



Your Bespoke Quotation & Proposal For

Essar Oil UK
Radio System Replacement

Prepared for: Hemant Raste

18-01-2018 validity 60 days



Prepared by:

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THANK YOU

Thank you for the opportunity to submit a proposal for your radio system requirements. We value your business and always seek to provide the most technically appropriate solutions at the most competitive price.

KEY COMMERCIAL CONSIDERATIONS

Designed for the long term

All radio system infrastructure and hand portable radios are supplied inclusive of lifetime licenses to operate at full capacity. All hand portable radio are supplied inclusive of an extended three year manufacturer warranty.

Accommodate expansion

Your system has been designed with expansion in mind. The proposed site infrastructure is ample for current and projected needs. However, should further expansion be required in the longer term - the infrastructure has capacity and space for further repeaters and a two channel spare capacity on the antenna combining. This mitigates the most expensive element of any future system expansion.

Minimising spares holding

Your system has been designed to minimise where possible the number of different components. The greater the use of common system parts, the lower the spares holding and management costs need be. This extends to the radio fleet - TES offer one model of radio for the entire fleet. TES offer the most highly featured and configurable hand portable (including display and keypad) which can be used by any user.

UK based manufacturer technical support & product maturity

Unlike alternative manufacturers, Tait has invested in UK based manufacturer level technical support. TES work directly with Tait and have direct access to all levels of support and management. In addition, being initially released in 2009, the Tait Tier III software platform is by some margin the most mature and proven of all manufacturers. Given the maturity of the product Tait guarantee to fix or upgrade software faults that may occur throughout the life of the system at no additional cost.

TES Proximity & Site Experience

Having had many years' experience of operations at Stanlow and Tranmere – TES have a unique insight to quantify need and risk to formulate a proposal that can be delivered quickly and efficiently.

Full service provision - including mast works

TES is uniquely able to provide mast rigging service delivered by our in-house climbing team. As such, the full range of services required to deliver your system (from design to through to installation, testing and commissioning) will be delivered by TES personnel. Non reliance on third parties provides a level of flexibility that permits an installation phase that is not only efficient but with minimal operation impact.

Risk Management

All TES system deployments are fully Prince 2 standard project managed and fully documented. This includes key agreed milestones including Functional Design Specification (FDS), Factory Acceptance Testing (FAT) & Site acceptance Testing (SAT).

Essar Radio Replacement Project



Pricing for: Essar - Ellesmere Port & Tranmere
 Technology: DMR Tier III
 Principal Manufacturer: Tait Radio UK - www.taitradio.com
 To be read in conjunction with: Proposal Document Ref: CRN36318 Dated 3 January 2018
 Date: 18-01-2018 validity 60 days
 Status: **Commercial in Confidence**

Item	Description	Option Price	System Qty	System Unit Price	Line Total
Section 1 - System Infrastructure & Services					
1.1	Central Node Equipment (see section 6.7.1) <i>*this is the system control equipment and one lot is required as part of the master radio site</i> Incl. trunked node controller, lifetime DMR express licensing & dial-in functionality. Option: Duplicated Central Node (see report section 6.6 & 6.7.1) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> An always on standby central node with duplicated control database means that system wide functionality is maintained should the main central node be damaged or fail. Incl. Lifetime licensing. *Note central node hardware to be housed in existing on-site racking.	£5,950 £550	1	£5,745	£5,745
1.2	Radio Site Infrastructure (see report section 6.6) <i>*this is the infrastructure hardware required at each radio site</i> Inclusive of Tait DMR tier III repeaters catering for 6 time slots per site, power units, switch, antenna combining, antenna, cables, connectors & fixings.		5	£15,127	£75,635
1.3	Reditalk Dispatcher (see report section 6.7.3) <i>*this is the hardware and software required to provide the main security despatcher</i> Inclusive of PC based dispatch solution, enhanced GPS location services, telephone interconnect, radio gateway and licensing. Option: One Complete Backup Security Despatcher Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> Security despatch functionality will be maintained should the main security despatch PC be damaged or fail.	£4,800 £300	1	£8,305	£8,305
1.4	DFO Permit Allocation & DDR Pod Despatcher (see report section 6.7.3) <i>*this is the provision a fixed mobile radio despatcher solution</i> Inclusive of mobile radios, power supplies and installation hardware.		10	£578	£5,780
1.5	Stand Alone Options Option: Upgrade 6 x DFO Permit Allocation stations to IP connected devices Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> The DFO is located in a area of busy radio frequency. Whilst, based on survey, TES deems the radio despatcher solution above will meet your current needs you may wish to consider an IP connected alternative. This would protect the integrity of the system should the RF become further congested in the longer term. Option: Telephone Interconnect Functionality Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> Radio system calls can be made between radio terminal and telephone users. This option permits up to two concurrent interconnected calls. Option: System Wide 24/7 Voice Call Recording (see report section 6.7.2) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> Premium solution to record all calls to/from any user at any time. Cheaper options are available but would limit recordings to despatcher calls. Option: Wireless Data Link to Sub 77 (see report section 6.6) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> If connectivity to the radio site at Sub 77 cannot be achieved via the Essar network, this solution will transmit system data over the air.	£14,928 inclusive £2,150 £225 £18,950 £975 £1,750 £1,950			

Item	Description	Option Price	System Qty	System Unit Price	Line Total
	Option: On Frequency Repeater Solution at Pit (see report section 6.6.1) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> This solution is designed to provide radio coverage to the base of the Pit.	£8,495 £795			
	Option: On Frequency Repeater at SSV1 (see report section 6.6.1) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> This solution is designed to provide internal radio coverage at SSV1 due to its distance from No 9 Pump House & Store.	£8,495 £795			
	Option: Passive Antenna System at SSV2 (see report section 6.6.1) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> This solution is designed to provide internal radio coverage at SSV1 due to its distance from No 9 Pump House & Store.	£695 £1,200			
	Option: Battery Backup (per radio site) Design, build, integration & delivery of this option <i>Why might you choose to add this?</i> This solution is designed to provide battery backed up power supply in the event of a mains power failure. You can choose to install this at all sites, or chosen key sites.	£1,350 £350			
	Option: System Spares (see report section 6.7.5) <i>Why might you choose to add this?</i> A system design objective was to reduce as far as possible the recommended spares holding. For example using a single hand portable model means spares can be allocated to any user. Lot as defined in section 4 below.	lot £3,649			
1.5	Core System Design & Consultancy Inclusive of overall system consultancy project management, site analysis, system design (including provision of numbering scheme), system configuration, integration & formal documentation.		1	£10,995	£10,995
1.6	Radio Site Build & Delivery <i>*this represents the value added services required at the master site and each additional site thereafter</i> Inclusive of build, test & fully project managed delivery.		5	£3,995	£19,975
	Option: Basic User/Operator Training <i>Why might you choose to add this?</i> Short training sessions can be conducted at Stanlow for the operation of the new radios. These sessions are typically 20 minutes each and TES can conduct up to 16 sessions on one day. TES recommend no more than 15 trainees per session. We would also issue each trainee with a small crib card as an aide memoire whilst they become familiar with the new hand set.	£1,995			
	Option: Advanced Despatcher Training <i>Why might you choose to add this?</i> Despatcher users have more complex procedures to follow. TES would spend up to two days on-site providing interactive training and written instructions and guides.	£1,995			
	Option: Maintenance a. Two year back to base warranty on infrastructure and 3 year on hand portables b. Office hours maintenance incl. daily remote health check, annual system calibration and spares fleet management. c. Upgrade to 24/7 onsite attendance for infrastructure faults - SLA: first response 1 within hour - Site attendance within 4 hours	inclusive £8,995 £4,995			
Total Core System Net					£126,434

Section 2 - Hand Portable Fleet

2.1 Hand Portable Radio (see report section 6.7.5)

Tait TP9631 ATEX 16 key radio with display, battery and antenna (pricing for c400)	each	£510
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Section 3 - Genuine Accessories

3.1	ATEX battery for hand portable	each	£70
3.2	Single charger for hand portable	each	£58
3.3	Six way charger for hand portable	each	£299
3.4	External Speaker Microphone with Emergency button and 2.5mm jack	each	£101
3.5	Heavy duty headset - overhead	each	£160
3.6	Heavy duty headset - behind ears	each	£160
3.7	In ear earphone with 2.5mm jack	each	£29

Section 4 - Suggested Spares Holding

Pricing is provided in section 1.4.

Core Network Spares

**spares may change due to options selected*

Tait TB93 Reciter (reciever transmitter)
 TB93 Power Amilifier
 TB 9000 Power Supply
 TB93 Front Panel incl. fan trays
 Fixed Mobile Radio TM9355
 TM9355 Desktop Power Supply
 Network Switch
 Data Link

** we would also suggest 5-10% spares on hand portable radios and chargers*

This quotation is to be read in conjunction with TES 'Standard Terms & Conditions of Sale' which are available on request. All prices quoted are EXWORKS (Leyland). Incoterms 2010 apply.

Your contact for more information is :

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