

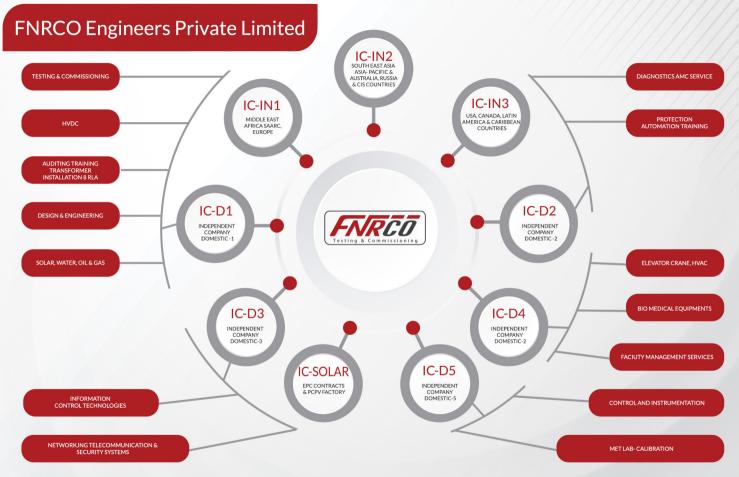
FIRST NATIONAL COMPANY

Testing & Commissioning













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CHAIRMAN'S MESSAGE

Dear Customer.

We are pleased to introduce ourselves as an electrical service provider and product manufacturer. Our core proficiency and specialization in service includes almost anything in regard with power infrastructure in the industries ranging from Testing & Commissioning, designing a structural, civil, electrical layouts, correction schemes for a sub-stations to even preventive and predictive maintenance coupled with various special testing and commissioning activities, for one's need of electrical engineering.

Our range of products includes Power and distribution transformers, Control & Relay panels, Auxiliary relay and Industrial ball valves.

International Operations, a division instigated to understand and meet the demands of international clients clearly showcase about the hug credibility earned by our company amidst overseas players, as well.

We render engineering services across middle east, Eastern, African and SAARC countries and other countries Japan, Korea, UK and Brazil etc literally trespassing its geographical barriers.

We are pleased to enclose here with our profile as a ready reference for your kind perusal. We are in high spirits to associate with you and pleased to invite you to our customers and experience our service.

Ali Jaber Theeb

MISSION & VISION

Mission

To provide quality services in all electro-mechanical engineering disciplines through our areas of expertise in power system and infrastructural segments with profitability growth.



Vision

To achieve the status of leadership in international market in providing quality engineering solution through resource productivity. Timely response and cost effectiveness.



QUALITY POLICY

We, **FNRCO** engineers Pvt Ltd., are committed to provide competitive technical services related to its various fields of expertise, namely testing & commissioning of Electrical, Control & Instrumentation Devices, Calibration of Meter, Operation & Maintenance of Electrical Installations. **FNRCO** is also committed to achieve customer satisfaction at all times, meeting all statutory & Regulatory Requirement.

FNRCO continually improves the effectiveness of the Quality Management System (QMS) and Reviews Continuing suitability.

FNRCO is continuously upgrading the capabilities of its technical and Administrative staff for their effective involvement.







HSE POLICY



Occupational Health and Safety Policy

We at FNRCO Engineers PVI Ltd are committed to achieve our organizational goals and objectives by adhering to the following stated policy actions:

- Continually implement and improve our Occupational Health and Safety systems
- Set OHSAS policy, objectives and targets through consultation and communication at all levels
- Develop Plan-Do-Check-Act as a way of working and for target and objective achievement and review periodically for continuing suitability.
- Prevent, eliminate or minimize potential risks that could cause ill health and injury to the occupational health & safety of our personnel.
- Comply with any and all legislation, regulation, standard and good practices applicable, either mandatorily or voluntarily, to the aspects of Occupational Health & Safety in every activity carried out both by our organization & our contractors.
- Evaluate work safety and constant work risk management, to ensure that hazards are eliminated or controlled to the extent practically possible.

- Plan, implement and verify occupational health & safety related training for the continual improvement of all our employees and contractors.
- Conduct periodic assessment and review our own, contractors' and suppliers' performance to ensure continual improvement.
- Maintain a permanent dialogue with customers, suppliers, employees, community and other interested parties.

This OHSAS policy is common and applicable to all working units of PNRCO Engineers PvI Ltd and is communicated to all - working for or on behalf of our organization and displayed prominently for visitors, interested parties and public in each of our factories and offices.

Date: 16.02.2013

Managing Director



CERTIFICATIONS







ABOUT COMPANY

FNRCO has established itself as a true independent service provider and we are an acclaimed ISO 9001-2015 I OHSAS 1800 I:2007 certified company in the field of Testing & Commissioning, Design & Engineering, Erection Supervision, Civil Supervision and Maintenance of Power Plants, Substations and Process Plants. We have earned vast repute in this industry due to our highly reliable as well as effectual services. A service company is only as strong as the trust of its customers and the quality of its reputation.

We have become the industry leader in our domain due to our unending quest for providing high quality services to our prestigious customers. The support of our customers motivates us to deliver better services each & every time. Being an excellence oriented and client friendly organization, we take into account the valuable suggestions and feedback of our esteemed customers. This helps us to live up to their expectations and provide services which are better than the industry standards.

We have an experienced and excellent team of engineers, which helps us in offering the best services to our honored clients. Our Company strictly adheres to principles line commitment towards our employees, honest trade practices and regular training in the respective fields. These have worked wonders for us and we have succeeded in maintaining a niche for our organization in this highly competitive segment.

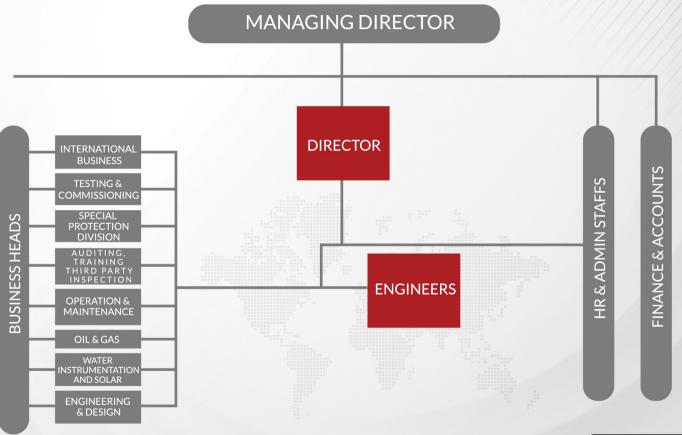
OUR SERVICES

Areas of Specialization:

- Testing & commissioning of AIS & GIS Substations, HVDC System, Power Plants and Infrastructure etc;
- Testing and configuration of all types of Electromagnetics/ Numerical Relays.
- Erection / Civil supervision Services & Man Power assistance.
- Basic Design and Detailed Engineering for various levels of AIS and GIS Substation / Power Plant.
- Operation & Maintenance of Process Plant, Sub-stations Power Plants.
- Optic fiber cable Splicing, Testing and inclusive of End Termination.
- Control & Relay Panel wiring, Modification & Refurbishment.
- Energy Audit, Training and Third party Inspection Activities.
- Harmonics Studies, Analysis and Residual Life Analysis of Electrical Equipment.
- Maintenance of HVAC system, EOT Crane drive commissioning, FMS.
- Transformer Repair and Service.
- Service and over hauling of Circuit breakers such as SF6, VCB, ACB up to 33KV.
- Instrumentation & Control-Field equipment Calibration and Supervision of Installation.
- BMS, Networking, Telecommunication & Systems.



Organizational Chart





FNRCO & TUV NORD



The agreement was signed by Ali Jaber Al-Mahan. chairman of the board of directors of FNRCO, and Jamal Al-Baeeian, CEO of FAHSS/TUV NORD Saudi Arabia.



FNRCO T&C allied with TÜV NORD - National Inspection & Technical Testing Company, The strategic alliance enhance the levels of joint work between the two companies to engage in future activities and projects.

FNRCO T&C & TÜV NORD are fully committed in providing the quality and integrated services to all of its valued clients in different industries.

The partnership covers the services; but not limited to the following:

Safety Inspection Services

Testing & Calibration

- Maintenance Inspections & Certification
- ISO Training & Certification
- Training and Certification



Auditing



INSPECTION SERVICE





Keyword Characterization of FNRCO TÜV NORD during this phase:

- Assessment of related materials and manufacturing technology
- Optimization of component design
- Assistance in thermo fluid dynamic layout
- Analysis of the plant behavior in normal and accident situations
- Approval of manufacturing documents

FNRCO TÜV NORD is a Local & internationally accredited and recognized Third Party Inspection service company that is registered and approved by all applicable legal and regulatory bodies, oil and gas companies, major industrial sectors. The inspection service line at FNRCO TÜV NORD targets all levels of industry where quality, safety and compliance are critical elements that affect the performance of any organization protecting people and property from the dangers caused by technical installations and products and also at ensuring their economic manufacture and use.

Site Inspection

- FNRCO TÜV NORD identifies suitable contractors to enable them to fulfill requirement sets.
- Helps eliminate qualification deficiencies
- Following detailed monitoring of work, take responsibility for acceptance tests, safety related tests for a complete set of documentation
- Services are located at the interface between customer and main contractor or between main and sub – contractor or both.

COMMISSIONING & OPERATION





A periodic inspection of the plants helps to:

- Identify system areas with above average lifetime consumption
- Identify and correct incipient failures
- Minimize shutdown periods during operation



FNRCO TÜV NORD has vast knowledge of operational behavior of components and systems to prepare and implement a plan of periodic inspections of plants as they can age during operation. ensuring that functions are carried out with representative loads and all important design data are verified by measurements.

Our services under the plant engineering includes:

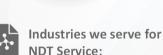
- Inspections, appraisals and consultancy services for plant safety
- Measurements, appraisals and consultancy services regarding the energy related quality of technical installations.
- Personnel qualification.
- Technical-economic feasibility studies, valuations.
- Facility management and hotel inspection services.
- Non-destructive testing and process optimization.
- Damage investigations.
- Shop and site inspection.
- Design and inspection of piping systems and pipelines.
- Material inspection and certification.
- Building components inspection.
- Welding engineering.
- Strength calculations, stress analysis, statics, simulation calculations.

- Inspections for civil engineering, steel structures and hoisting equipment.
- ✓ Laboratory/ certification body for ordinary pressure vessels.
- Appraisal, inspection and consultancy for plants as well as for the dismantling of plants
- Consultancy for the disposal of radioactive waste, analysis of radioactive samples.
- Safety analysis.
- Stress and reliability analysis and FMEA.
- Risk analysis.
- Process-related design of technical installations.
- Consultancy for licensing procedures.
- EDP Supported Operations Management System & occupational safety management.
- Occupational safety audits.
- Safety management and audit.
- Environmental management systems
- Software for strength calculations in pressure vessel design.



NDT TESTING SERVICE





- Oil & Gas and Petrochemical
- Power & Energy
- Healthcare
- Food & Beverage
- Waste management
- Manufacturing



FNRCO TÜV NORD has a team of expert Engineers and Technicians who are highly skilled and qualified to verify quality standards to ensure next to minimal risks. FNRCO TÜV NORD uses state of the art equipment and apply elaborate analytical techniques in testing. These methods help comply with the increasingly complex regulatory standards concerning health, safety and the environment.

Non-destructive Testing

- One of the most important safety monitoring methods to identify hidden defects so as to prevent unforeseen failures during operation.
- Task is to identify inconsistencies or defects and evaluate tests of specimens.
- NDT is conducted in all areas to assess and establish the condition of plant and equipment and is an integral part of assurance and process reliability of the plant.

Non-destructive Evaluation

- NDE is used to describe measurements that are more quantitative in nature.
- It is used to detect and discrepancies of a product in terms of size, shape and orientation
- Divided further into Conventional and Advanced Methods of testing



ENVIRONMENT, HEALTH & SAFETY SERVICE



Environment, Health & Safety and (EH&S) is becoming an integral part of every organization irrespective of industry. Ensuring the health and safety of an organization's stakeholder, compliance to legal and regulatory requirements, environment – friendly operations, a positive public image, better insurance premiums and less operational down time are only some of the benefits brought by FNRCO TÜV NORD EH&S Services.

Organizations are facing increased complexity and uncertainty, which makes it difficult to manage technical and business risks. Failure to manage these risks can be fatal, consistency and control are becoming even more critical.



Our EH&S Services includes:

- Environmental Impact Assessment
- Baseline Environmental Audit
- Environmental Studies & Solutions
- SSM Site Safety Management
- Baseline Environmental Audit

- Risk Assessment (Quantitative, Qualitative ...)
- HAZOP Hazardous Operability
- Health & Safety Studies & Solutions
- PSM Process Safety Management
- ✓ SIL Safety Integrity Level
- Traceable VER



TRAINING & CERTIFICATION SERVICE





FNRCO TÜV NORD Benefits of Certification:

- Process Optimization and Efficiency
- Better Compliance of The Supply Chain
- Process Optimization and Efficiency
- Reduced Delivery Time
- Strengthened Awareness and Requirements
- Customer Satisfaction



FNRCO TÜV NORD is one of the leading training and certification providers in the entire Saudi Arabia & Middle East region. The service line offers unique training programs with wide range of standard and customized trainings pertaining to each industry as per client expectations & requirements. FNRCO TÜV NORD provides national & internationally acclaimed certifications upon completion of the courses offered, which are highly competitive and committed to excellence.

Our Training & Certification Service includes:

- Testing & Commissioning Training (TCT)
- Electrical Testing Training (ECT)
- Testing & Commissioning Training (TCT)
- Electrical Testing Training (ECT)
- Testing, Commissioning and Maintenance of Electrical Systems

- Rigging Supervisor (Advanced Rigging, Slinging & Banksman)
- Flagman
- Mobile Crane Operators
- Tower Crane Operators
- Forklift Operators
- Mobile Elevated Work Platform Operators





In a series of successful partnerships that are in line with Vision 2030, "FNRCO T&C", is proud and delighted to be selected by "Saudi Aramco" the state-owned oil company of the Kingdom of Saudi Arabia and a fully integrated, global petroleum and chemicals enterprise, to become a strategic partner in providing services that related to Testing & commissioning services.

Saudi Aramco is a global leader company in hydrocarbons exploration, production, refining, distribution and marketing through its 80-year history and strong conviction that the energy sector is a promising opportunity for development.

أرامكو السعودية saudi aramco







We are pleased that "FNRCO T&C" has gained the trust of international companies such as the American COGELEX company, which is one of the largest and greatest industrial and technological companies in the world. Which proves the efficiency and reliability of our services in the field of Testing & commissioning.

COGELEX is one of the largest companies in the world, it operates through many segments like: Aviation, Current, Digital, Energy Connections, Healthcare, Lighting, Oil and Gas, Power, Transportation, financial services, Medical devices, Life Sciences, Pharmaceutical, Automotive, Engineering industries and Renewable Energy.







FNRCO T&C Deal With SADARA

FNRCO T&C, a specialist in testing and commissioning services in Saudi Arabia, has signed an agreement with SADARA Chemical Company a petrochemical giant (JV of Aramco & Dow).

The contract was signed by representatives of both parties, the agreement will enable **SADARA** to acquire the services of **(FNRCO)** in the fields of Testing and commissioning.







Recommendation Letter ==

First National Company(FNRCO T&C) is a fully registered vendor of :

√ Veolia - SAP ID No. CCON 00724



CLIENTS



















Oil & Gas / Petrochemical















Information Technology (I.T.)















Hospitality



OUR TEAM

Electrical Testing and Commissioning Engineers

Team Leaders
Sr. Commissioning Engineers
Commissioning Engineers
Sr. Protection Engineers
Protection Engineers
Sr. Transformer Engineers
Transformer Engineers
Sr. Switchgear Engineers
Switchgear Engineers
Testing Engineers



Erection Engineers

Electrical Supervision Engineers Civil Supervision Engineers

Instrumentation Engineers Power Plant Commissioning Group

Design Engineers

Electrical Primary Design Engineers Electrical Secondary Design Engineers Civil Design Engineers



ELECTRICAL TESTING EQUIPMENT

S.No	Description	Brand	Orgin	Qty
1	3 Phase Secondary Injection Test Kit	Omicron CMC 256,356	Austria	25
2	3 Phase Secondary Injection Test Kit	Megger Freja 300	UK	10
3	Multifunction test Kit	OmiCron CPC 100	Austria	10
4	1Φ Secondary Injection test Kit (100A)			10
5	High Voltage Test Kit (up to 100kV DC)	PhoniX	oniX us	
6	Tan Delta Test Kit (up 12kV AC)	Doble/ Megger Eltel	USA/UK/India	15
7	Sweep Frequency Response Analysis (5V,20HZ to 2MHZ)	Doble/Megger	USA /UK	10
8	Dew Point Measurement Kit (-99°C to +10 °C) Alpha Moisture UK		UK	15
9	Thermo Vision Camera (up to 1000°C & BW-7microns)	Flir	finland	16
10	Vibration Measurement Kit	,		10
11	Noise Measurement Kit	Lutrone	Thailand	10
12	Power Quality Analyzer	Kyoritsu	Japan	10
13	Power Quality Analyzer	Fluke	USA	10
14	Circuit Breaker Analyzer	Scope	India	20
15	Transformer Winding Resistance Kit- 10A	Eitel / Scope	India	15
16	Contact Resistance Kit (100A)	Eitel / Soope	India	75
17	1Ф Primary Injection Kit (up to 2000A)	Sudharsan	India	400
18	1Φ Secondary Injection test Kit (100A)	Sudharsan	India	125





ELECTRICAL TESTING EQUIPMENT

S.No	Description	Make	Orgin	Qty
19	Scott Timer -3 Phase	Scope	India	75
20	Turns Ratio Test Kit	Eltel/Scope	India	57
21	ARC Fusion Splicer	Fujikura (FSM- 40 S)	Japan	100
22	OTDR	Hewlett Packard (HP – 6000B)	USA	15
23	HT Megger 5kV	Kyoritsu	Japan	24
24	HT Megger 10kV	Kyoritsu	Japan	67
25	Multi Meters	Fluke	China	89
26	Clamp Meter (2000A)	Kyoritsu	Japan	55
27	Clamp Meter (100A)	Kyoritsu	Japan	44
28	1Ф Variac - 4A, 8A, 15A and 28 A	AE	India	12
29	Phase Sequence Meter	AE	India	23
30	OTI & WTI Calibrator- Oil Type	Inserff	India	38
31	Earth Resistance Tester	CIE/WACO	India	57
32	Soil Resistivity Tester	Megger	UK	89
33	DC power Pack	Voltech	India	67
34	Loop Resistance Kit	Agronic	India	12
35	Motor Checker Mini	MCM inst	India	10
36	Galvanometer	AE	India	12
37	Oden Primary Injection Test Kit	Megger	UK	90









INSTRUMENTATION TESTING EQUIPMENT

	Description	Maka	Model	Range	FunctiOn	Accuracy
1	Pneumatic & Hydraulic Test Kit	GE	GE and PV 211& 212- HP Kit	(·1 to 700 Bar)	To Calibrate Presuure Sesors up to 700 Bar	
2	Pneumatic Pressure Calibrator	GE	Pase 1003	(·1 to 700 Bar)	To Calibrate Presuure Sesors up to 700 Bar	±0.005% FS
3	Remote Pressure Sensor with 2 meter Cable	GE	GE	[·1 to 700 Bar)	To Calibrate Presuure Sesors up to 700 Bar	05
4	Digital Pressure Gauge	GE	DPI 104	[·1 to 700 Bar)	To Calibrate Presuure Sesors up to 700 Bar	10
5	Pneumatic Pressure Calibrator	Nagman	PPC- 2+	[·1 to 2 Bar)	To Calibrate Pressure Sesors up to 400 Bar	±0.025%FS
6	Pneumatic & Hydraulic Pressure Calibrator	Nagman	PPC-0 +	[·1 to 20 and 0-400 Bar]	To Calibrate Pressure Sesors up to400 Bar	±0.025%FS
7	Low Temperature Bath	Southern Scientific	SSB-CI	"-40°C to 100°C	Heating Source	±0.4°C
8	Medium Temperature Dry Block Bath	Nagman	METCAL650	Ambient to 650°C	Heating Source	±0.4 °C
9	High Temperature Dry Block Bath	Nagman	METCAL 1200	Ambient to 650°C	Heating Source	±0.4°C
10	Master RTD	ASP Sensor	SSP 660	·80°C to 660°C	To measure - 80 °C to 660°C	





INSTRUMENTATION TESTING EQUIPMENT

	Description	Maka	Model	Range	FunctiOn	Accuracy
11	Master Thermocouple	Isotech with CJC	S-Type	200°C to 1200°C	To measure 200°C to 1200°C	
12	Digital Multimeter	Agilent/ Fluke	34461A		To measure	
13	Master RTD	AMJ RTD	STS100A500	-40°C to 600°C	To measure - 40°C to 600°C	
14	Master Thermocouple	TMS / Isotech	S Type	500°C to 1200°C	To rneasure 500°C to 1200' C	
15	Multifunction Calibrator	Yokogawa	Ca71			
16	Multifunction Calibrator	Transmile with Clamp Coil & Speed	3010		Generate	
17	Multiproduct Calibrator	Microcal	2000+		Generate & Mesaure	
18	Timer	Beltronics	301A	99Hrs 59Mins 59Secs 99mSecs	Measure	0.0036Secs
19	HV Probe	Fluke	80K40	3 X Spot values	Measure	±0.008% rdg
20	Insulation Tester Calibrator	timo Electronics	5069	100KW, 200KW, 500KW -Volts 500V 1MW. 2MW. 5MW - Volts 2KV 9 X 10MW- Volts 1KV, 6KV 10 X 10GW - Volts 10KV	Source	1%,5%
21	HART & Foundation Field Bus Communicator	Emerson	475		To Communicate field Instruments	

















SITE DETAILS

SUBSTATIONS

- Safaniya offshore project at Saudi Arabia.
- The Harmin-High Speed Railway Project 33/13.8kv substation.
- 230/69/1 3.8kV Substation at IBN Khoudoun BSP.
- Reinforcement of 132 Substation at AL Dirriyoh, SS 9013 Al Shefa Substation.
- 132kV Substation at Al Badeea, Arar Power Plant, Al Oroijah, AL Qurtabah, Qassim West, Huraymila Ior
- SEC-COA, Khalidiyah, Princes Noora University, Jizan South Steel, Substation.
- Al Khaleej Substation Hafr AL Batin Substation.
- 380 kV Substation at Khashm Al Ann, Manifa.
- Reinforcement of 1 32kV OHL Feeders Between SS 8602 & SS 9006 at AL-Dawadmi.
- Commissioning of 500MVA SGT4 at 380/132kV SS 9013 AL Shefa.
- Commissioning of 132kV UG + OHL Feeder Between SS 8780Ta SS 8782 at Wadi Al Dawasir.
- 115/1 3.8kV Substation at West Khabar, Jubail For Royal Commission.
- 380/132/13.8kV GIS Substation at Namerah, Princes Noora University, Rabigh.
- 110/ 13.8kV GIS & SAS Substation (jeddah, Jeddah, Jizan, Madhina) at Icy-06, Quwaizah-2, Nuzah-2,
- AL-Tuwal, ALTieom.
- 132/33kV GIS Substation at Salwah, Ahad Rofeidah, Dahran Al Janoub, Al Oakdud, Hudn, Najran North,
- Najran Central, Habuna, Al-Royyan, Khamis
- Najran University Kafc 9020 Substation.



GROUP COMPANIES

FNRCO MANUFACTURING COMPANY LTD

- Power and Distribution Transformers up to 20MVA, 132kV Class.
- Capacity Enhancement and External Modification.
- Life Enhancement and Overhauling.
- Special application Transformers such as Furnace duty, Converted duty, etc.,
- Repair & Service of any make/brand Transformers (both Onsite & Offsite).
- Design & Manufacture of Control & Relay Panels up to 400kV System.
- Retrofitting of Control & Relay Panels.
- Manufacturing of Electromagnetic, Electrostatic and Numerical relays.
- Manufacturing of 11kV, 33kV Indoor/Outdoor Breakers, Compact Substations and United Substations.
- Manufacturing of all type of LV Panels.
- Manufacturing of High Performance Two Way and Three Way Valves.
- Manufacturing of Flame proof fittings.
- Manufacturing of Electronic Products such as Battery Chargers, Power packs, Stabilizers, Energy Saver Panels, etc.,
- Manufacturing of Industrial Sockets.

FNRCO O&M SERVICES PVT LTD

Operation and Maintenance of powerplant/substation/processing plants - oil and gas industries.



GROUP COMPANIES

FNRCO HR SERVICES PVT LTD

- Recruitment, BPO Services, Training and Development.
- HR Research and Data analysis services.
- Event Managements, Statutory & Administrative services
- ISO Consultation



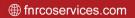
- Solar Modules
 - Most advanced thin film silicon Nano PV Panels
 - First and second generation crystalline, polycrystalline, multi crystalline as well as a-Si solar panels
- Building Integrated Photovoltaics panels (BIPV).
- Most efficient system designs.
- Inverters, Junction boxes and other accessories exclusively made for Nano PV.
- Mounting structures and others civil work designs.
- Utility Scale Solar systems: MW scale solar farms.
- Commercial and Residential Roof top systems.
- Building Integrated Photovoltaic (BIPV) Panels and systems.
- Solar Street lights, electronic appliances, cell phone towers.
- Flexible solar panels, colored solar panels for specialized application.





FIRST NATIONAL COMPANY

Testing & Commissioning







fnrcoservices.com

Testing & Commissioning

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