



Technical Proposal for Input Based Distribution Partnership (IBDP)

FOR

**KHAIRA ELECTRICAL
SUB-DIVISION**

OF

NESCO UTILITY

Power management team



“To dream anything that you want to dream, that is the beauty of the human mind. To do anything that you want to do, that is the strength of the human will. To trust yourself to test your limits, that is the courage to succeed.”

Bernard Edmonds



Disclaimer:

This document is strictly private and confidential and has been prepared by Akanksha Power and Infrastructure Private Limited "AKANKSHA" specifically for the NESCO Utility for the purpose of submitting a proposal for taking management of Input-based Distribution Partnership Khairia Electrical Sub-division (Under SORO division). The information and observations contained in this document are intended solely for the use of NESCO Utility and AKANKSHA and are not to be used, circulated, quoted or otherwise referred to for any other purpose.

AKANKSHA has verified all the information contained in this report and the work performed by AKANKSHA is not in the nature of audit or investigation.

AKANKSHA is a company incorporated in Nashik, Maharashtra in the year 2008 and has been working in the power sector. It has its manufacturing facilities / works located at Nashik, Maharashtra. The Company has been successful in managing Input-based Franchisee operation of a Rural distribution Sub-division in NESCO, Odisha since 2010, having reduced AT&C losses by 44% during last 5 years, adopted best practices in the Electricity distribution management adopting IT Techniques and tools in Meter-reading, Spot Billing, Performance monitoring, MIS and Energy Audit. Recently, on 3rd June 2015, AKANKSHA bagged the prestigious National Award from the Hon'ble Minister of Power & Coal, Govt. of India for meritorious performance in 2013-14 under Rural Distribution Franchisee segment.

Our consistent success in reducing AT&C losses in a Rural Sub-division is attributable to a strong and system driven team focused to process improvement and adoption of IT in a big way in Meter-reading, Spot Billing, Collection, Performance monitoring, Vigilance activities for curbing power theft, as well as MIS & Energy audit. The Android mobile-based Single Ph. Consumer Billing System, seamlessly

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transfers consumer master data to the meter-readers, monitors performance of the meter-readers on a real-time basis using GPRS, uploads photograph of the consumer meter, transfers the consumer billing to the webserver instantly and facilitates online payments, real-time MIS for the Management, thereby curtailing all human interventions in the System. This Efficiency-based Billing system developed and adopted by AKANKSHA in its Franchisee Area has resulted in considerable improvement in Billing, reduction of T&D losses, improvement in collection and above all resulted in transparency & accountability in the Billing & Collection System.

AKANKSHA's got developed an Energy Billing Portal called "UDReAM", which not only supports the Android mobile-based Billing System, but also serves as a unique online platform, the whole spectrum of commercial activities, including, Data downloading & uploading, Field activities monitoring & tracking (FAMT), Consumer Support System (CSS), Collection, Reports – Analytics – Insight (RAI), Energy Management System (EMS) for bringing in 360° view of the Consumer Billing System with improved accuracy, accountability and transparency.

This is our pride, with our diligent effort in this subdivision (the worst performing one) is now counted as one of the best sub-division in the country. To continue the trend of success and to continue the outstanding working relations with NESCO Utility, this proposal is being made and submitted by the AKANKSHA team.

This document is limited to the matters expressly set forth herein and no comment is implied or may be inferred beyond matters expressly stated herein.

Executive Summary:



M/s. Akanksha Power & Infrastructure (P) Ltd. (AKANKSHA), a Company incorporated in 2008 is engaged in the management of Input-based power distribution franchisee, manufacturing & trading of electrical equipment and execution of EPC Power Distribution works in the State of Odisha. It has its Head Quarters located at Nashik, Maharashtra.

The Company has been successfully managing Input-based franchisee operations of a rural distribution Sub-division since FY 2010-11 in NESCO Utility with a consumer base of approximately 32,000. As on March 2015, the Company has been successful in reducing AT&C losses by 44% (approx.). **For such an illustrious performance exhibited during the financial Year 2013-14, it has recently (on 3rd June 2015) bagged the prestigious National Award meant for Rural Distribution Franchisee from the Ministry of Power, Govt. of India.** The Company has also executed several Capital Projects for achieving loss reduction trajectory and adopted best practices in distribution system operations including implementation of IT tools & techniques.

While the Company is aspiring to expand its business, it is also keen to roll-out its tested franchisee model to partner with NESCO Utility in improvement of performance on a collaborative model, mutually beneficial to both of us. We would take this opportunity to intimate you that, with our **ground-level experience in managing electricity distribution business in rural area as well as implementation of tested IT tools and techniques in Meter-reading, Billing, Collection, MIS and Performance audit**, we are confident of bringing a change by improving the performance of the area, where we would be allowed to work on a partnership model.

With this, AKANKSHA contemplates the opportunity to continue this area for 5 more years from April 2016 to March 2021 to be a catalyst in bringing down AT&C Losses and to maintain the trend of improvement.



Base Line data of Khaira Sub-division

Being the service provider of this area, the basic information of Khaira Sub-division is available with us is as under:

	Period	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
A	Input Energy (MU)	43.66	41.10	38.57	37.624	36.57
B	Energy billed to Consumers (MU)	24.01	20.06	19.69	22.39	23.11
C	Distribution Loss (A-B)/ A%	0.45	0.51	0.49	0.40	0.37
D	Amount Billed to Consumers(Rs. Mls)	67.80	56.97	79.39	92.19	92.11
E	Amount Realised from Consumers	30.54	63.01	67.36	87.43	95.70
F	Collection Efficiency overall	45%	110.60%	85%	95%	104%
G	Energy Realised	10.81	17.80	16.71	21.23	24.01
H	AT & C loss (%)	75.23	56.69	56.69	43.57	34.36
I	Realisation Paise/Unit Input	0.70	1.23	1.75	2.32	2.62
J	Input price	0.56	0.79	0.98	1.05	1.10
K	No of Consumers (Nos.)	17845	20118	26392	31227	31910

- NB :- the collection efficiency during 2011-12 is stiff rise due to the OTS scheme

This Sub-division was given on franchisee to AKANKSHA for the period from April 2010 to March 2015. Due to the meritorious performance of the Company, it was given extension for a period of one year from April 2015 to March 2016 on same terms and conditions. However, we all know that the DF is successful only if it is for a reasonably long tenure. Any initiative that a Franchisee takes starting from the proposal stage to planning, execution, monitoring, rescheduling and finally the delivery of output takes some time to reflect in the output. The far reaching result can accrue only by planning and executing a reasonably long term plan. A very 'Short Term' acts as a disincentive for a franchisee to effect long term changes. Besides, the consumer sentiment is also negatively influenced if the term is very short. The customer's response vary from casual to negative. Somehow the company was able to manage the subdivision in



the same trend, but no substantial improvement could be made as can be observed from the MIS.

In this above context, AKANKSHA envisages a further scope for improvement in performance and is keen to partner with NESCO Utility for efficiently manage the Khaira Sub-division to bring down further losses, increase revenues and financial sustainability over a reasonable time period of five-years with a win-win Partnership Model with NESCO Utility to bring down AT&C Losses, arrest power theft, ensure financial gain and finally reach the goal that we are on halfway.

AKANKSHA is not unknown to NESCO Utility. With our ground level experience and strong hold and reputation with large customer base in the power distribution arena and adoption of best practices in distribution management business, especially for loss control, AKANKSHA has been able to turnaround the performance of your Khaira Sub-division in the last five years, and confident to improve the commercial performance of this sub-division and deliver better results as well as enhance consumer services over a period of five years.

AKANKSHA's approach and methodology as well as some of our critical assessments, analyses and interventions necessary in this proposal are detailed out in the following sections.

AKANKSHA has a handful of experience in tackling the problems of large-scale theft of electricity through an effective vigilance mechanism, controlling high distribution losses, menace of meter-readers, faulty/ non-performing billing system, improving consumer coverage in collection, and control the input by a large scale public awareness campaign.

The target improvement could be substantial over a period of 5 years, provided proposed measures are adopted and investments are made in a



focused and time-bound manner, resulting in reduction of overall AT&C losses.

The objectives of this assessment are to:

- Further assess the consumers base and profile
- Further assess the current billing situation and its effectiveness
- Further assess the requirement based on improvement targets.
- Identify and assess the efforts to increase efficiency in stages.
- Assess measures needed to improve performance in all desired parameters

For this assessment, Akanksha have considered the period between April 2014 and March 2015 for analysis of data. However, some data from previous year(s) franchisee experience, was taken into consideration for comparison and trend analysis.

The Stages envisaged for efficiency improvement are—

- Stage 1. Improve Consumer Base
- Stage 2. Improve Service Level
- Stage 3. Prevent theft / misuse of electricity & Reduce losses
- Stage 4. Improve Meter-reading, Billing & Collection System
- Stage 5. Assessment of current manpower allocation and future requirement
- Stage 6. Adoption of best practices in distribution management - Energy Audit, Control of theft and manipulation in Meter-reading by adoption of IT Tools & Applications



Background & Assessment:

The areas under the DF is a complete rural distribution subdivision and fully covered with domestic consumers, out of which 35% are BPL Households. The consumption slab of almost 70 % of peoples are fall under the first slab of the domestic tariff per unit. This clearly reflects the billing tariff of Major segment of the consumers of this area is much below the BST rate.

Hence efficient management of this type of subdivision is highly essential for the commercial viability of the state DISCOMs.

During the beginning of the DF area (April 2010) major of the MI consumers available in that area are being converted to the category of 'Large Industries' and are taken over by NESCO utility for input, billing and Collection purpose. The commercial activity of these consumers are being managed by NESCO Utility.

The present AT&C loss level at the proposed Subdivision is only 34 %. Considering the technical and line loss of this large network spread over semi forest area, the old and outdated infrastructure and in the absence of any method of LT reactive power Compensation, there is very low chance for substantial improvement. However, there is a chance of 10-15 % reduction in the level of AT&C loss.



Scope, Approach & Methodology:

Considering the current consumer base and loss level, we propose simple two-prong strategy to target loss reduction –

(A) Increase Billing & Collection; and

(B) Control Energy Input by arresting pilferage of electricity and regularizing unauthorized / illegal connections. The detailed approach shall be –

- ❖ Strong and parallel activities of Vigilance and Consumer Awareness with improved consumer services / CSR activities as well in the Sections.
- ❖ Adopt IT tools and techniques in Energy Audit, customer care, Free APPs to facilitate the customer satisfaction and service level. Energy audit for all 11KV Feeders to identify the leakages and ensure arrest.
- ❖ Establish a most responsible and accountable organizational hierarchy of delivering quality in metering, meter-reading, billing, collection and consume services.
- ❖ These focused efforts should result in increased consumer base, and simultaneously would bring accountability in our system and on the public, resulting in controlled consumption without pilferage & wastage, thereby reduction in Input and cash saving for us as well as more cost savings for NESCO as well.



Business Proposal:

In the present scenario, the subdivision is being managed by AKANKSHA without any CAPEX cost to NESCO Utility. This is commercially beneficial to NESCO UTILITY with assured revenue, "Zero" CAPEX cost, substantial savings due to the reduction in the Input and drastic improvement in the customer satisfaction. We propose to work with NESCO UTILITY on a partnership to manage the Subdivision as a Distribution franchisee with distinct and defined responsibilities which is rewarding to both the Partners, NESCO UTILITY & AKANKSHA. The proposed Model along with the constituent responsibilities / obligations as well as performance parameters are represented in the Table below:

TABLE SHOWING PERFORMANCE PARAMETERS OF DP MODEL

Parameters	Input Based DF Model
Franchisee Responsibility	Metering, Billing, Collection and O&M
Award Criteria	Rate for Input Energy & Guaranteed Performance
Compensation Structure	Right on Current Revenue Collection, Incentive on Arrear Collection, Subsidy (if any), Incentive on Penal Collection.
Term of contract	5 years with commitment of performance
Benefits to the DISCOM	Reduction of AT & C Loss, Reliability of Supply, Saving in High Energy Cost, Assured Revenue.
DISCOM Responsibility	Support & Invest in Metering, Loss Control measures

Input-based Distribution Franchisee Model has been widely tested and operationalized in many parts of the country, but the success is only with few companies, many companies entered to the business without any experience and management capability tools, landed into failure, end with a disaster for the DISCOM. Jalgaon (MH) by Crompton Greaves, Aurangabad (MH) by GTL Ujjain (Madhya Pradesh) by ESSEL infra are few nonperforming examples by non-serious operators. Where as **Khair** (NESCO, Odisha), Bhivandi (MH), Torrent power, Agra (UP) by Torrent power and few other players across the country have brought success to the DF model, with their scientific approach and methodology of managing the DF operation.



Responsibilities of Principal (NESCO Utility)

Supply of energy: The Utility is responsible by the agreement to supply energy to the DP area as per the pre-determined schedule of supply on a non-discriminatory basis.

Regulatory support: Grant of Right to use of distribution assets in the area and the Network assets in the field from the start of outgoing feeders of HV S/s.

Metering of energy: Supply of power at Input points and installation of feeder meters to ensure the measurement of input energy to the DP area.

Arrear: Past arrear settlements, (before appointment of DP). The same can be collected by DP on an agreed revenue sharing basis

Consumer Meters: Provide Energy Meters, & Metering of the consumers

Approval: Approval of New consumers and regularization of illegal connections

Settlement: Settlement of old commercial issues with the consumers.- Regularization of outstanding and current disputes.

Act and Law : Relevant Appointed officers of DF, should be authorized to take appropriate action under section 126, section 135, section 152, section 138, and section 163 (1 & 2) of the electricity Act 2003 to prevent the unauthorized use, theft and pilferage of Energy in the said area.

Responsibilities of Distribution Partner (AKANKSHA)

Power Purchase: Purchase the input power at a mutually agreed price as the input feeder meter reading and pay the bill to the licensee on a monthly basis. The area under consideration is having few hand count of Large Industries consuming power at around 100 KW. The total average monthly power consumption by all these industries is around 50000 Units only. All these consumers are 11 kV consumers, but are not having dedicated feeders. Practically all the maintenance work are being done by AKANKSHA, and all commercial activities are being done by NESCO. Always there is a consumer dissatisfaction on the feeder on routine and preventive maintenance. Considering the cost effectiveness of this few customers, APIPL suggest to include these consumers under DF agreement.



Network related activities like:

Network analysis and planning

Distribution Asset maintenance

Consumer Related activities like:

Installation of Meters at defective and no meter consumers

Meter reading

The meter reading activity of all 3 phase consumers should be the responsibility of AKANKSHA or should be joint responsibility (NESCO Utility – APIPL) should be the part of agreement.

Billing

Collection (current revenues and arrears)

Theft control through vigilance activities

New connections

Adherence to all relevant Regulations of OERC including supply Code and SOPs

Resolution of consumer grievances

Support for Planning / MIS and regulatory information

The DP is bound to file returns, reports as required by the Licensee.



Success of the Distribution Franchisee arrangement is dependent on mutual support, appreciation and working harmony between the DISCOM and the Service Provider.