

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
<i>AGENCY FOR NON CONVENTIONAL ENERGY AND RURAL TECHNOLOGY</i>		
(1001)	Performance Comparison of Compact Fluorescent Lamps	CNIT
	Improving Solar Distillation in Basin Solar Still	NCSL
	Wind Resource Assessment Program	NCWD
	Pulse charging technique for batteries -Experimentation	TEST
<i>AMTECH ELECTRONICS (INDIA) LTD</i>		
(1002)	Active Static VAR Compensator for Wind Mills	NCWD
	Active Harmonic Filter	TEIT
<i>ANDREW YULE & COMPANY LTD</i>		
(1003)	12KV,400A,12.5KA Oil filled vacuum autocloser	DEQP
	SCADA Compatibility with autocloser	DEQP
	Vacuum/SF6 insulated ring main unit	DEQP
	12KV,400A,12.5KA Oil filled vacuum autocloser of insulation level of 50KV/110KV peak	DEQP
	12KV,1250A,20KA/50KA Fault make earth switch	DEQP
	Out door metering unit with out door resin cast (Cycloaliphatic Resin System) instrument Transformer	DMTR
	12KV,1250A,25KA Compact VCB Panel	DMTR
	High efficiency laminar bladed flat shroud impeller FSB-11 series	GHPM
	High efficiency aerofoil bladed flat shroud impeller FSA-11 series	GHPM
	High efficiency aerofoil bladed flat shroud impeller FSA-24 series	GHPM
<i>APPLIED ELECTRO MAGNETICS PVT.LTD.</i>		
(1005)	Dedicated systems for control and monitoring of heat processes	TEST

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	True RMS Portable 0.2 Class Multi Digital Meter Using Micro Controller	TEST
	96 & 72 Sqmm Snap fit Moving Coil and Moving Iron Meter	TEST
	3 phase powerline monitor with RS485 interface and SMPS for power supply to reduce the size and cost	TEST
	Low cost DC to DC transducer with Galvanizing Isolation using Analogue optical Isolation	TEST
<i>BARODA ELECTRIC METERS LTD</i>		
<i>(1011)</i>		
	Scheme for technical loss reduction through apparent energy measurement / Metering	DMTR
	Scheme for non technical loss reduction through operator based restructured Distribution System	DMTR
	Development of static single phase apparent energy (KVAh) Meters	DMTR
	Development of multi channel meter	DMTR
	Microcontroller based 3 phase Bivector/Trivector meters	DMTR
	New concepts for automatic meter reading	DMTR
	Development of microcontroller based low cost , highly tamper immune , static three phase active cum apparent energy and single phase meter	TEST
<i>BENGAL ENGINEERING COLLEGE</i>		
<i>(1012)</i>		
	Condition monitoring of electrical equipments in power	GTCE
	Microprocessor based protection of alternators	GTCE
	Microprocessor based protection of alternators	GTCE
	Generalized robust controllers for MIMO system	GTCE
	Condition Monitoring of electrical equipments in power	GTCM
	Investigation on tie line control and voltage instability of power grids in power system of developing countries	TCSW
<i>BHABHA ATOMIC RESEARCH CENTRE</i>		
<i>(1013)</i>		
	Fuel Gas Conditioning Using Ammonia As Conditioning Agent	GTCN

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Sludge Lancing Equipment For Removal Of Deposited Sludge On Tubes & Bottom Tube Sheet Of Steam Generators	GTCM
	Residual Life Estimation And Life Extension ,Fitness For Purpose Evaluation And On Line Fatigue Monitoring Comprehensive Component Integrity Testing Programe Involving Fatigue & Fracture Testing Of Pipeline Product Such As Pipes & Elbows Fracture Analysis Of Power Plant Components	RLAS TEST
	In-Service Inspection Of Components Including Eddy Current Testing For Detection Of Annular Gaps & Surface Defects,Heat Exchanger Tube Leak,Ultrasonic Testing For Detection & Characterization Of Surface And Volumetric Flaws	TEST
	On Line Monitoring Of Turbine Vibrations And Process Parametrs	TEST
	Insitu Measurement For Detection Of Turbine Blade Vibration	TEST
<i>BHARAT ELECTRONICS LTD</i>		
(	1014)
	Development of Compact Vacuum interrupters in the medium voltage range of 6.6KV to 36KV for Vacuum Circuit Breakers	TEIT
	Development of Vacuum interrupters for load break switch application	TEIT
<i>BHARAT HEAVY ELECTRICALS LTD</i>		
(	1015)
	Computational fluid dynamics	GHPM
	Development of low Nox technologies for PC fired boilers	GTCN
	Field evaluation of co-firing petcoke with coal	GTCM
	Hot gas filter system	GTCM
	Field demonstration of smart wall blowing system for PC fired boilers	GTCM
	Demonstration of vacuum residue fuel for boilers	GTCM
	Pressurized fluidized bed gasification combined cycle demonstration plant	GTCM
	Evaluation of firing of blends of imported and Indian coals on boiler performance	GTCM
	Field evaluation of co-firing different biomass with bagasse in stokers	NCOT

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Residual life assessment	RLAS
	Study of plant and site support	RLAS
<i>BHARTIA CUTLER-HAMMER LTD.</i>		
()	1016	
	Rural Starters	DEQP
	Capacitor switching contactors above 20KVAR and improved varieties	DEQP
	Switch disconnector fuse (low voltage) rating 125A AC23 to IEC 60947-3	DEQP
<i>BIRLA INSTITUTE OF TECHNOLOGY</i>		
()	1017	
	Solution of Unit Commitment problem	RLAS
	Solution of thermal unit maintenance scheduling problem	RLAS
	Load forecasting	TEST
	Network planning	TCSW
	Solution of capacitor placement	TEIT
<i>BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE</i>		
()	1018	
	Study of solid polymer electrolyte fuel cell	NCFC
	Environment impact assessment of fuel cell technology	NCFC
	Integrated energy supply to Indian domestic sector,utilising conventional and renewable energy sources-Study of issues and development of strategies	NCSL
	Study of performance reliability evaluation of solar water heating system	NCSL
	Power conditioning system for integrating 1KW Solar Photovoltaic System with utility Grid	NCSL
	Experimental investigation and econometric modeling of parabolic solar cookers	NCSL
	Reactive power control of Wind Systems	NCWD
	Evaluation of techno-economic barriers and evolution of strategies for commercialization of solar water systems in India	RLAS

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Design synthesis of operational amplifiers from user given specifications	TEST
	Networking of Micro-controllers	TEST
	Resonant DC-DC converter	TEST
	Fibre optic sensors for measurement of temperature	TEST
	PSPIICE modeling of opto-electronic devices	TEST
	Centralized control systems-Implementation by networking Microcontrollers	TEST
	Fluro optic temperature sensor	TEST
	A study of modern electronics and instrumentation laboratory teaching and evaluation techniques	TEST
	A theoretical study of the modal properties of A Tapered FIBRE-OPTIC	TCBL
	Optical Communication Networks simulation and Test	TCSW
	Design exporations of VLSI arithmetic circuits	TCSW
	Physical Model for inversion layer mobility in MOS	TCSW
	A comprehensive study of hot carrier effects in VLSI	TCSW
	Radio Frequency Circuits for wireless communication	TCSW
	Design and stability analysis of HVDC resonant converter	TEIT
	Study and design of switched capacitor filters	TEIT
<i>BPL ENGINEERING LTD.</i>		
(	1019)	
	Conversion of GLS to CL	CNIT
	Study to convert regular ballasts to electronic ballast	TEIT
<i>CALCUTTA UNIVERSITY</i>		
(	1020)	
	Microprocessor based low cost energy saving industrial drives(Phase-II)	CNIT
<i>CENTRAL BOARD OF IRRIGATION & POWER</i>		
(1021)	

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Study and development of right type of MCCB as a specific protection to distribution transformers and its effectiveness compared to conventional protection	DEQP
	Beneficial utilization of discarded 11 & 33 kV breakers in Sub stations released under renovation and augmentation and up-gradation schemes	DEQP
	Development of erosion resistant coatings for Hydro turbine under water parts	GHPM
	Ground water quality management in the areas around ash ponds of two thermal power stations	GTCN
	Ways & means to remove colloidal silica from raw water and D.M. Water	GTCM
	Development of suitable material to combat excessive abrasive wear in coal grinding mix components	GTCM
	Improving Performance of VTPS stage II & III units	RLAS
	Three phase Harmonic Analyzer	TEST
	Diagnostic studies & evaluation for frictional incendivity surface temperature rise of flame proof enclosures	TEST
	Study of voltage instability & collapse of Power System	TEST
	Evaluation of outdoor insulating materials by service simulated lab testing methods	TEST
	On line computer control of Generators in a thermal power station	TEST
	Techno - economic feasibility study of fibber optic communication with other communication system in	TCSW
	Design and development of high performance digital relaying scheme using Digital Signal Processors (DSPs) based hardware platforms	TEIT
	Field trial of thermosyphon in power transformers in the GEB grid	TEIT
	Development of demonstration model for transformer oil reconditioning in remote areas	TEIT
	Study on corrosion in switchgears and isolators in the sub stations situated in coastal areas	TEIT
	Study on performance of 33KV medium voltage SF6 circuit breaker designed as maintenance free equipment	TEIT

CENTRAL FUEL RESEARCH INSTITUTE

(1022)

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Bulk utilization of fly ash for : - 1. Soil amendment , 2.waste land reclamation, 3.Restortion of biological system, 4.Brick/block technology, 5. Characterization of fly ash and durability studies.	GTCN
	Utilization of coal pond feed stock for coal water slurry as co-firing in power plants	GTCM
	Development of Pressurized Fluid Bed Combustion (PFBC) Systems for high ash Indian coals	GTCM
	To know the combustion characteristics of pulverized coal by Drop Tube Furnace	GTCM
<i>CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE</i>		
(1023)		
	Failure analysis of shorting ring of large size induction motors	GHPE
	Consultancy on rotor fault analysis and damage minimization in large size turbines for thermal power	GHPM
	Chemical and metallurgical investigations in to materials and heat treatment problems in motors and related electrical equipment	GTCM
	Balancing of reconditioned rotor in situ - 25 ton rotor of synchronous condenser for KEB	GTCM
	Investigation of excessive vibration in captive power generation units(DG sets) of KPTCL at Yehlanka,	GTLM
	Development of special purpose machinery for energy	NCOT
	Fine balancing "in-situ" of 2.5 MW reactor coolant motors for atomic energy applications	NCOT
	Evolution of measurement protocol and evaluation of noise levels (very low < 45 dB) of transformers for export as per international standards	TEST
	Balancing (Flexible rotor protocol) of rotors of twin pole DC motors (about 1.2MW) for M/s Kirloskar Electric Co.	TEIT
<i>CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE</i>		
(1024)		
	Metallurgical investigation into the cause of in-service failure of thermal power plant components	GTCM
	Residual life assessment of aged thermal power plant components	RLAS
	Assessment of present state of health and service suitability of old thermal power plant components	RLAS

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	Condition monitoring of rotating machines of thermal power plant through vibration analysis	TEST
<i>CENTRAL MINE PLANNING & DESIGN INST. LTD.(SUBSIDIARY OF COAL INDIA LTD.)</i>		
(1025)	Development of 25KW industrial power generator using high ash coal in a oscillatory combustor	GTCM
<i>CENTRAL POWER RESEARCH INSTITUTE</i>		
(1026)	Definite purpose contactor development	DEQP
	Reliability of contactor for transportation application	DEQP
	IC card operating energy meter	DMTR
	Fabrication of fly ash gypsum light weight boards	GTCN
	Synthesis of fly ash based controlled release composite fertilizer	GTCN
	Study on Marble waste powder utilization for environmental protection	GTCN
	Optimization of boiler efficiency and heat utilization of industrial boiler through fuzzy logic controller	GTCM
	Biological Effects of magnetic fields	NCOT
	Development of solar still for better distillation rate	NCOT
	Enhancement of service reliability of MPT capacitors	RLAS
	Reactivity assessment of power station coals and impact on power plant performance	RLAS
	Development of pollution monitoring equipment and measurement at site	TEST
	Condition Monitoring of stator core of HV rotating machine in services by Electromagnetic core imperfection	TEST
	Automation of transformer loss measurement and impulse test measurement	TEST
	Development of test procedure for trace and ultra trace elemental analysis	TEST
	Field test kit for current transformer	TEST
	Active power line conditioner	TEST

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Numerical modeling of thermo fluid flow processes in a typical Indian station Boiler	TEST
	Development of software for Data acquisition , Evaluation and generation of control signals	TEST
	Evaluation of profile for DC insulators under polluted conditions	TCBL
	Development of GIS cable termination	TCBL
	Technology development of Flame Retardant low smoke cable	TCBL
	Aging procedure for an RTV coated insulator	TCBL
	Study of aging characteristics on cable termination	TCSW
	Capacitive current switching capability of HV Vacuum circuit breaker	TEIT
	Evaluation of earth resistance of bentonite encased electrodes	TEIT
	Corona performance of bundle conductors measured in Corona cage	TEIT
	Polyol esters as dielectric liquids	TEIT
	Study of performance of Zinc Oxide/ Metal Oxide lightening arrester blocks under accelerated aging test	TEIT
	Development of three source test circuit for single phase synthetic testing of EHV circuit breakers	TEIT
	Time synchronization of EHV sub station equipment using GPS receiver	TEIT
	On line Conditioning / Monitoring of HT capacitors	TEIT
	Flow Electrification and partial discharge phenomena in power transformers	TEIT
	Design , fabrication and development of dropout type expulsion fuse	TFER
	Design of longitudinal anchor structure for improved loading system on broken wire condition	TFER
<i>CENTRE FOR WIND ENERGY TECHNOLOGY(C-WET)</i>		
(	1027)
	Study on ruggedness index (RIX) in complex terrain	
	Optimal blade angle for energy maximization	GTCM

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Prototype development of a high penetration wind - Diesel Hybrid system	GTLM
	Failure analysis of gear box of Wind Electric Generators	NCWD
	Grid related problems of wind farms	NCWD
	Study on wake losses at Kayathar Wind Farm	NCWD
<i>CONTROLS & SWITCHGEAR CO.LTD.</i>		
<i>(THE CONTROL GROUP)</i>		
(1028)	Development of single shaft operated changeover switches in the entire range from 125A to 6300A	DEQP
	Development of silent DG sets	GTLM
	Upgradation of low rating breakers of 1000A and 1600A to meet higher breaking capacity of 65KA	TEIT
	Development of mechanically interlock breakers for change-over requirement (for breakers from 400A to 6300A in four pole version)	TEIT
<i>NATIONAL METALLURGICAL LAB</i>		
(1029)	Thermodynamic and Kinetic studies on the fire side corrosion of boilers fired with fuels rich in sulphur, vanadium and sodium chloride	GTLM
	Development of Electro slag cladding for dissimilar metals/bimetallic alloys and study of the bond interface	MTSC
	Micromagnetic techniques in ferromagnetic materials	MTSC
	Textural development of AISI 316 Austenitic stainless steel during cold rolling and annealing	MTSC
	Hard coatings of Titanium/Zirconium Diboride and Carbon Nitride by sputtering	MTSC
	Determination of Micro-mechanical parameters of piping Material	MTSC
	Mosbauer studies on Precipitation in steels	MTSC
	Fatigue crack propagation studies on PHT Nuclear Piping	RLAS
	Physically based constitutive equation for design and life prediction at elevated temperature - modeling and	RLAS
	Cyclic J integral evaluation of various nuclear grade C-Mn steels	TEST

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Small specimen testing and Ball Indentation Technique for Mechanical Property Determination	TEST
	Development of magnetic sensor for material characterization	TEST
<i>DYNA HI TECH POWER SYSTEMS LTD.</i>		
(1031)	Power factor Corrected switching Power Supplies range from 250W-650W	DMTR
<i>EDDY CURRENT CONTROLS(INDIA)LTD.</i>		
(1032)	Batteries Automotive/Tubular/Traction(For Ups And Invertors)	CNIT
	Battires Automotive/Tubular / Traction (For UPS and invertors)	CNIT
	Special Drives of Narmada Sarovar Canals	
	Chopper Control/both Thyristorised and MOSFET	GTCE
	Switched Reluctance Drives	GTCE
	Chopper control / both thyristorised and MOSFET	GTCE
	Switched Reluctance Drives	TEIT
<i>ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION</i>		
(1033)	Determination of rating factor for house wiring for various configuration	CNIT
	Signature analysis of distribution transformer under S/C condition	DEQP
	Development of digital power meter	DMTR
	Development of New material for hydro turbine	GHPE
	Durability study of fly ash bricks	GTCN
	On line condition monitoring of electric motor through stator current	GTCE
	Study the effect of electrical surges on rotating machines	GTCE
	Development of indigenus RTV coating for improving performance of outdoor insulator in polluted condition.	MTSC

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Application of genetic algorithm to power system optimization problems	TEST
	Transformer Winding Resistance Meter	TEST
	Condition monitoring of gapless lightning arrester	TEIT
	Development of polymer concrete based CT & PT	TEIT
	Detection of partial discharges through acoustic emission signals of PT	TEIT
	Active filter for harmonics elimination in Power system	TEIT
	Study of breakdown phenomena in SF6 insulator system	TEIT
	Field evaluation of non ceramic insulators	TEIT
<i>ELECTRONIC AUTOMATION PVT.LTD.</i>		
<i>(</i>	<i>1034</i>	<i>)</i>
	Sequential timer	TEST
	Time switch	TEST
	A series low cost	TEST
	Digital timer	TEST
<i>ELECTRONICS RESEARCH & DEVELOPMENT CENTRE OF INDIA</i>		
<i>(</i>	<i>1035</i>	<i>)</i>
	Development of intelligent and high efficient grid interactive UPS system	CNIT
	Development of indigenous SCADA software package with specific features for electrical energy management	DEQP
	Automation of 11KV distribution network of Thiruvanthapuram	DEQP
	Development of 3 phase ASIC based energy meter	DMTR
	Development of 250KW four quadrant power converter for wind electric generators	NCWD
	Development of SMPS power plant of 25A rating for telecom application	TCSW
	Development of active VAR compensator of 350KVAR	TEIT
<i>EMCO ELECTRONICS</i>		
<i>(</i>	<i>1036</i>	<i>)</i>

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Development of automatic voltage regulation relay	DEQP
<i>ENGINEERS INDIA LIMITED</i>		
(1037)	Development of fuel cells	NCFC
<i>GALADA POWER & TELECOMMUNICATION LTD</i>		
(1038)	Development of process to reduce overall fuel consumption through escaping flue gases at melting and	GTCE
	Development of high speed (1300-1400 RPM) skip tranders to stand Al alloys wires in sizes 20,34,55 and	MTSC
	Development of 6-7mm dia solution treated and stabilized alloy rod of 6201/6101	MTSC
	Development of all luminium high conductivity alloy grade of 1120 having conductivity of 58-59% IASC	MTSC
	Development of 5000 series electrical and mechanical grade alloy rods in different diameters and heat treated	MTSC
	Development of ACAR and AACSR conductors	TEIT
	Study of fatigue analysis and vibration of AAA conductors in T&D system of APTRANSCO	TEIT
<i>ALSTOM POWER INDIA LTD</i>		
(1039)	Development of 25MW indigenou turbine	GHPM
	Stress analysis of turbine components	GHPM
<i>GOA UNIVERSITY</i>		
(1040)	Development of electrocatalysts for Methanol oxidation for use in fuel cells	NCFC
	Development of elctrocatalysts for Oxygen reduction in fuel cells	NCFC
<i>GREAVES LTD</i>		
(1041)	Design and development of gas engines working on 100% producer gas in G4 series	GTGM
	Development of modified component of D3 series Diesel engine	GTLM

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Indigenous development of casting D4 series diesel	GTLM
	Design and Development of 100% Bio gas engines developing 300KVA	NCOT
<i>INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR</i>		
(1043)	Development of UPS based super conducting magnetic energy storage	GNIT
	Development of state of art optical sensors for industrial applications	MTSC
	Optimal siting of wind turbine	NCWD
	Development of SAVE , ISIRD scheme	RLAS
	Study and development of real time intelligent controllers based on neuro fuzzy techniques	TEST
	Fault tolerant control system	TEST
	Integrated design of building automation system for energy optimization and supervisory control	TEST
	Multi sensor based on line condition monitoring for intelligent manufacturing system	TEST
<i>INDIAN INSTITUTE OF TECHNOLOGY BOMBAY</i>		
(1044)	PSS tuning in WREB	TCSW
	Design of TCSC controller	TEIT
	Development of control strategies and determination of optimal location for FACTS devices	TEIT
<i>INDIAN SCHOOL OF MINES</i>		
(1045)	Morphological Investigations Of Flyash Using Sem/Tem/Sem-Edx	GTCN
	Feasibility Study For Dust suppression & Improved Flu Gas Quality	GTCN
	The Phenomena Of High SO2 Emission Of Ramagundam Super Thermal Power Plant	GTCN
	Face Sampling And Washability Studie On Purewa East Seam Of Amlorhi Coal	GTCN

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<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Study Of Coal Washability Characteristics Of Purewa East Seam Of Amlohri	GTCN
	Study On Possibility Of Utilising Solid Waste & Fly Ash For Backfilling & Reclamation In Opencast Mines	GTCN
	Capacity Evaluation Of Induction Furnace	GTOE
<i>INDIRA GANDHI INSTT. OF DEVELOPMENT RESEARCH</i>		
(1046)	Study of way and means to reduce GHG emissions in power sector	GTCN
	Study of energy efficient technologies and their role in reducing GHG emissions	GTCN
	Study of barriers to adoption of renewable energy technologies	NCOT
<i>INSTITUTE FOR SOLID WASTE RESEARCH AND ECOLOGICAL BALANCE,</i>		
(1047)	Utilization of FGD gypsum wherever high sulphur are	GTCN
	Utilization of fly ash towards building materials	GTCN
<i>JADAVPUR UNIVERSITY</i>		
(1048)	Illumination Re design of thermal power plants	GTCM
	Studies on impact of powers sector on human development index and environment	GTGN
	Development of an integrated method for 3D filed optimization using parametric CAD model	MTSC
	Studies on power generation from gasification of rice	NCOT
	Development of contacting for thin film solar cells	NCSL
	Study on embedded power generation using photovoltaic technology	NCSL
	Development Real time SCDA model for interconnected power system	TEST
	Development of contingency plan of DVC power network	TCSW
	Development of high performance electronic blast for energy efficient illumination and improved DSM	TEIT

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<i>JYOTI LTD.</i> (Study of impulse fault diagnosis in HV transformer by pattern recognition technique	TEIT
	1050)	
	Pole-mounted Auto recloser	TEIT
	Different versions of Ring Main Unit	TEIT
<i>KARNATAKA REGIONAL ENGINEERING COLLEGE</i> (	Magnetic Actuator based Vacuum Circuit Breaker	TEIT
	1051)	
	Fuzzy systems and ANN based package for power system applications	TEST
<i>KIRLOSKAR BROTHERS LTD.</i> (	Incorporation of FACTS controllers for large integrated power system	TEIT
	1052)	
	Pantoon Design for installing pumps on floating platform	
	Computational / Experimental fluid flow studies in sumps	TEST
	Solid Model / Rapid Prototype for accelerated product development	TEST
	Transient analysis of piping system	TEST
	Stress analysis for mechanical components Vibration studies of pump installations	TEST
	Computational fluid dynamic studies of flow through fluid handling devices	TEST
	Seismic Analysis of mechanical assemblies	TEST
	Model/prototype pump testing (Maximum Capacity 49000 Cu M/Hr)	TEST
	Fluid flow + heat transfer Studies	TEST
<i>KIRLOSKAR ELECTRIC COMPANY LTD.</i> (	1053)	
	Development of New Series HT Motor upto 600HP ,	CNIT
	Development of New series LV AC generators	CNIT

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	Development of Top terminal box series motors upto	CNIT
	Development of new flame proof series HV motors upto 800Kw	CNIT
	Development of New series HT AC generators	CNIT
	Development of forced cool inverter series motors upto 1500Kw,690V	TEIT
<i>KIRLOSKAR OIL ENGINES LTD.</i>		
(1054)	Upgradation of existing engine model used for DG sets to meet US Tier 1 emission norms	GTLE
	Development of new engines for DG sets with higher power per unit of swept volume (upto 30KVA per litre of swept volume)	GTLE
<i>LARSEN & TOURBO LTD.</i>		
(1055)	Upgradation of LV switchgear	TEIT
<i>MAHATMA GANDHI GRAMODAY VISHWAVIDYALAYA</i>		
(1056)	Bio mass based power generation	NCOT
<i>NAGPUR UNIVERSITY</i>		
(1057)	AI Based Protection Systems For Power Generations	GTCE
	Torsional Stresses In Turbine Generators	GTCM
	Expert-Systems For Condition Monitoring Of Turbo Generator	GTGE
	Power System Stability And Distribution Automation	TEST
	Resonant Converters And Active Filter For Power Quality Assurance	TCSW
	Ai-Based Protection Scheme For Power Systems	TCSW
	ANN-Based Power System Protection	TEIT
	Augmentation Of Performance Of Modern Drives With Power Quality Consideration	TEIT

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<i>NATIONAL RESERCH AND TECHNOLOGY CONSORTIUM</i>		
(1058)	Development of high temperature calibration system	TEST
<i>NATIONAL THERMAL POWER CORPN.</i>		
(1059)	Development of methods for removal colloidal silica by ultrafiltration	GHPM
	Study of slagging problem at RSTPS	GTCN
	Characterization and feasibility of recovery of gallium from fly ash	GTCN
	Study of effect of moisture and ash content on GCV and UHV	GTCN
	Study of metallurgical degradation of hot gas casing material (Inconel-617) in gas turbine	MTSC
<i>NORTH EASTERN REGIONAL INSTITUTE FOR SCIENCE & TECHNOLOGY</i>		
(1060)	Development of integrated system for electrical energy conservation and management with mixed solar, micro hydel , wind and Bio mass generation	DMTR
<i>NSP ELECTRONICS LTD.</i>		
(1061)	Development of 100A power plant	CNIT
	Development of single phase & three phase energy meter	DMTR
<i>ONGC LTD.(KESHAVA DEVA MALAVIYA INSTITUTE OF PETROLEUM</i>		
(1062)	Identification of drillable CBM prospects of PEL area of Jharria Basin	NCOT
	Gas hydrate physical modeling and simulation studies to develop exploration and exploitation concepts	NCOT
<i>ORIOLE ELECTRONICS PVT. LTD.</i>		
(1063)	R&D on data acquisition	TCSW

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<i>OSMANIA UNIVERSITY</i>		
(1064)	De sulphurisation and particulate removal from hot gases in an IGCC	GTGN
	Power cycle optimization of domestic coal fired IGCC	GTGM
	Solar flat plate collector test facility	NCSL
	Performance evaluation of photovoltaic water pumping	NCSL
	Development of wind electric water pumping system	NCWD
<i>P.S.ELECTRICALS PVT. LTD.</i>		
(1065)	Out door resin impregnated 11 and 33 kV series layer wound reactor coils	DEQP
<i>PAHARPUR COOLING TOWERS LTD</i>		
(1066)	Study and implementation of various fan drive control systems for cooling tower energy optimization	GTCM
	Design and development of cooling towers with pultruded FRP structure	GTCM
	Determination of performance characteristics of various types of fans blades profiles in wind tunnel	GTCM
	Basic heat transfer study for improving cooling tower	GTCM
	Design and development of various types of fills for efficient air water contacts in cooling towers	GTCM
	Design and development of high efficiency nozzles for cooling towers	GTCM
	Upgradation of FRP technology for improving quality and productivity of cooling tower components	GTCM
	Evaluation and application of various grades of steel for cooling tower structure, hardwares and components	GTCM
	Design and development of drive shafts for power transmission in cooling towers	GTCM
	Design and development of high efficiency axial flow fans for cooling tower applications	GTCM
	Study the change in behavior in chemical and physical properties of different cooling tower material under hot and humid atmospheric condition	MTSC

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Design and development of full scale test facility for testing various components of cooling towers	TEST
	Out door 25KV / 110KV cast coils transformers for	TEIT
<i>PRIYARAJ ELECTRONICS LTD.</i>		
(1067)	Three phase 4 wire static watt hour meter upto 40 Amp	DMTR
	Development of single phase 2 wire static watt hour meter upto 40Amp (Discrete)	DMTR
	Single phase 2 wire static watt hour meter upto 40Amp (SMD)	DMTR
<i>PYROTECH ELECTRONICS PVT.LTD.</i>		
(1068)	MVA X -Ducer for balance load	DEQP
	Development of microprocessor based kWh pulse output	DMTR
	Development of 8 channel data logger	TEST
	Development of microprocessor based P.F. Corrector	TEST
	Development of microprocessor based tachometer and line frequency indicator	TEST
	Development of Universal calibrator	TEST
	Development of Universal indicator	TEST
	Development of Micro Processor based Tacho Meter	TEST
	Development of microprocessor based 32 PT - Alarm Annucitor	TEST
	Development of microprocessor based 8 PT - Alarm Annucitor	TEST
<i>R P G CABLES LIMITED</i>		
(1069)	Development of cost effective sheath formulation for Elastomeric cables	DCBL
	Development of Ethlene Vinyl Acetate (EVA) rubber compound with high tensile and electrical properties	MTSC
	Development of PVC insulation compound with fire resistant low smoke (FRLS) properties for house wiring	MTSC

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
<i>R&D CENTRE FOR IRON AND STEEL(STEEL AUTHORITY OF INDIA LTD.)</i>		
(1070)	Suitable materials for condenser tubes	GTCM
	Metallurgical / mechanical investigation of boiler tubes like creep testing and failure investigation	GTCM
	Power control system in high pressure heaters of thermal power plants	GTCM
	Prevention of corrosion and de-scaling in cooling	GTCM
	Corrosion protection-coating in metals and alloys in different environment	MTSC
<i>RAJASTHAN UNIVERSITY</i>		
(1071)	Development for storage of hydrogen in alloys and compounds of metal in bulk and thin film form	MTSC
	Development of hydrogen run water pump	NCOT
<i>RELIANCE STORAGE ENERGY & SYSTEMS PVT.LTD.</i>		
(1072)	To substitute bulk volume petro-fuel base energy by presently unutilized generation capacity of power plants during lean/off peak hours	NCOT
	Development of off peak / midnight hours load on electricity system through DSM, nonconventional in	TEST
	To mitigate peak-hrs. deficit by off-peak surplus	TEST
<i>SARDAR PATEL RENEWABLE ENERGY RESEARCH INSTITUTE</i>		
(1073)	Large biomass gasifiers of capacity 100 kW to 1 MW for power generation	NCOT
	Large scale generation of methane rich gas through anaerobic decomposition of surplus crop residues	NCOT
	Development and studies on 3 kW stand alone solar photovoltaic diesel power system	NCSL
	Operational research on stand alone wind-diesel hybrid system of 3.6 kW capacity	NCWD

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
<i>SECURE METERS LTD.</i>		
(1074)	Development of static energy meters and systems , whole current , LT /CT, HT types for utilities and	DMTR
<i>SHIVAJI UNIVERSITY</i>		
(1075)	Preparation of cadmium ferrous Selenide thin films by electrodeposition technique and their use in rechargeable storage cells	MTSC
<i>HONDA SIEL POWER PRODUCTS</i>		
(1076)	Design & Development Of 4"x4" Water Pump	CNIT
	Development Of New Model EBK 1200 S	CNIT
	Design & Development Of Simple Invertor 2.5/3.0 KVA	CNIT
	Design & Development Of 0.5 Kva Economy Model	CNIT
	Reduction In Noise Level Of Gensets Design &	GTCN
	Development Of Acoustic Enclosure For Models Ebk 1200/Ebk 2000/Ebk 2800	
	Exhaust Emission Control Of Portabl Gensets To Meet Emission Regulation	GTLN
<i>SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH</i>		
(1077)	Analysis of Air,water,effluents,soil & solid waste,Emission Samples & Monitoring of Environments	GTCN
<i>SIVANANDA ELECTRONICS</i>		
(1078)	Development of transformer turns ratio meter	DEQP
	Development of transformer winding resistance meter	TEST
	Development of Insulation resistance tester (Both hand cum motor operated as well battery operated)	TEST
	Development of digital surge comparison tester	TEST
	Development of Fully automatic PC based capacitance and TAN Delta Test set	TEST

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
<i>SOPHISTICATED TEST & INSTRUMENTATION CENTRE</i>		
(1079)	Development of innovative laboratory kits in frontier areas of electronics and instrumentation	TEST
<i>SPIC SCIENCE FOUNDATION</i>		
(1080)	Material research on specifically polymeric membranes , catalysist and nano materials	MTSC
	Development of hydrogen production technologies	MTSC
	Development of hydrogen storage material	MTSC
	Development of PEM fuel cell technology and its application in portable,transport and other areas	NCFC
<i>SRI AUROBINDO INSTITUTE OF APPLIED SCIENTIFIC RESEARCH TRUST</i>		
(1081)	Development of wind turbine (model Niharika-ishan)	NCWD
<i>STRUCTURAL ENGINEERING RESEARCH CENTRE</i>		
(1082)	Development of computer software for dynamic behaviour of framed foundations for high speed rotating machinery in power plants	GHPE
	Development of program for dynamic response of cooling towers	GTCM
	Development of software for non linear and dynamic response of hyperboloid cooling towers and pressure vessels subjected to wind and transient loading	GTCM
	Development of expert system for design of natural draught hyperboloid cooling towers	GTCM
	Development of dynamic analysis to survive shock loads due to blast and impact	TCWK
	Development of software package Tower Analysis Program System(TAPS)	TFER
	Development of expert tower analysis and design system(EXTASY)	TFER
	Development of knowledge based system for analysis and synthesis of transmission line towers(KASTLE)	TFER

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
<i>TAMILNADU ENERGY DEVELOPMENT AGENCY</i>		
(1083)	0.5 MW high rate biomethanisation demonstration project for recovery of energy from industry waste water	NCOT
<i>TECHNOFOUR</i>		
(1084)	Development of In service eddy current inspection	TEST
<i>THAPAR CENTRE FOR INDUSTRIAL RESEARCH & DEVELOPMENT</i>		
(1085)	Utilization of fly ash for soil amendment to increase forest productivity	GTCN
	Thermal performance evaluation of tube type air to air heat exchangers for high rated electrical motors	GTCM
	Prediction of air flow in radial ventilated motors with and without heat exchangers	GTGE
	Aging studies on oil impregnated paper(OIP) insulation and parameter correlation for reliability evaluation	RLAS
	Motor foot failure analysis	RLAS
<i>TRANSFORMERS AND ELECTRICALS KERALA LTD.</i>		
(1086)	Design development , prototype manufacturing and testing of transformers and switchgears for 800KV system(Mainly power transformers , CTs & CBs)	TEST
<i>UNIVERSAL CABLES LTD.</i>		
(1088)	Development of thin walled winding wire for use in submersible pumps	CNIT
	Development of high stress capacitor of more than sixty volts/micro design	MTSC
	Development of elsatomeric compounds for high temperature application	MTSC
	Development of techniques for characterization of	MTSC
	Development of special submarine cable	TCBL

List of On Going R and D Projects- Company wise

<i>Company's Name</i> (Code)	<i>Project Description</i>	<i>Specialisation Code</i>
<i>VACUUM PLANT & INSTRUMENTS</i>		
<i>MANUFACTURING CO. LTD.</i>		
(1089)	Data processing and historic events logging systems	DMTR
	Development of high temperature oil handling pumps	GTCM
	Development of smart scavenging process	GTCM
	Development of computerized condensation pattern derivation packages	TEST
	Development of new generation gas,moisture and Tan Delta measurement apparatus	TEST
	End point analysis system for optimization of process	TCSW
	Development of SF6 liquefaction plant	TEIT
 <i>W P I L LTD.</i>		
(1090)	Development of high efficient vertical mixed flow pumps for condensor cooling water application for power plant	GTCM
	Development of CADD and engineering software to aid to the design a analysis of a new pumps for flow analysis and system analysis	TEST
 <i>ANDHRA PRADESH POWER GENERATION</i>		
<i>CORPN. LTD.</i>		
(1091)	Various Methods Of Extension Of Supply To Multistoried Complexes	CNIT
	Reclamation Of Transformer Oil Using The Method Developed In-House	DEQP
	Optional Scheduling Of Multireservoirs Of An Operating Power System	
	Effects Of Under Frequency On Turbine Rotor Blades And Bearings	GHPE
	Conservation Of Energy	GTCE
	Short Term Load Forecasting Of Ap-Grid Demand	TEST
	Failure Analysis Of Under Ground H.T/L.T Cables And Joints	TCBL
	Study On Insulator Contamination	TEIT

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
<i>HARYANA VIDYUT PRASARAN NIGAM</i>		
(1092)	Development of amorphous core metal distribution transformers	DEQP
	Energy conservation through lower frequency vacuum drying of distribution transformer with regulated input	DEQP
	Energy conservation through lower frequency vacuum drying through LT short circuit and regulative input voltage of distribution transformer upto 100KVA	DEQP
<i>KARNATAKA POWER CORPN. LTD.</i>		
(1093)	Design of suitable DOLO units to substitute the existing DOLO units with fuse links	DEQP
	Imperfect grounding of neutral wire of distribution line performance with special reference to neutral to earth	TEIT
	Evolving design of earthmat of a substation site with limited area and high resistivity soil	TEIT
<i>KERALA STATE ELECTRICITY BOARD</i>		
(1094)	Feasibility Study Of Aerial Bunched Conductor On 11 Kv Distribution Network	DCBL
	Techno-Economic Feasibility Study And Design Of Concrete Embedded Earth Mat For EHV Substations	TCWK
	Development Of IR Thermometer For Hot Spot Detection Of Distant Objects(In Collaboration With VSSC,TVM) In Substations And Lines	TEIT
<i>MADHYA PRADESH ELECTRICITY BOARD</i>		
(1095)	Study of development of right type of MOCB as a specific protection to distribution transformer	DEQP
	Study of performance of 33KV medium voltage SF6 CB	DEQP
	Evaluation of effective method for assessment of capacity of induction motor at the consumer premises	GTCE
	Development of Insitu drying of power transformers from resistive heating method	TEIT
<i>MAHARASHTRA STATE ELEC. BOARD</i>		
(1096)		

List of On Going R and D Projects- Company wise

<i>Company's Name (Code)</i>	<i>Project Description</i>	<i>Specialisation Code</i>
	Prediction of residual life of hydro turbine runners(Pelton wheel)	GHPM
<i>PUNJAB STATE ELEC. BOARD</i>		
(1097)	Enhance the power transformer capability and improve the dynamic performance of the power system through fast control	DEQP
	Study the effect of atmospheric pollution on insulator flashover and remedial measures thereof	GTCN
	Upgradation of 132KV to 220 kV line using insulated cross arms	TEIT
<i>TAMIL NADU STATE ELEC. BOARD</i>		
(1098)	Beneficial utilization of discarded 11KV and 33KV breakers in sub station	DEQP
	Assessing the suitability of premoulded equipment connectors and cable joints (11&33KV) for quick and reliable interconnections	DEQP
	Beneficial utilization of Fly ash produced in TPS	GTCN
	Reduction of auxiliary consumption using high voltage capacitors	GTCE
	Estimation of organic matter in raw water	GTCM
	Elimination of colloidal silica in raw water	GTCM
	Estimation of unburnt carbon and suggestion for	MTSC
	Study on corrosion in switch gear and isolators in the sub station situated in the coastal areas	MTSC
	Life Assessment of 6.6 kV switch gears	RLAS
	Effect of aging of transformer insulation and mineral insulating oil in service	RLAS
	Sound level measurement and analysis in thermal power stations	TEST
	Failure analysis of 11KV & 22KV metering set	TEST
	Study on methods of monitoring transformer insulation through tan delta testing	TEST
	Study on effect of harmonics	TEST
	Performance analysis and condition monitoring of SF6 and vacuum circuit breakers in sub station	TEIT