

# Global Insurance Profile

TIMELINE, COST & FORENSIC ENGINEERING EXPERTS

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# **ABOUT CCI**

CCi is a market leader in providing time, cost, and forensic engineering services to global insurance markets.

For decades, our professionals have provided expert analysis on some of the largest and most complex construction, engineering, energy, power, and property claims around the world.

As part of our global insurance services, we are able to provide time, cost, and technical skills through a single, integrated team to deliver relevant, efficient, and dependable services for our valued clients.

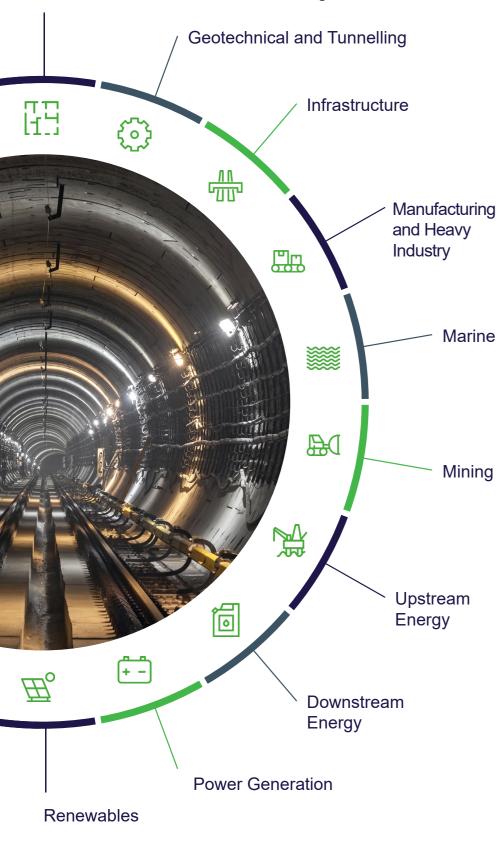
Investigating engineering issues and quantifying the time and cost impacts requires deep industry knowledge and a clear understanding of complex causes and effects, as well as an appreciation of the nuances of the claims adjustment process. That's where we are uniquely placed across a global platform.

Our insurance services provide a targeted and strategic response, liaising with all relevant parties involved, to comprehensively analyse the circumstances of any event or claim, the scope of damage and the associated impact in terms of reinstatement time and cost.



# **OUR SECTORS**

### Commercial and Residential Buildings



#### Commercial and Residential Buildings

Our experts have supported clients on projects ranging from racecourses to football stadiums, shopping malls to whole town centre redevelopments, individual housing to largescale commercial and specialised medical facilities

#### Geotechnical and Tunnelling

CCi has assisted clients on complex ground and underground projects ranging from investigation, remediation and reclamation works to pipelines and tunnels in land, river and sea environments.

#### Infrastructure

Our experts have worked on multiple complex infrastructure projects including bridges and airports, roads and rail services.

#### Manufacturing and Heavy Industry

Our experts have been appointed to assess claims and disputes relating to major manufacturing and industrial facilities.

#### Marine

CCi has worked on a wide variety of vessel related claims and disputes, with shipbuilding being at the core of this sector for some time.

#### Mining

Our multidisciplinary team of experts can provide timeline, cost and engineering advice on every type of complex mining-related project imaginable, helping clients to manage risk and quantify claims.

#### Upstream Energy

Our experts have worked on many offshore oil and gas facilities and have experience in the construction of FPSO and FLNG vessels, semi subs, drilling ships and marine support vessels.

#### Downstream Energy

Our experts have firsthand experience in refineries, petroleum plants, DSU, BI, and other downstream facilities as well as production and energy generating facilities onshore utilising downstream technologies.

#### Power Generation

Our team has provided advice on distressed projects and are often instructed to evaluate delays and overrun costs on coal, gas, oil and nuclear power generation facilities.

#### Renewables

We have assisted clients across the entire lifecycle of a wide variety of wind power, hydro, biomass and solar renewable disputes worldwide.

For more info scan here:

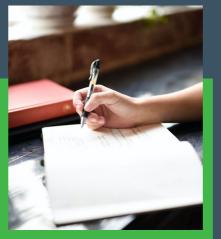


# **OUR INSURANCE SERVICES**





Delay Analysis (DSU)





Timeline Analysis (BI)

Scope Evaluation





Verification



**Damage Assessment** 





**Project Monitoring** 



**Risk Advisory** 

# **DELAY AND TIMELINE**

Our forensic timeline analyses are internationally recognised for prompt and efficient delivery of clarity to Delay in Start-Up (DSU) and Business Interruption (BI) claims of the highest value and complexity.

## Delay Analysis (DSU)

Having advised on over 500 DSU claims globally, including the world's largest and most complex claims, our experts have unrivalled experience in the analysis of Delay for projects carrying DSU.

Launching a new project is a complex endeavour that involves numerous stakeholders, intricate processes, and tight deadlines.

Unfortunately, unforeseen delays can significantly impact the time-to-market and result in missed opportunities and financial losses. However, assessing Delay as a matter of indemnity requires a specialist approach.

Our DSU service is designed specifically for the insurance industry, to help clients determine when commercial operations would have commenced had no insured events occurred.

Many clients use our services in advance of a submitted DSU claim to establish accurate decision-making for loss mitigation, formulate potential exposure considerations, and create the foundations for a successful resolution

Our expert delay analysts regularly advise on:

- · Pre-incident project status
- · Consideration of mitigation measures and Increased Cost of Working (ICOW) claims
- · Verification of critical path and near critical work packages
- · Impact of float and concurrent delays
- · Policy endorsements
- · Relationship between CAR / EAR and marine cargo policy forms
- · Potential implications of defect exclusions and LEG clauses

### Timeline Analysis (BI)

For more than 25 years, CCi has delivered time element services on many of the world's largest operational insurance losses across numerous industries.

Our time, cost, and technical experts have comprehensive knowledge spanning all types of industries and provide the support and insight to expedite any reinstatement project and reduce the risk of extended interruption or business downtime.

Scheduling specialists objectively identify a reasonable reinstatement / repair period whilst clearly defining time associated with planned or opportunistic turnaround / maintenance works, and any upgrade or betterment works.

We confirm to policyholders and insurers the most cost-effective ways to minimise loss and ensure transparency for all parties.

In our experience, time element services work best when integrated with cost and technical expertise to fully leverage mitigation strategies.

This approach can take advantage of the links between these disciplines, resulting in accurate and agile decision-making on technical engineering solutions, cost breakdowns, and time management.

# **PROJECT MONITORING AND RISK ADVISORY**

Our highly skilled teams assess the progress of clients' projects to ensure all involved parties understand its status.

### **Project Monitoring**

An industry leading monitoring and progress review service.

We can accurately and cost-effectively monitor and benchmark progress on fastmoving projects where cost and scope are determined in real time.

Robust and detailed monthly or quarterly progress reports are provided on pre-loss DSU construction projects. These are easy to implement, are standardised utilising the project's existing progress records, and can be combined with the monitoring requirements of lenders and funders.

As part of our monitoring service, CCi can provide bespoke Quantitative Risk Analysis (QRA). We generate project performance models based on the latest available project data, with the model continually updating as the performance of the project varies over its lifecycle. This performance model accurately describes the changing dynamics experienced in the multivariate situations present throughout project construction. These models are then used to create a probabilistic outcome of expected activity / project completion, via a Monte Carlo method. This process generates a continuous distribution of outcomes each with a specified probability of occurrence, giving a statistical indicator of project performance such as target project completion date.



## **Risk Advisory**

With a broad range of industry experts, CCi offers efficient and timely advice on multi-industry risks.

Our services range from independent, third-party expert reviews, to underwriter information reports and estimated / probable maximum loss analysis.

We assist clients to quantify and gain a deeper understanding of the potential financial impact of extreme events.

This analysis enables them to make data-driven decisions, optimise risk transfer strategies, and ensure that insurance coverage adequately protects against severe losses.

We also conduct in-depth risk assessments and analyses, considering factors such as regulatory compliance, market trends, emerging technologies, and operational vulnerabilities. By understanding the unique risks our clients face, we can provide tailored solutions to protect their business interests.

Our risk advisory services encompass the development and implementation of proactive risk mitigation strategies. We assist you in designing comprehensive risk management frameworks, establishing risk appetite and tolerance levels, and implementing best practices that align with industry standards and regulations.

# FAILURE ANALYSIS AND DAMAGE ASSESSMENT

CCi provide forensic and consulting engineering services to establish failure mechanisms in the course of root cause investigations and assessing the resultant extent of damage.

### **Failure Analysis**

### Damage Assessment

At CCi, we specialise in providing comprehensive failure analysis services tailored to the unique needs of insurance providers.

When a failure occurs, it is crucial to identify the underlying root causes accurately. We employ a systematic approach to investigate incidents, examining all relevant factors such as design flaws, manufacturing defects, human error, environmental factors, or external influences.

We conduct thorough investigations, utilising cutting-edge techniques and industry best practices to uncover the root causes of failures.

We understand the importance of data in failure analysis. Our team meticulously collects and analyses data related to the failure event, leveraging advanced analytical tools, and techniques. We assess relevant documentation, conduct interviews, gather physical evidence, and perform laboratory tests as needed.

This comprehensive approach ensures a robust understanding of the failure mechanism and provides actionable insights for risk mitigation.

We then work closely with the client's team to formulate tailored solutions that address the underlying issues and minimise the potential for future failures. Our recommendations encompass a range of areas, including design improvements, process optimisation, enhanced quality control measures, and staff training programs.

In cases where legal or regulatory proceedings arise from a failure event, our team of experts can provide reliable and credible expert witness testimony. We have extensive experience in supporting insurance providers in litigation and dispute resolution processes. Our experts possess the technical expertise and communication skills necessary to present complex failure analysis findings in a clear and persuasive manner. Our team conduct rigorous inspections of the affected property or asset, meticulously examining the damage and assessing the extent and nature of the loss. Understanding the urgency of these situations, we strive to conduct inspections promptly, ensuring that loss reserves can be established and the adjustment process can begin without unnecessary delays.

We employ advanced tools and techniques such as heat mapping, metallurgical analysis, and other non-destructive testing techniques to capture detailed information about the damages, gather photographic evidence, collect relevant measurements, and document the condition of the affected areas or assets. This meticulous documentation serves as a reliable basis for claim evaluations and facilitates efficient communication with all stakeholders involved.

Our reports provide a comprehensive analysis of the assessed damages, presenting clear and concise information to loss adjusters, insurers, and policyholders.

Our reports highlight the extent of the damage and provide reinstatement options covering items requiring replacement and where possible those assets that can undergo repair.

We cover a wide range of damages, including but not limited to property damage, equipment breakdown, natural disasters, fire incidents, water damage, and more. With our diverse expertise, we can accurately assess damages across different industries and sectors, providing valuable insights regardless of the nature or complexity of the claim.

# SCOPE EVALUATION AND REINSTATEMENT COST VERIFICATION

Our team of professionals can establish the extent of damage and costs of reinstatement with accuracy and certainty.

### Scope Evaluation

In the immediate aftermath of a catastrophic event, CCi's scope evaluation service offers considerable benefit to insurers, loss adjusters, and policyholders in response to large and complex claims.

In the days after a loss occurs, CCi's accredited estimators and cost engineers will generate initial rough orders of magnitude, developing through to more detailed estimates as the scope of damage evolves, and contractor tender documentation is received.

Our service utilises industry recognised estimating software, commonly utilised by all major operators/owners. In the right hands, this software develops estimates to support conceptual design analysis, detailed FEED studies, pre-tender CAPEX approval/budgeting, and bid/tender benchmarking across an array of assets.

CCi's scope evaluation service provides a "ground up" estimate of the reinstatement cost, enabling loss adjusters and insurers to review relevant policy terms by identifying specific elements of reinstatement for the consideration of applying sub-limits, exclusions etc, providing a more stable and consistent scenario for reserving purposes, whether that is initial placeholders for precautionary IBNR or case reserves in a 45-, 90-, or 180-day window.

For many catastrophic events, a fully developed operational design will exist, along with information such as detailed equipment lists and operational parameters. In fact, most of the material contained within a detailed underwriting submission is all that is needed for CCi's estimators to immediately start developing an early cost estimate, alongside considerations for demolition/removal or wreck, allowing the process to be significantly fast-tracked.

### **Reinstatement Cost Verification**

CCi's team of professional quantity surveyors/cost consultants, estimators, and engineers conduct an in-depth analysis to provide reliable assessments of reinstatement costs, covering replacement and repair costs. Where required, we will conduct economic assessments of replacement versus repair, particularly relevant against Business Interruption/DSU exposures, working with stakeholders to determine the most effective repair strategy.

Throughout the reinstatement period, our chartered cost experts can assist in verifying actual costs incurred and, where necessary, delineate costs attributable to damage reinstatement from costs that may be related to maintenance, turnaround, betterment, upgrade, or other potentially non-indemnifiable items. As well as assessing the overall cost of reinstating physical damage, we have significant experience with identifying and verifying increased costs of working, additional increased costs of working, expediting expenses, prolongation costs, and costs associated with defect rectification and/or improvement.

Where required, we have a number of cost experts with significant experience in providing expert testimony who regularly advise our clients through contentious matters, including those related to professional indemnity and product liability.

We document our findings in clear and transparent reports that provide a comprehensive analysis of reinstatement costs in a format that can be readily shared with all stakeholders providing an enhanced claims experience and an expedited resolution.

# **OUR PEOPLE**

# — A PASSIONATE TEAM —

Our people are our strength, so we focus on employing the leading practitioners of today and developing the brightest talent of the future. We have a growing team of professionals that bring a broad range of industry expertise to our business, across our core areas of insurance claims and dispute resolution on construction, engineering and energy projects.

We empower our people. Our team say they have a strong sense of accountability, which spurs them on to succeed further. Working together and getting the best minds around the table is what it's about.

# " ENJOYING YOUR WORK LEADS TO PERFECTION "

- ARISTOTLE



# SERVICE >> DELAY AND TIMELINE



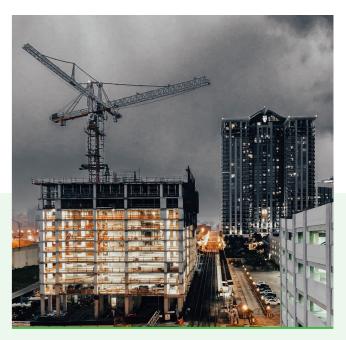
**37-STOREY OFFICE TOWER** • Malaysia Client: Insurer Sector: Commercial / Residential Buildings Service: DSU Analysis



#### WASTEWATER TUNNELLING PROJECT

**Q** United States Client: Insurer Sector: Infrastructure Service: DSU Analysis

Images shown are for illustration purposes only and may not be an exact representation of the projects.



### **17-ACRE MIXED-USE DEVELOPMENT**

#### • United States

Client: Insurer Sector: Commercial / Residential Buildings Service: DSU Analysis



### POULTRY RENDERING FACILITY

#### • United States

Client:	Insurer
Sector:	Manufacturing / Heavy Industry
Service:	BI Timeline Analysis



#### NATURAL PORT

**9** Gibraltar Client: Insurer Sector: Manufacturing / Heavy Industry Service: BI Timeline Analysis



DUBAI ALUMINUM • United Arab Emirates (UAE) Client: Insurer Sector: Manufacturing / Heavy Industry Service: DSU Analysis



**GOLD MINE 9** Ghana Client: Insurer Sector: Mining Service: BI Timeline Analysis



**REVERSE OSMOSIS DESALINATION PLANT** 

**Q** Oman Client: Insurer Sector: Manufacturing / Heavy Industry Service: DSU Analysis



WIND FARM PROJECT **9** Jordan Client: Insurer Sector: Renewables Service: DSU Analysis



POLYPROPYLENE MANUFACTURING FACILITY • Kingdom of Saudi Arabia (KSA) Client: Insurer Sector: Oil and Gas Service: BI Timeline Analysis



### NICKEL MINE

South South	Pacific
Client:	Insurer
Sector:	Mining
Service:	<b>BI Timeline Analysis</b>



FPSO	
• North	Sea
Client:	Insurer
Sector:	Offshore Exploration and Production
Service:	DSU Analysis

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# SERVICE >> PROJECT MONITORING AND RISK ADVISORY



OTOYOL PHASE I & II Turkey Client: Insurer Sector: Infrastructure Service: Project Monitoring



JAMNAGAR J3

♀ India
Client: Insurer
Sector: Oil and Gas
Service: Project Monitoring



### MAJOR COMMERCIAL SOLAR INSTALLATION

Saudi Arabia

Client: Renewables Sector: Infrastructure Service: Project Monitoring



EAST ANGLIA ONE, 714MW OFFSHORE WINDFARM Vunited Kingdom

Client: Insurer Sector: Renewables Service: Project Monitoring



FREEPORT LNG ♀ Texas, United States Client: Insurer Sector: Oil and Gas Service: Project Monitoring



NEUCONNECT, 720KM, 1.6KW INTERCONNECTOR CABLE Vorth Sea

Client: Insurer Sector: Renewables Service: Risk Advisory

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#### 2012 OLYMPICS STADIUM

#### ♀ London

Client:	Insurer
Sector:	Infrastructure
Service:	Project Monitoring



### HORNSEA II OFTO ASSETS WIND FARM

### North Sea

Client: Broker Sector: Renewables Service: Risk Advisory

# SERVICE >> FAILURE ANALYSIS AND **DAMAGE ASSESSMENT**



#### **OFFSHORE GAS TURBINE**

♀ Vietnam		
CI	ient:	Insurer
Se	ector:	Offshore Exploration and Production
Se	ervice:	Failure Analysis



WIND TURBINE COLLAPSE • Australia Client: Insurer Sector: Renewables Service: Failure Analysis



#### MINERAL STORAGE DOME COLLAPSE

**Q** Chile Client: Insurer Sector: Mining Service: Failure Analysis



#### SOLAR PV FARM

• Arizona, USA

Client: Insurer Sector: Renewables Service: Failure Analysis



TRANSFORMER FAILURE • North Africa Client: Insurer Sector: Oil and Gas





#### **REFINERY OIL SPILL**

Kenya Client: Insurer Sector: Oil and Gas Service: Failure Analysis

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### **BUILDING COLLAPSE**

#### Hong Kong

Client:	Insurer
Sector:	Construction
Service:	Failure Analysis



### STEAM TURBINE CONDENSER FAILURE

### **9** Bahrain

Client: Insurer Sector: Power Service: Failure Analysis



#### PETROLEUM PROCESSING FACILITY

#### ♥ Louisiana, USA

Client: Insurer Sector: Oil and Gas Service: Damage Assessment



#### WIND FARM

United States
Client: Insurer
Sector: Renewables
Service: Damage Assessment



#### THERMAL POWER PROJECT (2 X 660MW)

♀ India	
Client:	Insurer
Sector:	Power
Service:	Damage Assessment



LNG POWER PLANT ♀ Algeria Client: Adjuster Sector: Power Service: Damage Assessment

# SERVICE >> SCOPE EVALUATION AND REINSTATEMENT COST VERIFICATION



### PRODUCT LIABILITY RECOVERY ACTION

United Kingdom
Client: Insurer
Sector: Commercial / Residential Buildings
Service: Reinstatement Cost Verification



# 150MW CONCENTRATED SOLAR POWER PLANT

♀ Morocco		
Client:	Insurer	
Sector:	Renewables	
Service:	Reinstatement Cost Verification	

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# HOTEL BUILDING AND ASSOCIATED FACILITIES

Guam
Client: Insurer
Sector: Commercial / Residential Buildings
Service: Scope Evaluation



PETROCHEMICAL COMPLEX

♥ Vietnam
Client: Insurer
Sector: Oil and Gas
Service: Scope Evaluation

# **CONTACT US**

For advice on your insurance claim or for support in resolving a dispute on a construction, engineering or energy project, contact us on the email address below or visit our website.



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