



IEC TS 62257 Series

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This presentation is in 3 Parts as shown below:

- ▶ **Part 1:**
Overview of IEC TS 62257 Series
- ▶ **Part 2 :**
Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
- ▶ **Part 3 :**
Additional Proposals and Suggestions from JWG1

IEC TS 62257 Series

RECOMMENDATIONS FOR SMALL RENEWABLE ENERGY AND HYBRID SYSTEMS FOR RURAL ELECTRIFICATION

IEC TS 62257 Series



Part 1

Overview of IEC TS 62257 Series.

RECOMMENDATIONS FOR SMALL RENEWABLE ENERGY AND
HYBRID SYSTEMS FOR RURAL ELECTRIFICATION

IEC TS 62257 Series



- ▶ Overview of IEC TS 62257 Series
 - a) Structure of TS 62257 Series
 - b) Current List and Status of TS 62257 Series
 - c) Summary of TS 62257 series



a) Structure of TS 62257 Series

- ▶ The TS 62257 series are Technical Specifications and not Standards. They are designed to be used as guidelines and are recommendations for small renewable energy and hybrid systems for rural electrification.

There are 3 sections to this Series:

- ▶ 1) Introduction to rural electrification (Part 1)
- ▶ 2) Project management / implementation guidelines (Part 2–6)
- ▶ 3) Technical specifications for components and systems (Part 7–12)

Note : Technically for small systems we reference this Technical Specification where there are no standards and for larger systems we reference the IEC standards.



- Structure of TS 62257 Series (cont.....)
 - The purpose of this series was to assist Renewable Energy Project Managers/Engineers/System *Designers/Operators to*
 - choose the right system for the right place;
 - design the system;
 - operate and maintain the system
 - The custodian of this series is JWG 1 of IEC TC 82.



- b) Current List and Status of TS 62257 Series
 - Introduction to rural electrification (Part 1)

Recommendations for small renewable energy and hybrid systems for rural electrifications: Part 1 – General introduction to rural electrification ED2 (Incorporation of "How to use the IEC TS 62257 Series")

Maintenance due date : 2012

IEC/TS
62257-1
Ed 1.0



◦ Current List and Status of TS 62257 Series

- Project management / implementation guidelines (Parts 2–6)

Recommendations for small renewable energy and hybrid systems for rural electrifications: Part 2 – From requirements to a range of electrification ED2	Maintenance due date : 2012	IEC/TS 62257–2 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 3: Project development and management	Maintenance due date : 2012	IEC/TS 62257–2 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrifications: Part 4 –System selection and design	Maintenance due date : 2011	IEC/TS 62257–4 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 5: Protection against electrical hazards	Maintenance due date : 2011	IEC/TS 62257–5 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 6: Acceptance, operation, maintenance and replacement	Maintenance due date : 2012	IEC/TS 62257–6 Ed 1.0



- Current List and Status of TS 62257 Series
 - Technical specifications for components and systems (Parts 7–8)

Recommendations for small renewable energy and hybrid systems for rural electrification – Part 7: Generators	Maintenance due date : 2012	IEC/TS 62257-7 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 7-1: Generators – Photovoltaic generators	Maintenance due date : 2014	IEC/TS 62257-7-1 Ed 2.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 7-3: Generator set – Selection of generator sets for rural electrification systems	Maintenance due date : 2012	IEC/TS 62257-7-3 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 8-1: Selection of batteries and battery management systems for stand-alone electrification systems – Specific case of automotive flooded lead-acid batteries available in developing countries	Maintenance due date : 2011	IEC/TS 62257-8-1 Ed 1.0



- Current List and Status of TS 62257 Series
 - Technical specifications for components and systems (Parts 9)

Recommendations for small renewable energy and hybrid systems for rural electrification – Part 9-1: Micropower systems	Maintenance due date : 2011	IEC/TS 62257-9-1 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 9-2: Microgrids	Maintenance due date : 2011	IEC/TS 62257-9-2 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 9-3: Integrated system – User interface	Maintenance due date : 2011	IEC/TS 62257-9-3 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 9-4: Integrated system – User installation	Maintenance due date : 2011	IEC/TS 62257-9-4 Ed 1.0



◦ Current List and Status of TS 62257 Series

- Technical specifications for components and systems (Parts 9 & 12) (cont.....)

Recommendations for small renewable energy and hybrid systems for rural electrification – Part 9-5: Integrated system – Selection of portable PV lanterns for rural electrification projects	Maintenance due date : 2011	IEC/TS 62257-9-5 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 9-6: Integrated system – Selection of Photovoltaic Individual Electrification Systems (PV-IES)	Maintenance due date : 2011	IEC/TS 62257-9-6 Ed 1.0
Recommendations for small renewable energy and hybrid systems for rural electrification – Part 12-1: Selection of self-ballasted lamps (CFL) for rural electrification systems and recommendations for household lighting equipment	Maintenance due date : 2011	IEC/TS 62257-12-1 Ed 1.0



- Current List and Status of TS 62257 Series
 - Technical specifications for components and systems (Parts 11 – NWIP) (cont.....)

Technical specifications – Considerations for rural electrification systems extension part 11.1	NWIP	IEC/TS 62257-11-1 Ed 1.0
Technical specifications – Considerations for rural electrification systems extension– Interconnection of microgrids part11.2	NWIP	IEC/TS 62257-11-2 Ed 1.0
Technical specifications – Considerations for rural electrification systems extension– Connection of a microgrid or of a cluster of microgrids to a regional grid part 11.3	NWIP	IEC/TS 62257-11-3 Ed 1.0



- C) Detail of documents for info

Summary of TS 62257 Series ([PDF link](#))

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Part 2

Results of Survey on the effective utilization of
IEC TS 62257 Series Worldwide



- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide

- ▶ Overview
 - Survey forms were sent out to all countries involved in the IEC Affiliate Country Program (non IEC Members).
 - Survey was conducted from Feb 2012 till April 2012 by IEC Central Office
 - Received response from 30 countries.
 - Survey Questionnaires [\(PDF link\)](#)

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- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 1: General
 - Most countries have a National Standard Body overseeing Renewable Energy Program (REP)
 - REP(Renewable Energy Program) availability :Yes – 23, No – 5.
 - Intention to implement REP : Yes – 6, No– 2.
 - REP initiative is mainly done by Government bodies: Govt. – 23, Private – 3.
 - International sponsorship for REP : Yes – 18, No – 9



• IEC TS 62257 Series

- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 1: General (cont....)
 - Ease of funds availability for REP : Yes – 9, No – 18.
 - Establishment of NEC : Yes – 13. No – 16.
 - Intention to set up NEC : Yes – 15, No – 0.
 - National Standards for RE within NEC : Yes – 13, No – 8.
 - Intention to include national standards within NEC scope : Yes : 9, No – 2.
 - Use of standards for REP : Yes – 15, No – 14.
 - Intention to use some form of standards for REP : Yes – 9, No – 2.

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- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 1: General (cont....)
 - REP Standards development level : National – 5, International – 17.
 - Types of International Standards adopted : IEC/ISO, SABS, Australian/New Zealand Standards, NEC (US Standards), French Standards.
 - Communication tools readily available : Yes – 26, No – 3.
 - Readily trained workforce available for REP implementation : Yes – 20, No – 7.

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- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 1: General (cont....)
 - Availability of Experts in RE : Yes – 25, No – 4.
 - Experts who are willing to get involved in TS 62257 series : Yes – 20, No – 4.

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- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 2: IEC TS 62257 Series
 - Awareness of IEC TS 62257 series : Yes – 11, No – 17.
 - Interested in info on TS 62257 series : Yes – 16, No – 0.
(JWG1 will distribute the info)
 - Awareness on TS 62257 series from : IEC & IEC Affiliate Country Program, respective national bodies, Internet, This questionnaire, etc.
 - Intent to adopt TS 62257 : In Part – 4, Whole – 3.
 - Ease of use on TS 62257 series : Yes – 15, No – 2.

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- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 2: IEC TS 62257 Series:
 - Suggestions to improve this series : None except of French version to be included.
 - Recommendation of this series to others : Yes – 18, No – 0.
 - Series structure adequate for RE requirements : Yes – 19, No – 0. *(JWG1 actions – Various international programs are encouraged to support the use of the IEC international standards & support the process for ease of access to these standards to end users e.g. SE4ALL from UN)*
 - New TS within this series : Yes – 4, No – 2.
 - Upgrade required for this series : Yes – 21, No – 2. *(we need feedback on what gaps are there that JWG1 must address)*

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- ▶ Results of Survey on the effective utilization of IEC TS 62257 Series Worldwide
 - Part 3b: IEC TC 82 JWG 1
 - Interest to participate in JWG1: Yes – 22, No – 5. (JWG1 can assist with participating in local activities)
 - Areas of expertise : Solar, Wind, Hydro, Thermal, RE Hybrid systems, RE Design & Installation of Systems.
 - Recommendation of experts to JWG1 : Yes – 15, No –12. (Several names have been proposed in the survey forms)
 - Interest in monitoring by JWG1 members : Yes – 23, No –4.

Part 3

Additional Proposals from JWG1

- ▶ Recruit experts from Affiliate countries into JWG 1.
- ▶ JWG 1 will review and revert on any suggestions or proposals received during this dialog session.
- ▶ Promote the active utilization of IEC TS 62257 Series to end users by adopting this Series into their national standards program.
- ▶ Others



▶ Thanks – TC 82 : JWG1