Record Nr. UNINA9911047687403321 Autore Hoppe Christoph Titolo Commissioning Management in Offshore Wind Projects: The Ultimate Guide / / by Christoph Hoppe Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2026 Pubbl/distr/stampa **ISBN** 3-032-05358-7 Edizione [1st ed. 2026.] Descrizione fisica 1 online resource (145 pages) SpringerBriefs in Applied Sciences and Technology, , 2191-5318 Collana Disciplina 621.312136 Soggetti Wind power Offshore structures Project management Renewable energy sources Wind Energy Offshore Engineering **Project Management** Renewable Energy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Part 1: Fundamentals of commissioning management -- Introduction to offshore wind projects -- Organization and roles -- Part 2: Processes and tools -- Planning and preparation -- Safety and risk management -- Tools and technology -- Part 3: Practice in commissioning --Commissioning of components -- Troubleshooting and fault resolution -- Energization -- Management of temporary power supply systems --Part 4: Coordination, management, and handover -- Handover and takeover processes -- Communication and reporting -- Part 5: Economic aspects of commissioning management -- Economic risk assessment -- Budgeting and resource planning -- Contract and claim management -- Part 6: Industry-wide standards and the future --Regulatory requirements and standards -- The future of commissioning management -- Black-start capable wind farms: The current state -- Conclusion on commissioning management. Sommario/riassunto This book is a detailed exploration of commissioning management

within the offshore wind industry, providing both a theoretical

framework and practical insights into this critical field. Commissioning management acts as the bridge between construction and operations. ensuring that all components of an offshore wind project are thoroughly tested and ready for seamless integration into the power grid. This book looks into every stage of this complex process, from planning and document preparation to on-site execution and final handover. By combining in-depth technical knowledge with strategic considerations, the book highlights the importance of flexibility and adaptability in commissioning management. Offshore wind projects are unique in their scale and complexity, requiring customized solutions rather than one-size-fits-all approaches. Throughout the chapters. readers are guided through essential practices, such as managing documentation, performing tests, coordinating teams, and adhering to regulatory standards. Beyond the fundamentals, this book examines emerging trends and future innovations in commissioning management. Topics such as automation, artificial intelligence, and the role of self-sustaining turbine technologies are discussed in the context of their transformative potential. The integration of sustainability is also a recurring theme, reflecting the industry's efforts to minimize its ecological footprint. This guide emphasizes that successful commissioning management is not merely about technical proficiency but also about leadership, collaboration, and strategic thinking. It equips readers with the tools and perspectives needed to tackle current challenges while preparing them to lead the way in shaping the future of the offshore wind industry. Whether for seasoned professionals or newcomers, this book offers invaluable knowledge to excel in this dynamic and evolving sector.