

<http://www.apshe.cn>

2023年第6期·第39卷·总第287期·月刊
2023 Vol.39 No.6 (Ser.287) Monthly

ISSN 1674-3814

CN 61-1474/TK

电网与清洁能源

Power System and Clean Energy

DIANWANG YU QINGJIE NENGYUAN

中文核心期刊 中国科技核心期刊

《科技期刊世界影响力指数(WJCI)报告(2022)》收录期刊



ISSN 1674-3814



06>
2023

9 771674 381238

主管单位
主办单位
Competent Authority
Sponsors

国家电网有限公司
国网陕西省电力公司
西安理工大学水利水电土木建筑研究设计院
State Grid Corporation of China
State Grid Shaanxi Electric Power Company
Xi'an University of Technology, Research and Design
Institute of Hydraulic and Architectural Engineering

6
2023

电网与清洁能源

DIANWANG YU QINGJIE NENGYUAN

第39卷

第6期(总第287期)

2023年6月25日

目 次

智能电网

- 01 基于阻抗重塑的多并网逆变器并联系统谐振抑制方法研究 / 张计科, 王贵发
08 基于故障电流积分比的直流配电网极间短路选线方案 / 刘翼肇, 王金浩, 左鹏飞, 秦文萍, 常潇, 李胜文, 雷达
17 一种改进型YOLOv4输电线路防外破检测方法 / 董卓元, 高永亮, 袁斌, 姚新宇, 张军强, 曾健, 邱宏宇, 赵泽宇, 周鹏杰
26 基于大数据深度强化学习的交流配电网稳定性控制研究 / 高骞, 杨俊义, 刘凯, 金诚, 于海波
33 基于智能监控平台的电网安全预警技术研究 / 王禧, 韩俊飞, 李勇, 王鹏, 刘妍蕾
39 基于智能终端和换相开关的台区三相不平衡治理方法研究 / 马志斌, 侯哲帆, 张瑞雪
49 高压电缆皱纹护套损耗系数改进计算方法 / 李岩, 刘一帆, 齐磊杰, 乔俊杰, 谢庆, 刘贺晨
58 基于一致性算法的柔性互联配电网负载均衡控制 / 刘伟丰, 熊炜, 袁旭峰, 郑华俊, 冯起辉, 徐玉韬, 蔡永翔
70 基于波前陡度的直流输电线路单端行波测距方法 / 刘志栋, 陈羽, 孙伶雁, 丁锐, 程钎, 王玮
80 数据驱动下具备高抗干扰能力的输电线路故障检测技术 / 王志强, 宋新新, 常英贤, 姜杨, 刘佩伟, 郭昌升, 王栋
88 考虑接入风险与无功配置的大用户接入规划方法 / 郭子辉, 吴军, 黄文鑫, 陈逸珲, 刘子晨, 肖闻彬

清洁能源

- 98 一种无功功率扰动的孤岛检测新方法 / 邵美阳, 张子墨, 王露缙, 高淑萍, 王毅钊
108 抽蓄-风-光-火联合系统日前优化调度研究 / 邵磊, 多增森, 柴嘉启, 孔凯, 庄晓隆
115 计及分布式电源输出特性的主动配电网合环电流计算方法 / 李邦源, 李昂, 石恒初, 欧阳金鑫, 唐一恒, 许守东, 王建, 张丽
124 水力机组与超级电容协同快速调频策略研究 / 叶荣, 林乐平, 刘倩
129 高渗透率光伏微电网能量优化管理策略的研究 / 刘浩, 张晓滨, 黄晨曦, 沈佳, 温一凡
136 基于ISSA-NESN的可再生能源电力需求预测研究 / 夏雨砾, 张新生, 王明虎
144 抽水蓄能电站工程基建施工用电智能管控技术应用 / 王凯, 王洋, 杜鹏, 徐龙土, 王小兵, 曾降龙, 徐晨辉

本刊送阅:

国务院、国家能源局、各省(区)政府电力、能源主管领导

国家电网、能源企业主要负责人

中国科学院、中国工程院院士

电力、能源相关学会、协会

中国国家图书馆、中国版本图书馆、各省(区)图书馆

Power System and Clean Energy

Vol.39

No.6 (Ser.287)

Jun. 25, 2023

Contents

Smart Grid

- 01 Research on the Resonance Suppression Method of the Multiple Grid-Connected Inverter Parallel System Based on Impedance Remodeling / *ZHANG Jike, WANG Guifa*
- 08 A Method of Pole-to-Pole Fault Selection for DC Distribution Networks Based on the Ratio of Fault Current Integral / *LIU Yizhao, WANG Jinhao, ZUO Pengfei, QIN Wenping, CHANG Xiao, LI Shengwen, LEI Da*
- 17 An External Damage Detection Method of Transmission Lines Based on Improved YOLOv4 / *DONG Zhuoyuan, GAO Yongliang, YUAN Bin, YAO Xinyu, ZHANG Junqiang, ZENG Jian, DI Hongyu, ZHAO Zeyu, ZHOU Pengjie*
- 26 Research on the Stability Control of AC Distribution Networks Based on Deep Reinforcement Learning of Big Data / *GAO Qian, YANG Junyi, LIU Kai, JIN Cheng, YU Haibo*
- 33 Research on Power Grid Security Early Warning Technology Based on Intelligent Monitoring Platform / *WANG Bei, HAN Junfei, LI Yong, WANG Peng, LIU Yanlei*
- 39 Research on the Three-Phase Unbalance Control Method in the Transformer Area Based on Intelligent Terminal Equipment and Commutation Switch / *MA Zhibin, HOU Zhefan, ZHANG Ruixue*
- 49 An Improved Calculation Method for High Voltage Cable Corrugated Sheath Loss Coefficient / *LI Yan, LIU Yifan, QI Leijie, QIAO Junjie, XIE Qing, LIU Hechen*
- 58 The Load Balancing Control Strategy for Flexible Interconnected Distribution Network Based on Consensus Algorithm / *LIU Weifeng, XIONG Wei, YUAN Xufeng, ZHENG Huajun, FENG Qihui, XU Yutao, CAI Yongxiang*
- 70 A Single-Ended Traveling Wave Location Method for DC Transmission Lines Based on Wavefront Steepness / *LIU Zhidong, CHEN Yu, SUN Lingyan, DING Rui, CHENG Qian, WANG Wei*
- 80 The Data Driven Fault Detection Technology of Transmission Lines with High Anti-interference Ability / *WANG Zhiqiang, SONG Xinxin, CHANG Yingxian, JIANG Yang, LIU Peiwei, GUO Changsheng, WANG Dong*
- 88 A Method of Large User Access Planning Considering Access Risk and Reactive Power Allocation / *GUO Zihui, WU Jun, HUANG Wenxin, CHEN Yihui, LIU Zichen, XIAO Wenshan*

Clean Energy

- 98 A New Islanding Detection Method for Reactive Power Disturbance / *SHAO Meiyang, ZHANG Zimo, WANG Lujin, GAO Shuping, WANG Yizhao*
- 108 A Study on the Day-ahead Optimal Scheduling of the Pumped Storage-Wind-Solar-Thermal Combined System / *SHAO Lei, DUO Zengsen, CHAI Jiaqi, KONG Kai, ZHUANG Xiaolong*
- 115 A Calculation Method of the Closing Loop Current in Active Distribution Networks with Distributed Power Output Characteristics Considered / *LI Bangyuan, LI Ang, SHI Hengchu, OUYANG Jinxin, TANG Yiheng, XU Shoudong, WANG Jian, ZHANG Li*
- 124 Research on the Coordinated Fast Frequency Regulation Strategy of Hydraulic Units and Supercapacitors / *YE Rong, LIN Leping, LIU Qian*
- 129 Research on Energy Optimization Management Strategies for High Permeability Photovoltaic Microgrids / *LIU Hao, ZHANG Xiaobin, HUANG Chenxi, SHEN Jia, WEN Yifan*
- 136 A Study on Renewable Energy Power Demand Forecast Based on ISSA-NESN / *XIA Yushuo, ZHANG Xinsheng, WANG Minghu*
- 144 Application of Intelligent Electricity Control Technology in the Construction of the Pumped Storage Power Station / *WANG Kai, WANG Yang, DU Peng, XU Longtu, WANG Xiaobing, ZENG Jianglong, XU Chenhui*

