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The IRP serves as the map that guides [our] journey, ensuring that the country follows the best and most efficient path for its energy needs.



As UKNIAF we learned several lessons helping to develop the national Integrated Resource Plan which will guide the future of Nigeria's power sector.

We learned lessons related to:

**HOW** we worked...

WHAT we achieved...

The CHALLENGES we faced...

The CHANGES we influenced...





[The IRP] is a road map. A road map for the country, to guide our energy sector in terms of production, distribution, and planning.

The Integrated Resource Plan (IRP) is a comprehensive and flexible roadmap for planning Nigeria's future power needs and supply. It helps the country plan how to meet its growing power demands in a way that is affordable, sustainable, and aligned with its environmental goals.

By carefully managing resources and planning for the future, Nigeria aims to ensure that everyone will have access to power in a way that supports economic growth and protects the environment.

This journey is a marathon, not a sprint, and we have not completed the voyage, but we have learned these lessons to learn along the way.

## How we worked...

#### We sought to build consensus and not promote a singular agenda.

We strived to facilitate discussions between a wide range of stakeholders within a historically fragmented sector. Agencies within the power sector tended to operate in silos, often competing for resources and influence. We succeeded in bringing these disparate players together through a series of stakeholder engagement meetings and workshops.

We made decisions at two levels. We had a governance structure involving two key levels: a steering committee composed of high-level decision-makers, such as ministers and senior officials, and a working group that included senior executives from the public and private sectors responsible for operational details, detailed discussions, and input at each project milestone. This structure ensured that decision-making was both strategic (through the steering committee) and operational (through the working group), allowing the project to receive feedback at multiple levels, and allowed for greater involvement from various participants, creating a sense of ownership and alignment with the overall objectives of the IRP.

#### We started off being co-creative in our decision making and design.

In early stages stakeholders were invited to contribute data and feedback, ensuring the project was sector-driven. For example, volunteers from various institutions were invited to participate in the working group, ensuring that the process was inclusive. This also allowed for shared ownership of the project and helped align the objectives of different stakeholders. The working group was instrumental in selecting scenarios as well as sensitivities to be run, running simulations, and providing feedback on forecasts, ensuring that the IRP was both accurate and reflective of Nigeria's unique context.

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It's one of the most meaningful pieces of work I've been involved with.





We strived to be inclusive and adapted after reflection. We made a concerted effort to include stakeholders who had traditionally been more difficult to engage, such as activist groups representing the generation and distribution companies (Gencos and Discos). These groups, while often vocal critics of the sector's planning efforts, were integral to creating a comprehensive IRP. Their inclusion signalled that the IRP was a serious, inclusive process aimed at addressing the country's diverse power needs. This approach helped to build a more cohesive and representative consensus around the project. We also realised that we were not gender representative and took steps to change this.

We looked to learn lessons from others. The IRP process considered both international best practices and Nigeria's local realities, acknowledging that a one-size-fits-all approach would not work.

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It's been a learning process ... they've been a real pleasure to work with.

We adapted the process, as our circumstances changed. The steering committee was slow to materialise, primarily due to changes in leadership within the Ministry of Power, and because of the change in administration there was reluctance to continuing with a project that had been started under another administration. Overcoming this resistance required diplomacy and persistence from the project team, resulting in the convening of the first steering committee meeting, solidifying the governance structure.

We sped up our process. When the Electricity Act was passed and the Minister of Power had to present a plan to the National Assembly and the Presidency, there was an increased urgency for us to continue our work. We needed to accelerate our efforts to accommodate the new requirements and timeframes. Further the IRP needed to be presented as a national policy document, raising the importance of our delivery.

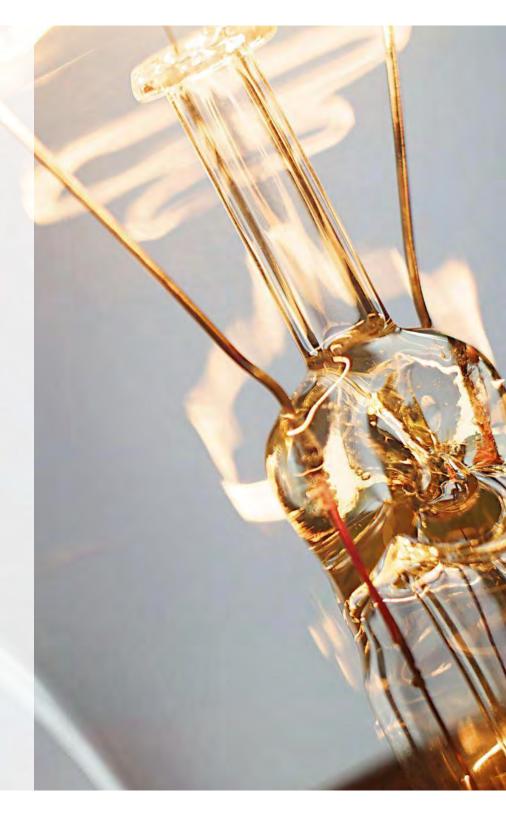
## What we achieved...

Collaboration and diversity was a strength of the project. Developing the IRP brought together diverse stakeholders and development partners from the power, environmental, and policy sectors, each contributing their unique expertise to the plan. Respecting the diverse viewpoints, and placing value placed on the different contributions was crucial in harmonising the various perspectives to form a coherent IRP. For a project of this scale, facilitating this collaboration was essential.

The collaboration brought together stakeholders that had not previously worked together. Historically, Nigeria's power sector has been plagued by a lack of consensus on how to address its many challenges. The IRP created a space and opportunities for varied stakeholders to share knowledge and build consensus. This engagement created joint ownership and commitment, essential for the IRP's long-term vision.

Flexibility allowed us to take advantage of unanticipated events. Although unplanned, the linking of the IRP with the Electricity Act of 2023 requirements, which mandated the creation of a national integrated electricity policy, and a strategic implementation plan was serendipitous. This alignment ensures that the IRP does not exist in isolation but is part of a broader governmental effort to reform the power sector. By communicating the importance of the IRP and its linkage to the national policy, to key government officials, we ensured the IRP would serve as a foundational document for future policy decisions and a critical component of Nigeria's power future.

The profile of important conversations around social and environmental issues was raised. Part of our discussions focussed on the "just transition". This served as an entry point for deliberations on climate change, social inclusion, and gender. By leveraging the political momentum of this global dialogue, we were able to introduce these issues into the national conversation, connecting them with Nigeria's unique power challenges such as how the extraction of gas from the Niger Delta or the use of hydropower from northern Nigeria had significant social implications for local communities. By framing these concerns within the broader context of climate change and power policy, the IRP brought attention to often-overlooked issues like the impact of power production on local communities and equitable power transition.





Priority pathways and goals were identified. The widespread use of diesel and petrol-powered generators for self-generation was identified as a major problem because of high emissions and high costs. A clear objective was set to phase out this practice. Participants noted that this clarity was a critical achievement, giving policymakers a concrete goal to work.

Professionalism and inclusion in the team was pivotal. The teamwork and responsiveness of the team members to collaborative processes was notable and underpinned the quality of the work. It was evident that the careful selection of team members, including technical consultants and stakeholders, played a key role in ensuring that the project met its objectives. In early stages our discussions were dominated by men, with women largely absent or silent. Through deliberate effort we created a more inclusive environment, leading to the establishment of the "Women on the Grid" initiative, illustrating how the collaborative, professional approach went beyond technical matters and ventured into social and gender inclusion.



It's one of those projects where you can see the government taking it and running with it, with plans for years to come.

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The practical nature of the project's sustainability was pervasive throughout.

Developing the IRP did not rest on academic ideas but progressed these to real life by outlining practical solutions for government to implement. The ability to model impact numbers and embed progressive policies like climate action and gender inclusion into the planning documents was significant. The government not only agreed with and bought into the IRP plans but continued to build on them.

Personal takeaways were also apparent. Being involved in drafting the IRP saw several participants broaden their understanding of the power value chain and seeing things from a more holistic perspective. Personal skills also flourished with the importance of perseverance and fortitude being apparent, sharing how "determination makes you achieve the entire project."

# Challenges we faced...

From the outset, the project needed to address structural, communication, and stakeholder engagement challenges, requiring the cooperation of entities with differing priorities and long-standing operational silos, to ensure that a cohesive and comprehensive IRP could be developed. Many of these were primarily due to the complexity of the country's power sector and the numerous institutional stakeholders involved.

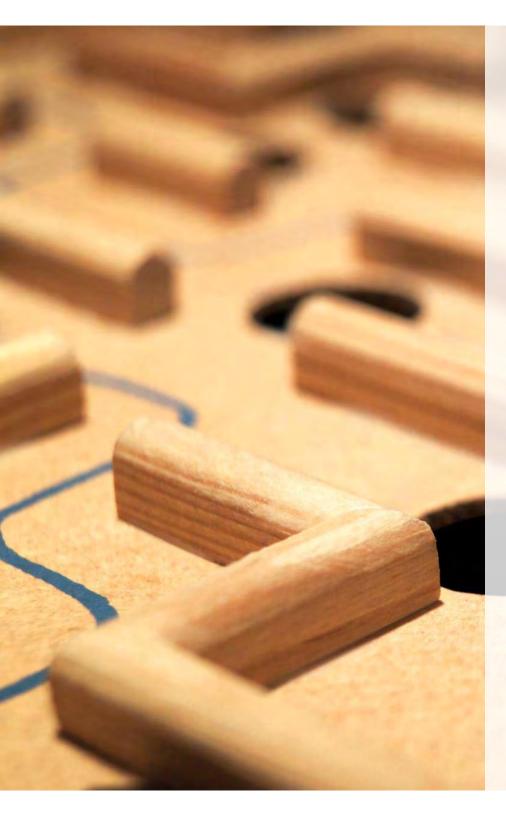
The sector is fragmented. Historically, key agencies such as the Energy Commission of Nigeria (ECN), the Transmission Company of Nigeria (TCN), and the Nigerian Electricity Regulatory Commission (NERC) had operated in independently from one another. Each has its own mandate, resources, and goals, affecting the creation of a unified national energy strategy. For example, ECN had been largely excluded from past power planning efforts.

Developing the IRP brought these critical players to the same table through engagement workshops and stakeholder meetings, ensuring relevant voices were included in the planning process. This marked a significant step forward in overcoming the sector's deeply entrenched fragmentation.

Differing agendas meant different expectations and priorities. Throughout the process, managing differing expectations among stakeholders was a constant challenge. The fragmentation described above exhibits in varying institutional outlooks and urgencies. For example, NERC and the Ministry of Power, have clear objectives tied to their institutional work plans, including ensuring energy sufficiency, improving regulatory oversight, and promoting competition in the power sector. Through ongoing dialogue and consultation, we worked to bridge these gaps, ensuring that the final plan balanced diverse interests.

Opinions on prioritising power sources were mixed. The Energy Commission advocated for nuclear power as part of Nigeria's long-term energy strategy. Others viewed nuclear power as unrealistic, given the current political and economic landscape. Coal was seen by some as a technically viable option for meeting Nigeria's immediate power needs, but international environmental concerns, prioritised by some stakeholders, made it difficult to secure funding for coal-fired power plants.





We balanced these competing interests by focusing on more achievable goals. Natural gas was offered as a practical transition fuel that could meet Nigeria's immediate power needs while also addressing some of the environmental concerns. This allowed the project to move forward despite disagreements.

We had different ideas about project timelines. Some stakeholders were sceptical about the ambitious electrification targets set by the IRP and were concerned about the feasibility of achieving the targets within the proposed timeframes. They urged caution. Other stakeholders promoted more aggressive timelines. The project team had to navigate these differing perspectives by finding a middle ground that was both ambitious yet realistic.

Unexpected legislation was passed. An unexpected challenge was the passage of the Electricity Act 2023, providing both a legislative framework for the IRP, and creating new pressures. The Act required the Minister of Power to present a formal energy policy and strategic implementation plan to the National Assembly and the Presidency, turning what had initially been a technical exercise into a politically charged process. This added urgency to the project and required the IRP team to accelerate their efforts to ensure the plan was completed on time and aligned with the new legal requirements.

There was an unexpected need for political lobbying. The new administration was reluctant to implement a predecessor's legacy project, creating a potential major setback. We lobbied to convince the new Minister as to the importance of the IRP, securing his commitment to the project.

A lack of reliable data was a significant challenge. The IRP required vast amounts of data from various sources, including power generation, transmission, and distribution companies, as well as energy consumption patterns. However, collecting this data was difficult. Many stakeholders were reluctant to share their data, viewing it as a form of power or leverage. Some of the required data simply did not exist. Other data sets were incomplete or inaccurate.

To overcome this, we employed a two-pronged approach: we were persistent in data requests, and we leveraged the authority of the Minister of Power and NERC to compel stakeholders to share the necessary information. In some cases, when data could not be obtained, we ran simulations and estimates based on global standards. Although this approach helped to mitigate the data challenge, it underscores the importance of having accurate and comprehensive data at the start of such projects.

By focusing on building consensus and balancing competing interests, we collectively succeeded in creating a long-term power plan that addressed both Nigeria's immediate needs and its future energy security.

## Lessons we learned...

We might have cast our net wider. We might have thought about broadening the involvement of stakeholders to include – from the start – more representatives from academia and industry, especially those responsible for the long-term management of the IRP. By including these groups, the project could benefit from their specialised knowledge and long-term research capabilities.

We should have implemented a stakeholder communication strategy. While the working group was set up as the primary stakeholder engagement mechanism, it was not enough. Stakeholders outside the working group who initially contributed felt disconnected from the project and expressed confusion about the project's status after a year and a half of no communication. This gap in communication created the perception that the project was stagnating or had been abandoned. We brought in a dedicated communications coordinator to improve stakeholder engagement and public awareness, recognising the importance of continuous stakeholder engagement and transparent communication, especially where there are multiple stakeholders across different sectors.

We would have been more cognisant of stakeholders' institutional requirements from the beginning. We should have copied invitation letters to working group members to the CEOs of the agencies involved. This would have ensured that agencies remained aware of the project's progress and could adjust their participation accordingly.

We should have kept the stakeholder institutions up to date. Instead of relying on the communication of our working group technical members, we should have had more frequent, deliberate interactions with the leadership of relevant institutions. Leaders often have a broader perspective that could have contributed to more informed decision-making. Regular consultations would have fostered better ownership of the IRP among institutional stakeholders easing our process of seeking buy-in for major decisions.

We could have understood our operating context more fully. If we had conducted a political economy analysis (PEA) before project inception it would have helped identify key players, their interests, and any potential barriers to success, enabling us to tailor our approach more effectively.





Our reputation and track record are valuable. A change in government led to delays and a possible lack of continuity. Our reputation within both the technical and the political circles carried sufficient weight for us to effectively lobby for the continuation of the project.

We may have better mitigated against political risk. Political sea changes can impact on critical national projects and there is a need to insulate them as best possible from these influences. This project was not adversely affected, just slightly delayed, but earlier planning might have better mitigated the risks. We could have looked to speed up the project's delivery to complete it within a single administration's tenure. We might also have ensured key government officials are fully briefed on the project's national importance.

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Perhaps if I were to make any change...that's something I would have integrated ... Hear the voices of the people.

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We would have broadened our data gathering process. In hindsight we think we could have broadened our public consultations in two directions. Firstly, to gather opinions beyond the technical experts and collect feedback and input from the demand side of the power sector, such as consumers, gaining insights into their needs. Secondly, to reflect on the needs of the individual states to better understand their processes and better equip them to create their own plans mirroring the national plan. This would ensure states power solutions are tailored to their unique needs and contexts, managing their own power markets effectively and providing power to underserved populations.

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Nigerians don't live in the FCT; we live in states. And electricity is now a state responsibility at the retail level.

We might have thought of providing more granular detail. The IRP is a long-term document outlining the country's proposed power journey for the next 40 years. But some think there is an opportunity to set up clear milestones that reflect short- and medium-term timeframes. for the project. This will encourage easier tracking of progress and identification of detours from the proposed path. A clearer map with regular indicators will also allow implementers to make necessary adjustments along the way.

We could have better leveraged our international and local expertise. While the IRP benefitted from consultants based internationally, having the highly skilled technical team based in Nigeria may have improved the project's effectiveness, allowing for more timely and efficient communication and faster response times. Local experts may have been better positioned to understand the nuances of Nigeria's power sector and work more closely with national stakeholders, and embedding local experts within the team may have added a lot of value.

We would look at process to embed the IRP, ensuring sustainability. The IRP needs to become an integral part of decision-making in the power sector informing investment decisions, regulatory approvals, and policy-making. It also needs to be regularly reviewed ensuring applicability and appropriate focus, in accordance with its status as a living document. One way of resolving is to institutionalise it within the federal and state with resourced oversight but allowing it to be and ensuring reporting against agreed performance metrics.

It's one thing for us to design an IRP, launch it, publish it, and take pictures...but how we ensure the implementation part ... is key.



# Other things to think about...

Capacity Building and Local Expertise: A key improvement identified by multiple respondents was the need for better local capacity building. There was a consensus that the technical stakeholders, particularly those who would manage the IRP after its completion, needed more training on the modelling tools and analysis used in the project.

The absence of this kind of local expertise was seen as a significant gap, with some respondents suggesting that this lack of capacity could affect the project's long-term sustainability. By integrating local technical experts from the outset, the project would not only benefit from their local knowledge but also ensure that these experts are better equipped to handle future iterations of the IRP. Moreover, local involvement could help to foster a sense of ownership over the project, ensuring that it is maintained and updated effectively.

**Localisation of Technical Expertise:** Another suggestion was to ensure that the technical aspects of the project are more rooted in local institutions. One respondent noted that it would have been better to house the consultants responsible for developing the IRP within the Ministry of Power, rather than having them work remotely.

By embedding the technical team within the ministry, the project could have benefitted from closer collaboration between the consultants and the government officials responsible for implementing the IRP. This approach would also ensure that the local team fully understands the tools and templates used in the project, making it easier to manage the IRP after the consultants have left.

The plan itself [should be] fully housed in the Ministry of Power... all the templates would be fully understood by the ministry staff and the team that will be working on it.





We as a country [need] our own philosophy behind the plan... that will influence the plan ... because energy planning is not on its own.

Philosophy and vision should underpin the plan: It was felt that there was need for a clear philosophy or vision to underpin the IRP. One respondent pointed out that national energy planning should be aligned with a broader vision of what the country wants to achieve, whether that is industrialisation, improving power access, or achieving environmental sustainability. By establishing a clear, nationally agreed-upon philosophy behind the IRP, the project could be better aligned with the country's long-term goals. This vision would help to guide the project and ensure that all stakeholders are working toward the same objectives.

Focus on Training and Sensitisation: Finally, there was a strong emphasis on the need for continuous training and sensitisation of stakeholders. As one respondent noted, the IRP is a complex document that requires an in-depth understanding of both technical and regulatory issues. Sensitisation efforts could help build broader support for the IRP, ensuring stakeholders understand its importance and are committed to its success. Continuous training would ensure stakeholders are familiar with the IRP and are able to use it effectively in their decision-making processes.

[The] training of key technical stakeholders on the modelling and analysis tools ... is vital for informing decisions and improving processes.

# What did we change...

**Changes in behaviour:** Several changes in institutional behaviour were noted. One respondent highlighted how the engagement with tools and systems became more effective toward the end, suggesting a shift in how the Ministry of Power, and the regulator now manage such tools.

Another respondent discussed the institutional transformation within NERC regarding the IRP. Previously divisions within the organisation tended to work in isolation without a broader understanding of the overall plan and its significance. As more people within NERC became aware of the IRP, it appeared to contribute to this improved collaboration, although managing this is an ongoing process.

Change in emphasis regarding climate finance: Federal and subnational governments were reported to have begun to change the way they approached mobilising private finance, with a stronger emphasis on aligning climate-smart infrastructure projects with private sector participation

[Using] the IRP ... with our investors on what policies and regulations they require and need in terms of how they can key into the IRP to implement it.





Changes in awareness and strategic thinking: At the federal level, respondents reported that stakeholders have become more attuned to the idea of integrating PPP frameworks into the national strategy. This shows an increasing willingness to embrace private sector involvement in infrastructure development.

It was also highlighted that there was increased awareness of the importance of having a strategic approach to planning for electricity and power. It was suggested that previously the Ministry of Power had been disconnected from broader planning processes, but the IRP process had prompted a more integrated approach, leading to a shift in how the ministry plans power resources. This more structured approach to power and infrastructure project preparation was influenced by UKNIAF tools to identify and develop appropriate projects. This change marked a significant shift in how the ministry engages with technical assistance and capacity-building efforts.

The key stakeholders have welcomed the possibility of ... improving the identification, preparation and development of infrastructure projects to make them attractive to private investment; and facilitating access to climate finance.



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