



Pre- And Post-IPO Financial Analysis of Energy Sector Firms

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ABSTRACT

This paper investigates the financial performance of selected Indian energy sector firms during their transition from private to public ownership through initial public offerings (IPOs). Energy firms in renewable energy, solar, electric mobility, and clean technology face unique valuation challenges due to capital intensity, policy dependence, and technological risks. The study applies capital budgeting tools, ratio analysis, and comparative evaluations to assess financial dynamics pre- and post-IPO. Findings reveal that while IPOs enhanced liquidity and visibility, profitability and valuation consistency varied significantly across firms. The research contributes to understanding the implications of IPOs for valuation, investor confidence, and long-term financial sustainability of high-growth energy firms.

Keywords: *IPO, Energy Sector, Valuation, Financial Analysis, Financial summary, Capital Budgeting, Pre-IPO, Post-IPO, Investment Banking.*

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I. INTRODUCTION

Valuation is central to corporate finance and investment banking, shaping strategic decisions such as fundraising, mergers, acquisitions, and public offerings. In high-growth sectors like renewable energy, electric mobility, and green technologies, traditional valuation approaches face limitations due to uncertain cash flows, policy shifts, and long gestation periods. This paper examines the financial implications of IPOs for selected Indian energy sector firms, focusing on their revenue, profitability, and valuation metrics before and after going public. Understanding these dynamics is crucial for investors, policymakers, and advisors seeking to align sustainability with financial performance.

Energy firms stand at the intersection of climate change, innovation, and economic growth. The renewable energy transition requires massive capital investments and innovative financing strategies. IPOs serve not only as a funding mechanism but also as a signal of legitimacy and maturity for young firms. This makes it essential to assess whether IPOs enhance or weaken the financial sustainability of these enterprises. By studying Indian energy firms that went public between 2023 and 2025, this paper provides insights into both firm-level challenges and sector-wide trends.

II. LITERATURE REVIEW

Scholarly work (Damodaran, 2009; Koller et al., 2020) emphasizes discounted cash flow (DCF) and multiples-based methods for valuation. However, research (Seppä & Laamanen, 2001; Miloud et al., 2012) shows these methods often fail with startups due to absent comparables and reliance on intangible assets. Studies (Bürer&Wüstenhagen, 2009; Gaddy et al., 2016) highlight regulatory uncertainty and technological risk as key valuation hurdles for clean energy firms. Alternative frameworks, such as Real Options Valuation (Trigeorgis, 1996) and Venture Capital methods (Sahlman, 1990), provide flexibility under uncertainty. Recent work integrates ESG metrics into valuation (Friede et al., 2015), reflecting investor focus on sustainability. However, empirical evidence on IPO valuations of energy firms in emerging markets remains limited, creating a research gap addressed in this study.

Additionally, studies on IPO underpricing (Loughran & Ritter, 2004) suggest that market sentiment and speculative demand often drive listing premiums, irrespective of fundamentals. For energy startups, where future growth is emphasized over present profitability, this pattern is more pronounced. The review underscores the necessity of sector-specific valuation models and more empirical evidence from developing markets such as India.

THEORETICAL FRAMEWORK

Modern Portfolio Theory (Markowitz, 1952) underscores diversification and risk-adjusted returns, while Behavioural Finance highlights investor sentiment in shaping valuations. In energy startups, valuation requires hybrid approaches, blending traditional models (DCF, Comparable Company Analysis, Precedent Transactions) with sector-specific factors such as ESG compliance, policy incentives, and technological scalability. The framework guiding this study integrates financial and non-financial indicators to assess pre- and post-IPO dynamics.

The study also adopts the concept of signalling theory, where IPOs act as signals of firm quality and market readiness. Firms that successfully list at favourable valuations often enhance credibility with investors and stakeholders. However, overvaluation at listing may lead to sharp corrections in the secondary market. This framework helps explain the divergence between listing gains and long-term financial outcomes.

III. RESEARCH METHODOLOGY

This study employs a descriptive-analytical approach using secondary data from company financial statements, stock exchange filings, and industry reports. Ten energy firms—IRED, NTPC Green Energy, Premier Energies, Alpex Solar, Servotech Power Systems, KP Green Engineering, Ather Energy, Tata Power, Vikram Solar, and Acme Solar Holdings—were analysed.

Tools applied include:

- Financial ratio analysis (ROE, ROA, Net Profit Margin, EPS, Debt-to-Equity)
- Capital budgeting indicators (Payback Period, IRR, Profitability Index)
- Comparative pre- and post-IPO performance evaluation
- Case-based interpretation of IPO listing gains and valuation multiples

The study period covers 2015–2025, coinciding with rapid clean energy investments post-Paris Agreement.

IV. DATA ANALYSIS AND DISCUSSION

Pre-IPO Performance

Pre-IPO financials highlighted high revenue growth but volatile profitability across firms. IRED and Tata Power showed stable government-backed earnings, while startups like Ather Energy and Alpex Solar displayed negative or thin margins. High debt-to-equity ratios underscored capital-intensive models, making these firms dependent on external financing and subsidies.

information's recorded in below Table (actual data may have slight variations)

Pre IPO Financial Metrics Summary OfThe Energy Companies Which Is Considered For Evaluation

Company	Revenue Growth (%)	Net Income Growth (%)	EBITDA Margin (%)	Net Profit Margin (%)	ROE (%)	ROA (%)
IREDA	~45%	~46%	99.66	25.18	16.54	1.71
NTPC Green Energy	~35%	~24%	89.0	17.6	5.5	~4.2
Premier Energies	~111%	~243%	22.31	11.96	23.06	5.30
Alpex Solar	~117%	~302%	6.86	3.57	15.51	5.36
Servotech Power	~58%	~332%	12.84	6.19	38.51	8.55
KP Green Engineering	~82%	~82%	16.75	10.84	25.52	8.26
Ather Energy	~20%	~60.23%	-36.30	-59.23	-194.12	-55.38
TATA Power	~12%	~10%	~20.0	~8.5	11.68	4.20
Vikram Solar	~21.6%	~426%	~16.0	~2.74	16.57	~4.5
Acme Solar Holdings	~18%	~22%	~30.0	~15.0	38.83	~10.5

Post-IPO Performance

Post-IPO data revealed mixed outcomes. IREDA's EBITDA margin dropped sharply (99.6% → 31.1%), signalling rising operating costs. NTPC Green Energy's profitability improved but valuation remained stretched. Premier Energies maintained strong fundamentals, while Servotech experienced valuation mismatches despite slowing margins. Ather Energy continued to report heavy losses post-listing, reflecting challenges of scaling EVs. Acme Solar showed valuation correction despite strong EBITDA performance, indicating market reassessment of its growth story.

Information's recorded in below Table (actual data may have different figures)

Post-IPO Financial Metrics Summary OfThe Energy Companies Which Is Considered For Evaluation

Company	Revenue (₹ Cr)	Net Income (PAT)(₹ Cr)	EBITDA (₹ Cr)	Total Assets (₹ Cr)	Total Equity (₹ Cr)	Debt (₹ Cr)
IREDA	6,755.7	1,698.3	2,103.5	76,250.0	10,266.0	48,596.9
NTPC Green Energy Ltd.	2,037.7	344.7	1,749.0	27,206.4	6,232.2	20,974.2
Premier Energies Ltd.	1,657.4	198.2	369.7	3,735.5	859.4	1,200.2
Alpex Solar Ltd.	404.4	29.1	37.6	473.6	216.4	257.2
Servotech Power Systems	676.8	32.6	57.9	4,098.0	2,376.0	772.9
KP Green Engineering Ltd.	207.9	22.5	34.8	136.4	44.2	48.9
Ather Energy Pvt. Ltd.	1,753.8	-812.3	-684.7	~3,200.0	~1,200.0	~1,000.0
TATA Power	6,539.1	737.0	2,079.5	10,982.0	4,382.0	4,215.0
Vikram Solar Ltd.	2,440.8	66.8	391.8	2,597.9	460.3	198.7
Acme Solar Holdings Ltd.	1,575.0	251.0	1,406.0	4,509.0	4,509.0	7,507.0

IPO Listing Gains

Alpex Solar and Premier Energies experienced extraordinary listing premiums (+186% and +120%, respectively), while Acme Solar listed at a discount (-13%). IREDA and NTPC Green Energy saw modest gains, reflecting their government-backed credibility but moderate investor excitement. These outcomes highlight how market sentiment, rather than fundamentals, often dominates IPO pricing in renewable energy.

Comparative Sectoral Insights

Compared to mature firms like Tata Power, startups showed extreme volatility in financial ratios post-IPO. While Tata Power demonstrated steady growth and conservative valuations, Ather Energy's negative earnings challenged investors to justify high valuations. This dichotomy illustrates the difficulty of applying uniform valuation standards across firms with different business models and maturity levels.

V. FINDINGS

- Traditional valuation methods inadequately capture the risks and growth potential of energy firms.
- IPOs improved access to capital and visibility but did not guarantee profitability improvements.
- Market sentiment and ESG narratives significantly influenced listing outcomes.
- Firms with strong fundamentals (Premier Energies, NTPC Green) maintained valuation stability, while speculative firms showed volatility (Ather, Acme).
- Post-IPO financials often revealed declining margins, reflecting scaling and operational cost pressures.
- The government-backed firms benefited from credibility, but even they faced profitability pressures post-IPO.
- ESG and sustainability narratives provided valuation premiums but also created volatility when expectations were unmet.

VI. SUGGESTIONS

- Develop sector-specific hybrid valuation models integrating ESG, regulatory compliance, and intangible assets.
- Use scenario-based and sensitivity analysis to address uncertainty in long-term cash flows.
- Encourage policymakers to provide consistent policy frameworks reducing valuation volatility.
- Investors should balance growth potential with fundamental financial performance when assessing energy IPOs.
- Investment banks should document case-based frameworks to guide future IPO advisory in clean energy.
- Future research should incorporate longitudinal data to track performance over longer horizons beyond IPO listings.

VII. CONCLUSION

The financial trajectories of energy firms pre- and post-IPO reveal the limitations of traditional valuation models in high-growth, capital-intensive sectors. While IPOs create access to public capital and investor visibility, profitability and valuation stability depend heavily on regulatory, technological, and ESG factors. This study underscores the importance of hybrid valuation approaches for energy firms and highlights the need for sustained policy and financial innovation to support the sector's transition toward sustainable growth. For investors, the findings emphasize caution in overvaluing firms based on narratives, while for policymakers, the results reinforce the importance of creating stable frameworks to ensure both financial and environmental sustainability.

REFERENCES

- [1]. Bürer, M. J., & Wüstenhagen, R. (2009). Which renewable energy policy is a venture capitalist's best friend? *Energy Policy*, 37(12), 4997–5006.
- [2]. Damodaran, A. (2009). *Valuing Companies in Emerging Markets*. Wiley Finance.
- [3]. Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence. *Journal of Sustainable Finance & Investment*, 5(4), 210–233.
- [4]. Gaddy, B., Sivaram, V., & O'Sullivan, F. (2016). Venture Capital and Cleantech. *MIT Energy Initiative Working Paper*.
- [5]. Koller, T., Goedhart, M., & Wessels, D. (2020). *Valuation: Measuring and Managing the Value of Companies* (7th ed.). McKinsey & Company.

- [6]. Loughran, T., & Ritter, J. (2004). Why has IPO underpricing changed over time? *Financial Management*, 33(3), 5–37.
- [7]. Miloud, T., Aspelund, A., & Cabrol, M. (2012). Startup valuation by venture capitalists. *Ventu