

DELIVERING COST AND TIME CERTAINTY FOR RENEWABLE ENERGY

**EC HARRIS
BUILT ASSET
CONSULTANCY**

DELIVERING COST AND TIME CERTAINTY



Across the international community there is a broad commitment to achieving a target of 20% renewable sourced energy by 2020. That is a ten-fold increase in renewable energy consumption from where we are today and represents a global capital investment programme that will top \$1.5 trillion over the next ten years.

There are fundamental challenges facing renewable energy clients in the planning and delivery of these major capital programmes. These include; identifying the most profitable markets, maximising value from the project portfolio, actively managing project risks; being aware of local market needs when competing for projects, and seizing the opportunities from national and international regulations and subsidy regimes.

At EC Harris we understand the issues renewable energy clients are presented with when securing their market position and maximising returns from their investment. Our expertise is centred on optimising cost, time and risk around the delivery of renewable energy investment.



“There is a broad commitment to achieving a target of 20% renewable sourced energy by 2020.”

INCREASED SPEED TO MARKET



For wind energy to be a feasible investment, financing institutions and generation companies need re-assurance that projects can realise their potential for generating energy within a time frame that meets the investment case.

To accelerate the speed to market developers need to embrace a commercial approach to project delivery. Cost and financial modelling, for example, will enable the right contract and supply chain strategies to be formed from the onset, thus mitigating some schedule risk from the delivery phase.

By creating partnering models and collaborative supply chain arrangements, developers will deliver savings in both time and cost; which will enable the delivery and certainty of investment goals to be achieved. Fostering closer working relationships with the supply chain and best practice delivery concepts will create an environment of commitment and mutual trust. Getting the right balance of control and collaboration between the developer and the supply chain tiers will be crucial.

To meet the energy supply challenge of the next decade, the renewable sector has to raise its game. It will only achieve this by adopting new and innovative ways to deliver projects which dramatically reduce project lead times. The team at EC Harris can help you predict and overcome obstacles, and steer projects - and the people involved in them - towards a positive outcome.



“To meet the energy supply challenge of the next decade, the renewable sector has to raise its game.”

INNOVATIVE FORMS OF CONTRACT HELP COST AND TIME CERTAINTY



Poorly drafted contracts with impractical allocation of risk and a limited knowledge of the particular risks of this industry will prove to be expensive traps for the unwary.

The market needs to look for ways to improve certainty of cost outcomes by the application of cost modelling, programme management and allocation of risk. The most appropriate contract should be the product of a meticulous technical and commercial appreciation. This will allow the client to identify and manage commercial and time risks prior to reaching the issue of contract documents. Front end investment in getting the contract right can reap rewards later.

Risk management is a key part of the process to achieve realistic commercial arrangements. Success in contracting for the wind market is going to be heavily dependent upon the quality of the overall management of the whole supply and value chain; so that it meets the client's ultimate goals and objectives.

At EC Harris, we are able to apply our core commercial, programme and cost management skills to our specific wind and energy sector knowledge to offer a way forward to clients entering and working in this potentially rewarding but high risk market. We identify the procurement strategy that best meets your business needs then we back it up with legal and contractual documents that make it clear to everyone what's expected of them.



“The market needs to look for ways to improve certainty of cost outcomes.”

**A CLEAR VISION AND
ALIGNED OPERATING MODEL
CAN DELIVER 25% EFFICIENCY
SAVINGS**



Key attributes can enable efficiency and cost savings of up to 25% on major projects. The key factors are; an aligned vision and strategic business objectives; clear visibility of the programme/project of works; an operating model and organisation structure that is aligned to the delivery challenge and a supply chain that is aligned to the delivery requirements.

Stakeholder alignment with the overall vision and objectives will drive accountability and ownership. To make this effective there needs to be agreed leadership in place, with appropriate governance to keep focus plus clear and strong sponsorship at board level.

Programme and project visibility defines exactly what you need to deliver as a business and defines the operating model and supply chain requirements. Without this in place we often see significant wastage around their supply chain and overhead costs. A clear understanding of the vision and the strategy is crucial to designing the right organisation and to developing the journey required to get to where they want to be.

EC Harris will help to ensure an optimal operating model that is aligned to the delivery requirements that will enable the right levels of control and governance around key functions such as planning, procurement, cost and commercial management. We help clients focus on where the opportunities lie to increase business effectiveness. We design and facilitate that change through re-aligning the organisation to its strategy.



“Key attributes can enable efficiency and cost savings of up to 25% on major projects.”

**BETTER SUPPLY CHAIN
ENGAGEMENT DELIVERS
GREATER CERTAINTY OF
OUTCOME**



There will be huge pressure on supply chains over the next few years. With wind turbines in particular currently reliant on just three mainstream turbine suppliers. There is still significant opportunity to substantially mitigate risk.

We need to get smart around how we procure, with securing the supply chain at the best possible price being one of the key issues challenging all developers. We need to focus our approach on long term solutions considering programmes of works instead of individual projects, focusing on two way relationships with suppliers where innovation and efficiencies are encouraged.

Examples of the approaches that we need to take include: contracting directly with key material suppliers to secure supply and price for steel for the towers and copper for the cabling; putting in place agreements with suppliers with mechanisms to protect competitiveness of pricing and encourage innovation and efficiencies as part of the solution; and collaborative design workshops to establish the most efficient solutions.

Our specialist team makes your supply chain work harder to support your business goals, delivering more value at less cost. From the outset, we work closely with you to extract value from every link in your chain - not just through procurement, but through the design, planning, build, logistics and maintenance phases of a project.



“Our specialist team makes your supply chain work harder to support your business goals.”

**MITIGATING CONSTRUCTION
RISK ENSURES PREDICTABILITY
OF COST AND TRANSPARENCY
OF THE TIME SCHEDULE FOR
CHALLENGING PROGRAMMES**



Most parties involved in the creation of built assets understand the importance of visibility and predictability surrounding the cost and delivery window. Providing certainty around the capital investment risks which peak during the construction stage of a build is critical.

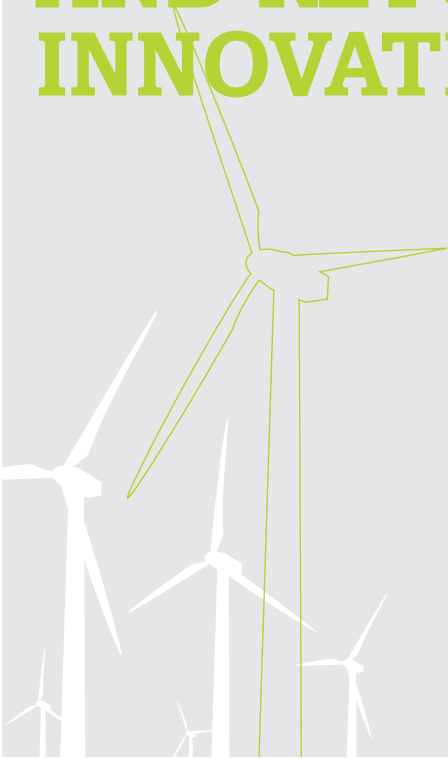
Our understanding of clients' appetite for risk and desired outcomes from built assets allows us to deliver cost and time certainty centred on their investment objectives.

Understanding, mitigating and managing construction risk will provide a commercial platform for a successful long term business for investors, owners and the supply chain alike.



“EC Harris delivers positive outcomes to successfully deliver challenging programmes.”

MAXIMISING ASSET VALUE AND RETURNS FROM INNOVATIVE TECHNOLOGIES



Commercial property asset owners and investors are increasingly seeking opportunities to diversify and reduce the investment risks from their portfolios. Many of them are now turning to rooftop photovoltaic schemes to provide a new revenue stream.

The guaranteed income from what was previously 'dead space' has a resultant increase in the asset value. Carbon emissions are also reduced and can be offset against carbon taxes or penalties. The environmental kudos and green credentials are also increasingly important in attracting new tenants.

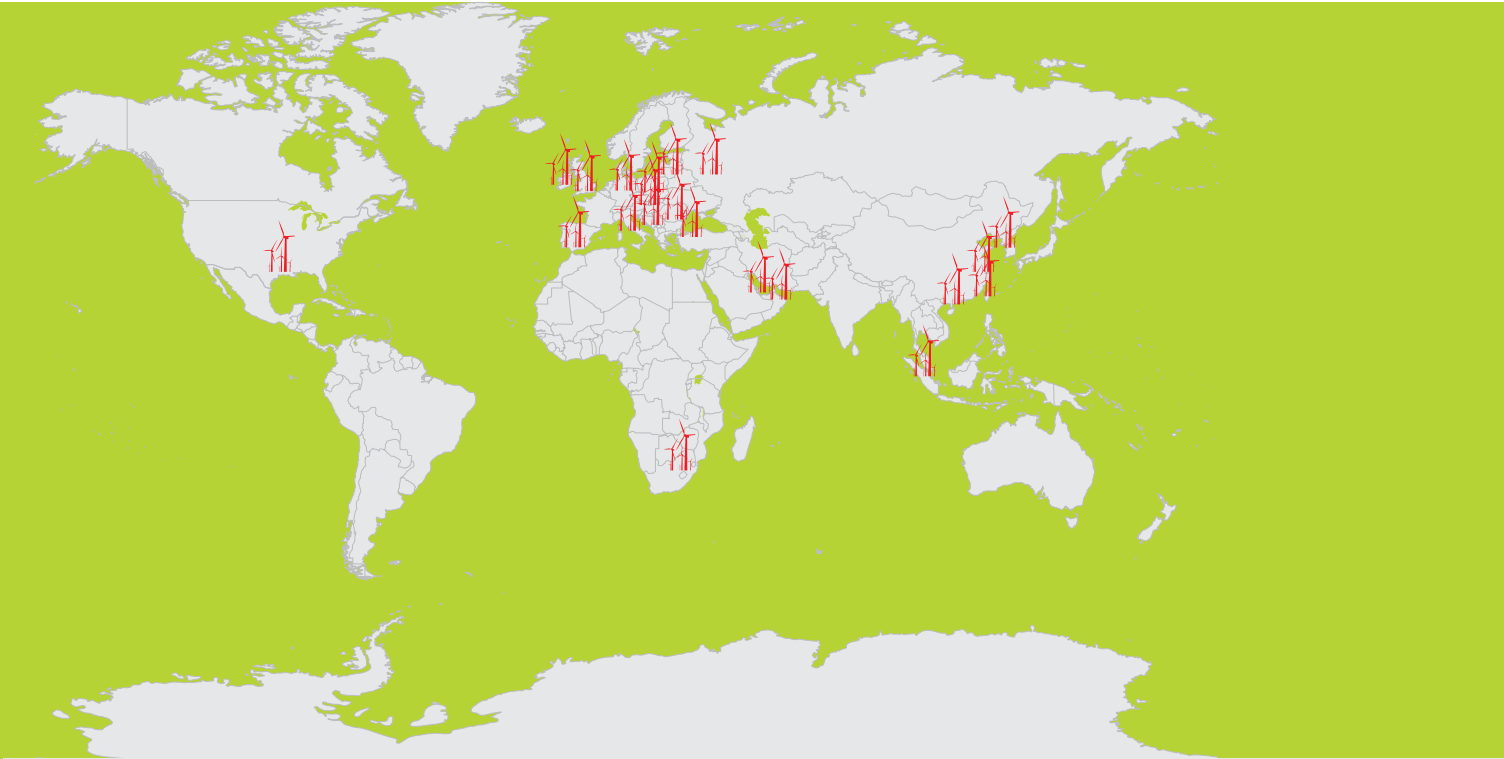
The two most obvious approaches are to identify a rooftop rental income stream via a Special Purpose Vehicle or developer and operator who will pay the asset owner rental income for using the roof space over 25 years. The other approach will be via the asset owner themselves commissioning a rooftop electricity generation stream to offset the consumption of the asset or for sale back to the grid.

We have a team of experts with the capability to set up and deliver major rooftop and land based photovoltaic installations across Europe. Our team can deliver increased market share and profitability to Special Purpose Vehicles by accessing our international client base. We provide an increased certainty of outcome for asset owners due to the depth of our procurement and delivery expertise.



“Our team also secures greater returns in an unproven market for lenders and investors through our knowledge of the technical and financial robustness of photovoltaic projects.”

**BECAUSE WE CAN BE
EVERYWHERE, WE ARE
NEVER FAR FROM WHERE
OUR CLIENT'S NEED US...**



World map showing the distribution of wind turbines (red icons) across various regions, including North America, Europe, and East Asia.

**“RELATIONSHIPS WITH OUR
CLIENTS ARE BUILT ON A
CLEAR UNDERSTANDING,
MUTUAL SENSE OF PURPOSE,
AND A TRACK RECORD OF
DELIVERY...”**

TO FIND OUT MORE ABOUT HOW EC HARRIS CAN DELIVER COST AND TIME CERTAINTY FOR YOUR INVESTMENT PROGRAMME, CONTACT OUR TEAM...



Paul Stapleton

Partner, Head of Energy & Manufacturing

t +44 (0)1642 343 441
m +44 (0)7747 007 127
e paul.stapleton@echarris.com



Mathew Riley

Partner, Group Head of Cost & Commercial

t +44 (0)20 7812 2296
e mathew.riley@echarris.com



Mark Stewart

Partner, Energy Sector

t +44 (0)1642 345 608
m +44 (0)7824 824 214
e mark.stewart@echarris.com



John Atkins

Partner, Location Leader - Germany

t +49 (211) 913 76 500
e john.atkins@echarris.com



Sarah Kellerman

Associate, Contract Solutions

t +44 (0)1642 343 454
m +44 (0)7810 850 387
e sarah.kellerman@echarris.com



Nigel Miller

Partner, Head of Programme Management

m +44 (0)7810 850 052
e nigel.miller@echarris.com

w echarris.com/renewable

EC Harris LLP

ECHQ

34 York Way

London

N1 9AB

t +44 (0)20 7812 2000

f +44 (0)20 7812 2001

7567B



Printed on recycled paper