



ADNOC NEB Optimization design of carbon reduction trial zone implementation plan Research Project

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Executive summary

Background

The UAE has formulated a comprehensive long-term plan and adopted green energy transformation as a key national strategy to tackle the global challenges posed by climate change. With ambitious targets in mind, the country is committed to achieving a 25% reduction in carbon emissions by 2030 and attaining zero emissions by 2050, ensuring the sustainable growth of its national energy industry.

As the asset leader of ADNOC NEB, PetroChina plays a pivotal role in spearheading sustainable research and development initiatives. Within the framework of the 2022 NEB performance contract, the team is actively engaged in on-site testing and promotion of carbon reduction technologies. These efforts not only contribute to the immediate goals outlined in the contract but also establish a foundation for continued research and development in 2023 and beyond.

Internationally, new carbon reduction technologies are constantly emerging, and the variety of technologies is increasing. After preliminary technology exploration and experience accumulation, along with consideration of the actual conditions of NEB carbon reduction, selecting the optimal technology that best fits NEB's carbon reduction goals has become a critical issue that needs urgent resolution.

For the preliminary exploration plan of typical oilfield carbon reduction trial zones conducted in NEB oilfields, further comprehensive planning is required considering the on-site carbon reduction trial zones in NEB oilfields. Leveraging the knowledge and expertise of top international experts in carbon reduction, an implementation plan will be developed to provide technical support for NEB's carbon reduction efforts. Therefore, the project team took proactive action, collaborated with a North American expert team leveraging international resources, actively explored new ideas and new technologies, and provided technical readiness and advanced support for the NEB carbon reduction task.