

(PREVIEW)

Indian Standard**DATA EXCHANGE FOR ELECTRICITY METER
READING, TARIFF AND LOAD CONTROL —
COMPANION SPECIFICATION****1 SCOPE**

1.1 This standard is intended for use as companion to IS/IEC 62056 (Parts 21, 42, 46, 47, 53, 61 and 62) series of standards on 'Electricity metering: Data exchange for meter reading, tariff and load control' for proper application/implementation of the provisions there of.

1.2 These generic metering data exchange standards based on DLMS/COSEM open protocols and features, provide a coverage for structured modelling of metering functionalities as available at communication interface(s), with procedures for identification of these data objects by mapping into respective codes, and finally for direct local exchange or remote exchange of these data messages by transporting over various layers of communication channels with specified procedures and services, as applicable.

1.3 This Companion Specification provides guidelines, specifies optional DLMS/COSEM elements and outlines boundary requirements for design of such DLMS/COSEM compliant electricity meters for possible applications in Indian electricity networks (*see also* Annex A). Such selections may involve:

a) COSEM interface classes, their instances, attributes and methods to be supported, event and status tables, identified objects, DLMS services, communication media and protocol stacks.

b) Requirements for Direct Local Data Exchange involving HHU (MRI) and Remote Data Exchange with HOST Computer.

c) The necessary country/project specific codes, not documented by DLMS UA, are included in Annex A for specified usage of electricity meters.

1.4 The following are outside the scope of this standard and will be decided by user/manufacture/system integrator:

a) HOST computer — Metering equipment connectivity;

b) Compatible modem (Data Communication Equipment) and its requirements for chosen communication medium; and

c) Values and distribution methods of secret keys.

1.5 Metering functions are outside the scope of this standard and are covered by prevailing Indian Standards as applicable.

2 REFERENCES

The standards listed in Annex H contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated at Annex H.

ANNEX H **(Clause 2)** **LIST OF REFERRED INDIAN/INTERNATIONAL STANDARDS**

<i>Indian/International Standard</i>	<i>Title</i>
ISS 14697 : 1999	ac static transformer operated watt-hour and var-hour meters, class 0.2 S, 0.5 S and 1.0 S — Specification
DLMS UA 1000 -1 ed.9, 2009	Blue book, COSEM identification system and interface classes
DLMS UA 1000 -2 ed.7, 2007	Green book, DLMS/COSEM architecture and protocols
DLMS UA 1002 : ed.1, 2003	White book, COSEM Glossary of terms
DLMS UA 1001 -1:2007 ed-3	Yellow book, companion testing process
IS/IEC 62056- 21 : 2002	Electricity metering : Data exchange for meter reading, tariff and load control: Part 21 Direct local data exchange
IS/IEC 62056- 42 : 2002	Electricity metering : Data exchange for meter reading, tariff and load control: Part 42 Physical layer services and procedures for connection-oriented asynchronous data exchange
IS/IEC 62056- 46 : 2007	Electricity metering : Data exchange for meter reading, tariff and load control: Part 46 Data link layer using HDLC protocol
IS/IEC 62056- 47 : 2006	Electricity metering Data exchange for meter reading tariff and load control: Part 47 COSEM transport layer for IPv4 network
IS/IEC 62056- 53 : 2006	Electricity metering : Data exchange for meter reading, tariff and load control: Part 53 COSEM application layer
IS/IEC 62056- 61 : 2006	Electricity metering: Part 61 Data exchange for meter reading, tariff and load control Object identification system (OBIS)
IS/IEC 62056- 62 : 2006	Electricity metering : Data exchange for meter reading, tariff and load control: Part 62 Interface classes
IEC/TR 62051 : 1999	Electricity metering — Glossary of terms
IS/IEC/TR 62051-1: 2004	Electricity metering : Data exchange for meter reading, tariff and load control — Glossary of terms: Part 1 Terms related to data exchange with metering equipment using DLMS/COSEM