

Bombora-ESP's team has extensive Australian and international experience in all facets of offshore/marine construction.



Bombora-ESP can support our clients by providing:

- offshore client representatives/field engineers to supervise/support the implementation of a project; and
- pre-construction support, assisting in project execution planning.

The following sections highlight our services.

### Pre-Construction Support

Engaging Bombora-ESP in the early stages of a project allows operators to maximise value, ensuring that the project facilities are constructed in a timely and cost effective manner with minimal capital or HSE risk. Support areas include:

- Construction strategy development/review
- Construction/installation cost estimate and schedule development/review.
- RFQ, ITT preparation/review.
- Technical tender reviews/negotiations.
- Proposal preparation.
- Vessel inspections.
- Installation analyses (refer to our installation analysis capability statement)
- New build barge/vessel upgrade review.
- Procedure reviews.
- Subcontractor management.

- Manufacture and fabrication supervision.
- FAT witnessing.
- SIT/ SRT management and witnessing.
- Logistics and vessel mobilisation.
- Survey support:
  - Geotechnical survey and soil sampling;
  - Bathymetry, side scan and sub-bottom; and
  - Hydrographic survey.

### Offshore Construction Support

Bombora-ESP supports our clients with the offshore supervision/field engineering of the following:

- Rigid pipelay and associated activities, including:
  - S-Lay, J-Lay and reel-lay techniques;
  - Bundles, piggy-back and pipe-in-pipe;
  - Bottom, mid-depth and surface tow;
  - Shore crossings;
  - Trenching (pre-lay and post-lay);
  - Rock-dumping;
  - Secondary stabilisation;
  - Pipeline crossings; and
  - As-built surveys.



- Installation of substructures and topsides:
  - Jacket launches;
  - Jacket piling; and
  - Topsides lifts and floatovers.
- Mooring installation.

- Diver and diverless installation of subsea infrastructure, including:
  - Flexible flowlines and risers;
  - Umbilicals, power cables and telecommunications cables;
  - Subsea manifold and valve structures;
  - PLETs and PLEMs;
  - Tie-in spools;
  - Control distribution structures; and
  - Protection structures.
- Pre-commissioning.



### Onshore Construction Support

In addition to offshore support, Bombora-ESP's expertise can be applied to related onshore construction works, including:

- Shore approach construction:
  - HDD; and
  - conventional open cut pipe pull (onshore or offshore fabricated).
- Pipe tow fabrication.
- Onshore pipeline construction.



### Operational Support

The capabilities of our construction support staff makes Bombora-ESP an ideal partner to support our clients with operational activities such as:

- Inspection Monitoring Maintenance and Repair:
  - Diver and ROV Inspection;
  - Remedial/rectification works; and
  - Intelligent Pigging.
- Pipeline intervention (hot-tapping, plugging, etc).
- Decommissioning.



### Complementary Services

Our construction support staff are supported by our Installation Engineers who are equipped with the latest industry software to provide engineering analysis required for pipeline and cable lay, mooring analyses, engineered lifts, transportation, jacket launch, float and upend, and a range of other applications.

Please contact us to discuss your needs and requirements in more detail.