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TABLE OF CONTENTS

Executive Summary	2
Fundamental and Financial Analysis of Tata Power Company Limited	2
CHAPTER 1	5
EIC Framework (Economy-Industry-Company)	5
CHAPTER 2	7
Overview of The Company – TATA Power	7
Key Business Segments:	8
Vision and Strategy:	10
Global Presence:	11
CHAPTER 3	12
Impact of Economic Indicators on TATA Power Company Limited	12
Summary:	13
CHAPTER 4	14
Industry Life Cycle of Analysis of TATA Power	14
CHAPTER 5	17
Porter Five Forces Analysis of TATA Power	17
CHAPTER 6	20
Company Analysis – Financial Analysis	20
TATA Power Income Statement Analysis	20
TATA Power Balance Sheet Analysis	22
Current Valuations for TATA POWER	Error! Bookmark not defined.
Ratio Analysis for TATA Power wrt Previous 5 years	30
CHAPTER 7	39
Company Analysis – Non-Financial Aspects: TATA Power Company Limited	39
CHAPTER 8	41
ROE Analysis Using DUPONT	41
CHAPTER 9	43
Intrinsic Value Calculation	43
□ Final Valuation Summary	45
 Conclusion:	45

EXECUTIVE SUMMARY

Fundamental and Financial Analysis of Tata Power Company Limited

Tata Power Company Limited, a flagship enterprise of the Tata Group, is one of India's oldest and most prominent integrated power companies. Established in 1915, The company has significantly expanded in both scale and capabilities, establishing operations across the entire power value chain—from generation and transmission to distribution and renewable energy. As India moves toward cleaner energy sources, Tata Power has strategically positioned itself to capitalize on this transition, steadily growing its presence in solar, wind, and hybrid power solutions.

Fundamental Analysis

Tata Power operates in a sector that is essential to economic development and industrial growth. The Indian power sector is undergoing significant transformation driven by policy reforms, privatization of distribution networks, and a shift towards renewable energy. Tata Power has proactively aligned itself with these trends by investing in renewable assets and digital infrastructure.

Business Model and Strategy

Tata Power's business model is diversified, with investments in both conventional and non-conventional energy sources. It has a presence in:

- **Generation:** More than 13 GW of generation capacity, of which over 38% is from clean and renewable sources.
- **Transmission and Distribution:** Serving major metropolitan areas such as Mumbai and Delhi.
- **Renewables:** Rapidly growing solar EPC business and rooftop solar installations across India.

The company's strategic initiatives include transitioning towards green energy, expansion of EV charging infrastructure, and modernization of the distribution grid through digital solutions. These initiatives reflect a forward-looking approach designed to enhance sustainability and profitability.

Industry Position

Tata Power enjoys a competitive edge due to its early-mover advantage in renewables and its strong brand equity under the Tata umbrella. Its vertically integrated operations allow it to control costs and manage supply chain efficiencies effectively. Additionally, regulatory support from the government, including subsidies and incentives for renewable energy, provides a favourable environment for growth.

Financial Analysis

Revenue and Profitability

Over the past five years, Tata Power has exhibited strong financial performance, marked by consistent revenue growth. In FY2023-24, the company recorded consolidated revenue exceeding ₹55,000 crore, reflecting a steady upward trend from previous years. This growth has been largely fuelled by increased contributions from its renewable energy and distribution segments.

The EBITDA margins have remained healthy, supported by efficient cost management and operational excellence. However, the profitability has shown some fluctuations due to volatility in coal prices, regulatory challenges, and high debt levels. The company has undertaken strategic deleveraging efforts to manage its financial obligations more prudently.

Return on Equity (ROE) and Efficiency Ratios

Tata Power's ROE for FY2023-24 stood around 10-12%, reflecting moderate returns for shareholders. This metric is expected to improve with the growing share of renewables in the company's asset mix, which typically offer higher margins. The company's asset turnover ratio has also improved, indicating better utilization of its capital base.

Debt Position and Solvency

Tata Power has historically maintained a high debt-to-equity ratio due to its capital-intensive operations. However, in recent years, the company has focused on reducing its debt burden through equity infusion, asset monetization, and refinancing. This has led to an improvement in the interest coverage ratio and a more sustainable capital structure.

Cash Flow and Liquidity

The company has generated strong operating cash flows, enabling it to fund capital expenditures and reduce reliance on external borrowings. Free cash flows have improved, especially with increasing profitability from renewables and steady income from regulated distribution businesses.

Valuation and Intrinsic Value

31 Tata Power's current Price-to-Earnings (P/E) ratio is marginally above the industry average, indicating investor confidence in the company's renewable energy growth prospects. Discounted Cash Flow (DCF) analysis suggests that the stock is trading close to its intrinsic value, with room for potential upside as the company continues to expand its renewable energy capacity. Additionally, strong market sentiment, supported by the company's solid ESG (Environmental, Social, and Governance) performance, has contributed to higher valuation multiples.

Outlook and Investment Potential

The medium- to long-term outlook for Tata Power is highly promising. The company is the green energy transition, digital transformation of distribution networks, and the rise of electric mobility. With strong management, clear strategic direction, and improving financial metrics, Tata Power is poised to deliver sustainable growth and long-term value to its stakeholders.

CHAPTER 1

EIC Framework (Economy-Industry-Company)

The EIC framework is a top-down approach used in fundamental analysis to evaluate investments. It consists of three levels of analysis:

1. **Economy Analysis** (Macroeconomic Factors)
2. **Industry Analysis** (Sector-Specific Factors)
3. **Company Analysis** (Firm-Level Factors)

This framework helps investors identify strong companies within growing industries in a favourable economic environment.

1. Economy Analysis (E)

The economic environment impacts all industries and companies. This step analyzes macroeconomic indicators such as:

GDP Growth Rate → Measures overall economic expansion.

Inflation Rate → Affects purchasing power and interest rates.

Interest Rates → Higher rates reduce borrowing & spending.

Exchange Rates → Impacts import/export businesses.

Government Policies → Tax policies, regulations, and incentives.

Unemployment Rate → Affects consumer spending power.

2. Industry Analysis (I)

Each industry reacts differently to economic changes. This step examines industry specific trends to find promising sectors.

Industry Growth Rate → Fast-growing industries offer more opportunities.

Market Size & Demand Trends → Helps identify future profitability.

Competition & Market Structure → Monopoly? Oligopoly? Highly competitive?

Regulatory Environment → Government policies & legal factors.

Technological Advancements → Disruptions & innovations.

3. Company Analysis (C)

Once a strong industry is identified, investors analyse individual companies to select the best stocks.

Financial Performance → Revenue, profit margins, debt levels.

Competitive Advantage (Moat) → Brand power, patents, technology.

Management Quality → Leadership, strategy, past decisions.

Evaluation Metrics → P/B ratio, ROE, ROA.

Growth Potential → Expansion plans, product pipeline, innovation

CHAPTER 2

Overview of The Company – TATA Power

Incorporated: 1919

Headquarters: Mumbai, Maharashtra, India

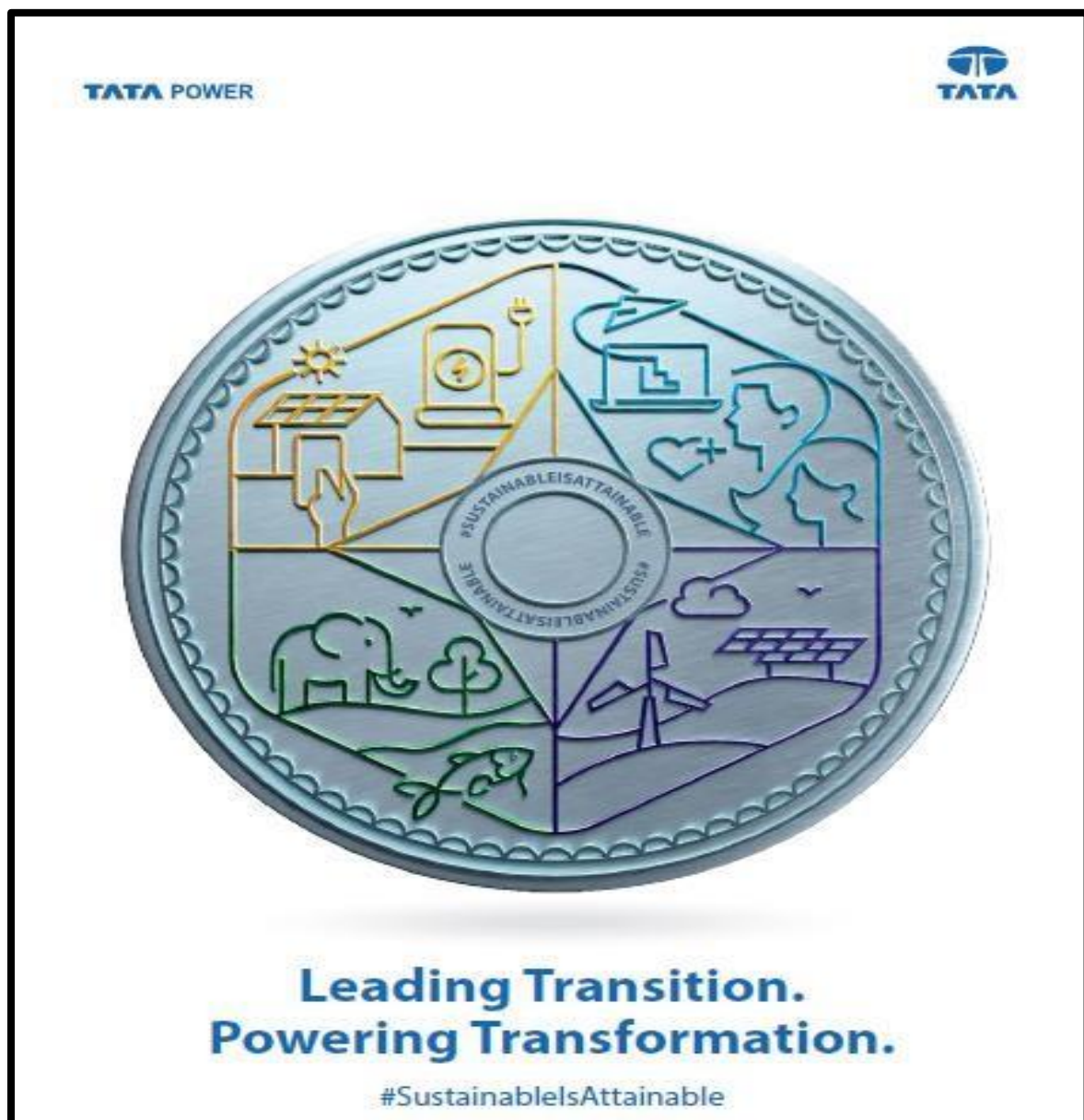
Chairman: Natarajan Chandrasekaran

CEO & MD: Dr. Praveer Sinha

Parent Group: Tata Group

Listed On: NSE, BSE

Stock Symbol: TATAPOWER



6 TATA Power Company Limited stands as one of India's largest and most prominent integrated power companies.

21 The company operates across the complete power value chain, encompassing power generation, transmission, distribution, and trading. This integrated presence enables TATA Power to play a vital role in meeting the country's growing energy demands efficiently and sustainably.

With over **100 years** of experience, it is a pioneer in the Indian power industry and a trusted name in delivering reliable and sustainable energy solutions.

Key Business Segments:

- **Generation:** Over 14 GW of generation capacity, including thermal, hydro, solar, and wind.
- **Renewables:** Among India's leading renewable energy players with over 5 GW capacity; strong focus on solar rooftop, solar pumps, and solar microgrids.
- **Transmission & Distribution:** Operates in major metros like Mumbai, Delhi, and Odisha, supplying electricity to millions of customers.
- **EV Infrastructure:** Developing EV charging network across India to support the country's e-mobility transition.



Corporate
Overview

Decarbonising
for tomorrow

Creating Value
for Impact

Delivering
Value

Statutory and
Financial Statements



We are Future-ready

As one of India's largest integrated power companies, Tata Power has a presence across generation, transmission, distribution, and new-age energy solutions. We serve a diverse set of consumers by generating and distributing power from sources including thermal, hydroelectric, and renewable energy. To that end, we proactively undertake various initiatives to reduce our carbon footprint and promote the use of clean energy.



<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">RENEWABLE ENERGY GENERATION</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">3,927 MW⁽¹⁾</div> <div style="font-size: 0.8em;">Installed capacity</div>	<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">CONVENTIONAL ENERGY GENERATION</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">10,183 MW</div> <div style="font-size: 0.8em;">Installed capacity</div>	<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">TRANSMISSION</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">4,194 Ckm⁽²⁾</div> <div style="font-size: 0.8em;">Total transmission line capacity (Operational)</div>	<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">DISTRIBUTION</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">12.9 million</div> <div style="font-size: 0.8em;">Customers served</div>
<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">EV CHARGING INFRASTRUCTURE</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">3,700+</div> <div style="font-size: 0.8em;">Public charging points energised across 351 cities and towns</div>	<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">EPC ROOFTOP SOLAR[#]</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">1,650+ MW</div> <div style="font-size: 0.8em;">Solar rooftop project executed</div>	<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">MANUFACTURING</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">4.6 GW</div> <div style="font-size: 0.8em;">Manufacturing capacity of solar cells and modules including under construction</div>	<div style="background-color: #f0f0f0; padding: 5px; font-weight: bold; font-size: 0.8em;">EPC LARGE PROJECTS</div> <div style="font-size: 1.5em; font-weight: bold; color: #0056b3;">11.5+ GWp⁽³⁾</div> <div style="font-size: 0.8em;">Projects executed and under pipeline</div>

⁽¹⁾ MW - Megawatt

⁽²⁾ Ckm - Circuit kilometer

⁽³⁾ GWp - Gigawatt peak

[#] (India's #1 Solar Rooftop EPC Company - 9 years in a row)

Vision and Strategy:

TATA Power is leading the energy transition in India, with a vision to become a **net-zero carbon company before 2045**. It aims to grow its **renewable energy share to 80% by 2030**, aligning with India's national climate and energy goals.

Tata Power is India's largest vertically integrated power Company

Vision

Empower a billion lives through sustainable, affordable and innovative energy solutions.

Mission

Keeping the customer at the centre of all we do

Operating assets and executing projects at benchmark level through technology and Innovation

Sustainable growth with a focus on profitability and market leadership

Creating an empowered workforce driven by passion & purpose

'Leadership with Care' for all stakeholders

Values

SAFETY

CARE

AGILITY

LEARNING

ETHICS

Business clusters



Renewables

This cluster encompasses utility-scale solar, wind, hybrid, and complex assets, manufacturing of solar modules and cells, and solar EPC business.



New-age Energy Solutions

This cluster offers rooftop solar for clean home energy, electric vehicles for a cleaner commute, microgrids for reliable power, and home automation for optimised



Transmission and Distribution

This cluster spans 6,277 circuit kilometres (Ckm) of transmission lines (including under construction), serving 12.5 million customers in Mumbai, Delhi, Odisha



Generation

This cluster includes conventional assets, like hydro and thermal plants, spread across North, West, and East India, which have a combined capacity of over 10,000 MW.

Global Presence:

TATA Power has international projects and collaborations, including ventures in South Africa, Indonesia, Bhutan, and Zambia, reinforcing its global footprint.



CHAPTER 3

Impact of Economic Indicators on TATA Power Company Limited

As a leading integrated power company, TATA Power is significantly affected by a range of macroeconomic indicators. The following is an analysis of key economic factors and their potential implications for the company's future earnings and strategic direction:

1. GDP Growth Rate (India)

- **Relevance:** Higher GDP growth reflects increased industrial activity, infrastructure development, and urbanization—all of which fuel electricity demand.
- **Impact on TATA Power:** As India's GDP continues to grow at ~6.5–7%, energy demand will rise, especially in urban and rural electrification projects. This will drive revenue growth in TATA Power's generation and distribution segments.

2. Interest Rates (Repo Rate)

- **Relevance:** Power infrastructure is capital-intensive, so borrowing costs play a critical role in project feasibility.
- **Current Trend:** With the RBI repo rate at 6.50%, borrowing costs are moderately high.
- **Impact:** High interest rates can strain margins on new projects. However, TATA Power's access to low-cost green financing and its established credit profile can partially mitigate this risk.

3. Inflation Rate (CPI)

- **Relevance:** Inflation increases input costs (e.g., coal, solar modules, labor).
- **Impact:** Persistent inflation could pressure operating margins. TATA Power's shift toward renewables, which have lower operational costs, helps reduce inflation exposure over time.

4. Crude Oil and Coal Prices

- **Relevance:** Affects fuel cost for thermal power generation.
- **Impact:** Rising global commodity prices can increase TATA Power's input costs. However, growing reliance on renewable energy helps reduce sensitivity to fossil fuel price volatility.

5. Exchange Rate (INR/USD)

- **Relevance:** Affects the cost of importing equipment (e.g., solar panels, batteries) and repaying foreign debt.

- **Impact:** A weakening INR increases import costs. However, TATA Power is increasingly localizing supply chains and seeking long-term hedging to manage this risk.

6. Government Policy and Spending (Especially Renewable Energy)

- **Relevance:** India's goal of achieving 500 GW of non-fossil fuel capacity by 2030 is accompanied by various incentives, subsidies, and supportive policy measures.
- **Impact:** TATA Power is well-aligned with national priorities and stands to benefit from solar subsidies, tax benefits, and green project financing—boosting future earnings and margins.

Summary:

Economic Indicator		Impact on TATA Power
GDP Growth Rate		Positive: Boosts energy demand and revenues
Interest Rates		Moderately Negative: Affects cost of capital for expansion
Inflation Rate		Negative: Increases operational costs, partly offset by renewable shift
Crude Oil/Coal Prices		Negative for thermal; mitigated by rising renewable capacity
Exchange Rate (INR/USD)		Moderate Risk: Increases import cost; managed via hedging and localization
Government Policies		Highly Positive: Incentives support clean energy growth

Table 3.1

CHAPTER 4

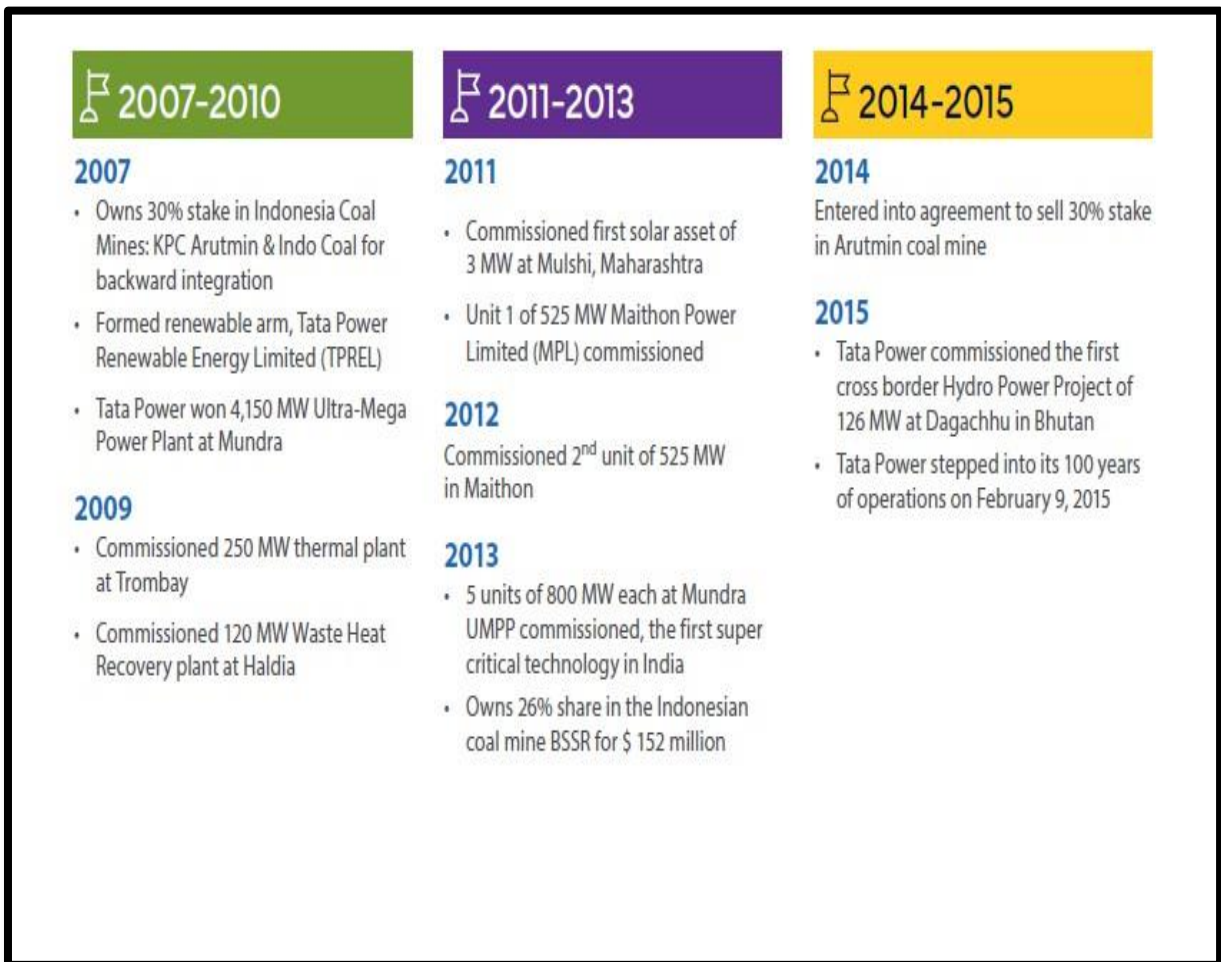
INDUSTRY LIFE CYCLE ANALYSIS OF TATA POWER

4.1. Introduction:

Industry Life Cycle Analysis is a framework used to understand the different stages of an industry's evolution. It helps businesses, investors, and Policymakers assess growth potential, competition, and profitability over time.

4.2. Stages of Industry Life Cycle:

- 1) Introduction Stage - Emerging industry with new technologies and low market penetration.
 - 2) Growth Stage - Rapid adoption, high revenue growth, and increasing competition.
 - 3) Maturity Stage - Market saturation, slower growth, and focus on efficiency.
 - 4) Decline Stage - Falling demand, industry disruption, and obsolescence.
- TATA Power operates in the **Indian power sector**, which comprises both **traditional (thermal, hydro)** and **emerging (renewable, EV infrastructure)** sub-industries. The sector's position industry life cycle the energy segment.



<p>2016-2017</p> <p>2016</p> <ul style="list-style-type: none"> Acquired 1,010 MW operational RE assets of Welspun, renamed it to Walwhan Renewable Energy Ltd (WREL) Resurgent Power JV formed by Tata Power and ICICI Venture to acquire stressed assets in Indian Power Sector. Tata Power holds 26% stake in Resurgent Power Owns 50% stake in Cennergi Pty Ltd, a South African wind asset of 230 MW Commissioned 120 MW Itezhi tezhi hydro power project in Zambia <p>2017</p> <ul style="list-style-type: none"> TP Ajmer Distribution Limited (TPADL) is formed to take over supply and distribution of Ajmer 	<p>2018-2019</p> <ul style="list-style-type: none"> Resurgent Power Ventures acquired 75.01% equity stake of Prayagraj Power Generation Limited (PPGCL) <p>2020-2021</p> <ul style="list-style-type: none"> Sold stake in South African wind asset JV Cennergi Tata Sons raise promoter holding to 47% from 37% Tata Power expanded its distribution base in Odisha by acquiring Odisha Discoms (51% stake) in partnership with Odisha Government Constructed 187 MW hydro project in Georgia 	 <p>2022</p> <ul style="list-style-type: none"> Mundra (CGPL) amalgamated into Tata Power Tata Power forms integrated renewable energy platform with Blackrock and Mubadala
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>2023</p> <ul style="list-style-type: none"> Resurgent platforms acquire 100% stake in NRSS XXXVI Transmission Ltd. and SEUPPTCL (Transmission Company) TPREL receives 966 MW Hybrid RE Project Letter of Approval (LoA) for Tata Steel Tata Power signs MoU with Maharashtra Government for development of 2.8 GW of Pumped Storage Project (PSP) 	<p>2024</p> <ul style="list-style-type: none"> First renewable merchant power plant of 200 MW commissioned for Tata Power Trading arm TPTCL Tata Power becomes the first integrated power company with approved Science Based Targets Initiative (SBTi) Targets.
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1. Thermal Power – Maturity to Decline Phase

- Characteristics:**
 - High market saturation.
 - Regulatory pressure due to emissions.
 - Slower growth and return on investment.
- Impact on TATA Power:**
 - Legacy thermal assets face rising costs and tighter compliance norms.
 - The company is gradually reducing exposure to coal-based assets in favor of green energy.

2. Renewable Energy – High Growth Phase

- **Characteristics:**
 - Government support and subsidies.
 - Falling cost of technology (solar panels, wind turbines).
 - Surge in private and public investments.
- **Impact on TATA Power:**
 - Major business focus: Solar EPC, solar rooftops, microgrids, and wind power.
 - The company is well-positioned to capture market share with over 5 GW renewable capacity and growing.

3. Distribution & Transmission – Consolidation Phase

- **Characteristics:**
 - High capital requirements and long-term concession contracts.
 - Operational efficiency and customer service are key differentiators.
- **Impact on TATA Power:**
 - Operates in key metros (Mumbai, Delhi, Odisha).
 - Focus on modernization through smart grids and loss reduction.

4. EV Charging Infrastructure – Introduction to Growth Phase

- **Characteristics:**
 - Emerging segment driven by India's e-mobility mission.
 - Requires heavy initial investment but has massive future potential.
- **Impact on TATA Power:**
 - Front-runner in EV charging with pan-India expansion.
 - Building a strategic long-term moat.

Visual: Industry Life Cycle Stages (Mapped to TATA Power)

Stage	Industry Segment	TATA Power Involvement
Introduction	EV Charging, Smart Grids	High R&D, strategic investments
Growth	Renewable Energy	Aggressive expansion, key focus
Maturity	Transmission & Distribution	Consolidation, efficiency drive
Decline	Thermal Power	Gradual phase-out of new capacity

Table 4.1

CHAPTER 5

PORTER FIVE FORCES ANALYSIS OF TATA POWER

1. Threat of New Entrants – Moderate

- **Barriers to Entry:**
 - High capital requirements for generation and distribution infrastructure.
 - Regulatory and environmental approvals are complex and time-consuming.
 - Need for long-term power purchase agreements (PPAs) and scale for profitability.
- **Current Trends:**
 - Government incentives are encouraging new players, especially in solar and EV charging.
 - Tech startups are entering the renewable and microgrid markets.
- **TATA Power's Position:**
 - Strong brand, scale, and legacy relationships with DISCOMs give it a competitive moat.
 - Early-mover advantage in renewables and EV infrastructure provides a strategic edge.

Verdict: Moderate threat, mostly in emerging green energy sub-segments.

2. Bargaining Power of Suppliers – Moderate

- **Suppliers Involved:**
 - Equipment suppliers (solar panels, turbines, transformers).
 - Fuel providers (coal, gas).
 - Technology and grid service providers.
- **Dynamics:**
 - Solar panel supply is still heavily reliant on imports from China, exposing companies to global price and currency risks.
 - Coal pricing is subject to volatility, though TATA Power has diversified sourcing strategies.
- **TATA Power's Leverage:**
 - Growing local procurement of solar modules and backward integration in EPC solutions.
 - Long-term fuel sourcing contracts and diversified supplier base.

Verdict: Moderate bargaining power—higher in traditional energy, lower in green energy due to scale.

3. Bargaining Power of Buyers – Low to Moderate

- **Buyers:**
 - State DISCOMs (distribution companies).
 - End-consumers in retail distribution zones (e.g., Mumbai).
 - Industrial/commercial clients in solar EPC.
- **Trends:**
 - Limited retail switching options in regulated zones reduces buyer power.
 - However, state DISCOMs often delay payments, affecting cash flow for generators.
- **TATA Power's Advantage:**
 - Direct customer relationships in Mumbai and Odisha.
 - Rapid growth in B2B solar solutions reduces reliance on DISCOMs.

Verdict: Buyer power is moderate overall but manageable due to diversification.

4. Threat of Substitutes – Low

- **Substitutes for Electricity:**
 - None functionally—electricity is an essential service.
 - Partial substitution via rooftop solar and local microgrids (especially in rural areas).
- **Trends:**
 - Renewable energy is not a substitute but a transformation of the supply mix.
 - Off-grid and prosumer models (self-generation) are emerging but still niche.

Verdict: Very low threat of substitutes due to essential nature of power.

5. Industry Rivalry – High

- **Competitors:**
 - NTPC, Adani Power, JSW Energy, Torrent Power, and emerging renewable firms like ReNew Power and Azure Power.
- **Dynamics:**
 - High fixed costs lead to aggressive bidding in PPAs and EPC contracts.
 - Rapid growth in renewables has created intense competition in tariffs and scale.

- **TATA Power's Edge:**

- Strong brand, integrated value chain, diversified asset base (generation + distribution + EV).
- Focus on operational efficiency and digital transformation.

Verdict: Intense rivalry, but TATA Power maintains a strong and differentiated market position.

Summary Table: Porter's Five Forces for TATA Power

Force	Level	Key Takeaways
Threat of New Entrants	Moderate	High capex and compliance requirements; new players in green tech emerging
Supplier Power	Moderate	Import dependency declining; diversified sourcing strategies help
Buyer Power	Low to Moderate	DISCOM pressure balanced by retail and B2B customers
Threat of Substitutes	Low	Electricity is essential; limited substitution via rooftop solar
Industry Rivalry	High	Intense competition in both traditional and renewable segments

Table 5.1

CHAPTER 6

COMPANY ANALYSIS – FINANCIAL ASPECT

6.1.Introduction:

Company analysis is the mechanism of assessing a business's financial health, competitive position, growth potential, and risks to determine its strengths, weaknesses, and investment attractiveness. It is used by investors, analysts, and stakeholders to make informed decisions about the company's future performance.

TATA POWER Income Statement Analysis

Analysis of the TATA POWER Income Statement Operating income increased 11.5% (YoY) during the year.

company's operating profit grew by 4.5% year over year.
From 21.4% in FY23 to 20.1% in FY24, operating profit margins saw a decline.

Finance costs rose 6.0% year over year, while depreciation charges rose 10.1%.
YoY, other revenue increased by 24.2%.

The year-over-year growth in net profit was 12.3%.

Over the course of the year, net revenue margins increased from 6.9% in FY23 to 7.0% in FY24.

TATA POWER Revenue Declaration 2023-24

No. of Mths Year Ending		12 Mar-23*	12 Mar-24*	% Change
Net Sales	Rs	551,091	614,489	11.5%
Other income	Rs	14,682	18,236	24.2%
Total Revenues	Rs	565,773	632,725	11.8%
Gross profit	Rs	117,999	123,282	4.5%
Depreciation	Rs	34,392	37,864	10.1%
Interest	Rs	43,719	46,334	6.0%
Profit before tax	Rs	54,570	57,320	5.0%
Tax	Rs	16,473	14,519	-11.9%
Profit after tax	Rs	38,097	42	
			2	

Table 6.1

Additionally, the company's current obligations decreased by -7.4% to Rs 419 billion in FY24 from Rs 452 billion in FY23.

The long-term debt increased by 21.8% to Rs 374 billion from Rs 307 billion in FY23.

In FY24, fixed assets increased 15% to Rs 1,023 billion, while current assets decreased 2% to Rs 356 billion.

All things considered, the total assets and liabilities for FY24 were Rs 1,391 billion, up 9% from Rs 1,281 billion last year.

- 2
- (CFF) stood at Rs -45 billion on a year-on-year basis.
 - As a result, the company reported a net cash outflow of Rs 9 billion in FY24, a decline from the net inflow of Rs 12 billion recorded in FY23.

Standalone Cash Flow Statement		
for the year ended March 31, 2024		
	For the year ended March 31, 2024	For the year ended March 31, 2023
	₹ crore	₹ crore
A. Cash flow from Operating Activities		
Profit/(Loss) before tax	2,511.10	4,110.97
Adjustments to reconcile Profit/(Loss) before tax to Net Operating Cash Flows:		
Depreciation and Amortisation Expense	1,188.46	1,167.47
Interest Income	(103.31)	(140.96)
Interest on Overdue Trade Receivables including Delayed Payment Charges	(43.72)	(5.69)
Dividend Income	(1,608.95)	(3,895.04)
Finance Cost (Net of Capitalisation)	2,257.45	2,226.60
(Gain)/Loss on Disposal of Property, Plant and Equipment (Net)	(48.48)	8.70
Amortisation of Deferred Rent Liability	(0.99)	(0.97)
(Gain)/Loss on Sale/Fair Value of Current Investment measured at fair value through Profit and Loss	(20.22)	(14.22)
(Gain)/loss on sale of non-current investments/businesses	Nil	(645.35)
(Gain)/loss on sale of Business to Subsidiaries	Nil	(42.74)
Guarantee Commission from Subsidiaries and Joint Ventures	(25.86)	(25.51)
Amortisation of Service Line Contributions	(8.39)	(8.15)
Transfer to Statutory Consumer Reserve	15.80	13.68
Bad Debts	0.04	Nil
Allowance For Bad and Doubtful Debts and Advances (Net)	9.08	0.31
Impairment of Non-Current Investments	0.95	Nil
Recognition of Deferred Revenue	35.12	32.27
Employees Stock Option Expenses	3.29	Nil
Effect of Unrealised Foreign Exchange (Net)	4.79	(15.32)
	1,655.06	(1,344.92)
	4,166.16	2,766.05
Working Capital adjustments:		
Adjustments for (increase) / decrease in Operating Assets:		
Inventory	369.38	(144.49)
Trade Receivables	312.85	(852.26)
Finance Lease Receivables	(2.81)	12.60
Loans - Non-Current	0.53	0.45

Figure 6.3 Cash Flow

B. Cash Flow from Investing Activities		
Capital Expenditure on Property, Plant and Equipment and Other Intangible Assets (including Capital Advances)	(1,658.75)	(1,711.00)
Proceeds from Sale of Property, Plant and Equipment (including Property, Plant and Equipment classified as held for sale)	136.43	10.19
Purchase of Non-Current Investments including investment in Subsidiaries	(380.67)	(5,383.28)
Proceeds on account of Share Reduction of Joint venture	7.25	Nil
Redemption of Investment In Perpetual Securities	Nil	3,895.00
Investment In Perpetual Securities of Subsidiaries	(101.35)	(7.85)
Proceeds from Sale of Non-Current Investments (Net of expenses)	Nil	1,010.78
(Purchase of) / Proceeds from Sale of Current Investments (Net)	(308.01)	20.30
Proceeds from Sale of Business to Subsidiaries	Nil	199.12
Interest Received	105.86	71.49
Interest on Overdue Trade Receivables including Delayed Payment Charges	43.72	5.69
Loans Given	(2.10)	(41.11)
Loans Repaid	16.51	1,726.59
Dividend Received	2,021.52	5,303.12
Guarantee Commission Received	25.47	25.07
Bank Balance not considered as Cash and Cash Equivalents	2.01	(0.05)
Net Cash Flow from/(used in) Investing Activities	B	(92.11)
C. Cash Flow from Financing Activities		
Proceeds from Non-Current Borrowings	8,279.84	4,021.00
Repayment of Non-Current Borrowings	(8,210.21)	(7,764.85)
Proceeds from Current Borrowings	26,502.68	28,010.08
Repayment of Current Borrowings	(28,860.00)	(26,490.08)
Interest and Other Borrowing Costs	(2,190.35)	(2,030.67)
Proceeds from/(Repayment) of Bills Discounted (Net)	(26.71)	(27.38)
Inter Corporate Deposit taken/(repaid) (Net)	(25.00)	(224.66)
Increase in Capital/Service Line Contributions	12.09	9.36
Dividends paid	(639.07)	(559.18)
Payment of Lease Liability	(307.87)	(293.24)
Net Cash Flow from/(used in) Financing Activities	C	(5,464.60)

Integrated Annual Report 2023-24

Energy is Progress 303

Figure 6.4 Cash Flow

Other Current Assets	(49.51)	(66.30)
Other Non-Current Assets	(1,106.04)	(231.28)
Unbilled Revenue	(33.20)	(14.11)
Other Financial Assets - Current	56.21	62.43
Other Financial Assets - Non-Current	(2.96)	22.30
Regulatory Deferral Account - Assets	(332.22)	(1,187.30)
	(787.77)	(2,397.96)
	3,378.39	368.09

Integrated Annual Report 2023-24

Energy is Progress 302

<div> <div>TATA POWER</div> <div> <div>Tata Power at a glance</div> <div>Governance</div> <div>Creating Impact</div> <div>Our decarbonisation journey</div> <div>Stakeholder value creation</div> <div>Statutory and Financial Statements</div> </div> <div>TATA</div> </div>		
Standalone Cash Flow Statement for the year ended March 31, 2024 (Contd.)		
	For the year ended March 31, 2024	For the year ended March 31, 2023
	₹ crore	₹ crore
Adjustments for increase / (decrease) in Operating Liabilities:		
Trade Payables	2,091.57	(2,045.96)
Other Current Liabilities	(58.25)	96.16
Current Provisions	28.15	(26.23)
Non-Current Provisions	(5.24)	24.48
Other Financial Liabilities - Current	275.93	2,209.51
Other Financial Liabilities - Non Current	(1.70)	0.47
	2,330.46	258.43
Cash flow from/(used in) operations	5,708.85	626.52
Income Tax Paid (Net of Refund Received)	172.64	(126.47)
Net Cash Flows from/(used in) Operating Activities	A 5,881.49	500.05

Figure 6.4 Cash Flow

<div> <div>TATA POWER</div> <div> <div>Tata Power at a glance</div> <div>Governance</div> <div>Creating Impact</div> <div>Our decarbonisation Journey</div> <div>Stakeholder value creation</div> <div>Statutory and Financial Statements</div> </div> <div>TATA</div> </div>		
Standalone Cash Flow Statement for the year ended March 31, 2024 (Contd.)		
	For the year ended March 31, 2024	For the year ended March 31, 2023
	₹ crore	₹ crore
Net increase/(decrease) in Cash and Cash Equivalents (A+B+C)	324.78	274.49
Cash and Cash Equivalents as at April 1 (Opening Balance)	274.47	(0.02)
Cash and Cash Equivalents as at March 31 (Closing Balance)	599.25	274.47
Notes:		
(i) The above cash flow has been prepared under the "Indirect Method" as set out in Indian Accounting Standard (Ind AS) 7 - statement of cash flows.		
	As at March 31, 2024	As at March 31, 2023
	₹ crore	₹ crore
(ii) Cash and Cash Equivalents include:		
Balances with banks		
In Current Accounts	239.25	274.47
In Deposits Accounts (with original maturity of three months or less)	360.00	Nil
Total of Cash and Cash Equivalents	599.25	274.47
The accompanying notes form an integral part of the Standalone Financial Statements		
<div> <div>As per our report of even date</div> <div>For and on behalf of the Board,</div> </div>		
For S R B C & CO LLP Chartered Accountants ICAI Firm Registration No.324982E/E300003	PRAVEER SINHA CEO & Managing Director DIN 01785164	SAURABH AGRAWAL Director DIN 02144558
per ABHISHEK AGARWAL Partner Membership No. 112773 Mumbai, May 8, 2024	SANJEEV CHURIWALA Chief Financial Officer Mumbai, May 8, 2024	VISPI S. PATEL Company Secretary

Figure 6.5 Cash Flow

TATA POWER Cash Flow Statement 2023-24

	No. of months	12	12	% Change
	Year Ending	Mar-23	Mar-24	
Cash Flow from Operating Activities	Rs m	71,656	125,961	75.8%
Activities				
Cash Flow from Financing Activities	Rs m	13,408	-44,974	-
				-

Table 6.3

TATA POWER's current evaluations:

(EPS) has risen to Rs 13.4, up from Rs 11.9 in the previous year.

Based on the current market price of Rs 435.7, the stock is trading at a price-to-earnings (P/E) ratio of 44.9.

(P/BV) ratio at this price point is 4.3, while the price-to-sales ratio is 2.3.

(P/CF) ratio, calculated using the year-end operating cash flow, stands at 12.4.

Per Share Data Estimates

		12 Mar-23*	12 Mar-24*
Sales per share	Rs	172.5	
TTM Earnings per share	Rs	11.9	13.4
Price to Cash Flow	x	8.4	12.4
	x	99.6	44.9
Price / Book Value ratio	x	2.7	3.1
Market Cap	Rs m	767,600	998,943
Dividends per share	Rs	2.0	2.0

Ratio analysis for tata power wrt previous 5 years

Liquidity Ratio

Liquidity Ratio	Formula					
Current Ratio	Current assets/current liabilities	.50 :1	.44 :1	.58 :1	.50 :1	.51 :1

Liquidity Ratio	Formula						Interpretation
		.50 :1	.44 :1	.58 :1	.50 :1	.51 :1	<p>The ratio has further decreased compared to the previous year, suggesting an even tighter liquidity position. This drop might indicate growing short-term debt or a reduction in current assets, making it more challenging to cover immediate liabilities.</p> <p>The ratio was marginally better than March '21 and '24, showing a slightly improved liquidity position. However, it still suggests the company faced difficulties in covering short-term debts.</p> <p>Overall Interpretation: Tata Power's current ratio has consistently been below 1 across the five years, indicating ongoing liquidity constraints. The trend shows some fluctuation.</p>

Liquidity Ratio	Formula					
Acid Test Ratio or Quick Ratio	(Current assets-inventories)/Current liabilities	.37 :1	.30 :1	.42 :1	.44 :1	.45 :1

Acid Test Ratio or Quick Ratio	(Current assets-inventories)/Current liabilities	.37 :1	.30 :1	.42 :1	.44 :1	.45 :1	Tata Power's Quick Ratio has consistently been below 1 over the past five years, which indicates a pattern of liquidity constraints. The trend has generally been declining, with March '23 showing the lowest quick ratio (0.30). This suggests increasing reliance on inventory sales or the need for external financing to meet short-term liabilities. A quick ratio consistently below 1 could be a warning sign for potential cash flow issues, highlighting the need for more efficient liquidity management.
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Efficiency Ratio/ Activity Ratio

Efficiency Ratio/ Activity Ratio	Formula					
Inventory turnover ratio	Cost of goods sold / Average inventory	6.64 times	5.57 times	3.33 times	4.66 times	5.41 times

Efficiency Ratio/Activity Ratio	Formula						Interpretation
Inventory ratio	Cost of goods sold / Average inventory	6.64 times	5.57 times	3.33 times	4.66 times	5.41 times	Over the five-year period, Tata Power's inventory turnover ratio fluctuated, with notable improvements in March '24 and March '23. The highest ratio of 6.64 in March '24 suggests that the company has optimized its inventory management, leading to faster sales and reduced holding costs. In contrast, the drop to 3.33 in March '22 might indicate challenges such as slower sales or overstocking. Overall, the trend shows recovery and improvement in recent years, signaling better control over inventory and potentially stronger sales performance.

Efficiency Ratio/ Activity Ratio	Formula					
Accounts receivable turnover ratio	Credit sales / Average accounts receivables	11.37 times	8.63 times	10.04 times	6.64 times	6.79 times

Accounts receivable turnover ratio	Creditsales/Average accountsreceivables	11.37times	8.63times	10.04times	6.64times	6.79times	Tata Power's accounts receivable turnover ratio has shown a positive trend over the five years, improving significantly from 6.79 times in March '20 to 11.37 times in March '24. The higher ratios in recent years suggest that the company has become more efficient in collecting payments from customers, leading to improved cash flow and reduced credit risk. This trend indicates better management of creditsales, stricter payment terms, or a more reliable customer base. The lower ratios in earlier years suggest that there might have been delays in collections or more lenient credit practices, which the company has successfully addressed in recent years.
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Efficiency Ratio/ Activity Ratio	Formula					
Fixed Assets turnover ratio	Sales / Fixed assets	.78 times	.70 times	.44 times	.71 times	.89 times

the five-year period, Tata Power's Fixed Assets Turnover Ratio has fluctuated. It was highest in March '20 (0.89 times), indicating the best utilization of fixed assets during that year. The ratio dropped significantly in March '22 (0.44 times), suggesting possible inefficiencies or a decline in sales. However, the trend has been improving since then, with the ratio reaching 0.78 in March '24, showing a recovery in the effective use of fixed assets.

The fluctuations could be due to factors such as changes in sales performance, investments in new assets, or asset underutilization during periods of lower demand. Tata Power's improvement in recent years indicates better asset management and an effort to generate more revenue from its existing asset base. However, further enhancement would be beneficial to maximize returns on its fixed asset investments.

Efficiency Ratio/ Activity Ratio	Formula					
Net Assets turnover ratio	$\frac{\text{Sales}}{\text{Net assets}}$ $\left(\frac{\text{Net Assets} = \text{Fixed Assets} + \text{Current Assets} - \text{Current Liabilities}}{\text{Net Assets}} \right)$	1.15 times	1.20 times	.59 times	1.87 times	2.75 times

Net Assets turnover ratio	$\frac{\text{Sales}}{\text{Net assets}}$ $\left(\frac{\text{Net Assets} = \text{Fixed Assets} + \text{Current Assets} - \text{Current Liabilities}}{\text{Net Assets}} \right)$	1.15 times	1.20 times	.59 times	1.87 times	2.75 times	<p>This decline suggests that the company has become less efficient net particularly low of 0.59 in March '22 indicates a period of significant inefficiency, which may have been caused by lower sales, underutilized assets, or increased liabilities.</p> <p>The improvement seen in March '23 and '24 (though still lower than earlier years) indicates that Tata Power has made efforts to improve asset utilization. However, compared to the peak in March '20, there is still a need for further optimization.</p>
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Profitability Ratio

Profitability Ratio	Formula					
Net Profit Margin		11.26%	18.74%	25.54%	15.23%	1.97%

Over the five-year period, Tata Power's net profit margin has fluctuated significantly. The company saw a remarkable improvement from a low of 1.97% in March '20 to a peak of 25.54% in March '22, reflecting a period of exceptional profitability and efficient cost management. However, the subsequent decline to 18.74% in March '23 and further to 11.26% in March '24 indicates decreasing profitability, potentially due to rising costs, competitive pressures, or changes in sales performance.

The sharp contrast between March '20 and March '22 suggests that the company made significant improvements in its operations or market positioning during this period

Profitability Ratio	Formula					
Return on Assets (ROA)	PAT or Net profit / Total Assets	4.42%	6.78%	5.90%	2.15%	0.39%

- The peak in March 2023 at 6.78% suggests that the company was particularly effective in utilizing its assets to generate profits during that period. Overall, TATA Power's ROA analysis reveals a positive trajectory in profitability, with notable improvements over the years. However, the recent decline in ROA from the previous year should be closely monitored to understand the underlying causes and to ensure company continues to optimize its asset utilization effectively.

Profitability Ratio	Formula					
Return on Capital Employed (ROCE)	$\frac{\text{Net Profit / Capital Employed}}{(\text{Capital Employed} = \text{Share Capital} + \text{Long term debts})}$	16.28%	28.19%	15.12%	6.83%	1.47%

- The peak ROCE of 28.19% in March 2023 suggests that the company was exceptionally efficient in utilizing its capital during that year. Overall, TATA Power's ROCE analysis reveals a positive trend in profitability and capital efficiency, with significant improvements observed over the years. However, the recent decline in ROCE from the previous year should be closely monitored to identify the underlying causes and ensure that the company continues to optimize its capital utilization effectively. Maintaining a strong ROCE is crucial for attracting investors and sustaining growth in a competitive market.

Profitability Ratio	Formula					
Return on Equity (ROE)	$\frac{\text{PAT or Net profit / Net worth or Shareholders Equity}}{(\text{Total Shareholder's Equity} = \text{Total Assets} - \text{Total Liabilities})}$	6.5%	11.0%	8.5%	2.9%	0.6%

factors contributing to this decrease. Overall, TATA Power's ROE analysis reveals a positive trend in profitability and shareholder returns, with significant improvements observed over the years. However, the recent decline in ROE from the previous year should be closely monitored to identify the underlying causes and ensure that the company continues to optimize its equity utilization effectively. Maintaining a strong ROE is crucial for attracting and retaining investors, as it reflects the company's ability to generate value for its shareholders.

Leverage Ratio

Leverage Ratio	Formula					
Debt- Equity Ratio (DER)	Total Borrowings / Total Equity	1.24	1.60	2.27	1.11	1.17

- The peak DER of 2.27 in March 2022 indicates a period of higher financial leverage, which may have increased financial risk during that time. Overall, TATA Power's Debt-Equity Ratio analysis reveals a positive trend towards reduced financial leverage and improved financial stability. The decreasing DER indicates that the company is effectively managing its debt levels, which can enhance its ability to withstand economic fluctuations and invest in growth opportunities. Maintaining a balanced capital structure is crucial for TATA Power to ensure long-term sustainability and to attract investors by demonstrating prudent financial management.

Leverage Ratio	Formula					
Interest Coverage Ratio	EBIT / Interest payable on loans (or Financial cost excluding financial business & finance lease model)	1.11	1.85	1.26	0.70	0.23

- However, the decline to 1.11 in March 2024 suggests a potential increase in financial strain, as the company's EBIT is only slightly above its interest obligations. Overall, TATA Power's Interest Coverage Ratio analysis reveals a mixed picture. While the company has made significant strides in improving its ability to cover interest expenses over the past few years, the recent decline in the ratio to 1.11 in March 2024 suggests that it is becoming increasingly reliant on its earnings to meet interest obligations. This situation warrants close monitoring, as a further decline could indicate potential financial difficulties. Ensuring a robust ICR is essential for TATA Power to maintain investor confidence and financial flexibility in a competitive market.

Crucial Ratio Examination

		x		
Debtors' Days	Days	5		4
		x		
Debt to equity ratio		1.1		1.2
Return on equity	%	13.2		13.2

Table6.3

TATA POWER share price performance:

Over the past year, TATA POWER's share price has nearly doubled, rising from Rs 218.2 to Rs 435.7 — an increase of Rs 217.5 or approximately 99.7%.

During the same period, the S&P BSE POWER Index climbed from 3,937.6 to 7,915.7, marking a gain of 3,978 points or about 101.0%.

In comparison, the broader S&P BSE SENSEX has registered a year-on-year increase of 21.8%.

CHAPTER 7

Company Analysis – Non-Financial Aspects: TATA Power Company Limited

1. Corporate Governance and Leadership

- **Leadership:** The company is helmed by **Dr. Praveer Sinha (CEO & MD)** and operates under the leadership of **Natarajan Chandrasekaran** as Chairman of Tata Sons.
- **Governance Standards:** TATA Power maintains strong governance practices, emphasizing transparency, ethical conduct, and accountability to stakeholders—hallmarks of the Tata Group.
- **Board Composition:** The company's board is composed of mix of executive, - executive, and independent directors, ensuring well-rounded and balanced decision-making.

2. Sustainability and ESG Initiatives

- **Vision:** To become a **Net Zero company by 2045.**

- **Environmental Initiatives:**
 - Transitioning from thermal to renewable energy (target of 80% green capacity by 2030).
 - Massive investments in **solar, wind, and hydroelectric** projects.
 - Initiatives like **solar rooftops, microgrids, and solar pumps** for rural India.
- **Social Responsibility:**
 - Focused on rural electrification, education, and skill development through Tata Power Community Development Trust (TPCDT).
 - Promotes gender diversity, health, and safety in operations.
- **Governance:**
 - Robust ESG reporting and compliance with SEBI and global standards like GRI.

3. Innovation and Technology Adoption

- Investing in **smart metering, AI-driven grid optimization, and predictive maintenance**.
- Leading India's **EV charging infrastructure**, enabling faster adoption of e-mobility.
- Adopting **blockchain and IoT** for energy trading and grid management (pilot projects in progress).

4. Brand Equity and Public Image

- TATA Power benefits from the **strong brand reputation of the Tata Group**, known for trust and social responsibility.
- Consistently ranked among **India's most respected energy brands**.
- Transparent communication during crises (e.g., COVID-19, power outages) has built customer trust.

5. Regulatory and Policy Compliance

- Active collaboration with government and regulators (MNRE, SECI, CERC) to shape policy and adopt clean energy mandates.
- Compliant with evolving **environmental, labor, and financial disclosure regulations**.

6. Human Capital and Workforce Development

- Over **10,000 employees** with a strong focus on training, digital skills, and safety.
- Employee engagement programs, talent retention, and leadership development through Tata Group initiatives.
- Progressive HR policies and a focus on **DE&I (Diversity, Equity & Inclusion)**.

CHAPTER 8

ROE ANALYSIS USING DUPONT

ROE Analysis Using the DuPont Framework – TATA Power Company Limited

13 DuPont Analysis is a powerful financial tool that breaks down Return on Equity (ROE) into three fundamental components, offering a clearer view of the factors influencing a company's performance. Originally developed in the 1920s by Donaldson Brown at DuPont Corporation, this approach reveals the underlying drivers of ROE by breaking it into key elements.

1 Rather than using the standard ROE formula alone, the DuPont model expresses it as a combination of net profit margin, asset turnover, and equity multiplier. This breakdown allows analysts and investors to assess whether a company's ROE is primarily driven by profitability, operational efficiency, or financial leverage.

It is particularly useful when comparing the operational performance of two similar companies, as it highlights the underlying drivers of return on equity.

7 The DuPont formula is as follows:

$$\text{ROE} = \text{Net Profit Margin} \times \text{Asset Turnover} \times \text{Equity Multiplier}$$

Where:

- $\text{Net Profit Margin} = \text{Net Profit} / \text{Revenue}$
- $\text{Asset Turnover} = \text{Revenue} / \text{Total Assets}$
- $\text{Equity Multiplier} = \text{Total Assets} / \text{Shareholder's Equity}$

DuPont Breakdown (FY 2023) – TATA Power

Component	Value	Interpretation
Net Profit Margin	₹3,810 Cr / ₹56,033 Cr \approx 6.8%	Moderate profitability—affected by rising interest and operational costs
Asset Turnover	₹56,033 Cr / ₹1,52,000 Cr \approx 0.37	Low asset turnover due to capital-intensive nature of the power industry
Equity Multiplier	₹1,52,000 Cr / ₹30,400 Cr \approx 5.0	High financial leverage—TATA Power funds growth through significant debt

Table 8.1

ROE = 6.8% \times 0.37 \times 5.0 \approx 12.6%

Interpretation of ROE (12.6%)

- TATA Power's **ROE of 12.6%** indicates moderate returns to shareholders.
- **Key driver:** The **equity multiplier (5.0)** advises that leverage is a major contributor to ROE.
- **Profit margin (6.8%)** is fairly stable but could improve with further cost control and efficiency in renewables.
- **Low asset turnover (0.37)** reflects the capital-intensive nature of the power business—especially in infrastructure-heavy segments like generation and distribution

Risks and Considerations

- **High leverage** raises financial risk—particularly if interest rates rise or earnings decline.
- To improve ROE **sustainably**, TATA Power must:
 - Increase operational efficiency.
 - Improve margins through scaling renewables.

CHAPTER 9

INTRINSIC VALUE CALCULATION

1. Intrinsic Value Using Dividend Discount Model (DDM)

✓ **Formula (Gordon Growth Model):**

The Dividend Discount Model (DDM) is a valuation approach used to determine the intrinsic value of a stock by discounting its anticipated future dividends.

For stocks with dividends that are expected to grow at a constant rate, the Gordon Growth Model (GGM)—a simplified form of the DDM—is commonly applied.

$$\text{Intrinsic Value (P)} = D_1 / (r - g)$$

Where:

- ❖ D_1 = dividend next year
- ❖ g = Dividend growth rate
- ❖ Where:
- ❖ P_0 = Intrinsic Price of the stock
- ❖ D_1 = Expected Dividend for Following Year ($D_0 \times (1 + g)$)
- ❖ D_0 = Most Recent Dividend Paid
- ❖ r = Required Rate of Return (Cost of Equity)

- ❖ g = Dividend Growth Rate
- ❖ R_f = Risk-Free Rate (e.g., 10-year government bond yield)
- ❖ R_m = Market Return (historical market return, e.g., NIFTY 50)
- ❖ β = Stock Beta
- ❖ r = Required rate of return (cost of equity)

Assumptions:

- **Current Dividend (FY23)** = ₹1.75 per share
- **Expected Growth Rate (g)** = 6% (based on TATA Power's renewable expansion and historical dividend growth)
- **Required Rate of Return (r)** = 11% (assumed based on CAPM estimation for utilities)

Calculation:

$$D_1 = ₹1.75 \times (1 + 0.06) = ₹1.855$$

$$\text{Intrinsic Value} = ₹1.855 / (0.11 - 0.06) = ₹1.855 / 0.05 = ₹37.10$$

Interpretation:

- The DDM gives a **conservative estimate** of ₹37.10 per share, reflecting TATA Power's modest dividend payout and higher reinvestment in growth projects (especially in renewables and EV infrastructure).

2. Intrinsic Value Using P/E Multiple Method

Formula:

$$\text{Intrinsic Value} = \text{EPS} \times \text{Industry Average P/E Ratio}$$

Assumptions:

- **EPS (FY23)** = ₹10.4
- **Industry Average P/E** = 22x (based on Indian renewable/utility peers like NTPC, JSW Energy, and Adani Energy)

Calculation:

$$\text{Intrinsic Value} = ₹10.4 \times 22 = ₹228.80$$

Interpretation:

- The P/E method suggests a much **higher valuation** as it factors in **earnings power** and **growth expectations**, especially due to the transition into green energy and high ROE sectors like solar EPC and EV infrastructure.

□ Final Valuation Summary

Method	Intrinsic Value (₹/share)	Remarks
Dividend Discount	₹37.10	Conservative, reflects low payout
P/E Multiple	₹228.80	Reflects earnings potential & growth outlook

Table 9.1

Conclusion:

- The **true intrinsic value** of TATA Power likely lies closer to the **P/E-based valuation** due to the company's aggressive expansion in renewables, strong order book, and improving profitability.
- The **DDM underestimates value** as the company retains earnings for future expansion rather than distributing them as dividends.