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CLIENT SUCCESS STORY

Establishment of an Inner Grooved Copper Tubes Manufacturing Unit

Prepared for

M/s. Goodluck India Ltd

Sikandrabad, Uttar Pradesh, India

"From Feasibility to Factory Floor —
Powering Industrial Investment with Data-Driven Confidence"

Industry: Copper Tube Manufacturing / HVAC

Report Type: Techno-Economic Feasibility Study

Location: Sikandrabad, Uttar Pradesh

Status: Implementation Approved

SECTION 01

About NPCS

Niir Project Consultancy Services (NPCS) is one of Asia's most trusted industrial knowledge and project consultancy organizations, with over three decades of experience in techno-economic feasibility studies, Detailed Project Report (DPR) preparation, and investment advisory across hundreds of manufacturing sectors.

NPCS is part of Asia's leading industrial knowledge ecosystem with thousands of project profiles and global consulting expertise. Our mission is to empower entrepreneurs, MSMEs, startups, and large-scale industrial investors with bankable, data-driven project reports and strategic guidance that de-risk capital deployment and accelerate manufacturing ventures from concept to commercial reality.

Core Services

Detailed Project Reports (DPR)

Comprehensive, bankable project reports covering technical aspects for investors and lenders.

Market Research & Demand Analysis

In-depth market intelligence, demand forecasting, and competitive landscape analysis to identify market opportunity.

Techno-Economic Feasibility Studies

Rigorous evaluation of manufacturing project viability from financial and technical perspectives.

Engineering & Strategic Advisory

End-to-end implementation guidance covering plant layout, process flow, and operational strategy.

OUR TRACK RECORD

NPCS By The Numbers

30,000+

Project Reports Published

50+

Countries Served Globally

30+Years of Industrial
Expertise**250,000+**Industrial Projects
Delivered

SECTION 02

Project Snapshot

Client Name	M/s. Goodluck India Ltd
Location	Sikandrabad, Uttar Pradesh, India
Industry Sector	Copper Tube Manufacturing HVAC & Refrigeration
Project Recommended	Inner Grooved Copper Tubes Manufacturing Unit
Consultancy Scope	Techno-Economic Feasibility Study, Market Assessment, Raw Material Analysis, Technical Feasibility, Project Cost Estimation, Financial Viability & Strategic Advisory
Implementation Status	Client Approved — Proceeding with Project Implementation

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Client Overview

M/s. Goodluck India Ltd, headquartered in Sikandrabad, Uttar Pradesh, is an established industrial enterprise seeking strategic diversification into high-growth manufacturing sectors. With strong operational infrastructure and regional industrial advantages, the company was well-positioned to enter a technically sophisticated manufacturing segment with long-term demand visibility.

The leadership team approached NPCS with a clear mandate: identify a manufacturing business that offers durable commercial returns, aligns with accessible raw material ecosystems, and scales with India's rapidly expanding industrial and infrastructure landscape.

Client Investment Objectives

- Long-term profitability and sustainable margins
- Scalable production with expansion potential
- Strong industrial demand and market validation
- Resource-based feasibility and supply chain access
- Alignment with regional industrial advantages
- Confidence through expert feasibility validation

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Problem Statement & Challenges

Industrial investors entering new manufacturing segments face a complex web of strategic, technical, and financial uncertainties. M/s. Goodluck India Ltd encountered the following critical challenges before engaging NPCS:

Market Intelligence Gap

Lack of structured market data to identify demand trends, positioning in the copper tube segment.

Raw Material Supply Chain

Uncertainty about copper raw material sourcing, price volatility, and supply chain stability in the Pradesh industrial belt.

Technical Feasibility Uncertainty

No internal expertise to evaluate manufacturing process infrastructure for inner grooved copper tube production.

Regulatory & Compliance Complexity

Navigating industrial licensing, BIS standards, environmental regulations, and integration with UP's manufacturing ecosystem.

Financial Risk Assessment

Without a validated financial model, the client could not determine a clear payback period, or risk-adjusted returns.

Investment Decision Paralysis

The client needed a credible, third-party validated assessment to gain confidence before committing large-scale capital.

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Our Approach & Strategy

NPCS deployed a structured, five-phase consulting methodology to comprehensively evaluate the Inner Grooved Copper Tubes project opportunity and guide the client toward a data-backed investment decision.

Project Opportunity Identification

NPCS conducted a structured evaluation of multiple industrial project possibilities aligned with the client's investment profile, regional advantages, and growth objectives — ultimately recommending the Inner Grooved Copper Tubes manufacturing segment as the optimal fit.

Market Analysis & Demand Validation

A rigorous market intelligence exercise was conducted to map demand trends across HVAC, refrigeration, and industrial heat exchange sectors. Growth drivers, import substitution opportunities, and buyer segment analysis were compiled to validate commercial viability.

Technical Feasibility Evaluation

NPCS assessed full manufacturing process requirements — from raw copper inputs through tube forming, internal grooving, and quality testing — including plant layout concepts, equipment specifications, and utility requirements.

Financial Modeling & Viability Assessment

A comprehensive financial model was developed covering capital investment, operating costs, revenue projections, ROI, IRR, and payback period — enabling the client to assess risk-adjusted returns with confidence.

Implementation Strategy & Advisory

NPCS provided structured implementation inputs covering project phasing, procurement planning, regulatory pathway, and operational start-up strategy — equipping the client to transition from decision to execution.

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Scope of Services Delivered

NPCS provided a comprehensive suite of consultancy deliverables specifically designed to validate, structure, and support the client's investment decision at every stage:

01	DPR Preparation	02	Plant Layout Conceptualization
03	Machinery & Equipment Selection	04	Financial Modeling & Projections
05	Market Validation & Demand Study	06	Raw Material Sourcing Analysis
07	Implementation Roadmap	08	Strategic Investment Advisory

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Project Execution Timeline

The NPCS consultancy engagement followed a structured, milestone-driven execution timeline to ensure comprehensive coverage of all project dimensions within the agreed timeframe.

Phase	Timeline	Key Deliverable / Milestone
Phase 1	Week 1–2	Client briefing, investment objective mapping, sector shortlisting
Phase 2	Week 2–4	Market research, demand analysis, competitor landscape review
Phase 3	Week 3–5	Technical process assessment, machinery identification, plant concept
Phase 4	Week 4–6	Financial modeling — capex, opex, revenue, IRR, payback analysis
Phase 5	Week 6–7	Implementation strategy, roadmap preparation, report compilation
Delivery	Week 7–8	Final DPR submission, client presentation & advisory session

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Technical Insights

Inner Grooved Copper Tubes are precision-engineered products manufactured through a controlled multi-stage process that significantly enhances thermal efficiency compared to smooth-bore alternatives. The key manufacturing stages evaluated by NPCS include:

01	Raw Copper Rod Procurement — High-purity copper cathode or rod is sourced and qualified to ensure consistent material properties for tube drawing.
02	Wire Drawing & Tube Forming — Copper rods are drawn through precision dies to produce seamless copper tube blanks of target outer diameter and wall thickness.
03	Internal Grooving Process — Purpose-built grooving machinery creates precisely engineered helical internal fin patterns on tube inner walls, significantly enhancing heat transfer surface area.
04	Annealing & Heat Treatment — Controlled annealing processes relieve internal stresses and optimize mechanical properties to meet HVAC and refrigeration application specifications.
05	Quality Inspection & Testing — Dimensional checks, pressure testing, surface quality verification, and heat transfer coefficient validation against applicable standards (ASTM, EN, IS).
06	Cutting, Coiling & Packaging — Finished tubes are cut to specified lengths or coiled per customer requirements and packaged to international export and domestic delivery standards.

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Financial & Market Analysis

Market Demand Overview

The Indian HVAC and refrigeration market is one of the fastest-growing globally, driven by urbanization, rising disposable incomes, and the push for energy-efficient cooling infrastructure.

Financial Viability Indicators

Investment Scale

Large-Scale Industrial Investment

Capital Structure

Land, Building, Plant & Machinery, Working Capital

Revenue Potential

High — driven by industrial B2B demand

Payback Period

Moderate — aligned with sector benchmarks

IRR

Attractive — subject to scale and efficiency

Break-Even Point

Inner grooved copper tubes represent a critical input in this ecosystem.

Achievable within 2–3 years at optimum capacity

Key Demand Drivers

- HVAC market growth driven by commercial real estate expansion and rising temperature profiles
- Refrigeration demand surge from food processing, cold chain logistics, and retail refrigeration sectors
- Government infrastructure investments in hospitals, data centers, and industrial facilities
- Import substitution opportunity as

domestic
producti
on
displaces
imported
copper
tubes

- Transition to energy-efficient cooling systems under government energy standards

SECTION 10

Results & Outcomes

Following NPCS's structured feasibility engagement, M/s. Goodluck India Ltd achieved clear investment confidence and actionable project clarity across all critical dimensions:

Entry into High-Value Segment

Strategic positioning in the fast-growing copper tube manufacturing sector, supported by robust fundamentals.

Reduced Investment Risk

Comprehensive feasibility analysis significantly reduced decision-making uncertainty.

Validated Commercial Viability

NPCS market research confirmed robust and growing demand in domestic and international exchange markets.

Implementation Roadmap

A phased project execution plan enabling efficient capital allocation and risk management.

Technical Confidence

Complete manufacturing process clarity from raw material sourcing to final product quality control.

Strategic Market Position

Early-mover advantage in an import-substitution manufacturing sector, supported by government tailwinds.

Financial Blueprint

A structured financial model enabling the client to approach investors with confidence and credibility.

Client Approved Implementation

M/s. Goodluck India Ltd confirmed project implementation following the structured engagement.



NPCS provided us with valuable techno-economic guidance and feasibility insights that helped us evaluate a promising manufacturing opportunity with confidence. Their structured approach and professional advisory support enabled us to make a well-informed investment decision.

— **M/s. Goodluck India Ltd, Sikandrabad, Uttar Pradesh**

Inner Grooved Copper Tubes Manufacturing Unit

SECTION 11

Why Choose NPCS

NPCS has built its reputation over three decades as the most trusted industrial project consultancy partner for entrepreneurs, MSMEs, startups, and large-scale investors across Asia and beyond. Here is what sets NPCS apart:

Proven Industrial Expertise

30+ years and 30,000+ detailed project reports across hundreds of manufacturing sectors give NPCS unmatched industrial intelligence and pattern recognition.

End-to-End Project Support

From project identification through financial modeling, implementation planning, and strategic advisory — NPCS delivers complete project lifecycle support under one roof.

Global Market Understanding

With clients in 50+ countries, NPCS brings a global perspective to every project including international demand trends, export opportunities, and global competitive dynamics.

Risk Mitigation Approach

NPCS feasibility studies are specifically designed to identify, quantify, and mitigate investment risks before capital is committed — protecting client interests at every stage.

Data-Driven Feasibility

Every NPCS recommendation is grounded in rigorous primary and secondary market research, financial modeling, and technical validation — not assumptions.

Bankable Project Reports

NPCS DPRs and feasibility studies are recognized by financial institutions, government bodies, and investment committees — enabling faster loan approvals and investor sign-offs.

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Conclusion

Selecting the right manufacturing business requires far more than identifying a demand opportunity — it demands technical validation, financial rigor, and strategic planning precision that few organizations can independently execute.

Through its structured consultancy methodology, NPCS empowered M/s. Goodluck India Ltd to identify a commercially promising and technically feasible industrial manufacturing opportunity aligned with long-term national and global growth objectives. From project identification and market assessment through financial evaluation and implementation planning, NPCS delivered investor-grade confidence at every stage.

The client's decision to proceed with the Inner Grooved Copper Tubes Manufacturing Unit is a testament to the power of expert-led industrial feasibility consulting — and to NPCS's commitment to transforming industrial investment ideas into profitable commercial realities.

READY TO BUILD YOUR NEXT INDUSTRIAL PROJECT?

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