



ID	RBS	Title	Owner	Current	Residual	Notes
008 []	R8	Impact of Corruption on Project Governance and Execution	David, Winter	20	16	Corruption in government institutions or during the procurement process may lead to delays, inflated costs, or substandard materials and equipment. Misallocation of resources or favoritism in awarding contracts could negatively affect project efficiency and credibility.
002 []	C3	Securing Adequate Financing for the Project	Inyang, Etido	16	12	Failure to secure adequate financing from private investors, international donors, or the Nigerian government may delay or halt the project. High project costs could deter potential investors, especially in volatile economic conditions.
012 []	R2	Risks of Infrastructure Disruption in Modular Refineries and Mini-Grids Network	Harakat, Abubakr	16	12	Vandalism, theft of materials or equipment, or sabotage of energy infrastructure, especially in remote areas, could delay construction or increase maintenance costs. Attacks by insurgent groups or unrest in certain regions could disrupt construction and operation of both modular refineries and mini-grids.
014 []	R8	Community Resistance to Power Infrastructure Projects	Asibong, Ime	16	12	Communities affected by the construction of modular refineries, mini-grids, or transmission lines may resist the project due to land acquisition issues or concerns about environmental impact. Failure to properly engage with local communities could result in protests or legal actions, slowing down the project.
016 []	M9	Environmental Risks Associated with Modular Refineries	Asibong, Ime	16	12	Modular refineries may face opposition from environmental groups if they are seen as contributing to pollution or environmental degradation. Failure to implement adequate mitigation measures for the environmental impact of refinery emissions and waste disposal could lead to legal challenges.

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006 []	R8 Political Risks Affecting Energy Sector Projects	David, Winter	15	10	Changes in government policies or political leadership could lead to shifts in energy sector priorities, which may affect the project's continuity or funding. The project could face opposition due to political lobbying from vested interests in the traditional energy sector.
001 []	C3 Unanticipated cost increases.	Inyang, Etido	9	9	Unforeseen increases in the cost of materials, labor, and technology could lead to budget overruns, impacting overall project viability. •Fluctuations in global commodity prices, especially for materials like steel or energy related equipment, may increase project costs.
015 []	R6 Land Acquisition and Resettlement Challenges for Mini-Grids and Grid Infrastructure	David, Winter	12	9	Delays in acquiring land for the mini-grids or grid infrastructure may occur due to legal disputes, ownership issues, or compensation concerns. Resettling affected populations in areas where new energy infrastructure is to be built could lead to conflicts or delays if not handled transparently and fairly.
007 []	R3 Barriers to Cross-Border Power Export from Nigeria	Umoh, Camillus	12	8	Disputes over regulatory requirements, tariffs, or operational procedures between Nigeria and neighboring countries could hinder the export of power. Issues related to international transmission standards and harmonization of laws may lead to delays in cross-border energy agreements.
011 []	R4 Challenges in Integrating Decentralized Energy Systems with Nigeria's National Grid	Umoh, Camillus	16	8	Nigeria's existing transmission and distribution infrastructure may be inadequate to handle the increased capacity and decentralized energy sources, leading to delays in connecting new systems. Lack of modern equipment for grid monitoring, real-time analytics, and predictive maintenance could slow project progress.
019 []	M1 Coordination Challenges in Project Execution	Asibong, Ime	12	8	Poor coordination among contractors, suppliers, and stakeholders could lead to delays in construction, equipment procurement, or commissioning of new facilities. Inefficient project management and communication breakdowns could result in missed deadlines and extended timelines.
023 []	C2 Impact of Global Energy Market Dynamics on Modular Refinery Project Viability	David, Winter	16	8	Changes in global energy prices, particularly oil and gas, could affect the profitability of the modular refineries and reduce the attractiveness of the project for investors. Unpredictable changes in renewable energy markets could impact the project's competitiveness and long-term sustainability.
025 []	R8 Risks to Cross-Border Power Exports	Owodiong-Idemeko, Obong Ide O	12	8	Regional political instability or conflict in neighboring countries may disrupt cross-border power exports and result in lost revenues or halted projects. Diplomatic tensions or disputes over energy pricing, tariffs, or regulatory standards with neighboring countries could lead to delays or export restrictions.

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026 □	C2 Challenges in Cross-Border Energy Trade and Grid Interoperability in West Africa	David, Winter	16	8	Disagreements over pricing, contractual terms, and operational standards with other West African countries may reduce the success of cross-border energy trade agreements. Issues related to infrastructure interoperability or harmonization of grid standards could cause delays in connecting Nigeria's energy network to neighboring grids.
032 □	M1 Risk Management	[Organiser], [Summit]	16	8	Initial risk assessment done, but detailed plan needs preparation.
033 □	M3 Communication and Publicity	[Organiser], [Summit]	16	8	Initial announcements made, but comprehensive promotion needs to scale.
003 □	C7 Impact of Naira Exchange Rate Volatility on Import Costs	Owodiong-Idemeko, Obong Ide O	9	6	Volatility in the Nigerian naira exchange rate could impact the cost of importing essential materials and equipment. Difficulty in securing favorable exchange rates may affect financial planning and budget allocation.
010 □	T2 Key Technology and Maintenance Risks in Modular Refineries and Minigrids Integration	David, Winter	9	6	Failure of key technologies, such as renewable energy systems, smart meters, or grid management software, could delay project implementation or reduce performance. Equipment breakdowns or lack of proper maintenance in modular refineries or minigrids could cause power interruptions or system failures.
013 □	M9 Mitigation of Environmental Risks in Modular Refineries and Transmission Infrastructure Projects.	Umoh, Camillus	9	6	Failure to meet environmental standards during the construction of modular refineries or the laying of transmission lines could result in project delays, fines, or legal disputes. Pollution risks associated with modular refineries may lead to local community opposition or stricter environmental regulations.
017 □	C2 Fluctuating Local and Export Energy Demand Impacting Mini-Grid Viability	Harakat, Abubakr	9	6	Fluctuations in local energy demand, especially in rural areas, could reduce the profitability of mini-grids, making them financially unviable. Lower-than-expected demand for exported electricity from neighboring countries could impact revenue projections and project justification.
018 □	C2 Risk of Competition and Obsolescence in Energy Projects	Inyang, Etido	9	6	Competition from other energy projects, such as large-scale solar farms or international projects, could affect the profitability of Nigeria's energy exports. Rapid technological advancements in energy storage, renewables, or grid management could make parts of the project obsolete before completion.
021 □	M7 Establishing Effective Operations and Maintenance Frameworks for Modular Refineries and Mini-Grids	Owodiong-Idemeko, Obong Ide O	9	6	Challenges in establishing effective operations and maintenance (O&M) frameworks for modular refineries and mini-grids could result in system inefficiencies, increased downtime, or poor performance. Poor coordination between modular refinery operators, grid managers, and mini-grid operators could lead to power distribution inefficiencies or conflicts.

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022 □	C1 Establishing Robust Maintenance and Asset Management Systems for Mini-Grids, Refineries, and Grid Infrastructure	Harakat, Abubakr	9	6	Failure to establish robust maintenance systems for the mini-grids, refineries, and grid infrastructure could lead to deterioration in performance over time, resulting in high operational costs. Lack of proper asset management plans may cause equipment obsolescence or premature breakdowns.
024 □	T2 Technological Obsolescence	Asibong, Ime	9	6	Rapid technological advances in energy storage, smart grid technology, and power generation may outpace the project's development, rendering parts of it obsolete. Failure to adopt cutting-edge technologies as they emerge may lead to inefficiencies and competitive disadvantages.
027 □	M2 Stakeholder Participation	[Organiser], [Summit]	9	6	Stakeholders identified, but confirmations may be pending.
030 □	T1 Technical Demonstrations	[Organiser], [Summit]	9	6	Potential demonstration methods identified; tech rehearsals pending.
031 □	C3 Budget and Funding	[Organiser], [Summit]	9	6	Estimated costs outlined; funding sources being explored.
034 □	M2 Cultural Sensitivities	[Organiser], [Summit]	9	6	Awareness of cultural dynamics; no specific measures outlined yet.
035 □	M2 Security	[Organiser], [Summit]	12	6	Venue security assessed; detailed measures yet to be finalized.
036 □	M3 Outcome Documentation	[Organiser], [Summit]	9	6	No documentation framework in place yet.
037 □	M8 Alignment with Project Goals	[Organiser], [Summit]	9	6	Broad alignment exists; detailed mechanisms need planning.
009 □	T2 Integration Challenges for Decentralized Mini-Grids and Modular Refineries in Nigeria's Energy Sector	Umoh, Camillus	6	3	Integrating decentralized mini-grids and modular refineries into Nigeria's existing grid could pose technical challenges, leading to inefficiencies, grid instability, or power outages. Poor coordination between different power generation sources could result in overloading or under-utilization of resources.
020 □	M4 Workforce Challenges for Modular Refineries and Mini-Grid Deployment	Harakat, Abubakr	6	3	Insufficient availability of skilled engineers, technicians, or workers for modular refineries and mini-grid deployment could slow down project progress. High costs of training personnel to operate and maintain new technologies could strain the project's budget.
028 □	M7 Logistical Arrangements	[Organiser], [Summit]	4	2	Preliminary venue options reviewed, but no finalization yet.
029 □	M1 Agenda and Content	[Organiser], [Summit]	4	2	Key topics identified, but the schedule remains unfinalized.
004 □	C1 Potential Delays in Payments for Power Exports	Owodiong-Idemeko, Obong Ide O	1	1	Potential delays in payments from neighboring countries or regional bodies for power exports could impact the project's cash flow and profitability

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005 []	R3 Regulatory Challenges and Bureaucratic Delays	Inyang, Etido	1	1	Bureaucratic delays in acquiring permits, approvals, and licenses from Nigerian authorities could postpone project initiation. Lack of clear regulatory frameworks for modular refineries and mini-grids could result in inconsistent compliance requirements.