

Technical Evaluation & Type testing process for energy meters from KEMA Netherlands lab.

After tendering/RFQ, manufacturer/vendor shall proceed as follow:

- a) The manufacturer will submit technical submittal & two numbers of meter samples, confirming compliance of KE specification (each clause), supporting documents including technical details of components, drawings & test reports.
- b) After successful technical evaluation/testing of sample, manufacturer shall arrange the development of 30 numbers of sample meters as per approved sample/KE specification in the presence of two K.E nominated engineers from TPRE and Meters departments.
- c) K.E Team will select 10 number of units of his choice from the 30 number of manufactured meters.
- d) Vendor will offer 3 number of samples from these 10 number of meters for sealing and type testing. The software verification/Non IEC tests shall be performed as per KE specification requirements at manufacturer lab. All three sample meters should have 03 decimal points in display for KWH for confirmation of certain tests results as per IECs, however the same shall not be required in routine supplies.
- e) One polycarbonate cover and one strip for terminal material tests shall be sealed & signed by KE engineers.
- f) K.E Team will seal the sample meters and document the manufacturing process for future reference with the consultation of vendor. Out of 10 developed samples, 02 samples shall be submitted in KE Meter department along with the one meter loose components (packed in box).
- g) The type testing shall be performed on two samples (Mechanical test on one sample & Electrical tests on one sample). Third sample shall be used as spare and will be utilize in case of failure of any sample.
- h) In case of failure of any one meter during type testing, the third sample will be used and complete type testing shall be performed/repeated on the new sample as per approved type test protocol/Or as advised by KEMA Labs Netherland/European Lab. In case of failure of third sample, the mater shall be declared as FAILED.
- i) The manufacturer shall get approve the type test protocol from TPRE & Meter departments. The same should also be confirmed/vetted by KEMA Netherland Labs/European lab as per list shared.
- j) The sealed energy meters shall then be forwarded to KEMA Netherland/European lab as per list shared for type testing as per approved type testing protocol/KE specification & IECs.
- k) The certification shall be of KEMA GOLD Or Equivalent.
- l) After completion of type tests. One meter sample (From three prototype samples) shall be submitted in KE Meters department along with the complete type test reports.
- m) One complete meter in loose component form, packed in one plastic box shall be submitted in Meter department which will be referred in sample/routine testing.
- n) In case of any variation/change found in meter manufacturing process the already performed type testing of meters shall be treated as null & void and fresh type test shall be required as per procedure define above.