

Overview

Overview of IFC's scope of review

IFC is considering an equity investment and a debt participation in Microqual Techno Limited, (hereafter “Microqual” or the “company” and will include its operations and operating partners/JV partners in India, Bangladesh, Nepal, Middle East and African countries and any other country where Microqual operates in future) in its telecommunication products, services and infrastructure solutions business. IFC’s review of this investment consisted of:

- appraising Microqual’s corporate management system by interviewing management and assessing management systems and human resources;
- reviewing the ‘proof of concept’ project site (for power tower) in Kolar, Karnataka;
- visiting a manufacturing facility in Aurangabad, Maharashtra;
- visiting Ground Based Telecom towers (GBT) and Roof top Telecom towers (RTT) sites and active and passive maintenance sites managed by Microqual; and
- reviewing other technical, environmental and social information made available by Microqual.

Project description

Microqual was set up in 1999. The Company initially started manufacturing Radio Frequency components for Wireless in Local Loop applications and expanded its product and service offerings to include:

- Copper/Aluminium cored Radio Frequency (RF) feeder cables & transmission kits;
- In building products and repeaters;
- Turnkey Active and Passive Network Installation (turnkey service of telecom towers);
- Active & Passive network management (mainly related to management of tower infrastructure); and
- Leasing in-building sites.

Microqual has manufacturing facilities in India in Aurangabad, Bangalore (R&D mainly), and Rudrapur,. The Company offers the above products and services to major telecom companies such as Bharti Airtel directly and through their equipment / service providers, like Ericson, and also directly and indirectly to telecom companies for overseas operations, including in Bangladesh, South Africa, and Nigeria. Microqual’s clients include Bharti Airtel, Vodafone, Ericsson, Huawei, ZTE, Nokia-Siemens-Network (NSN) and other service providers to telecom companies.

Under the RF feeder cable manufacturing business, Microqual has a manufacturing unit in Aurangabad, Maharashtra where copper-core and aluminium-core cables are sheathed for indoor and outdoor application. A second RF equipment facility is operational in Rudrapur (2 units) where active and passive RF components like repeaters, connectors, jumpers, antenna, splitters, couplers, combiners etc are manufactured. The company has an R&D laboratory in Bangalore, where product development and research work is done.

Apart from being a manufacturer and material supplier, Microqual is also a Turnkey Service Provider (TSP) to telecom operators and tower companies. Microqual erects

telecom towers (Ground Based Towers and Roof Top Towers) on small parcels of land (less than 0.25acre) procured and selected by the customer (telecom service provider). Microqual also undertakes the operations and maintenance contract for telecom operators. Active Equipment maintenance is generally done by OEMs. Microqual was one of the first companies to win a contract for active maintenance from Huawei.

Microqual is also engaged in the business of In-Building telecom Services (IBS) where it is involved in activities like RF planning and designing inside buildings (such as institutional areas, corporate campuses, shopping malls, hotels etc), leasing space from the builder/owner of the building, deploying RF infrastructure and then leasing out this RF network to telecom service providers to cater to the tenants /occupants of the building.

The company is now proposing a new business line of installing mobile telecom infrastructure on existing grid electricity network towers (the 'power tower' business). This will involve utilising the existing infrastructure, i.e. power transmission towers of Power Grid Corporation of India (PGCIL) and State Transmission Companies (State Transco), for installing mobile radiofrequency equipments for telecom operators.

The company will also deploy a hybrid system of diesel generator and renewable energy (wind and solar) to provide backup power to existing and new telecom towers. The project is thus expected to reduce the need to construct new telecom towers and thus the land footprint and once the step-down approval is received (and also through hybrid system), it is also expected to reduce the consumption of diesel, the primary fuel for backup power to conventional telecom towers. IFC is considering a total of \$25 million investment composed of partquasi-equity and part senior loan to Microqual.

To enhance its technical and safety capabilities, Microqual has entered into a joint venture agreement with Buckley Cable Construction Co, United States, which has two decades of experience in deploying and managing telecom infrastructure including power solutions. Thus far, the Company, through competitive bidding processes, has obtained 10 year exclusive rights to lease selected power transmission towers from PGCIL (for northern states of India) and, Himachal Pradesh State Electricity Board (HPSEB) for installing and operating mobile telecom towers on existing Power transmission towers.

Category and Applicable Standards

Identified applicable performance standards

The proposed investment will have impacts that must be managed in a manner consistent with the following Performance Standards in most of its activities:

PS 1: Social and Environmental Assessment and Management System;

PS 2: Labor and Working Conditions;

PS 3: Pollution Prevention and Abatement; and

PS 4: Community Health, Safety and Security.

PS 5 is not applicable because Microqual will not undertake involuntary land acquisition for any of its future business activity, including expansion or opening of new facility. Land for Microqual manufacturing facilities in Rudrapur is within an industrial zone and has been taken on a long term lease (99 years) from the State Industrial Development

Corporation of Uttaranchal Limited (SIDCUL) and land for manufacturing facility in Aurangabad has been purchased on direct negotiation. The Company's construction, operation and management activities occur mostly on land owned or arranged by its clients. Only in 'power-tower' business and its own manufacturing facilities, it has to procure or lease land.

The nature of Microqual's business is such that it has negligible impact on biodiversity, natural habitats, or environmentally sensitive areas. Business activities will be avoided in any area which is identified as critical habitat or environmentally or ecologically sensitive like a coastal zone, wetland, national park, or wildlife sanctuary. The company will consult with and obtain requisite approvals/permissions, from the relevant authorities (Park management, forest department, conservation authority etc) before undertaking any business activity in legally-protected areas.

Microqual's operations do not have any impact on Indigenous Peoples. Notwithstanding, during any project activity where the Company needs to engage with a member of Indigenous community, the company will follow procedures consistent with Performance Standard 7. Similarly any expansion of existing manufacturing facility or creation of a new manufacturing facility will also be undertaken in a manner consistent to this Performance Standard.

Microqual's operations do not have any impact on sites of Cultural Heritage. Site selection is not under the control of the company. However, in 'power-tower' business, wherever commercially reasonable, the company will avoid sites/locations which may have adverse impact on any structure of cultural heritage. The company avoids sites/locations which may have adverse impact on any structure of cultural heritage. Since the company is engaged in foundation /excavation processes, the company will develop a chance-find protocol consistent with Performance Standard-8 that is applicable to all projects. This will also apply to any expansion of existing manufacturing facilities or creation of new manufacturing facilities.

Environmental and social categorization and rationale

The proposed investment is a Category B project because a limited number of specific environmental and social impacts may result that can be avoided or mitigated by adhering to generally recognized performance standards, guidelines and design criteria. Potential adverse construction impacts are likely to be limited to project sites, short term, able to be effectively managed and mitigated, and likely to have no or limited impact on environmentally sensitive features and sites. Project operational impacts are also manageable and generally mitigable through appropriate design and the implementation of suitable engineering and management measures.

Microqual's 'power tower' projects will deliver significant environmental benefits. With permission to step-down power from power transmission lines to provide electricity to the telecommunication devices, the dependence on fossil fuels will be reduced. At the same time, due to infrastructure sharing model, the telecom industry's footprint on land will be considerably reduced, while the outreach will increase significantly in rural areas.

Key Issues and Mitigation

Key environmental and social issues and mitigation

PS 1: Social and Environmental Assessment and Management System

Microqual has ISO 9001:2008 certified Quality Management System and ISO 14001:2004 certified Environment Management System. Additionally, the company has ERP system on product side (RF equipments) and online project management system to keep control of project milestones, monitoring and maintenance. Microqual also provides Remote Monitoring Unit (RMU) and Nodal Operation Centres (NOC) to further keep a control on fault identification and timely rectification. Microqual has product approvals from majority of its clients like Bharti Airtel, Aircel, Nokia-Siemens, Vodafone, BSNL, Huawei and ZTE. The company has internal procedures for health and safety, work permits, provisioning of Personal Protective Equipments (PPE) etc. The Company implements an accident reporting system. The Company also prepares a training calendar and training plans for its employees.

Up to date recordkeeping in O&M site logbook for OEM maintenance checkups, diesel fuelling, power consumption etc will be ensured at all sites. On multi-tenant sites where Microqual is undertaking O&M for one or two tenants' general environment management will be improved to the extent possible.

Microqual will ensure that the environment, health, and safety procedures and protocols of the company across its operations as well as site level HSE plans will be consistent with the applicable Performance Standard. This will be done before start of any construction activity related to 'power-tower' business and for the rest of the business within 3 months.

To be able to track and ensure compliance to statutory requirements, Microqual maintains a compliance track sheet at Aurangabad facility. Microqual will ensure similar practices across all facilities and business operations. For any future acquisitions, Microqual will, within 6 months of acquisition, complete assessments, develop systems and procedures, acceptable to IFC, to ensure compliance with PS requirements.

PS 2: Labor and Working Conditions

Microqual currently employs around 539 on roll employees and around 481 temporary staff (mostly involved in O&M and has around 70 engineers and diploma holders). It also hires additional contractor provided labor for non critical activities like housekeeping, drivers, security and support staff. Microqual has a policy against using child labour at any of its facilities. The HR policy of Microqual has rules and procedures for leave, travel, gratuity allowances, medical benefits (covering family). Employee unions are not allowed. The present system of employee consultation is through departmental meetings and reviews. Grievances are handled informally by the line manager and supervisors. A formal grievance mechanism with grievance escalation procedure will be put in place within 3 months. Working conditions and terms of employment are set out at the time of employment. There have been no need of engaging workers/labour in overtime so far and the company is committed to comply with national laws if overtime is required.

While using contractors labour, company ensures minimum wages, working hours, PF return filing and avoiding use of child labour is compliant to labour legislations. In tower

erection business, different contractor teams move in to the site at different time, e.g. civil team comprising on average 6-8 workers would be the first one to move in for 7-8 days, followed by tower erection team of 10-12 workers for 5 days. Going forward the company will ensure that only registered contractors are given site work contracts.

The company has provided adequately clean, well lit, ventilated and spacious working environment at its manufacturing facility in Aurangabad. It provides clean drinking water and toilet facilities, and eating and resting place for workers. Simple first-aid box is also kept at the premise and emergency contact numbers are displayed. Every workstation has a process flowchart and progress is monitored frequently. Plan, Do, Check and Act (PDCA) and 5-S are implemented at the facility. Small number of contractor workers is involved in recycling the packing material and manufacturing packing material within the premise. Quarterly noise monitoring is done by an environmental consultant at both the manufacturing facilities and reports are submitted to the State Pollution Control Boards. Working at heights is done through permit system and the safety manual covers general H&S situation of lifting, lifting tackles/forklift operations, first aid, use of PPEs, fire fighting, electrical and material and machine handling, general housekeeping and standard Do/Don't procedures. Accident/incident reporting system is also in place.

Current training calendar and training programs are focused on fire and life safety, first aid, Quality Management System (QMS), Environment Management System (EMS) 5-S kaizen, use of PPEs, operations, testing and handling of RF equipments, product knowledge for which internal as well as external resources are mobilized. For the 'power-tower' business, specialized manpower will be needed with adequate training. Company is addressing this through appropriate training. As per agreement with PGCIL, the company has to develop 'tower regulation' for individual tower agreements and these will be reviewed by PGCIL. The company will also ensure that the 'tower regulations' are in line with IFCs sector specific EHS guidelines for power transmission and telecom, the general EHS guidelines and national requirements for RF equipments /material handling. This will be ensured atleast one month before any construction of 'power-tower' takes place so that the manpower is trained on /made well aware of the regulations.

The company will also upgrade its Human Resource policy to meet the requirements of this PS and the company will ensure any changes are implemented within 3 months of IFC disbursement.

PS 3: Pollution Prevention and Abatement

Given the sector and nature of operations, waste generated is minimal (mainly assembly and civil works at sites and waste generated in O&M activities). In the manufacturing unit of the company at Aurangabad, High Density Poly-Ethylene (HDPE) is used for sheathing the copper core RF cable. Currently, the site has a 33 kV substation of state electricity board for supply of power. Additional back up is ensured through 3 DG sets of 500 kVA capacity and 3 UPS of 400 kVA having 1000 kVA VRLA batteries. Hazardous material like diesel for DGs, transformer oil, gas cylinders etc are stored at the facility. Other chemicals and adhesives (in small quantities) are stored in secured place and MSDS are maintained. In terms of management of waste, the scrap metal (mainly Copper and Aluminum) and HDPE is currently stored at a designated place and then sold to scrap dealer for recycling. No open dumping or burning of waste material is practiced. Fuel

storage area at the manufacturing sites will be provided with secondary containment provisions and adequate firefighting equipment. Wood for packing material is currently stacked in open. The company will ensure that this area is well fumigated to prevent pests and mosquitoes from breeding, especially in the rainy season.

Majority of project sites include construction activities of short durations and waste management becomes a critical requirement. The contractor and labour deployed is local and hence no need of temporary labour camps. Current practices, as observed during review of O&M sites, need improvement in terms of management of localized oil spills, disposal of oil filters and scraps, stack placement of DG etc. This will be ensured and covered as part of site management plans.

Microqual will also ensure that statutory compliance with respect to air, water and noise emissions from generators, ac units and any other equipments/machines including vehicles engaged for the project is met during the entire project life cycle at all project locations so that public nuisances do not take place. Site level emissions, discharges, spills and contaminations and waste management will be controlled through adequate management plans.

The company will implement a comprehensive waste management plan to ensure that hazardous waste, e-waste, wires, batteries, metal scrap, oil, grease, nails, packing material, plastic waste, concrete etc is disposed as per applicable laws. This plan will be prepared within 4 months of disbursement and will be used throughout the operations of the company and the plan will have activity wise procedures for waste identification, classification, reuse, reduce, recycle, disposal and inventory management.

PS4: Community Health, Safety and Security

The manufacturing facility at Aurangabad is not a designated industrial area but is surrounded by other industries, and the units in Rudrapur are in an industrial area. Hence, the proximity to and impact on neighboring communities or residential areas is very low. The plant operations, equipment and material do not pose a significant risk to the local communities.

In the telecom tower business, especially the RTT, sites are tested for structural strength and stability before building the site. For this an independent consultant prepares the report on structural stability and based on the design and description of the construction, the civil engineering department of Indian Institute of Technology (IIT) provides a certificate of structural suitability for tower erection. In case the tenancy on any tower increases, it would mean additional units of DG, BTS etc and hence additional load on the structure. For all such cases, if required, Microqual will review the validity of the certificate issued by IIT in context of structural suitability and assess additional requirements. NOC are obtained for all sites from the local municipality and/or local Panchayat.

In projects where tower sites are located in dense urban areas, community H&S becomes more critical. The Company will, therefore, ensure that the health, safety and security of local community during construction and O&M phase are not jeopardized in any manner. Towards this, the company will ensure sensitization of vehicle drivers, machine operators, contractors and other staff responsible for working on site. Socially and

culturally appropriate behavior will be demonstrated by all workers working on any project site, especially while interacting with local community, women, old aged and children. Microqual will ensure that its contractors are also made aware of and comply with these requirements by putting conditions in their work agreements. Microqual will institute a robust health and safety plan which covers all aspects of its different operations. Where required, Microqual will also ensure prior written approvals from civil/defense air traffic authority, defense and military installations and other sensitive installations before executing the project. Company will further clarify the validity of structural stability certificate issued by IIT in case of increased tenancy.

No excavated/dug up site or under construction site will be left unattended, especially during monsoon season and adequate barricades and safety precautions will be put on display (including glow signs for night time). Emergency contact numbers of nearest hospital, police station, ambulance, the work contractor and one company staff will also be displayed at all construction sites.

During O&M phase, the company will undertake O&M activities in a manner which causes minimum disturbance to the landowner/tenant. The company will not cause harm/damage to any property (including crops, vegetation, orchards, hutments, shed etc) while undertaking O&M activities. In case, such damage cannot be avoided, the company will compensate adequately for the damages so inflicted. In case of outsourced O&M activities, the company will ultimately be responsible if the contractor does not pay for damages.

Community Engagement

Client's community engagement

Due to the limited impact of the project on communities Microqual's engagement to date has been limited. Going forward Microqual will institute a process of proactively engaging local communities in employment opportunities commensurate to the skills and qualifications required for the job. This could be done either directly through notifying Panchayat offices or through employment exchanges.

Microqual will also ensure that engagement with community at any project site will be open and fair. Any complaints/grievances of the local community against an employee of the company or contractor engaged by the company will be duly recorded and resolved in amicable and timely manner. An escalation matrix will be developed for this ensuring responsibility of site, circle and zonal level management of Microqual. The company will ensure that neighbouring landowners and leaseholders will be informed in advance and engaged during all stages of project including site reconnaissance, survey, site sampling, site planning, , construction, installation, O&M, dismantling and handover of the site.

Microqual will also ensure that any concerns regarding health and safety of local community due to installation of RF equipments are resolved before any installation takes place. To the extent commercially reasonable, and need of the situation, if required, Microqual will also engage third party RF domain experts to address any such concerns of local community. All such concerns and resolutions achieved will also be recorded as part of project management and be shared with IFC in annual reporting.

Microqual will also prepare and implement a grievance recording and redressal plan and will make Microqual's site supervisor/contractor responsible for first level redressal of community grievances related to any aspect of Microqual's operations (directly by the company or through contractors). This plan will be in place within 2 months (before disbursement).

Local access of project documentation

In case any person wishes to get more details on the above, they may contact either:

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