As the world continues its transition to a low carbon economy, demand is increasing for metals required for new forms of transportation and electrical storage. Metals such as copper, cobalt, nickel and manganese exist on land, but are increasingly difficult to extract sustainably. Subsea mining, a method of retrieving minerals from the seafloor, can be an alternative to the land-based mining given the abundant resources on the seafloor.

The key technological challenges to subsea mining include the development of reliable offshore mining units, and subsea mining equipment and systems. Through the classification process, the design, construction and installation of such mining units and subsea mining equipment and systems can be verified for compliance with established rules and standards, and address the needs of regulatory agencies, lending institutions and other stakeholders.

CLASSIFICATION OF SUBSEA MINING UNITS, EQUIPMENT AND SYSTEMS

As the world’s leading offshore classification society, ABS answers the industry challenge with the ABS Guide for Subsea Mining, providing class requirements for the design, construction, installation, and survey of mobile offshore units intended for subsea mining. The Guide covers ship-type and column-stabilized units, focusing on three major elements: the hull structure; the anchoring and equipment; and onboard machinery, equipment and systems.

In addition, the ABS Guide for Subsea Mining provides class requirements for subsea mining equipment and systems placed onboard mobile offshore mining units, including launch and recovery systems, dewatering and subsea mining cargo handling systems, and subsea mining control and monitoring systems. The Guide also provides requirements for subsea mining equipment and systems submerged in water including subsea temporary storage devices, subsea mining riser, and lift systems, subsea mining tools and associated systems.