



# Assessment of key risks and processes for Energy, Resources & Industrials

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**MAKING AN  
IMPACT THAT  
MATTERS.**



# Assessment of key risks and processes for Energy, Resources & Industrials

Our extensive experience in the Energy, Resources & Industrials sectors across the Southeast Asia region has enabled us to share our insights on the four sectors outlined below. Each sector faces unique challenges and corresponding business risks. These risks have been identified through industry risk sensing and close interactions with our clients. To address these risks, we employ a three-pronged approach, recommending audit processes that focus on your organisation's most significant business risks.

## Approach to identify auditable areas

Sectors	External factors	Internal factors	Clients' concern in the Industry
 <b>Energy &amp; Chemicals</b>	<ul style="list-style-type: none"> <li>• 2024 Energy, Resources &amp; Industrials Outlook. Some examples:</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative values</li> <li>• Risk register</li> </ul>	<ul style="list-style-type: none"> <li>• Margins</li> <li>• Decarbonisation</li> </ul>
 <b>Power, Utilities &amp; Renewables</b>	<ul style="list-style-type: none"> <li>→ Emergence of new technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Prior year internal audit reports</li> </ul>	<ul style="list-style-type: none"> <li>• Regulatory pressure</li> </ul>
 <b>Mining &amp; Metals</b>	<ul style="list-style-type: none"> <li>→ Demand and supply of energy</li> </ul>	<ul style="list-style-type: none"> <li>• Management concerns</li> </ul>	
 <b>Industrial Products &amp; Construction</b>	<ul style="list-style-type: none"> <li>→ Supply chain</li> </ul>		



# Energy & Chemicals



The energy and chemical landscape is being significantly influenced by four key disruptors – geopolitical factors, macroeconomic variables such as high interest rates and rising material costs, evolving policies and regulations, and the emergence of new technologies.



## Auditable risks

Inability to build alternate infrastructure/ capabilities to handle emergencies.

**Impact:** Disruption to business operations and fines/ penalties imposed by regulators.

Shortage of skilled workers.

**Impact:** Disruption to business operations and growth plans.

Workforce injury/ fatality.

**Impact:** Temporary or long-term cessation of operations and/or delay in business development projects.

Inappropriate project/ investment/ M&A financial strategy.

**Impact:** Poor financial returns from investments/ projects.



## Processes to consider

**Critical asset management:** Identification, maintenance programmes, and insurance coverage.

**Human capital management:** Succession planning and salary benchmarking.

**Business continuity management:** Risk assessment, impact analysis, and BCP.

**Investment management:** Controls over investment due diligence and monitoring of investment performance.

**Project management:** Project governance and alignment with project requirements, including costing.

**Gassing-up and cool-down operations:** Administration of gas up and cool down operations for safety, quality, and accuracy in billings.



# Power, Utilities & Renewables

As we move into 2024, the power, utilities, and renewables sector is sharpening its focus on addressing key industry challenges, including accelerating electricity demand, rising capital expenditures, and increasingly extreme and unpredictable climate conditions.



## Auditable risks

### Power & utilities

Disruptions to power generation units e.g. equipment failure, gas supply disruption, cybersecurity attacks, etc.).

**Impact:** Loss of revenue and increase in costs.

Hedged fuel cost being higher than fuel price and forex rates secured from retail contracts.

**Impact:** Reduction in profit margins.

Inaccuracies over pricing and billing processing.

**Impact:** Financial losses and operational inefficiencies.

Sub-par counter parties on-boarded and inappropriate credit limits assigned.

**Impact:** Market risk exposure and financial losses.

### Renewables

Selection and investing in high-risk projects.

**Impact:** Poor financial returns from investments/ projects.

Asset (solar panel, wind/ hydro turbine, etc.) malfunctions and insufficient energy storage capacity.

**Impact:** Disruption to power generations.

Inadequate ESG consideration in business and operational processes.

**Impact:** Reputational loss and fines/ penalties imposed by regulators.



## Processes to consider

### Power & utilities

**Inventory management:** Critical spare parts planning and safety stock level.

**Business continuity management:** Risk assessment, impact analysis, and BCP.

**Cybersecurity:** Perimeter, network defence, and cyber resiliency.

**Energy/ Commodity/ FX Trading:** Counter party due diligence, trade execution, settlement, risk reporting, compliance with risk management framework.

**Fuel/ Forex management:** Hedge monitoring and reconciliation.

**Revenue and receivables management:** Pricing, contract management, and billing.

### Renewables

**Investment management:** Controls over investment due-diligence and monitoring of investment performance.

**Project management:** Project governance and alignment with project requirements, including costing.

**Critical asset management:** Identification, maintenance programmes, and insurance coverage.

**Sustainability reporting:** ESG framework establishment, alignment of disclosures with sustainability standards and reporting of data.

**Environmental, health and safety:** Incident management and monitoring against regulatory requirements.



# Mining & Metals

In 2024, the mining and metals industry stands at the intersection of complex challenges, including supply shortages, increased geopolitical uncertainty, commodity market volatility, and ongoing productivity and environmental issues.



Mining & Metals



## Auditable risks

Non-compliance with tenement regulatory requirements.

**Impact:** Fines/ penalties imposed by regulators.

Inaccuracies over pricing and order processing.

**Impact:** Financial losses and operational inefficiencies.

Inadequate ESG consideration in business and operational processes.

**Impact:** Reputational loss and fines/ penalties imposed by regulators.



## Processes to consider

**Tenement management:** License/ permit registration and compliance monitoring.

**Revenue and receivables management:** Product pricing, contract management and billing.

**Sustainability reporting:** ESG framework establishment, alignment of disclosures with sustainability standards and reporting of data.

**Environmental, health and safety:** Incident management and monitoring against regulatory requirements.



# Industrial Products & Construction

The industrial products and construction industry continues to grapple with pressures from skilled labour shortages,, frequent fluctuations in labour costs and material prices, as well asevolving market trends and environmental, health, and safety regulations.



## Auditable risks

Non-compliance with foreign workers regulatory requirements.

**Impact:** Fines/ penalties imposed by regulators.

Non-compliance with export regulatory requirements.

**Impact:** Fines/ penalties imposed by regulators.

Poor performing sub-contractor/ vendor.

**Impact:** Temporary or long-term cessation of operations.

Workforce injury/ fatality.

**Impact:** Temporary or long-term cessation of operations and/or delay in business development projects.



## Processes to consider

**Human capital management:** Working permit registration and compliance monitoring, overtime management.

**Revenue and receivables management:** Export compliance, contract management, pricing, and billing.

**Sub-contractor/ vendor management:** Due-diligence check, sub-contractor/ vendor evaluation, and contract management.

**Environmental, health and safety:** Incident management and monitoring against regulatory requirements.

**Project management:** Project governance and alignment with project requirements, including costing.

## Connect with our authors



**Cheryl Lim**  
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Cheryl has over 18 years of experience in providing statutory audit, internal audit and Risk Advisory services. She leads Deloitte's internal audit and enterprise risk management practice in Singapore. She is also the deputy leader of Deloitte's Boardroom Program in Singapore.

Cheryl is the Project Partner delivering internal audit and Risk Advisory services for a number of listed, government linked as well as multi-national corporations. She also provides SOX/JSOX consulting and attestation services to US and Japanese multi-national corporations. Cheryl has a proven track record in serving clients from a range of diversified industries such as energy (including oil & gas), real estate (REIT and Asset Management), government, hospitality, gaming, food and beverage, manufacturing, port management, and energy.

**Industry specialisation: Energy, resources & industrials**

In this industry, Cheryl has worked with power generation company in Singapore, petroleum and renewables companies.



**Andy Wee**  
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Andy has 19 years of professional work experience, which consists of 14 years of Auditing (internal controls and financial), Enterprise Risk Management (advisory and implementation), and 5 years of supply chain management.

Andy is accustomed to handling multi-projects and plays a pivotal role in execution the audits and managing clients' requirements. Andy has conducted numerous Agile Internal Audit trainings to clients, which include the global internal audit team for a financial institution, and ministries to upskill auditors across the departments/agencies. Andy was part of implementing ERM within an organisation and provided ERM consultancy to organisations.

**Industry specialisation: Energy, resources & industrials**

In this industry, Andy has performed services on internal controls, business process review, regulatory related audits, risk assessment to identify auditable areas, assurance map, and control self-assessment. The generic processes where he had been involved in this sector are revenue, procurement & payment, contract management, supply chain management, cash management, human resource, incident reporting, environmental and sustainability, business continuity planning, due diligence and managing anti-corruption, enterprise risk management, and spend analysis. The Industry specific processes he has covered are project management on renewable energy, investment on renewable assets, compliance with electricity and gas market, retail business on sales, portfolio effectiveness for energy, fuel & inventory management, trading office involving physical and hedging, chemical management, operations & maintenance, and construction.





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