

We initiate coverage on Genus Power Infrastructures (GPIL) with BUY and SOTP-based TP of Rs500/sh (upside: ~38%). With >25% market share in meters pan-India, GPIL is set to become one of the largest beneficiaries of the upcoming smart meter installation drive under the Rs3trn revamped distribution sector scheme, replacing conventional meters and structurally transforming financial dynamics of the power sector. GPIL is the largest listed smart electricity meter company in India, and provides end-to-end services, including setting-up of Advanced Metering Infrastructure (AMI) and Facility Management Systems (FMS), after implementation. The recent deal with GIC (Singapore) is transformative for GPIL (26%), granting a steady-supply business and major reduction in working capital. With only 13.7mn smart meters installed as of Sep-24, we believe the opportunity is sizable, though pace of execution is key.

Genus Power Infra: Financial Snapshot (Standalone)

Y/E Mar (Rs mn)	FY23	FY24	FY25E	FY26E	FY27E
Revenue	8,084	12,006	24,184	37,058	55,626
EBITDA	788	1,350	3,386	5,373	8,344
Adj. PAT	350	752	2,401	4,005	6,176
Adj. EPS (Rs)	1.2	2.5	7.9	13.2	20.3
EBITDA margin (%)	9.8	11.2	14.0	14.5	15.0
EBITDA growth (%)	32.2	71.2	150.8	58.7	55.3
Adj. EPS growth (%)	35.5	114.8	219.4	66.8	54.2
RoE (%)	3.6	5.9	12.5	16.2	21.0
RoIC (%)	6.6	10.1	22.1	29.8	36.9
P/E (x)	314.6	146.5	45.9	27.5	17.8
EV/EBITDA (x)	140.3	80.2	30.5	19.2	12.4
P/B (x)	11.2	7.0	4.8	4.2	3.4
FCFF yield (%)	0.3	(2.1)	0.1	0.1	0.2

Source: Company, Emkay Research

Direct play on distribution reforms in the country: We believe GPIL is a direct play on the latest power distribution reforms in the country. The company has a total meter manufacturing capacity of 11mnpa (single shift) and continues to invest in the entire infrastructure chain (HES, MDMS, RF, and GPRS communication systems). Its market share in electrical meters is >25% (both, conventional and smart). GPIL provides end-to-end solutions, including AMI and FMS, and is also venturing into gas and water meters. Exports account for ~10% of its annual revenue.

Sizable domestic opportunity for smart meters: The RDSS-led investment of Rs3trn in the distribution sector reform scheme targets installation of up to 100mn and 250mn prepaid smart electricity meters by Dec-23 and Mar-25, respectively. This will replace conventional meters (250mn currently) and structurally transform the financial dynamics of distribution companies (discoms). With only 13.7mn smart meters installed till Sep-24, we believe the upcoming scope is huge and GPIL is likely to be among the frontrunners participating in tenders. This will correspondingly lead to growth in the FMS segment which could have a recurring revenue potential for the company.

Marquee deal with GIC reaffirms GPIL's strong market positioning: In Jul-23, GPIL entered the big league by: a) striking a marquee deal with GIC for an equity infusion of Rs5.2bn for 15% stake, and b) setting up a platform – an SPV (26% GPIL and 74% GIC). This will enable GPIL to participate in smart meter bids – an opportunity size of Rs300bn. GPIL's share in equity contribution toward the platform stands at USD210mn. It will be the exclusive supplier of smart meters to the SPV. We believe the transaction reaffirms and validates the strong market positioning of GPIL in India.

Valuations and risks: We initiate coverage on GPIL with a BUY and target price of Rs500/sh, valuing it at 30x Sep26E EPS of Rs16.8/sh. At CMP of Rs362/sh, the stock is trading at ~28x/18x FY26E/FY27E. Key risks: 1) delay in execution of orders, 2) slowdown in tendering activities, 3) increasing competitive intensity, and 4) significant increase in commodity prices.

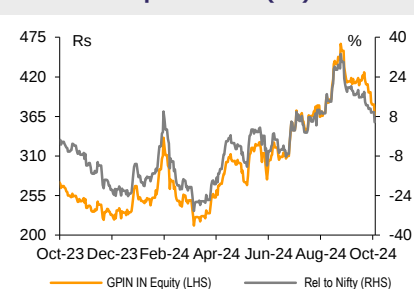
Target Price – 12M	Sep-25
Change in TP (%)	NA
Current Reco.	BUY
Previous Reco.	NA
Upside/(Downside) (%)	37.9
CMP (07-Oct-24) (Rs)	362.5

Stock Data	Ticker
52-week High (Rs)	477
52-week Low (Rs)	205
Shares outstanding (mn)	303.8
Market-cap (Rs bn)	110
Market-cap (USD mn)	1,311
Net-debt, FY25E (Rs mn)	-6,898
ADTV-3M (mn shares)	2
ADTV-3M (Rs mn)	779.2
ADTV-3M (USD mn)	9.3
Free float (%)	-
Nifty-50	24,796
INR/USD	84.0
Shareholding, Jun-24	
Promoters (%)	42.7
FPIs/MFs (%)	17.9/4.8

Price Performance

(%)	1M	3M	12M
Absolute	(12.4)	4.7	40.5
Rel. to Nifty	(12.2)	2.7	11.4

1-Year share price trend (Rs)



Ashwani Sharma

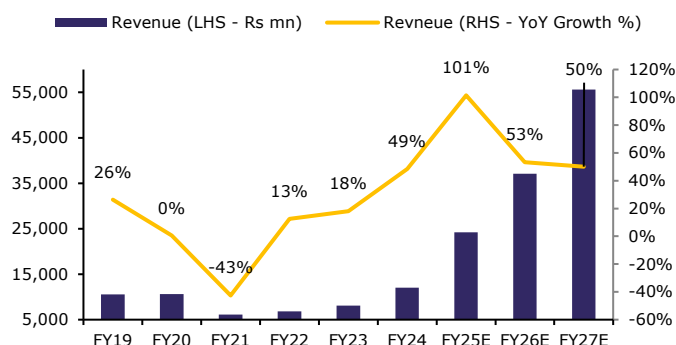
ashwani.sharma@emkayglobal.com
+91 22 6612 1377

Chinmay Kabra

chinmay.kabra@emkayglobal.com
+91 22 6624 2453

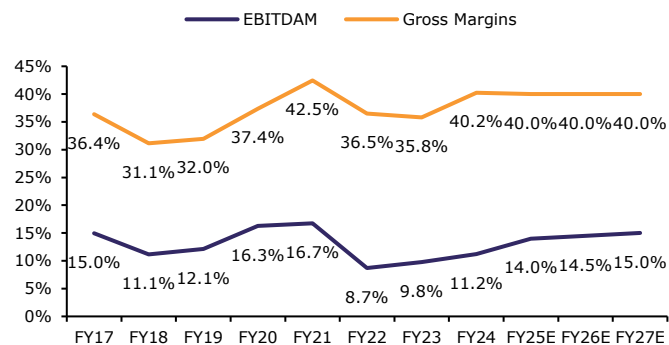
Story In Charts

Exhibit 1: GPIL to log 67% revenue CAGR during FY24-27E



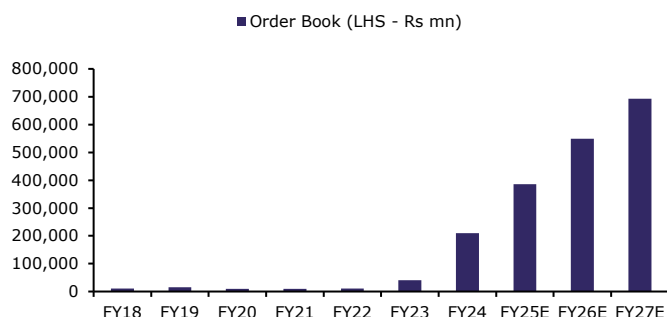
Source: Company, Emkay Research

Exhibit 2: We expect gross margin to be stable, operating leverage to enhance EBITDAM



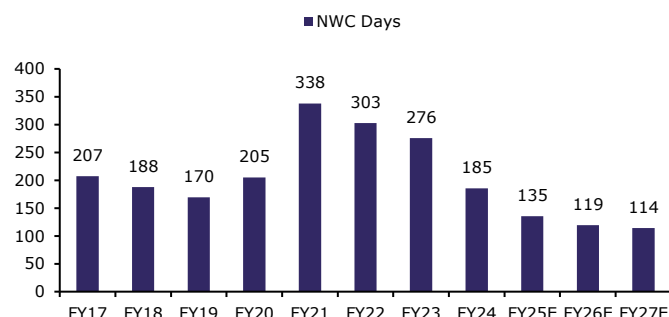
Source: Company, Emkay Research

Exhibit 3: Order book to grow substantially on the back of a robust tendering pipeline; GPIL maintains >25% market share



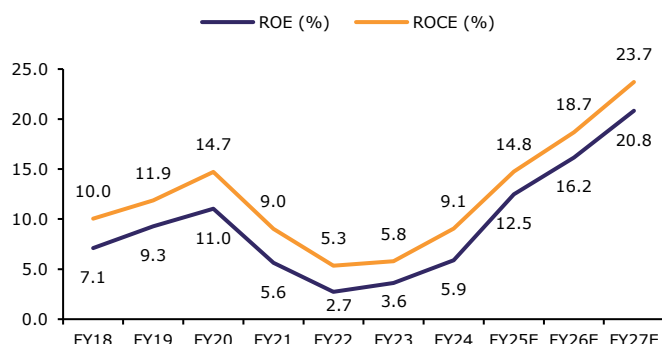
Source: Company, Emkay Research

Exhibit 4: Management expects the number of NWC days to decline 60% from FY23 levels



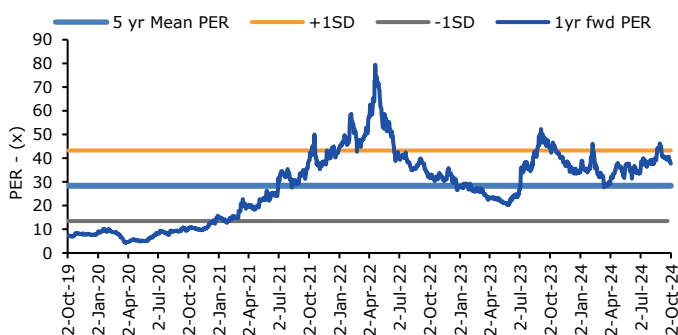
Source: Company, Emkay Research

Exhibit 5: Return ratios to improve substantially on account of improved profitability and lean balance sheet structure



Source: Company, Emkay Research

Exhibit 6: GPIL trading above 1-year forward PER of 30x (5year avg.)



Source: Company, Emkay Research

Table of contents

Particulars	Page No.
Investment Rationale	4
Understanding the sector	6
Why smart meters over conventional meters	15
Cost for setting up as an AMISP	17
About Genus	20
Smart Meter Manufacturing Process	22
GPIL's Smart Meter product portfolio	27
Domestic and Export Metering Market Scenario	28
Entering a marquee deal with GIC	33
Financial and Valuation Analysis	35
About the Company	40

Investment Rationale:

Incorporated in 1992, GPIL is part of the Kailash Group of companies. It has over two decades of experience in the electricity metering solutions industry. Previously, the company catered to the engineering construction and contracts (ECC) business. Over the years, it has transitioned toward solely growing capabilities in the smart metering business. GPIL is one of the largest players in India's electricity meter industry, with 27% market share. The company currently has 3 manufacturing facilities (one each located at Jaipur, Haridwar, and Guwahati) with a combined annual installation capacity of over 11mn meters; this is set to further expand to 14mn meters by end of H1FY25. GPIL serves as both, an AMISP and a smart metering vendor, to other AMISPs.

The GoI has been implementing various schemes and programs to help power discoms improve their financial and operational health. Traditionally dominated by mechanical meters in the past several years, the market has shifted toward digital/electronic meters and is now leaning toward smart meters. The demand for better grid management, more precise billing, and greater consumer engagement is fueling this shift. During FY21, the Ministry of Power (MoP) launched a reform-based result-oriented scheme—Revamped Distribution Sector Scheme (RDSS). This five-year scheme (effective till 2025-26) has an outlay of ~Rs3trn. Deployment of funds under the scheme will be utilized for replacement of 250mn conventional meters with smart meters.

What differentiates GPIL from peers is its R&D department. In-house R&D centers established by the company are a crucial driver of innovation and growth which enable it to adopt advanced solutions, respond quickly to market changes, and invest in research areas that will benefit its customers and the industry alike. Its R&D department developed its own 'Head End System' ('HES') and 'Meter Data Management System' ('MDMS'), ensuring seamless data management and reducing reliance on external providers. Its relentless focus on innovation, quality, and sustainability enables the company to retain a competitive edge and fulfil the ever-evolving market demands. GPIL's R&D initiatives are aimed at supporting the company's expansion into new markets, such as gas and water metering, while maintaining its leadership in the electricity metering sector.

In Jul-23, GPIL entered the big league by: a) striking a marquee deal with GIC for an equity infusion of Rs5.2bn for 15% stake, and b) setting up a platform – an SPV (26% GPIL and 74% GIC). This will enable GPIL to participate in smart meter bids – an opportunity size of Rs300bn. GIC's backing will not only assist in improvement of GPIL's working capital cycle, but also provide solid support required to meet equity requirement when bidding for orders as an AMISP. We believe GPIL will be able to leverage its relationship with GIC, to maintain its stronghold in the market, and to improve its growth prospects in the market, going ahead.

GPIL's order book (including all SPVs and the GIC Platform) sky rocketed to Rs210bn at the end of FY24, on account of the Rs160bn worth order-wins, over the same period. During H1FY25, the company's inflows stood strong at Rs110bn (~69% of the FY24 order wins), further boosting the order backlog to Rs320bn. GPIL's robust tendering pipeline, coupled with strong market share, provides cushioning for positive momentum continuing ahead. Simultaneously, with execution expected to substantially pick up pace from H2FY25, the company is likely to log ~67% revenue CAGR during FY24-27E. We assume average EBITDAM range of 15-16% for smart meters, and expect operating leverage to kick in going ahead, leading to enhancement in margin level to 15% by FY27E from 11.2% during FY24. PAT is projected to register 102% CAGR, with AMISP value generation leading to EPS of Rs12. In turn, this will lead to strong growth in return ratios going ahead and project RoE/ROCE of 21%/24% during FY27E.

We initiate coverage on the stock with a BUY recommendation and target price of Rs500/share (30x 1YF PER Sep-26E earnings), which is at ~38% upside from the CMP of Rs362/share. The high valuation at 30x PER is backed by the company's strong market share in the smart metering space, coupled with efforts toward maintaining a lean balance sheet position going ahead. Further, given its marquee deal with GIC, management's clear focus on continuing its net debt-negative position, along with significant improvement in its working capital position collectively provide additional thrust toward an enhanced PER. We project GPIL's revenue/EBITDA/PAT CAGR at 67%/84%/102% during FY24-27E.

Exhibit 7: GPIL's SoTP-based valuation – 38% upside from CMP of Rs362/share

SoTP	Valuation Matrix	PAT	Share	No of meters (mn)	PER (x)	Value (Rs mn)	Value per share (Rs)
GPIL - Standalone	PER	Rs5,090mn	100%	-	30	152,710	488
GPIL - AMISP O&M	NPV/meter	Rs398.4/meter	26%	35.1		3,635	12
Target Price							500

Source: Emkay Research

Exhibit 8: GPIL – Emkay Estimates

Particulars	FY24	FY25E	FY26E	FY27E	FY24-27E CAGR
	Introducing				
Revenue (Rs mn)	12,006	24,184	37,058	55,626	66.7%
EBITDA (Rs mn)	1,350	3,386	5,373	8,344	83.5%
EBITDA Margin	11.2%	14.0%	14.5%	15.0%	
PAT (Rs mn)	752	2,401	4,005	6,176	101.8%
EPS (Rs/share)	2.5	7.9	13.2	20.3	101.8%
PER (x)	146	45.9	27.5	17.8	

Source: Emkay Research

Exhibit 9: Peer Comparison

Company	Revenue (Rs mn)			EDITDA (Rs mn)			EPS (Rs)			PER (x)			RoE (%)		
	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E
Genus Power Infrastructure*	24,184	37,058	55,626	3,386	5,373	8,344	8	13	20	45	28	18	12	16	21
YoY growth		53.2%	50.1%		58.7%	55.3%		66.8%	54.2%						
HPL Electric	10,045	12,110	-	2,622	3,309	-	12	18	-	46	32	-	9	11	-
YoY growth		20.6%			26.2%			43.6%							
Schneider Electric	26,738	34,212	42,610	4,003	5,552	7,303	10	15	20	80	55	42	-	-	-
YoY growth		28.0%	24.5%		38.7%	31.5%		44.3%	32.7%						

Source: Bloomberg, Emkay Research, Note: *Basis Emkay Estimates

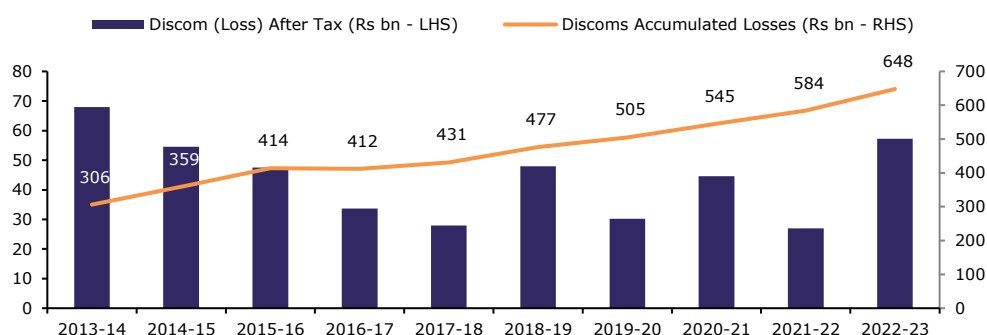
Understanding the sector

Why reforms enforced to assist discoms?

Power distribution companies (discoms) in the country have had a history of huge accumulated losses and outstanding debt. Financially-stressed discoms are not able to supply adequate power at affordable rates, thus hampering the overall economic growth and development of the power sector. Efforts toward 100% village electrification, 24x7 power supply, and clean energy cannot require efficient performing discoms. Default on bank loans by financially-stressed discoms has the potential to impact the banking sector and the economy at large.

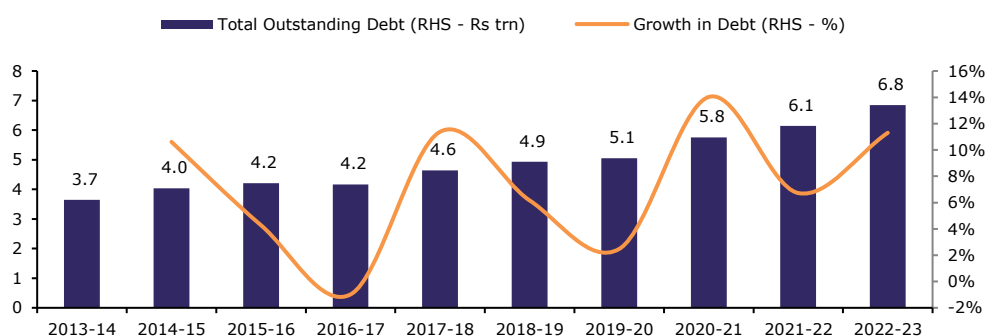
For several years now, electricity discoms, which are mostly state-owned, have witnessed steep financial losses; owing to their massive pile of debt/accumulated losses, which stood at ~Rs3.6trn/Rs3trn at the end of 2013-14. GoI decided to develop financial schemes to aid such discoms to help reduce their transmission legacy debts of discoms. However, over the past decade, outstanding debt/accumulated losses of discoms have increased to ~Rs6.8trn/Rs6.5trn at the end of 2022-23. The positive takeaway over the years has been the improvement in All India AT&C losses, which have come down from the high of 25.7% during 2014-15 to 15.4% at the end of 2022-23 (Exhibit 24, Page 13).

Exhibit 10: Discom losses not budging the historical pattern



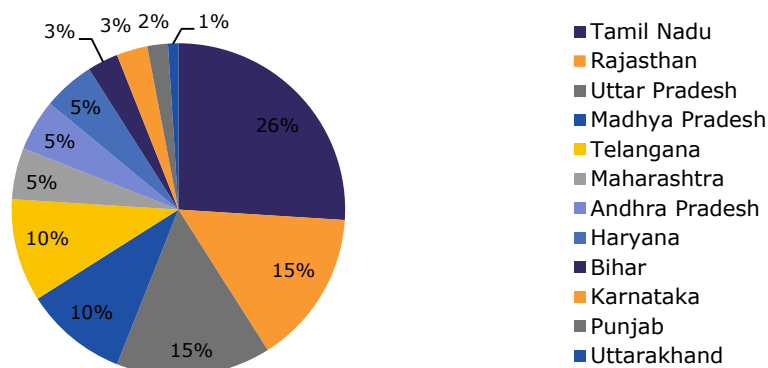
Source: PFC, Industry, Emkay Research

Exhibit 11: Discom accumulated debt increased to Rs6.8trn in FY23



Source: PFC, Industry, Emkay Research

Exhibit 12: During FY23, 13 states cumulatively accounted for 90% of the total accumulated losses



Source: PFC, Industry, Emkay Research

To address some of the challenges like theft of power, and quality and reliable power in distribution, an effort has been made by GoI in the strengthening and augmentation of the system, feeder separation, metering of unmetered connections, smart meter installation, installation of capacitor banks to improve the voltage profile and reduce line losses of Smart metering, DT and Feeder metering, etc, under the sanctioned components of the DDUGJY and IPDS schemes (Exhibit 14).

With aim to deliver reliable, secure, quality, and affordable power to all consumers by creating an efficient and financially sustainable power sector, the GoI implemented various reform initiatives and programs. Notable actions include: a massive rural electrification program and a last-mile connectivity plan—Sahaj Bijli Har Ghar Yojana (Saubhagya), the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), initiatives for network strengthening and information technology (IT) enablement—Integrated Power Development Scheme (IPDS), initiatives for performance improvement of discoms—Ujjwal Discom Assurance Yojana (UDAY).

Exhibit 13: Understanding discom losses

Factors	Major Heads	Contribution to Increasing Losses
Increase in the cost of supplying power	Power procurement	- Accounts for about 70% of costs incurred by discoms - Poor planning led to investments in high-cost, long-term contracts - Delays and cost overruns in some projects increased capital costs - Increase in coal price and inefficiencies in the coal sector - Contract changes for fuel price risk pass-through to discoms
	Transmission, distribution works	- Accounts for 20% of discom costs - Delay and cost overruns in projects - Slow adoption of competitive bidding toward cost efficiency
	Operation & maintenance (O&M)	- Accounts for about 7–10% of the costs incurred by discoms - O&M and crucial capital investments are often neglected, affecting supply and service quality, which results in poor revenue recovery.
	Energy losses	- Increased loss implies lower revenue recovery and higher power costs - Poor metering, issues with energy accounting, and theft are contributors
Revenue increase not commensurate with expenses	Tariff increase to meet increase in costs	- Despite an annual 4% increase in cost, electricity tariffs in many states were not revised regularly. From 2001 to 2020, there was no increase for 7/10 years in Rajasthan/Tamil Nadu, respectively - Delays in recovering legitimate discom dues increased the interest burden. By 2017, only eight states levied quarterly fuel surcharges in their bills to address this
	Change in sales composition	- Commercial & Industrial (C&I) consumers with demand >1MW use third-party contracts and invest in captive generators to meet their energy requirement, leading to revenue attrition for discom - A shift in the sales mix occurred for a short period, with Covid 19-related lockdowns - Ongoing, gradual shift in the sales mix due to newly electrified consumers in states such as Uttar Pradesh, Bihar, and Assam
Inefficiency in revenue recovery	Pending dues from consumers	- Delays in bill payment led to cash flow challenges for discoms - Typically, collection efficiency is lower for agricultural and residential consumers - In states such as Karnataka and Maharashtra, build-up of arrears during Covid 19-related lockdowns led to high-interest borrowing
	Delay in payment of subsidies and bills by government departments	- Subsidy support from state governments is significant in most states and delays in payment affect discom finances - For example, a delay in payment of 15% of the promised subsidy in FY23 implies an annual additional interest cost burden of Rs22bn in FY24. - As of 30-Jun-2022, dues owed by government departments amounted to Rs653bn nationally (MoP, 2022a)
Increase in Debt	Increase in short-term borrowing	- Discoms incurred high-cost, short-term loans to meet their working capital requirements - Bulk of the liabilities taken over under Ujjwal DISCOM Assurance Yojana (UDAY) were working capital loans by banks that accumulated to Rs3.24trn by 2015 (PIB, 2023a).

Source: Planning Commission 2011, MoP 1980, MoP 2021, MoP 2022, Industry, Emkay Research

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 10/08/2024 12:21 PM

Emkay Research is also available on www.emkayglobal.com and Bloomberg EMKAY<GO>. Please refer to the last page of the report on Restrictions on Distribution. In Singapore, this research report or research analyses may only be distributed to Institutional Investors, Expert Investors or Accredited Investors as defined in the Securities and Futures Act, Chapter 289 of Singapore.

Exhibit 14: Policies previously implemented by the GoI to improve the financial position of discoms

Schemes	Date of Policy Implementation & Nodal Agency	Budgeted Amount	Objectives	Conclusion of Policies
Integrated Power Development Scheme (IPDS)	3-Dec-14; PFC	Investment:Rs326bn Budgetary Support: Rs253bn	Objectives of the scheme: ■ Strengthening of sub-transmission and distribution networks in urban areas. ■ Metering of distribution transformers / feeders / consumers in urban areas. ■ Underground cabling to include additional demand of States and smart metering solution for performing UDAY States and Solar panels on government buildings with net-metering. ■ IT enablement of distribution sector previously targeted under the R-APDRP scheme (cost: Rs440bn, and budgetary support of Rs227bn) was carried forward into the new IPDS scheme.	Exhibit 15: Smart Meter sanctioned and awarding under DDUGJY and IPDS Why DDUGJY and IPDS policies could not meet targets: ■ Progress on new infrastructure under these policies had been tardy, owing to clearance delays ■ Limited availability of data ■ Lack of coordination between various departments Eventually, both policies were subsumed into the RDSS scheme during FY20
Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)	3-Dec-14; REC	Investment:Rs430bn Budgetary Support: Rs340bn	Under the scheme, 60% of the project cost (85% for special States) was to be provided as grant by the GoI, and an additional grant up to 15% (5% for Special Category states) was provided on achievement of the prescribed milestones Objectives of the DDUGJY scheme: ■ Rural electrification works under the erstwhile RGGVY scheme, subsumed into DDUGJY. ■ Segregation of agricultural feeder from the combined/common 11KV feeders in rural areas. ■ Strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas. ■ Underground cabling to include additional demand of States and smart metering solution for performing UDAY States and Solar panels on government buildings with net-metering.	

Source: Company, Emkay Research

...(contd) Policies previously implemented by the GoI to improve the financial position of discoms

Schemes	Date of Policy Implementation and Nodal Agency	Budgeted Amount	Objectives	Conclusion of Policies
Ujwal DISCOM Assurance Yojana (UDAY)	20-Nov-15	-	As part of UDAY, 75% of the debts of the state's discoms (50%/25% total debt to be taken over in 2015-16/2016-17) was to be taken over by the joining states, by signing an MoU, by issuing bonds in a phased manner. The remaining debt will be covered with the issue of bonds by the respective discoms. The maturity period of these bonds varies from 5 and 15 years, depending on the state. The second phase of the scheme, UDAY 2.0, was launched by the government in 2020. This would have led to reduction of interest cost from 14-15% to 8-9%. Objectives of the scheme: ■ Compulsory smart metering to attain operational efficiency improvements. ■ To reduce the average AT&C loss, from ~22% to 15%. ■ Elimination of the gap between ACS and ARR by 2018-19. ■ Reduction in cost of power through measures such as increased supply of cheaper domestic coal, coal linkage rationalization. ■ GoI additionally targeted installation of 35mn smart meters under UDAY by Dec-19.	UDAY scheme, although impactful, had its own limitations: ■ Discoms being financially stressed were unwilling to invest in this technology, as only a capex model was existing with absence of EESL and other players looking to invest. ■ Cost of smart meters and AMI was high, hence prohibitive. ■ Scope for customization according to the requirements of discoms was limited, as: 1) there were fewer domestic companies manufacturing smart meters at scale, and 2) participation was high from Chinese companies, who were not able to provide customized solutions. ■ There was no nodal agency either at the Central or state levels that was focused on smart meter implementation and related processes. ■ There was no strict conditionality requiring state discoms to reduce losses and improve their operational and financial parameters in case of Central government funding to states. ■ The Central government preferred a one-size-fits-all approach for its schemes and policies toward the states, with negligible consultation with stakeholders.
Smart Meter National Program (SMNP)	EESL	-	Methodology adopted by SMNP: ■ EESL provided multiple financing models to discoms: OPEX, CAPEX+OPEX. ■ EESL procures bulk low-cost smart meters, working as demand aggregator and bringing efficiencies of scale. ■ It issued global tenders and conducts reverse auctions in some cases, putting upfront capital investment and recovering the same in the long term through opex gains from the project. ■ Capital cost is on EESL's book and not on the discom's; there is no additional burden on the consumer. Scheme is a win-win for all stakeholders, as it is the form of 'Pay as you save'.	

Source: Company, Emkay Research

Exhibit 15: IPDS and DDUGJY consumer smart meter awarding

State	Discom	Scheme	Total Sanctioned (Consumer meters)	Awarded (Consumer meters)	Deployment Commencement	AMISP / SI
Himachal Pradesh	HPSEBL	IPDS	757,120	757,120	September 2021	Schneider Electric
Punjab	PSPCL	IPDS	881,070	881,070	January 2021	HPL Electric
Madhya Pradesh	MP-West	IPDS	1,244,770	1,244,770	November 2020	MP Smart Grid
Rajasthan	AVVNL	IPDS	686,730	686,730	November 2020	Bosch
Rajasthan	JVVNL	IPDS	2,408,200	2,408,200	November 2020	Genus Power
Rajasthan	JVVNL	IPDS	560,270	560,270	October 2020	Bosch
Andaman and Nicobar	EDANI	IPDS	368,000	368,000	December 2019	Bosch
Kerala	CPT	IPDS ST&D	8,050	8,050	July 2019	Nsoft India
Madhya Pradesh	MP-West	IPDS ST&D	1,188,360	1,188,360	August 2018	Larsen and Toubro
Telangana	TSSPDCL	IPDS (SG Pilots)	88,820	88,820	June 2018	ECIL
Gujarat	UGVCL	IPDS (SG Pilots)	237,600	237,600	November 2017	Genus Power
	Total		8,428,990	8,428,990		

State	Discom	Scheme	Total Sanctioned (Consumer meters)	Awarded (Consumer meters)	Deployment Commencement	AMISP / SI
Andaman and Nicobar	EDANI	DDUGJY	384,000	384,000	December 2019	Bosch

Source: NSGM, Emkay Research

Improvement in billing efficiency can be implemented through steps, such as:

- Increasing metering (consumer, feeder and DT), prioritizing installation smart meters
- Reducing electricity theft
- Deploying automated or tech-driven meter reading tools
- Improving billing coverage
- Improving power factor to curb line losses

It is in order to incentivize such improvements in the performance of the sector that the GoI implemented major initiatives, such as linking performance for RDSS grants, and mandating energy audit and accounting.

RDSS scheme:

The central government has been implementing various schemes and programs to help power discoms improve their financial and operational health. For bringing about financial discipline in the distribution sector and to strengthen the distribution infrastructure for providing uninterrupted power supply to consumers, the Ministry of Power launched a reform-based result-oriented scheme—Revamped Distribution Sector Scheme (RDSS). The five-year scheme (effective till 2025-26), with an outlay of ~Rs3trn, has been implemented based on the action plan worked out for each state rather than a 'one-size-fits-all' plan.

Major objectives of the scheme:

- Reduce AT&C losses to 12-15% by FY25
- Reduce ACS-ARR gap to zero by FY25
- Develop institutional capabilities for modern discoms
- Improve quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector

The scheme has two key parts:

Part A comprises metering and distribution infrastructure works, and Part B includes training and capacity building as well as other enabling and supporting activities.

Exhibit 16: RDSS Part A and B breakup

S No	Item	Quantity	Outlay (Rs bn)	Gross budgetary Support (GBS) - maximum (%)	GBS (Rs bn)	Remarks
1	Prepaid smart metering solution including at consumer, DT, and feeder levels, along with integration of existing infrastructure	250mn	1,500	15%/22.5% (limited up to Rs900/Rs1,350 per meter for consumer metering)	225	- To be carried out through PPP in TOTEX (capex + opex) mode. PPP partner to provide metering services in DBFOOT or similar modes, including funding. - Discom to fund 85% of the cost through billing and collection improvement; state may provide budgetary support - Discom can claim grant in a phased manner for every 5% of the meters commissioned.
2	Other costs including encumbrance-free standardized billing modules for all states, data management, data analytics, and support to implementation, AI, etc	Lumpsum	8	100%	8	Counterpart funding by Discom/ State government. Funds may also be raised from PFC/REC, banks/FIs, bilateral or multilateral agencies.
Sub-Total – Smart metering			1,508			
3	Distribution Infrastructure works including SCADA, DMS, AB cables, feeder segregation, etc		1,515	90% for special category states; 60% for the rest	733.01	
4	Part-B - Training, Capacity-Building, and other Enabling and Supporting activities		14	100%	10.3	
Sub-Total			1,529			
Total			3,037			

Source: Industry, Emkay Research

Funding timeline and current scenario:

Funding timelines and guidelines have already been declared; also, the GoI has identified nodal agencies (PFC and REC) for implementation. REC has been allocated 19 states and UTs under the RDSS, covering 32 discoms; while PFC has been allotted 14 states with a total of 24 discoms. Total outlay for the scheme is Rs3trn over FY22-26 of which the Central grant is Rs976bn.

Up to Dec-23, ~Rs1,217bn has been sanctioned for loss reduction works, and Rs1,304bn for smart metering works. The funds are being released based on the progress of works post-tendering by Utilities, subject to meeting the pre-qualification criteria. As of Dec-23, PFC/REC have disbursed a cumulative Rs535.8bn/Rs588.6bn, respectively, to discoms.

The Central grant will be ~15%/22.5% of the project cost (up to Rs900/Rs1,350 per meter) for normal/special category (seven NE states plus Uttarakhand and Himachal Pradesh) states, respectively. Discoms can also avail an additional special incentive if they have installed the targeted number of smart meters by Dec-23, at 7.5%/11.25% of the total project cost or Rs450/Rs675 per installed meter. Disbursal will be after installation, commissioning, and demonstration of at least one prepaid billing period in the area specified by the discom in the approved DPR.

Timelines

Focus is more on prepaid smart meter installation for all consumers (except agricultural consumers) in areas with communication network (per the timelines in Exhibit 17).

Exhibit 17: Smart Meter Timelines

Deadline	Criteria
Dec-23	For the following segments (can be extended up to six months at a time only twice, specified through notification by the respective state regulatory commission):
Dec-23	UTs, electrical divisions with >50% urban consumers, with AT&C losses at >15% in FY20
Dec-23	Other electrical divisions with AT&C losses at >25% in FY20
Dec-23	All government offices at block level and above
Dec-23	All industrial and commercial consumers
Mar-25	For all other areas

Source: Industry, Emkay Research

Exhibit 18 showcases timelines for installation of feeders and distribution transformer (DT) meters with automated meter reading facility (excluding DT and HVDS transformers with capacity <25kVA).

Exhibit 18: Feeder and DT meter Timelines

Deadline	Criteria
Dec-22	For all feeder meter installation
Dec-23	Metering of all DTs in electrical division with >50% urban consumers, with AT&C losses at >15% in FY20, and in all other electrical divisions with AT&C losses at >25% in FY20
Mar-25	Metering of all DTs in all remaining areas

Source: Industry, Emkay Research

Exhibit 19: RDSS scheme the flag bearer of consumer smart meter ordering, commanding ~80% share

Scheme	Sanctioned	Total Awarded	Installed	% of Installed/Awarded
RDSS	194,956,365	94,239,383	3,114,220	3.3%
Utility Owned	22,678,559	18,687,430	6,409,645	34.3%
Non-RDSS to RDSS	2,970,100	2,970,100	2,340,451	78.8%
IPDS	690,616	690,616	690,616	100.0%
PMDP-Phase-II	600,000	538,667	474,375	88.1%
NSGM	178,522	178,522	169,557	95.0%
PMDP-Phase-I	127,050	127,050	125,095	98.5%
IPDS ST&D	119,641	119,641	119,641	100.0%
SDP	58,930	58,930	55,580	94.3%
DDUGJY	38,400	38,400	38,400	100.0%
IPDS (SG Pilots)	32,642	32,642	32,642	100.0%
Total	222,450,825	117,681,381	13,570,222	11.5%

Nodal Agency	Sanctioned	Total Awarded	Installed	% of Installed/Awarded
REC	132,397,331	66,563,226	9,550,814	14.3%
PFC	89,507,230	50,571,891	3,482,109	6.9%
Utility	270,100	270,100	270,100	100.0%
NSGM	211,164	211,164	202,199	95.8%
EESL	65,000	65,000	65,000	100.0%
Total	222,450,825	117,681,381	13,570,222	11.5%

Source: Industry, Emkay Research

Exhibit 20: DT Meter awarding basis Scheme and Nodal Agency

Scheme	Sanctioned	Total Awarded	Installed	% of Installed/Awarded
RDSS	5,166,603	3,991,575	85,864	2.2%
Non-RDSS to RDSS	52,000	52,000	7,109	13.7%
Utility Owned	23,680	23,680	13,070	55.2%
PMDP	20,794	20,794	6,535	31.4%
SDP	1,931	1,931	653	33.8%
Total	5,265,008	4,089,980	113,231	2.8%

Agency	Sanctioned	Total Awarded	Installed	% of Installed/Awarded
REC	3,476,443	2,601,767	76,747	2.9%
PFC	1,788,565	1,488,213	36,484	2.5%
Total	5,265,008	4,089,980	113,231	2.8%

Source: Industry, Emkay Research

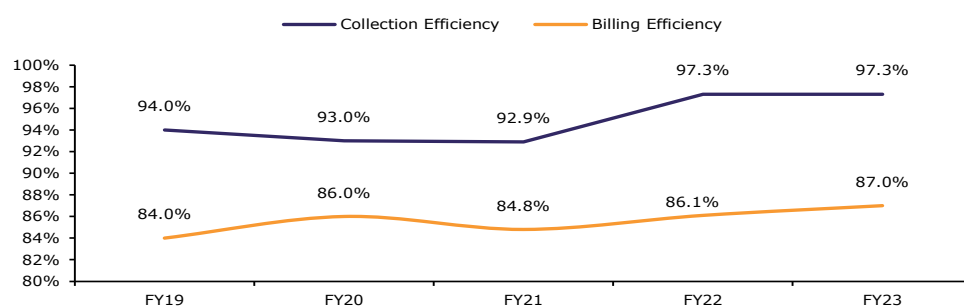
Exhibit 21: Feeder Meter awarding basis Scheme and Nodal Agency

Scheme	Sanctioned	Total Awarded	Installed	% of Installed/Awarded
RDSS	182,807	129,786	46,982	36.2%
Non-RDSS to RDSS	455	455	455	100.0%
SDP	54	54	79	146.3%
Total	183,316	130,295	47,516	36.5%

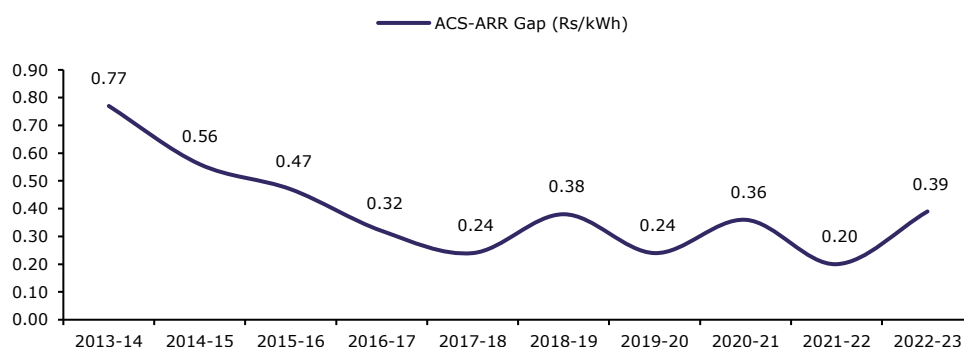
Agency	Sanctioned	Total Awarded	Installed	% of Installed/Awarded
PFC	81,369	59,022	21,937	37.2%
REC	101,947	71,273	25,579	35.9%
Total	183,316	130,295	47,516	36.5%

Source: Industry, Emkay Research

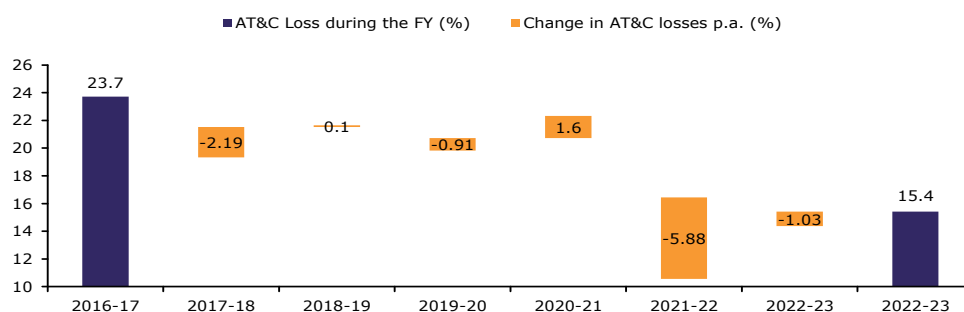
Despite the progress, there remains significant scope for improvement in billing efficiency. Provided all discoms across the country achieved the billing efficiency targets approved by respective SERCs, discom losses could have been reduced to Rs630bn (20% lower than the actual loss). Further, achieving benchmark billing efficiency of 92% could have narrowed the ACS-ARR gap, from Rs0.55/kWh to Rs0.19/kWh.

Exhibit 22: Collection and Billing efficiency improving steadily albeit slowly

Source: PFC, Emkay Research

Exhibit 23: All India level ACS - ARR gap has reduced over the past decade

Source: PFC, Emkay Research

Exhibit 24: All India: AT&C losses nearing the targeted RDSS range

Source: Industry, Emkay Research

During FY23, AT&C losses further reduced to 15.4%, driven by improvement in billing efficiency to 87%, whereas collection efficiency remained high at 97.3%. Increase in collection efficiency was driven by better tariff subsidy disbursement by States and an improved customer collection process.

During FY23, billing efficiency improved to 87% (+1% YoY). Large states like Uttar Pradesh, Rajasthan, Haryana, and Bihar experienced improvement in their billing efficiencies by ~2-3%, albeit West Bengal/Jharkhand witnessed a decline in billing efficiency to 85.3%/69.7%. Billing efficiency improvement was primarily driven by replacement of defective meters, improved vigilance in the prevention of theft, and segregation of agriculture feeders.

Exhibit 25: State-wise historical AT&C losses highlighting improvement

States	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Nagaland	38.5	41.4	65.7	64.8	60.4	41.3
Arunachal Pradesh	53.6	51.1	52.5	40.5	44.9	48.9
Jammu & Kashmir	60	53.7	49.9	60.5	59.3	N.A.
Sikkim	35.6	32.5	41.8	28.8	29.4	30.8
Tripura	29	30	38	35.7	37.4	33.3
Madhya Pradesh	26.8	30.5	36.6	30.4	41.5	22.6
Meghalaya	38.8	41.2	35.2	31.7	30.9	36.2
Bihar	43.3	33.5	33.3	39.95	35.3	32.4
Uttar Pradesh	40.9	37.8	33.2	30.1	27.1	30.5
Odisha	37.2	33.6	31.6	28.9	29.3	31.3
Jharkhand	40.8	44.7	28.3	37.1	41.4	33.8
Rajasthan	27.3	24.1	28.3	29.9	26.2	17.5
Andhra Pradesh	13.8	14.2	25.7	10.8	27.3	10.6
Manipur	33	27.5	25.3	23.3	20.3	23.6
Chhattisgarh	23.9	20.7	25	18.5	20.4	18.1
West Bengal	27.8	26.7	23	20.4	19.5	16.7
Assam	20.1	17.6	20.2	23.4	18.7	17.0
Karnataka	16.8	15.6	19.8	17.6	16.3	11.5
Puducherry	21.3	19.2	19.8	18.5	19.9	11.1
Telangana	15.2	19.4	18.4	21.9	13.3	10.7
Haryana	26.4	21.8	18.1	18.3	17.1	13.7
Tamil Nadu	18.2	19.5	17.9	15	13.8	13.5
Goa	24.3	10.5	17.6	11.4	12.9	13.3
Uttarakhand	16.7	16.3	17.5	20.4	15.4	14.2
Mizoram	25	16.2	16.2	20.7	36.5	39.0
Maharashtra	22.8	14.1	15.8	19.2	25.5	15.3
Gujarat	14.4	13	14.1	11.8	11.4	10.1
Himachal Pradesh	11.5	11.1	12.5	13.3	14.0	12.9
Punjab	14.5	17.3	11.3	14.4	18.0	11.7
Delhi	10.8	9.9	9.1	8.3	8.9	8.1
Kerala	13.4	12.8	9.1	13.1	7.8	7.7
All India Level	23.7	21.5	21.6	20.7	22.3	16.4

Source: Industry, Emkay Research

Why smart meters over conventional meters?

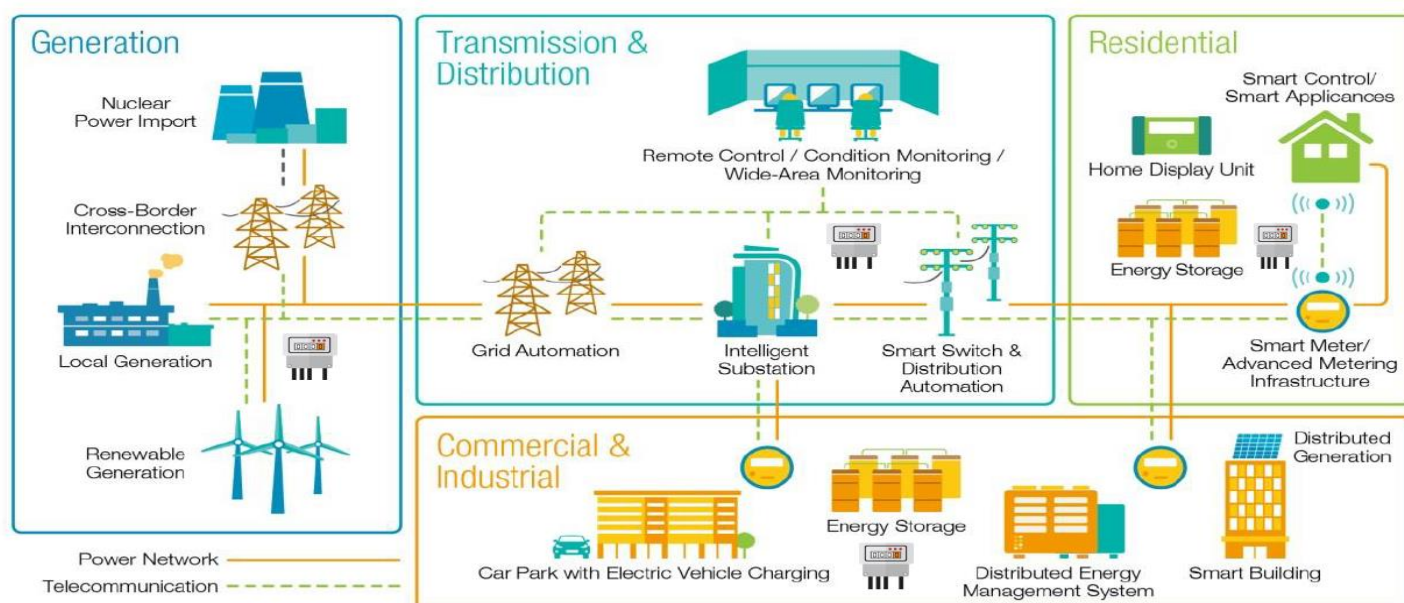
Rapid urbanization, increasing electricity consumption, and government initiatives aimed at providing access to electricity to all have collectively contributed to the growth of the Indian energy meter market. The sector comprises residential, commercial, and industrial segments. Traditionally dominated by mechanical meters since several years, the market has shifted toward digital/electronic meters and is now leaning toward smart meters. Demand for better grid management, more precise billing, and greater consumer engagement is fueling this shift.

Exhibit 26: Technical and Financial considerations between Conventional and Smart meters

Particulars	Conventional Meters	Smart Meters
Performance of Discoms		
Billing rate	83%	99%
Meter Reading	Manual	100%
Technical Considerations:		
i) Advanced Metering Infrastructure: Meter can measure electricity consumption and records it at regular intervals	x	✓
ii) Communicates accurate information to the consumer, providing clarity of consumption behavior	x	✓
iii) Real-time energy consumption data for accurate billing and effective energy usage management	x	✓
iv) Complementary IT components installed; capable of assisting toward India's ongoing power sector reform initiatives to cut AT&C losses	x	✓
v) Measures usage via solid state circuitry (measure the voltage, and the current and the phase shift; allows alarms to be established for whenever any of these values exceed predetermined values)	x	✓
vi) Packaged with a broad range of after-sales services	x	✓
vii) Life Expectancy	3 to 4 times more than smart meters	8-10 years
Financial Considerations		
i) Pricing (Rs/per meter):		
a) Single-Phase Meters	Rs1,000	Rs3,000
b) Three-Phase Meters	Rs2,500	Rs5,000
c) LT-CT	Rs5,000	Rs8,000-10,000
d) HT-CT	Rs5,000	Rs8,000-10,000
ii) EBITDAM	15-16%	15-16%

Source: Industry, Emkay Research

Exhibit 27: End to end energy management systems



Source: Industry, Emkay Research

- **Availability of customizable solutions and at scale:** The Indian metering industry has been able to develop technical capabilities to provide best-in-class products and solutions, customized as per a discom's requirements, with GPIL leading the pack.
- **Separate smart metering nodal departments at discoms:** Many state discoms now have separate nodal departments for implementation, operation, and monitoring of smart metering solutions. A single point of contact in a governmental setup is helpful as it reduces delays and confusion inevitable in a multiple departmental setup, and makes it easier for the nodal agency and metering companies to inform discom officials about the benefits of smart metering.
- **Lockdown helped understand and experience benefits of smart metering:** The benefits of smart metering were evident during Mar-Jun '20. The national lockdown prohibited discoms from sending officials for meter reading, leading to a drastic reduction in billing (to the tune of ~80%). Few discoms that billed their consumers with manual setup were able to bill only on average and not actual basis. Even after lockdown restrictions were lifted, officials found it difficult to get readings of those consumers whose meters were installed inside their houses. While this created severe liquidity stress at most discoms that had such a manual setup, those with smart metering were able to function normally. EESL had highlighted that using smart meters enabled the respective discoms to generate 95% billing efficiency and increase their average monthly revenue per consumer by 15-20%.

Implementation of the TOTEX model

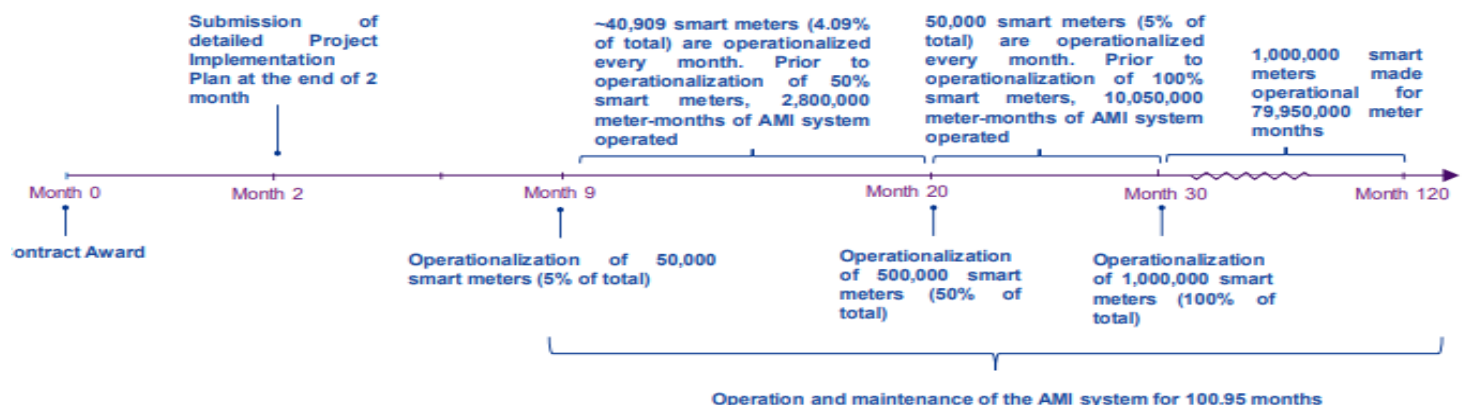
Multiple state electricity boards (SEBs) have issued bids for installation of smart meters, indicating that the RDSS is having a tangible effect. System integrators (also known as Advanced Metering Infrastructure Service Providers, ie AMISPs) will be responsible for all capital expenditures in the new TOTEX (CAPEX + OPEX) model under the Design Build Finance Own Operate and Transfer (DBFOOT) arrangement, thus relieving SEBs of any financial burden. SEBs are increasingly convinced of the TOTEX model, per which they will incur no capital expenditures for smart meters and, instead, make monthly (guaranteed) payments to AMISPs under the 'pay-as-you-save' model.

Exhibit 28: Stages of a Smart Metering contract

Timeline, following the order win	Stages	AMISP Execution during every stage
0-2 months	Project Implementation Plan	2-3 months after the Letter of Award, AMISP will submit the detailed Project Implementation Plan
During the 8 th and 9 th month	Commencement of operations	AMISP will commence operationalizing smart meters 9 months after winning the award
2-2&1/2 years post-AMI commencement	AMI setup	Assuming 1mn meters are to be setup, the initial 2-2.5 years of the project will be focusing on setting up smart meters. AMISP will incur the entire capex to install the smart metering system
Post-AMI setup 8-10 years	O&M incurred	AMISP will recover its investment over a tenure of 8-10 years, on O&M basis, from the gains made by the implementation of smart meters. Monthly payments for the balance tenure from discoms, as and when the milestone targets are executed
End of contract in the 10 th year	Asset transferred from AMISP to Utility	At the end of the tenure, AMISP will transfer the assets at zero cost after completion of the life of a meter. Thereafter, the discom will bear the replacement cost of a defective meter and the O&M cost of the AMI system

Source: Industry, Emkay Research

Tentative Timeline for setting-up 1mn meters – AMI (9th to the 30th month) and O&M (9th to the 120th month)



Source: Industry, Emkay Research

GPIL serves as both, an AMISP and a smart metering vendor to other AMISPs. The TOTEX model will result in increased cash flow for SEBs, significantly reducing the current working capital cycle. Additionally, as AMISPs will bear a significant portion of the capex, smart meter quality and timely delivery will be critical factors to consider when orders are placed with metering companies, rather than simply selecting the lowest bidder.

This report is intended for team emkay@whitemarquesolutions.com use and downloaded at 10/08/2024 12:21 PM

Emkay Research is also available on www.emkayglobal.com and Bloomberg EMKAY<GO>. Please refer to the last page of the report on Restrictions on Distribution. In Singapore, this research report or research analyses may only be distributed to Institutional Investors, Expert Investors or Accredited Investors as defined in the Securities and Futures Act, Chapter 289 of Singapore.

Cost for setting up an advanced metering infrastructure (AMI) and O&M expenditure

AMI is part of the smart grid technology system, which facilitates monitoring and measurement of consumer electricity usage information through smart meters installed at their premises. This information is transferred to the utility control center through various communication modes, such as GPRS / PLC / RF. Smart meters also enable Time of Day (TOD) and Critical Peak Pricing (CPP) / Real Time Pricing (RTP) rate metering and monitoring, based on energy consumption.

AMI components:

- Smart meter
- Communication Infrastructure
- Head end system (HES)
- Meter Data management System (MDMS)
- Customer interface

Exhibit 29: Cost breakup for AMI and O&M

Project components	Characteristics	% of the AMISP avg bid price	Cost (Rs/meter)
AMI Cost			
Smart Meters and meter box	A smart meter in a composite unit consisting of metrology elements, two way communication module/modules. It has functions such measurement, computation, event capturing, storing, communication, and control	41.1%	3,900
Communication Infrastructure	Three types of technologies of a two-way communication for smart meters: i) Radio frequency (RF) ii) GPRS/GSM iii) Power line (PLC)	3.7%	350
HES and MDMS	HES: Main aim is to automatically acquire data from the smart meter and send it to discoms. HES also enables secure access for meter configuration, software updates, and other <i>ad hoc</i> requirements. HES varies as per the communication mode implemented. MDMS: It automates and streamlines billing, data analytics, and collection (in case of smart prepaid meters). MDMS is able carry out data validation, cleansing, and processing, prior to making the data available for billing, analysis and to the consumer.	0.8%	80
Installation		8.2%	775
System Integration		1.3%	120
Total AMI Cost		55.0%	5,225
O&M Cost			
Facility Management Services (including additional warranty cost of meters)		4.8%	454
ATS charges on software		1.6%	148
Recurring operating cost on GPRS		12.3%	1,167
Cloud hosting charges		1.0%	91
Total O&M Cost		19.6%	1,860
Incurred by Utility			
Interest		11.9%	1,135
PMC		3.5%	336
Cost incurred by Utility:		15.5%	1,471
Total Cost for AMISP		90.1%	8,157
Avg Bid Price from GPIL			9,500
EBITDAM			~14%

Source: Industry, Emkay Research

Exhibit 30: GPIL has presence across the AMISP value chain

Smart Meter Manufacturer	Communication Providers	HES Service Providers	Software Service Providers
Kimbal	Kimbal	Kimbal	Kimbal
HPL	Airtel	BOSCH	SEW
Schneider	Genus	Siemens	Siemens
Genus	Jio	Secure	Oracle
Gram Power	Landis + Gyr	Trilliant	Fluentgrid
Landis + Gyr	Secure	Itron	Esyasoft
Secure	Itron	Cyanconnode	Styra
	DFE	Genus	Oracle

Source: Industry, Emkay Research

Payment mechanism:

Payment to the AMISP shall commence only after:

- Delivery, site installation, and commissioning of Network Operations cum Monitoring Centre with related hardware, software, and equipment; and
- Delivery, site installation, integration, and operationalization of the first lot of 5% Smart Meters each, with related hardware, software and equipment, and successful Operational Go-Live of the system as defined in this contract.

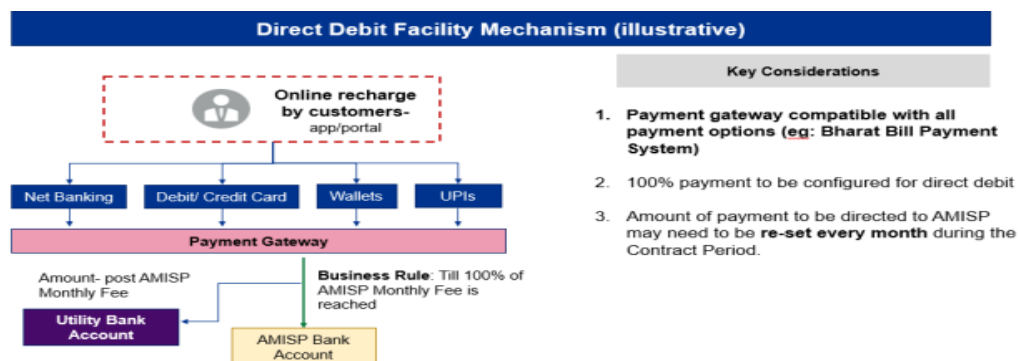
Exhibit 31: Utility to make monthly payments to AMISP, per a payment structure

Milestone for the Utility's payment structure	AMISP - Monthly fee (Rs)
■ Delivery, site installation, and commissioning of Network Operations cum Monitoring Center with related hardware, software, and equipment; and	AMISP Service Charge x 5% of the total number of Smart Meters installed
■ Delivery, site installation, integration, and operationalization of 5% of the first lot of Smart Meters, with related hardware, software, and equipment, and successful Operational Go-live	
■ Submission of SLA performance report of 5% of the first lot of Smart Meters at the end of 1 month of Operations	
a) Payment terms for the remaining meter population shall be staged on monthly basis, based on the total delivery, installation, integration, and operationalization of Smart Meters with their related software/hardware, communication system	AMISP Service Charge x Total number of Smart Meters installed
b) Submission of SLA performance report of the total number of smart meters installed, integrated, and operationalized till date, at the end of every month	

Source: Industry, Emkay Research

Direct-debit facility:

Utility shall, within 14 days of the Operational Go-Live, establish a direct-debit facility (DDF) for the entire online consumer payments, to ensure recovery of the AMISP monthly fee. In this regard, the Utility shall create a separate facility compatible with all online payment options, such as Net Banking, Credit/ Debit Card, Mobile Wallets, UPIs, etc.

Exhibit 32: DDF Facility

Source: Industry, Emkay Research

Exhibit 33: Payment Cycle

AMISP will raise and deliver the invoice and the SLA performance report to the Utility for the monthly payments within the first 5 working days of every month



The Utility will review the AMISP invoice and the SLA performance report raised by the AMISP within 5 (five) working days from the invoice and the SLA performance report delivered by the AMISP



The Utility may dispute the amount payable and shall pay the undisputed amount of the AMISP Monthly Fee via direct debit facility (as specified in Article 6.2.5) from the 11th (eleventh) working day of every month till the 10th (tenth) working day of the succeeding month

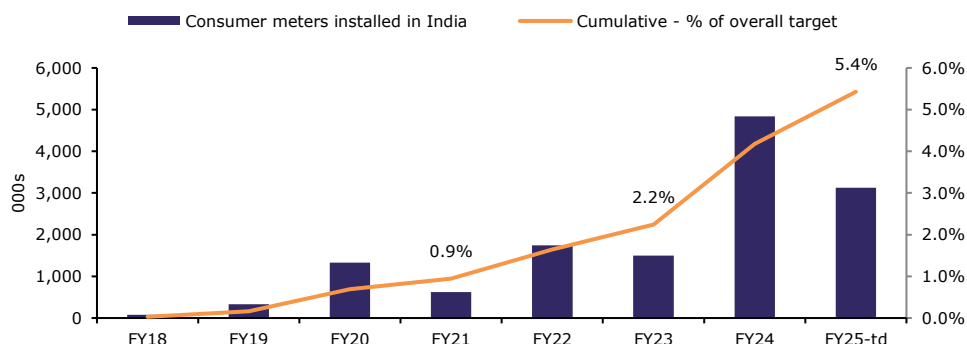


Direct Debit Facility would include a bucket filling approach whereby all consumer recharges and bill payments from the 11th (eleventh) working day of every month up to the 10th (tenth) working day of the immediately succeeding month will be routed directly to the AMISP's bank account

Source: Industry, Emkay Research

Smart Metering – Domestic market scenario:

As of Sep-24, 222/5.26/0.18mn consumer/distribution transformers (DTs)/feeder meters have been sanctioned across India with actual awarding of 117/4.09/0.13mn meters, respectively. This indicates that ~53%/78%/71% of the total sanctioned meters have been awarded to contractors, whereas ~13.6/0.11/0.05mn meters have been installed till date as per the NSGM dashboard. We note that the pace of installation has accelerated over the last 2 years and would continue to be strong as initial implementation-related hurdles are largely overcome.

Exhibit 34: Annual smart meter installation trends in India

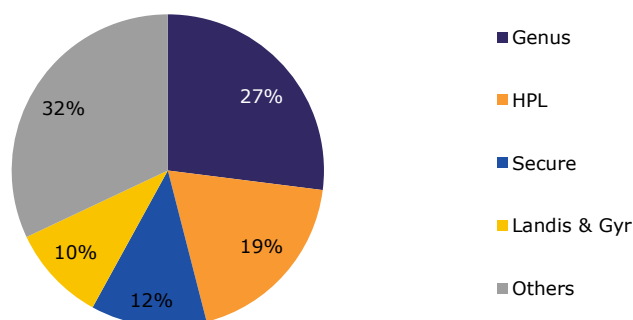
Source: NSGM, Ministry of Power, Emkay Research

About Genus

GPIL is the largest listed smart meter manufacturing company in India, and has a total meter manufacturing capacity of 11mnpa; the company is likely to enhance its annual capacity to 14mn meters by the end of H1FY25. It has three manufacturing units, located at Jaipur, Haridwar – Uttarakhand, and Guwahati – Assam, with complete forward and backward integration. In addition to manufacturing smart meters on EPC basis, GPIL also designs and develops software solutions (AMI and FMS) at in-house R&D centers. With regard to software solutions, the company provides end-to-end solutions to discoms with metering communication, including controls and automation software.

GPIL's main domestic competitors in manufacturing smart meters are HPL Electric, Schneider Electric, Secure Meters, and Landis+Gyr. Some of the competitors qualifying as an AMISP are Adani Energy, GMR Power, LTTS, Apraava Energy, and Techno Electric.

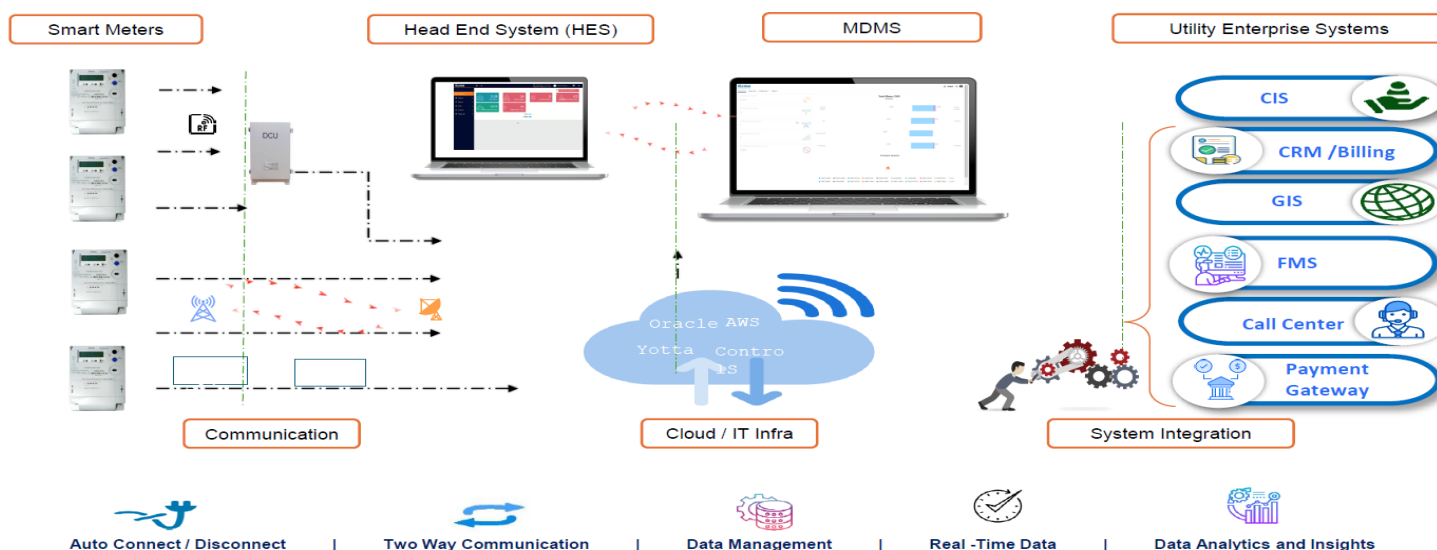
Exhibit 35: Smart Metering market share; GPIL is the largest player



Source: NSGM, Ministry of Power, Emkay Research

Over the years, policies like RDSS have been emphasizing about installation of smart meters. GPIL has been proactive toward increasing as well as training its workforce, and has also improved its systems. What differentiates GPIL from peers is its R&D department. In-house R&D centers established by the company are a crucial driver of innovation and growth which enable it to adopt advanced solutions, respond quickly to market changes, and invest in research areas that will benefit its customers and the industry alike.

Exhibit 36: GPIL has presence across the AMISP value chain



Source: Industry, Emkay Research

Over the years, GPIL has manufactured >80mn meters; during FY15-21 the company manufactured 38.4mn conventional meters and 2.4mn smart meters. Capacity utilization was high during the initial UDAY years, but declined to ~60% in FY20 as state discoms faced financial issues and deferred capex. Over the years, with the implementation of the RDSS scheme and with the industry shifting toward smart meter usage, share of conventional meters declined during FY21-24. At present, ~10% of the order book is composed of conventional meters, while balance orders are for smart meters.

This report is intended for team.emkay@whitemarquesolutions.com use and downloaded at 10/08/2024 12:21 PM

Emkay Research is also available on www.emkayglobal.com and Bloomberg EMKAY<GO>. Please refer to the last page of the report on Restrictions on Distribution. In Singapore, this research report or research analyses may only be distributed to Institutional Investors, Expert Investors or Accredited Investors as defined in the Securities and Futures Act, Chapter 289 of Singapore.

Although margin levels of conventional and smart meters remain similar, transitioning to the latter leads to significant improvement in revenue, thus reflecting improvement in EPS. Average price of single-phase/three-phase meters is in the range of Rs1,000-3000/Rs2,500-5,000 (lower end being for conventional meters, and upper end for smart meters). Additionally, GPIL majorly deals as an AMISP in the smart metering market, wherein it implements end-to-end smart metering systems at an average per-meter cost of ~Rs9,500, including Facility Management System (FMS) for AMI, where revenues are recurring in nature.

GPIL's order book (including all SPVs and the GIC Platform) sky rocketed to Rs210bn at the end of FY24 on account of the Rs160bn worth order-wins over the same period. During H1FY25, the company's inflows stood strong at Rs110bn (~69% of the FY24 order wins), further boosting the order backlog to Rs320bn. GPIL's robust tendering pipeline, coupled with strong market share, provides cushioning for positive momentum continuing ahead. Simultaneously, with execution expected to substantially pick up pace from H2FY25, the company is likely to log ~67% revenue CAGR during FY24-27E. We assume average EBITDAM range of 15-16% for smart meters, and expect operating leverage to kick in going ahead, leading to enhancement in margin to 15% by FY27E from 11.2% during FY24. PAT is projected to register 102% CAGR, with AMISP value generation leading to EPS of Rs12. In turn, this will lead to strong growth in return ratios going ahead and project RoE/ROCE of 21%/24% during FY27E.

GPIL's Smart Metering manufacturing process

We visited GPIL's smart meter unit at Jaipur. Smart meters, which seem like a relatively simple product on paper, have an extensive process; to top this, add-on AMI services are being provided by GPIL to its customers.

Primary RMs procured by GPIL:

- H13 steel, procured from the domestic market for smart meter module manufacturing (Exhibits 37-40)
- Importing plastic polycarbonate and PBT, which is used for molding the plastic covering of meters (Exhibits 41-44)
- PCBs, which are imported and placed on GPIL's assembly line to incorporate relevant electric components on the same (Exhibits 45-48)

In terms of raw material (RM), the major component are electronics (40-45% of the total RM cost), plastics (25-30%), brass (10-15%), and PCB and miscellaneous items (10-15%).

Exhibit 37: GPIL's Jaipur smart metering facility



Source: Company, Emkay Research

Exhibit 38: Designing team, pre-mold work



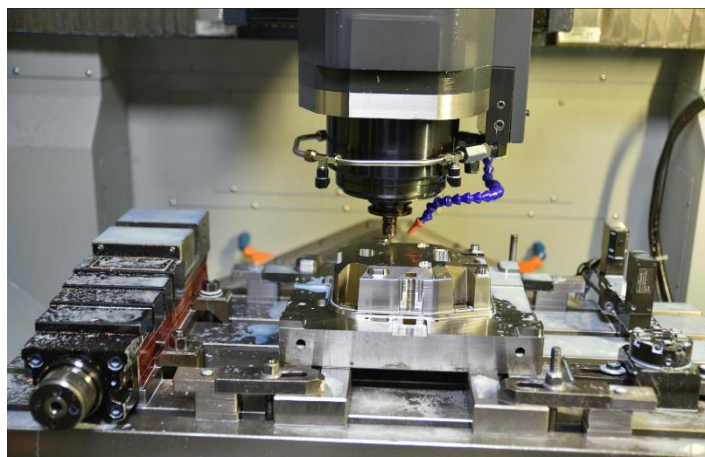
Source: Company, Emkay Research

Exhibit 39: CNC machine used to mold H13 steel, basis design team working;



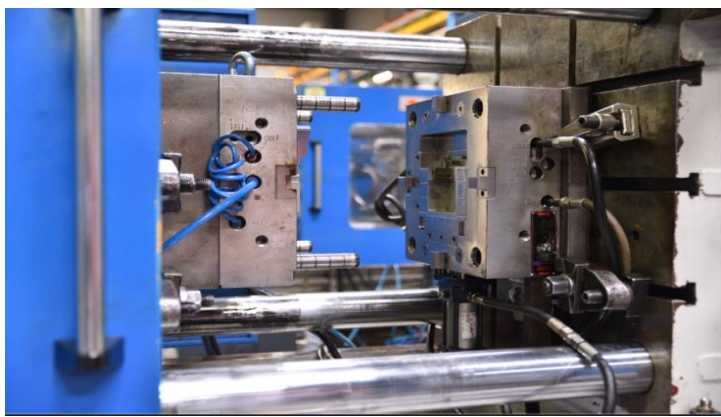
Source: Company, Emkay Research

Exhibit 40: Cutting and shaping of H13 steel inside the machine; takes 60-70 days on average to make one mold



Source: Company, Emkay Research

Exhibit 41: Post completion, mold for a smart meter is prepared; life of one mold is 1mn smart meters



Source: Company, Emkay Research

Exhibit 42: Raw materials for the body structure of a smart meter are Polycarbonate and PBT



Source: Company, Emkay Research

Exhibit 43: PBT Particles liquified and shaped in this machine



Source: Company, Emkay Research

Exhibit 44: Shape of the smart meter front cover, post machine run



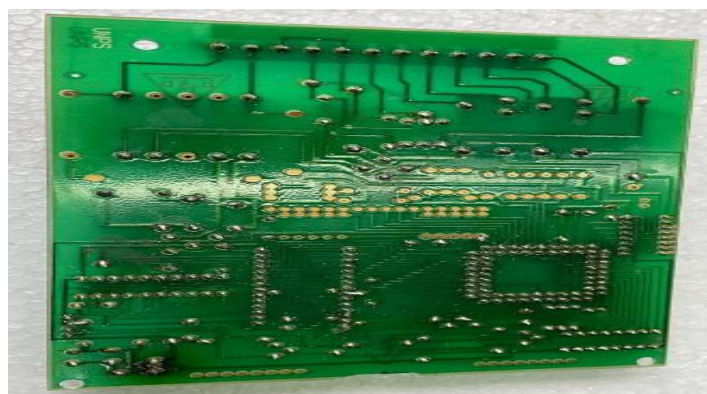
Source: Company, Emkay Research

Exhibit 45: Illustration of a few smart meter coverings



Source: Company, Emkay Research

Exhibit 46: Bare PCB is imported by GPIL and is mounted with circuit and equipment at the company's facilities



Source: Company, Emkay Research

Exhibit 47: Circuit mounting of PCB through machines brought in by GPIL



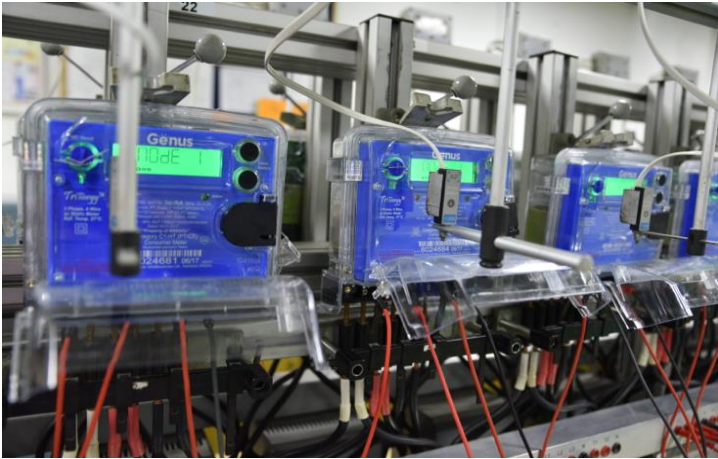
Source: Company, Emkay Research

Exhibit 48: Surface mount tech (SMT) – Electrical components are mounted directly onto the surface of the PCB by workers



Source: Company, Emkay Research

Exhibit 49: Final testing of the smart meters manufactured; GPIL has a track record of having discarded very minimal-to-zero meters



Source: Company, Emkay Research

Exhibit 50: Sample display of smart meters and their equipment



Source: Company, Emkay Research

Exhibit 51: GPIL's other smart meter offerings include water meters...



Source: Company, Emkay Research

Exhibit 52: ...and gas meters



Source: Company, Emkay Research

Capacity utilization and client base

GPIL has 3 manufacturing facilities at present, one each strategically located in Jaipur, Haridwar, and Guwahati, with a combined annual installed capacity of over 11mn meters. This capacity is set to expand further with the construction of a new greenfield facility in Guwahati which is likely to enhance annual capacity to 14mn meters by the end of H1FY25. Historically, the management has been functioning at 65-70% utilization, with similar levels recorded during FY24. Its Haridwar unit contributes ~70% to GPIL's capacity, followed by 15% each by the Jaipur and Assam units. The company's AMI R&D departments are all present at the Jaipur facility.

With strong influx of Rs160bn/Rs110bn worth order-wins during FY24/H1FY25, we believe the management will ramp up execution H2FY25 onward. The current capacity is being run on a single shift (10 hours per shift) across facilities; although the order book has expanded significantly, the management will avoid running units on double shift. This is on account of certain obstacles faced by the management during FY08, when it initially decided to run its factories on two shifts.

GPIL is one of the leading providers of smart metering technology, offering a wide range of advanced metering solutions tailored to meet the changing needs of utilities. With presence across the world, and given over 80mn meters installations, the company has been driving transformation of the energy infrastructure. Expanding beyond electricity, the management has ventured into smart gas and water metering, leveraging advanced technologies to ensure precise measurement and efficient resource management.

Exhibit 53: GPIL is empanelled with >40 discoms across the country



Source: Company, Emkay Research

GPIL expanding R&D and IT Team to enhance AMISP service catering

Given its extensive experience in delivering ECC solutions to the power distribution sector, coupled with customized and sustainable Smart Metering solutions, the company has solidified its position as a key player in the AMISP domain, currently enjoying 27% market share in the domestic metering space.

What differentiates GPIL from peers is its R&D department. In-house R&D centers established by the company are a crucial driver of innovation and growth which enables it to adopt advanced solutions, respond quickly to market changes, and invest in research areas that will benefit its customers and the industry alike. GPIL's R&D department developed its own 'Head End System' ('HES') and 'Meter Data Management System' ('MDMS'), ensuring seamless data management and reducing reliance on external providers. Its relentless focus on innovation, quality and sustainability enables it to retain a competitive edge and fulfil the ever-evolving market demands. GPIL's R&D initiatives are aimed at supporting its expansion into new markets such as gas and water metering, while maintaining its leadership in the electricity metering sector.

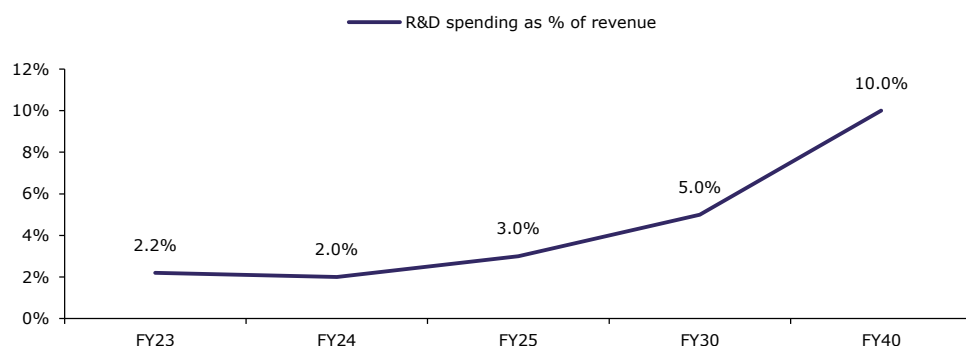
GPIL has expanded its role in the industry beyond meter supply (EPC), to include specialized software and 'Software as a Service' (SaaS) for utilities. The company's skilled software team has more than 425 man-years of software experience of which a significant portion covers the meters domain. This shift ensures stable revenue through Facility Management Services (FMS) and supports online smart prepaid metering solutions.

GPIL is strategically leveraging global industry trends by enhancing its software capabilities and expanding its product offerings to include advanced metering solutions; this makes it the only solution provider in India to offer both, RF and GPRS solutions, under one HES. Till date, GPIL has deployed the HES system toward 2-2.5mn smart meters, while MDMS is currently at the initial stages of implementation and deployed for ~0.1mn meters at Chhattisgarh and 50-60k meters at UP.

GPIL's R&D team focuses on several key areas, such as enhancing efficiency, accuracy and functionality of smart metering solutions. Additionally, it focuses on development of advanced communication modules, energy-efficient designs, and environmentally sustainable materials. The R&D team's initiatives are aimed at supporting the company's expansion into new markets such as gas and water metering, while maintaining leadership in the electricity metering sector.

Over the years, GPIL has spent ~Rs1bn on its R&D team. During FY23/FY24, R&D expenditure as a % of revenue stood at 2.2%/2.0%; the management has committed to further increase this proportion to 3%/5%/10% by FY25/FY30/FY40, respectively.

Exhibit 54: GPIL has spent a little over Rs1bn till date toward R&D



Source: Industry, Emkay Research

GPIL's Smart Meter product portfolio

The management is pursuing strategic partnerships to remain proactive and additionally bolster its market presence and drive sustainable growth. By embracing digital transformation and enhancing its software and analytics capabilities, GPIL aims to position itself as a leading provider of advanced metering and Utility solutions. This strategic shift is expected to drive long-term growth and enable the company to meet evolving needs across multiple sectors in a rapidly changing global environment.

At present, GPIL caters to the Electricity smart meter, Gas meter, and Water meter businesses, across the domestic and exports markets. As one of the largest players in the electricity metering solutions industry in India, GPIL commands ~27% market share in this space.

Exhibit 55: GPIL's smart meter offerings

Particulars	Electricity Smart Meter	Gas Meter	Water Meter
Characteristics	Focus likely to remain on improving grid efficiency, reducing losses, and enhancing consumer services.	India's gas metering has traditionally relied on diaphragm meters that have certain limitations. Smart gas meters now emerging, especially in urban areas and new distribution networks.	Smart water meters to cut water wastage, detect leaks, and ensure precise billing.
Domestic market demand	RDSS Scheme: The national smart metering project to install 250mn meters across India; leading to investment deployment of ~Rs3trn, of which the Central Government grant is Rs976bn.	More than 120mn gas connections expected in India by CY30; opportunities in the domestic market.	Water smart-meter rollouts have been patchy due to varying levels of governmental focus, although increasing pressure on water resources means that smart water metering numbers will grow faster than those for electricity or gas over the period, CAGR of 10% compared with blended average of 7% across all utilities.
Export demand	GPIL maintains stronghold in Southeast Asia and targets penetrating into the Middle East and Africa. Refer to Exhibit 61 (Page 30) for GPIL's strategic export market targets.	Global market for smart gas technologies is projected to expand to 25.7mn units by CY29 from 17.7mn units in CY24, with Europe (particularly Italy and the UK) driving majority of the market demand. North America and Asia-Pacific regions witnessing rapid uptick driven by rising global demand for natural gas.	United States, Japan, and several European nations leading in adoption of water meters, driven by government initiatives, aging water infrastructure, and increasing water stress. The Asia-Pacific region (China, Australia) also emerging as a high-growth market. During FY24, GPIL entered new markets in Australia including other countries in the Southeast Asian region, providing advanced smart metering solutions (smart ultrasonic water meters).
Market size	India's Smart Meter market, valued at USD0.2bn in CY23, is projected to grow to a market size of USD3.2bn by CY32 (+35% CAGR during CY24-32)	Market size remains in the moderate range of Rs20-30bnpa.	Global smart water meter market was valued at USD2.6bn during CY23 which is projected to grow to USD23bn by CY32 (+14% CAGR during CY24-32).
Pricing	AMISP bid pricing of ~Rs9,500 per meter, including O&M services.	-	-
Domestic Agencies/Regulatory Bodies involved	REC, PFC	Petroleum and Natural Gas Regulatory Board (PNGRB) and, Ministry of Petroleum and Natural Gas.	-

Source: Company, Emkay Research

Domestic consumer Smart Metering bidding scenario:

Projects in the consumer smart metering space are being awarded to AMISPs through the bidding route, with service charge per month per meter being the key bidding parameter. The RDSS scheme has been the flag bearer of consumer smart meter ordering, commanding ~80% share. Of the 222.4mn consumer meters sanctioned by the GoI as of Sep-24, 117.6mn meters have been awarded (53% of sanctioned meters); albeit progress in installations remains low, with only 13.6mn (11.5% of sanctioned meters) consumer smart meters installed as of Sep-24. We believe the ~47% of the sanctioned meters yet to be awarded points to a strong tendering pipeline in the medium term.

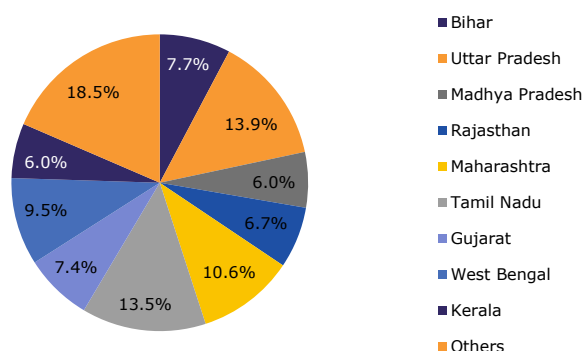
Of the 222mn smart meters sanctioned, 9 states collectively account for 81% share; meanwhile, of the 117.6mn shares awarded, their share stands at 75%. Execution has not seen a significant pickup post awarding; Bihar and Assam collectively account for 51% of the 13.6mn smart meters executed. The industry is chasing the RDSS's initial target of installing 100mn smart meters by Dec-23 (currently only 13.6mn smart meter installations); nevertheless, we believe execution will pick up going ahead.

Haryana/Assam/Bihar have been at the forefront of awarding under the RDSS scheme, with ~100%/100%/80% of their respective states smart meters already awarded. Installation rate in Haryana has been strong, with ~85% smart meters already installed, while being relatively decent for Assam/Bihar, with 37%/31%, on account of a higher base effect.

Awarding in UP/Maharashtra/Andhra Pradesh stands at 100% of the total sanctioned meters, albeit execution pace of ~4%/1%/3% has been slow; we expect execution to pick up after finalization of the project implementation plan.

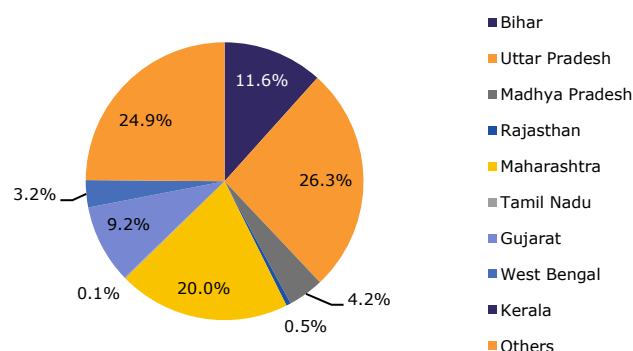
Though awarding has been slow in the states of Punjab and Rajasthan, their execution run-rate has been 77% and 98%, respectively, indicating swift installation post-awarding. States like Tamil Nadu/Kerala/Karnataka have been witnessing marginal-to-no awarding, even after sanctioning of meters. We believe such states will drive the tendering pipeline going ahead.

Exhibit 56: Meters sanctioned – 9 states account for 81% share...



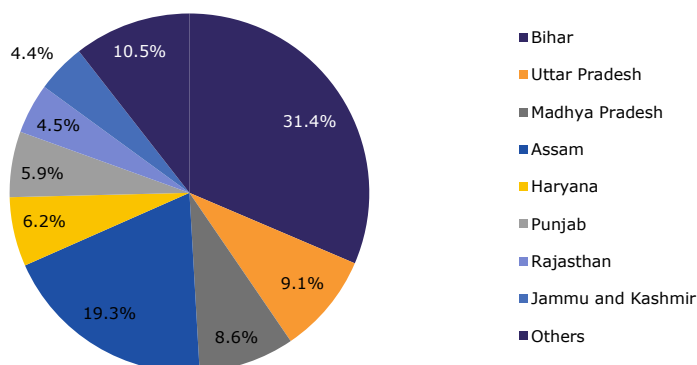
Source: NSGM, Emkay Research

Exhibit 57: Meters awarded – 9 states command 75% share



Source: NSGM, Emkay Research

Exhibit 58: Bihar and Assam together account for ~51% of the smart meter execution till date



Source: NSGM, Emkay Research

During FY24 and H1FY25, the Indian metering industry has been witnessing strong ordering activities for installation of smart meters across various states. Going ahead, this is likely to culminate into healthy topline growth, higher operating margins, and an improved working capital cycle for AMISPs.

Exhibit 59: State-wise Smart Meter awarding

State	Consumer Smart Meters			DT Meters			Feeder Meters		
	Sanctioned	Awarded	Installed	Sanctioned	Awarded	Installed	Sanctioned	Awarded	Installed
Bihar	17,208,939	13,698,600	4,264,526	250,726	242,534	8,767	6,427	5,776	3,879
Assam	6,921,329	7,016,629	2,615,465	94,547	111,907	40,870	2,782	3,441	1,760
Uttar Pradesh	30,978,280	30,978,280	1,228,438	1,526,801	1,526,801	2,577	20,874	20,874	4,585
Madhya Pradesh	13,444,401	4,884,284	1,169,039	411,963	411,963	5,230	8,411	8,411	540
Haryana	1,000,000	1,000,000	847,467	-	-	-	-	-	-
Punjab	9,830,007	1,045,200	802,826	184,044	-	-	12,563	-	-
Rajasthan	14,900,527	625,571	614,307	434,608	-	-	27,128	15,788	10,084
Jammu and Kashmir	2,134,095	2,072,762	599,470	108,831	102,990	6,535	2,608	2,608	-
Maharashtra	23,564,747	23,564,747	275,194	410,905	410,905	9,365	29,214	29,214	20,991
Delhi	260,000	260,000	260,000	766	-	-	2,755	-	-
Andhra Pradesh	5,610,846	5,610,846	154,911	293,140	293,140	-	17,358	17,358	406
Himachal Pradesh	2,952,685	1,070,832	151,740	39,012	14,190	-	1,951	1,127	-
Tamil Nadu	30,140,849	140,849	129,641	473,720	1,220	1,220	18,274	-	-
Gujarat	16,510,860	10,794,960	105,887	300,487	300,487	21,619	-	-	-
West Bengal	21,208,759	3,724,273	101,207	305,419	305,419	-	11,874	11,874	-
Chhattisgarh	5,962,115	7,070,288	80,267	210,644	267,000	16,125	6,720	8,315	5,192
Andaman and Nicobar	158,773	75,200	75,200	1,148	-	-	114	-	-
Ladakh	58,930	58,930	55,580	1,931	1,931	653	54	54	79
Chandigarh	29,433	29,433	24,214	3,105	-	270	180	-	-
Telangana	8,882	8,882	8,882	-	-	-	-	-	-
Odisha	4,500	4,500	4,500	-	-	-	-	-	-
Kerala	13,290,166	805	805	87,615	-	-	6,025	-	-
Mizoram	290,039	656	656	2,300	-	-	398	-	-
Uttarakhand	1,584,205	1,584,205	-	38,016	38,016	-	1,686	1,686	-
Goa	741,160	-	-	8,369	-	-	827	-	-
Jharkhand	1,341,306	1,041,772	-	19,512	19,512	-	1,226	1,226	-
Sikkim	144,680	144,680	-	3,229	3,229	-	633	633	-
Arunachal Pradesh	287,446	286,940	-	10,116	10,116	-	688	688	-
Nagaland	317,210	317,210	-	6,276	6,276	-	392	392	-
Manipur	154,400	154,400	-	11,451	11,451	-	357	357	-
Tripura	547,489	415,647	-	14,908	10,893	-	473	473	-
Puducherry	403,767	-	-	-	-	-	-	-	-
Meghalaya	460,000	-	-	11,419	-	-	1,324	-	-
Total	222,450,825	117,681,381	13,570,222	5,265,008	4,089,980	113,231	183,316	130,295	47,516

Source: NSGM, Emkay Research

Domestic Gas Meters – Market scenario:

The Gas meter market in India is relatively smaller; market size will be range-bound at Rs20-30bnpa. The current market comprises of typical non-AMI single phase meters in India. According to the management, the gas metering market growth trajectory did not look as healthy as it had expected. Although the market remains moderately small, the management is confident of its growth potential in this segment going ahead.

Domestic Water Meters – Market scenario:

According to the management, water metering in India is at a similar stage where the electric meters business was 20-30 years ago. Majority of the water meters at present are electromechanical based, and one of the major disadvantages of such meters is that accuracy is always a challenge. Management believes there is a significant amount of work happening on making water meters electronic based. Additionally, water is increasingly becoming a scarce resource globally. Eventually, the same scenario is expected to play out in India, leading to water meters becoming a top priority for the GoI and, hence, leading to an expansion in its market size going ahead.

This report is intended for team emkay@whitemarquesolutions.com use and downloaded at 10/08/2024 12:21 PM

Emkay Research is also available on www.emkayglobal.com and Bloomberg EMKAY<GO>. Please refer to the last page of the report on Restrictions on Distribution. In Singapore, this research report or research analyses may only be distributed to Institutional Investors, Expert Investors or Accredited Investors as defined in the Securities and Futures Act, Chapter 289 of Singapore.

GPIL's Smart Metering awarding and market share

Exhibit 60: Orders worth ~Rs310bn (LOA + signed) received by GPIL for installation of ~35mn meters; execution to ramp up from H2FY25

Date	Description	Number of meters awarded (mn)	Concession period	Order inflow (Rs mn)
28-Aug-24	LOA for appointment of AMISP including design of AMI system with supply, installation, and commissioning with FMS	5.6	8-10 years	44,690
28-Aug-24		4.3		36,085
17-Aug-24		3.8		29,255
14-Dec-23		1.0		10,263
8-Nov-23		2.7		22,599
23-Oct-23		3.6		31,214
9-Oct-23		3.5		31,150
31-Aug-23		2.4		22,474
8-Aug-23		2.2		22,098
3-Jul-23		2.8		22,075
30-Jan-23	Hi-Print Metering Solutions Private received LOA for appointment as AMISP, including design of AMI system with supply, installation, and commissioning with FMS	2.9		28,560
20-Apr-22		1.0		8,286
	Total	35.8		308,750

Source: Company, Emkay Research, Note: Computation of the aforementioned order is based on GPIL's public disclosure

GPIL was one of the early movers into the smart metering market, which itself was very small; hence GPIL previously enjoyed the lion's share of 70%; however, the smart metering market size was at a very nascent stage during FY17-18. Of recent, implementation of schemes focusing on reduction in AT&C losses of discoms has been gaining momentum, leading to smart metering coming up as a necessity, which not only led to expansion in the market size but also attracted new players into the market. This led to GPIL's share in the smart metering market falling to ~27% during FY24.

Smart meter awarding pan India currently stands at 117.6mn meters; GPIL at present has an order backlog of ~Rs320bn, composing of ~35.8mn meters. Historically, GPIL has enjoyed a lion's share of ~30%, marginally above the 27% market share quoted by GPIL in its disclosure.

Currently, GPIL is live in 4 circles of Assam; execution of 1mn meters in North Bihar has commenced. GPIL has also commenced work on the Chhattisgarh order. The management plans to bid for upcoming smart meter installation contracts. Notably, discoms of key states (Exhibit 61) could issue AMI tenders over the next 2 years for a cumulative ~70mn smart meters. We hypothetically assign a win rate of 27% and arrive at ~26mn smart meters for GPIL.

Exhibit 61: Sizable AMI tenders expected from some States/UT in coming 2 years

Name of State	Sanctioned	Awarded	Installed
Tamil Nadu	30,140,849	140,849	129,641
Madhya Pradesh	13,444,401	4,884,284	1,169,039
Kerala	13,290,166	805	805
Rajasthan	14,900,527	625,571	614,307
West Bengal	21,208,759	3,724,273	101,207
Goa (UT)	741,160	-	-

Source: NSGM, Emkay Research

The Export Market

Consumer Smart Meters:

Globally, the landscape of smart electricity meters is undergoing significant transformation due to advancements of IoT. Advanced countries like Japan and USA are leading with penetration level of 100% and 73%, respectively, as of end-2023. We believe given the increased focus to tackle carbon emission, grid modernization, and energy efficiency, smart meter penetration is high in most developed nations / regions, while implementation in emerging economies is picking up. Experts project the global Smart Meter penetration to enhance to 59% by 2028, indicating strong growth potential in the exports market.

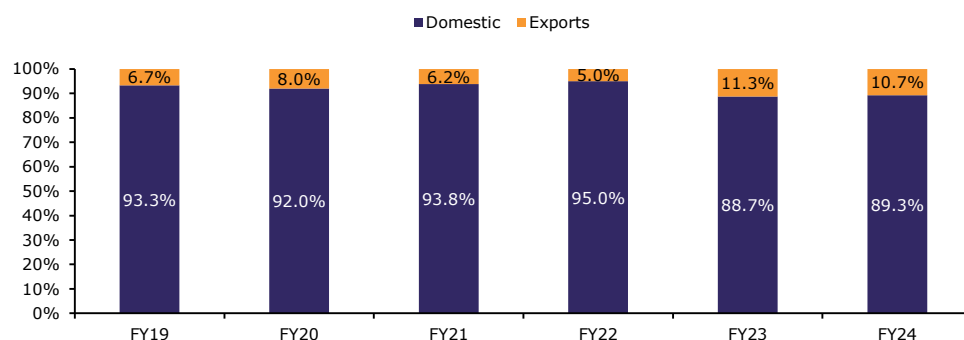
Exhibit 62: India's electricity smart meter market has strong growth prospects

Countries	Smart meter penetration	AT&C losses
Japan	100%	4%
USA	73%	5%
China	45%	5.30%
Europe	60%	4-17%
India	2.3%	17%
Global	43%	NA

Source: Industry, Emkay Research

GPIL achieved record export revenue of ~Rs1.3bn (revenue share: 10.7%) in FY24, driven by successful engagements in Southeast Asia. It primarily exports to Nepal, the UAE, Marshall Islands, Hong Kong, USA, and Qingxian. Exports commenced picking up traction from FY19; there were many inquiries made by players across the globe (primarily 6-7 countries). Albeit, exports revenue took a hit on account of Covid-19, which led to delay. Going ahead, management targets attaining export revenue levels of Rs4-5bn in coming 3-4 years. This indicates strong focus on penetrating into exports markets.

Exhibit 63: Exports revenue expected to reach the Rs4-5bn range in coming 3-4 years



Source: Company, Emkay Research

Exhibit 64: The exports market is likely to continue contributing >10% revenue to GPIL's revenue

Region	Genus Focus Areas
Southeast Asian countries	Success in Malaysian markets; opportunities are now expanding to Utilities in Thailand, Philippines, Singapore, Indonesia, Myanmar, and Vietnam as well as potential new projects with TNB in Malaysia. GPIL maintains a strong position with significant residential projects in Nepal, a successful re-entry in Bangladesh, and efforts to re-establish its presence in Bhutan.
Middle East	GPIL continued its successful partnership in the UAE and has become an approved supplier. At present, it is working to secure approvals from other Utilities and is also involved in the smart meter rollout, aiming to capture a substantial share of the emerging smart meters market.
Africa	GPIL is targeting Nigeria's expanding National Mass Metering Programme and exploring opportunities in Zanzibar, Burundi, Kenya, and Ethiopia.
Pacific Island	Company has made a notable entry into the Pacific Island market and is preparing to expand into Australia and New Zealand, leveraging the push for smart meter adoption and smarter grids.

Source: Company, Emkay Research

Export Gas Meter – Market scenario:

Smart gas metering is restricted to countries where piped natural gas (PNG) is used, most prominently in Europe. There were 246mn gas meters in 2023 of which 95% were residential and the remaining 5% for commercial use. Around 44% of gas households have smart meters today; this is expected to rise to 72% by 2033. The global market for smart gas technologies is projected to expand, from 17.7mn units in CY24 to 25.7mn units by CY29, with Europe (particularly Italy and the UK) driving majority of the market demand. North America and Asia-Pacific regions are witnessing rapid uptick, driven by rising global demand for natural gas.

Export Water Meter – Market scenario:

United States, Japan, and several European nations are leading in the adoption of water meters, driven by government initiatives, an aging water infrastructure, and increasing water stress. The Asia-Pacific region (China, Australia) is also emerging as a high-growth market. Management believes demand for water meters will grow multifold in coming years, with water becoming a scarce commodity annually.

During FY24, GPIL entered new markets, including Australia and various regions in Southeast Asia, with its advanced smart metering solutions. The first successful shipment of Smart Ultrasonic Water Meters overseas marked a significant milestone, showcasing its capability to deliver cutting-edge technology on a global scale.

Entering a marquee deal with GIC

In July-23, GPIL entered into a JV agreement with Gem View Investment Pte, Singapore (Gem View) for setting up a platform to bid for various AMISP concessions. This agreement established a platform company, namely Gemstar Infra Pte, in Singapore, with GPIL contributing 26% of the capital balance being invested by GIC. This will enable GPIL to participate in smart meter bids – an opportunity size of Rs300bn. GPIL's share in equity contribution toward the platform stands at USD210mn over the next 3-4 years. It will be the exclusive supplier of smart meters to the SPV.

The SPV is targeting to win smart metering orders worth Rs300bn over the next 3-4 years. Of this, GPIL will supply meters worth Rs180bn (60% of the contract value is for meter supply), while the balance Rs120bn will be monthly annuity payments from discoms over 100months after execution of the order. All contractual payments to GPIL for supplying meters will be done by GIC, thus easing the working capital cycle for the latter. GIC will pay GPIL within 45 days after execution of the cycle, thus de-risking GPIL from untimely payments from discoms.

As part of the JV, the platform company created a wholly-owned subsidiary, namely Gemstar Infra India Pvt, which will exclusively bid for tenders issued by utilities in India. According to the JV agreement, GPIL is required to transfer all existing AMISP contracts secured under SPVs through tender processes to Gemstar Infra Pte. Going ahead, Gemstar Infra India Pvt will participate in the tender process; if Gemstar Infra India chooses not to bid on a particular tender, GPIL has the option to participate independently.

Thus, the SPV will act as a financing SPV for GPIL going ahead. The SPV will bid for all smart metering orders for GIC together, and whichever opportunity the SPV decides not to pursue, GPIL will be free to bid for that on its own. GPIL will transfer its L1 orders worth Rs46bn to this SPV for execution.

Further, another affiliate of GIC (M/s Chiswick Investment Pte) invested ~Rs5.2bn in GPIL, against which GIC was allotted share warrants worth 15% stake (post money). This transaction is being done at a valuation of Rs113/sh.

Exhibit 65: Projecting GPIL generating IRR of 17% per annum per meter

	Particulars	Reference	Rs/smart meter
A	Total Bid value per meter		9,500
B	EPC portion toward the AMI set-up	55% of A	5,225
C	Subsidy received basis the RDSS Scheme	Central grant of 15%/22.5% of project cost (up to Rs900/Rs1,350 per meter) for normal/special category states	900
D	Debt raised for EPC portion	70% of (B-C)	3,028
E	Equity raised for EPC portion	30% of (B-C)	1,298
F	WACC		9.5%
G	Total Contract Period		10 years
H	Total Debt Period		6 years
I	Execution/deployment period of AMI		2.25 years
J	AMISP monthly recovery period post deployment of AMI	(G-H)*12 months	93 months
K	Monthly payout from customer	(A-C)/I	92.5
L	Monthly payout from customer (cumulative 93 months)	A-C	8,600
M	Less: Monthly debt EMI payment	NPV of PV: D WACC: F/12months Period: H/12months	(55)
N	Less: Monthly O&M cost		(20)
O	Net Cash flow per month	$[(K-M-N)^{12}]-1$	17
P	IRR pa per meter	IRR of cumulative monthly receipts	17%

Source: Company, Emkay Research

Exhibit 66: Profitability share between GPIL and GIC (Estimates)*

Particulars	Share
A SPV wins order from the RDSS scheme	100.0%
B Of this, 50% order flows back to GPIL in the form of EPC contract	50.0%
C O&M expenses over the course of 8-10 years	25.0%
D Balance remains with SPV (A-B-C)	25.0%
E GPIL has 26% share in SPV's profitability (D*26%)	6.5%
F Profitability flowing to GPIL from the order (B+C+E)	81.5%
G Balance profitability with GIC	18.5%

Source: Company, Emkay Research; Note: * Estimates can vary from the actual profitability in GPIL's books

Equity infusion into the SPV:

Setting up this SPV will enable GPIL to participate in smart meter bids – an opportunity size of Rs300bn. GPIL's share in equity contribution toward the platform stands at USD210mn (Rs17-18bn) over the next 3-4 years. It will be the exclusive supplier of smart meters to the SPV. During FY25, the management will disburse Rs3-4bn of equity; GPIL currently has cash balance of Rs5bn, and will be funding the equity through internal accruals.

About GIC:

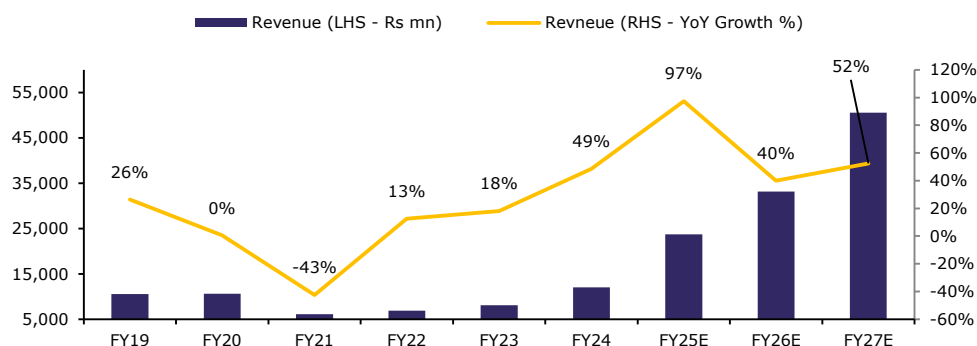
GIC is a leading global investment firm established in 1981 to secure Singapore's financial future. As manager of Singapore's foreign reserves, GIC takes a long-term, disciplined approach to investing, and is uniquely positioned across a wide range of asset classes and active strategies globally. These include equities, fixed income, real estate, private equity, venture capital, and infrastructure. GIC's long-term approach, multi-asset capabilities, and global connectivity enables it to be an investor of choice. GIC seeks to add meaningful value to its investments. Headquartered in Singapore, GIC has a global talent force of over 1,900 people in 11 key financial cities and investments in over 40 countries.

Financial Analysis

Revenue: FY24-27E revenue CAGR stands strong at 67%

With execution expected to pick up pace from H2FY25, we project the company to manufacture 5.4mn/7.5mn/11.5mn smart meters during FY25E/FY26E/FY27E, respectively. Management is confident of generating revenue (EPC+O&M) of Rs25bn (+108% YoY) during FY25; our estimates are in line with those of the management. We project this momentum to continue during FY26E/FY27E, estimating 53%/50% revenue growth – relatively slower on account of the higher base. We project FY24-27E (ex O&M) revenue CAGR of ~62%. As and when the number of smart meters for O&M keep accumulating, revenue for GPIL will further enhance going ahead; overall FY24-27E revenue CAGR stands at ~67%.

Exhibit 67: GPIL to log 67% revenue CAGR during FY24-27E



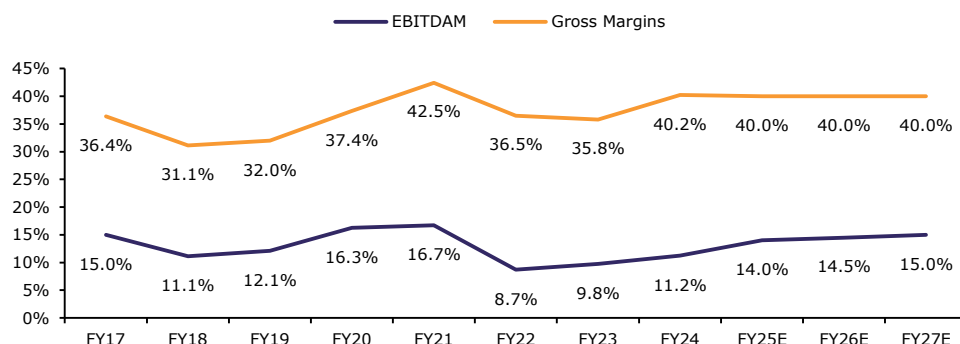
Source: Company, Emkay Research

GPIL expanded its role in the industry beyond meter supply (EPC), to include specialized software and Software as a Service (SaaS) for utilities. It has successfully solidified its position as a key player in the AMISP domain by entering a JV agreement with GIC. Considering an average bid value of Rs9,500/meter, we project the SPV to generate an IRR of 17% per meter, culminating into NPV of Rs398/meter; it will be able to generate value of ~Rs13.9bn on the 35.1mn smart meters currently under its belt. GPIL's share in the SPV stands at 26%, leading to value generation of ~Rs3.6bn, culminating into EPS of Rs12.

Gross margin and EBITDAM – Margin expected to expand to the 15-16% range

GPIL's bulk orders are locked, on fixed price basis; the management bears the brunt of extreme volatility in raw material prices. Gross margin during FY24 stood at 40%, which further improved to 44% during Q1FY25 primarily on the back of better procurement efficiencies and stable raw material prices. At present, the management is not witnessing supply chain disruptions and believes this situation will sustain; we project gross margin to trace back to 40% levels going ahead.

GPIL's margin profile recovered from the lows of 8.7% during FY22. The margin expansion was on account of higher share of export orders, better product mix, benign raw material prices, and improvement in operating efficiency. With the tide smart meters coming into play, management expects to clock margins in the range of 15-16% (FY24: ~11%). With higher capacity utilization levels in the coming period, operating leverage will start kicking in, though we believe GPIL will be able to attain its target margin range only by FY27E. We project margin growing to 14%/14.5%/15% during FY25E/FY26E/FY27E, respectively.

Exhibit 68: We expect gross margin to remain stable; operating leverage to enhance EBITDAM

Source: Company, Emkay Research

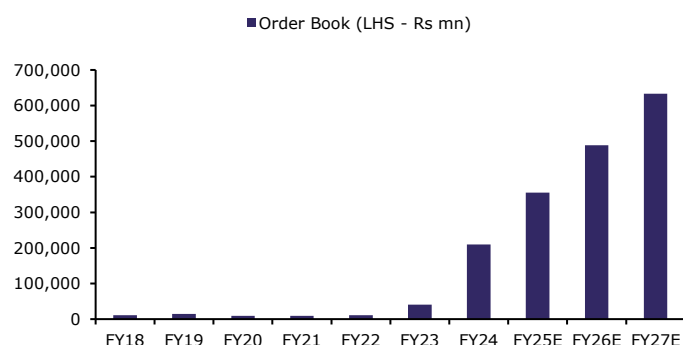
Order Book and Inflow – GPIL's 30% market share provides confidence on strong order inflow going ahead

With implementation of the RDSS, company's market size in consumer smart meter stands at Rs3trn, with the aim of installing 250mn smart meters. GPIL serves as both, an AMISP and a smart metering vendor to other AMISPs. We believe it will maintain 27% market share in the domestic metering space going ahead.

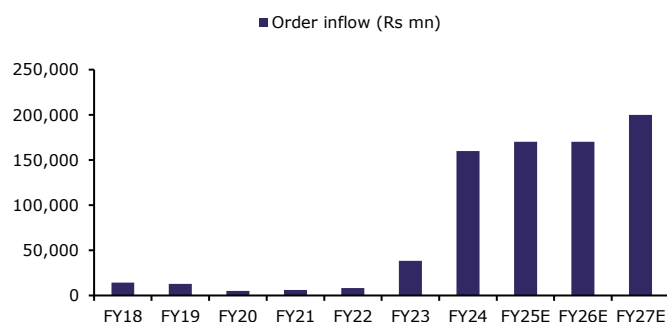
GPIL's order book (OB; including all SPVs and the GIC Platform) sky rocketed to Rs210bn at the end of FY24, on account of Rs160bn worth order-wins over the same period. During H1FY25, the company's inflows stood strong at Rs110bn (~69% of the FY24 order-wins), further boosting the order backlog to Rs320bn. These are predominantly AMISP orders, with contract durations spanning 8-10 years. At present, ~10% of the OB is composed of conventional meters, while balance orders are for smart meters. Within the smart metering space, ~90% of GPIL's order book is composed of single-phase smart meters, followed by 6% of orders for three-phase meters.

Robust tendering pipeline coupled with GPIL's strong market share provides cushioning for maintaining the inflow momentum. Although management believes that ordering activities have been relatively strong during H1FY25, it hence expects them to moderate during H2FY25. Basis this, we project inflows during FY25E to be ~Rs170bnpa (H1FY25: Rs110bn order inflow). Discoms of key states (Exhibit 61; Page 30) will be issuing AMI tenders over the next 2 years for a cumulative ~70mn smart meters. We hypothetically assign a win rate of 27% and arrive at ~26mn smart meters for GPIL. With tailwinds continuing to be in favor of GPIL, we estimate FY26E/FY27E inflows at Rs170bn/Rs200bn.

As majority of the orders are coming in as an AMISP, marginal orders are short-term cycle orders (third-party vendors; ~Rs10-15bn of OB), leading to accumulation of order backlog. The execution cycle of smart meter installation being not less than 18 months at present also adds to slow clearance of orders from the backlog. Considering the aforementioned order inflows, we arrive at order book of Rs356bn/Rs493bn/Rs642bn over FY25E/26E/27E.

Exhibit 69: Order book projected to double from H1FY25 levels

Source: Company, Emkay Research

Exhibit 70: Robust order pipeline and strong market share grant confidence on maintaining the FY24 inflow momentum

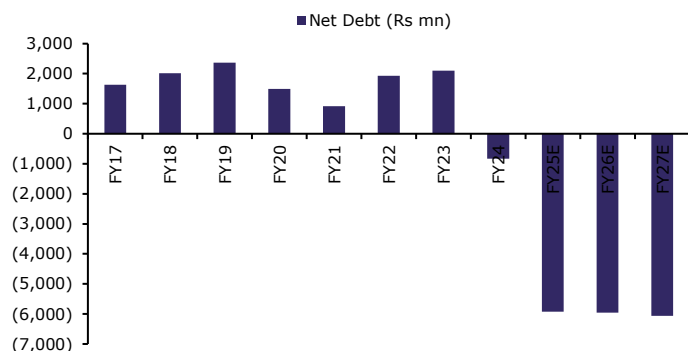
Source: Company, Emkay Research

Debt and Working Capital – GPIL to remain debt-free negative; number of NWC days to decline significantly

With improvement in its cash position, GPIL turned net debt negative during FY24, at Rs(833mn); we expect it to maintain this position going ahead. Nevertheless, the company's financing cost is ~9%, while its gross debt stood at Rs4bn at end-Q1FY25. With ramp up in execution activity H2FY25 onward, the management believes gross debt will further grow on account of working capital requirement.

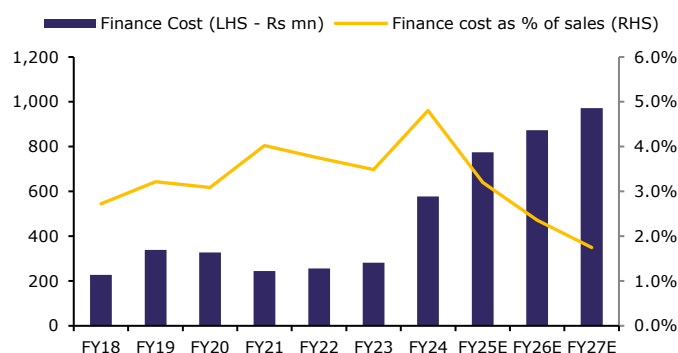
Also during Q1FY24, GPIL signed a commitment letter with United States International Development Finance Corporation to obtain a loan up to USD49.5mn, for scaling-up the deployment of electric smart meters across India. At present, there is no disbursement from the debt.

Exhibit 71: Net debt position to remain negative going ahead



Source: Company, Emkay Research

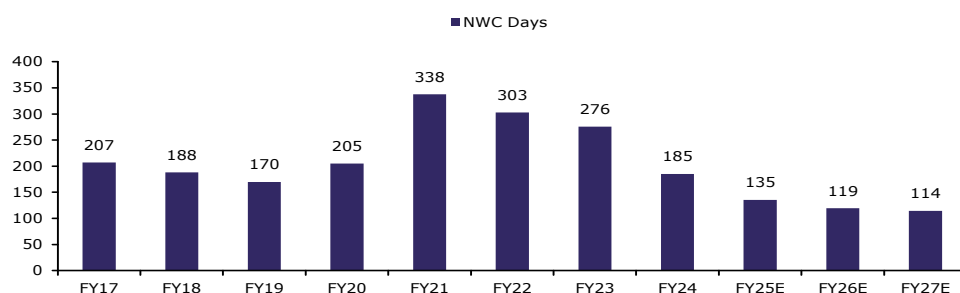
Exhibit 72: Finance cost as a % of sales to dip significantly



Source: Company, Emkay Research

With GPIL currently in the initial stage of going live operationally, the learning curve tends to be slower, leading to gradual pick up in installation. In initial quarters, the management nevertheless expects it to increase marginally going ahead; once the learning curve steepens, leading to improvement in execution of orders, the management expects the number of NWC days to significantly reduce to ~140 going ahead. We believe the improvement in number of NWC days to be significant, at 135/119/114 during FY25E/FY26E/FY27E.

Exhibit 73: Management expects NWC days to decline significantly from FY26 onwards

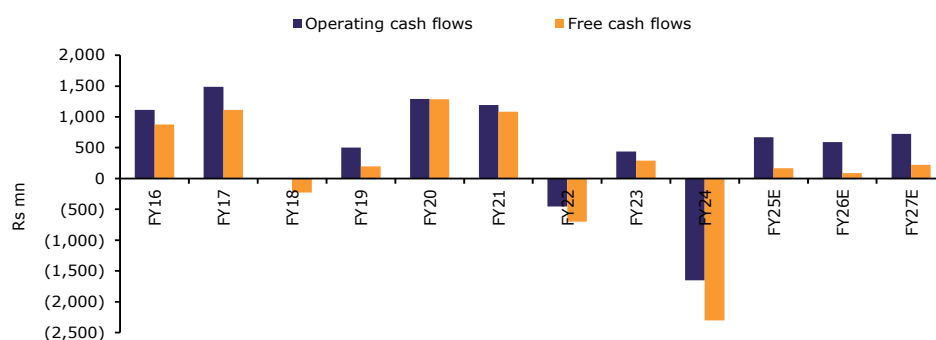


Source: Company, Emkay Research

OCF/FCF – GPIL to finance its equity infusion through internal accruals

During FY24, GPIL registered negative OCF of Rs(1.5bn), on account of changes in working capital. We expect this to turn around to Rs589mn/Rs723mn during FY26E/FY27E. The significant improvement projected in the number of NWC days going ahead will lead to improved churning of cashflows, resulting in lower working capital changes and, thereby, improvement in OCF. GPIL requires Rs17-18bn of equity for coming 3-4 years which will be deployed toward its SPV. During FY25, the management will disburse Rs3-4bn of equity; GPIL currently has cash balance of Rs5bn, and will be funding the equity through internal accruals.

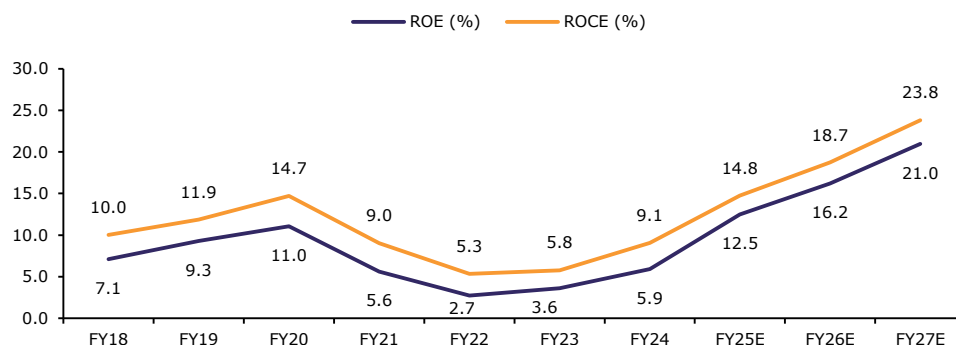
At present, GPIL has 3 manufacturing facilities with combined annual capacity of over 11mn meters. With the construction of a new greenfield facility in Guwahati, the annual capacity is likely to enhance to 14mn meters by the end of H1FY25. Over and above this, there are no capex plans; hence, we factor in maintenance capex of Rs50mnpa during FY25-27E. FCF for FY26E/FY27E comes to Rs89mn/Rs223mn, respectively.

Exhibit 74: GPIL to turn OCF/FCF positive on the back of improvement in NWC days, lower capex, and maintenance of negative net-debt position

Source: Company, Emkay Research

Valuation analysis

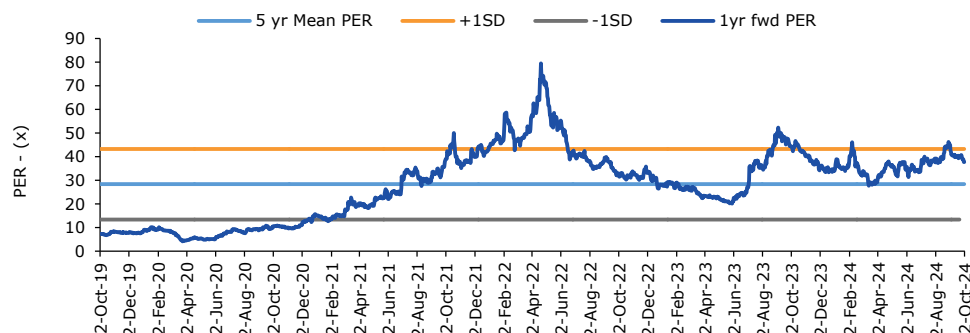
Robust tendering pipeline coupled with GPIL's strong market share provides cushioning for the positive momentum continuing ahead. We believe that GPIL will maintain its market share, projecting average inflows of Rs180bnnpa during FY25-27E. Simultaneously, strong execution will lead to the company clocking ~67% revenue CAGR during FY24-27E. We assume smart meters' average EBITDAM range of 15-16%, and expect operating leverage to kick in going ahead, leading to enhancement in margin level, from 11.2% during FY24 to 15% by FY27E. PAT CAGR is projected at 102%, with AMISP value generation leading to an EPS of Rs12. In turn, this will lead to strong growth in return ratios ahead and we project RoE/ROCE of 21%/24% during FY27E.

Exhibit 75: Return ratios to improve substantially on account of improved profitability and lean balance sheet structure

Source: Company, Emkay Research

PER

We initiate coverage on the stock with a BUY recommendation and target price of Rs500/share (30x 1YF PER Sep-26E earnings), which is a ~38% upside from the CMP of Rs362/share. The high valuation at 30x PER is backed by the company's strong market share in the smart metering space, coupled with the company focusing toward maintaining a lean balance sheet position going ahead. Further to its marquee deal with GIC, management's clear focus on continuing its negative net-debt position and with significant improvement in its working capital position collectively provide additional thrust toward enhancement of PER.

Exhibit 76: GPIL is trading above its 1-year forward PER of 30x (5year avg.)

Source: Bloomberg, Emkay Research

Exhibit 77: GPIL's SoTP-based valuation – 38% upside from CMP of Rs362/share

SoTP	Valuation Matrix	PAT	Share	No of meters (mn)	PER (x)	Value (Rs mn)	Value per share (Rs)
GPIL - Standalone	PER	Rs5,090mn	100%	-	30	152,710	488
GPIL - AMISP O&M	NPV/meter	Rs398.4/meter	26%	35.1		3,635	12
Target Price							500

Source: Emkay Research

Exhibit 78: GPIL – Emkay Estimates

Particulars	FY24	FY25E	FY26E	FY27E	FY24-27E CAGR
		Introducing			
Revenue (Rs mn)	12,006	24,184	37,058	55,626	66.7%
EBITDA (Rs mn)	1,350	3,386	5,373	8,344	83.5%
EBITDA Margin	11.2%	14.0%	14.5%	15.0%	
PAT (Rs mn)	752	2,401	4,005	6,176	101.8%
EPS (Rs/share)	2.5	7.9	13.2	20.3	101.8%
PER (x)	146	45.9	27.5	17.8	

Source: Emkay Research

About the Company

Incorporated in 1992, GPIL is part of the Kailash Group of companies. GPIL has over two decades of experience in the electricity metering solutions industry – one of the largest players domestically, with 27% market share. Since the involvement of REC and PFC as the nodal agencies under the RDSS scheme, the smart metering business has grown multifold. Additionally, GPIL is one of the earliest players to enter the AMI space, by providing complete metering solutions and post-implementation support. Its share of smart metering projects has been increasing over the past decade. It is empaneled with >40 utilities across the country and installed >80mn meters till date (including smart meters). Company's annual production capacity is >11mn meters, which will further enhance to 14mn from H2FY25. Its key customers include state electricity boards (SEBs), power distribution companies (discoms), and private utilities. GPIL also caters to overseas markets, where it deploys whole-current meters, prepaid meters, and smart meters. In July-23, GPIL entered into a JV agreement with Gem View Investment Pte, Singapore for setting up a platform to bid for various AMISP concessions. This agreement established a platform company, with GPIL contributing 26% of the capital balance being invested by GIC.

Exhibit 79: Board of Directors

Name	Designation
Ishwar Chand Agarwal	Chairman (Whole-time Director)
Kailash Chandra Agarwal	Vice-Chairman (Non-Independent, Non-Executive)
Rajendra Kumar Agarwal	Managing Director and CEO
Jitendra Kumar Agarwal	Joint Managing Director
Dr Keith Mario Torpy	Director (Non-Independent, Non-Executive)
Subhash Chandra Garg	Director (Independent, Non-Executive)
Sharmila Chavaly	Director (Independent, Non-Executive)
Gyan Prakash	Director (Independent, Non-Executive)
Chirag Mansukh Patel	Director (Independent, Non-Executive)
Shweta Gupta	Director (Independent, Non-Executive)

Source: Company, Emkay Research

Genus Power Infra: Standalone Financials and Valuations

Profit & Loss					
Y/E Mar (Rs mn)	FY23	FY24	FY25E	FY26E	FY27E
Revenue	8,084	12,006	24,184	37,058	55,626
Revenue growth (%)	18.0	48.5	101.4	53.2	50.1
EBITDA	788	1,350	3,386	5,373	8,344
EBITDA growth (%)	32.2	71.2	150.8	58.7	55.3
Depreciation & Amortization	187	213	252	288	325
EBIT	601	1,137	3,134	5,085	8,019
EBIT growth (%)	53.4	89.2	175.6	62.3	57.7
Other operating income	0	0	0	0	0
Other income	184	559	864	1,164	1,242
Financial expense	282	577	775	874	972
PBT	503	1,119	3,223	5,376	8,289
Extraordinary items	0	0	0	0	0
Taxes	153	367	822	1,371	2,114
Minority interest	0	0	0	0	0
Income from JV/Associates	0	0	0	0	0
Reported PAT	350	752	2,401	4,005	6,176
PAT growth (%)	35.5	114.8	219.4	66.8	54.2
Adjusted PAT	350	752	2,401	4,005	6,176
Diluted EPS (Rs)	1.2	2.5	7.9	13.2	20.3
Diluted EPS growth (%)	35.5	114.8	219.4	66.8	54.2
DPS (Rs)	0.7	1.0	1.1	1.2	1.3
Dividend payout (%)	62.6	38.4	13.3	8.7	6.1
EBITDA margin (%)	9.8	11.2	14.0	14.5	15.0
EBIT margin (%)	7.4	9.5	13.0	13.7	14.4
Effective tax rate (%)	30.4	32.8	25.5	25.5	25.5
NOPLAT (pre-IndAS)	418	764	2,335	3,789	5,974
Shares outstanding (mn)	303.8	303.8	303.8	303.8	303.8

Source: Company, Emkay Research

Cash flows					
Y/E Mar (Rs mn)	FY23	FY24	FY25E	FY26E	FY27E
PBT	503	1,119	3,223	5,376	8,289
Others (non-cash items)	0	0	0	0	0
Taxes paid	(149)	(291)	(822)	(1,371)	(2,114)
Change in NWC	(199)	(2,711)	(1,895)	(3,414)	(5,507)
Operating cash flow	440	(1,652)	669	589	723
Capital expenditure	(148)	(648)	(500)	(500)	(500)
Acquisition of business	(147)	(359)	0	0	0
Interest & dividend income	200	348	89	291	270
Investing cash flow	(270)	201	364	664	742
Equity raised/(repaid)	0	46	5,150	0	0
Debt raised/(repaid)	670	2,402	800	800	800
Payment of lease liabilities	0	0	0	0	0
Interest paid	(282)	(577)	(775)	(874)	(972)
Dividend paid (incl tax)	(219)	(289)	(319)	(349)	(380)
Others	159	5,208	0	0	0
Financing cash flow	328	6,791	4,856	(423)	(552)
Net chg in Cash	498	5,339	5,889	830	913
OCF	440	(1,652)	669	589	723
Adj. OCF (w/o NWC chg.)	241	(4,364)	(1,226)	(2,825)	(4,784)
FCFF	292	(2,301)	169	89	223
FCFE	211	(2,530)	(517)	(494)	(479)
OCF/EBITDA (%)	55.8	(122.4)	19.8	11.0	8.7
FCFE/PAT (%)	60.2	(336.5)	(21.5)	(12.3)	(7.8)
FCFF/NOPLAT (%)	69.8	(301.2)	7.2	2.3	3.7

Source: Company, Emkay Research

Balance Sheet					
Y/E Mar (Rs mn)	FY23	FY24	FY25E	FY26E	FY27E
Share capital	258	304	304	304	304
Reserves & Surplus	9,588	15,336	22,567	26,223	32,019
Net worth	9,846	15,640	22,871	26,527	32,323
Minority interests	0	0	0	0	0
Deferred tax liability (net)	1,014	1,570	1,570	1,570	1,570
Total debt	3,469	5,871	6,671	7,471	8,271
Total liabilities & equity	14,329	23,081	31,113	35,569	42,165
Net tangible fixed assets	1,393	1,756	2,004	2,216	2,391
Net intangible assets	11	13	13	13	13
Net ROU assets	163	163	163	163	163
Capital WIP	73	146	146	146	146
Goodwill	0	0	0	0	0
Investments [JV/Associates]	1,801	2,160	2,160	2,160	2,160
Cash & equivalents	2,991	7,680	13,569	14,399	15,313
Current assets (ex-cash)	10,233	15,664	21,309	28,855	39,876
Current Liab. & Prov.	2,162	4,325	8,076	12,208	17,721
NWC (ex-cash)	8,071	11,339	13,234	16,647	22,154
Total assets	14,329	23,081	31,113	35,569	42,165
Net debt	478	(1,809)	(6,898)	(6,928)	(7,041)
Capital employed	14,329	23,081	31,113	35,569	42,165
Invested capital	9,464	13,094	15,238	18,863	24,546
BVPS (Rs)	32.4	51.5	75.3	87.3	106.4
Net Debt/Equity (x)	0.0	(0.1)	(0.3)	(0.3)	(0.2)
Net Debt/EBITDA (x)	0.6	(1.3)	(2.0)	(1.3)	(0.8)
Interest coverage (x)	0.4	0.3	0.2	0.1	0.1
RoCE (%)	5.8	9.1	14.8	18.7	23.8

Source: Company, Emkay Research

Valuations and key Ratios					
Y/E Mar	FY23	FY24	FY25E	FY26E	FY27E
P/E (x)	314.6	146.5	45.9	27.5	17.8
P/CE(x)	204.9	114.2	45.6	28.2	18.6
P/B (x)	11.2	7.0	4.8	4.2	3.4
EV/Sales (x)	13.7	9.0	4.3	2.8	1.9
EV/EBITDA (x)	140.3	80.2	30.5	19.2	12.4
EV/EBIT(x)	184.0	95.2	36.4	22.4	14.2
EV/IC (x)	11.7	8.3	7.5	6.0	4.6
FCFF yield (%)	0.3	(2.1)	0.1	0.1	0.2
FCFE yield (%)	0.2	(2.3)	(0.4)	(0.4)	(0.4)
Dividend yield (%)	0.2	0.3	0.3	0.3	0.3
DuPont-RoE split					
Net profit margin (%)	4.3	6.3	9.9	10.8	11.1
Total asset turnover (x)	0.6	0.6	0.9	1.1	1.4
Assets/Equity (x)	1.4	1.5	1.4	1.3	1.3
RoE (%)	3.6	5.9	12.5	16.2	21.0
DuPont-RoIC					
NOPLAT margin (%)	5.2	6.4	9.7	10.2	10.7
IC turnover (x)	0.0	0.0	0.0	0.0	0.0
RoIC (%)	6.6	10.1	22.1	29.8	36.9
Operating metrics					
Core NWC days	364.4	344.7	199.7	164.0	145.4
Total NWC days	364.4	344.7	199.7	164.0	145.4
Fixed asset turnover	3.1	4.1	7.0	9.4	12.5
Opex-to-revenue (%)	26.0	29.0	26.0	25.5	25.0

Source: Company, Emkay Research

GENERAL DISCLOSURE/DISCLAIMER BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL):

Emkay Global Financial Services Limited (CIN-L67120MH1995PLC084899) and its affiliates are a full-service, brokerage, investment banking, investment management and financing group. Emkay Global Financial Services Limited (EGFSL) along with its affiliates are participants in virtually all securities trading markets in India. EGFSL was established in 1995 and is one of India's leading brokerage and distribution house. EGFSL is a corporate trading member of BSE Limited (BSE), National Stock Exchange of India Limited (NSE), MCX Stock Exchange Limited (MCX-SX), Multi Commodity Exchange of India Ltd (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) (hereinafter referred to be as "Stock Exchange(s)"). EGFSL along with its [affiliates] offers the most comprehensive avenues for investments and is engaged in the businesses including stock broking (Institutional and retail), merchant banking, commodity broking, depository participant, portfolio management and services rendered in connection with distribution of primary market issues and financial products like mutual funds, fixed deposits. Details of associates are available on our website i.e. www.emkayglobal.com.

EGFSL is registered as Research Analyst with the Securities and Exchange Board of India ("SEBI") bearing registration Number INH000000354 as per SEBI (Research Analysts) Regulations, 2014. EGFSL hereby declares that it has not defaulted with any Stock Exchange nor its activities were suspended by any Stock Exchange with whom it is registered in last five years. However, SEBI and Stock Exchanges had conducted their routine inspection and based on their observations have issued advice letters or levied minor penalty on EGFSL for certain operational deviations in ordinary/routine course of business. EGFSL has not been debarred from doing business by any Stock Exchange / SEBI or any other authorities; nor has its certificate of registration been cancelled by SEBI at any point of time.

EGFSL offers research services to its existing clients as well as prospects. The analyst for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

This report is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the clients simultaneously, not all clients may receive this report at the same time. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient.

EGFSL and/or its affiliates may seek investment banking or other business from the company or companies that are the subject of this material. EGFSL may have issued or may issue other reports (on technical or fundamental analysis basis) of the same subject company that are inconsistent with and reach different conclusion from the information, recommendations or information presented in this report or are contrary to those contained in this report. Users of this report may visit www.emkayglobal.com to view all Research Reports of EGFSL. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, and target price of the research published by any other analyst or by associate entities of EGFSL; our proprietary trading, investment businesses or other associate entities may make investment decisions that are inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest including but not limited to those stated herein. Additionally, other important information regarding our relationships with the company or companies that are the subject of this material is provided herein. All material presented in this report, unless specifically indicated otherwise, is under copyright to Emkay. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of EGFSL. All trademarks, service marks and logos used in this report are trademarks or registered trademarks of EGFSL or its affiliates. The information contained herein is not intended for publication or distribution or circulation in any manner whatsoever and any unauthorized reading, dissemination, distribution or copying of this communication is prohibited unless otherwise expressly authorized. Please ensure that you have read "Risk Disclosure Document for Capital Market and Derivatives Segments" as prescribed by Securities and Exchange Board of India before investing in Indian Securities Market. In so far as this report includes current or historic information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.

This report has not been reviewed or authorized by any regulatory authority. There is no planned schedule or frequency for updating research report relating to any issuer/subject company.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets.

Disclaimer for U.S. persons only: Research report is a product of Emkay Global Financial Services Ltd., under Marco Polo Securities 15a6 chaperone service, which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of Financial Institutions Regulatory Authority (FINRA) or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This report is intended for distribution to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor. In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors. Emkay Global Financial Services Ltd. has entered into a chaperoning agreement with a U.S. registered broker-dealer, Marco Polo Securities Inc. ("Marco Polo"). Transactions in securities discussed in this research report should be effected through Marco Polo or another U.S. registered broker dealer.

RESTRICTIONS ON DISTRIBUTION

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation. Except otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions. Specifically, this document does not constitute an offer to or solicitation to any U.S. person for the purchase or sale of any financial instrument or as an official confirmation of any transaction to any U.S. person. Unless otherwise stated, this message should not be construed as official confirmation of any transaction. No part of this document may be distributed in Canada or used by private customers in United Kingdom.

ANALYST CERTIFICATION BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL)

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible of the content of this research report, in part or in whole, certifies that he or his associated persons¹ may have served as an officer, director or employee of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant). The research analyst(s) primarily responsible for the content of this research report or his associate may have Financial Interests² in relation to an issuer or a new listing applicant that the analyst reviews. EGFSL has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the EGFSL and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of EGFSL compensation to any specific investment banking function of the EGFSL.

¹ An associated person is defined as (i) who reports directly or indirectly to such a research analyst in connection with the preparation of the reports; or (ii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial Interest is defined as interest that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at the arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL):

Disclosures by Emkay Global Financial Services Limited (Research Entity) and its Research Analyst under SEBI (Research Analyst) Regulations, 2014 with reference to the subject company(s) covered in this report:-

- EGFSL, its subsidiaries and/or other affiliates and Research Analyst or his/her associate/relative's may have Financial Interest/proprietary positions in the securities recommended in this report as of October 7, 2024
- EGFSL, and/or Research Analyst does not market make in equity securities of the issuer(s) or company(ies) mentioned in this Report
Disclosure of previous investment recommendation produced:
- EGFSL may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by EGFSL in the preceding 12 months.
- EGFSL, its subsidiaries and/or other affiliates and Research Analyst or his/her relative's may have material conflict of interest in the securities recommended in this report as of October 7, 2024
- EGFSL, its affiliates and Research Analyst or his/her associate/relative's may have actual/beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the October 7, 2024
- EGFSL or its associates may have managed or co-managed public offering of securities for the subject company in the past twelve months.
- EGFSL, its affiliates and Research Analyst or his/her associate may have received compensation in whatever form including compensation for investment banking or merchant banking or brokerage services or for products or services other than investment banking or merchant banking or brokerage services from securities recommended in this report (subject company) in the past 12 months.
- EGFSL, its affiliates and/or and Research Analyst or his/her associate may have received any compensation or other benefits from the subject company or third party in connection with this research report.

Emkay Rating Distribution

Ratings	Expected Return within the next 12-18 months.
BUY	>15% upside
ADD	5-15% upside
REDUCE	5% upside to 15% downside
SELL	<15% downside

Emkay Global Financial Services Ltd.

CIN - L67120MH1995PLC084899

7th Floor, The Ruby, Senapati Bapat Marg, Dadar - West, Mumbai - 400028. India
Tel: +91 22 66121212 Fax: +91 22 66121299 Web: www.emkayglobal.com

OTHER DISCLAIMERS AND DISCLOSURES:

Other disclosures by Emkay Global Financial Services Limited (Research Entity) and its Research Analyst under SEBI (Research Analyst) Regulations, 2014 with reference to the subject company(s) -:

EGFSL or its associates may have financial interest in the subject company.

Research Analyst or his/her associate/relative's may have financial interest in the subject company.

EGFSL or its associates and Research Analyst or his/her associate/ relative's may have material conflict of interest in the subject company. The research Analyst or research entity (EGFSL) have not been engaged in market making activity for the subject company.

EGFSL or its associates may have actual/beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the date of public appearance or publication of Research Report.

Research Analyst or his/her associate/relatives may have actual/beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the date of public appearance or publication of Research Report.

Research Analyst may have served as an officer, director or employee of the subject company.

EGFSL or its affiliates may have received any compensation including for investment banking or merchant banking or brokerage services from the subject company in the past 12 months. . Emkay may have issued or may issue other reports that are inconsistent with and reach different conclusion from the information, recommendations or information presented in this report or are contrary to those contained in this report. Emkay Investors may visit www.emkayglobal.com to view all Research Reports. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, and target price of the research published by any other analyst or by associate entities of Emkay; our proprietary trading, investment businesses or other associate entities may make investment decisions that are inconsistent with the recommendations expressed herein. EGFSL or its associates may have received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past 12 months. EGFSL or its associates may have received any compensation or other benefits from the Subject Company or third party in connection with the research report. EGFSL or its associates may have received compensation from the subject company in the past twelve months. Subject Company may have been client of EGFSL or its affiliates during twelve months preceding the date of distribution of the research report and EGFSL or its affiliates may have co-managed public offering of securities for the subject company in the past twelve months.