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Review of PwC Study on Corporate Restructuring of the Nigeria Electric Power Sector

Prepared by

NEPA Restructuring Implementation Committee

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1 Introduction

PwC was contracted by the Bureau of Public Enterprises to advise and assist the Federal Government of Nigeria on a comprehensive plan for restructuring the National Electric Power Authority. PwC has issued a series of reports and recommendations that provide a useful guide for implementation of corporate restructuring. In response, NEPA has appointed an internal committee to implement the PwC restructuring recommendations. Based on a review of the PwC reports and recommendations, the restructuring implementation committee is working on an Action Plan for priority near term activities.

The purpose of this report is to provide NEPA's comments and suggestions on the PwC study. The full set of detailed comments is attached to this report. The following summary presents key comments grouped by the following subjects:

- Legal
- Market Operator and Rules
- Tariff Determination and Revenue Collection
- Business Plans
- Human Resources
- Generation cost and planning for new capacity
- Schedule for Restructuring Process
- Miscellaneous Issues

2 Summary Comments

LEGAL

The full unbundling and privatisation programme is dependent on the passing into law of the Electric Power Sector Reform Act (EPSRA). In the meantime, NEPA recognises that functional unbundling of the organization can and should begin in the immediate term consistent with the initial holding company structure.

MARKET OPERATOR AND RULES

As a first step in the market transition, NEPA proposes to restructure according to a simplified market design that would institute the NBUs and the functions of the SPE and market operator within the IHC. The following comments address key issues for the first stage market structure:

- NEPA supports restructuring into successor companies operating as autonomous business units as early as possible.
- A single power pooling and settlement agreement covering all market participants should be considered, instead of multiple bilateral contracts. The more complex bilateral contracts market can be implemented later.
- Financial and trading functions related to transactions between the NBUs, and between NEPA and IPPs, should be managed by a separate organisation within NEPA HQ that can later form the nuclei of the SPE and the Market Operator.
- Revenue allocation among the unbundled business units should be based on forecast cost of service, with end-of-year reconciliation for actual versus forecast. Monthly billing would be based on forecast total charges, rather than forecast unit prices applied to actual consumption. The use of forecast total charges would simplify pricing, billing and metering in the initial stage of the market. In addition to a revenue allocation mechanism, there is need for a related cash allocation mechanism.
- Non-collection of revenue and delay in tariff reform to bring prices to economic levels must be addressed in the cash allocation mechanism. The cash allocation mechanism could reward D&MCos for collections performance exceeding a norm.
- Revenue and cash transfers from lower cost distribution zones to higher cost distribution zones due to the uniform national tariff should be managed by the market operator function within NEPA headquarters, according to transparent market rules.
- There is no compelling need to establish a formal Market Auditor. A Committee of market participants can provide the necessary auditing of the market operator. The NERC, when formed, would have an important role enforcing market rules.
- Rules must be established for the transfer of power between distribution zones.

TARIFF DETERMINATION AND REVENUE COLLECTION

- Planned tariff increases of 50% annually over the first three years are not likely to happen without a major push, and this will affect NEPA's ability to invest in its operations, such as in metering and billing systems. There is a pressing need for consensus building with all stakeholders on the need for the proposed tariff increases.
- NERC will have statutory responsibility for the electricity tariffs in Nigeria. In the early stages of unbundling, the tariff advisor to be appointed by BPE must consult with NERC before initial tariffs can be established, and should be encouraged to consider indexation to exchange rates, fuel prices and cost of living indices. NEPA must be closely involved with the tariff-setting process.
- The fuel supply agreements between NEPA and the Nigerian Gas Company must be re-negotiated to ensure that existing favorable pricing terms can be extended through the restructuring period to minimize tariff effect on consumers.

- Gencos should not pay full economic cost of gas until electricity is priced to consumers on economic cost basis. Any increase in fuel prices should be automatically passed through to end user tariffs.

GENERATION COST AND PLANNING FOR NEW CAPACITY

- The process and responsibility for planning and procuring new capacity should be formalized and documented.
- D&MCos should be responsible for preparing demand forecasts for their zones, which should be consolidated by NEPA HQ.
- Generation prices will have to be regulated until there is sufficient capacity to ensure competition can exist.
- The new NEPA power plants under development should be treated as other NEPA generating capacity, i.e. formed as separate Gencos.

BUSINESS PLANS

- The business plans as presented should be moderated for more realistic assessment of future financial performance of the NBUs. The areas in which the plans could be made more realistic include:
  - Reducing expected O&M costs
  - Reducing forecast capital investments
  - Increasing loan repayment schedules
  - Reducing anticipated returns on capital investments
  - Reflecting more accurately the effect of existing gas supply contracts on the cost of electricity production
- Opening balance sheets will require the identification of assets and liabilities, a significant proportion of which are presently recorded in HQ books, to be allocated to each successor company.
- The service territories of the D&Mcos should be carefully optimized. The viability of the proposed D&Mcos should be reviewed.
- Outstanding bills owed by FGN agencies should be offset against NEPA debt owed to government.

HUMAN RESOURCES

- Staff audit, assimilation and future retrenchment planning are crucial activities for NEPA in forming successor companies. All existing NEPA staff should be allocated to the initial holding company or successor companies following a rational approach.

- NEPA is aware of the need to more fully involve its staff, including the incumbent unions, in the resolution of human resources issues.
- The funding of existing pension liabilities is a major issue.

RESTRUCTURING PROCESS

- Implementation consultants appointed by BPE must work closely with NEPA. A joint NEPA/BPE steering committee would develop the terms of reference and approve key recommendations of the consultants. Consultants working on the internal restructuring of NEPA should report directly to the relevant NEPA Executive Director.
- NEPA fully agrees that the schedule for implementation should be ambitious. It is important to note, however, that even without delays in decision-making it would take a massive effort to complete all the tasks in the PwC report by October 2003. There is a need for consensus building amongst all stakeholders, including NEPA management, staff and labor unions. Therefore it would be prudent to extend the implementation period beyond October 2003 to June 2004.

MISCELLANEOUS ISSUES

- It was suggested that new systems for IT infrastructure should be designed and implemented early in the restructuring schedule. NEPA does not have the necessary resources to accommodate such a project and proposes that only essential improvements are implemented at this stage. Further infrastructure enhancements should be left to the successor companies.
- The status of RCM contracts should be reviewed. The existing RCM contracts could be assigned to the incumbent D&M Zone, and some successor D&MCos may want to retain the services of the RCM contractors. At a minimum, NEPA/BPE should seek a second legal opinion if NEPA decides to terminate contracts to minimize potential damage claims from contractors.
- The boundaries of the proposed D&MCos should be reviewed to ensure that the commercial boundaries are consistent with the technical boundaries, to the extent possible. In September, Nexant was appointed to serve as technical advisor to the NEPA Restructuring Implementation Committee. The first task identified for the committee was to review and comment on the PwC recommendations for the phased restructuring of NEPA.

3 Detailed Comments

Attached are detailed comments on the PwC reports.

Detailed Comments on PwC Study on Corporate Restructuring of the Nigeria Electric Power Authority

Report Reference	Issue	Comment
Implementation Blueprint, Section 2.2	Role of market operator.	Need to clarify the structure of the market and role of the market operator during the initial transition stage. The proposed market operator would act similar to a single buyer. Ideally the market operator should be a separate entity. The multiple PPA concept is similar to a Single buyer because each D&MCos is allocated a fixed prorata portion of the output of each Genco.
Implementation Blueprint, Section 2.2, Page 7 Market Operator Proposals	Each D&Mco will have a pro-rata share of the output of each GenCo owned power station; identical PPAs.	The bilateral contracts market could be implemented in a later phase as the market evolves. Prior to bilateral PPAs, the market could be initiated under an umbrella set of Market Rules. The blueprint appropriately focuses mainly on the Market Rules, and less on bilateral PPAs. The bilateral PPA must be carefully harmonized with the pricing, metering and billing design. The appendix "Draft Summary Key Terms of Power Purchase Agreement" is not applicable to the initial stage market.

Report Reference	Issue	Comment
Implementation Blueprint, Section 2.2.2 Allocation of PPA's	Bilateral contracts between GenCos & D&MCos (each GenCo to have 11 PPAs with pro-rated supply to each D&MCo) immediately after the creation of successor companies will add to the complexities of restructuring that may unnecessarily delay or hinder successful establishment of successor companies.	Bilateral contracts should be delayed until the successor companies have established themselves and achieved a fair degree of autonomy (say over a period of three years). In the meantime, PPAs could be signed between GenCos and SPE. This will conform to the NCP policy, para 4.2.2, which states that all PPAs will be with SPE during the "transition" period.
Implementation Blueprint, Page 5	Handling many PPAs would be complex, and require market rules for settlement.	One option would be to operate a Pool, governed by a Pooling & Settlement Agreement (PSA). All market participants would be party to the PSA. All electricity trades would take place via the Pool. The PSA would replace individual PPAs. A Pool could resolve the issue of who pays for high-cost power (for example, the cost of fuel for the Abuja EPPs is greater than the revenue of the entire Abuja zone).
Implementation Blueprint, Section 2.2	D&MCo's contracted amounts will have to be revised as relative demands of all the Discos change over time	Need mechanisms for forecasting and metering D&MCo demands. At present grid metering is inadequate. Need to improve Zones' capabilities to forecast demand.

<table>
<tr><th>Report Reference</th><th>Issue</th><th>Comment</th></tr>
<tr><td>Implementation Blueprint, Section 2.2, p.8</td><td>Some of the existing PPAs are non-assignable.</td><td>It will be impossible to have new-style “shared” PPAs between the SPE and D&MCos that are consistent with the non-assignable PPAs. Better to negotiate with Owner to modify contract. Issues include:
▪ assignment to D&MCos and/or participation in Pool
▪ IPP acceptance of Grid Code
▪ provision of ancillary services</td></tr>
<tr><td>Implementation Blueprint, Section 2.2</td><td>How will it be decided which D&MCos receive power, and which have to accept power cuts?</td><td>Will have to be addressed by market rules.</td></tr>
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Report Reference	Issue	Comment
Implementation Blueprint, Section 2.2 Pages 6 and 9 Market Operator Proposals	"… Market Operator must charge for energy sales on a levelised forecast basis." "Market operator forecasts … an average electricity sales price … Payments from each D&Mco based upon the average sales price …"	Charges to D&Mcos for generation and transmission services should include fixed and variable components. The fixed charge would be forecast and agreed in advance based on the D&Mco's contract purchase amount. The variable component (mainly cost of fuel) would depend on the D&Mco's share of the energy demand. Due to the low price of gas in the near term, the variable charges to D&Mcos are likely to be small relative to fixed charges. The fixed charges would be forecast in advance, however the variable charges could either be fixed in advance based on forecast demand or determined each month based on metered demand. For the initial stage of the market, the charges between the companies could be forecast for both fixed and variable charges during the annual budget process. This would simplify the initial requirements for price setting, metering, billing and settlement.

Report Reference	Issue	Comment
Implementation Blueprint, Section 2.2, Page 10 Market Operator Proposals	"The Market Operator will collect money owing from the D&Mcos … This money will then be used to pay the Gencos and … the SPE."	Does market operator also control flow of money to Transco? Does SPE receive cash payment in priority to Gencos and Transco? What is the priority of payments to/from the D&Mco cross-payment fund (compared to payments to SPE, Gencos etc.)? Market rules would be needed to prioritize cash allocation between the players. What is Market Operator's role to chase down delinquent payments from D&Mcos? Does each individual Genco and the SPE also chase down payments from D&Mcos?
Implementation Blueprint, Page 9, 10	A settlement process has been proposed, but is not confirmed. Who will approve market rules, including settlement?	Settlement and money flows will depend on market structure, and could be governed by a Pooling and Settlement Agreement. A process for approving industry-wide changes such as market rules must be agreed.
Implementation Blueprint, Section 2.2.6	Determination on new supply requirements. There is no indication as to which NBU(s) will have responsibility and authority for assuring that adequate additional capacity is procured.	Need to establish process and responsibilities for procuring new generating capacity.

Report Reference	Issue	Comment
Implementation Blueprint, Section 2.2.3 Metering restrictions	Meters on the bulk supply points (including those currently planned for installation) are not capable of metering both the generated output and the demand taken through all bulk supply points over a given 15 minute period. Installed meters and planned meters are simple cumulative-type meters that only record the total energy (MWh) that has passed through the meter since installation.	The Transmission Development Project (TDP) of the World Bank makes some provision for the supply & installation of grid meters.
Implementation Blueprint, Section 2.2.3 & 2.2.4 Settlement & Money flows	Payments due to Transco for transmission and market operation services are not considered in the discussion and recommendations.	The market design needs to encompass charges for transmission and market operation services. The principles outlined in the Transmission Business Plan need to be formalized and agreed.
Implementation Blueprint, Settlement & Money flows	Non-collection of end-customer billings by D&MCos is a critical issue as it will undermine the ability of D&MCos to settle in full their obligations to TransCo and G&MCos.	A strategy to address issue of non-collected end-customer billings should be proposed.
Implementation Blueprint, Section 2.3, p.11 The role of the SPE	"we understand that the SPE cannot be an electricity trading party to the PPAs".	The role of the SPE as an electricity trading party to the PPAs must be clarified.

Report Reference	Issue	Comment
Implementation Blueprint, Section 2.3, p.11 The role of the SPE	Need better definition for the SPE, which will play a crucial role during the transition.	Specialist functions such as central procurement, contracts for bulk supply such as gas, IPP contracts, certain treasury functions like foreign exchange, management of government funds for investment, etc will need to be handled by the SPE during the transitional phase of restructuring and until the successor companies have established themselves. It is therefore crucial that the role and staffing of the SPE is well defined beforehand.
Implementation Blueprint, Page 11	How will new IPPs be contracted?	There are several options for contracting for new plant: ▪ contract with SPE (not recommended, since SPE's role is to wind itself down) ▪ IPP as party to the PSA (but will that deter developers; greater uncertainty will mean higher cost power?). ▪ bilateral contracts with D&MCos (will have to comply with PSA)
Implementation Blueprint, Section 2.4 Restructuring and unbundling within existing regulatory framework	An alternative set of arrangements needs to be put in place in the event that the enactment of the EPSRA bill is delayed.	The recommended market structure during the transition period should be put into action as soon as possible. The successor companies could operate as separate and autonomous business units of NEPA until their incorporation as separate legal entities. This will provide a good learning opportunity for all concerned and impediments to implementation can be addressed during this phase.

Report Reference	Issue	Comment
Implementation Blueprint, Section 3.1 Implementation approach and framework	The timetable for implementation (September 2002 to October 2003) is very ambitious. Is this realistic and desirable?	The report identifies numerous key issues that need to be addressed, including agreement on the structure and design of the market and drawing of contractual agreements. Also, the internal restructuring involving the drawing up of organization structures and staffing levels of the successor companies, appointment of staff, including the reassignment of HQ staff, allocation of assets and liabilities, interim arrangements for allocation of revenues and cash, are still pending. There is a need for consensus building amongst all stakeholders, including NEPA management, staff and labor unions. For these reasons, it would be prudent to extend the implementation period to June 2004. This will also ensure that decisions and actions are thought through and agreed upon by all parties concerned. The newly appointed NEPA implementation restructuring committee will be instrumental in overseeing implementation. It is suggested that one senior member of staff from generation, transmission, distribution, finance and human resources are appointed full-time to serve the implementation committee.
Implementation Blueprint, Commercial Arrangements, Page 17	Fuel prices are critical – who will regulate gas prices from the monopoly gas supplier?	Establish a strategy for moving from current uneconomic gas prices to a commercial level, linked with tariff reform. The government regulates Nigeria Gas Company prices, so negotiations will involve NEPA, NGC, government and NERC.

Report Reference	Issue	Comment
Implementation Blueprint, Commercial Arrangements, Page 17	NEPA will need much more gas to fuel plants that are under construction, e.g. Okitipupa and Papalanto will add 1 340 MW of open cycle gas turbine to the electricity system. Current low gas prices may not be sufficient to pay for NGC to construct the infrastructure required to supply these plants.	Review fuel supply agreement with NGC and negotiate to link terms for extension of contract to tariff reform.
Implementation Blueprint, Section 3.2 Program management	Need for coordination of the activities of various consultants engaged by BPE. PwC remaining tasks under their original scope of work are not clearly defined or identified.	A comprehensive list of all the remaining tasks for implementation of the restructuring program should be drawn up. Each of the identified tasks should be allocated with time lines. This task requires coordination between BPE, NEPA and their consultants.
Implementation Blueprint, Section 3.3 Commercial Arrangements	All of the required market rules, contracts and market agreements will take some considerable time to develop and put in place. An interim set of rules for commercialization of the core activities is needed.	Nexant is currently undertaking a Cost of Service study and developing rules for revenue and collected revenue allocation and revenue transfers between D&MCos which can be applied during the transition period and prior to the adoption of a detailed tariff study.
Implementation Blueprint, Section 3.3, p.17	"A number of parameters ... are critical to the future viability of the entities"	NEPA agrees that fuel prices, end user tariffs and transfer prices are indeed critical to the health and development of the electricity industry in Nigeria.
Implementation Blueprint, Section 3.3, p.17	BPE is engaging a longer-term tariff adviser. However, it is not clear what institution will have Tariff Setting responsibility during the Transitional Stage before NERC becomes fully operational.	The handover of tariff-setting responsibility from the Utilities Charges Commission to NERC. The NERC should have some input into setting initial tariffs in all areas where it will have statutory responsibility.

Report Reference	Issue	Comment
Implementation Blueprint, Page 21	Existing PPAs do not refer to a Grid Code. Rules for outage planning and dispatch are in contract.	All PPAs should be consistent with the Grid Code. Existing PPAs will have to be amended to take Grid Code into account.
Implementation Blueprint, Page 23	When the successor companies are incorporated who will coordinate joint activities?	Define responsibilities for particular actions early on, e.g. IHC Headquarters (budgeting, HR, F&A, etc.); Transco (Grid Code, Connection Agreements, Market Operator?); government (Integrated Pollution Prevention and Control); NERC (licenses, tariffs).
Implementation Blueprint, Page 27	In addition to commercial and financial skills, senior management needs good leadership and effective basic management skills.	Management training is necessary to address skill gaps and to help identify potential senior managers. Training for senior managers is an early priority.
Implementation Blueprint, Page 28, 29	Job descriptions, job benchmarking, staff audit not an immediate priority.	Suggest leave job descriptions, etc. to NBUs and/or successor companies.
Implementation Blueprint, Page 29	Approach to retrenchment planning will affect relations with unions and staff.	Retrenchment planning is a key issue that should be resolved quickly. Given BPE's desired time frame for restructuring and privatisation, and for simplicity, in principle all staff should be allocated to successor companies. Review existing relocation and severance packages and modify if necessary. Decide how present NEPA pension liabilities (existing pensioners and current staff pension entitlements) will be handled.
Implementation Blueprint, Page 30	Who should develop new HR policies and procedures?	Need to decide whether a single set of HR policies and procedures should apply across the industry or whether the successor companies should be given the freedom to develop their own.

Report Reference	Issue	Comment
Implementation Blueprint, **Section 3.6**	People and organization plan mentions 7 tasks: ▪ Staff Audits ▪ Development of Organization Structures ▪ Development of Job Descriptions and grading structures ▪ Staff assimilation ▪ Retrenchment planning ▪ Development of HR policies and procedures ▪ Training The timetable suggested for these major tasks is September 02 to October 03, i.e., 12 months. PWC also recommends a core team of 10 NEPA staff to support the process (such as the formation of a job evaluation committee), as well as an employment lawyer versed in Nigerian employment law and practice.	For the tasks outlined, and for a company of nearly 30,000 employees, the schedule is ambitious, but probably feasible with a detailed, clear, strict Blueprint. Nexant strongly supports the PWC recommendation for a core NEPA team to work alongside the consultants, but also highlights that a team of local consultants are required to assist in data gathering, follow-up, interviews, further analysis, etc. This will also likely require conducting some work at local offices outside of Abuja (best conducted by a local team).
Implementation Blueprint, **Section 3.8** Systems and infrastructure	The Systems and Infrastructure Plan recommends an elaborate (and expensive) task to design systems and infrastructure such as IS/IT, metering and billing, and to procure new systems.	It is premature to design and implement advanced IS/IT systems that would not be needed in the initial stage. System rollout could proceed in phases. First, develop a simplified interim system for metering, billing and payments. Second, assess, design and implement more sophisticated systems as the market matures and market participants move up the learning curve.

Report Reference	Issue	Comment
Implementation Blueprint, Section 3.8 Systems and infrastructure	NEPA cannot afford to upgrade all information systems, software and hardware.	A cross-sector committee should prioritise installation, replacement or upgrade of information systems, e.g. ▪ metering, billing and payments ▪ accounting & financial management ▪ communications ▪ inter-company settlement

Report Reference	Issue	Comment
Implementation Blueprint, Section 3.8 Systems and infrastructure	Report states "…. all current IT systems and infrastructure will require replacement with a Greenfield build and there will be no requirement to analyze design of major upgrades or to analyze approaches to major legacy integration exercises." Strategic choice to be made: whether to make these investments pre or post privatization of GenCos and D&MCos.	This has to be discussed within NEPA and management needs to decide on the way forward. The following guiding principles are recommended: All necessary requirements for the transmission company to be taken care of under the TDP of the WB. Avoid costly investments in both technical studies and in hardware/software investments that could be undertaken by private investors. Identify and procure essential requirements for the transition. The following points should be considered: TDP of the WB makes provision for (a) a new NCC with SCADA/EMS facilities & associated communication systems, and (b) the supply & installation of MIS, including hardware & software, and covering financial, operation & maintenance management functions of TransCo. Private sector investors in GenCos & D&MCos may wish to design & develop their own systems. They may well decide to procure tried & tested software packages from other power utilities or software providers. An urgent need for new financial management & accounting systems for all NEPA operations. Should these be procured & installed now or left to private investors? What happens in the interim?

Report Reference	Issue	Comment
Implementation Blueprint, Section 3.9 Market auditor	Is a market auditor necessary?	It is not necessary to have a formalised position of "Market Auditor." Representatives of the market participants could jointly review data, systems and processes. An Electricity Market Management Committee representing participants and the regulator could fulfill the role of the auditor, supplemented by independent auditors under the direction of the regulator. NERC will provide oversight and ensure transparency and fair dealing. The aim in designing the market structure should be to render the need for a market auditor redundant. Transparency can be addressed by, for example: separating functions, e.g. separate cash transfers from settlement from despatch automate settlement and reporting ad hoc audits when deemed necessary by Electricity Market Management Committee or Regulator (also avoids "regulatory capture")

Report Reference	Issue	Comment
Implementation Blueprint, Section 4 Project plans, resources and costs	It is not clear what further work PwC is to undertake within their original scope of work. The implementation blueprint indicates that PwC will perform the following tasks: ▪ Develop a summary of key terms (Heads of Terms) to be included in contracts between BU's (page 15), which implies that PwC will also design the "Initial Principles". ▪ Upon acceptance by BPE of the "Initial Principles" report, PwC will start work on the analysis & design, culminating in the issues of a "Final Principles" report (page 19). ▪ Conduct training assessment; develop strategy & programs and pilot & test programs (page 30). Conduct training assessment; develop strategy & programs and pilot & test programs (page 30).	There is a need for NEPA to have external professional advisors/consultants to assist in the implementation of internal restructuring. The report should provide the missing information on resource requirements and cost estimates. NEPA needs to have a clear understanding of what further work PwC is to undertake under their original scope of work.
Implementation Blueprint, Page 41	There could be conflict of interest for implementation consultant serving both NEPA and BPE.	Implementation consultants appointed by BPE must work closely with NEPA, e.g. offices in the same building, and have NEPA's whole-hearted support. Consultants working on the internal restructuring of NEPA should report directly to the relevant NEPA ED. A joint NEPA/BPE steering committee should develop the terms of reference and approve key recommendations of the consultants.

Report Reference	Issue	Comment
Implementation Blueprint, Page 41	Schedule may be overly ambitious. PwC describes it as a "challengingly short timescale", and the Implementation Blueprint shows Sept-02 start. In reality, the BPE implementation consultant(s) probably will not start work until Q1 2003.	NEPA should prepare and begin work on a NEPA Restructuring Implementation Action Plan, coordinated by the Committee for Unbundling and Privatisation, with technical assistance from USAID-Nexant.

Report Reference	Issue	Comment
Description of Recommended Industry Structure, Section 3 Generation, Page 7	Need for the setting up of further generating companies to own and operate three new NEPA generating plants (at Ajaokuta, Okitipupa & Papalanto) and presently under construction through government funding and borrowing.	Treat as existing NEPA plant and incorporate them into the recommended industry structure. All necessary legal, human resource, business plans and other relevant issues should also be considered.
Description of Recommended Industry Structure Generation, Page 9	To increase competition there should be a number of companies, each with a portfolio of plant, which can compete "head to head". However, plant shortages mean limited competitive pressures	It must be recognised that generation prices will have to be regulated for many years. There will be little scope for competition whilst NERC is responsible for introducing IPPs (although new PPAs should be obtained by international competitive tender). It must be envisaged that NERC will relinquish this role to the D&MCos when they become stable and financially viable.
Description of Recommended Industry Structure Generation, Page 9	Even after a reasonable capacity margin is established, the amount of competition will depend on the number and nature of long term electricity offtake contracts.	Having a large proportion of IPPs in the plant mix over the next few years will restrict competition. Competition can be enhanced by having shorter contract duration for contracts with existing NEPA plant, with provision for regulation of generation prices on contract renewal.
Description of Recommended Industry Structure Generation, Page 10, 11	Financial viability depends on terms in offtake contracts, which should reflect the perceived market value of the plant. This means offtake contracts could be over-priced compared with existing cost base.	Contract prices should reflect cost base, including reasonable projections of required expenditure for operation and maintenance over the contract term and some return on assets. The asset valuation will reflect how much contract prices exceed operating costs.

Report Reference	Issue	Comment
Description of Recommended Industry Structure Generation, Page 10, 11	Can the D&MCos afford the generation offtake contracts required for financial viability?	D&MCos' ability to pay must also be explicitly considered when negotiating generation offtake contracts, transmission charges and market rules.
Description of Recommended Industry Structure Generation, General	The eventual objective of competition in supply cannot be realised until there is competition in generation.	For effective competition in both generation and supply, D&MCos will have to be free of the vesting offtake contracts, which means their durations should be medium term, not long term.
Description of Recommended Industry Structure Generation, General	How should new plant be treated?	If built by NEPA, treat as existing plant. Ensure new IPP contracts compatible with new electricity market structure.
Description of Recommended Industry Structure Generation, General	How will plant be dispatched?	During development of market rules NEPA will need to address how plants should be dispatched, software requirements, notification/bidding requirements, etc. Must take account of hydro plant characteristics and should be based on the principle of least cost dispatch.

Report Reference	Issue	Comment
Description of Recommended Industry Structure Distribution & Marketing, Page 15	Commercial risks of tariff uncertainty and lack of metering.	Remove tariff uncertainty as soon as possible. In particular this requires government and/or the regulator to establish and agree principles. Principles include allowable returns on investment and regulatory independence and protection against inflationary exchange rate movements. NEPA recognizes the need to give a high priority to addressing the lack of customer and grid metering, but is hampered by lack of available funds.
Description of Recommended Industry Structure Distribution & Marketing, Page 15	In addition to tariff uncertainty and lack of metering, a major commercial risk is billing and collection.	NEPA recognises the need for improvement in billing and collection. The RCM contracts have resulted in increased cash collection and have inspired better performance from non-RCM districts as well. Improvements will be limited by inadequate customer metering.
Description of Recommended Industry Structure Distribution & Marketing, Page 16, 17	Are the D&MCos' boundaries correct?	This is a good opportunity to review the existing D&MCo boundaries, even though it may not be compatible with the "aggressive restructuring and privatisation timetable".
Description of Recommended Industry Structure, Distribution and marketing	The case for eleven D&MCos has not been proven in terms of financial viability.	Given FGN policy of maintaining national uniform tariffs, more emphasis should be given in determining the number of D&MCos that would be financial viable so as to minimize the need for revenue transfers between D&MCos.

Report Reference	Issue	Comment
Description of Recommended Industry Structure Distribution & Marketing, Page 16	Are the existing D&MCos large enough to be financially viable?	Establish parameters for viability, considering tariff and pricing principles (e.g. National Uniform Tariff) and mechanisms for subsidy, if any, of rural districts and zones. Determine which zones/districts or combinations thereof meet viability criteria. This should also help justify the decision to split Lagos Zone into two, and confirm the new boundary.
Description of Recommended Industry Structure Distribution & Marketing, Page 16	Retail tariffs might not be permitted to vary between zones.	The best option is to permit retail tariffs to vary between zones. The next best choice would normally be direct government subsidy, but this is not advised by PwC. If neither is possible, a system for cross-subsidy would be required, possibly involving a direct levy for the benefit of rural areas or cash transfer between zones. The question is how customers in urban areas would react to subsidising rural areas; a cash transfer mechanism is likely to be the easier option to implement.
Description of Recommended Industry Structure Transmission, Page 22	How to improve transparency of TransCo's operations?	Separate accounts for Network Operator, System Operator. Run Market Operator as completely separate entity.

Report Reference	Issue	Comment
Description of Recommended Industry Structure Stakeholders, Page 26	Customers must pay more for their electricity. The average tariff would have to increase by 125% in October 2002 to cover current cash costs.	NEPA's current public information / education program will be particularly beneficial when tariff reform takes place. The key step to providing a safe and reliable service is tariff reform (price increases combined with proper cost allocation to different customer classes and future certainty), which must go hand in hand with improving metering, billing and collection. From past experience, however, increase in tariff does not necessarily mean increase in cash collection.
Description of Recommended Industry Structure Stakeholders, Page 26	Currently NEPA is solely accountable, but in future blame for supply shortfalls could be dispersed among Gencos, the local D&MCo and TransCo, leaving customers frustrated.	Restructuring will give greater transparency, but must not be allowed to detract from accountability.
Description of Recommended Industry Structure Recommended Structure, Page 24	Customers served at transmission voltage. There is no mention as to how the existing transmission customers will be served. By the transmission company or by a different NBU set up specifically for that purpose.	It is important to clarify the structure under which these customers will be served because they are large and contribute both to revenue and to load shape because of their relatively high load factor.

Report Reference	Issue	Comment
Business Plans Applicable to business plans for all successor companies.	A global view of the entire sector (i.e. consolidated business plans of all successor companies) would be useful in comparing the present with the projected financial statements. End user tariff implications and key performance indicators under various scenarios for each successor company and for the power sector as a whole are not given. Summary results would provide a better understanding of the future outlook. "The implications for the tariffs required to support the investment programmed in G, T & D are significant." The modeling suggests that even under the scenario where expenditure is reduced to the minimum required to deliver the anticipated growth in demand, a 50% nominal increase in tariffs is required in 2003, 2004 and 2005 with CPI increases thereafter to give a positive value to the sector as a whole." A key issue is whether such increases can be sustained. If not, more realistic and moderated (or less ambitious) business plans are needed.	More realistic and moderated business plans can be developed by revisiting the following key assumptions, at least over the next two years (2003/04): ▪ O&M costs are forecast on the basis of gross replacement costs of fixed assets. The resulting costs are substantially higher than NEPA's present costs. Proposed revised basis: Moderate increases based on present levels. (Comparison of "base" case O&M costs with present costs would be useful.) ▪ Financing of heavy capital investments, as forecast, may not be feasible. Proposed revised basis: Reduce investments. ▪ Repayment of new loans over 5 years is too onerous, especially for TransCo and GenCo investments. Proposed revised basis: Repayment over 15 years for TransCo, 10 years for GenCos and 7 years for D&MCos. ▪ Rates of return on fixed assets of 31% for GenCos and 34% for TransCo during the first few years are too ambitious. Proposed revised basis: Consider lower returns in the initial years. FGN may not expect any returns on its investments in early years.

Report Reference	Issue	Comment
		▪ Corporate taxes (at 30%) accruing to FGN are based on accounting profits. In view of heavy capital investments, capital allowances are likely to exceed accounting depreciation and therefore tax liabilities will be lower than those forecast. Proposed revised basis: Account for capital allowances.Some business plans reflect large cash balances and significant borrowing at the same time. Proposed revised basis: Keep cash at minimum operational requirements and reduce borrowing. ▪ Improvements in billing non-collection rates appear to be optimistic (reducing from 20 to 25% at present to 5% by 2005). Proposed revised basis: Assume 10% bad debts by 2005. ▪ In view of non-collections from end use customers, D&MCos will not be in a position to settle all of GenCos and TransCo's billings. Bad debts will therefore also arise in those companies. Proposed revised basis: Make allowance for bad debts. ▪ Dividend payments are not reflected; thus giving rise to healthier balance sheets than would be expected. (Investors will expect dividends). Proposed revised basis: Account for dividends.

Report Reference	Issue	Comment
		▪ Gas price is assumed at \$0.1/Mscf throughout the forecast period. The existing contract provides for an 8% escalation annually. Proposed revised basis: Base case should take account of the existing arrangements, and an alternative scenario should be developed to show the impact of increasing the gas price to \$0.50/Mscf. ▪ Plant capacity factors are assumed at 40% for hydro and the balance of requirements is pro-rated amongst thermals, including IPPs. Until the privatization of GenCos, IPPs will be dispatched before GenCo plants due to "take or pay" nature of the IPPs. Proposed revised basis: Assume 90% capacity factors for IPPs in the initial years and remaining requirements from GenCos. ▪ Total available capacity by end 2005 and 2011 is assumed at 7,064MW and 8,333MW respectively, including 15% reserve margin. This scenario is at odds with FGN policy to achieve 10,000MW of installed capacity by end 2005. Proposed alternative scenario: Show tariff implications of FGN policy. ▪ T&D losses are forecast to reduce from 35% at present to 20% by 2005. This may be too optimistic. Proposed alternative scenario: Assume a more pessimistic scenario whereby T&D losses reduce to say 25% by 2005.

Report Reference	Issue	Comment
Transmission Business Plan, Page 13	The role of SPE as described (acting as a Single Buyer) is not entirely consistent with the Implementation Blueprint.	Market principles and role of SPE need to be further clarified.
Transmission Business Plan, Page 14	The Medium Term objective of Gencos paying full price for gas and the Long Term objective of economic pricing of electricity should be tied together.	Gencos should not pay full price for gas until economic pricing of electricity is in place. Economic pricing should become a Transition Phase activity. NEPA supports price regulation by the NERC.
Transmission Business Plan, Page 19	NEPA losses are high, and the accuracy is questionable.	Losses can only properly be addressed when they are understood. Accurate grid metering and full coverage of customer metering will help enormously. NEPA is conducting a study to evaluate technical and non-technical losses more accurately.
Transmission Business Plan, Page 20	Billing and collection functions poorly.	Revenue is NEPA's lifeblood; NEPA recognises the need for improvement in billing and collection. Non-payment by government departments is a significant commercial issue affecting NEPA's present and future viability. Outstanding payments should be offset against NEPA debt to government. In future, government departments must make adequate provision to pay their electricity bills.
Transmission Business Plan, Page 24	It is vital for investor confidence that the regulator is independent of political interference.	NERC should be completely independent. For example, commissioners might be appointed by a joint industry/consumer panel.

Report Reference	Issue	Comment
Transmission Business Plan, Page 24	The Rural Electrification Agency and Rural Electrification Fund could affect approach taken to address different levels of profitability between rural and urban distribution districts.	Need to know how the Agency and Fund are likely to operate.
Transmission Business Plan, Page 25-30	The transmission pricing principles are reasonable, but have not been agreed and do not reflect D&MCos' ability to pay.	Transmission pricing principles, especially asset valuation and return on assets, should be agreed as part of overall market principles and in the context of tariff reform.
Transmission Business Plan, Page 30	The basis for assumptions on assets (PB Power report) is not correct, being based on incomplete data.	NEPA core sectors are working to update the technical asset base in the Asset Register of each sector in three stages: (i) identification of assets, (ii) valuation of assets and (iii) updating the Asset Register. Land values, e.g. at sub-stations, should also be reviewed and updated.
Transmission Business Plan, Page 31	Quality of supply standards do not exist.	TransCo will need to develop quality of supply standards, which will be approved by the regulator. TransCo should also develop project evaluation criteria to enable it to justify and prioritise projects, and performance measures to quantify the criteria.
Transmission Business Plan, Page 33-36	Use of System and Access Agreements will need to be in place before successor companies can operate fully.	TransCo to develop these commercial agreements in parallel with Grid Code.

Report Reference	Issue	Comment
Transmission Business Plan, Page 42	Creditworthiness and transparency of the Special Purpose Entity (SPE)	Prioritise rights for payment, e.g. contracts, staff, profit. Might give first call on revenues for payments to IPPs, but note other contractors should have equal rights for payment. Transparency would be enhanced by creating a separate entity to take over SPE's trading function (purchasing from IPPs and selling to electricity market). A second SPE would take over other NEPA assets and liabilities, e.g. pensions, property.
Transmission Business Plan, Page 48	NEPA does not have the money to invest sufficiently in transmission and distribution networks to meet the forecast demand growth until tariffs bring in adequate revenue and it improves billing and collection.	NEPA should regularly update demand forecasts, identify the projects required to meet demand growth, and identify options for financing the required investment. Options for new transmission lines could include BOOT. Financing constraints will then dictate what projects can be undertaken. Demand forecasts should then be modified accordingly. Further investment in transmission equipment will be required to enable the network to transmit the capacity that will be generated by the new generating stations.

Report Reference	Issue	Comment
Transmission Business Plan, Page 52	Process for allocating staff from Headquarters (MD's sector, F&A, CP&S), meter test stations, central stores and training schools is arbitrary. The report totals, e.g. for Audit, consider that all staff are at HQ, whereas the majority are in fact in the field.	A coherent approach to allocation of staff and assets from these areas should be determined soon to avoid staff uncertainty over their futures. The approach will need to take more account of current staff location and skills and should consider contracting for metering, training services. NEPA will develop a staff allocation plan.
Transmission Business Plan, Page 55	The need to reflect the "federal character provision" means appointments to senior positions are not based on merit alone.	Make it clear that from now on promotion will be on merit only (recognising the federal character provision where there is no clear winner of selection process). This will help ensure the best people are appointed, send a clear message that people will be judged on their achievements and abilities and encourage staff to work hard to gain promotion. The issue is whether this can be done.
Transmission Business Plan, Page 56	Staff are resistant to change.	Continue change management process, including roadshows and engagement with the unions, and tie in with the Committee for Unbundling and Privatisation.
Transmission Business Plan, Page 58	Trading and operating performance do not have adequate metrics, e.g. increase in staff costs not explained.	Develop performance metrics to help improve management decision-making, especially in the area of metering, billing and collection
Transmission Business Plan, Page 61-72	The basis for financial projections has not been agreed, so any financial projections are uncertain.	NEPA must engage with the tariff consultant to be employed by BPE to exchange information, influence conclusions and understand the consultant's thinking and recommendations as early as possible.

Report Reference	Issue	Comment
Transmission Business Plan, Page 61-62	The basis for calculating capital expenditure is not realistic for NEPA, especially in the short to medium term when NEPA is budget-constrained and tariffs do not cover cost of service.	Re-evaluate capital expenditure requirements and financing.
Transmission Business Plan, Page 67	Unrealistic operating costs for financial projections.	NEPA should review the operating costs to determine their realism, especially for the short term, recognising they will be input to tariff calculations.
Transmission Business Plan, Page 78-79	Federal Government of Nigeria (FGN) does not have the money to finance investment.	It is imperative to grasp the nettle of tariff reform (FGN) and to improve metering, billing and collection (NEPA) to generate revenues. NEPA should also study what cost-cutting measures it can implement and other ways of improving performance.
Transmission Business Plan, Page 86	"NEPA's compensation package (salaries and benefits) is not competitive and unlikely to attract and retain top quality professionals".	NEPA should check staff turnover/retention – is this an issue for NEPA today, or can it wait for the NBUs and successor companies? This issue, together with staff productivity, will need to be taken into account in tariff reform.
Abuja Zone Business Plan, Page 5	It is implied that all transmission funding requirements are to be met by the present World Bank commitment. However, the initial loan is for specific projects and does not address a number of transmission constraints.	The funding requirements of all NBUs should be identified so that the capital funding needs of the entire electricity sector are known.
Abuja Zone Business Plan, Page 6	"a 50% nominal increase in tariffs is required in 2003, 2004 and 2005 with CPI increases thereafter"	It may be difficult politically to achieve the required tariff levels within the timeframe proposed.

Report Reference	Issue	Comment
Abuja Zone Business Plan, Page 6	What is the rationale for number of staff to be transferred from Nepa HQ to Abuja and has there been any analysis as to the types of employees to be transferred?	Prior to the transfer of any HQ staff to any of the NBU's, a thorough analysis should be conducted and documented.
Abuja Zone Business Plan, Page 17	It is suggested that the total NEPA demand is 4 500 MW. Is this the estimated, unrestricted demand? It is further stated that capacity shortfalls are made up with small scale generation.	A comprehensive demand forecast for each Disco should be prepared and aggregated into the total, unrestricted demand for Nepa. It should also be noted that shortfall in generation capacity is "supplied" by load shedding in addition to self generation.
Abuja Zone Business Plan, Section 2.4	BPE tariff advisor to establish a tariff setting methodology for the initial five years.	NERC must have primary role in setting tariffs from the beginning of restructuring. It should be made clear that NERC is the organization which has responsibility for tariff setting within the restructured power sector.
Abuja Zone Business Plan, Section 2.5.4 Cost-reflective tariffs	The average revenue collected per unit is one-half the unit cost of production.	Need more comprehensive analysis to determine what the average revenue collected per unit is with lower losses, both technical and non-technical, and improvements in collection efficiency. Once this is known, it will be possible to quantify the needs to increase retail tariffs.
Abuja Zone Business Plan, Section 2.8, page 30; End-User Tariffs	"Once all customers are able to choose their supplier, tariff regulation might gradually be phased out. However, this is only likely to happen in a very mature market."	The ultimate goal!

Report Reference	Issue	Comment
Abuja Zone Business Plan, Section 2.8, page 30; Price Control Formula	The Medium Term Price Control Formula does not allow for exogenous costs differentials between D&MCos, e.g. rural distribution companies have higher fixed costs per customer.	The Medium Term Price Control Formula is adequate but does not take account of political considerations or the market's ability to pay.
Abuja Zone Business Plan, Section 2.8, pages 33 and 34 Cross-payments between D&MCos	Required cross-payments between D&MCos "…would involve low cost companies making payments to high cost companies through a central fund administered by NERC." "The resources to be paid to the Fund or received from the Fund each year would be defined as the differences between actual revenues under the uniform national tariff and revenues that would have accrued under the cost recovery formula…"	The fund for cross-payments is appropriate, however it may take some time to establish NERC, therefore another entity will have to manage the fund in the initial stage of the market. Since the Market Operator will control the flow of money between the market participants, the Market Operator could also handle the fund for cross-payments between D&MCos during initial market phase according to a defined set of rules that will need to be developed. It is not clear how the Fund will deal with imbalances.
Abuja Zone Business Plan, Section 2.10.1	Implication that a single buyer/seller will be implemented during the Short-Term, 1-3 years.	Market principles and role of SPE need to be further clarified.
Abuja Zone Business Plan, Section 5.1, p.55	Staff numbers: Lagos 1 - 2 180 staff, Lagos 2 - 2 180, Abuja - 1 553	Staff allocation plans for the zones and NEPA HQ will confirm the numbers of staff for each zone.
Abuja Zone Business Plan, Section 5.2	Implies that all HQ staff will be allocated to various NBUs. According to the Recommendations of Structure, the Initial Holding Company will be in existence for an extended time period during the restructuring process and will presumably require significant staff to accomplish its responsibilities.	Transition plan for NEPA HQ needs to be carefully designed and implemented.

Report Reference	Issue	Comment
Abuja Zone Business Plan, Section 5.3, p.55-59	HR policies	NEPA recognizes that HR policies should be improved to allay staff concerns and achieve a successful transition to the new industry structure.
Abuja Zone Business Plan, Section 7.1, p.63	Financial projections	Financial projections will need to be refined to improve figures of operational cost.

Report Reference	Issue	Comment
Report of the Legal consultants, Section 2.3.1 – 3, Gas Contracts	Nigerian Gas Company may terminate NEPA's gas supply contract on transfer of NEPA's rights and obligations to the IHC.	Need to calculate the financial impact of higher gas prices as input to tariff reform.
Report of Legal Consultants Gas Contracts	Report indicates that upon transfer of certain gas contracts, the cost of the gas can be renegotiated. The financial assumptions in the Business plans assume that the cost of gas for power production remains far below market prices.	If gas prices are increased to market level sooner than anticipated, the effects on consumers could be such that resistance to change will be much more severe. Need consistency of assumptions in all analyses.
Report of the Legal consultants, Section 2.3.2 RCM Contracts	It may not be possible to terminate the RCM contracts as envisaged by the Legal Report. The RCM contractors are NEPA's agents and therefore would appear not to need licenses in order to carry out billing and collection. The proposed approach would do nothing to enhance Nigeria's reputation as a place to do business.	The distribution and marketing NBUs should decide for themselves whether to let these contracts run their course or to negotiate for early termination. RCM contract rights and obligations should be transferred to the appropriate zones.

Report Reference	Issue	Comment
Report of the Legal consultants, Section 2.3.2 RCM Contracts	According to the legal consultants, the RCM contracts can be legally terminated upon the creation of successor companies following the enactment of EPSRA. There are two issues arising: Would NEPA or the successor companies wish to terminate these contracts? If so, is the legal advice valid?	The legal advice is based on the following (quoted from the report): "The contracts (RCM) provide that where any change in the laws of Nigeria or any change in the interpretation of such law occurs which makes it unlawful for the Management Consultant to make or receive any payment, to perform or comply with any material obligation, the performance or compliance of which is invalid, then the contract shall terminate. The implication of this is that in view of the fact that under the law (EPSRA), activities such as those to be carried out by the Management Consultants are licensed undertakings, then in the absence of a requisite D&MCO license by the RCM Contractors, the contracts would thus be terminated." The question is: Do the RCM contractors really need a license to carry on their activities if they are contracted to do so by the successor companies (just as they are currently contracted with NEPA)? A second legal opinion should be sought if NEPA or the successor companies wish to terminate these contracts.
Report of the Legal consultants, Section 2.4 Pension Scheme	Pension scheme is under-funded.	NEPA should identify current pension obligations and update regularly. The management of future pension obligations (incurred after successor companies are formed) will need to be resolved.

Report Reference	Issue	Comment
Report of the Legal consultants, Section 6.2	Who should take on the power supply obligations to the Republics of Benin, Togo and Niger?	A separate trading company could take on the role of supply to neighbouring countries initially. This company would operate like a D&MCo, but trade between the Pool/Market and international customers. The structure of the electricity sector in Nigeria will also need to take account of developments in relation to the West Africa Power Pool, which may eventually supercede the need for a single trading company.
Report of Legal Consultants, Page 22	Transferability of AGIP IPP. The PPA provides that the IPP can cease to supply power to NEPA subject to the contract terms when NEPA is privatized.	It will be important to clarify with the IPP its intentions after NEPA privatization. It may be possible to renegotiate the PPA such that any existing favorable terms are retained upon privatization.

Report Reference	Issue	Comment
Key Terms of PPA, General	Draft PPA is generic and not tailored to the envisioned market design.	The PPA is not required in the initial stage market if all parties agree to market rules. When the time comes, a PPA will need to be developed that is consistent with the then-current market structure.
Key Terms of PPA, Article 8	Late payment charge not specified.	Add Sub-Clause to describe how late payment charges would be applied.
Key Terms of PPA, Article 9	Scheduling will be subject to Grid Code.	Add a requirement to abide by the Grid Code, etc. (see "General" below). Specific reporting requirements to Power Purchaser should be in a separate clause.
Key Terms of PPA, Article 10	Some aspects of communications, outages, daily reporting will be subject to Grid Code, which could lead to confusion.	Power Purchaser's requirements for reporting, etc. should be in a separate clause from obligation to abide by Grid Code.
Key Terms of PPA, Article 16	Force Majeure events include strikes by employees of the generation company	A strike by a company's own employees is normally not considered a Force Majeure event.
Key Terms of PPA, General	Does not take account of the industry structure in terms of Grid Code, connection agreements.	PPA should include clause requiring Genco to comply with applicable laws, regulations, standards and codes.
Key Terms of PPA, General	No incentives to maintain availability or heat rate.	PPA should include availability incentives for MW Capacity and Outages. Heat rate incentives are only applicable if the Power Purchaser pays for the fuel on pass-through basis.

Report Reference	Issue	Comment
Key Terms of PPA, General	Contract makes no reference to how the contract should be managed.	Add clause to deal with communications between the parties, nominated representatives, addresses, frequency of meetings, etc.

Report Reference	Issue	Comment
HR Review Section 1.2	No description of approach used for HR review. For example, did team visit sites beyond Abuja? Did they utilize a local firm (or local office of PWC) to do a lot of the data gathering and analysis? Did they interview a cross-section of non-management employees?	More detailed information would be helpful to help guide potential follow-on work. In general, high-level NEPA managers and a local firm should participate and be actively involved to accomplish HR-related tasks.
HR Review Sections 1.3 and 1.4	The problems of delayed feedback, non-availability of data, and information not received cited by PWC will negatively impact the timeliness and efficiency of implementation of the HR work.	It will be absolutely imperative to gain access to information on a timely basis. NEPA management support and participation, as well as local consulting input and participation is essential.
HR Review - Section 2.1 (Org Structure)	NEPA will have to design individual organizational structures for each of the successor companies.	To some extent there will be similarities among the companies reducing the effort involved. NEPA will need to bear in mind the trend to flatten an organizational structure and increase spans of control when designing an efficient enterprise.
HR Review – Section 2.2 (Staffing)	The staffing data gathered, presented, and analyzed by PWC indicates some typical findings in large, state-owned utilities – e.g., ageing workforce, and inadequate staff quality or skills profile.	NEPA restructuring implementation committee will need to look closely at the type and quality of staff in order to put in place employees who will be able to manage and operate commercial enterprises. Need to conduct staff audit, staff assimilation, and retrenchment planning.

Report Reference	Issue	Comment
HR Review – Section 3 (HR Policies)	HR practices have been driven by overall Government employment procedures, and this has led to inconsistencies, deviations, etc. In addition, federal policies "must reflect the federal character principle which emphasizes fair representation of the diverse ethnic groups in the country."	This is an important point in determining staff allocation to the new successor companies, as well as in designing revised HR policies for each company (obviously there may likely be great similarity among them). The challenge will be developing policies and practices that are appropriate for commercial companies, address employees' concerns, and comply with existing laws. PWC correctly notes that compensation will be a major issue. Determining how to address this will be an important consideration in designing an employee transfer plan for the successor companies. PWC also correctly points out that training will be a critical issue for the successor companies.

Identified Gap for Implementation	Suggested Approach to Resolve
Role of headquarters vis-à-vis NBUs not specified	Need to define organization structures for headquarters and each NBU. Need to define governance for IHC and daughter companies.
NEPA transmission system is split into two independent islands, A1 and A2, in order to avoid total system collapse if problems occur in one area.	Islanding will have to be taken explicitly into account when designing market rules such as a PSA. Islanding also has implications for a Uniform National Tariff and possible cross-payment mechanisms.
Some boundaries between districts/zones need to be adjusted. There are instances where distribution and marketing functions of neighbouring districts overlap. For example, Shomolu district distributes electricity to customers in some areas, but Ijora district collects the revenues from those customers.	To simplify future operation, commercial boundaries between zones need to be consistent with the technical boundaries. NEPA should carry out a detailed study to identify problem areas and resolve the boundary, asset allocation, metering, management and staffing issues.
Design of the market presupposes that "there must be no single buyer", however market operator would act similar to a single buyer.	Pros and cons of the market design should be examined and details of proposed market filled in.
Clarification of role of NERC in initial tariff setting	Implementation Committee should address this issue early in the process so that missteps can be avoided.

Identified Gap for Implementation	Suggested Approach to Resolve
Transfer of electricity between zones at distribution level, e.g. feeder from Lagos to Ijebu-ode district..	Rules for inter-zone electricity sales will need to be developed in Market Rules, Distribution Code and inter-zone Connection and Supply Agreements to address: metering at the interface and electricity flows between zones payment between zones priority of supply, to avoid customers in one zone being starved of supply by another zone NEPA should also investigate the desirability of boundary adjustments to minimize such problems. It is noted that zonal boundaries currently follow political boundaries.
The principles for locating the boundary between generation and transmission companies are not discussed.	NEPA proposes to maintain its existing boundaries between power stations and the transmission network at the HV bushings on the power station grid transformers.
Adequate customer metering not available	Address both grid and customer metering with metering task force to develop current status, metering strategy and implementation plan, including proposals for funding (NEPA cannot afford to buy meters).
Existing technical codes and standards may be out of date.	NEPA should review and update existing technical codes and standards.
Financial restructuring of NEPA's debt and cross-debts with the government.	Under its ongoing activities, Nexant will recommend a debt restructuring plan to "clean up" NEPA balance sheet.
Capital structures and debt/equity ratios of successor companies.	The allocation of remaining NEPA debt (after financial restructuring) to the successor companies on the basis of desired debt/equity ratios needs to be undertaken after the allocation of all other assets and liabilities.

Identified Gap for Implementation	Suggested Approach to Resolve
Need for opening balance sheets of successor companies. This involves the identification of assets and liabilities to be allocated to each successor company. In terms of value, a significant proportion of assets and liabilities are presently recorded in HQ books. (This issue has not been covered in the PwC reports).	Tasks involved in the preparation of opening balance sheets of successor companies are summarized below: ▪ Physical inventory of fixed assets and updating of fixed assets registers and updating of historical book values for each successor company. ▪ Compare and contrast book values with valuations as per PB Power and decide on the basis of valuation of fixed assets in the opening balance sheets. (The basis of valuation will have a significant bearing on the cost of service of each company). ▪ Verification & valuation of land & properties. KPMG is currently undertaking this task (to be concluded November 2002). ▪ Allocation of land & properties. ▪ Evaluation & allocation of work in progress. ▪ Valuation & allocation of inventory. KPMG is currently undertaking this task (to be concluded Nov 1, 2002). ▪ Assessment of customer accounts receivable. Bad and irrecoverable debts should be written-off so that accounts receivable in the opening balance sheets of the successor companies represent recoverable values. • Evaluation & allocation of all other assets.

Identified Gap for Implementation	Suggested Approach to Resolve
	▪ Evaluation of pensions & gratuities liabilities (actuarial valuation) & redundancy liabilities. KPMG is currently undertaking this task (to be concluded October 2002). ▪ Allocation of pensions, gratuities & redundancy liabilities. ▪ Allocation of long-term debt (see above). ▪ Evaluation & allocation of all other liabilities. ▪ Assessment of legal claims. KPMG is currently undertaking this task (to be concluded October 2002). About 800 cases are involved. ▪ Assessment of contingent liabilities (other than pending legal claims).
No findings or specifications on governance structure and senior managers	Need to develop specific conclusions. Are there too many managers? Are they sufficiently qualified? Are any specialized skills missing? What are their spans of control? This analysis should be part of a staff audit and will form the basis for the appointment of senior managers.

Identified Gap for Implementation	Suggested Approach to Resolve
No discussion of the level of core vs. non-core activities, and disposition of shared resources	Development of the organizational structure of each successor companies will need to incorporate a review of core vs. non-core activities, as well as shared resources, and the extent to which certain current functions could be contracted out. Specific tasks are: ▪ Identify non-core & shared activities. ▪ Determine manpower, annual costs and book values of fixed assets for each of these activities. ▪ Identify services that may be disposed (i.e. to be transferred to SPE for eventual disposal). ▪ Allocate remaining services to successor companies. ▪ Formulate policy/mechanism for sharing of services common to particular business (e.g. meter test stations, training schools).
No comment on the staffing levels	The HR program will have to address the issue of overstaffing, e.g., does it exist, in which departments, etc., and how to address. This will include a general strategy as to whether some retrenchment is addressed prior to the unbundling, or at some later stage, and how. In addition, despite its pitfalls, a benchmarking exercise may be required to provide some broad range of staffing levels.
No discussion of the role of automation and its impact on staffing.	Typically, state-owned utilities lack sufficient automation, which leads to heavily labor intensive processes. As successor companies are formed and modernized, the requirement for excessive labor will be reduced. However, new employees will be needed with the requisite new skills to operate and manage new management information systems.

Identified Gap for Implementation	Suggested Approach to Resolve
No mention of funding the HR transformation process	This involves how accumulated pension and other benefits will be funded, whether funds will be made available for a severance program (and assumes that a cost-benefit analysis for a severance plan is conducted), if funds are provided for re-training or job counseling, etc. NEPA will need to assess these costs and secure funding.
A number of trade union matters issues will have to be addressed comprehensively, such as: ▪ Is there a standard labor agreement, which might indicate how employees (and their terms of employment) are to be handled in the restructuring process? ▪ How many employees are in a union? Are they strong? Are they affiliated with political parties, or rather by region, ethnic group, or other industries, etc? Are managers in a union? ▪ Has the whole restructuring and privatisation process been discussed with the unions? If so, in what way, and how frequently? Has the process been communicated to the average worker, either by management or by their unions?	Need for discussions with employees across different levels and different divisions, incorporating the unions in the development of HR strategies. Active communication to employees and the public at large throughout the unbundling process are critical.

Identified Gap for Implementation	Suggested Approach to Resolve
Need to establish an HR Committee	NEPA will need to establish an HR Committee right from the outset of the process. This Committee will comprise representatives from NEPA senior management, employees, unions, and other appropriate Government agencies. The purpose of the Committee will be to review and discuss various proposals for handling certain issues, and ultimately to decide upon a course of action. The HR Committee can form sub-committee to study certain issues, which then present options/recommendations to the overall Committee. For example, subcommittee could be established to assess appropriate components of a severance package, new terms and conditions of employment, salary ranges, etc.
Lack of detail/rationale on tasks in Implementation Blueprint: ▪ Staff audit ▪ Staff Assimilation ▪ Retrenchment planning	These tasks are the three most critical priorities in the HR area. They will take the most time, be the most politically sensitive, require the most support from NEPA, necessitate local consulting assistance, and surely require inputs from the unions to make their outcomes successful. At this time, on a preliminary basis, Nexant would recommend that NEPA focus on these tasks. Access to all the data and info collected and analyzed by PWC is essential, as well as filling the gaps which they identified in the HR Review.