

An INTRODUCTION to:



## CEEQUAL

*IMPROVING SUSTAINABILITY THROUGH BEST PRACTICE*

Civil Engineering – Infrastructure – Landscaping – Public Spaces

“ Using CEEQUAL has been instrumental in driving performance forward and sets the bar for other contractors we used to follow... ”

Mike de Silva (Sustainability Manager, Crossrail)

“ CEEQUAL ensured that sustainability was an important design consideration from the outset. Design decisions took into account sustainability outcomes, and additional sustainability opportunities were sought and considered at key points. ”

Ann Cousins (Sustainability Consultant, Arup)

“ CEEQUAL played a huge role as the main driver for the delivery and implementation of the vast majority of the environmental and sustainable improvements initiated on the project. ”

Paul Panini (Environment and Sustainability Manager, GNGE Alliance)

# Welcome to CEEQUAL!

This introduction will inform and, we hope, influence and inspire you into considering the use of CEEQUAL on your project or contract. Over the next 15 pages, we explain the following aspects of the CEEQUAL scheme:

● What is CEEQUAL?	3
● The benefits of using CEEQUAL	3
● CEEQUAL's benefits for Clients, Designers and Contractors	4
● How the Scheme works and how it was created	5
● CEEQUAL's place within Civil Engineering	6
● CEEQUAL and Sustainability	7
● CEEQUAL for Projects	8-9
● CEEQUAL for Term Contracts	10-11
● Case studies of completed assessments	12-13
● A brief review of the technical coverage of CEEQUAL	14-15

“

It is very good for the industry and profession to have challenging tools like CEEQUAL available to us to test out and measure our performance. I want to thank CEEQUAL for all its work in developing the assessment scheme for the use and benefit of civil engineering and society.

”

Sir John Armitt CBE (Chairman of the 2012 Olympic Delivery Authority)



2012 Olympic Park, London, achieved an overall 'Excellent' CEEQUAL rating with an overall score of 93.8% for all 17 assessment packages

# What is CEEQUAL?

CEEQUAL is the international evidence-based sustainability **assessment, rating and awards scheme** for civil engineering, infrastructure, landscaping and works in public spaces.

CEEQUAL encourages and promotes the attainment of high economic, environmental and social performance in all forms of civil engineering through identifying and applying best practice. It aims to assist clients, designers and contractors to deliver improved sustainability performance and strategy in a project or contract, during specification, design and construction. The scheme rewards project and contract teams who go beyond the legal, environmental and social minima to achieve distinctive environmental and social performance in their work.

In addition to its use as a rating system to assess performance, the rigour and flexibility of the Scheme can significantly influence project or contract team decisions as they develop, design and construct their work. It encourages them to consider the sustainability issues they face at the most appropriate time and enables them to secure the CEEQUAL score their work deserves.



Kincardine Bridge - Forth Crossing achieved an overall 'Very Good' CEEQUAL rating

CEEQUAL is available in two forms: **CEEQUAL for Projects** and **CEEQUAL for Term Contracts**.

“

The CEEQUAL Assessment tool provides a framework for those involved in the design, construction and operation of a project to integrate environmental, social and sustainability benefits and to gain acknowledgement for sustainability measures that are being incorporated into the project.

”

Emma Clark (Project Developer, E.ON)

## The benefits of using CEEQUAL

- **Significant improvements to your projects and contracts through adoption of best practice** including whole-life costing, waste minimisation, resource efficiency (materials, water, energy), responses to predicted climate change effects, as well as project management and reduction of complaints and environmental incidents.
- **Reputation-building and good PR** including verified demonstration of delivery of your environmental, sustainability and/or corporate social responsibility policies.
- **Cost savings** through CEEQUAL's influencing role. Projects have reported savings ranging from £30,000 on waste minimisation to £5 million (3.3% of total project cost) saved through design changes and alternative materials.
- **Demonstrating your commitment to the sustainability agenda, and providing public recognition of your work** to clients, to the industry as a whole, and/or to stakeholders and the general public.
- **Enhanced team spirit** through CEEQUAL's recognition of teams that have “gone the extra mile” and, because using CEEQUAL provides encouragement and a target for your project and contract team to deliver high performance, it helps to develop a positive performance attitude.
- **Award presentations** celebrating high performance and reinforcing team spirit.

# Who uses CEEQUAL?

## What benefits do they gain?

- **Public sector clients**, such as Government departments, local and regional authorities, executive agencies of Government, and arms-length utilities procuring and operating assets for the public good.
- **Private sector clients**, such as water companies, power companies and ports operators, and developers (who can use CEEQUAL to assess infrastructure associated with building developments).

Reported benefits from public and private sector clients using CEEQUAL include:

- **Embedding sustainable practices** from early in a project's life, often resulting in long-term cost savings
  - **Reputational benefits** and reducing reputational risk
  - **Demonstration of delivery** of environmental, sustainability and/or corporate social responsibility policies, and positive reinforcement of high performance
  - **Measurement of the sustainability of development projects** and their comparison with other in-house projects and competitors
  - Using CEEQUAL provides a single **standard industry benchmark for sustainability performance**.
- **Designers**, including mainstream civil engineering designers, architects for building developments with significant associated infrastructure, landscaping designers, utilities designers, and electrical and mechanical engineering design companies involved in infrastructure projects and contracts.

Reported benefits from project designers using CEEQUAL include:

- **Scrutiny of designs and processes** through value engineering to ensure efficiency and sustainability
  - **Ensuring that sustainability is an important design consideration** from the outset and that design decisions take into account sustainability outcomes
  - **Identifying and implementing** enhancement opportunities.
- **Contractors**, including but not confined to mainstream civil engineering, landscaping and utilities contractors, and electrical and mechanical engineering contractors involved in infrastructure.

Reported benefits from project contractors using CEEQUAL include:

- **Cost savings** driven by sustainability considerations such as reduced resource consumption and alternative material choices
- **Being a key driver for delivery and implementation** of environmental and sustainability improvements initiated on projects
- **Improving project management**, providing a systematic approach to tracking management activities and associated sustainability effects within an overall framework of best sustainability practice
- **Being used as a robust tool to analyse and evaluate sustainability** throughout the construction phase
- **Helping to develop a positive performance attitude** and promoting project team cohesiveness
- **Increasing competitiveness** between project and contract teams.



Glenkerie Wind Farm, Scottish Borders achieved an overall 'Very Good' CEEQUAL rating



# CEEQUAL's origins, progress and operation

CEEQUAL was originally developed between 1999 and 2003 by a team led by the Institution of Civil Engineers, supported by its Research & Development Enabling Fund and the UK Government.

By the start of 2015, more than 260 Final Awards and almost 100 Interim Client and Design Awards have been achieved. More than 250 further projects and contracts are currently being assessed. The civil engineering value of work that has been or is currently being assessed exceeds £25 billion.

It is now operated by – and continues to be developed on behalf of the industry and profession by – CEEQUAL Ltd, owned by a group of 14 organisations who are actively involved in the operation of the Scheme and/or were involved in the project that developed the Scheme. They include the Institution of Civil Engineers (ICE), the Association for Consultancy and Engineering (ACE), the Civil Engineering Contractors Association (CECA) and the Chartered Institution of Water and Environmental Management (CIWEM). CEEQUAL is operated on a not-for-profit basis by a Scheme Management Team provided jointly by Crane Environmental Ltd, CIRIA and Responsible Solutions Ltd.



(credit: Biogen)

Bygrave Lodge Anaerobic Digestion Plant, Hertfordshire, achieved an overall 'Excellent' CEEQUAL rating with a score of 75.5%

## How CEEQUAL works?

CEEQUAL uses a self-assessment process in which CEEQUAL trained-Assessors rigorously assess project or contract strategy and performance on a range of environmental and social issues, arranged in nine sections (see pages 14-15). Upon completion of each Assessment, it is externally verified by a CEEQUAL-appointed Verifier, and then ratified by the Scheme Management Team.

Assessors use the appropriate CEEQUAL Manual to score performance against questions relevant to their project or contract. Assessors must do this by collecting evidence to support their scores for each question, using our Online Assessment Tool for capturing those scores and evidence commentary.

Once the Assessment score is ratified, the project or contract team is granted an Award based on the percentage score achieved. They are then presented with a CEEQUAL Award certificate that demonstrates their level of achievement on the Pass – Good – Very Good – Excellent scale.

# CEEQUAL's place within civil engineering

## Civil engineering, CEEQUAL and their economic, environmental and social context

Civil engineering provides infrastructure on which we all depend, and shapes and influences the environment in which we live, for the benefit of society. It is aimed at delivering an enhanced quality of life to the community/communities it serves. Modern life is only possible because of the infrastructure provided by engineering clients, designers and contractors. Many civil engineering projects intrinsically improve environmental quality and human well-being, for example water & waste-water treatment plants and sewerage schemes, city metros and railway projects, land contamination remediation schemes and flood alleviation, as well as works in public spaces such as pedestrianisations, enhancements of public spaces and refurbishment of parks. In addition, the proper maintenance and progressive improvement of infrastructure through effective work under Term Contracts is vital to the sustainable management of that infrastructure, and its continued capacity to serve society.



Thameslink programme, Farringdon Station redevelopment achieved an overall 'Excellent' CEEQUAL rating with a score of 90%



M25 DBFO Section 4b (J28 to 29) Scheme achieved an overall 'Excellent' CEEQUAL rating with a score of 83.7%

Despite substantial improvements in practice over recent years, some of them prompted by CEEQUAL, civil engineering and public works are still perceived by some sectors of society as always having a damaging effect on the living environment. There remains substantial pressure to reduce adverse environmental impacts during construction, to improve whole-life performance and to maximise the benefits of such works. Schemes not built to exacting environmental and social performance standards, or that use environmentally or socially intrusive and damaging construction processes, risk alienating communities and bringing the whole construction process and industry into disrepute.

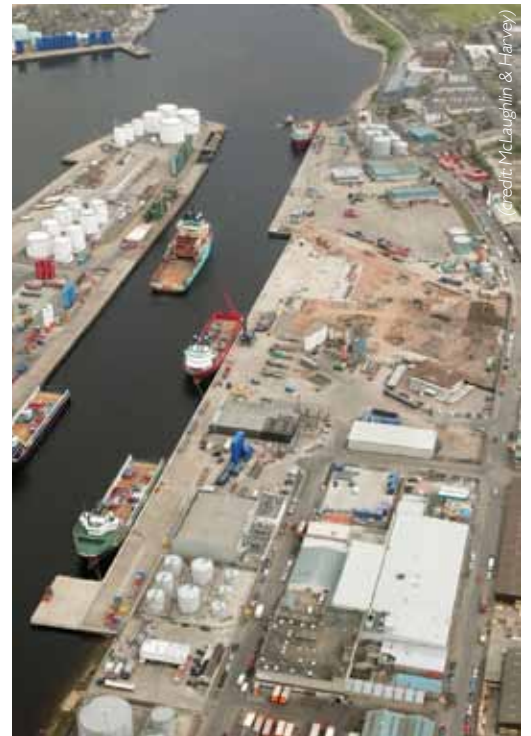
The CEEQUAL Methodology seeks to address these issues and to improve the sustainability performance of civil engineering, infrastructure, landscaping projects and contracts, and works in public spaces. It does so by providing an incentive to clients, designers and contractors to undertake projects that:

- Are demonstrably contributing to more-sustainable living;
- Are adopting best environmental, economic and social practice;
- Are therefore delivering more-sustainable civil engineering, infrastructure, landscaping and public realm works.

# CEEQUAL and Sustainability

Using the three-pillar model of sustainable development – which seeks to achieve economic, social and environmental success at the same time and is thus connected to triple-bottom-line reporting – CEEQUAL can be seen to complement the planning system and clients' financial and economic models. It assesses a wide range of economic, environmental and social issues, including a project or contract's effects on neighbours, and community relations more generally.

In 2012, a Project Strategy Section was added to CEEQUAL for Projects, and a Client Contract Strategy Section to CEEQUAL for Term Contracts. CEEQUAL therefore now includes assessment of 'worthwhileness' alongside indirect economic issues through consideration of energy, materials and waste that can significantly influence the financial outcome of a project or contract. It also covers the wider economic, social and environmental impacts and benefits of the project or contract. CEEQUAL as a rating system does not assess the wisdom of clients or the planning system in promoting and allowing works to proceed. However, it does assess whether a project or contract is helping the community(ies) it serves to live more-sustainably.

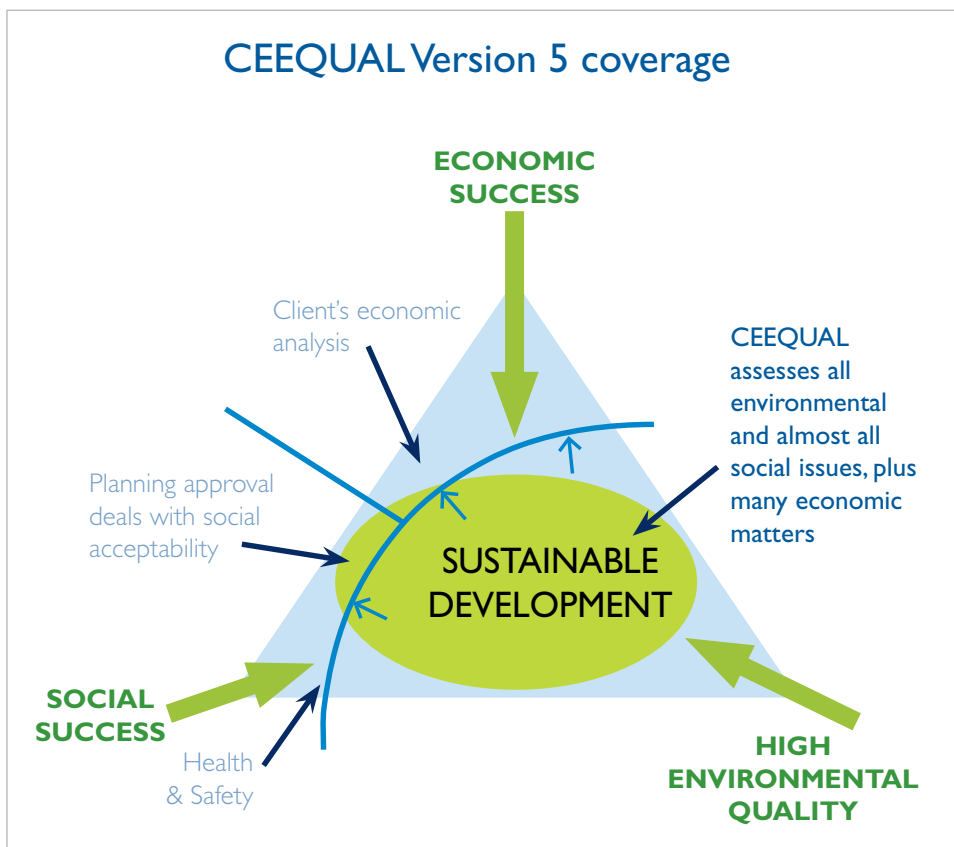


Tory Quay Redevelopment achieved an overall 'Excellent' CEEQUAL rating with a score of 80.5%

By promoting the development of appropriate strategies, and the use of environmental and social best practice, and then measuring environmental and social performance, CEEQUAL is now a tool that assesses the full sustainability credentials of projects and contracts. It also supports the strategies of the UK Government and other Governments by providing the infrastructure professions and industry worldwide with an incentive and protocol for assessing, benchmarking and rating the

sustainability performance of projects and contracts as part of the industry's contribution to sustainable development.

The regular updating and upgrading of CEEQUAL has led to a progressive widening of its scope. The graphic illustrates the current almost-complete coverage in CEEQUAL of all of the characteristics of a 'sustainable development'. This leaves decisions on whether to proceed with projects where the CEEQUAL team and users believe they belong: with clients and the planning authorities.





# CEEQUAL for Projects

CEEQUAL for Projects has been specifically created for the assessment and rating of civil engineering, infrastructure, landscaping and public realm projects. The Scheme is available in two editions:

- **CEEQUAL for International Projects**
- **CEEQUAL for UK & Ireland Projects.**

The CEEQUAL Project Assessment process is applicable to all types and scales of civil engineering, infrastructure, landscaping and public realm projects, including the infrastructure associated with building developments, wherever the project is located in the world.

The primary differences between the International and UK & Ireland editions of the Assessment Manual for Projects are the nature and level of detail in the guidance provided, and the need on International Assessments for a weightings exercise to be undertaken in the locality of the project. The local weightings are needed to enable CEEQUAL to re-score the questions based on the local context. For instance, an International Assessment Manual based on local weightings has been produced for Hong Kong.

More detail on this requirement is in the International edition of the Assessment Manual for Projects, and instructions on how to do the weightings exercise are made available to Assessors when required.

## Award Types

There are six types of Award available, one for the whole project team, four for parts of the team where not all project partners can take part or where individual members of the team would like to have their own role assessed and recognised separately, and one interim award for clients and designers:

- **Whole Team Award** – full CEEQUAL Award applied for jointly by the client, designer and main contractor(s)
  - **Interim Client & Design Award** – available en route to a Whole Team Award
- **Client & Design Award** – for a joint application by the client and designer
- **Design Award** – for principal designer(s) only
- **Design & Construction Award** – for a joint application by the principal contractor and their designer
- **Construction Award** – for principal contractor(s) only.

*See page 12 to see a case study of a Project Assessment.*

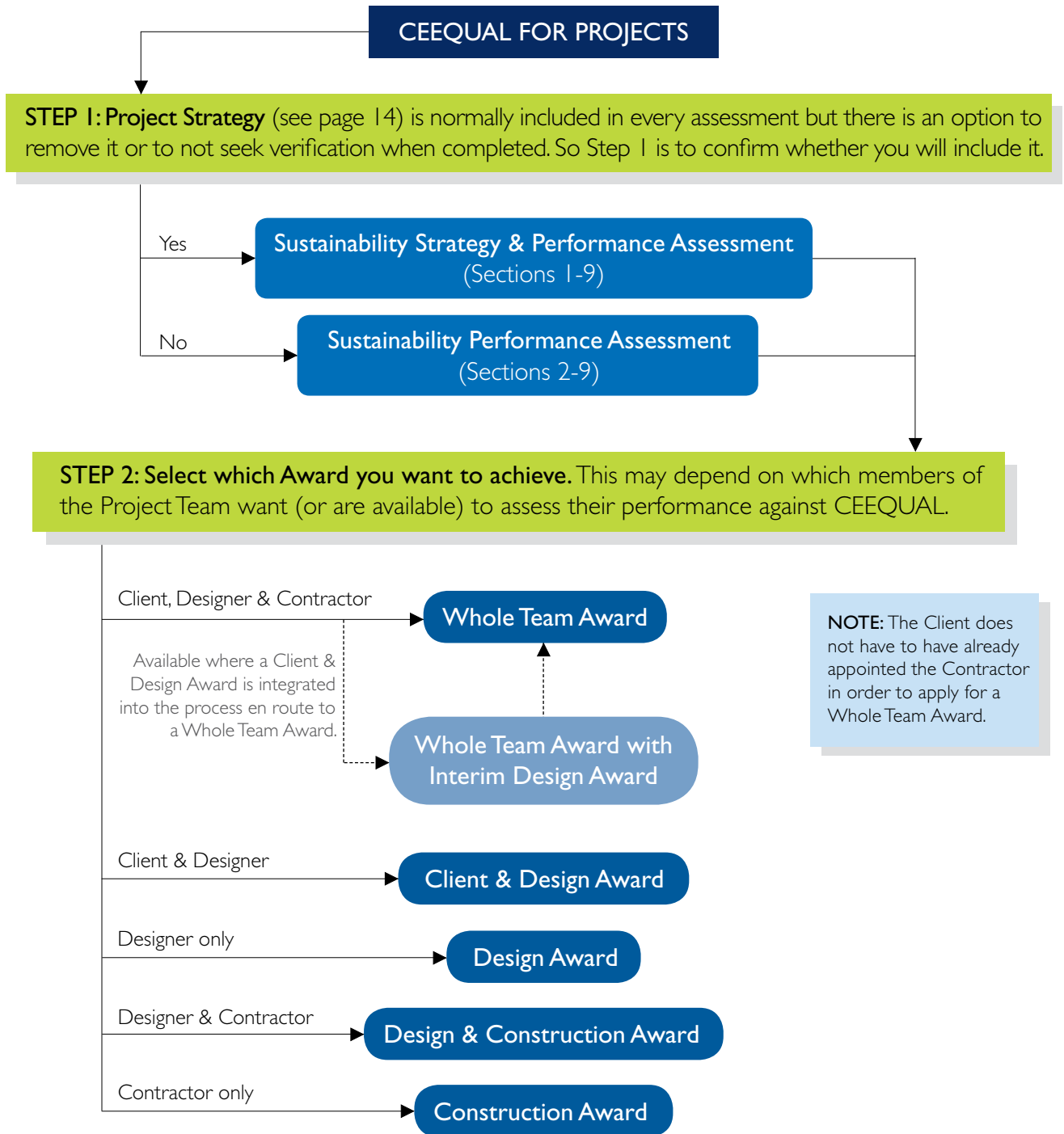
## Assessment Types

There are now two main types of Projects Assessment depending upon whether a project team's strategic approach to the project is assessed using Section 1:

- **Sustainability Strategy & Performance Assessment** – assesses the project against all sections of the Projects Assessment Manual (Sections 1 to 9).
- **Sustainability Performance Assessment** – assesses the project's team's performance against Sections 2 to 9.



# Choosing the right award scheme for your project...



## Example projects

Projects suitable for assessment using CEEQUAL include:

- Roads • Dams • Business parks • Canals • Bridges • Coastal defence works • Ports
- Flood alleviation • Reservoirs • Major highways • Park & ride schemes • Pipelines
- Power generation • Wind Farms • Public realm works • Pumping stations • Railway works
- Transmission systems • Wastewater treatment works • River engineering
- Sports stadia and other venues • Transmission systems • Waste transfer & recycling facilities
- Remediation works • Sea locks • Urban regeneration schemes
- Water treatment works • Anaerobic digesters • and more...

# CEEQUAL for Term Contracts

CEEQUAL for Term Contracts has been specifically created for the assessment of civil engineering and public realm works that are undertaken through contracts over a number of years and in a geographical or operational area. The benefits are primarily the same as for projects assessed using CEEQUAL but the methodology has been amended to suit the way these contracts are procured, managed and delivered.

With construction works orders for the individual jobs within the contract often running into 1,000s per month, not only is the nature of the work often different from projects, but its procurement and management are also different.

If a project involves construction of new works that comprise many small-scale focused and repetitive operations, for example linear projects like electrification of railways, then using the Term Contracts Assessment Manual for Construction of small or repetitive new works may be more appropriate than using CEEQUAL for Projects.

## Assessment Manuals

CEEQUAL for Term Contracts is presented in two Assessment Manual editions (Maintenance, and Construction of small or repetitive new works). Like CEEQUAL for Projects, the Term Contracts Scheme can be used internationally. However, at present, there are no separate International Editions of the Term Contracts Assessment Manuals. CEEQUAL will work with any party interested in using it in such locations and to generate the local weightings needed for local scoring. Please contact us if you are interested in using CEEQUAL for Term Contracts outside the UK.

## Award & Assessment Types

In contrast to CEEQUAL for projects, there are just two types of Assessment and Awards available for the Term Contracts Scheme. These are independent of whether the works are assessed using the Maintenance Assessment Manual, the Construction Assessment Manual or a combination.

- **Whole Team Award & Assessment** – available for use when the client mandates the use of CEEQUAL on a contract. Under this award Section 1: Client Contract Strategy is mandatory and the contract is assessed using Sections 1 to 9.
- **Delivery Award & Assessment** – available for where the contractor(s) and designer(s) making up the contract delivery team wish to use CEEQUAL to assess their performance without the direct instruction or involvement of the Client. With this award, Section 1: Client Contract Strategy is omitted from the assessment, and the delivery team assess their performance only against Sections 2 to 9.

Verified Assessments are undertaken in the first and penultimate years of the contract with surveillance visits by the CEEQUAL Verifier at least every year in between and in the final year before contract completion.

*See page 13 to see a case study of a Term Contract Assessment.*

# Choosing the right award scheme for your contract...

## CEEQUAL FOR TERM CONTRACTS

**Step 1: Is the whole contract team – the client and the delivery team – seeking to have their work assessed together?**

**Yes** – then you will be undertaking a Whole Team Assessment and seeking a matching Whole Team Award, assessing the work under the contract using Sections 1 to 9

**Whole Team Award & Assessment**  
(Sections 1-9)

**No** – then the Delivery Team can assess their part in the contract using the Delivery Team Assessment and Award, assessing the work under the contract using Sections 2 to 9

**Delivery Award & Assessment**  
(Sections 2-9)

**Step 2: Which Assessment Manuals should you use?** The answer to this is governed by the nature of the work to be undertaken and whether it is maintaining an existing asset, creating new or significantly modified assets, and a mix.

**Maintenance:** For works such as highway repairs and resurfacing in a county or borough over a period of five years, bridge repairs and maintenance, and rail track maintenance in a Network Rail operational area. The work may involve a number of different types of work across the operational area at different times, and the precise nature, scope and location of all the works to be undertaken may not be known at the beginning of the contract.

**Maintenance Manual**

**Construction:** In the example given above of the electrification of railways, this may involve three or four types of work such as bridge raising, track lowering, installation of the gantries and overhead power lines, and the installation of the power supply and distribution facilities. For highways, this could include a workstream of remodelling junctions that is included in what is otherwise a maintenance contract. It may also include significant modification of existing assets that includes new works.

**Construction Manual**

**NOTE:** For contracts whose scope includes both maintenance and construction works, both Assessment Manuals are used, the assessments are undertaken in parallel within the overall assessment, and the scores aggregated to arrive at an overall score.

## Example term contracts

Example contracts include:

- Highway, rail or sewer maintenance
- Regular interventions in rivers or drainage channels to maintain channel capacity
- A series of minor new works such as road junction remodelling, track renewals and minor realignments

# Example of a Projects Assessment

## Blackfriars Bridge and Station Refurbishment

**Whole Project with Interim Award – Rating: Excellent (92.4%)**

*Winner of a CEEQUAL Outstanding Achievement Award 2013 for Energy & Carbon*

Client: Network Rail | Design: Jacobs Engineering, Tony Gee & Partners | Construction: Balfour Beatty Civil Engineering

### OVERVIEW

As part of the Network Rail £6 billion Thameslink Programme, Blackfriars Station was transformed in order to facilitate increased Thameslink train and passenger capacity (50% longer trains and trebling of frequency, equalling 14,500 extra passengers a day in 2018). At Blackfriars, the 1886 Victorian railway bridge was transformed to create a new landmark and is now the first UK station to span a river – the River Thames. The station with its new entrance on the south bank, the first building constructed in this location for over 120 years, will now also provide passengers with direct access to the area's leading cultural attractions.

The improvements made at Blackfriars station will not only provide a better journey experience for passengers but also provide a more sustainable station.

To help the station become more sustainable, over 6,000m<sup>2</sup> of solar photovoltaic panels were incorporated into the new roof of the historic structure, making it the largest roof array in the UK. The installation was complex, working over a river and next to live overground and underground railways, but with the help of the CEEQUAL process this was overcome.

The roof provides 1.058MW of renewable electricity at its peak (up to 50% of the station's energy) powering lighting, ticket machines, staff accommodation and office facilities with any excess electricity being fed back into the National Grid. The energy generated by the cells will reduce carbon dioxide emissions (CO<sub>2</sub>) by 550 tonnes a year, equivalent to flying from London Heathrow to Sydney, Australia and back approximately 75 times.

The project took full advantage of its unique location and was able to use barges to remove and deliver materials via the River Thames. Over the course of the project, 14,000 tonnes of materials were brought to site and 8,000 removed via barge. Using this method, approximately 2,000 lorries and 9 tonnes of CO<sub>2</sub> were removed from London's roads.

### BENEFITS OF CEEQUAL TO THE PROJECT

A key driver for the Blackfriars Station project was to achieve best in class performance in sustainable design and construction and, to that end, the project team sought to achieve standards to far exceed basic requirements by targeting a CEEQUAL 'Excellent' award. In 2012, the Blackfriars Station redevelopment project was awarded Thameslink's highest CEEQUAL Whole Project Award scores to date at 92.4%.

A significant part of the construction power supply was redesigned to reduce the amount energy used during construction and achieve such a high CEEQUAL score. The number of generators from the original design requirement for all tower cranes and site temporary power were able to be reduced from four to three. This small change saved approximately 2.8 tonnes of CO<sub>2</sub> (equating to £1,200 per week in hire costs and reduced fuel movements). To enable construction work to continue on the bridge without the need for multiple generators, a power cable was routed across it. This also reduced fuel movements and associated noise and air quality issues.



Blackfriars Tube Station

To view further Project Assessment case studies, please visit:  
[www.ceequal.com/case\\_studies.html](http://www.ceequal.com/case_studies.html)



# Example of a Term Contracts Assessment

## London South Area Highway Maintenance

### Term Contracts Award – Rating: Excellent (78.6%)

Winner of a CEEQUAL Outstanding Achievement Award 2013 for Contract Management

Client: Transport for London | Construction: EnterpriseMouchel [now EM Highway Services Limited]

#### OVERVIEW

In 2007, EnterpriseMouchel (EM) was tasked with providing maintenance activities and ad-hoc improvements works for the southern Highways and Maintenance Works Contract (HMWC) area of the TfL Road Network (TLRN). Using specific requirements (such as Environmental Service Performance Indicators (SPIs), the formulation of an annual Sustainability Plan and ISO 14001 accreditation) the contract management team established an outstanding framework whereby the environmental impacts and opportunities for environmental enhancements were identified, assessed, managed and monitored. Partnership between client and contractor was a key driver to the contract management's success.

TfL asked EM to take part in piloting CEEQUAL for Term Contracts. This was good timing as the pilot took place during the last year of the HMWC contract, which meant that not only were TfL and EM able to assess their sustainability credentials, but they were also able assist CEEQUAL in developing the Term Contract Assessment and Award Scheme. Lessons were learnt, which stood TfL in good stead for the new highway and works maintenance contract (LoHAC).



Winter maintenance



Road-side planting

#### ACHIEVEMENTS

100% of the fleet vehicles met Euro 4 and 5 emission standards (SPI 22); 99.7% of excavated and 96.4% of non-excavated construction and demolition waste was reused or recycled (SPI 24/25); EM provided free expert advice to supply chains used to develop and implement environmental management systems; the Team worked with TfL in the formulation of a climate change adaptation action plan; the Team won on multiple other awards such as Transport Partnership of the Year at the London Transport Awards, and platinum award from the Mayor of London Green500 scheme for reductions in CO<sub>2</sub> emissions.



Emergency response to oil spill



Road resurfacing

To view further Term Contracts Assessment case studies, please visit:  
[www.ceequal.com/case\\_studies.html](http://www.ceequal.com/case_studies.html)

# Technical coverage of CEEQUAL

The Assessment questions, guidance on how to address them, guidance on scoping-out, and evidence guidance are all provided in the Assessment Manuals to CEEQUAL Methodology Version 5. The Assessment Manuals for Projects are for use on the assessment of civil engineering, infrastructure and landscaping or public realm projects with a clearly defined project boundary and timescale. The Assessment Manuals for Term Contracts are used to assess of civil engineering maintenance or construction works undertaken under contracts defined by their geographic area and time period.

All Assessment Manuals have the same structure in nine sections (as explained below) and similar question topics, but there are some differences between the questions in the Projects and Term Contracts Manuals, and between the Maintenance and Construction editions of the Term Contracts Manuals, all related to the nature of the work being assessed.

## Section I: Project/Contract Strategy

**I. Project Strategy** assesses how the project team has related their project to the wider sustainability agenda surrounding civil engineering and infrastructure projects, and their contribution to 'sustainable development'. It prompts project teams to ask themselves such questions as 'Is there evidence that the client and designer have actively adopted the principles of sustainable development in the planning and design of the project?' and to undertake studies of the project and its likely impacts to a wider remit than just the interests of the project's promoter. The aim is that the results might then lead to improvements, and to a judgement by the project team on whether their project is assisting the communities it serves to move on the pathway to more-sustainable living.

**I. Client Contract Strategy** assesses how the client has related their contract to the wider sustainability agenda surrounding civil engineering and infrastructure assets, and how their maintenance and refurbishment contributes to 'sustainable development'. It prompts clients to ask themselves whether the maintenance strategy for the assets within the contract enables those assets to continue to operate in a way that helps the communities which they serve to live more sustainably. However, it does not assess the judgement of the client in setting the scope and objectives of the contract, for example whether it is seeking to enhance the asset's functionality, merely maintain it at present levels or manage it down prior to closure and replacement.

These Strategy Assessments are subject to adjudication by a CEEQUAL Panel whose members are independent of the team undertaking the works.



Project team receiving their 'Excellent' CEEQUAL rated certificate (score of 94.6%) for Parc Cybi



M60 Junction 5-8 Widening achieved an overall 'Excellent' CEEQUAL rating with a score of 82.4%



Forth Replacement Crossing achieved an overall 'Excellent' CEEQUAL rating with a score of 92.7%

## Sections 2-9:

**2. Project or Contract Management** considers how environmental and sustainability issues are being incorporated into the overall management of the project/contract. It covers a number of issues ranging from environmental management practices and training through to how the procurement processes consider environmental performance. It assesses what is being built and how it is built, so references to sustainability and social issues throughout the Manual refer to the social issues that arise from developing, designing and constructing the project/contract, rather than the broader issues of social acceptability of the project/contract.

**3. People and Communities** addresses a wide range of positive and adverse impacts on people affected by the project or contract and/or on the wider communities served by or affected by the scheme. It covers minimising operation- and construction-related nuisances, legal requirements, community consultation, community relations programmes and their effectiveness, engagement with relevant local groups, and human environment, aesthetics and employment. A few questions include within the definition of 'communities' the wildlife that may also be neighbours to a project or contract.

**4. Land use and Landscape** covers issues affecting land above and below water such as design for optimum land-take, legal requirements, flood risk, previous use of the site, land contamination and remediation measures, and applies to conventional land use, and to use of the seabed, and the beds of estuaries, rivers and lakes. This part of an assessment also covers consideration of landscape issues in design, amenity features, local character, loss and compensation or mitigation of landscape features, implementation and management, and completion and aftercare.

**5. The Historic Environment** covers baseline studies and surveys, conservation and enhancement measures to be taken if features are found, and information and public access. Recent additions to this section are how to address issues of historic assets under water, such as shipwrecks, old Roman jetties, old sea or river walls.



Trafikplats Jära Gård (Sweden) achieved an overall 'Very Good' CEEQUAL rating



White Cart Flood Prevention Scheme achieved an overall 'Excellent' CEEQUAL rating with a score of 76.5%



Foryd Harbour Public Realm achieved an overall 'Excellent' CEEQUAL rating with a score of 84.0%

**6. Ecology and Biodiversity** covers impacts on sites of high ecological value, protected species surveys, conservation and enhancement, habitat creation measures, monitoring and maintenance.

**7. Water Environment (fresh & marine)** covers control of a project or contract's impacts on, and protection of, the water environment, legal requirements, and enhancement of the water environment wherever practical.

**8. Physical Resources Use and Management** covers the impacts of using the very wide range of physical resources needed for civil engineering projects or contracts. The questions cover: life-cycle analysis; energy and carbon emissions in use; energy and carbon performance on site; minimising material use and waste; responsible sourcing of materials including selection of timber; using re-used and/or recycled materials; minimising use and impacts of hazardous materials; durability and maintenance; and future de-construction or disassembly; design for waste minimisation; legal requirements; waste from site preparation; minimising water consumption and embodied water; policies and targets for resource efficiency; and on-site waste management.

**9. Transport** covers location of a project/contract in relation to transport infrastructure, minimising traffic impacts of a project/contract, construction transport, and minimising workforce travel. A new approach in this section is relating the assessment to whether the project/contract is part of the transport network, a destination that places extra demands on transport networks, or other schemes with more-limited impact on transport infrastructure. Questions cover the project/contracts' relationship to transport infrastructure, access for pedestrian and cyclists, need for additional transport infrastructure arising from the project/contract, resilience of the network, and performance for non-motorised users.





# CEEQUAL

*IMPROVING SUSTAINABILITY THROUGH BEST PRACTICE*

Civil Engineering – Infrastructure – Landscaping – Public Spaces

Supported by:



All enquiries: +44 (0)20 3137 2379 | [support@ceequal.com](mailto:support@ceequal.com)

 [@CEEQUALnews](https://twitter.com/CEEQUALnews)

[www.ceequal.com](http://www.ceequal.com)