

**ENVIRONMENTAL AND SOCIAL REVIEW SUMMARY
HUSK POWER SYSTEMS PRIVATE LIMITED
IFC PROJECT # 29024**

Overview of IFC's scope of review

Husk Power Systems Private Limited (“Husk Power” or “HPS” or the “Company”), a wholly held subsidiary of Husk Power Systems Incorporated, provides off-grid power to rural Indian villages of 200-500 households using a rice husk gasifier coupled with an engine/generator and a dedicated village electricity distribution system. Husk Power presently has about 25 operating facilities and is in the process of expanding the number of such off grid power generation – distribution facilities to about 100 by end of 2010. IFC is proposing a corporate investment in Husk Power Systems Incorporated to part finance HPS's expansion plan.

IFC's review of this corporate investment in Husk Power was focused on the Company's: corporate social and environmental management systems; processes for social and environmental assessment and impact mitigation; community consultation and engagement; and labor and working conditions.

Accordingly, the review consisted of appraising technical, environmental and social information submitted by the Company including: operations manual; sample land lease agreement; sample husk purchase agreement; sample Pollution Control Board Application; sample connection letter issued to villagers seeking connection; operator training program topics; and the process flow chart for installing a system. The appraisal team also interviewed Husk Power's Sponsors, Chief Executive and Chief Operations officers. Further, the appraisal included a site visit to Husk Power's existing operations in West Champaran district (villages Tamkuha, Daunaha, Rupahi and Bhujdharwa) in the state of Bihar, India.

Project Description

IFC is proposing a corporate investment in Husk Power Systems Incorporated to part finance HPS's expansion plan (“Project”). Founded in 2008, Husk Power provides off-grid power to rural Indian villages of 200-500 households. Each of Husk Power's “micro/mini power plants” uses rice husk gasifier coupled with an engine-generator to generate power (35-100 kW installed capacity). Further, HPS also puts in place a distribution system in the village, which delivers electricity as a “pay-for-use” service using a point-to-point system that connects each household or business directly to the HPS power station. Husk Power presently has about 25 operating facilities and is in the process of expanding the number of such off grid power generation – distribution facilities to about 100 by end of 2010.

Typically, each of Husk Power's off grid generation and distribution system is located on plots of sizes from 2000 ft² to 5000 ft². The land is usually leased from a local landowner for a period of 10 years. The generation unit is comprised of a; downward draft rice husk gasifier (40-50 kg husk/hr r gas); venturi/gas cleaning cum cooling system; water seal; three stage gas filters including charcoal filter; husk/saw dust filter and fabric filter; spark ignition engine and generator unit; 2 lead acid batteries for cranking the engine; and the power bus/panels. The facility also includes husk storage area, water tank, hand operated water pump, char and tar water settling tanks, char/tar storage area and water recycling pumps. The electricity generated is 3-phase – 415 Volts at the bus bar in the plant, and each phase being 230 Volts. Each of the 3-phases at 230 Volts constitutes one distribution circuit. The distribution grid is comprised of single phase lines extended into various parts of the village from which connections that feed into each household are drawn. The distribution system is comprised of double sheath cables mounted on bamboo poles and does not use transformers. Hence, the grid is not extended beyond 1.5 km to ensure at least 190

Volt at the farthest point on the grid. The Company enters into husk purchase agreement with local rice mill owners and maintains a husk stock of no more than 5 days. Generally, the plant is operated for 6 – 8 hours as electricity is supplied to domestic and commercial consumers for fixed 6 - 8 hours in the evening.

Identified Applicable Performance Standards

While all Performance Standards are applicable to this investment, IFC's environmental and social due diligence indicates that the proposed corporate investment will have impacts which must be managed in a manner consistent with the following Performance Standards:

- PS 1: Social and Environmental Assessment and Management System; and
- PS 2: Labor and Working Conditions.

In view of the fact that the location and siting of all projects to be developed by HPS are as yet not known, the Company's individual projects may result in impacts that may have to be managed in accordance with the provisions of IFC Performance Standards 3 through to 8. Husk Power will put in place an appropriate social, environmental, occupational health and safety management system (SEMS), consistent with IFC Performance Standards, to manage such project impacts.

E&S Categorization Rationale

This corporate investment in Husk Power is a Category B project because a limited number of specific environmental and social impacts may result, which can be avoided or mitigated by adhering to generally recognized performance standards, guidelines or design criteria. Potential impacts from the facilities are likely to be limited in scale and limited to facility site. Further, it is possible to readily design and implement engineering and management measures to mitigate adverse impacts during construction and operations. The Company will manage its environmental and social performance in accordance with applicable local laws and regulations and international standards, including IFC's Performance Standards on Social and Environmental Sustainability.

Description of key environmental and social issues and mitigation

The projects being implemented by Husk Power are socially and environmentally desirable and being renewable energy projects will contribute to GHG avoidance besides the several attendant benefits of making electricity available to households that have until now been without electricity. Husk Power sponsors are committed to achieving high social and environmental outcomes from their projects. Accordingly, the Company will implement plans to address these impacts to ensure that the proposed project will upon implementation of the specific agreed measures, comply with the environmental and social requirements including: the host country laws and regulations; and IFC's Performance Standards. The information about how these potential impacts will be addressed by the Sponsor/Project is summarized in the paragraphs that follow. Further information is provided in the attached documentation.

PS 1: Social and Environmental Assessment and Management System

Husk Power, to meet regulatory requirements and complete permit applications, undertakes a very limited examination of the social and environmental impacts of its projects and operations. Husk Power's present approach to managing social and environmental performance does not cover all the various relevant and applicable aspects contemplated in the IFC Performance Standards. As part of the Action Plan agreed with IFC, Husk Power will implement measures, discussed here, so as to ensure that its projects and operations result in outcomes consistent with IFC Performance Standards.

In keeping with the limited nature and scale of potential risks and impacts from its projects and operations, Social and Environmental Impact Assessment (SEIA) of each project is not expected to be

undertaken by Husk Power. However, the Company will undertake a third party social and environmental audit of a sample of its existing/operating facilities and will implement the mitigation measures/action plan developed based on the findings of this third party audit. Further, the Company will put in place an appropriate social and environmental management system (SEMS), consistent with IFC Performance Standards and incorporating Good International Industry Practice (GIIP). Husk Power will, under the SEMS: develop a legal register and compliance matrix to ensure full compliance with all applicable social and environmental laws, rules and regulations across all of its operations at all times; and obtain all applicable permits, consents and authorizations. Further, the Company will, as part of the SEMS, put in place standardized social and environmental criteria and procedures for: screening, mitigation and monitoring; incident and accident handling, recording, reporting, investigation and analysis; emergency preparedness and response; responsibility allocation; training and awareness; communication and consultation; audit; corrective action; management review; and reporting social and environmental performance to the Company's Board of Directors, regulators and investors. In addition, Husk Power will, to enable effective implementation of the SEMS: detail roles and responsibilities including of key contractors and suppliers for implementation of the various elements of the SEMS; provide technical guidance, including standard screening forms, mitigation measures and monitoring procedures for ensuring social and environmental outcomes are consistent with the SEMS objectives; and develop and implement a training program on SEMS for all employees and contract workers.

Typically at each project site: the principal air emission is from the gas turbine (35 – 100 kW installed capacity); water consumption for process is about 1 KL/day; and water consumption for domestic use is 1 KL/day.. Process water and domestic water used at each project site is ground water. Process waste water (bottom ash/rice husk char) and tar tank water (from venturi/gas cleaning cum cooling water) is collected in a settling tank and recycled. Rice husk char (RHC), tar and used filter media (husk/saw dust and charcoal) are all mixed and stored on the ground. The Company will put in place facilities to store these process wastes within a contained area. Husk Power will undertake a full characterization of the process waste mix (RHC) as also the process wastewater (both char tank and tar tank waste waters separately). Husk Power will, based on the outcome of characterization of the wastes and waste water, put in place appropriate measures, if any required, mitigating adverse impacts from their handling, storage and disposal. Further, the Company will make provisions to ensure that process wastewaters (i.e. char tank and tar tank water) do not mix or overflow from the tanks.

Hazardous materials (lubricants and batteries etc), hazardous wastes (used batteries, used oils, tar, oil soaked rags/material, filters, empty oil drum/barrels, any other waste characterized as hazardous) and other wastes (packing material, metal, debris, drums/carbuoys etc.), are handled/stored or generated in limited quantities at each one of Husk Power's project sites. The Company has in the past been disposing used batteries to local buyers and used lubricating oils to persons from local communities for timber treatment. The Company will, as part of the SEMS, put in place procedures to: (a) obtain authorization under hazardous waste rules; (b) aggregate all hazardous wastes from the various points of generation; (c) store them under segregation and containment; (d) handle them with appropriate care and personal protective equipment; and (e) disposed them off only through entities authorized to handle and dispose hazardous wastes. While the scale of impacts at each location will depend on the scale of the project proposed at each site, material impact on ambient air quality and water resources may not be expected on account of Husk Power's projects. However, the Company's project sites are often located in the vicinity of residences/communities. Hence, HPS will in accordance with GIIP and IFC Performance Standard 3 provisions, undertake an assessment of noise impact on the ambient at a sample of its existing facilities; where required, implement measures to mitigate the noise impact on any sensitive receptors; and incorporate appropriate measures in the screening procedure to ensure that project siting in future projects addresses potential noise impact on resident communities.

While Husk Power's electricity generation and distribution system does not adhere to any specific conventional electricity system codes or standards, it is adequate for the application. Though the

downward draft gasifier system operates in a net negative pressure environment, the Company will implement engineering, management and siting related measures to mitigate the risk of accidents/incidents that may affect the general public. Further, for communities' resident in the vicinity of the plant and the distribution lines, the Company will implement a general awareness program detailing dos and don'ts. Husk Power will prepare and implement an onsite and offsite Disaster and Emergency Management Plan. The Company will, as part of the SEMS, implement procedures to ensure that community health, safety and security risks and impacts are identified and mitigated in accordance with IFC's Performance Standard 4 provisions.

Typically, Husk Power's plants and facilities are located on land leased on a willing lessee/lessor basis and involuntary resettlement is not expected on account of its projects and operations. Even though the distribution line's footprint/impact is very small, the Company ensures that the distribution power lines are laid along existing village roads/lanes and on private land. In the event of any concern expressed by landowners or other members of the community pertaining to siting of the bamboo distribution grid poles or adverse impact on account of the distribution line alignment, these lines can be easily shifted to address the concerns. The Company will however, as part of the SEMS, put in place formal procedures to consult with affected communities and households before finalizing the project location/siting and the distribution line alignment. Husk Power will put in place procedures to identify involuntary resettlement impacts, if any, on account of its project and mitigate such impacts in accordance with IFC Performance Standard 5 provisions. Further, the Company will through the application of the screening procedure in the SEMS ensure that projects and facilities are sited/located in a manner to avoid: material transformation, degradation or impact lands and resources on which indigenous peoples ("IP" - scheduled tribes, as per Indian laws) are dependant; biodiversity rich areas including critical natural habitat, protected areas, reserve forests, breeding grounds of key species, rivers, streams and wetlands environment with aquatic or other flora-fauna, archaeological monuments and other historically, socially and culturally important sites, structures and features as well as unique natural environmental features that embody cultural values, such as sacred groves.

PS 2: Labor and Working Conditions

Husk Power has about 100 employees on its rolls. Typically for civil works and installation work at each project site, the Company engages masons and workers from the village where the facility is being set up. At each operating unit, there are 3 persons employed i.e. the operator, the lineman/electrician cum bill collector; and the husk loader. While the operator and lineman/electrician cum bill collector are on the rolls of the Company, the husk loader is a daily wage worker. Further, the operator lives on the plant premises but the lineman/electrician cum bill collector is often from the same village. The Company will upgrade the employee/worker living quarters provided at the plant premises to meet appropriate standards including ensuring access to potable water and sanitary facilities. Husk Power presently does not have documented human resource (HR) policies and procedures including formal procedures to ensure compliance with applicable labor laws. The Company will, review all applicable labor laws and IFC Performance Standard 2 provisions, and put in place structured and documented HR policies and procedures which comply with all applicable labor laws and are consistent with IFC Performance Standard 2. Labor working conditions at the Company's gasifier supplier's premises need to be significantly improved. Currently, Husk Power does not have systems in place to ensure/assure itself that its contractors and suppliers meet Indian labor law requirement. However, the Company will, as part of the HR policies and procedures also include procedures for ensuring that its contractors and suppliers comply with applicable labor laws.

Husk Power will as part of the SEMS put in place operation control procedures to minimize occupational Health and Safety risks for employees/workers engaged in project construction and operation. The Company will also as part of the SEMS put in place a fire safety plan, equipment and process. In the interim, the Company will, on a priority basis implement measures including: (a) extension of the engine

exhaust to outside the shed in which it is housed; (b) implementing safe husk lifting equipment, staircase and husk loading/charging facilities; (c) purging of the gasifier to engine system prior to filter changing activities; (d) enforcement of use of basic personal protective equipment (PPE) including ear muffs/plugs by operator, husk loader and others on the site; (e) suitable CO monitoring program; (f) review of electrical panel safety; (g) training of operators and site personnel on electrical safety, emergency response in case of electrocution or gas exposure; and (h) display of safety signage on the premises. The Company needs to implement measures as part of the SEMS such that contractors involved in construction and key suppliers adhere to Husk Power's occupational health and safety norms. The Company will also, before using ground water for drinking purposes, test it against the national potable water standards.

Client's Community Engagement

The nature of business is such that the affected communities are also Husk Power's consumers. Hence, the Company engages with the community extensively from early stages of each project conceptualization. Husk Power will put in place formal procedures to also consult with the affected communities in determining the facility siting/location and distribution line alignment. Further, for ongoing engagement with communities' resident in the vicinity of the project sites, Husk Power will, as part of its SEMS, implement a community engagement procedure in accordance with IFC's Performance Standards. The formal community engagement process will include procedures for receiving and responding to community interest, information request and grievances on an ongoing basis. The Company will display at each facility the contact details of the person to be contacted in the event of a grievance. Further, the Company has plans to develop and implement appropriate community development programs/corporate social responsibility initiatives in consultation with the affected communities. Husk Power currently supports the education of over 200 students (less than 15 years of age) and plans to adopt a school in every cluster. The Company also plans to, through its foundation, train and raise a team of women in each cluster who will be involved in: audit work for HPS; management of the adopted schools; and in spreading awareness on issues related to electricity, public health and environment.

Local Access of Project Documentation

The Company will make available on its website (www.huskpowersystems.com) and also at each facility/plant: (a) the SEMS and other social and environmental information of relevance; and (b) the measures it proposes to implement so as to conduct its business in accordance with IFC's Performance Standards.

Inquiries and comments about the Project may be directed to:

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