

社会责任报告



2016

社会责任报告
SOCIAL
RESPONSIBILITY
REPORT

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创新 协调 绿色 开放 共享

2016

SOCIAL RESPONSIBILITY REPORT

INNOVATION
COORDINATION
GREEN
OPENNESS
SHARING



我们会做得更好!



报告编制说明 About This Report

本报告遵循真实、客观、诚信、透明的原则，收集了中国东方电气集团有限公司在2016年努力履行社会责任，促进企业进步和社会可持续发展方面的重要信息。为了便于表述和方便阅读，报告中的“中国东方电气集团有限公司”将以“东方电气集团”、“集团公司”或“我们”表示；“股份公司”则为“东方电气股份有限公司”的简称。

报告时间范围：
2016年1月1日—2016年12月31日，部分内容超出此范围

报告发布周期：
以年度为周期

报告发布次数：
9

报告数据说明：
全部信息数据由东方电气集团相关部门及所属企业提供
社会责任工作领导小组办公室审核

报告参照标准：
《中国企业社会责任报告编写指南指标体系（CASS标准：3.0）》
《全球报告倡议组织(GRI)可持续发展报告指南(G4)》

SOCIAL RESPONSIBILITY REPORT

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集团简介

中国东方电气集团有限公司（简称：东方电气集团）是中央确定的涉及国家安全和国民经济命脉的国有重要骨干企业之一，属国务院国资委监管企业，是全球最大的发电设备制造和电站工程总承包企业集团之一，发电设备产量累计超过5亿千瓦，已连续13年发电设备产量位居世界前列。

东方电气集团起步于上世纪50年代末期，通过几代人的不懈奋斗，孕育出“大三线建设精神”、“求实、创新、人和、图强”的企业精神和“东汽精神”，用跌宕起伏的创业发展史铸就了中国民族工业走向世界的灿烂辉煌，以“中国装备，装备中国；中国装备，装备世界”的气概铸就了装备制造业的国之重器。

创新驱动发展，东方电气集团是国家首批创新型中小企业、国家技术创新示范企业、国家级企业技术中心、国家能源大型清洁高效发电设备研发中心、海外高层次人才创新创业基地，拥有国家重点实验室、院士工作站、博士后科研工作站，建立了以中央研究院为核心的面向未来产业新技术、共性技术以及面向市场的企业产品研发多级创新体系，助推企业可持续稳定发展。

践行“创新、协调、绿色、开放、共享”发展理念，东方电气集团积极发展大型清洁高效能源，拥有“核电、火电、水电、气电、风电、太阳能”全产业链研制能力，可批量研制1000MW-1750MW等级核电机组、1000MW等级超超临界火电机组、1000MW等级水轮发电机组、重型燃气轮机设备、风电设备、太阳能电站设备、大型环保及水处理设备、电力电子与控制系统、新能源电池及储能系统、智能装备等产品。

紧密围绕“一带一路”建设，东方电气集团大力拓展海外市场，大型装备产品和服务出口到近70个国家和地区，创造了中国发电设备出口历史上若干个第一，连续23年入选ENR全球250家最大国际工程承包商之列。

展望未来，东方电气集团将秉承“共创价值、共享成功”的宗旨，以李克强总理嘱托集团“打造中国的GE”为宏愿，努力创建成为具有国际竞争力的世界一流重大技术装备及服务优秀供应商，以绿色动力驱动中国和世界经济发展。

核心数据

2016年 核心数据



发电设备
3033.81万千瓦



员工总数
22375人



新增专利
372项



营业收入
370.37亿元



科技投入
15.26亿元



纳税总额
30.44亿元

董事会成员



邹磊
董事长



张晓仑
董事



欧阳英鹏
外部董事



孙汉虹
外部董事



刘茂勋
外部董事



朱稳根
外部董事



何杨
职工董事

党组、经理层成员



邹磊
党组书记
董事长



张晓仑
党组副书记
总经理



黄伟
党组副书记
副总经理



朱元巢
党组成员
副总经理

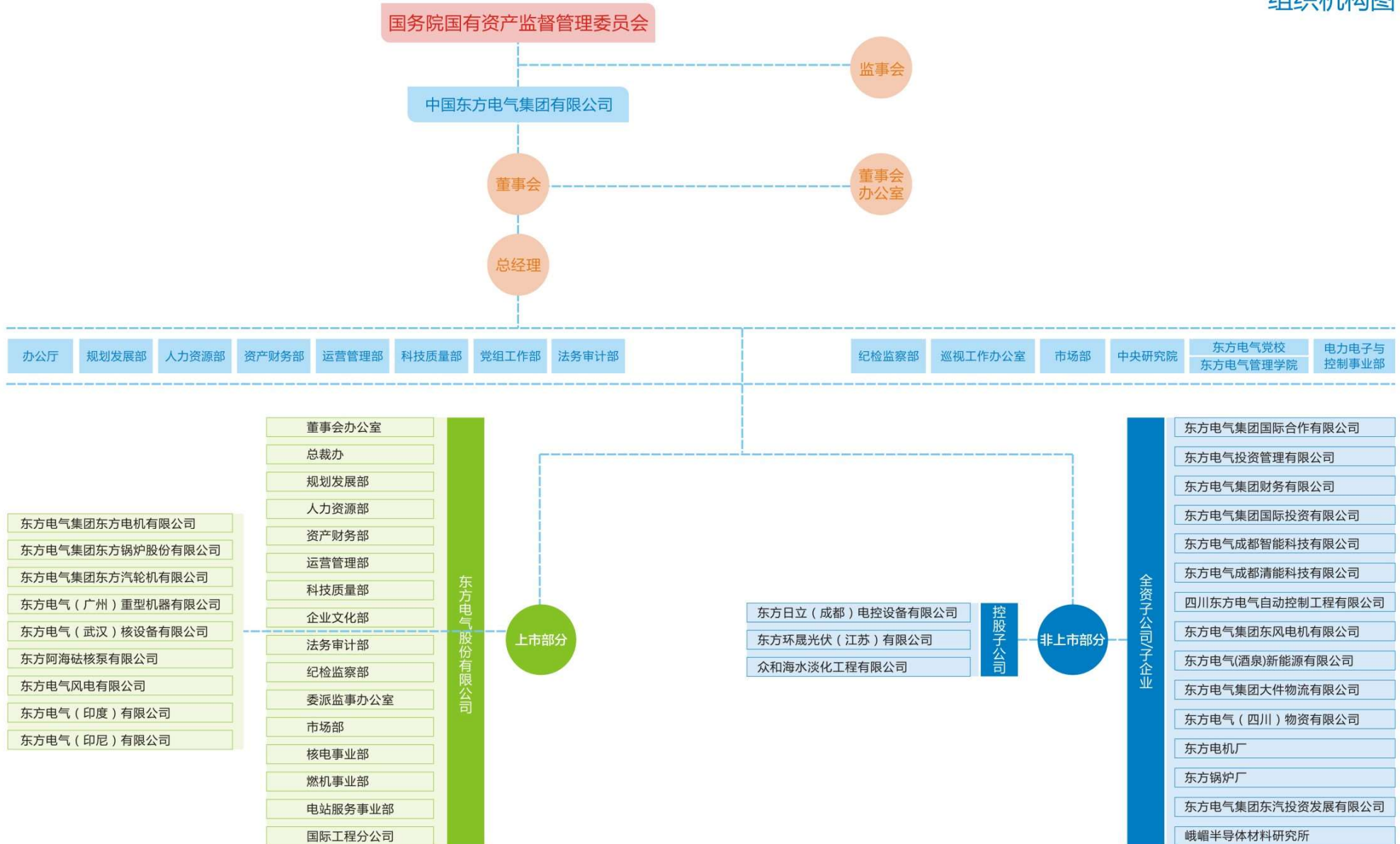


胡乃民
党组成员
党组纪检组组长

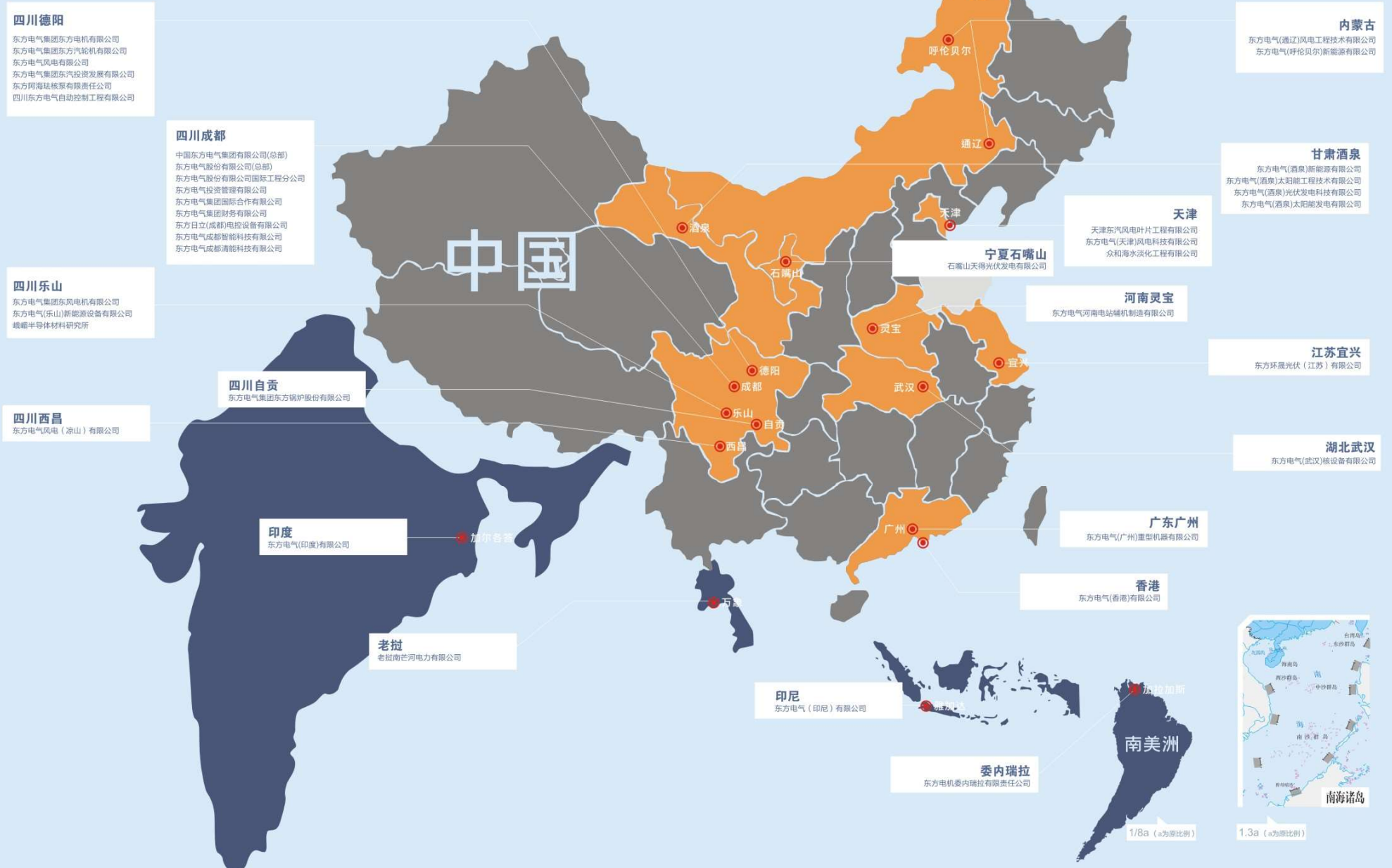


文利民
党组成员
总会计师

组织机构图



产业分布图



卷首语 PREFACE



2016年，东方电气认真履行中央企业的政治责任、经济责任和社会责任，统筹抓好深化改革、资源整合、集团管控、转型升级、提质增效、依法治企、风险防范等方面工作，在创新发展、协调发展的同时，携手各利益相关方推进绿色发展、开放发展和共享发展，东方电气可持续发展取得新进展。

创新发展引领卓越未来。

发展愿景明晰，公司治理持续完善，商业模式更加多元，依法治企深入推进。加快推进科技创新体制、机制建设，科技人才、劳动模范、技能大师不断涌现。我们在发展理念、体制机制、商业模式、技术研发等进行全方位、多层次、宽领域的创新，不断推动发展的内生动力和活力的根本性转变。

共享发展引领和谐未来。

坚持安全生产，保障职业健康。保护员工权益，践行“人和”文化。加强效能监察，打造阳光供应链。关注民生发展，实施惠民工程。加强资源禀赋研究，实施产业扶贫。构建长效机制，打造“吕梁山货”品牌，东方电气三名定点扶贫干部荣获2016“感动山西”特别奖。我们以“共创价值，共享成果”为宗旨，与社会共创和谐未来。

协调发展引领持续未来。

优化集团管控模式，实现资源共享和优化配置。做强发电设备制造主业，做大服务产业，向制造服务型企业转型。清退低效、无效产能和投资，发展节能环保、电力电子产业，培育燃料电池、储能系统、工业机器人等新业务。我们对接《中国制造2025》和“互联网+”行动，引领高端装备产业协调发展。

开放发展引领共赢未来。

整合海外资源，加快全球化步伐。加强与国际巨头对标，引入国际先进理念、管理、技术、网络和人才。走进海外社区，共享发展成果。2016年，东方电气风电产品进入拉美、俄罗斯市场，海外光伏电站总承包实现零突破。我们包容开放，共建“一带一路”。

绿色发展引领美丽未来。

构建绿色制造体系，积极推进循环化床、超低排放、节能提效、光煤互补等高端技术，大力发展环保产业和水电、核电、气电、风电、太阳能等清洁能源。在践行总理嘱托，打造“中国的GE”的路上，我们坚持走绿色、低碳、循环发展之路。

绿色动力，驱动未来。东方电气的行动永不止步，希望社会各界可以检视我们的成果和不足，让我们一起迈向可持续发展的未来！

创新篇

Guide the development with management innovation
Brighten the future with technological innovation

管理创新引领发展 科技创新驱动未来



国产三代核电蒸汽发生器

聚焦12345战略

为应对严峻内外部形势，集团公司新班子确定了“逆势求进、创新求变、转型升级、做强做优”的发展思路，明确了12345战略。

1/

凝聚一个愿景，实现装备制造中国梦

打造中国的GE，成为具有国际竞争力的世界一流重大技术装备及服务优秀供应商，实现能源装备制造的中国梦，为世界提供动力，为人类带来光明。

2/

开拓两个市场，统筹两种资源

大力开拓国际、国内两个市场；统筹协调国际、国内两种资源。

4/

推动四个转变，打造四个百亿产业

推动四个转变：一是转变发展思路。要更加突出“质量立企、创新强企、做强做优”。二是调整结构。重点做好三篇文章，即做强发电设备制造主业，提高核心竞争力；做好成长产业，培育新的经济增长点；做大服务产业，推进向制造服务型企业转型。三是创新商业模式。打造“实体经济+虚拟经济+共享经济”模式，按照“制造+服务+金融+智能制造和互联网+”的商业模式进行拓展和转变。四是转变管理方式。推动“集团化运作、产业化经营和精益化生产”。

打造四个百亿产业：在做强做优水、火、核、气的基础上，打造新能源（风电、太阳能光伏、光热等）、国际板块（国际工程、国际贸易等）、现代服务业（电站、金融等）和新兴成长产业（分布式能源、海洋装备、储能等）四个百亿产业。



5/

践行五大理念，实施五大工程

践行五大理念：“创新、协调、绿色、开放、共享”五大发展理念。

实施五大工程：深化改革工程，科技创新工程，质量立企工程，成本领先工程，管理提升工程。

运营管理不断优化

整合优化市场资源

加强集团公司国际业务资源统筹协调，对集团驻外机构、境外子公司及境外电站服务业务管理模式进行了优化调整。对市场开发、项目执行和售后服务资源进行了整合，形成集团市场合力。



不断夯实基础管理

理顺了综合计划、预算、劳动用工分配等基础管理工作，强调从严执行制度，强调完善内控体系，建立了财务、市场、质量、经济运行和审计等系列工作例会制度，推动工作落实。

持续改进质量工作

出台进一步加强质量管理工作十条决定。组织开展“质量万里行”，走访华能安源、大唐抚州等10个电厂，带回问题151项给予逐一落实解决。开展以“贯彻质量立企理念提升供给质量”为主题的“质量月”活动，全体干部职工对质量的“敬畏”之心不断增强。



深入推进集中采购

建立系统的供应商管理体系，成立了集中采购管理中心，推进集中采购工作。2016年，集中采购管理平台上线，全面推进集中采购，集中采购率超过80%。



主业技术持续进步



自主研制成功三代核电“华龙一号”蒸汽发生器

2016年，由东方电气研发制造的全球首台“华龙一号”ZH-65型蒸汽发生器顺利通过出厂水压试验。福清核电5号机组是我国具有自主知识产权的三代核电技术“华龙一号”全球首堆示范工程。

水电机组研制创造多个世界记录

2016年，由东方电气研制的巴西杰瑞电站22台75兆瓦贯流式水电机组全部成功投运。创造了“世界上最大贯流式机组水电站、世界贯流式机组单机容量最大、世界贯流式水电站转轮尺寸最大、世界贯流式水电站装机台数最多”的“四个之最”。杰瑞水电站输出电能稳定供给巴西当地电网，有效缓解能源紧缺问题，促进当地经济社会的快速发展。杰瑞水电站每年的发电量，相当于每年可以节约396万吨标准煤，减少二氧化碳排放量987万吨。



启动研发更加清洁高效超高参数百万千瓦二次再热示范机组

东方电气研发制造的国内首台超越临界二次再热660兆瓦机组在江西华能安源电厂投运，标志着东方电气新一代高效、清洁燃煤机组取得了全新突破。为持续提升燃煤机组的升级，东方电气启动了1000兆瓦等级35MPa/615°C/630°C/630°C二次再热主机技术研发，该技术于2016年通过了中国国际工程咨询公司组织的评审会。



完成5兆瓦优化型海上风力发电机组技术升级

2016年对5兆瓦江苏如东项目样机进行技术升级改造，技术改造和升级后的5兆瓦优化型海上风力发电机组，具备IEC I C类风场的适应能力，可具备抗台风设计，风轮直径140米，单位千瓦扫风面积为3.079平方米，项目机型在同类的I类风区中位居前列。技术升级改造后的机组于2016年8月23日并网运行，机组运行逐步稳定，连续数月利用率高达95%以上，机组成熟度和技术水平已经具备初步商业化的基础。

重型燃气轮机研制迈出新的步伐

2016年6月23日，东方电气与三菱日立电力系统公司，签订M701F5燃气轮机技术转让协议暨M701J燃气轮机技术转让框架协议。M701F5燃气轮机是世界上投运的最先进的F级燃气轮机，M701J燃气轮机是目前世界上投运的最先进的H级燃气轮机，此次协议签订标志着东方电气在抢占重型燃气轮机高端市场上又迈出了新的步伐。



新产品研发稳步推进

中央研究院加快科研成果转移转化和产业化步伐

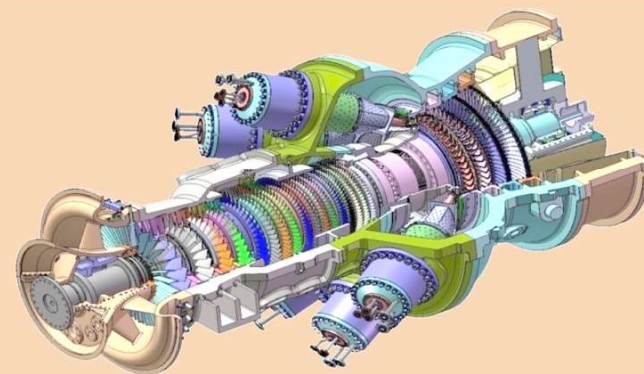
燃料电池方面，备用电源系统通过工信部泰尔实验室检测，获得市场通行证，并具备了小批量生产能力。锂电池方面，兆瓦级钛酸锂储能电池在内蒙古通辽风场示范运行。智能制造和特种机器人方面，锅炉集箱管座焊接机器人系统完成研发移交用户，东汽叶片数字化车间项目按照计划加速推进，以神华万州电厂、榆能横山电厂等为依托的火电机组健康智慧管理示范项目加快推进。光伏逆变器方面，高性能低成本三电平光伏逆变器在国家级检测中心开展效率认证实验，效率达到领跑者计划要求，处于行业第一梯队；掌握第五代IGBT的产业化技术，实现了第五代IGBT样品制备，样品性能接近国际领先水平。电驱动方面，100千瓦船舶电机驱动控制器完成样机研发，即将进行满功率试验；电动汽车DC/DC模块、60千瓦和100千瓦永磁电机控制器完成优化设计，形成小批量供货能力。



5千瓦燃料电池备用电源系统

核电转子超声无损检测机器人

爬行式焊接机器人



5万千瓦燃气轮机自主研发关键技术取得突破

东方电气致力研发国内首台具备完全自主知识产权的重型燃气轮机——5万千瓦燃气轮机自主研发项目。目前，5万千瓦燃气轮机关键技术已得到突破。研发成功后，东方电气将啃下21%关键环节“硬骨头”，突破国际装备制造巨头对重型燃气轮机核心技术垄断，推动国内燃机产业迈上新台阶。



2016年3月21日，四川日报以《东汽燃机为国产争气》为题，报道了东方电气集团东方汽轮机有限公司5万千瓦燃气轮机自主研发设计情况。



5万千瓦燃气轮机自主研发项目 大事记



技术创新硕果累累



2016年获奖荣誉

项目名称	获奖荣誉	获奖单位	奖项等级
巴西杰瑞贯流式75兆瓦水轮发电机组研制	四川省科技进步奖	东方电机	特等奖
16×16孔SCR脱硝催化剂新产品研发	四川省科技进步奖	东方凯特瑞	二等奖
高效低NO _x 燃烧试验台开发及应用研究	四川省科技进步奖	东方锅炉	三等奖
先进煤气化炉制造工艺技术开发应用	四川省科技进步奖	东方锅炉	三等奖
核电汽轮机1828毫米末三级湿蒸汽性能试验研究	四川省科技进步奖	东方汽轮机	三等奖
沙特拉比格835兆伏安/60赫兹汽轮发电机研制	中国机械工业联合会科学技术奖	东方电机	三等奖
巨型贯流式水轮发电机组关键技术研究及杰瑞机组研制	中国水力发电科学技术奖	东方电机	一等奖
核电大型容器全位置焊接关键技术开发	中国有色金属工业科学技术奖	东方重机	二等奖
600兆瓦超临界循环流化床锅炉关键技术研究与应用	国家教育部科技进步奖	东方锅炉	一等奖
600兆瓦超临界循环流化床锅炉技术开发与工程示范	中国电力科学技术进步奖	东方锅炉	一等奖
1000兆瓦超超临界单列高压加热器研制	中国机械工业科学技术奖	东方锅炉	二等奖
新一代1000兆瓦高效一次再热超超临界机组(28MPa, 600°C/620°C)研发及工程应用	电力建设科学技术进步奖	东方锅炉	二等奖
全转速钢制1200毫米末级长叶片研制	中国机械工业科学技术奖	东方汽轮机	二等奖

协调篇

Forge ahead with our customers and pursue the mutual benefits with the investors

与客户携手前行
与投资者实现共赢

Coordination

用心服务客户 赢得真情回馈

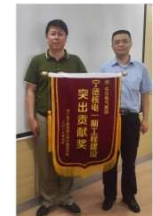
除了为客户提供满意的产品和服务，东方电气积极开展用户培训，为客户提供延伸服务。全年共举办6期神华集团用户培训班，221人参训，培训天数共计96天。秉持以用户为中心的理念，让学员通过培训深入了解东方电气产品特点、技术优势、合作空间，培训效果得到神华集团的充分认可。



东方电气各个项目团队精湛的技术水平和认真负责的工作态度赢得了客户的一致好评，受到多次表彰。



东莞中电第二热电有限公司专程发来感谢信



荣获宁德核一期工程建设“突出贡献奖”



与投资者充分沟通 共享发展成果

以投资者需求导向 持续合规信息披露

2016年，东方电气共完成168次信息披露，各项工作按计划实施。2016年获得上海证券交易所信息披露A级评价，连续两年获得上交所信息披露最高评价。

根据业绩下滑情况，提前做好半年业绩预警公告；半年报披露后，统筹策划了香港业绩说明会和相关路演活动，与投资者进行正向沟通；坚持做好日常投资者来访接待、来电咨询等，实现与投资者的长期稳定持续的沟通。



川上协华西证券组织股东走进上市公司活动



推动公司合规治理 保障全体股东权益

建立完善的治理结构体系。建立股东大会、董事会、监事会和经理层相互制衡、各负其责的公司运作体系，股份公司2016年共召开8次董事会议，审议35项议案；召开9次专业委员会，共审议17项议案；召开了两次股东会议等。

根据公司规范运作要求，深入开展内控建设，规范关联交易管理，实现合规运行。



独立董事参观东方重机



多渠道回报投资者 体现上市公司担当



2015年香港业绩发布会

东方电气多年坚持召开业绩说明会，注重定期报告披露后的投资者沟通，不断丰富投资者关系管理活动形式，切实做好中小投资者利益保护，注重与行业协会及媒体良好沟通，更精准把握投资者关注重点。连续十年累计现金分红近20亿元，较好地回报了投资者。



绿色篇

Harness cleaner energy to preserve global climate balance
Speed up innovation to ensure a low carbon community

绿色能源节能减排
创新环保低碳运营



潜心发展绿色能源

■ 燃机节能减排效益

目前国内投运的先进F级燃气-蒸汽联合循环机组效率在59.0%左右，东方电气制造的M701J机组效率高于61.0%。以一个安装有两台燃气轮机的联合循环电厂为例，假设年运行时间4000小时，M701J机组年发电量将增加13.6亿度。机组热耗降低约240千焦/千瓦时、每度电的氮氧化物排放量减少约4%。同样得到提升，最终热耗小于7594千焦/千瓦时，达到世界先进水平。



■ 水电节能减排效益

国内单机容量最大的仙居375兆瓦抽水蓄能电站4台机组全部投运，每年可节约标煤约15万吨，减少二氧化碳排放约30万吨，可具备消纳风电、太阳能等可再生能源4500兆瓦能力。



■ 核电节能减排效益

东方电气研制的1000兆瓦级核电机组成功投运3台，每年可减少煤耗共计约12299万吨，减排二氧化碳32220万吨，二氧化硫105万吨，氮氧化物92万吨。



■ 风电节能减排效益

东方电气2016年产出风力发电机283台，总容量592.5兆瓦，每年可节约标准煤约为43万吨，减少二氧化碳排放量约为86万吨，节能降耗效益约为8.2亿元。

实施综合节能改造

■ 光煤互补联合循环

2016年，山西国金电力有限公司2号机组顺利投运。该项目采用东方电气研发的1兆瓦塔式太阳能光热与350兆瓦超临界循环流化床燃煤机组联合循环技术，这是目前中国首个将塔式太阳能光热发电技术与传统燃煤发电技术进行“光煤互补”实现联合循环发电的项目。



■ 电站改造降耗减排

2016年完成大唐托克托600兆瓦升参数改造项目，机组改造后热耗达到7764千焦/千瓦时，低于设计值，比改造前下降417千焦/千瓦时，煤耗降低15克，改造后供电煤耗达到305克，低于国家煤电节能减排升级与改造行动计划要求，这也是国内600兆瓦高效亚临界机组完成综合升级改造后首台改进型达标机组投产。

按照每吨标准煤产生2.62吨二氧化碳，产生8.5千克的二氧化硫和产生7.4千克的氮氧化物计算，50兆瓦中等规模光热电站每年可减少二氧化碳排放量约11万吨，减少二氧化硫排放量约360吨，减少氮氧化物排放量约310吨。



■ 环保设施改造减排

东方电气完成华美热电CFB锅炉项目脱硝、湿除装置的改造，进一步巩固国内火电环保市场。自主研发设计的CFB—SNCR脱硝装置，以及湿式静电除尘器等产品，有效促进了大型火力发电厂清洁燃烧、节能减排，提高了资源利用率水平，得到了业主的认可。



完成常熟2号机组的通流改造，改造前参数为24.2Mpa/536°C/566°C，改造后参数升为24.2Mpa/566°C/566°C，三缸效率都得到提升，最终热耗小于7594千焦/千瓦时，达到世界先进水平。



节约优化资源使用

能耗总量持续减少

以控制能耗总量为重点，运用能源管理体系的相关管理方法，识别主要能源使用，完善管理方案，持续加强重点用能单位、重点能耗设备的管控。强化照明、空调及设备待机等非生产性能耗的管控，固化合理用能的管理方法并有效执行。加强协同管理，从优化生产组织、工艺设计、设备运行效率等角度出发，积极推广节能技术和节能方法。



2016年能耗总量

水利资源合理使用

严格按照国家相关法规标准，积极应用节水新技术、新工艺和新装备；完善生产用水和非生产用水计量，强化数据分析，为制订管控措施和监督检查做好充足准备；制订冷风机管理制度，对冷风机进水阀门清查、标注并对冷风机使用管理提出明确要求，督促使用单位加强对冷风机的管理；制订循环水管理制度，加强循环水管理；分区域检漏，及时治理泄漏，加强日常巡查，减少供水损耗。



造循环水泵房（工业冷却）



透平循环水泵房（小机试车）



排放防治合法合规

废水废气达标排放

秉持“环境友好”社会责任理念，东方电气严格遵守《环境保护法》、《大气污染防治法》等法律法规及环境管理体系要求，修订完善了环保管理制度，落实重要环境因素的相关防范控制措施，定期开展环境监测，组织环保专项检查，环保设备设施有效运行，废水、废气等污染物达标排放。

废弃物处置

严格遵守《中华人民共和国固体废物污染环境防治法》、《废弃物管理办法》等法律、制度要求，做好固体废物收集、贮存、处置工作。危险废物均交有资质的单位回收处理，其余固体废物交由废品回收单位回收利用，生活垃圾交由环卫公司处理。在生产制作过程中排放的污染物均严格按照国家规定进行申报，并按时缴纳排污费，全年未发生环境污染事件，未收到群众投诉意见。

2016年排放种类及数量



开放篇

Ride b&r wave to further open up
Reinforce branding by living up to responsibilities overseas

一带一路开放发展
海外履责树立品牌



推进结构升级 分区定策开拓海外市场

优化市场布局 传统市场挖掘取得新成果

2016年，签订印尼佳蒂格德2×56兆瓦水轮发电机组合同，将首次为印尼提供水力发电设备。签订印尼卡尔腾2×100兆瓦火电EPC项目，巩固了东方电气在印尼火电市场的优势。签订孟加拉S4联合循环1×125兆瓦项目汽轮机合同和帕亚拉一期2×660兆瓦锅炉及其配套辅机设备合同，继续参与孟加拉电力基础设施建设。



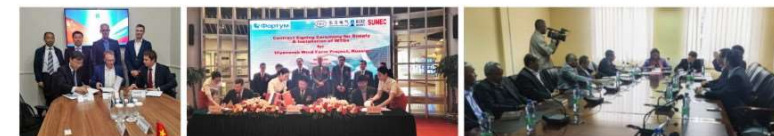
印尼佳蒂格德2×56兆瓦项目签约

突围新兴市场 多元化策略成为敲门砖

根据新兴市场经济发展水平、资源禀赋等情况，采取外贸和总承包方式，带动自身和国内其它产业进入市场。2016年，签订古巴赫拉杜拉二期50兆瓦风电项目、俄罗斯乌里扬诺夫斯克14×2.5兆瓦风电项目，进入拉美、俄罗斯市场。签订埃塞俄比亚120兆瓦风电总承包项目，是东方电气在海外的第一个风电总承包项目。签订泰国23兆瓦太阳能电站总承包项目，实现太阳能电站海外总承包零的突破。签订肯尼亚3×350兆瓦项目汽轮机技术协议和商务合同，该项目是迄今为止中国出口非洲单机容量及总装机容量最大的项目。



古巴赫拉杜拉项目签约



俄罗斯乌里扬诺夫斯克风电项目签约

致力前沿技术研究 先进技术引领高端市场竞争

围绕清洁高效主题，开展高参数、高效率的火电、水电、风电等技术研发，与国际能源技术联盟合作推动前沿课题研究，参与行业技术标准的制定，以全球领先技术参与欧美高端市场竞争。波斯斯坦纳瑞水电站采用世界先进的具有自主知识产权的300兆瓦燃用高水分低热值褐煤循环流化床锅炉技术，具备初步移交条件的瑞典布莱肯风电三、四期项目采用中国首创的混合叶片除冰技术，投运的巴西杰瑞水电站采用世界迄今容量最大的灯泡贯流机组技术。



波斯斯坦纳瑞电站



瑞典布莱肯风电三、四期电站

巴西杰瑞水电站

拓宽商业模式 拓展开放合作

与中央企业“强强联合”编队出海

2016年，东方电气获得“中巴经济走廊”首个水电投资项目供货订单——巴基斯坦卡洛特4×180兆瓦混流式水轮发电机组，这是东方电气与三峡集团首次海外合作，也是中国水电上下游产业链“抱团出海”的首个大型项目。

探索多种海外项目经营模式

2016年，波黑斯坦纳瑞水电站开始执行5年运行维护服务合同，代表东方电气集团开启“EPC+运行维护”经营模式，实现了中国制造、金融支持与当地资源有效结合，符合李克强总理在去年中国—中东欧国家领导人峰会上提出的“打造产能合作新样板”理念。



波黑斯坦纳项目

提升品牌价值 扩大国际影响力

以西博会为平台 加强与国际政要的交流

第十六届中国西部国际博览会（西博会）期间，波黑塞族共和国总统多迪克和几内亚总统孔戴到东方电气访问，希望东方电气整合中国企业资源参与波黑塞族共和国自贸区的建设和服务，并积极参与其以火电、水电为主的循环经济的发展；希望东方电气发挥技术和装备优势，与更多中国企业一起寻求能源建设的合作机会。



波黑塞族共和国总统多迪克来访

几内亚总统孔戴来访



越南海防电厂



中国驻瑞典大使陈育明在布莱肯风电场



瑞典媒体报道大使访问布莱肯风电场 非洲和南亚媒体代表团来访



张晓仑总经理答记者问

记者提问

建设标杆项目 以“精品”提升品牌影响力

坚守“建一座电站，树一座丰碑”、“24小时服务”和“持续改进”理念推进项目执行和后期服务。我们凭借出口巴西杰瑞水电站22台世界迄今单机容量最大的75兆瓦灯泡贯流式水发电机组项目，被业主授予唯一的“优质供货商”；总承包的海防电厂被越南政府评为“越南示范电厂”。

2016年，东方电气位列亚洲品牌500强第113位，ENR全球最大250家国际承包商第107位。



加强品牌宣传 与海外媒体以诚相待

西博会期间，来自非洲和南亚32个国家共35名媒体记者到东方电气参观采访，加深了对东方电气的了解，为国家间友好的交流与合作助一臂之力。

履行社会责任 提升企业海外口碑

参与项目所在地的道路建设、教育扶贫、医疗援助等公益活动，与当地保持良好的公共关系。在越南，为支持茶荣省扶贫帮困工作和当地教育事业，公司向当地扶贫基金捐款上亿越南盾，用于帮助那些居无定所的人修建房舍、购置衣物等以及进行孤寡老人生活援助。



越南沿海现场捐赠图书 2016ENR排名第107位

融入海外当地发展 做负责任企业公民

属地化分包和采购

持续推进属地化分包和采购，带动当地的经济的增长。



加大属地化用工

积极鼓励工程部使用项目所在国的社会人力资源，截止2016年底，海外工程项目聘用的外籍员工共计322人，同比增长92.8%。外籍员工分布在印度、巴基斯坦、印尼、越南、波黑、瑞典等多个国家，工作岗位涉及到技术、管理、普工和勤杂。这一举措不仅有利于工程项目的执行，也为东方电气融入当地、解决当地人员就业、履行社会责任发挥了积极的作用。

支持当地经济发展

2016年，东方电气海外共10台机组投产发电，单年投产机组容量达372.5兆瓦，稳定运行的机组源源不断地为项目所在国的经济、社会发展提供电力资源，缓解项目所在国的用电紧张情况。



越南沿海一期电厂



越南国家电力公司感谢信



中国驻埃塞俄比亚大使胡凡赴吉布3现场指导工作



东方电气吉布3项目部积极参与海外履责

由东方电气机电总承包的埃塞俄比亚吉布3水电站项目是目前为止我国出口的最大水电站项目，共10台机组，总装机容量1870兆瓦，是埃塞俄比亚目前在建的第一大水电站项目。2016年实现了10台机组全部投运发电，该电站目前为埃塞俄比亚首都亚的斯亚贝巴提供了90%的电力，受到埃塞俄比亚总理海尔马里亚姆·德萨莱尼的高度赞扬与好评。同时，项目部在建设过程中积极履行社会责任，为当地发展作出了突出贡献。



埃塞俄比亚总理为东方电气颁发吉布3水电站纪念碑



支持本地教育

本地化雇佣。项目部坚持“除部分管理和高级技术人员从中国派遣之外，其他职位和人力需求均从本地获取”的政策。截止2016年12月，我公司GIBE III项目部常驻现场中方人员10人，本地雇员25人，安装分包商中方人员80人，本地雇员约为200人，本地雇员约为中方人员2倍多。为埃塞当地人民提供了大量的工作机会，改善了当地人的生活品质与生活水平。

本地化采购。在工程物资和生活物资以及服务采购问题上，项目部坚决执行本地化采购原则“只要是能在埃塞境内采购到的物资和服务，就决不从第三国采购”，每年项目本地化采购的物资和服务金额都上亿元比尔。蔬菜食品和生活用品方面，项目部实现了100%的本地化采购。部分施工机械设备和施工材料，项目部及项目分包商也都在可能的范围内实行本地化采购，大大节约了成本。



分发学习用品

支持本地教育。吉布3水电项目位于埃塞国土南部偏远山区，在项目开始之前，该地区没有公路与外界沟通，极为偏僻，当地百姓生活极为原始，思想极端落后，当地的教学设备及其缺乏，教育资源极端匮乏。我司GIBE 3项目部的现场相关人员积极到周边考察调研，了解到项目现场附近的多所山区小学教学与生活环境极端艰苦，多年来连续对这些小学给予一定程度的帮助。2016年12月21日，项目部分驱车前往右岸的一所小学，再次向其捐赠了包括文具，体育用品和办公用品在内的价值约5000 比尔（约人民币1700多元）的物品。

共享篇

Targeted poverty alleviation

热心公益心系社会
关爱员工共享发展



精准扶贫暖民心 真帮实扶促发展

自“精准扶贫”工作开展以来，东方电气坚持把扶贫作为民生工作的重中之重，通过实施项目帮扶、产业带动等措施，真帮实扶，帮助贫困群众尽早脱贫。

山西省吉县——产业扶贫为主

向遭遇罕见冰雹灾害的吉县捐资50万元，用于当地苹果种植业的发展。

积极协调所属企业在福利发放、职工团购方面采购吉县苹果、土特产、饮料等农副产品，2016年共计实现采购金额350余万元。

联合11个驻晋定点帮扶中央单位，共同策划以“品味吕梁太行，携手扶贫众筹”为主题的中央驻晋帮扶单位联合推介活动。



吕梁农产品网上展销会 品味吕梁太行——山西贫困地区农产品走进东方电气 邹磊董事长在展台询问

在总部和三个主要子企业设立了5场巡展，助推吕梁、太行山两大片区的农产品、旅游资源及劳务资源走出山西，帮助贫困群体实现有尊严脱贫探索新路径。

参与吉县光伏扶贫项目建设，首批5×100KW分布式村级光伏扶贫电站建设已顺利完成工程验收，并按时间要求并网发电，为当地贫困人口带来稳定收入。



吕梁太行农产品推介活动走进东方电气

吉县光伏扶贫项目建设

传递无边大爱 点燃爱心公益

四川省昭觉县——教育扶贫为基



向昭觉县优秀贫困学生发放奖学金和助学金

持续捐助东方电气希望小学。2016年，向东方电气第一希望小学捐资、捐物共计5.67万元。继续向昭觉县600余名贫困学生发放奖学金10万元、助学金20万元，帮助民族地区贫困学生克服困难完成学业。捐资20万元对哈甘乡中心校危房和校舍进行维修改造，确保教学用房安全，惠及700多名在校生。捐资20万元，用于普诗乡路灯项目建设，解决300多户居民的夜间出行照明问题。



团委与东方电气第一希望小学全体师生合影留念



四川省壤塘县——民生扶贫为急

组织全集团员工对壤塘县滞销的农产品莴笋进行了集中采购，交易量达15万斤，解决了壤塘县农产品销售的燃眉之急。组织采购壤塘县双低菜籽油1.1万斤，消化其全部库存。

捐资10万元，为定点帮扶的壤塘县壤古村四个高山村寨安装太阳能路灯，解决牧民的出行照明问题。

积极参加走基层送温暖活动，为壤古村28户贫困户统一订购棉衣、棉被等衣物，保证农牧民温暖过冬。



东方电气公众开放日

智能制造知识科普活动，迎来了近600名成都市第七中学高二年级的师生。通过公众开放、校企互动，使东方电气的智能制造、电力装备知识等得到有效普及，为帮助广大在校中学生树立远大理想、勇担社会责任、成就精彩人生发挥了积极推动作用。



东方电气2016年公众开放日——智能制造知识科普活动

献爱心送温暖

与德阳柏隆镇小学、陇西王家坡小学等举办爱心“金秋双十”圆梦捐资助学活动、“暖冬助学、欢度圣诞”等活动，关爱留守儿童和贫困学生。

开展纪念红军长征胜利80周年敬老慰问活动，为老兵送去关怀和慰问。



东方电机纪念红军长征胜利80周年敬老慰问活动

促进员工成长 创造快乐幸福生活

员工管理以人为本

人才引进公开透明

通过校园公开招聘、内部公开招聘、社会公开招聘及通过中介机构引进高层次人才等多渠道补充人员。实行公平、公开、公正的招聘政策，禁止设置民族、种族、性别、宗教信仰等歧视性条款，未设置指定毕业院校、户籍范围等与岗位要求无关的招聘条件；对拟录用人员按规定进行至少7天的公示期，主动接受社会监督，确保招聘工作公开透明。

注重员工职业生涯规划

根据各岗位员工职业生涯规划，分类设计各岗位职业发展通道和路径，通过规范岗位晋升标准，突出岗位能力条件和工作业绩导向，消除晋升中的论出生、论职称、论资历等现象，建立了员工职业发展自我引导和激励机制，为员工自我价值实现创造条件。

不断完善健全薪酬分配制度

实行全员绩效考核，构建以岗位和能力为基础、以绩效为核心的薪酬体系。对各层级经营班子成员实行年薪制、对经营班子成员外的其他在岗人员实行

岗绩效工资制、目标收入制、协议工资制及特定功能辅助工资制等分配模式，发挥薪酬激励作用。严格执行所在地最低工资标准和最低生活保障标准，保障部分特殊员工基本生活。

建立和谐劳动关系

建立员工入职管理、劳动合同管理、岗位晋升管理、绩效考核管理、离职管理等系列制度，根据员工的性格特征、知识结构、年龄及身体状况、个人专长等因素，适时调整到适合的岗位工作。对不能适应岗位工作的员工，提供调整岗位及培训机会。对达到解除劳动合同条件的员工，依法依规解除劳动合同，并按照法律规定支付补偿金。

保障员工休息休假权利

实行每日工作8小时，每周工作40小时工作制。严格遵守国家规定的休息休假规定，建立了员工假期管理制度，对符合休假条件的员工，提供不低于国家规定的休假天数，保障员工休息休假的权利。



员工结构



招聘人员结构



职业健康与安全保障



责任落实	按照“党政同责、一岗双责、齐抓共管”安全生产责任体系的要求，落实安全生产主体责任，签订安全目标责任书，逐级落实。
安全投入	全年安全环保投入约8470余万元。
教育培训	以岗位安全操作规程为重点，全年共开展各类安全教育培训23200余人次。
隐患排查	组织开展重要危险源、重点防火部位、环保、职业健康专项检查以及汛期安全专项检查等工作，隐患排查治理形成常态化机制。
职业健康	体检工作，职业健康应体检率100%。
应急管理	修订完善应急预案，强化预案的培训、演练和持续改进，全年共开展各类应急预案演练70余次。



四川省政府安委会办公室在东电开展“安全进企业”安全技能竞赛电视专题节目制作



2016年安全生产年度会议



特种作业人员安全培训

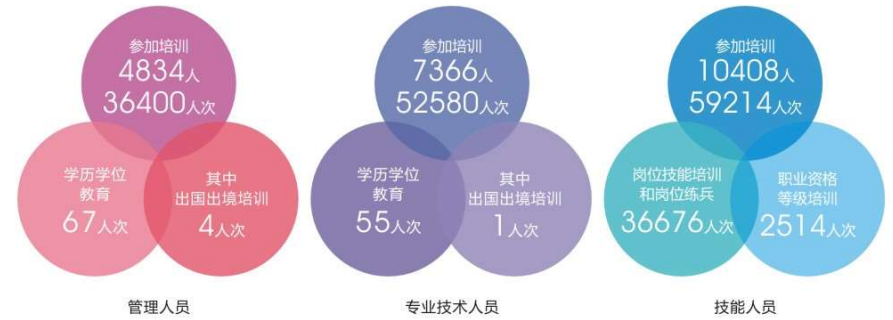


触电应急救援演练



消防应急演练

激励发展 落实培训



遵纪守法 和谐共赢

公司严格执行《劳动法》、《劳动合同法》、《国家职业卫生标准》等法律法规，明确各岗位任职年龄条件，禁止任何形式的雇佣童工。严格遵守有关法律法规，无以暴力、威胁或者非法限制人身自由的手段强迫劳动的行为，并禁止、杜绝强制劳动。依法为从业人员参加各项社会保险及住房公积金，依法与员工签订劳动合同、聘用协议或用工协议，对离职人员依法解除和终止劳动合同，并按规定支付经济补偿金，维护了公司和员工合法权益，促进了公司劳动关系和谐，保障了员工权益。



创造和谐文化氛围

公司秉承“社会、企业、员工和谐统一”价值观，组织了各类文娱、体育活动，丰富了青年员工的业余生活，激发了青年员工的生活与工作热情。活动受到了广大青年职工的热情响应和积极参与，为青年员工营造了良好的文化生活环境。



东方电气总部与东方锅炉职工篮球友谊赛



东方电气总部室外新球场启用暨新春“东方电气杯”篮球友谊赛



东方电机“道德讲堂”活动



东方电机“快乐健康 和谐东电”运动会



东方汽轮机“三八”节女职工趣味活动



东方汽轮机新春环厂跑



东方汽轮机“质量杯”职工运动会



东方锅炉“相爱到永远 携手伴一生”第五届集体婚礼



东方重机摄影俱乐部活动



东方重机篮球赛

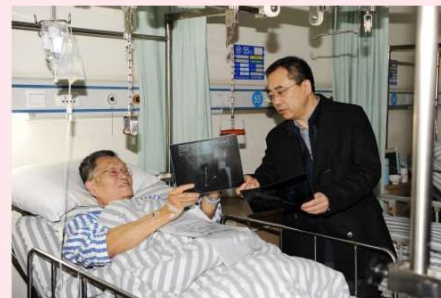


东方风电“三八”节员工趣味活动



东方风电“精益杯”首届职工五人制足球比赛

慰问帮扶困难员工



PROSPECT 展望



Prospect

展望2017 蓝图绘就 撸起袖子加油干

2017年是实施“十三五”规划的重要一年，也是东方电气深化改革、脱困振兴的关键之年。面对国内外错综复杂的经济形势以及全球产业竞争格局的重大调整，我们将全面贯彻落实党的十八大和十八届历次全会精神，深入学习贯彻习近平总书记系列重要讲话精神，以弘扬“三线精神”、“东汽精神”实现“脱困振兴、二次创业”为目标，以深化改革为动力，以“科技创新、质量立企、成本领先、深化改革、管理提升”五大工程为重点，坚持解放思想、转变观念、改进作风；坚持抢抓机遇，大力开拓市场；坚持目标导向，圆满完成2017年综合计划和阶段性改革发展任务；坚持加强和改进党对国有企业的领导，全面推进从严治党，以李克强总理嘱托集团“打造中国的GE”为宏愿，努力创建成为世界能源技术装备及服务的优秀供应商，以绿色动力驱动中国和世界经济发展。

和悦共生，以“润”致远。在新的一年里，东方电气将继续发挥“东方人”协同履责之力，以“和”之精神力、“润”之责任感、“商德公约”之道德力，推动事业做强做优，焕新企业发展，开创履责新模式，以实际行动回馈社会，为社会注入更多正能量。

About This Report

Following the principles of authenticity, objectivity, sincerity and transparency, Dongfang Electric Corporation takes initiatives in reporting to the public our fulfillment of social responsibilities, and the efforts we have made in expediting corporate progress and social sustainable development. For better understanding of this report, "Dongfang Electric Corporation" would be referred to as "DEC Group", "DEC", "The Group" or "We" while "Dongfang Electric Corporation Limited" as "DEC Ltd." for short.

Reporting Period:

2016 fiscal year from 1 January 2016 to 31 December 2016, with some exceptions.

Release Frequency:

on an annual basis

Past releases:

9

Data Illustrations:

the data included in this report stem from formal documents and statistical report submitted by relevant departments and subsidiaries of DEC Group and reviewed carefully by CSR Leading Group.

Guidelines of the Report:

Chinese Academy of Social Sciences-Corporate Social Responsibility 3.0 (CASS-CSR3.0); Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G4)

2016 SOCIAL RESPONSIBILITY REPORT

COMPANY PROFILE

Dongfang Electric Corporation (hereinafter referred to as "DEC Group" or "DEC"), one of Central State-owned enterprises (SOEs) as the backbone of the country's economy and having a vital bearing on national security, under direct supervision of State-owned Assets Supervision and Administration Commission of the State Council, is one of the world largest power generating equipment manufacturers and power plant EPC contractors, with the accumulative power equipment capacity output amounting more than 500GW and top-ranked among the world for these 13 consecutive years.

Since 1950s, through unremitting efforts of several generations, DEC Group incited several inspiring spirit, such as "Three line construction spirit", enterprise spirit of "Practical, Innovative, Harmonious and Initiative" and "DTC Spirit". The ups and downs in DEC pioneering history can be deemed as a miniature of the glory in the globalization of Chinese national industry and the aspiration of "Manufacture for China, Manufacture in China, Manufacture for the World." made DEC the pillar of the equipment manufacturing industry.

DEC is implementing a strategy of innovation-driven development. As the first batch of national innovation-oriented enterprises, national technology innovation-oriented enterprises, state-level enterprise technical centers, national large-scale clean and efficient power generation equipment R&D centers, as well as the innovation bases for the overseas talents, DEC Group, with its state key laboratory, academician and postdoctoral program, centralized on Central Research Institute to establish a multi-level innovation system for the future-adapted new and common

technologies and that for the market-responsive products, thus boosting its sustainable and stable development.

Practicing the concept of "innovation, coordination, green development, openness and sharing" and actively following the principle of developing clean and efficient energy, DEC possesses the design and manufacturing ability for nuclear, thermal, hydro, gas turbine, wind as well as solar power industry, able to mass-produce 1000MW-1750MW class nuclear power units, 1000MW class ultra-supercritical thermal power units, 1000MW class hydro power units, heavy-duty gas turbines, wind power equipment, solar power equipment, large-scale environmental protection and water treatment devices, power electronics and control systems, renewable battery and energy storage systems, intelligent manufacturing equipment and others.

Embracing "Belt and Road" initiative, DEC Group is making a big push into the overseas market, with equipment and services exported to more than 70 countries and regions, creating a number of the first in Chinese power equipment history and listed among ENR Top 250 International Contractors for consecutive 23 years.

Looking into the future, DEC Group will, adhering to the principle of "a joint endeavor to create value and share success" and guided by the vision of "Become China's GE" messaged by Premier LI Keqiang, make our commitment to become a world leading energy equipment and service supplier with international competitiveness that greenly drives the development of China and world economy.



CORE DATA



Output Capacity of Power Generating Equipments:
30338 MW



Employees:
22375



New Patents:
372



Operating Revenue:
 RMB **37.037** billion yuan

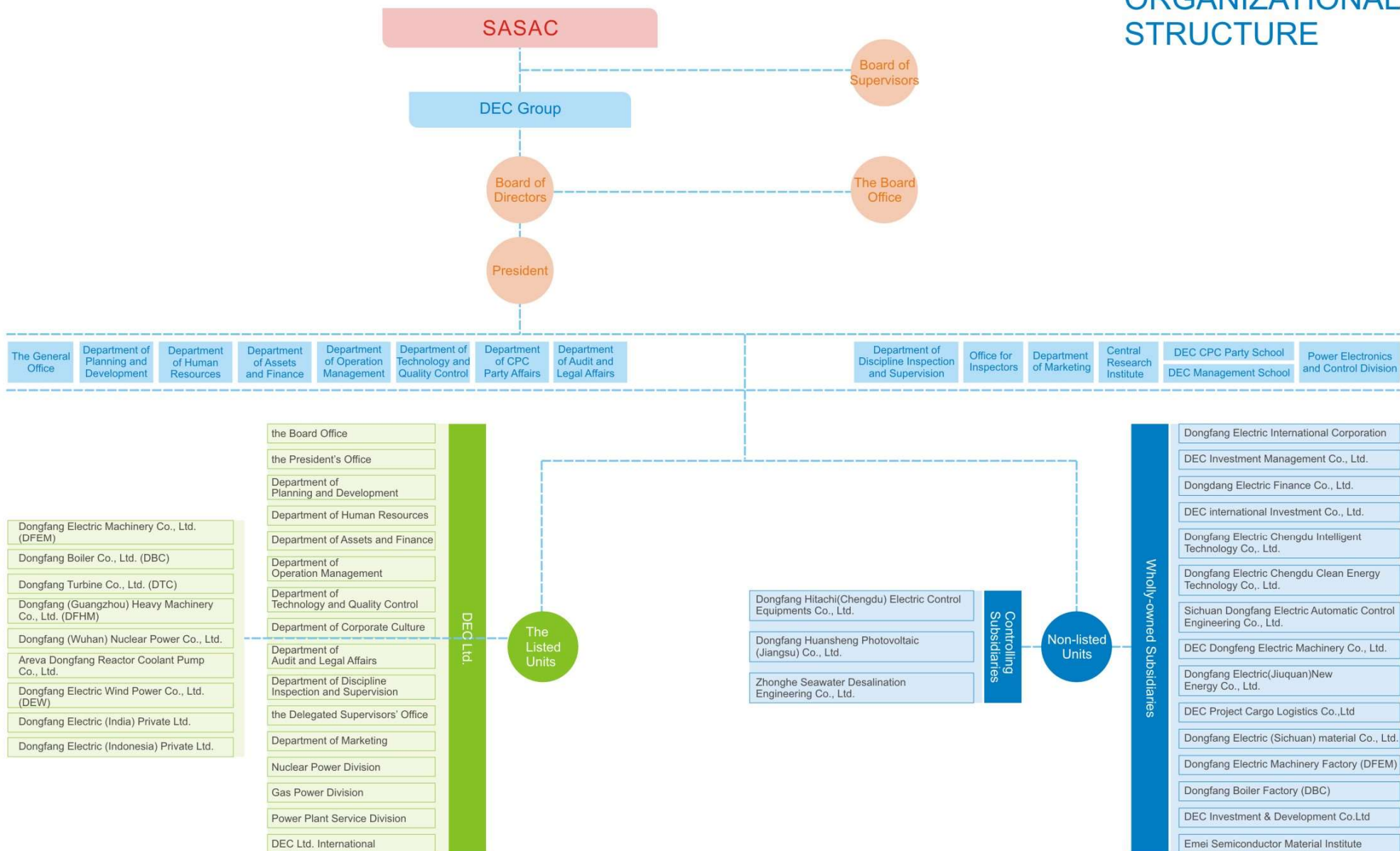


Inputs in Science and Technology:
 RMB **1.526** billion yuan



Tax Payment:
 RMB **3.044** billion yuan

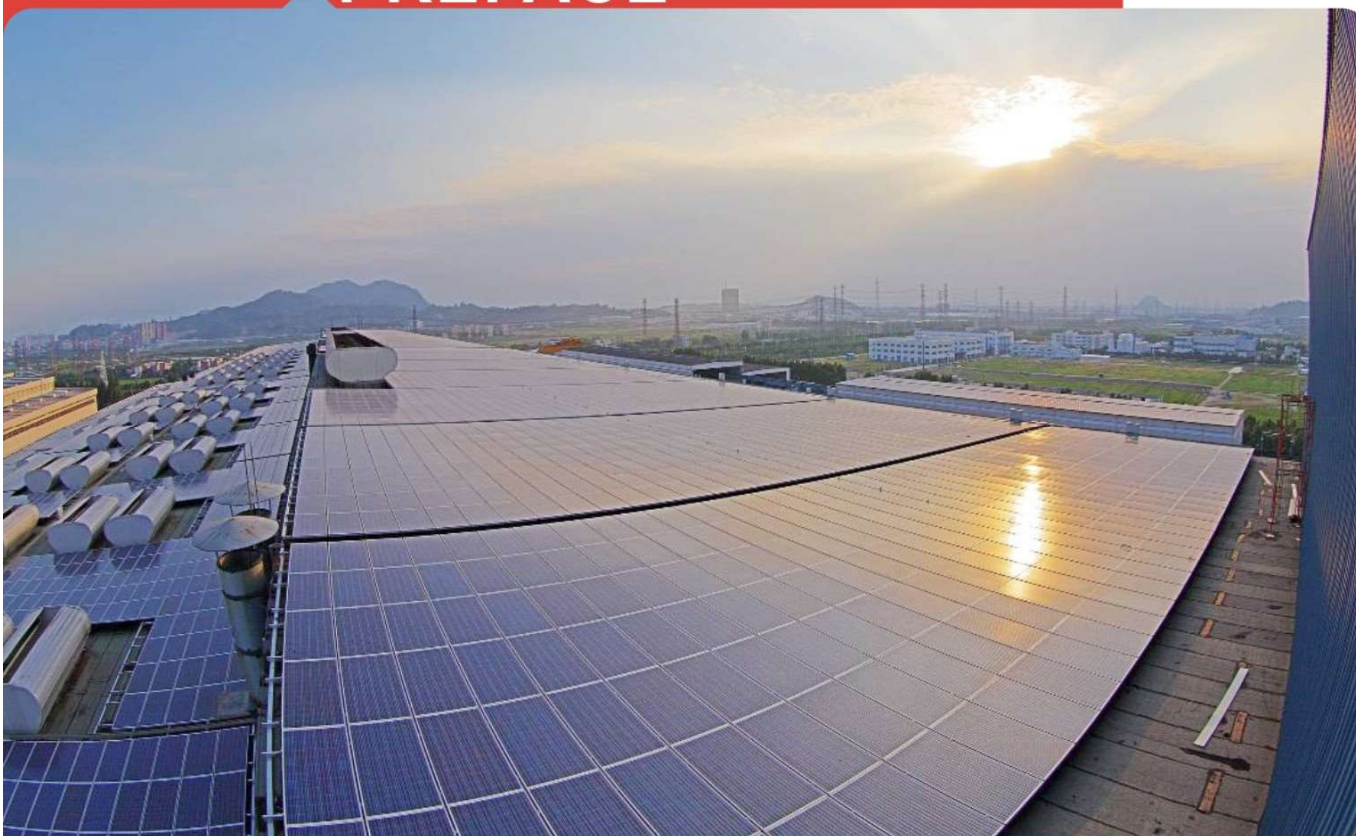
ORGANIZATIONAL STRUCTURE



INDUSTRIAL DISTRIBUTION MAP



PREFACE



In 2016, DEC earnestly fulfilled its political, economic and social responsibilities as a Central SOE and stepped up the overall planning of deepening reform, resources allocation, corporate governance, transformation and upgrade, quality and effectiveness improvement, law-based corporate ruling, risk prevention and others. Following the concept of innovation and coordination development and endeavoring with all relevant parties to conduct a green, open and sharing development, DEC made new progresses on its sustainable development.

Innovative development leads to a bright future

Having had a clear business vision, we continued to perfect the corporate governance, formed a more diversified business model, ruled the company according to the laws and enhanced the transparency in businesses. The establishment of technical innovation system and mechanism was well progressed. Numerous technological talents, model worker, and craftsmen sprung up. We made an all-dimensional, multi-tiered and wide-ranging innovation in the fields of development concept, system and mechanism, business model, technology research and development and others to constantly give the impetus to the fundamental shift of the development motility and vitality.

Coordinative development leads to a sustainable future

We heightened our group governance and achieved the resource allocation and configuration optimization. Our strategy is to strengthen the core business of power equipment manufacturing, to expand the service business and to transform itself to a service-oriented manufacturing corporation. Consequently, we sorted out and withdrew from the inefficient capacity and investment, expanded the environmental protection and power electronics industry, and nurtured the emerging businesses, such as fuel cells, energy storage systems, and industrial robots. We will, by matching with "Made in China 2025" and "Internet Plus" action plan, keep with the times to take the lead in the coordinative development of high-end equipment manufacturing industry.

Green development leads to a beautiful future]

Along with a structured green manufacturing system, we actively promote the cutting edge technology in the circulating fluidized bed, ultra-low emission, energy conservation and efficiency, solar-coal hybrid projects and develop to the utmost the environmental protection and clean energy such as hydro, nuclear, gas, wind and solar power. Following Premier Li's message to brand ourselves as China's GE, we are

steadily directing ourselves to a green, low-carbon, and sustainable development path.

Sharing leads to a harmonious future

Adhering to the philosophy of safety and health at work, we protected the rights and interests of our staff and practiced the people-oriented culture. We forged a transparent supply chain to enhance the efficiency of supervision. We conducted the people-benefited projects to reflect our care for the livelihood of the people. Besides, we also strengthened our research in resource endowment and endeavored to alleviate poverty via industrial activities. We built a long-term mechanism with Shanxi Province, by dispatching cadre staff there for branding agricultural products grown in Lvliang Mountain, therefrom 3 cadres were received "Touching Shanxi" Special Award. Guided by the principle of "Joint endeavor to create value and share success", we will proceed to contribute to the harmonious society and future.

Openness leads to a win-win future

We speeded up the pace of globalization through integrating overseas resources. We strengthened the benchmarking with international giants and brought in internationally advanced concept and management, technology, supply chains and talents. We stepped into the communities abroad and enjoyed together the development achievements. In 2016, DEC had its wind products stretched into markets of Latin America, Russia and Africa, and made a breakthrough in overseas solar power plant EPC contracting. Upholding the spirit of transparency and inclusiveness, we will make unremitting efforts to support "Belt and Road" Initiative.

Adhering to the vision of "Green power will light the future", DEC will keep on moving forward. It is expected that all of you could verify our performance and facilitate our continuous improvement so as to route with us to a green future together!

INNOVATION

Guide the development with management innovation
Brighten the future with technological innovation



Focus on a "12345" strategy

In order to cope with the severe internal and external circumstances, the new group management executives decided new development strategies of "Seeking progress amidst difficulties, pursuing innovation and change, undergoing transformation and upgrade, delivering enhancement and optimization" together with a clear 12345 strategic planning which encompasses "concentrating on one vision, expanding two markets, capturing three prominent positions, promoting four transformations, and implementing five development principles".

1/

Concentrate on one vision to fulfill our china dream in manufacturing

Adhering to the objective of "Become China's GE", we are making our commitment to become a world leading energy equipment and service supplier with international competitiveness so as to fulfill our China dream in manufacturing to light up the whole world and the people.

2/

Expanding two markets to restructuring the resources

Concerted efforts are made to expand the domestic and international markets, with the resources inside and outside China restructured.

4/

Promote four transformations and shape four ten-billion business sectors

Transformations on four aspects are promoted:

A shift in the development strategy. Great efforts shall be made to highlight "Seeking progress amidst difficulties, pursuing innovations and change, undergoing transformation and upgrade, delivering enhancement and optimization"

An adjustment in the structure. We are making a solid step to switch our focuses to drive a strong growth in the power equipment manufacturing main business to reinforce our core competitiveness, to nurture the emerging businesses and foster new economic growth points, and to expand the services business to navigate to the route to becoming manufacturing-service oriented.

An innovation in the business model. Aligning with a pattern of "A combination of real economy, virtual economy and sharing economy", we are making a development and transformation in accordance with a business model of "Manufacturing + Services + Financing + Intelligent manufacturing and Internet plus".

A refinement in the management. We are moving towards a refinement in the fields of the group administration, industrial operation and production.

A shape of 4 ten-billion business sectors: DEC would, continuing the making of a stronger and better growth in hydro power, thermal power, nuclear power, and gas turbine, structure a business pattern of 4 ten-billion business sectors:

- new energy businesses (such as wind power, solar thermal and photovoltaic power)
- international businesses (such as international projects and trades)
- services businesses (such as power plant services, financing services)
- emerging businesses (such as distributed energy, marine equipment, stored energy)



5/

Implement five development principles and five major programs

We are practicing the concept of "innovation, coordination, green development, openness and sharing"

We are dedicating our resources into implementing five major programs: deepening reform program, science innovation program, quality improvement program, cost control, and further reform and management enhancement program.

Unceasing optimization of the operational management

Integrate and optimize the domestic and overseas market and resources

The restructuring of all the marketing resources proceeded in a solid manner. We succeeded in optimizing the management of the representative offices, subsidiaries and power plant services in the overseas market and integrated our resources in market development, project execution and after-sales services, which created synergy among our markets.



Steadily strengthen the administrative management

Following a straighten-out of the administrative management such as overall planning, budgeting and labor force allocation, we focused a strict compliance with the rules and an improvement in the inner control system, formed a mechanism of conducting series of regular meetings themed with finance, marketing, quality, operation, audit and so on, as a strong impetus to make the relevant work well-fulfilled.

Continuous improvement on quality-related issues

We formulated 10 decisions in light of enforcing the quality management. We launched a special event, namely Long-term Quality Assurance Campaign, having visited 10 power plants, such as Huaneng Anyuan project and Datang Fuzhou project, and solved the brought-back 151 items of issues one after another. The monthly-implemented activities aimed at fostering a corporate concept of building a quality-focused company and providing the quality-assured products were thoroughly implemented, thus reinforcing awareness of all our staff for the quality.



Centralize the procurement inside the whole group in an in-depth manner



In order to centralize the procurement inside the whole group, we established a supplier management system and formed a centralized procurement management center. In 2016, after the launching and implementing of the centralized procurement management platform, among which 80% procurement was placed through the platform.



Continuous technological improvement on the main businesses

A success in manufacturing HPR1000 steam generator

In 2016, the FOAK steam generator of HPR1000 modeled ZH-65, designed and manufactured by DEC, successfully completed its hydro test before delivery. Unit 5 of Fuqing nuclear power plant is also the world's first demonstration project which adopts the generation III nuclear power technology HPR1000 with China's independent intellectual property rights. This one-time success of the hydro-test for HPR1000 steam generator marks an accomplishment that such nuclear island main equipment with self-reliant design and manufacturing is prepared to be installed on site and a symbol that the Chinese enterprises have a full grasp of the generation III nuclear power equipment design and manufacturing technology.



Set several new world records for the development of hydropower units

In 2016, 22 sets of 75MW bulb type hydro units in Brazil Jerry power plant, supplied by DEC, were all successfully put into operation, which set 4 world records in bulb-type hydropower industry in terms of capacity, unit capacity, runner diameter as well as quantity of the units installed. The electricity generated from this project is supplied stably to the local power grid, thus effectively alleviating the problem of energy shortage, and accelerating local economic development. The annual power production capacity of Jerry hydropower plant is equivalent to an annual savings of 3.96 million tons of standard coal, about reducing CO2 emissions of 9.87 million tons.



Launch of research and development for more clean and efficient 1000MW double-reheat thermal demonstration unit with ultra-high parameters

The first domestic ultra-supercritical 660MW double-reheat thermal unit, developed and manufactured by DEC, was successfully put into operation in Jiangxi Huaneng Anyuan power plant, marking that DEC made a brand-new breakthrough in the new generation of clean and efficient coal-fired units. In order to continuously enhance the upgrading of coal-fired units, DEC further started a research and development for 1000MW class 35MPa / 615°C / 630°C / 630°C double-reheat thermal unit, of which the technology was evaluated and approved by the reviews organized by China International Engineering Consulting Corporation in 2016.



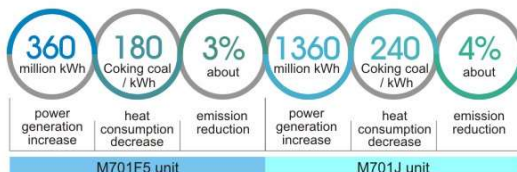
Accomplishment of the technical upgrade for the optimized 5 MW offshore wind power unit

In 2016, technical upgrade for the prototype of 5MW wind turbine in Rudong project was well completed, making such optimized 5MW offshore wind turbine, adapted to IC class wind field and designed with anti-typhoon function design, have its wheel diameter of 140 meters and rotor swept area per KW reaching 3.079 m², of which the performance top-ranked among the I-class wind projects. The upgraded unit was connected to grid on August 23, 2016, with a utilization rate of more than 95% for several consecutive months, thus revealing that this kind of unit is capable of preliminary commercial promotion based on its maturity and technology.



New steps in developing heavy-duty gas turbine

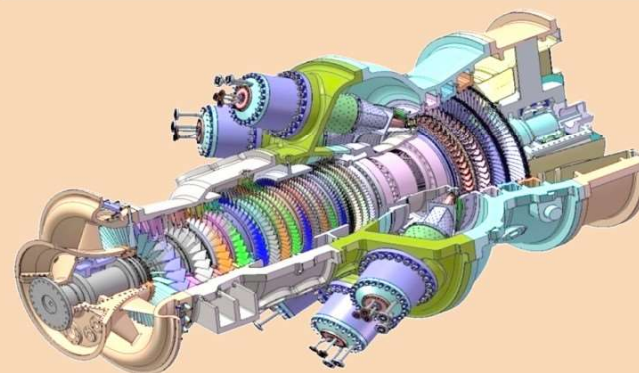
At present, M701F5, M701J gas turbine is the world's most advanced F-class, H-class gas turbine in operation. On June 23, 2016, DEC and Mitsubishi Hitachi Power Systems signed M701F5 gas turbine technology transfer agreement as well as M701J gas turbine technology transfer framework agreement, denoting that DEC stepped forward to the new direction of seizing the initiative in the upmarket of heavy-duty gas turbine.



A good progress in the gas turbine R&D

A speed-up of the transformation and industrialization of scientific research made by Central Research Institute

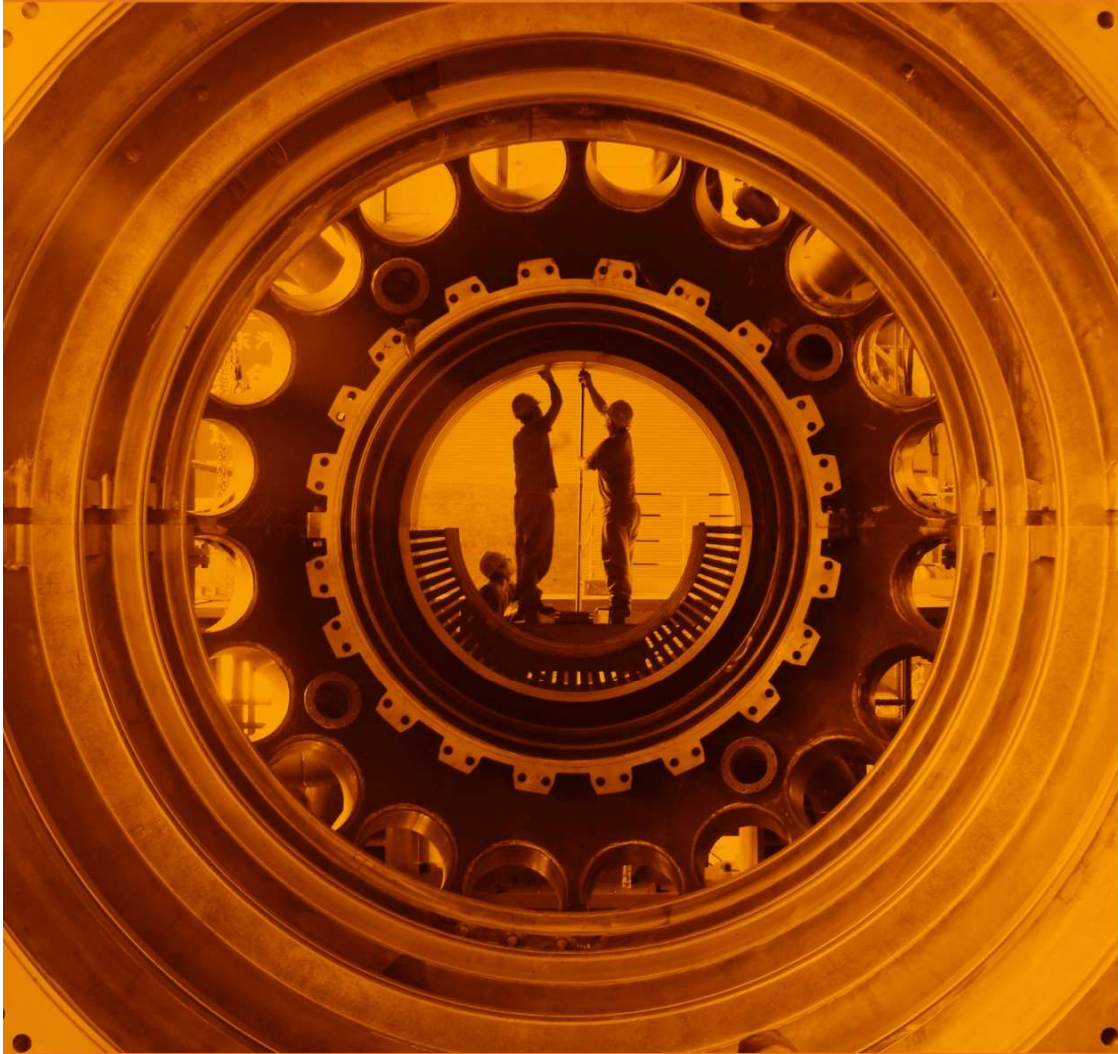
Our standby power system went through the inspections and tests conducted by China TTL, thus winning the access to the market with a small batch production capacity. We successfully carried out the demonstration operation for the Megawatt-class LTO battery in Inner Mongolia Tongliao wind field. In the aspects of the intelligent manufacturing and special robots, we completed the R&D for the boiler header tube welding robot system and handed this system over to the client. Besides, we also advanced the construction of digital steam blade manufacturing workshop as scheduled. The development of health and intelligence management and demonstration project for thermal power units, based on Shenhua Wanzhou power plant and Yuneng Hengshan power plant, was progressed in a faster pace. Moreover, we certificated the efficiency of the three-level photovoltaic inverter of high performance and low cost in the national testing center, with its efficiency reaching the qualification of the top runner and becoming the top-ranking in the industry. At the same time, mastering the fifth generation IGBT industrialization technology, DEC achieved sample preparation of the fifth generation IGBT with the sample performance close to the international leading level. With respect to electric drive, prototype development of 100KW ship motor drive controllers was completed, of which full-loaded test will be carried out soon. Apart from that, we completed the optimization design for the DC / DC module, 60KW and 100KW permanent magnet motor controllers for electric vehicle and formed a small batch production capacity.



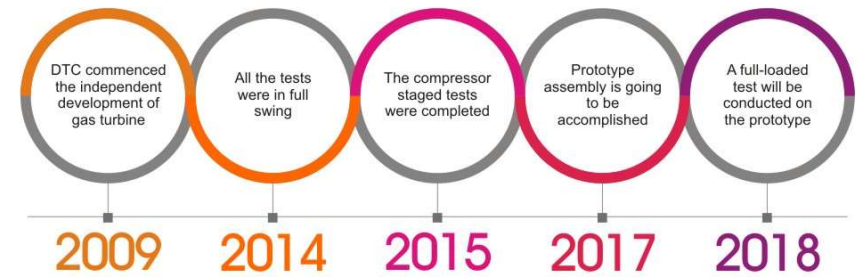
Striving to develop 50MW gas turbine

DEC is striving to develop 50MW gas turbine, its first domestic heavy-duty gas turbine with fully independent intellectual property rights. Upon the success of R&D, DEC will, cracking hard nuts in 21% critical factors, break through the monopoly from international equipment manufacturing giant on the core technology of heavy-duty gas turbine and forge the domestic gas turbine industry stepping onto a new level.

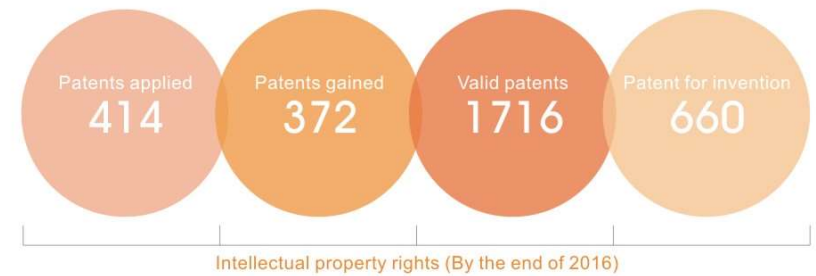




Big events on 50MW gas turbine R&D process



Fruitful technical innovation



COORDINATION

Forge ahead with our customers and pursue the mutual benefits with the investors



Coordination

Serve the customers with heart and soul and expect their heartfelt praise and favorable feedback

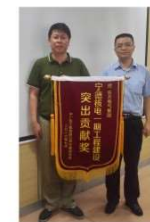
Serve the customers wholeheartedly

In addition to provide the customers with the satisfactory products and services, DEC is also actively engaged in extending the services, such as training the clients. This year witnessed 6 training courses held for Shenhua Group, with a participation of 221 trainees and the courses totaling 96 days. Adhering to the client-centered concept, we did, through the trainings, make the trainees have had the in-depth understanding of the features, technical advantages of our products and potential cooperation scope with us. Shenhua Group gave a high appraisal of the effect of the aforesaid trainings.



Unanimous praise from the clients

DEC and its project teams, with their superb management and responsible working attitude, won the unanimous praise and received many recognitions from the clients.





Effective communication with the investors to share the benefits

Constant disclosure of the investor-oriented information in compliance with laws and regulations



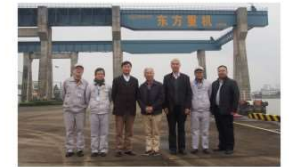
In 2016, DEC completed information disclosure for a total of 168 times with all work implemented as planned. DEC was awarded A from Shanghai Stock Exchange for our excellence in information disclosure in 2016 and 2015 respectively.



Reinforce the corporate governance and protect the interests and rights of all shareholders.



Under a thorough system of corporate governance, DEC formed a mechanism to build the checks and balances among shareholder general meeting, board of directors, supervisors and management and to make them fulfill their respective responsibilities. In 2016, 8 board meetings were held with 35 board resolutions, 9 special board committees with 17 resolutions. Besides, we also held 2 general meetings.



Investor return in multi channels embodies our responsibilities as a listed company



For years, we formularized to hold the performance briefings, stress on the communication with the investors after regular reports disclosure, and constantly enrich the forms of investor-relation management activities. We did our best to protect the interests of small and medium investors, focus on the good communication with the industrial associations and the media, and understand the concerns from the investors in a more precise manner. For recent 10 consecutive years, the cash dividend totals about 2 billion Yuan RMB, proved to be a good return to investors.

GREEN

Harness cleaner energy to preserve global climate balance
Speed up innovation to ensure a low carbon community



Up-to-standard discharge of wastewater and waste gas

Energy conservation and emission reduction effects of gas turbines

The efficiency of advanced F-class gas – steam combined circulating units that have been put into operation domestically is at about 59.0%. The efficiency of M701J manufactured by Dongfang Electric is above 61.0%. Taking a combined circulating power plant equipped with two gas turbines as an example, assuming annual operating time of 4,000 hours, the annual generating capacity of M701J unit will be increased by 1.36 billion kWh, the heat consumption of unit will be reduced by approximately 240 kJ/kWh and the NOx emissions per kWh will be reduced by approximately 4%. The ultimate final heat consumption will be less than 7,594 kJ/kWh, reaching the world advanced level.



Energy conservation and emission reduction effects of hydropower

4 units of Xianju 375MW pumped storage power station, with the largest unit capacity in the PRC, have all been put into operation, which can achieve annual savings of approximately 1.5 million tonnes of standard coal and reduction of carbon dioxide emissions by approximately 300,000 tonnes, and offset renewable energy including wind power and solar power by 4500 MW.



Energy conservation and emission reduction effects of nuclear power

3 1,000MW nuclear power units developed by Dongfang Electric have been successfully put into operation, which can achieve annual savings of approximately 122.99 million tonnes of coal and reduction of emissions of carbon dioxide, sulfur dioxide and nitrogen oxides by 322.20 million tonnes, 1.05 million tonnes and 920,000 tonnes, respectively.



Energy conservation and emission reduction effects of wind power

In 2016, Dongfang Electric produced 283 wind power units with the total capacity of 592.5 MW, which can achieve annual savings of approximately 430,000 tonnes of standard coal, reduction of carbon dioxide emissions by approximately 860,000 tonnes and energy conservation and consumption reduction of approximately RMB820 million.

Implementation of comprehensive energy conservation

■ Combined cycle with solar power and coal power complementary to each other

In 2016, unit 2 of Shanxi Guojin Power Co., Ltd. was smoothly put into operation. The project adopts the combined cycle technology integration of the 1MW tower-type solar-thermal and 350MW supercritical circulating fluidized bed coal-fired units developed and designed by Dongfang Electric. It is the first project adopting tower-type solar-thermal power generation technology and traditional coal-fired power generation technology to achieve combined cycle power generation with "solar power and coal power complementary to each other".



■ Transformation of consumption and emission reduction for power plants

In 2016, the parameter modification transformation for Datang Togtoh 600MW unit was completed, upon which the heat rate reached 7,764 kJ/kWh, lower than the design value and 417 kJ/kWh lower than the value before transformation, and the coal consumption decreased by 15g to 305g, lower than the requirements on national action plan for coal power saving and emission reduction upgrade and transformation. It is the first domestic improved 600MW efficient subcritical unit meeting standards after comprehensive upgrade and transformation.

Calculated at 2.62 tonnes of carbon dioxide, 8.5kg of sulfur dioxide and 7.4 kg of nitrogen oxides produced by each tonne of standard coal, a medium-sized 50 MW solar-thermal power plant can reduce emissions of approximately 110,000 tonnes of carbon dioxide, approximately 360 tonnes of sulfur dioxide and approximately 310 tonnes of nitrogen oxides.



■ Transformation of emission reduction for environmental protection facilities

Dongfang Electric completed the transformation for denitrification and dehumidification devices of the CFB boiler project of Huamei Thermal Power, further consolidating the domestic thermal power environmental protection market. The independently developed and designed CFB-SNCR denitrification device, wet electrostatic dust collector and other products effectively promoted the clean combustion, energy conservation and emission reduction of large thermal power plants and improved resource utilization rate, and were thus recognized by owners.



Flow passage transformation was completed for Unit 2 in Changshu. The parameters were 24.2Mpa/536°C/566°C before transformation and 24.2Mpa/566°C/566°C after transformation. The efficiency of three cylinders was enhanced. The ultimate final heat consumption will be less than 7,594 kJ/kWh, reaching the world advanced level.

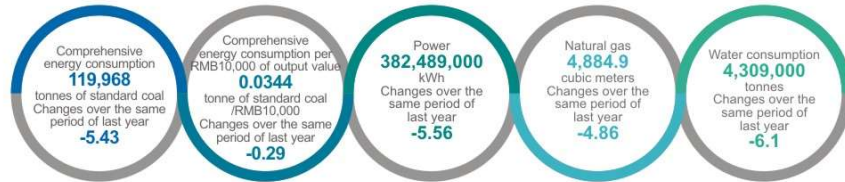


Use of Resources

Continuous drop of total energy consumption

With the stress placed on control of total energy consumption, the relevant management methods of energy management system were applied to identify main energy applications, improve management scheme, and continuously strengthen the management and control of key energy consumers and energy consumption equipment. Intensified management and control were implemented for non-productive energy consumption including lighting, air conditioning and standby equipment, and the measures for rational use of energy were fixed and effectively implemented. In addition, coordinated management has been strengthened to proactively popularize energy-saving technologies and methods from the perspectives of optimization of production organization, process design, equipment operating efficiency, etc.

Total energy consumption in 2016



Strengthen the rational use of water

In strict accordance with relevant national regulations and standards, the Company proactively applied water-saving new technologies, new processes and new equipment; it improved metering of water production and non-production water, and enhances data analysis to get well prepared for the development of control measures, supervision and inspection; an air cooler management system was formulated to stipulate check and labeling for inlet valve of air cooler and clear requirements on the use management of air cooler to urge users to strengthen management of air cooler; a circulating water management system was also prepared to intensify circulating water management; leakage detection was conducted by areas for prompt governance of leakage and routine inspections were reinforced to reduce water loss.



Construction of circulating pump house (industrial cooling)



Turbine circulating water pump (test run)



Compliance with laws and regulations in emission control

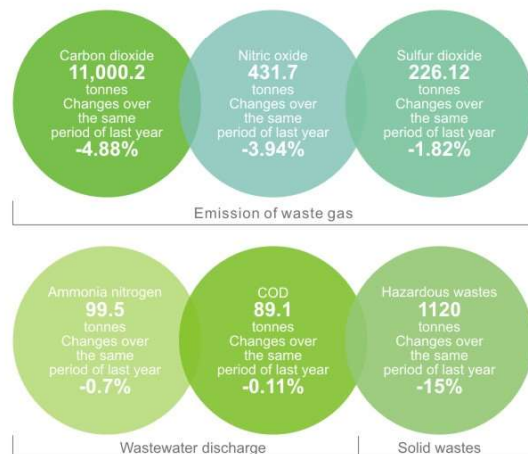
Up-to-standard discharge of wastewater and waste gas

Upholding the "environmentally friendly" concept of social responsibility, Dongfang Electric strictly abides by the Environmental Protection Law, Air Pollution Prevention and Control Law and other laws and regulations as well as the requirements of environmental management system, and has revised and improved the environmental management system and implemented relevant prevention and control measures for important environmental factors. The Company regularly carries out environmental monitoring and organizes special environmental inspection, to ensure effective operation of environmental protection equipment and facilities and up-to-standard discharge of wastewater, waste gas and other pollutants.

Waste treatment

The Company strictly complies with the Law of People's Republic of China on Prevention and Control of Solid Waste Pollution, Measures for Waste Management and other laws and systems in collection, storage and treatment of wastes. Hazardous wastes are subject to recycling by qualified units and the remaining solid wastes will be recycled by waste recycling units, and household garbage will be treated by environmental sanitation companies. For pollutants discharged in manufacturing, it is required to make a declaration in accordance with national regulations, and timely pay pollution discharge fees. Throughout the year, there was no environmental pollution incident and the Company did not receive any complaints from the public.

Emission types and quantities in 2016



OPENNESS

Ride b&r wave to further open up
Reinforce branding by living up to responsibilities overseas



Boost the structure upgrading and establish the specific marketing strategies for different regions all over the world

Optimize the market layout and make new achievements in the traditional market

In 2016, DEC made its debut in providing hydro power equipment to Indonesia under an equipment supply contract for 2×56MW Jatigede hydro power plant. In Indonesia, DEC also signed an EPC contract for KALTENG 2×100MW thermal power plant, the equipment supply contracts for turbine of 1×125MW S4 combined cycle unit and the boilers (including auxiliary systems) of Pajala 2×660MW thermal power plant in Bengal.



Make a breakthrough in the emerging markets with the diversified strategies as a stepping stone

In line with the economic development level and resource endowment in emerging markets, DEC, in the way of product exporting or EPC contracting, brought itself and other Chinese businesses into overseas markets. In 2016, DEC succeeded in entering into Latin America and Russia markets, by signing Herradura 50MW wind power project in Cuba and Ulyanovsk 4×2.5MW wind power project in Russia respectively. Moreover, we also signed Kenya 3×350MW turbine technology agreement and general term contract, which is the first African project with the largest installed capacity and unit capacity ever signed till now.



Dedicated to the advanced technology research to take the lead in the market competition

Themed at cleanliness and efficiency, DEC developed independent technologies of thermal power, hydro power, wind power with high parameters and efficiency. In order to compete in western markets, DEC also strengthened cooperation with international energy technical alliances to drive the studies on cutting-edge subjects and participate in the setting of the industrial standards. For instance, the STANRI thermal power plant in Bosnia and Herzegovina is adopting the world advanced technology of 300MW CFB Boiler burning High Moisture and Low Calorific Value Lignite with independent intellectual property rights. Meanwhile, the Swedish BLAIKEN wind power project phase III&IV, already reaching the preliminary conditions for turning-over to the client, used the mixed blades deicing technology pioneered in China. DEC also supplied the hydro equipment for Brazil Jerry hydro power plant with the world largest bulb type hydro unit.



Broaden the business models and widen the cooperation fields

Further access to the international market through alliance with other Central SOEs

In 2016, DEC won the first hydropower equipment supply contract to supply 4x180MW Francis hydro power units for Karot hydropower plant in Pakistan under the investment plans in "China-Pakistan Economic Corridor". As the first cooperation between Three Gorges Group and DEC in overseas market, this project is also the first mega project with the joint participation of the enterprises from the upstream and downstream of Chinese hydropower industry.

Explore a variety of overseas business patterns

In 2016, DEC commenced the implementation of the operation and maintenance service contract for Stanari Power Plant in Bosnia and Herzegovina with the duration of 5 years, representing that DEC initiated a new pattern of "EPC+operation & maintenance" and achieved an effective combination of manufacturing in China, the financial support and local resources under the concept of "set new examples for cooperation on production capacity." proposed under the China-CEECs 16+1 Cooperation.



Enhance the brand value and enlarge the international influence

During the 16th Western China International Fair, Milorad Dodik, Prime Minister of Serb Republic of Bosnia and Herzegovina visited DEC and expressed a good vision that DEC could, joint with Chinese enterprises, participate in the construction and relevant service of the free trade zone of Serb Republic and take an active part in the development of its power industry such as thermal power, hydro power. Besides, Alpha Conde, President of Guinea also visited DEC and hoped that DEC could make good technical and manufacturing advantages to seek opportunities in participating Guinea energy industry with cooperation with the Three Gorges Group, China Aluminum and any other central enterprises.

Foster the communication with international government officials on the platform of Western China International Fair



Build model projects to reinforce our brand

We are adhering to the concepts of "Make each project a masterpiece", "24-hour services" and "Make continuous improvement" for the purpose of advancing the project execution and post-service. We provided 22 sets of 75MW bulb type hydro units in Brazil Jerry power plant and was awarded by the client as the only "Excellent Supplier". DEC EPC-contracted Haiphong power plant was named as "the Demonstration Power Plant" by the government of Vietnam.

In 2016, DEC ranked 113 in TOP 500 ASIA BRAND, 107 in ENR TOP 250 International Contractors.



Enhance the brand image and exchange with the overseas media in a transparent manner

During the 16th Western China International Fair, 35 journalists from 32 African and South African countries visited DEC and had a deepened understanding of our company, thus contributing to strengthen the exchanges and the cooperation among countries.



Fulfill our social responsibilities to further enhance our reputations in overseas market

We took a role in the local activities such as road construction, schooling and poverty alleviation, medical assistance, and maintained good public relations with the local government. In Vietnam, in support of the poverty alleviation and schooling for Trà Vinh Province, DEC donated hundreds of millions of Vietnamese dong to help those homeless people to build houses and purchase clothes and other daily items, and to provide basic living assistance to the elderly people living alone.



Blend into the local and be a responsible corporate citizen



Localized subcontracting and procurement

We continued to substantiate the localization of subcontracting and procurement, thus leading a leap in the local economy.

Subcontracting in Indonesia Kalteng 2×100MW amounts
3.574
 million USD

Subcontracting in Sweden Blaiiken Wind Farm Phase IV amounts
2.266
 million USD

More local recruiting

DEC takes the initiatives in implementing the local recruiting in the countries and regions where the projects are located. By the end of 2016, the number of foreign employees employed in overseas projects totaled 322, with a year-on-year growth of 92.8%. Spreading in the countries such as India, Pakistan, Indonesia, Vietnam, Bosnia and Herzegovina, Sweden and other countries, these foreign employees mainly takes the positions related to the technology, management, and administration. All these enable DEC to better execute the projects, blend into the local, provide solution to local employment, thus to activate its accomplishment of the social responsibilities.

Active Fulfillment of Overseas Duties by GIBE III Project Department of DEC

With Plant EPC contracted by DEC, GIBE III Hydroelectric Project of Ethiopia is the largest hydroelectric project ever exported by China. The Project is also the largest hydroelectric project current in Ethiopia, with 10 units and a total output of 1870MW. Since 2016, GIBE III has been put into full operation, fulfilling 90% of power demand in Addis Ababa, the capital of Ethiopia, which is highly praised and evaluated by Prime Minister Hailemariam Desalegn.



Prime Minister Hailemariam Desalegn Awarding GIBE III Plaque to DEC



DEC Supporting Local Education



DEC Donating School Supplies

While implementing the contract, the GIBE III Project Department of DEC also fulfilled its social responsibilities and made prominent contributions to local development.

Local employment: The Project Department insisted to employ local people for positions except partial managements and senior technicians. Up to December 2016, GIBE III Project Department of DEC had 10 Chinese permanent expatriates on site, 25 local employees, 80 Chinese permanent expatriates from installation subcontractor, while 200 local employees hired by installation subcontractor – local employees were over 2 times of Chinese expatriates. The lots of job opportunities have been improving greatly the locals' life quality.

Local Procurement: The Project Department insisted to procure supplies and services in Ethiopia as long as available, which consumed over 100 million of Birrs annually. Foods and daily supplies were 100% locally procured while partial equipment and materials for construction locally procured to the most extent, which contributed significantly to both local economy and project economy.

Local Education: GIBE III is located in remote mountainous region in southern Ethiopia. Before the Project, the region had no roads connected to the outside, local people lived a primitive life with unenlightened thoughts, and local education resources were extremely scarce. The Project Department investigated several local primary schools around the site, learned about their difficulties in education and living and offered help to them for years constantly. On December 21, 2016, the Project Department visited a primary school on the right bank and donated again school supplies worth 5000 Birr (the equivalent of 1700 RMB), including stationeries and sports goods.

SHARING TARGETED POVERTY ALLEVIATION



Sharing

Targeted Poverty Alleviation

Since the launch of the "targeted poverty alleviation", DEC has been regarding poverty alleviation as top priority among tasks concerning people's livelihood. It earnestly takes practical measures such as sponsoring projects and industry development to help impoverished people cast off poverty as soon as possible.

Ji County, Shanxi Province – industry-based poverty reduction

The Company donated RMB500,000 to Ji County, which was stricken by a rarely-seen hail damage, for the development of local apple planting.

It energetically mobilized the subordinate enterprises to procure apples, local specialties, beverages and other agricultural and sideline products produced in Ji County as corporate benefits and in staff group purchase. In 2016, the purchase amount of over RMB3.5 million in aggregate was recorded in this regard.

The Company cooperated with 11 designated aiding central units stationed in Shanxi Province to plan out with concerted efforts the "to savor Lu Liang and Tai Hang, to jointly aid the underprivileged through crowd funding" themed joint promotion event of the aiding central units stationed in Shanxi Province.



The online trade fair of agricultural and special local products of Lu Liang



Savoring Lu Liang and Tai Hang –introduction of agricultural and special local products from poverty stricken areas in Shanxi



Prices inquiry of Zou Lei, the Chairman

It launched 5 itinerant exhibitions in the headquarters and three major subsidiaries to facilitate the entry into the market outside Shanxi Province of the agricultural and special local products, tourism resources as well as labor resources in the districts of Lu Liang and Tai Hang, thus blazing new trails for the underprivileged to shake off poverty with dignity.

Participated in the construction of photovoltaic project for poverty alleviation purposes. The first batch of 5×100KW photovoltaic power stations at village level for poverty alleviation purposes has passed the construction acceptance smoothly and has been put to generate power on grid as per time requirements, thus guaranteeing stable incomes for local impoverished households.



by the booth The marketing activity of agricultural and special local products from Lu Liang and Tai Hang in DEC



Photovoltaic project construction in Ji County for the poverty alleviation purposes

Public benefits for the community

Zhaojue County, Sichuan Province -- education-oriented poverty alleviation



Donating to the DEC Hope Primary School on an ongoing basis. In 2016, the Company made monetary and material contributions at an aggregated amount of RMB56,700 to the DEC Hope Primary School.

It continued to provide the scholarship of RMB100,000 and educational grants of RMB200,000 for more than 600 impoverished students in Zhanjue County aiming to help impoverished students in minority regions to finish school against difficulties.

The Company contributed RMB200,000 for the maintenance and renewal of the dilapidated building and school premises of the Central School of Hagan Town so as to ensure the safety of educational buildings, which benefited more than 700 students in school.

It donated RMB200,000 for the construction of the street lighting projects in Pushi Town, thus addressing the lighting requirements for the night activities of more than 300 households.

Rangtang County, Sichuan Province -- livelihood-oriented poverty alleviation

The Company organized employees throughout the Group to undertake centralized purchase for the lettuces, the agricultural products dull of sale of Rangtang County, with 75,000 kilograms transacted, thus releasing the Rangtang County from the pressing predicament in the sale of agricultural products.

It also organized the purchase of the double-low rapeseed oil of 5,500 kilograms from Rangtang County, thus destocking its entire inventory.

It contributed RMB100,000 for the installation of solar street lamps in four alpine stockade villages in Ranggu Village, Rangtang County, the designated aiding spot, thus addressing the lighting problem of herdsmen for their travelling.

It proactively participated in reaching out to the grassroots for heart-warming purposes. It purchased cotton-padded coats, quilts and other clothing and articles for daily use for 28 impoverished households in Ranggu country in a bid to ensure a warm winter for the farmers and herdsmen.



DEC Public Open Day

The Company carried out dissemination activity on intelligent manufacturing knowledge and received approximately 600 Grade Two students and teachers from Chengdu No.7 High School. The opening to the public and school-to-enterprise interactions facilitated the effective popularization of knowledge about intelligent manufacturing and electronic equipment of the DEC and played an invigorative part for the students to set ambitious goals, shoulder social responsibilities and leading a wonderful life.



The 2016 DEC Public Open Day -- dissemination activity on intelligent manufacturing knowledge

Love dedication and warmth delivery

Caring for left-behind children and impoverished students, the Company organized affectionate events such as the "Golden Autumn on 10 October" fund donation and student aids and the "aiding students in warm winter, celebrating the Christmas" activity in Bailong Town Primary School, Deyang City, Wangjiapo primary school in the western part of Gansu and others.

It also launched the respect of and solicitude for the old activity in commemoration of the victory of the Long March for the 80th anniversary to deliver concerns and regards to the veterans.



The respect of and solicitude for the old activity in commemoration of the victory of the Long March for the 80th anniversary organized by Dongfang Electrical Machinery

Nurture all the staff and reap their happiness

People-oriented HR management and talent recruiting in a transparent manner

We have an overall recruiting mechanism of the campus recruitment, internal recruitment, social recruitment, and other recruiting channels such as headhunting. Practicing the recruitment policies of fairness, openness, and justice, we neither have any discriminatory wordings regarding the nationality, race, gender as well as religion in the recruitment announcements, nor specify any criteria such as the graduation school or the domicile place. We made public the people to be recruited for more than 7 days, hereby accepting the supervision from the public and guaranteeing that the whole recruitment is open and transparent.

Focus on career planning

According to the career planning for the staff in different job positions, we made the respective development channels and paths. We, through the normalization for the promotion criteria, highlighted the personal abilities and achievements, established the self-guidance and incentive mechanism during the employee career development path and created the conditions for the staff to realize their values.

Perfect the salary system

Each staff needs to go through the performance assessment under an evaluation system with the basis of competency to the position and the accountability of their performance. We instituted the annual salary system for the management executives, and a diversified salary system for all other staff linking the salary to their performances, target accomplishment, or providing a salary after a direct negotiation with the staff, or

implementing some special formula to calculate the salary, in order to motivate all the staff in different manners. We follow the lowest salary standard and the allowance for lowest living standard to guarantee the basic cost of living allowances for some employees in difficulty.

Establish a harmonious labor relation

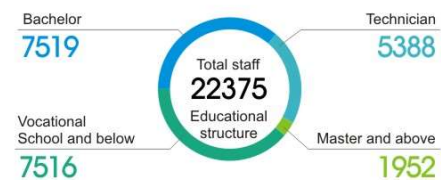
We formed a series of systems for the orientation management, labor contract management, post promotion management, performance appraisal management, and turnover management. In order to reach the full potential of the factors such as personality, knowledge, age and physical conditions, specialties, we reallocated the staff in the position suited best. For those not competent to the job position, we provided position adjustment and trainings. For those meeting the conditions for demission, we will revoke the contract and pay the compensations in accordance with the labor law and regulations.

Provide the staff with the right of rest and vacations

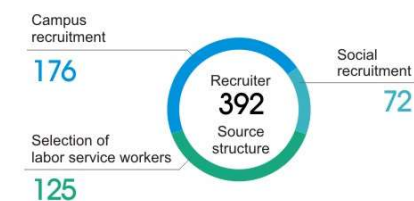
DEC instituted a working hour system of 8-hour working per day and 40-hour per week. In line with the national regulations and rules on rest and vacation, we arranged vacations for the staff as stipulated by laws, rules and regulations, to fulfill their rights of rest and vacations.



Staff structure



Recruitment structure



Occupational health and safety



Implement of the safety responsibility system	Following the rules on production safety responsibility that both CPC committees and governments are held accountable and that officials take responsibility for workplace safety in performing their duties, and intensify efforts to see that those who fail to uphold safety standards are held accountable, we improved and implemented the system of accountability and management level by level.
Safety Input	In 2016, safety input is about RMB84,700,000.
Education & Training	Focusing on Job safety guidelines, we offered safety training opportunities to more than 23,200 staff.
Potential hazard elimination	We organized to launch safety checking and controlling on the important hazards sources, key fire-proof locations inside DEC, special inspections for the environmental protection and occupational health and for safety during flood periods, making the potential hazard elimination a normalized mechanism.
Occupational health	We arranged the check-ups and professional health examinations for all our staff.
Emergency management	We revised and improved our emergency response plan, enhanced its training, rehearsal and continuous improvement. In 2016, we held more than 70 rehearsals of all kinds of emergency responses.



The "Bring safety to enterprises" themed documentary TV program on the game of safety skills, led by the Office of Security Commission under the Sichuan Provincial Government, was produced in DEC.



Rehearsal of responsive rescue for electric shock



2016 annual meeting for safety production



Fire emergency rescue rehearsal



Safety training for special operators

Incentives and trainings



Strictly following the laws leads to a harmony and win-win of the employment engagement

To comply with relevant laws, regulations and rules, such as Labor Law, the Labor Contract Law and National Occupational Standards, we specified the conditions of age for each job position and any forms of child labor employment are strictly prohibited. We are, in full compliance with relevant laws and regulations, never forced the employee to work by resorting to violence, intimidation or illegal restriction of personal freedom. Forced labor is strictly prohibited and forbidden. We and our employees participated in social insurance, and paid social insurance premiums and housing funds in accordance with the law. In accordance with the laws, we signed the labor contracts or employment agreement with our employees, and revoked the labor contracts for those departing staff, and made economic compensations for those meeting certain stipulations according to the law, thus representing and safeguarding the legitimate rights and interests of laborers so as to ensure that the employees enjoy a harmonious working environment and fulfill labor obligations.

Create an atmosphere of harmonious culture

Adhering to the core value of "Build for harmony among the society, the company and the staff", we created a good cultural environment for the young staff. We organized a variety of entertainment and sports activities, enriched their leisure lives, and aroused their enthusiasms for work and life.



Solicitude and aids for employees in difficulties

Visiting employees in exceptional poverty and with critical illness as I weas the bereaved families of employees up to **5000+** persons during the New Year Holiday and the Spring Festival

Showing its care for **2000+** persons including occupational disease carriers, employees suffering from work injuries and model workers for the whole year.



PROSPECT

Prospect

Looking into 2017, a well-drawn blueprint is guiding us to roll up our sleeves and go full speed ahead with our work

2017 is a significant year for the implementation of "13th Five-Year Plan", witnessing DEC a rise above difficulties and the rejuvenation with deepening reform. Faced with the complex internal and external economic circumstances and the significant change to global industrial competition pattern, we must do the following:

implement the guiding principles of the 18th National Congress of the CPC and all the plenary sessions of the 18th CPC Central Committee;

put into practice the guiding principles from General Secretary Xi Jinping's major policy addresses;

make endeavor to realize the target of "rising above difficulties and achieving rejuvenation" and "secondary venture" under the spirit of "Third line construction spirit" and "DTC Spirit";

driven by the deepening reform, dedicate our resources into "science innovation, quality improvement, cost control, further reform and management enhancement";

insist on emancipating minds, transforming values and refining the organizational behavior;

be committed to seizing every opportunity to vigorously expand market based on the goal-oriented discipline in order to accomplish the comprehensive plan of 2017 and reform and development tasks in each stage;

stick to and improve the strict governing of the SOEs by the Party to strengthen Party discipline.

Guided by the vision of "Become China's GE" messaged by Premier LI Keqiang, we should make our commitment to become a world leading energy equipment and service supplier with international competitiveness that greenly drives the development of China and world economy.

Aspire for the mutually-beneficial cooperation and common prosperity and map for green power as a route to the sustainable future. DEC is making a solid step to make all its businesses growing stronger and better, renew the corporate development, explore a new pattern of fulfill its responsibilities, thus practicing the actions to contribute to the society and fuel the positive energy.