

1. Record Nr.	UNINA9910787911703321
Titolo	Eco-friendly innovations in electricity transmission and distribution networks // edited by Jean-Luc Bessede ; contributors, A. Allais [and thirty-four others]
Pubbl/distr/stampa	Cambridge, England ; ; Waltham, Massachusetts ; ; Kidlington, England : , : Woodhead Publishing, , 2015 ©2015
ISBN	1-78242-019-3
Edizione	[1st edition]
Descrizione fisica	1 online resource (453 p.)
Collana	Woodhead Publishing Series in Energy ; ; Number 72
Disciplina	621.319
Soggetti	Electric power transmission - Technological innovations Electric power distribution - Technological innovations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Front Cover; Dedication; Introduction; 1.1 Greenhouse emissions and climate change; 1.3 The fossil fuels; 1.5 Uranium resources and nuclear energy; 1.6 Contribution of all fossil and nuclear fuels ^{4,5} ; 1.7 What is the solution for saving the planet?; 1.8 Development of global energy demand; 1.9 The hydrogen economy ¹¹ ; 1.10 Conclusions; Acknowledgements; 1. Author biography; 3.2 Product ecodesign; 4.2 Ecodesign principles; 3.4 Ecodesign for energy-related products: the new scope of the ErP directive; 3.7 Two European initiatives on resource efficiency and critical raw materials 18.7 Recommendations for future improvements to the Serhatkoy power plant List of acronyms used; References; 5.7 Conclusions and future trends; 6.4 Applying LCA in practice: a 765kV AC transmission system; 14.4 Case study to compare different architectures; 7.11 Comparing power dissipation in a DC superconducting system to a conventional system; 7.13 Conclusions; References; References; 9.7 Best practice approaches; Further reading and source of information; 10.2 Legislation and standards in Europe relating to energy-efficient design; 7.7 Cryogenic machine 10.7 Meeting PEP and LCA requirements for electricity distribution

network equipment; List of acronyms; 12.7 Conclusion and future trends; 13.2 Wind power development and wind turbine technologies; References; 14.7 Overall comparison; 15.7 Case studies: building-to-grid applications for integration of renewable power sources; References; 16.2 The Schneider Electric experience of AMI deployment in Sweden and Finland; 16.7 Conclusions; References and further reading; Plate Captions List

Sommario/riassunto

Electricity transmission and distribution (T&D) networks carry electricity from generation sites to demand sites. With the increasing penetration of decentralised and renewable energy systems, in particular variable power sources such as wind turbines, and the rise in demand-side technologies, the importance of innovative products has never been greater. Eco-design approaches and standards in this field are aimed at improving the performance as well as the overall sustainability of T&D network equipment. This multidisciplinary reference provides coverage of developments and lessons-learned in
