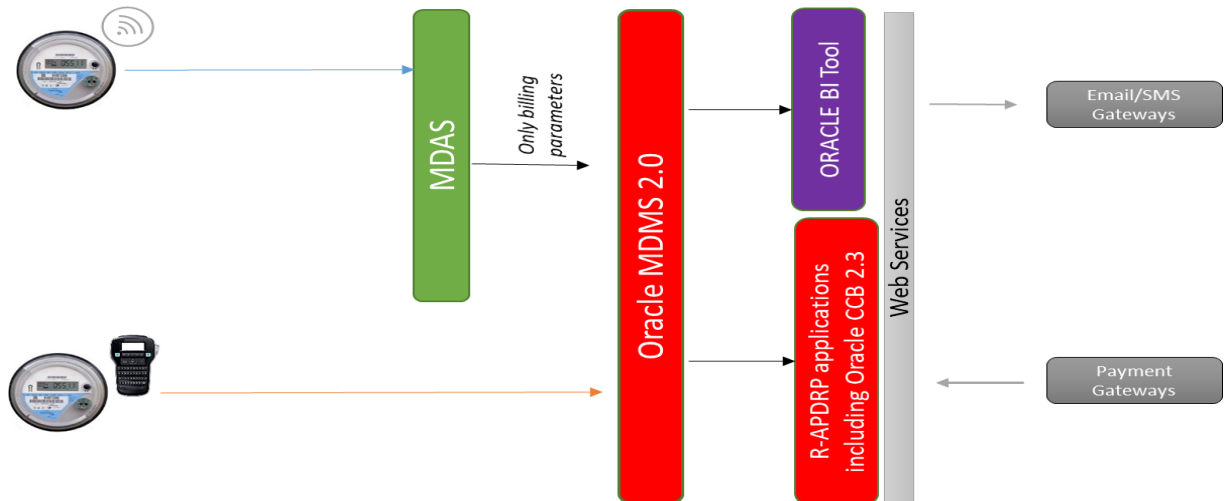**Date: 04.01.2019**

Amendment 2: IT Scope of Work

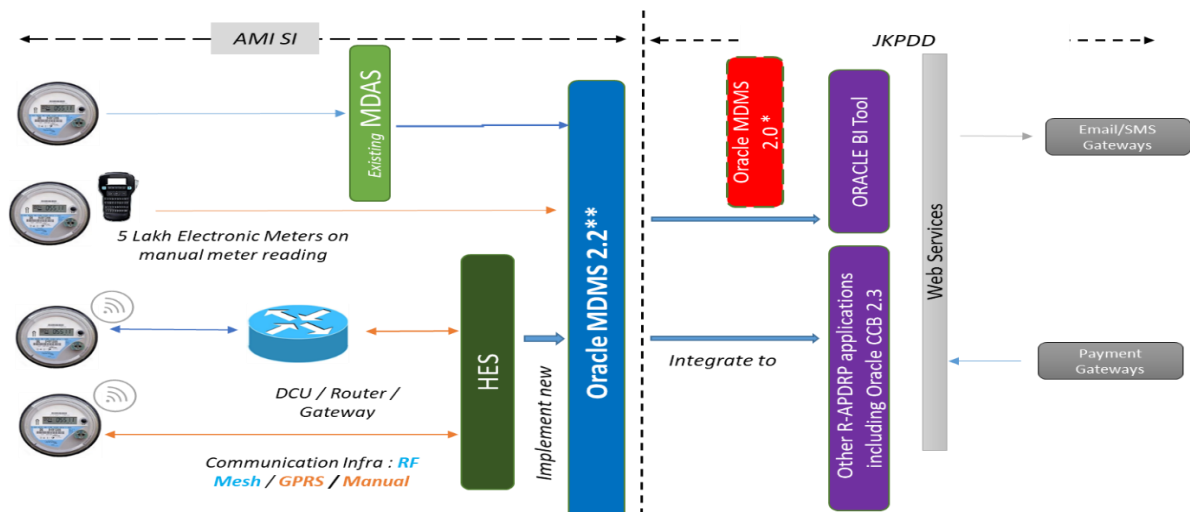### A. JKPDD Existing Architecture:

Presently JKPDD's metering, billing, collection (MBC) process is being handled on Oracle MDM 2.0 and CCB 2.3 solutions. JKPDD has 12,000 DT metering on AMR system and approximately 5,00,000 customers on conventional manual metering reading. From the AMR meters, approx. 40 different parameters are being captured and received on the MDAS platform but only the billing parameters are being transferred to MDM for validation purpose, which is further forwarded to CCB for monthly billing purpose.

In parallel to this, 5 lakh(R-APDRP consumers) electronic meters are read manually every months. That data is manually uploaded to MDAS through SoA, which is utilized in other utility solutions in the same manner as described above. The schematic of existing architecture is mentioned below:

B. Proposed New Architecture & Scope of Project:

The schematic of the new proposed architecture is as follows:

The bidder shall be required to design, supply, install, test and commission the new MDM hardware (i.e. server, storage, network & other elements etc.) for 20 Lac consumers and shall install, integrate & Customize ORACLE MDM 2.2 with all functionalities of MDMS as per AMI CEA Guidelines. The bidder shall integrate the ORACLE MDM 2.2 with HES, existing MDAS and other application designed for manually uploaded consumers meter data from various sub-divisional offices and also integrate to existing billing, GIS Applications, customer care, BI and other IT R-APDRP applications. The ORACLE MDM 2.2 licenses shall be provided by JKPDD.

The detailed scope of work and not limited to:

i. Design, supply, install, integrate, customize, testing and commissioning of IT hardware & Software solutions for 20 Lac consumers for ORACLE MDM 2.2, HES, NMS & other AMI Components. The ORACLE MDM 2.2 licenses shall be provided by JKPDD.

ii. Installation of ORACLE MDM 2.2 in compliance with all functionalities as per AMI CEA Guidelines. The required licenses will be provided by JKPDD however, bidder shall inform the number of required licenses, Bandwidth & SIM requirement at the time of detailed engineering.

iii. Integrate MDM with HES and existing MDAS and shall provide applications, which will run at Sub-Divisional Offices of JKPDD for manual data punching of consumers to feed data directly to MDM for further processing, from the date of Go- Live of new MDM system. The data structure for manual feeding shall be provided at the time of implementation. Migration of the existing data from existing MDM to new MDM is not under the scope of bidder.

iv. Bidder shall integrate the new MDM to HES, existing MDAS and other application designed for manually uploaded consumers meter data from various sub-divisional offices and also integrate to existing billing, GIS Applications, customer care, BI and other IT R-APDRP applications and customization as per the requirement of JKPDD.

v. Bidder shall prepare the APIs for bi-directional integration at all interfaces while all necessary support and access of existing system shall be provided by JKPDD.

vi. Bidder shall implement any additional ORACLE COTS solution, if required, which shall be procured and provided by JKPDD.

vii. Provide a working system (Go-Live) that meets or exceeds the functional and performance requirements of this specification without affecting the operation of the existing systems.

viii. Identify all additional equipment and services necessary to ensure compatibility & interoperability between new and existing IT equipment.

ix. Ensure seamless integration of AMI Solution with all other existing JKPDD utility applications.

x. Create business rules and generate standard and customized reports in ORACLE MDM 2.2 as required by JKPDD.

xi. Provide engineering and technical assistance during the contract warranty and maintenance period.

xii. Define source power requirements for each cabinet/ rack of equipment provided and the total power requirements to run the system.

xiii. Ensure that all the required hardware, software, and firmware satisfy the requirements of this specification and are suitable for future scaling, optionally with upgrades.

xiv. Conduct factory and site testing of all hardware and software.

xv. Testing for protocol integration with the existing systems.

xvi. Prepare and submit all documentation and drawings in hard copy as well as soft copy.

xvii.   Supply all required spare parts, maintenance aids, and test equipment, software maintenance and testing tools.

xviii. Provide training and user guides to JKPDD's personnel.

xix.   Hardware, software, and firmware maintenance, debugging, and support of the software applications, and maintenance of all supplied equipment

xx.   Provide full backup of all installed software applications and data.

xxi.   Test restoration of the system from the backup provided.

xxii.   Availability of service, spare and expansion parts for the supplied items for the complete design life i.e. 5 years from the operational acceptance of the system as per details in various parts of this specification.

xxiii. Auxiliary Power Supply comprising of UPS for 8 hours battery backup along with all necessary distribution.

xxiv.   Bidder has to provide number of SIM and bandwidth details for seamless bi-directional data transfer from meters & DCU to HES.

xxv.   DCU should have multiple backhaul connectivity provisions specifically GPRS-SIM/ MPLS/ OFC communication for data transfer from DCU to HES.

The SI is to comply with the National Safety Rules & Regulations during implementation and maintenance period.