



# Evaluating Project Delay and Disruption

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## **1 GREENWOOD STRATEGIC ADVISORS**

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Greenwood's staff are the most experienced and effective experts in qualitative evaluation and simulation-based quantitative analysis of delay and disruption on complex projects. We have supported over thirty major projects in the construction, aerospace, shipbuilding, energy and software industries, covering delay and disruption claims ranging from less than one hundred million to several thousand million dollars in value. We are experienced in all aspects of expert witness work in dispute resolution proceedings, from report preparation and discovery through depositions and expert testimony. In addition we have assisted many other complex-project clients in forward-looking risk mitigation, performance anticipation and performance improvement.

Our dispute-resolution work begins with qualitative evaluation of the project, claims and counterclaims as described below. The product of such evaluations is a series of expert opinions regarding the likely causes of and responsibility for delay and disruption and ranges of their approximate magnitudes. Those opinions are suitable for use in negotiations between parties to the dispute or for expert testimony in support of adjudication or mediation processes.

Following qualitative evaluation, most dispute-resolution clients elect to commission a simulation-based analysis to produce definitive proof and quantification of delay and disruption. Our analyses are based on the most advanced project-simulation technology and on the largest body of experience and

technical expertise available world-wide. They enable us to prove and quantify the delay and disruption experienced to within narrow uncertainty margins, with causal links back to the events and conditions that caused them. When combined with contract and case-law assessments such analyses demonstrate the defendant's qualitative and quantitative responsibility for delay and disruption. Carried out under the scientific method, such analyses are uniquely reliable and defensible and form a suitable basis for expert testimony in formal proceedings, where they consistently result in approximately twice the compensation considered normal for delay and disruption claims.

Decades of experience in such quantitative analyses provide a strong basis for fast, effective qualitative evaluations. Where quantitative analyses typically require at least 6 months, qualitative evaluations are usually completed in 8-10 weeks. Our clients find that both qualitative evaluations and quantitative analyses help to reach an appropriate settlement of delay and disruption claims outside of formal proceedings.

## **2 QUALITATIVE EVALUATION OF PROJECT DELAY AND DISRUPTION**

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The qualitative evaluation aims at understanding the likely occurrence of delay and disruption on the project, including its approximate magnitude, likely causes, and probable responsibility for it. That understanding informs settlement discussions and early formal proceedings; it also indicates the

expected results of definitive quantitative analysis in advance of a possible commitment to do it.

The qualitative evaluation answers to following questions:

- a) By its nature was the project significantly vulnerable to delay and disruption from unplanned events and conditions?
- b) What unplanned events and conditions are the subjects of the plaintiff's claims? What were their direct operating consequences for the project (excluding resulting disruption)? Examples of direct operating consequences: was the scope of work expanded, was delayed or made obsolete by changes, was design information rendered uncertain or unusable? *Greenwood's interview process quickly and efficiently integrates the plaintiff's first-hand knowledge regarding those operating consequences; having them integrated and presentable can aid the resolution process.*
- c) By their nature did those direct operating consequences have substantial disruptive potential on this project, and through what performance-influencing mechanism were they likely to have caused delay and disruption? *Based on deep experience we can identify and describe those mechanisms, which can aid the resolution process.*
- d) Were those mechanisms known to be in operation on the project in question? *Through plaintiff interviews Greenwood is able to quickly confirm which mechanisms were in operation, integrating that with knowledge of the claim items and their direct operating consequences to support initial opinions regarding the likelihood and causality of resulting delay and disruption.*
- e) Given the above, and based on our experience with comparable projects and claim items, what are the likely magnitude ranges for delay and disruption associated with the plaintiff's claims? *Based on our unique and extensive prior experience analyzing the underlying project dynamics,*

*we are able to establish the likely existence and estimate the approximate magnitude of delay and disruption associated with plaintiff claims.*

- f) Do defendant counterclaims present other unplanned events and conditions which might be plaintiff-responsible drivers of delay and disruption? Or is the defendant mostly asserting that the plaintiff bears responsibility for the unplanned events and conditions that are the subjects of the plaintiff's claims? *When a plaintiff has been delayed and disrupted by the defendant (or by events and conditions imposed on the defendant and thereby on the plaintiff), the defendant's counterclaims usually contain no significant grounds for claiming against the plaintiff. The defendant is usually found to be counterclaiming against the plaintiff for disruptive consequences of events and conditions for which the defendant is responsible. That can be established early on and thus aid the resolution process.*

### **3 THE QUALITATIVE EVALUATION PROCESS**

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The process is designed to be quick (8-10 weeks in total) based on information already assembled by the plaintiff and assuming availability of plaintiff managers for interviews.

#### *a) Gathering Information*

Greenwood's experts conduct structured information-gathering on two dimensions: i) the project and its organization and performance history; and ii) the claims and their direct operating consequences for the project.

Information on project organization and on claims and their direct operating consequences is gathered by means of interviews with plaintiff managers. Several days of interviews with from two to four managers (not all of them in all interviews) are usually sufficient to gather

the necessary information. Information on the project's performance history is drawn from existing records of labor-hour expenditures and work pro-gress over time.

b) *Evaluating and reporting*

Greenwood's experts integrate the gathered information in evaluating the potential causality of delay and disruption on the project. Emerging conclusions are reviewed with and checked against the first-hand knowledge of plaintiff managers. When those conclusions are consistent with all forms of available information, Greenwood documents the conclusions in their expert report.

c) *Supporting dispute resolution*

Greenwood's experts will engage in negotiation, mediation, or adjudication processes as desired by the plaintiff. Engagement can include any or all of the following:

- Providing our expert report to other and answering questions about it;
- Participating in meetings and making presentations on our evaluation and conclusions;
- Providing expert testimony regarding the evaluation and conclusions.

d) *Moving on the quantitative analysis*

The qualitative evaluation stands on its own and creates value for the delay and disruption plaintiff without further work. If any quantitative simulation-based claim analysis is subsequently requested, the information and work produces from the qualitative evaluation will be key to that analysis.