

DESIGN REQUIREMENTS FOR MARINE ENERGY SYSTEMS

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The upcoming Second Edition of IEC 62600-2 is a complete revision of the First Edition based on user feedback and maturation of the industry. The IEC Technical Specification provides requirements for MEC main structure, appendages, seabed interface, mechanical systems and electrical systems as they pertain to the viability of the device under site-specific environmental conditions. The TS applies to MECs that are either floating or fixed to the seafloor or shore and are unmanned during operational periods. The Second Edition is expected to be published early this spring.

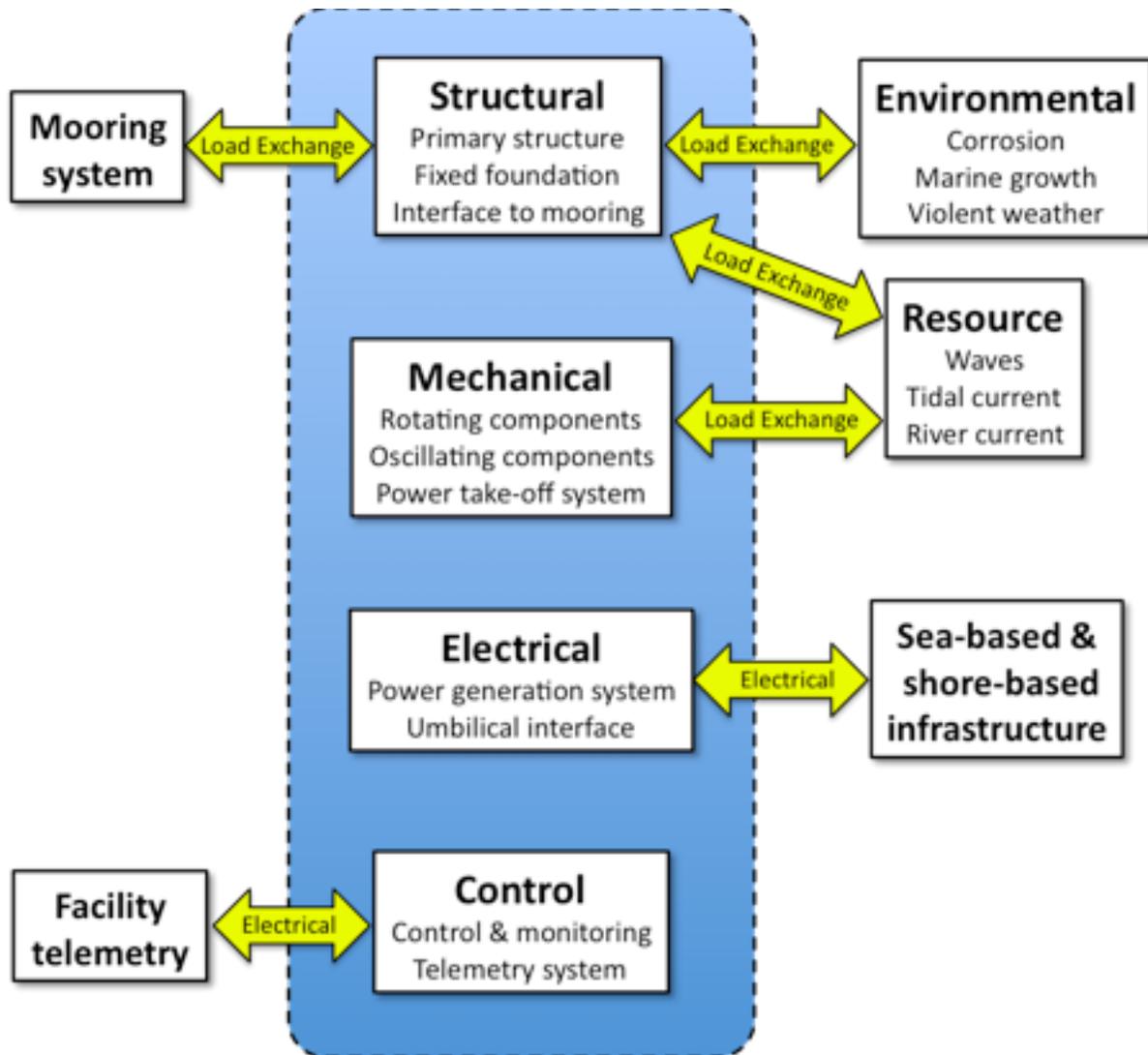


Figure 1. MEC system boundary for IEC TS 62600-2 and interfaces

This poster session will provide a Convener's perspective on the nearly decade long development process for this international technical specification and the embedded methodologies that led to the document's development. IEC TS 62600-2 is designed to be used within the context of the full 62600 suite of technical specifications and where appropriate, in conjunction with a third-party certification entity.

IEC TS 62600-2 will help the industry field the next generation of marine energy converters designed to safety levels commensurate with anticipated service. Each MEC project is unique and 62600-2 provides a framework for establishing a basis of design that interested parties can work toward achieving.

ACKNOWLEDGEMENTS

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REFERENCES

IEC/TS 62600-2 ED. 1.0 EN:2016 , Marine energy - Wave, tidal and other water current converters - Part 2: Design requirements for marine energy systems, STANDARD by International Electrotechnical Commission - Technical Standard, 08/10/2016

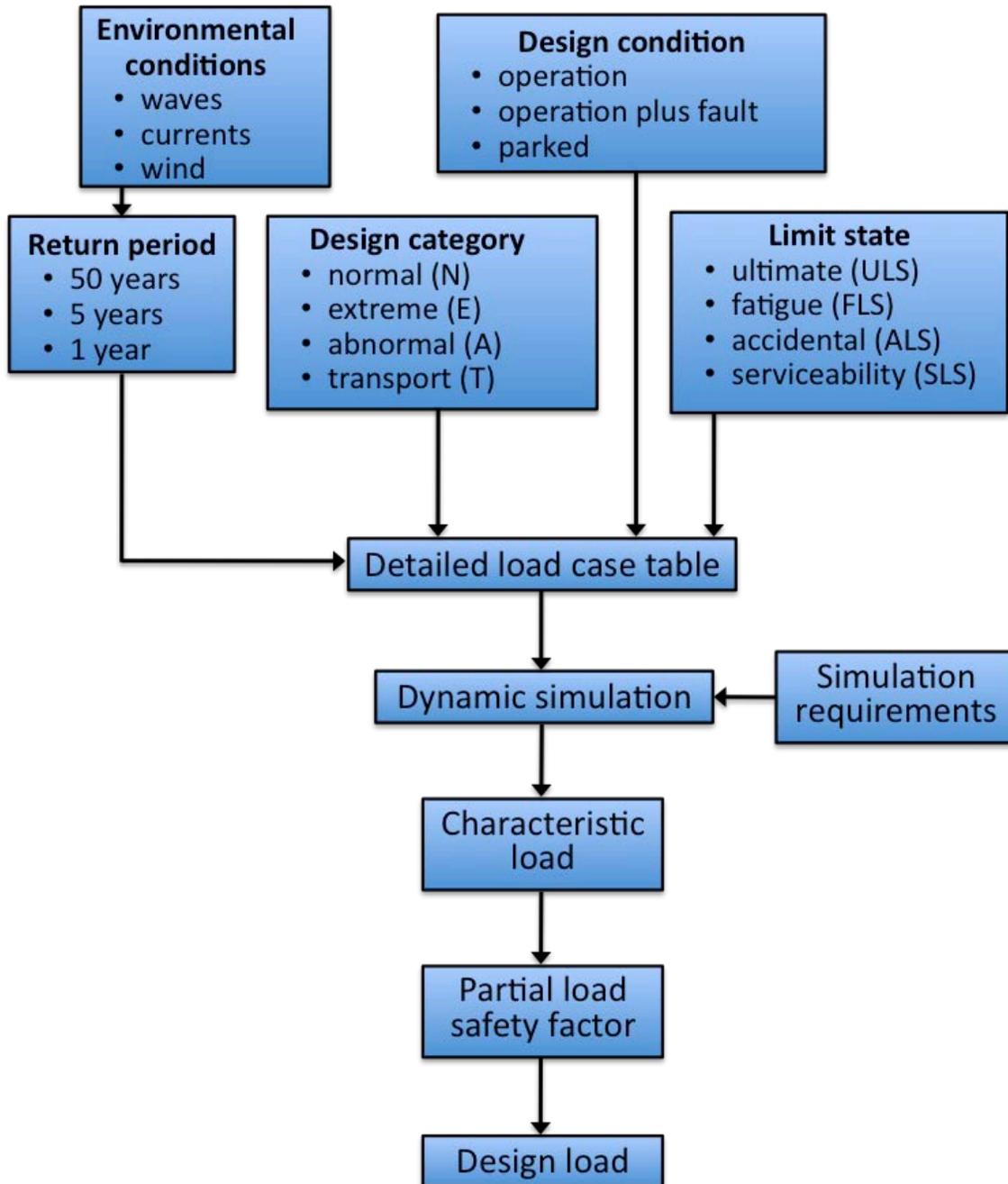


Figure 2. Process for determining design loads via load cases