

Delivery Focused Renewables

July 2020



Introduction

- Infinity Renewables delivers bespoke Project Management & Engineering services for renewables projects based on the global experience of our team of motivated, positive, and highly trained individuals, for clients that we trust.
- This document seeks to introduce Infinity, identify our core capabilities, and begin to elaborate on our ability to onshore and offshore renewable projects.





Infinity Core Values

- <u>Delivery Focussed:</u> We focus on the best for project delivery solution, not driven by any propriety equipment or system.
- <u>Bespoke:</u> We provide our clients with high quality bespoke engineering and management services aimed at de-risking the project. We are professional and experienced and maintain a track record of excellence.
- <u>Trustworthy:</u> We work with clients and colleagues that we trust. We are adaptable and resilient and our independence assures unbiased services for our clients in their best interest.
- Responsible: we work as a team and we take responsibility for our actions and the actions of the people we work with.







Robert Ash | Engineering and Installation Manager Over 25 years of Installation management and construction engineering in the offshore upstream oil & gas industry.

Paul Johnstone | HSE Manager

Over 20 years experience in a range of commercial, compliance, and HSE management roles, with a focus on offshore oil & gas and construction projects since 2008.





Geert Hulst | Project Director / Project Manager / Client Rep Over 25 years international EPIC experience in offshore construction. Specialist in project & operational management with P&L responsibility for over USD\$150M of projects.

Chris Merrick (CPEng) | Principal Subsea Engineer Over 18 years subsea projects, operations and IMR experience including commercial management roles specific to the offshore oil and gas industry.





Renewables Project Lifecycle

FEED

Approvals

Procurement

Construction

Installation

Commissioning

Operations

- Site Location, Layout Planning, Drawings
- Geotechnical, Structural, Electrical Engineering Design
- Project Engineering, Cost, Schedule, Constructability Review
- Final Investment Decision
- Capacity Credit Application
- Network Access Agreement
- Power Purchase Agreement (End Customer)
- Long Lead Items (Vendors)
- Consumables, Commissioning Materials, Site Setup
- Geotechnical Works, Service Contracts, Labour Hire Agreements
- Site Works (Levelling, Trenching, Foundations)
- Perimeter Fences, Installation of Temporary Buildings
- Preparation of Logistics Areas
- Logistics Management, Transportation and Material Management
- Structural Installation (Buildings, Switchgear, Foundations)
- Electrical Installation (Arrays / Collectors, Cables, Combiners, Inverters)
- Tie-backs, Unit/Assembly Tests, Electrical Loop Checks, Cable Protection
- Array Tests, System Tests, Switchgear Testing
- Automation / Control System Commissioning and Testing
- Load Testing, Metering, Network Integration Testing
- Energy Production
- Asset Integrity, Monitoring, Maintenance and Repair
- Reporting and Compliance, Audit, Safety Reviews





Infinity Capabilities

- DNVGL ISO 9001 Accredited Management System
- Project Management EPC/EPCM
 - Construction Management
 - Plans and Procedures
 - Cost, Scheduling, Tasking and Task Plans
 - Testing and Commissioning
 - Reporting and Documentation
- Engineering Management
 - Mechanical, Structural and Construction Engineering
 - Equipment Specification
 - Site Layout, Preliminary Sizing, Drawings
- Logistics
 - Procurement and Transport Scheduling
 - Delivery / Trip Planning
 - Marshalling, Packing and Decanting
 - Importation



Construction Management

- Project Management and Engineering
- Consulting services, constructability and risk reviews.
- Procurement and Subcontractor management
- Transportation, Logistics and Planning
- Broad range of package delivery experience
- Contracting strategy and budgeting.
- Offshore construction management, site supervision and HSE.
- Hook-up and pre-commissioning management



Installation Engineering

- Installation analysis, civil design, structural design
- Installation procedure development
- Heavy lift and load-out engineering
- Rigging design and lift planning
- Structural and procedural drafting
- Hydrodynamic lift analysis



Health, Safety and Environment

- HSE Management planning and document development
- Occupational health and safety
- Environmental management
- Site OH & S coordinators
- Safety system implementation
- Reporting and continuous improvement
- Lessons learnt workshops



Inspection, Maintenance & Repair

- Risk assessment, asset integrity and corrosion management
- Engineering Criticality Assessment
- IMR operations planning, execution and reporting
- Equipment Interventions
- Production operations and field operations
- Pipeline and structural inspection policy, plans, procedures
- Control System intervention and troubleshooting



Owner's Engineering

- Project construction cost estimating
- Construction vessel costing and benchmarking
- Loadout and ocean transportation studies
- Installation studies
- Feasibility, constructability, and design reviews
- Project risk profiling and risk workshops
- Contracting strategy development
- Tender document development
- Marine Warranty Surveyor interface
- Site representation





Renewables Projects

• Infinity has worked on the following projects, providing a range of construction and project management services:

| Year | Project | Client | Туре | Size | Status |
|------|----------------------|------------------|------------------|-------|--------------|
| 2019 | Solar PV Array | Confidential | PV, BTM* | 2MW | Tender |
| 2019 | Solar PV Array | Confidential | PV, BTM* | 1.1MW | Tender |
| 2018 | Jemalong Pilot Plant | Vast Solar | Solar Thermal | 1MW | Operational |
| 2018 | Solar PV Array | Confidential | PV, Grid Connect | 10MW | Shovel Ready |
| 2017 | Port Fairy | BioPower Systems | Wave | 250kW | Operational |



Offshore Projects

• Infinity have managed the procurement, construction, installation, operations and maintenance of subsea umbilicals, risers and flowlines.

| Field | Project | Year | Client |
|----------|--|---------------|---------------------------|
| Julimar | 23km of umbilical including SDUs and EHFLs, 1200t manifolds, tie-in spools and pre-com in 150m of water. | 2016 | EMAS Chiyoda for Woodside |
| Montara | Initial Risk Assessments and AIMS Commissioning for SURF Assets | 2013- 2015 | PTTEP |
| Gorgon | Installation of 20 structures up to 1,200t in 1,350m of water. | 2014 | Subsea7 for Chevron |
| Ichthys | Trunkline installation | 2014 | Saipem for INPEX |
| Coniston | 6.5km of umbilical including SDUs and EHFLs, 24km of flowlines, 2 manifolds in 380m of water, Pre-com. | 2013 | EMAS for Apache |



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