I) TECHNICAL SPECIFICATIONS FOR HAND HELD DEVICE FOR KENYA POWER'S INCMS PROJECT (METER READING & REVENUE COLLECTION)

#	Hand Held Device Specifications for Meter Reading & Inspections	KPLC MINIMUM REQUIREMENTS	Bidder's software Compliance / Remarks	Reference
1.0	**NETWORK**			
1.1	2G Network	GSM 850 / 900 / 1800 / 1900		
1.2	3G Network /4G Network	HSDPA 850 / 900 / 1900 / 2100 TD-SCDMA		
1.3	4G Network	FDD-LTE 1(2100) / 3(1800) / 5(850) / 7(2600) / 8(900) / 20(800) / 38(2600) / 40(2300		
1.4	SIM	Dual Micro SIM		
2.0	**BODY**			
2.1	Dimensions	At least 152mm in Height; At least 176mm in width; at most 8.8mm in thickness		
2.2	Keyboard	Touch Screen		
2.3	Keyboard Colour	Black or Blue		
2.4	Keyboard Cover	Plastic		
2.5	Model	State Model No.		
3.0	**DISPLAY**			
3.1	Display Type	IPS, capacitive, multi-touch, touchscreen with 16,000,000 colour		
3.2	Display Size	At least 5.5 inches, 720 x 1280 pixels, 267 pixels per inch (PPI)		
4.0	**MEMORY & OS**			
4.1	Card Slot	Micro SD up to 128GB		
4.2	Internal Memory	16GB		
4.3	OS	Android 5.1 and Above		
4.4	Processor	1.3GHz quad-core CPU, MediaTek Cortex MT6580M chipset, Mali-400MP GPU		
4.5	RAM	2GB		
5.0	**AUDIO**			
5.1	Alert Types	Vibration, MP3 ringtones		
5.2	Loud Speaker	Yes		
5.3	Audio Port	3.5mm Jack		
6.0	**CONNECTIVITY**			
6.1	2G	GPRS – up to 32 to 48 kbps; EDGE – up to 236.8 kbps		
6.2	3G	Up to 42 mbps downlink; Up to 5.76 mbps uplink		
6.3	4G	Up to 250 mbps downlink; Up to 50 mbps uplink		

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6.4	WIFI	Wi-Fi 802.11 a/b/g/n, Wi-Fi hotspot, DLNA, Wi-Fi Direct		
6.5	Bluetooth	Version 4.1, A2DP, LE		
6.6	GPS	GPS, A-GPS, GLOSNASS; GPS should operate even in the absence of mobile data connectivity and it should provide option for selecting exclusive use of only the GPS receiver for data capture work as opposed to automatic switch to A-GPS.		
6.7	GPS Accuracy	5-8meters		
6.8	USB	Micro USB V2.0		
7.0	**CAMERA**			
7.1	Primary (Front Facing)	13MP, up to 3840 x 2160-pixel pictures, phase detection, HDR, face and smile detection, autofocus, Geo-tagging camera with LED flash		
7.2	Video	At least 1080p@30fps		
7.3	Secondary	5MP, up to 2592 x 1944-pixel pictures		
8.0	**BATTERY**			
8.1	Capacity	At least 4,000 mAh Li-Po Battery		
8.2	Stand-by	At least 264 hours (3G)		
8.3	Music Play/Talk Time	At least 60 hours		
9.0	**OTHER FEATURES**			
9.1	Sensors	Accelerometer, Proximity, Light sensor, Fingerprint		
9.2	Messaging	SMS, MMS, Email, Push Mail, IM		
9.3	Browser	HTML5		
9.4	JAVA	Yes		
9.5	Pre-loaded Applications	Google Search, Maps, Gmail, YouTube, Calendar, Google Talk, Picasa		
9.6	Extras	Document viewer/editor; Active noise cancellation with dedicated mic; MP3/WAV/e AAC+/WMA player or higher		
9.7	Cover	The Unit should be supplied together with a rugged cover to act as a shield for shock forces such as falls. This cover should not interfere with communication or GPS operation.		

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9.8	Water proof cover	The unit should also be supplied with a separate transparent water proof cover made from plastic material. This cover should also not interfere with communication or GPS operation.		
10.0	**GUARANTEES**			
10.1	Manufacturers Authorization	Bidder should submit manufacturer's authorization		
10.2	Warranty	The unit should have 12months Warranty		
10.3	Sample	One Sample should be submitted alongside the bid documents		
10.4	Factory Acceptance Testing (FAT)	FAT will be conducted by 2KPLC officials for 4days at the Manufacturing site.		