




BALUCHISTAN ENERGY COMPANY LIMITED (BECL)

RISK ANALYSIS AND MITIGATION STRATEGY REPORT

FOR

LPG TESTING LABORATORY AT TAFTAN*

	Head Office: Balochistan Energy Company Limited 67-A, Main Jinnah Town Road, Quetta, Pakistan.	Telephone No. 9281-283611, 283612 Email: info@becl.com.pk Web: www.becl.com.pk
<p style="text-align: center;">PROPRIETARY & CONFIDENTIAL</p> <p>This document and the information contained herein have been developed through a reliable Consultant. This document or any part thereof should not be reproduced, stored in a retrieval system or transmitted by any means, electronic or otherwise, or divulged without prior written permission of BECL.</p>		
<p style="text-align: center;"><i>* The Laboratory will be primarily setup for LPG Tests however OTHER ENERGY FUELS may also be tested in this laboratory, as the business case permits).</i></p>		



**JOINT VENTURE
FOR
LPG TESTING LABORATORY AT TAFTAN
UNDER
PUBLIC PRIVATE PARTNERSHIP MODE**

LPG TESTING LAB IN TAFTAN, BALOCHISTAN

RISK ANALYSIS AND RISK MANAGEMENT STRATEGY REPORT

Risk Matrix for LPG Testing Lab in Taftan, Balochistan:

Project Risk Identified are as follows: The below risk matrix provides an overview of potential risks associated with establishing an LPG testing lab in Taftan, Balochistan, under a public-private partnership. Mitigation strategies are suggested to minimize the impact of these risks, and ongoing risk monitoring and adjustment of strategies are essential throughout the project lifecycle.

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Operational Risk	Lack of trained personnel for testing equipment	Medium	High	Medium	Develop a comprehensive training program for staff, collaborate with technical institutions, and periodically assess and upgrade the skills of the workforce.
	Equipment breakdowns and maintenance delays	Low	High	Medium	Establish a preventive maintenance schedule, maintain a stock of critical spare parts, and engage a maintenance contractor for prompt response and resolution.
	Inadequate testing protocols and standards	Low	Medium	Low	Partner with recognized regulatory bodies to ensure compliance with national and international standards; conduct regular reviews and updates of testing protocols. Further, the project will follow OGRA standards, ensuring adequate protocols and standards are followed.

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Financial Risks	Cost overruns during the construction phase	Medium	High	Medium	Implement a robust project cost estimation process, include contingency funds, and engage in regular project monitoring to identify and address potential cost overruns. The risk will be parked with the concessionaire who will be responsible for any cost overruns.
	Revenue shortfall due to lower-than-expected demand	High	High	High	Conduct a thorough market analysis before construction, develop flexible pricing models, and diversify services to other potential clients in the region. The concessionaire will survey and develop a market study during the project design stage. All the demand risk will be parked with the concessionaire.
<p><i>(The Space has been left blank intentionally)</i></p>					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Regulatory and Compliance	Changes in regulatory requirements affecting operations	Medium	High	Medium	Establish strong connections with regulatory authorities, stay informed about changes in regulations, and maintain a proactive approach to compliance with evolving standards. The project will follow OGRA standards.
	Legal disputes with public or private partners	Low	High	Medium	Develop a clear and comprehensive contract, engage legal experts in contract negotiation, and establish dispute resolution mechanisms to address potential conflicts promptly. The project is being undertaken on PPP mode to mitigate legal risks via the PPP Agreement.
(The Space has been left blank intentionally)					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Infrastructure and Location	Political instability in the region	High	High	High	Monitor geopolitical conditions, maintain open communication with local authorities, and implement security measures to ensure the safety and continuity of operations.
	Insufficient infrastructure support (roads, utilities, etc.)	Medium	Medium	Low	Collaborate with local authorities for necessary infrastructure development, conduct a thorough feasibility study, and include infrastructure improvement clauses in the contract.
(The Space has been left blank intentionally)					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Health and Safety	Accidents during testing processes	Low	High	Medium	Implement strict safety protocols according to OGRA standards, provide regular safety training to staff, and invest in state-of-the-art safety equipment to minimize the risk of accidents during testing procedures.
<p><i>(The Space has been left blank intentionally)</i></p>					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Environmental Impact	Potential environmental hazards from testing activities	Low	Medium	Low	Adhere to strict environmental standards, conduct regular environmental impact assessments, and implement measures to mitigate and manage any potential environmental risks. The concessionaire will also conduct the EIA during the project design study phase.
<p><i>(The Space has been left blank intentionally)</i></p>					

Risks identified are as follows with respect to the PPP Modality: The below risk matrix focuses on risks associated with the design, construction, financing, operation, and maintenance of the LPG testing lab in Taftan under a public-private partnership. Mitigation strategies are outlined to address each specific risk, emphasizing the importance of comprehensive planning, stakeholder engagement, and continuous monitoring throughout the project lifecycle.

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Design Risks	Inadequate project specifications or design flaws	Medium	High	Medium	Engage experienced design consultants, conduct thorough design reviews, and involve relevant stakeholders to ensure comprehensive and accurate project specifications.
	Delays in design phase due to changes in project scope or requirements	Low	Medium	Low	Establish a clear and detailed project scope, conduct comprehensive stakeholder consultations, and implement a change management process to minimize scope changes during the design phase.
(The Space has been left blank intentionally)					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Construction Risks	Construction delays due to unforeseen site conditions or weather	Medium	High	Medium	Conduct a thorough site investigation before construction, incorporate weather contingencies into the construction schedule, and implement project management techniques to address unforeseen challenges promptly.
	Quality issues during construction leading to rework and cost overruns	Low	High	Medium	Implement stringent quality control measures, engage reputable contractors with a track record of quality construction, and conduct regular inspections and audits to identify and address quality issues early.
<i>(The Space has been left blank intentionally)</i>					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Finance Risks	Difficulty in securing financing or delays in financial closure	High	High	High	Develop a robust financial plan, engage with reputable financial institutions, and ensure early alignment with financiers to mitigate delays in financial closure. Consider alternative financing sources to diversify funding options. The finance risk is on the concessionaire.
	Exchange rate fluctuations impacting project costs and debt servicing	Medium	High	Medium	Hedge against currency risks, include provisions in contracts to adjust for exchange rate fluctuations, and engage financial experts to monitor and manage currency risks throughout the project lifecycle.
<p><i>(The Space has been left blank intentionally)</i></p>					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Operational Management Risks	Inadequate operational planning leading to inefficiencies and service disruptions	Medium	High	Medium	Develop a comprehensive operational plan, engage experienced operational management partners, and conduct regular performance reviews to identify and address any inefficiencies or disruptions in service delivery.
	Challenges in workforce management, training, and retention	Medium	Medium	Low	Implement a robust human resource management strategy, provide continuous training and skill development programs, and establish attractive incentive structures to retain skilled personnel.
(The Space has been left blank intentionally)					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Contractual and Legal Risks	Ambiguities or loopholes in contracts leading to disputes or legal challenges	Medium	High	Medium	Engage legal experts in contract drafting, conduct thorough contract reviews, and establish clear dispute resolution mechanisms to address potential legal challenges promptly and efficiently.
	Non-compliance with contractual obligations by public or private partners	Low	High	Medium	Develop a comprehensive contract compliance monitoring system, establish regular reporting mechanisms, and engage in open communication with all partners to ensure adherence to contractual obligations.
<p><i>(The Space has been left blank intentionally)</i></p>					

Risk Category	Specific Risk	Likelihood (L)	Impact (I)	Risk Level (L x I)	Mitigation Strategy
Technology Risks	Technological obsolescence or disruptions impacting testing capabilities	Low	Medium	Low	Regularly update and upgrade testing equipment and technology, establish partnerships with technology providers for continuous support, and conduct regular technology assessments to identify and address potential obsolescence.
<p><i>(The Space has been left blank intentionally)</i></p>					