN 51-324

²¹Sec.1.1 of NI 51-101

Reviews: Other energy-related Helium

- For He disclosure, ensure:
 - It's in accordance with all applicable requirements.
 - Material information is disclosed in regulatory filings.
 - Key risks and assumptions
 - Technical terminology is defined and explained.
- The following scenarios address disclosure preparation.

Reviews: Other energy-related Helium

1. An RI engaged in O&GA, with He that's a by-product
 - NI 51-101 applies to specific by-product aspects.²²
 - Must prepare or audit such disclosure using the COGE Handbook.
 - Disclose other He information, including resources,²³ elsewhere.
 - Consider a clearly demarcated, labelled and described section within the NI 51-101 disclosure, but separate and distinct.
 - Use NI 51-101 principles and requirements adapted for He.
 - Can use a similar format if it's clear it's not NI 51-101-related.
 - Prepare or audit the disclosure using the COGE Handbook.

²²Includes secs.5.4 and 5.5 of NI 51-101 and item 2.1.3(c) of Form 51-101F1

²³Per CSA SN 51-324, resources includes reserves and resources other than reserves

Reviews: Other energy-related Helium

2. An RI engaged in O&GA, with He that's not a by-product
 - NI 51-101 doesn't apply to the He; don't disclose under NI 51-101.
 - Disclose He information elsewhere, including resources.
 - Use NI 51-101 principles and requirements adapted for He.
 - Can use a similar format if it's clear it isn't NI 51-101-related.
 - Prepare or audit the disclosure using the COGE Handbook.

Reviews: Other energy-related Helium

3. An RI not engaged in O&GA, with He

- NI 51-101 doesn't apply to the He; don't disclose under NI 51-101.
 - Disclose He information elsewhere, including resources.
 - Use NI 51-101 principles and requirements adapted for He.
 - Can use a similar format if it's clear it isn't NI 51-101-related.
 - Prepare or audit the disclosure using the COGE Handbook.

Reviews: Other energy-related Renewable hydrocarbons

- Renewable hydrocarbons (**RHC**) are synonymous with:
 - green hydrocarbons
 - biofuels
- Driven by sustainability efforts
- Manufactured from biological materials including:
 - vegetable and animal oils
 - crops, crop residues and manure
 - trees and forestry waste products

Reviews: Other energy-related Renewable hydrocarbons

- Examples:
 - diesel
 - gasoline
 - methane
- Chemically equivalent to refined products from HC

Reviews: Other energy-related Renewable hydrocarbons

- NI 51-101 doesn't apply
 - Not associated with O&GA.²⁴
 - Neither product types nor by-products
 - Don't disclose RHC under NI 51-101.

²⁴Secs. 1.1 and 1.3 of NI 51-101

Reviews: Other energy-related Renewable hydrocarbons

- For RHC disclosure, ensure:
 - It's in accordance with all applicable requirements.
 - Material information is disclosed in regulatory filings.
 - Key risks and assumptions
 - Technical terminology is defined and explained.

Reviews: Other energy-related Renewable hydrocarbons

- For RHC project disclosure, address the following:
 - RI's interest
 - location
 - whether it's stand-alone or part of a larger project or existing facility
 - substances to be manufactured and quantities

Reviews: Other energy-related Renewable hydrocarbons

- project value, along with the:
 - basis for the determination
 - methodology
 - input data
 - source of input data and value
 - effective date
- total undiscounted cost
- general timeline
- technology
- significant factors or uncertainties
- risks

Reviews: Other energy-related

Energy-related environmental sustainability disclosure

- Environmental sustainability disclosure is ubiquitous, seen in:
 - sustainability reports
 - continuous disclosure
- We'll discuss energy-related disclosure from energy-related RIs.

Reviews: Other energy-related

Energy-related environmental sustainability disclosure

- Concerns involve:
 - Sustainability targets: absence of details, how they'll be achieved, etc.
 - Projects and initiatives: absence of timelines, costs, status, etc.
 - Technologies: poorly described, no risk disclosure, yet often novel
 - Support information: limited or absent
- Disclosure is often aspirational, sometimes overly promotional.
 - Overly promotional disclosure can be misleading.

Reviews: Other energy-related

Energy-related environmental sustainability disclosure

- For such disclosure, ensure:
 - It's in accordance with all applicable requirements.
 - Material information is disclosed in regulatory filings.
 - Key risks and assumptions
 - Technical terminology is defined and explained.
- The following are examples that don't meet expectations.

Reviews: Other energy-related

Energy-related environmental sustainability disclosure

1. “We’ll produce the world’s only zero emissions natural gas.”
 - The disclosure appears to be material.
 - Some deficiencies include:
 - Absence of information about:
 - how it will be achieved, including timelines, costs, risks and assumptions, etc.
 - impact on its business and NI 51-101 disclosure
 - Zero emissions natural gas isn’t explained.
 - Unsubstantiated comparison to other production.

Reviews: Other energy-related

Energy-related environmental sustainability disclosure

2. “The company will reduce its carbon footprint through clean technologies like carbon capture, hydrogen, and co-generation, to be a carbon-neutral midstream issuer by 2030.”
 - The disclosure appears to be material.
 - Some deficiencies include:
 - Absence of information about:
 - specifics concerning implementation, costs, risks and assumptions, etc.
 - impact on its business
 - Carbon footprint, clean technologies and carbon neutral are unexplained.

Environmental sustainability disclosure

Environmental sustainability disclosure

Introduction

- There's growing demand for disclosure concerning:
 - greenhouse gas (**GHG**) emissions
 - environmental, social and governance issues
 - sustainability in general
- The CSA doesn't currently mandate GHG emissions disclosure.

Environmental sustainability disclosure

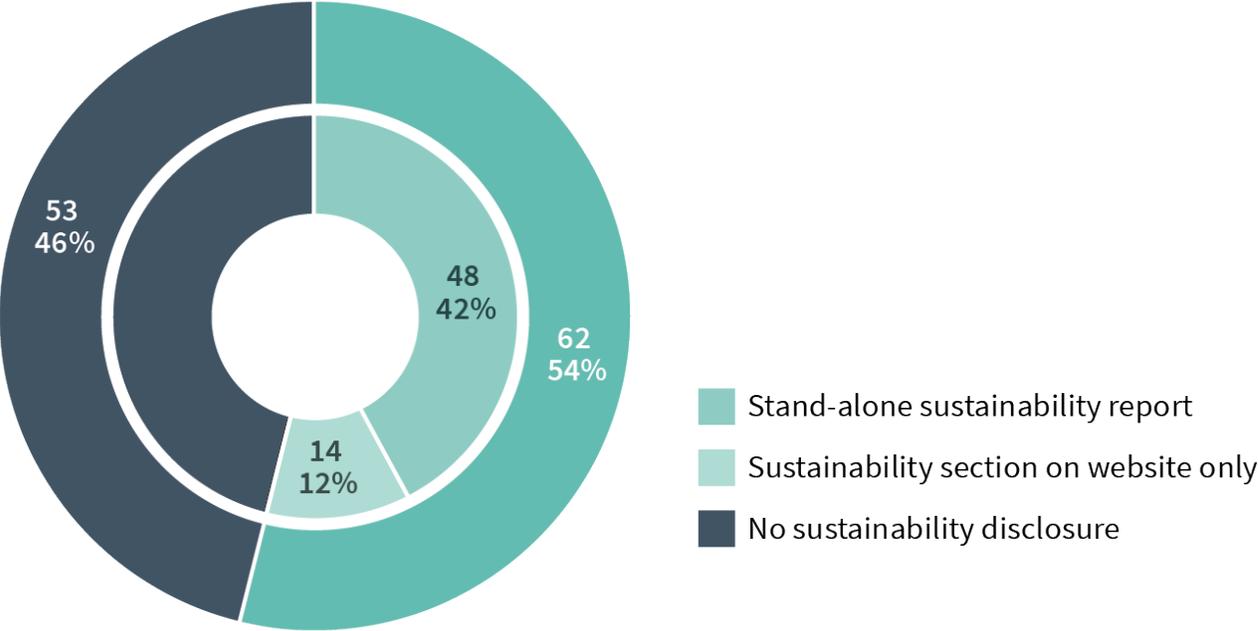
Introduction

- We conduct environmental sustainability technical screening reviews for energy-related AB RIs.
- These assess basic information, such as:
 - whether disclosure has occurred
 - the disclosure method (report or website)
 - how the disclosure has been prepared (reporting frameworks)
 - whether specific environmental information has been disclosed
- Reviews don't assess social or governance disclosure.

Environmental sustainability disclosure

Occurrences and method

- 54% of RIs engaged in O&GA have recent disclosure.
 - 42% have a report
 - 12% have website disclosure only; limited analysis, mostly aspirational

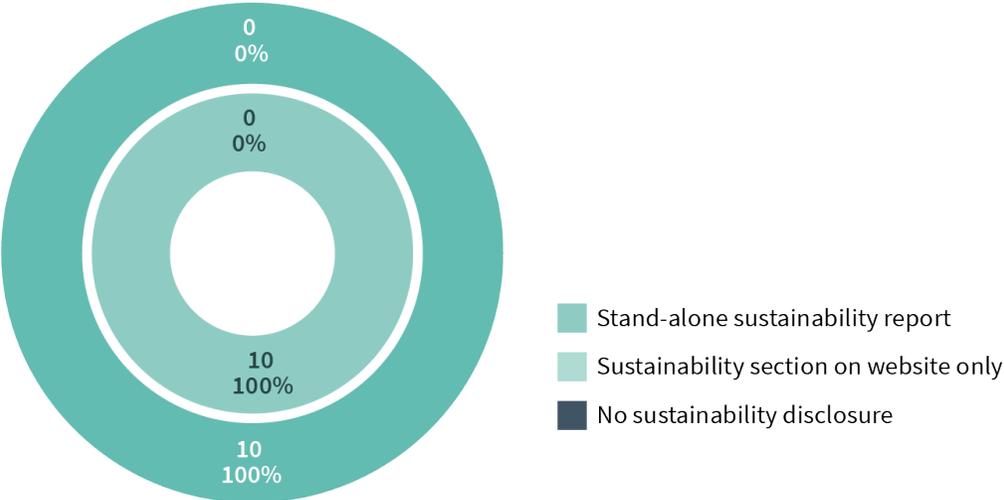


Environmental sustainability disclosure

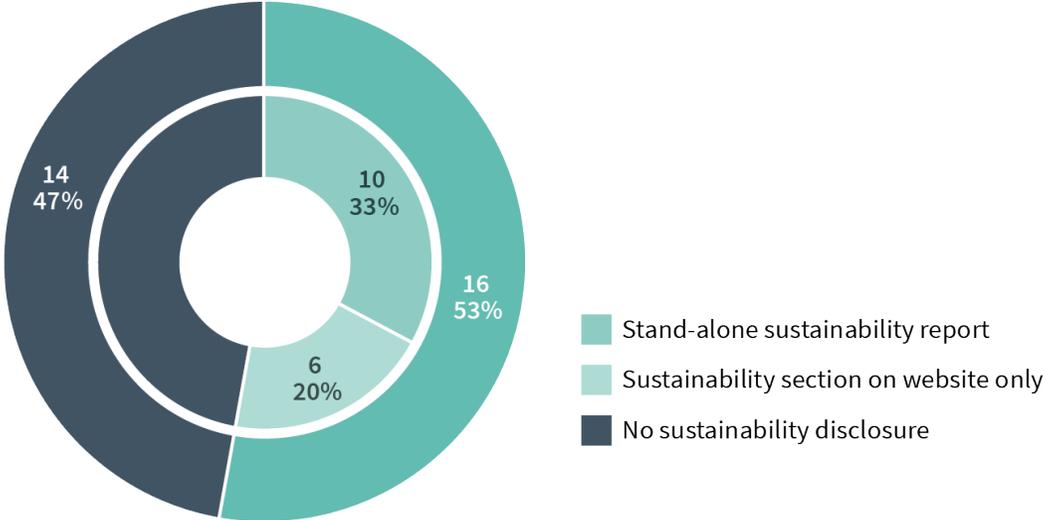
Occurrences and method

- All RIs engaged in O&G midstream have recent disclosure.
- 16% of RIs engaged in O&G services have recent disclosure.

RIs involved in O&G midstream



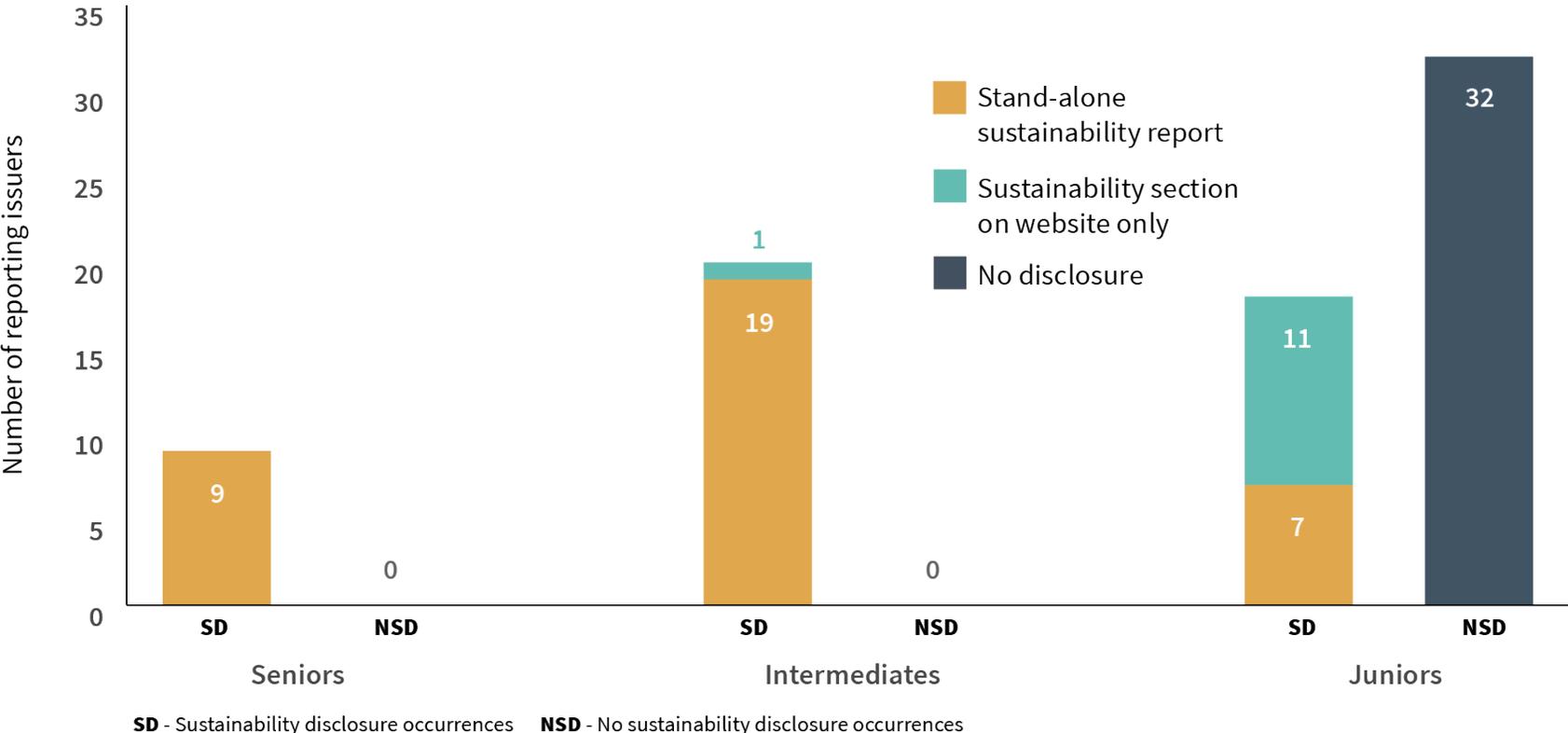
RIs involved in O&G services



Environmental sustainability disclosure

Occurrences and method

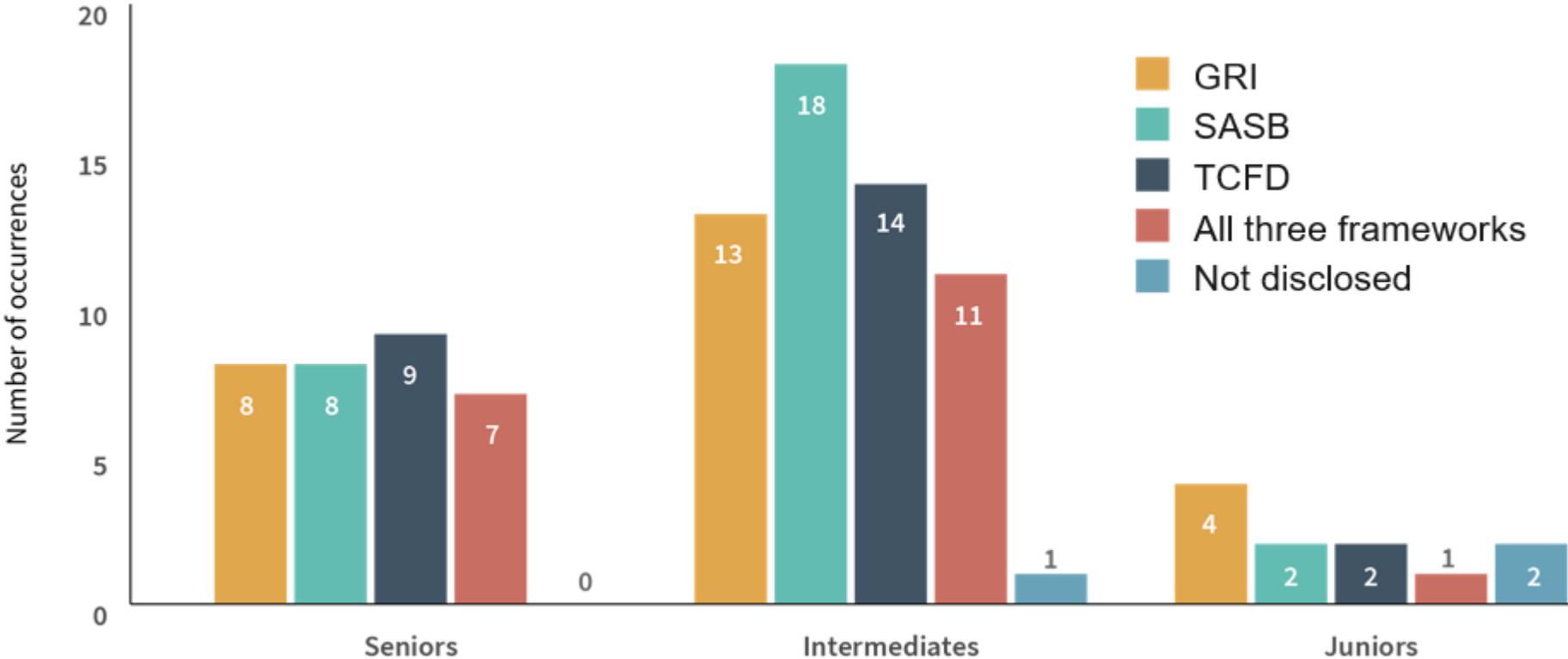
- All senior and the majority of intermediate RIs have a report.



Environmental sustainability disclosure

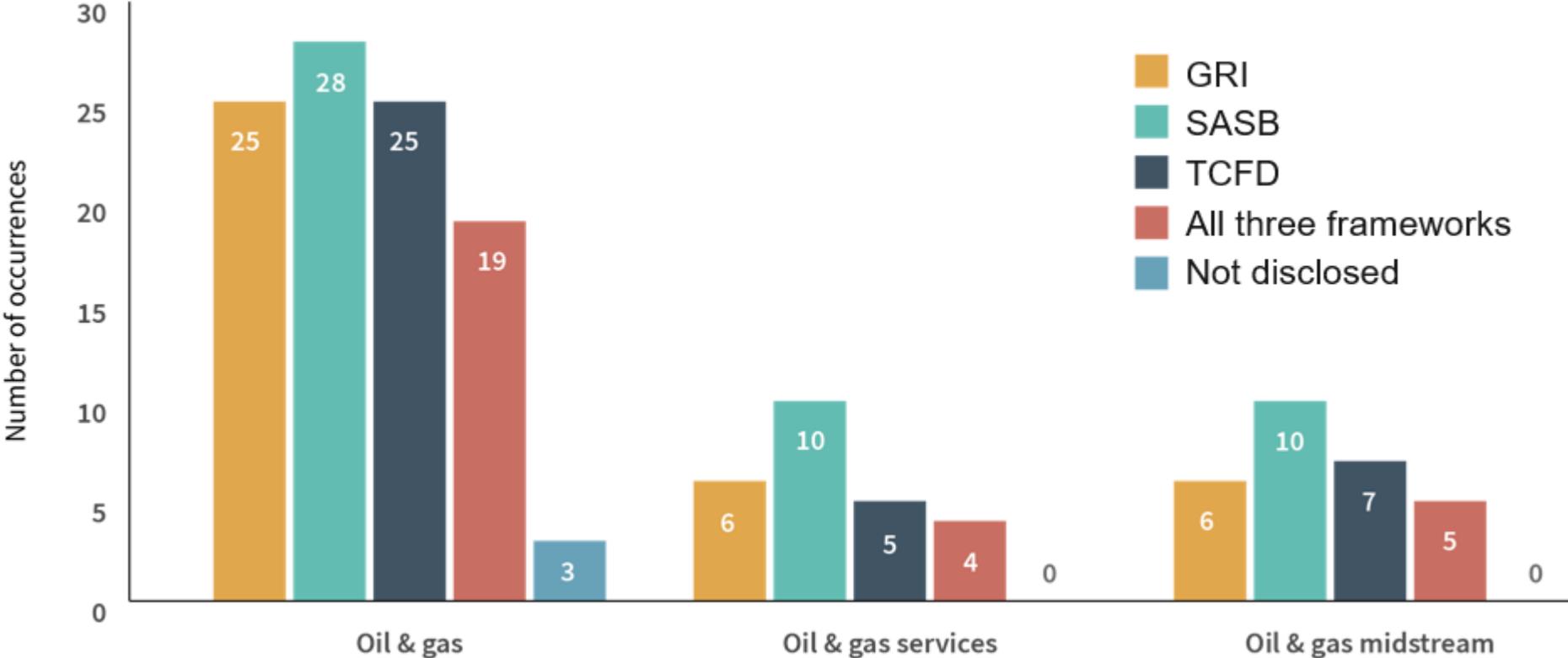
Occurrences of reporting frameworks by production group

- Three main frameworks are used; many RIs use all.



Environmental sustainability disclosure

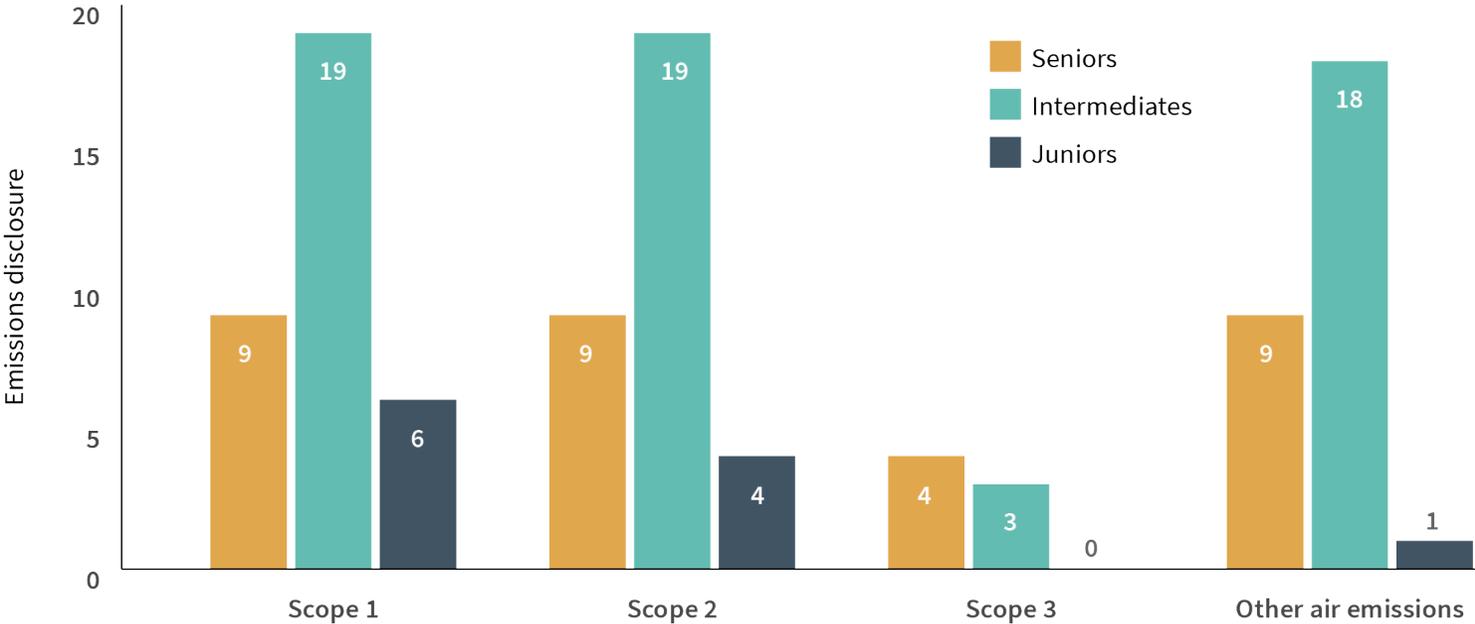
Occurrences of reporting frameworks by O&G sub-industry



Environmental sustainability disclosure

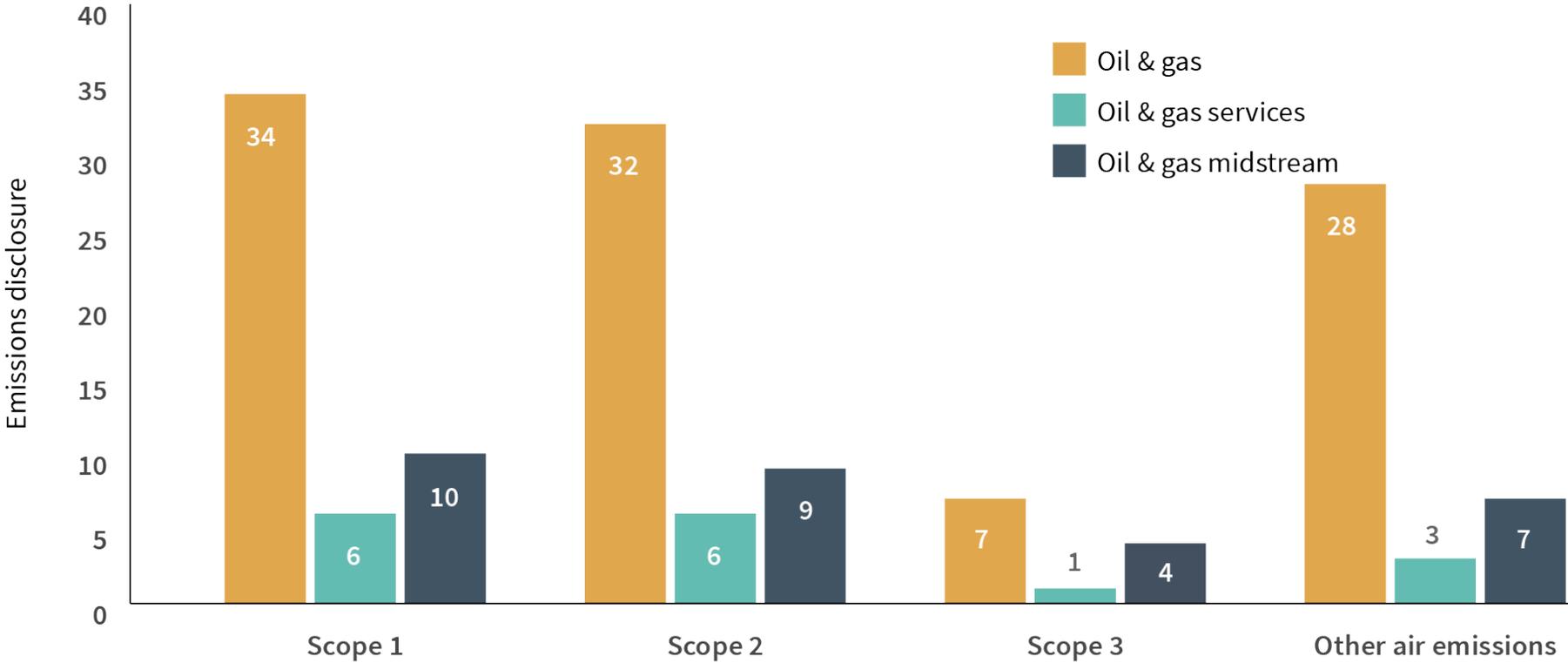
Occurrences of emissions disclosure by production group

- All senior and most intermediate RIs disclose scope 1 and scope 2 GHG emissions, plus other air emissions.
 - Some disclose scope 3; what's included differs



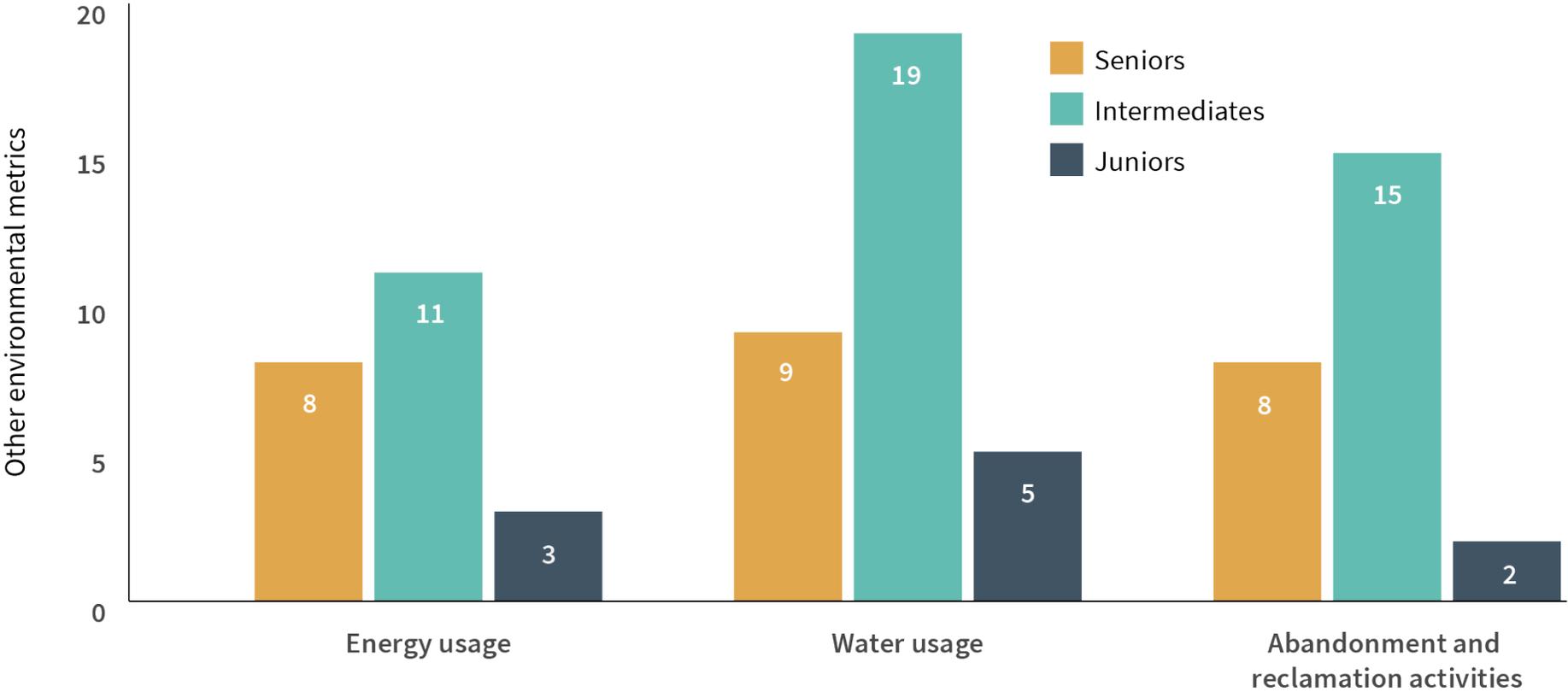
Environmental sustainability disclosure

Occurrences of emissions disclosure by O&G sub-industry



Environmental sustainability disclosure

Occurrences of other environmental disclosure by production group



Energy & the Alberta capital market

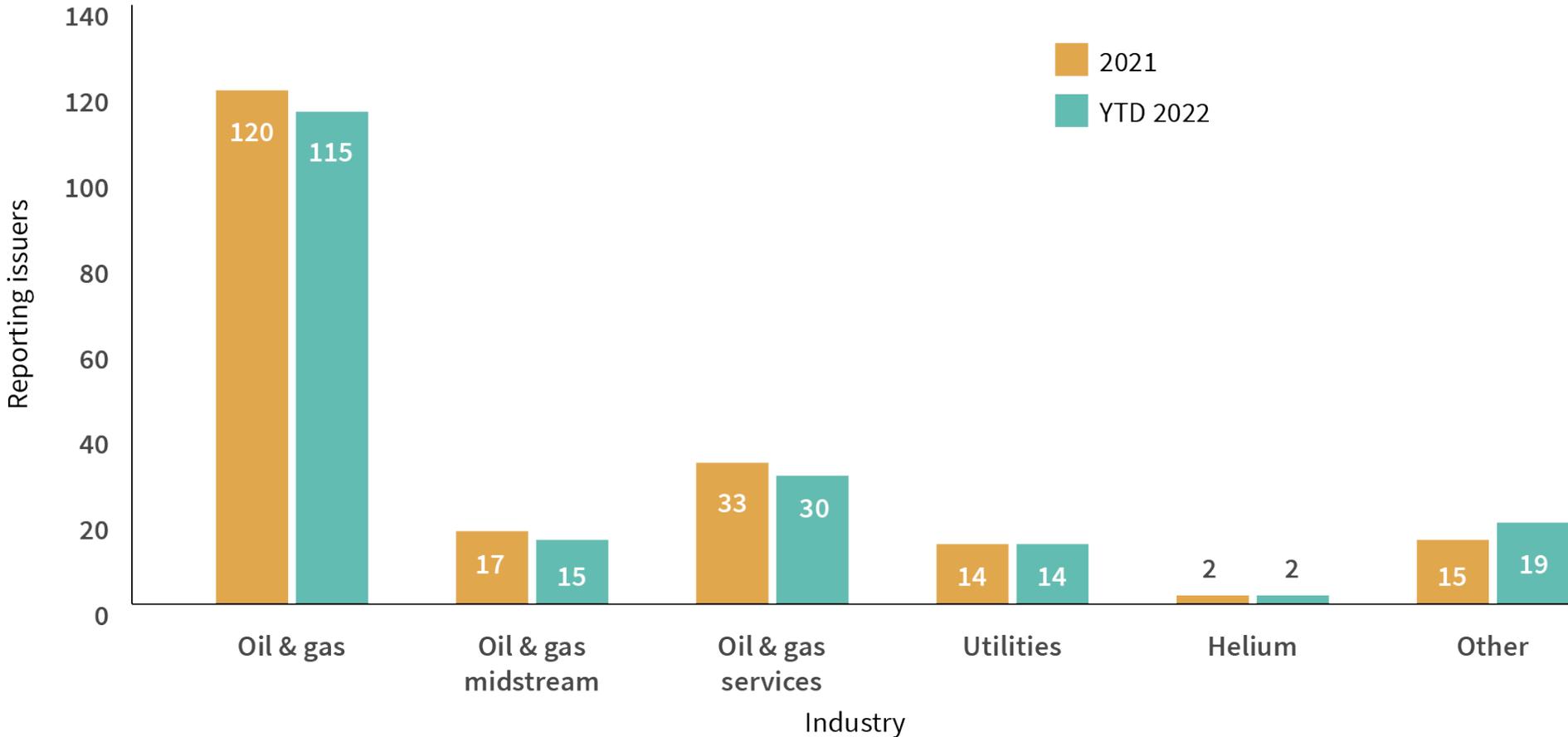
Energy and the Alberta capital market

Introduction

- Capital market intelligence is critical for the ASC.
- We collect and analyze data, primarily from:
 - Disclosure from RIs for which the ASC is the PR.
 - Other Canadian and international capital markets.
- We'll discuss some of our data and analysis here.
 - See the 2022 Energy Matters Report for more.

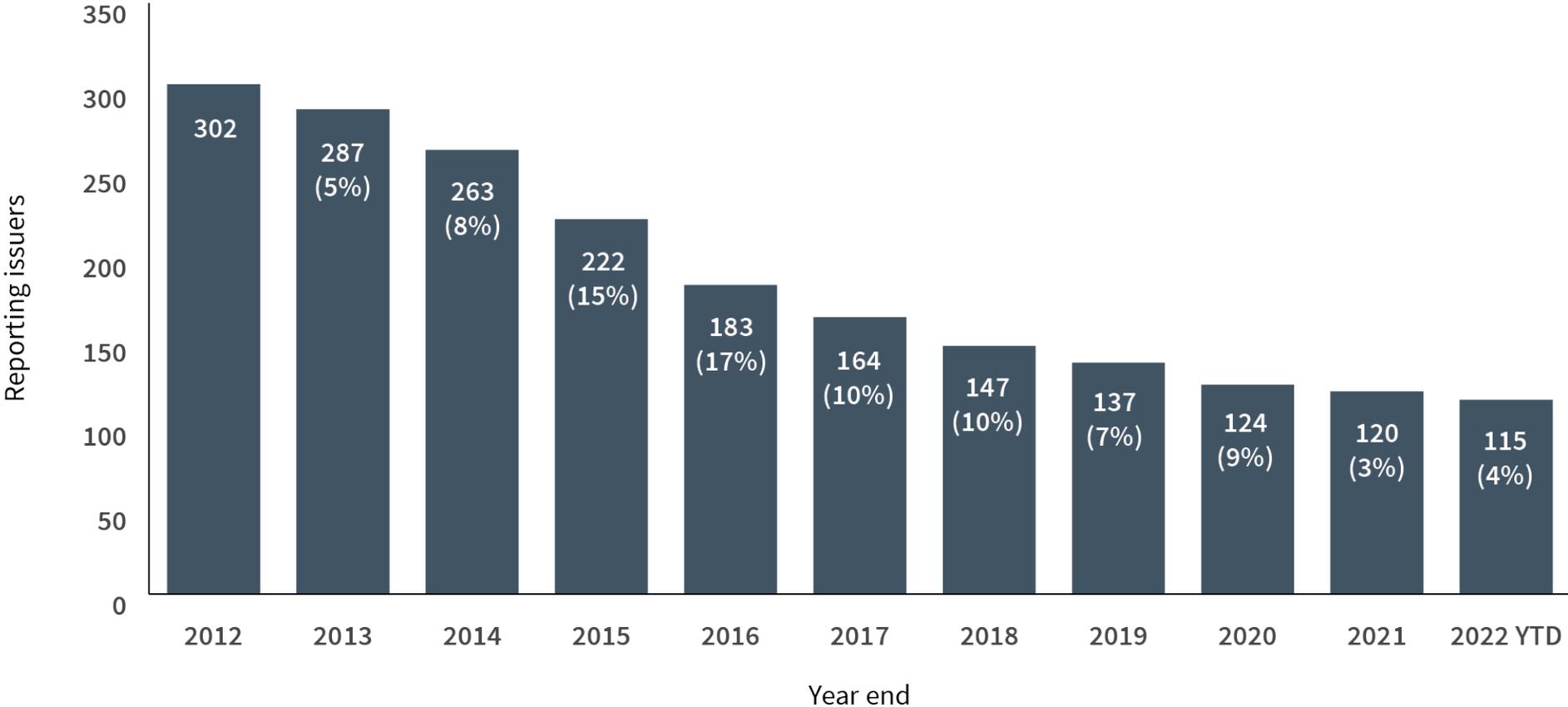
Energy and the Alberta capital market

Number of RIs by sub-industry



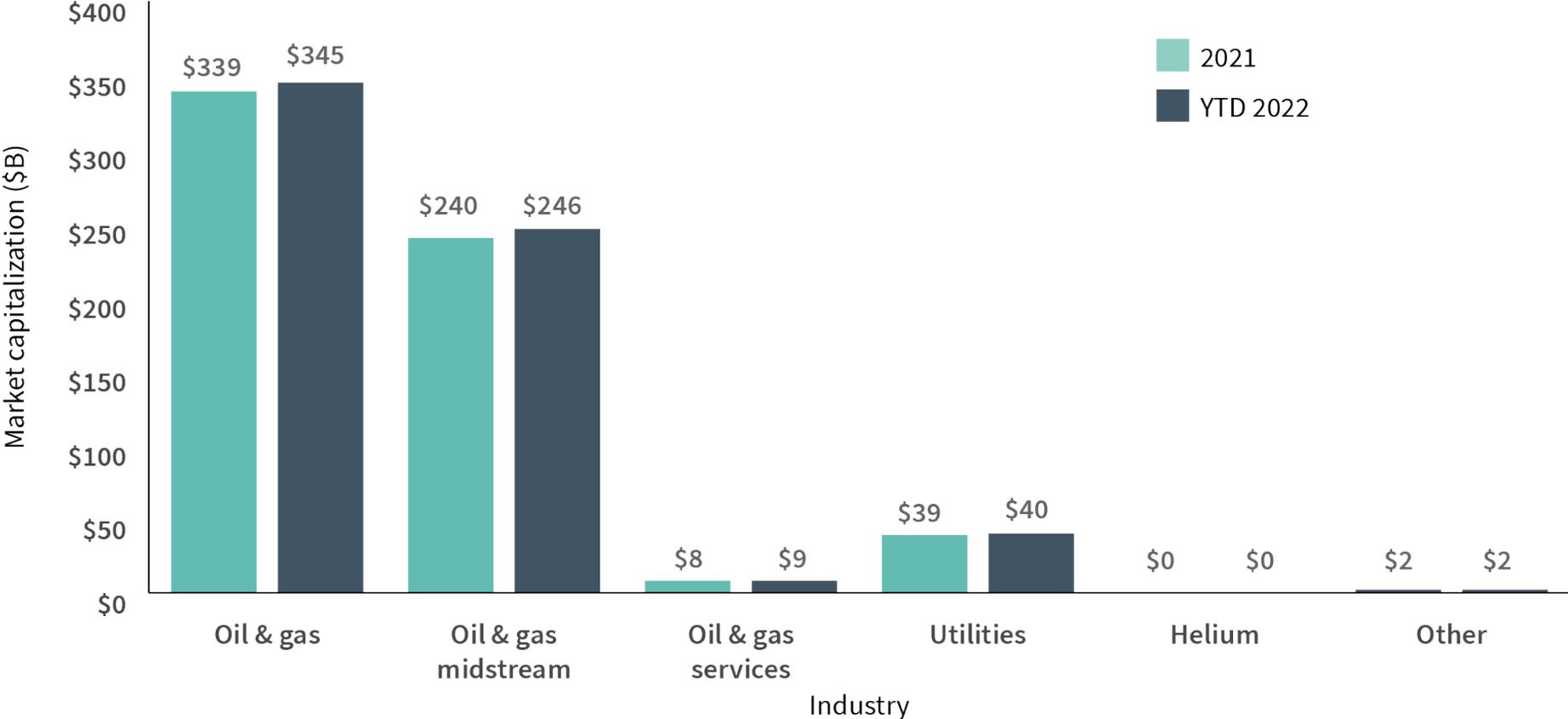
Energy and the Alberta capital market

Number of RIs engaged in O&GA



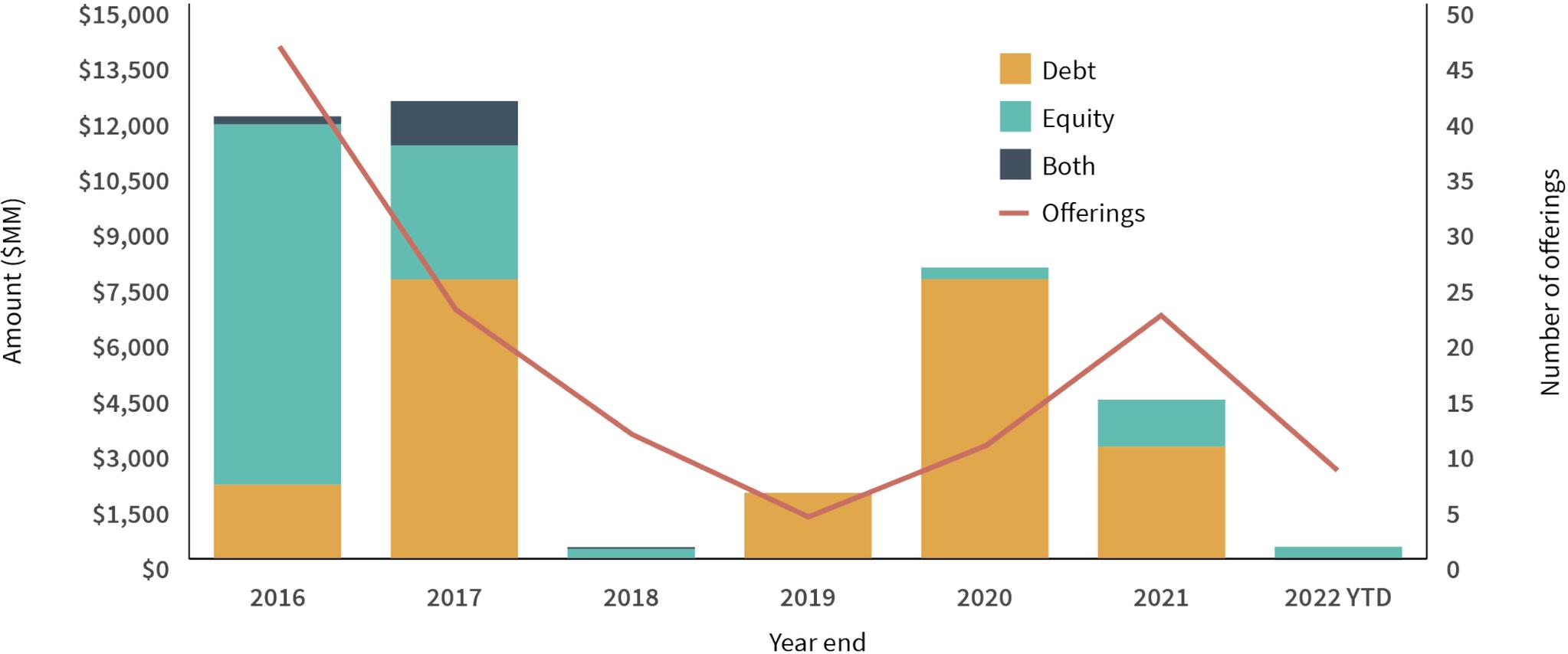
Energy and the Alberta capital market

Market capitalization by sub-industry



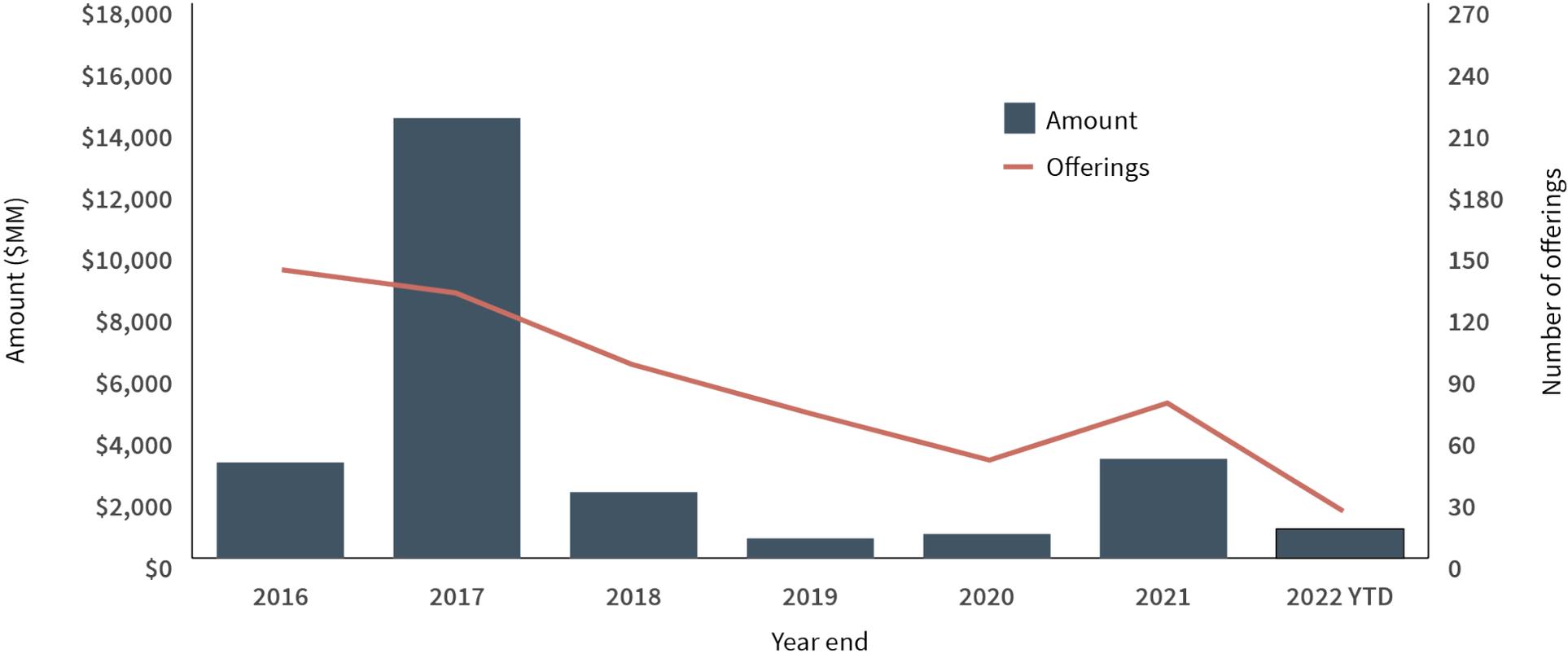
Energy and the Alberta capital market

Capital raised by prospectus by RIs engaged in O&GA, by type



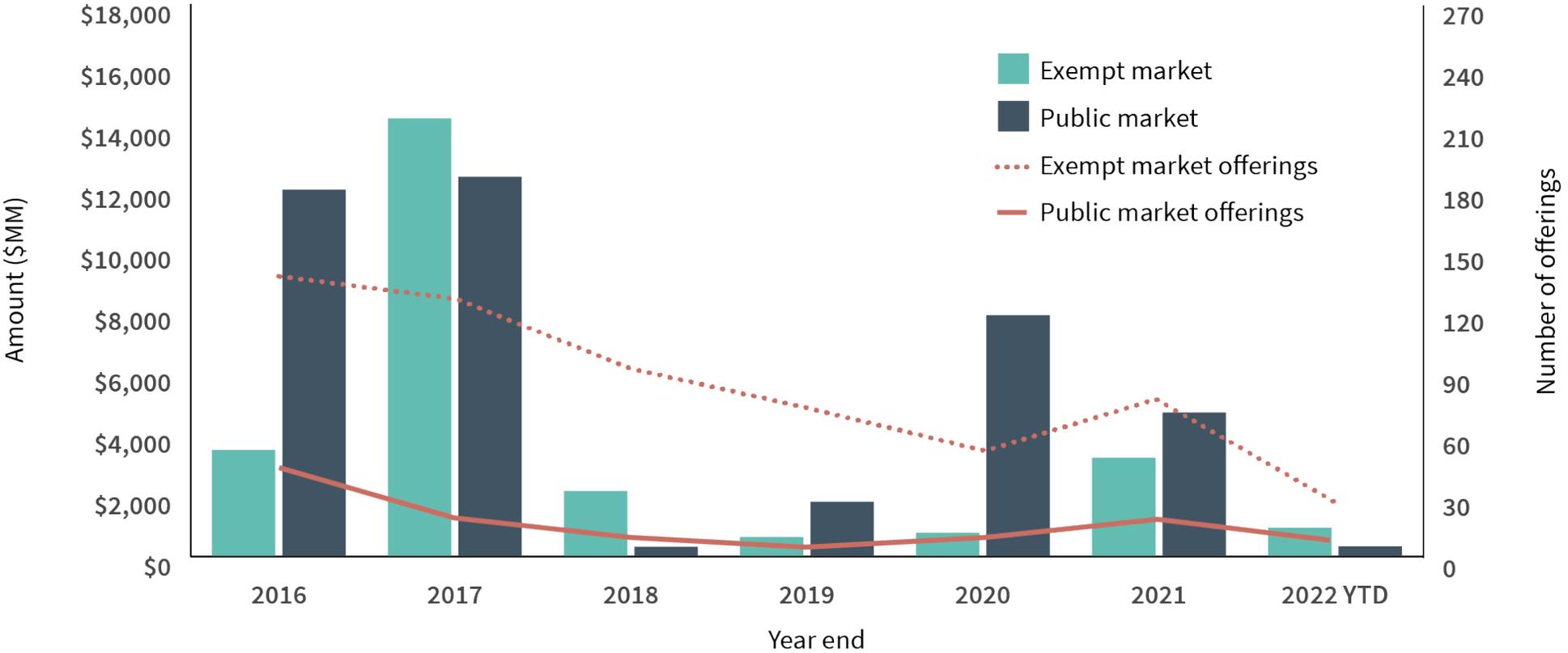
Energy and the Alberta capital market

Capital raised in the exempt market by RIs engaged in O&GA



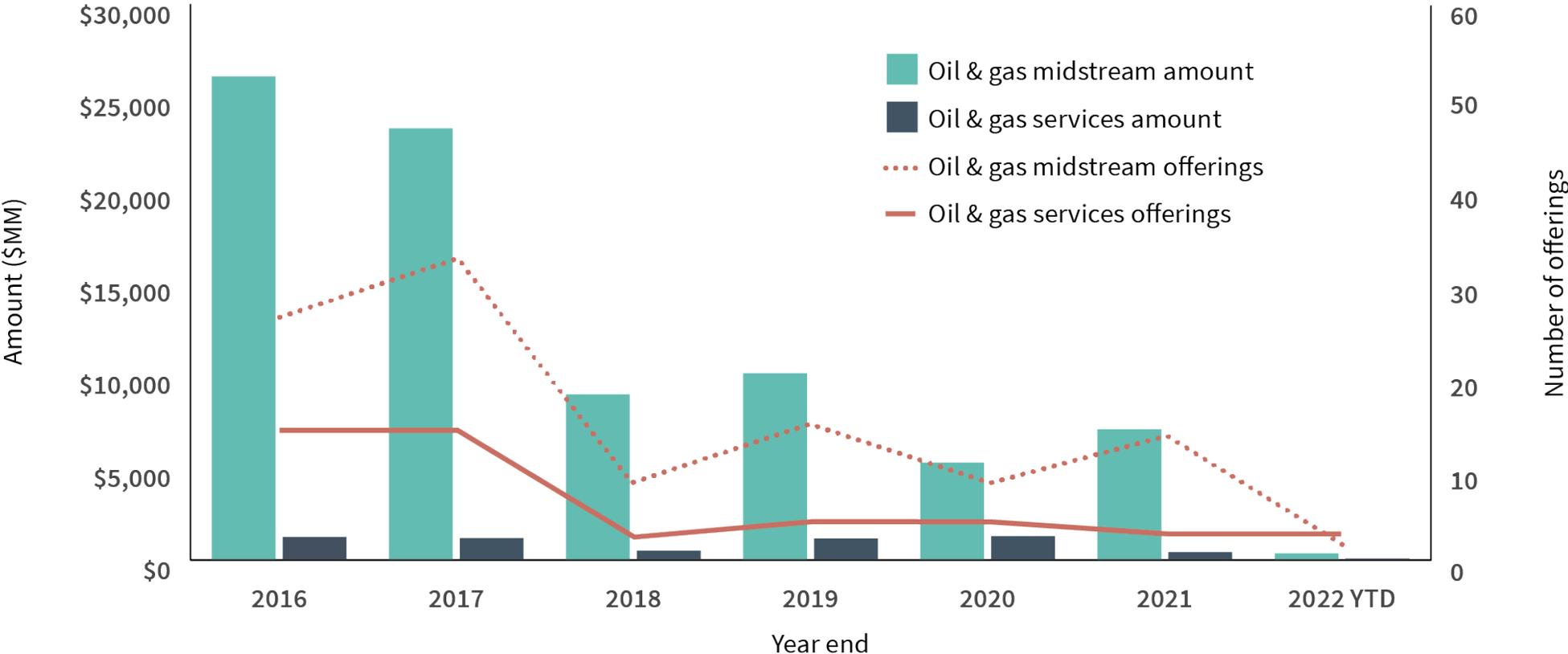
Energy and the Alberta capital market

Capital raised by RIs engaged in O&GA – comparison



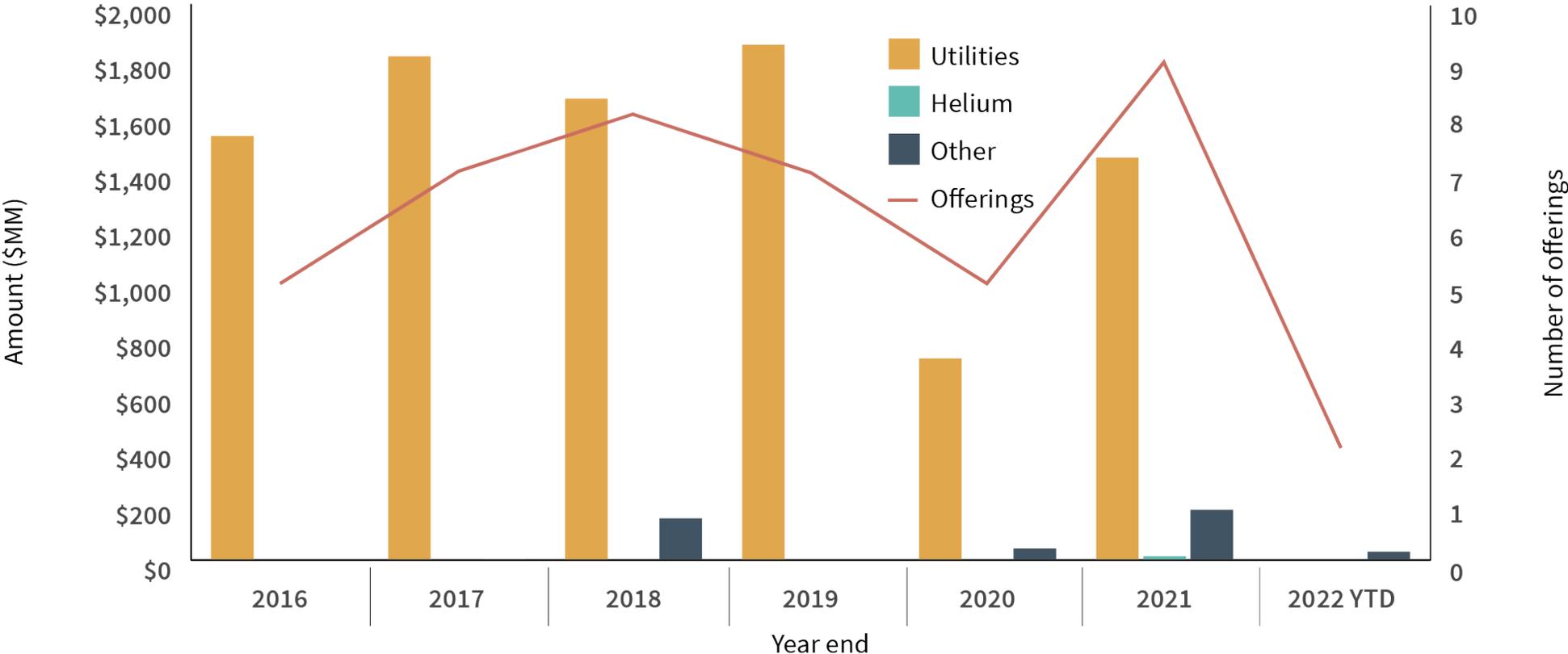
Energy and the Alberta capital market

Capital raised by prospectus by RIs in O&G services & midstream



Energy and the Alberta capital market

Capital raised by prospectus by RIs in other sub-industries



Questions?

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Thank you!