Table of Contents

India Energy Transition in numbers

India is leveraging its grid to incentivize energy transition by keeping it free for renewables – providing financial benefit of USD270bn

This strategy is helping India reduce the cost of Round-the-Clock Renewables and Green Hydrogen by **22%** & **30%** respectively

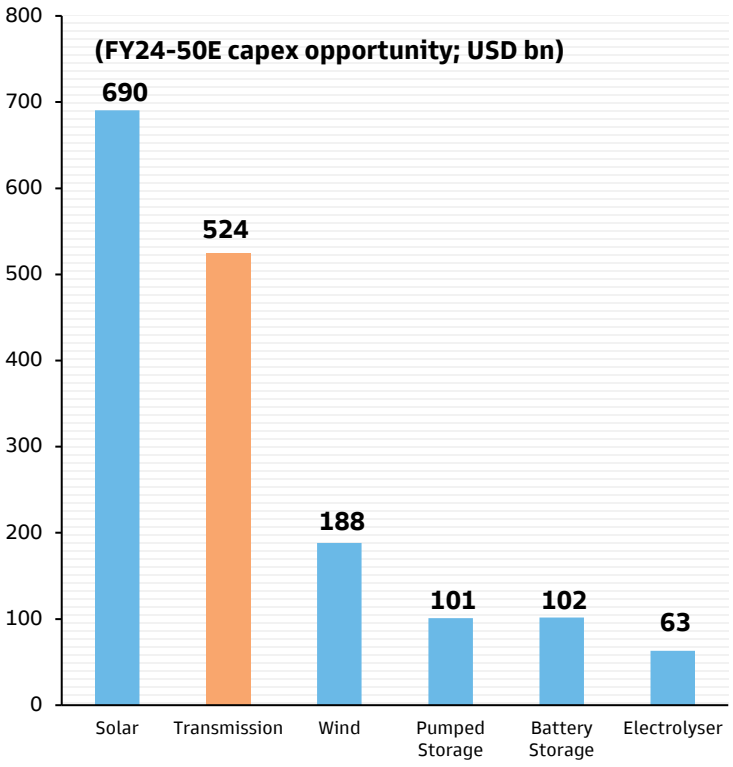
We believe the country should overbuild its **transmission grid** and keep it free – deflation in cost of renewables will more than offset rise in network cost

We estimate India's energy transition to provide USD500bn+ transmission capex opportunity – almost **1/3rd** of total transition capex

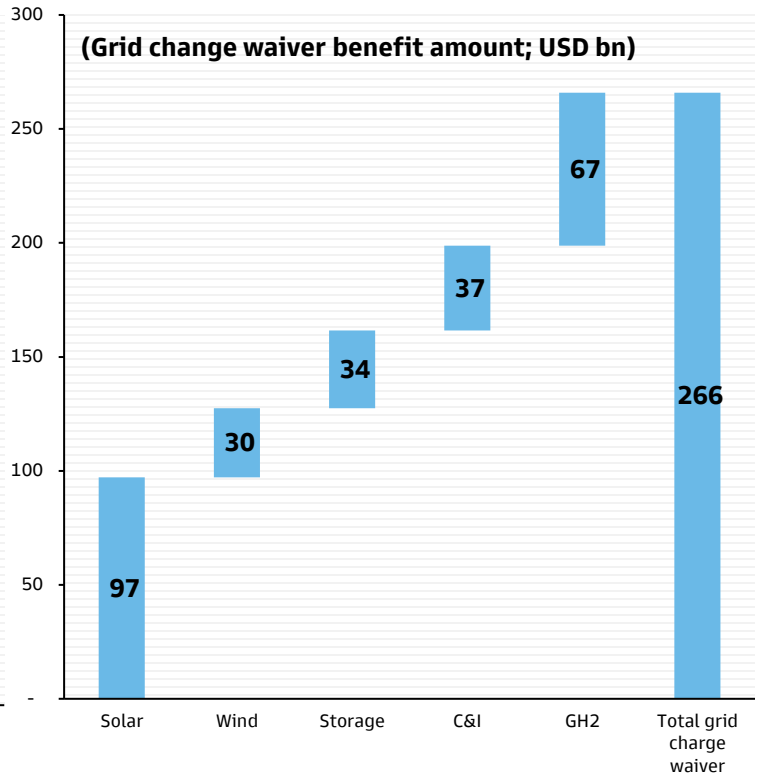
Who stands to gain?

Developers with large balance sheets and low cost of debt

Equipment manufacturers with access to cutting-edge technology



Source: Goldman Sachs Global Investment Research



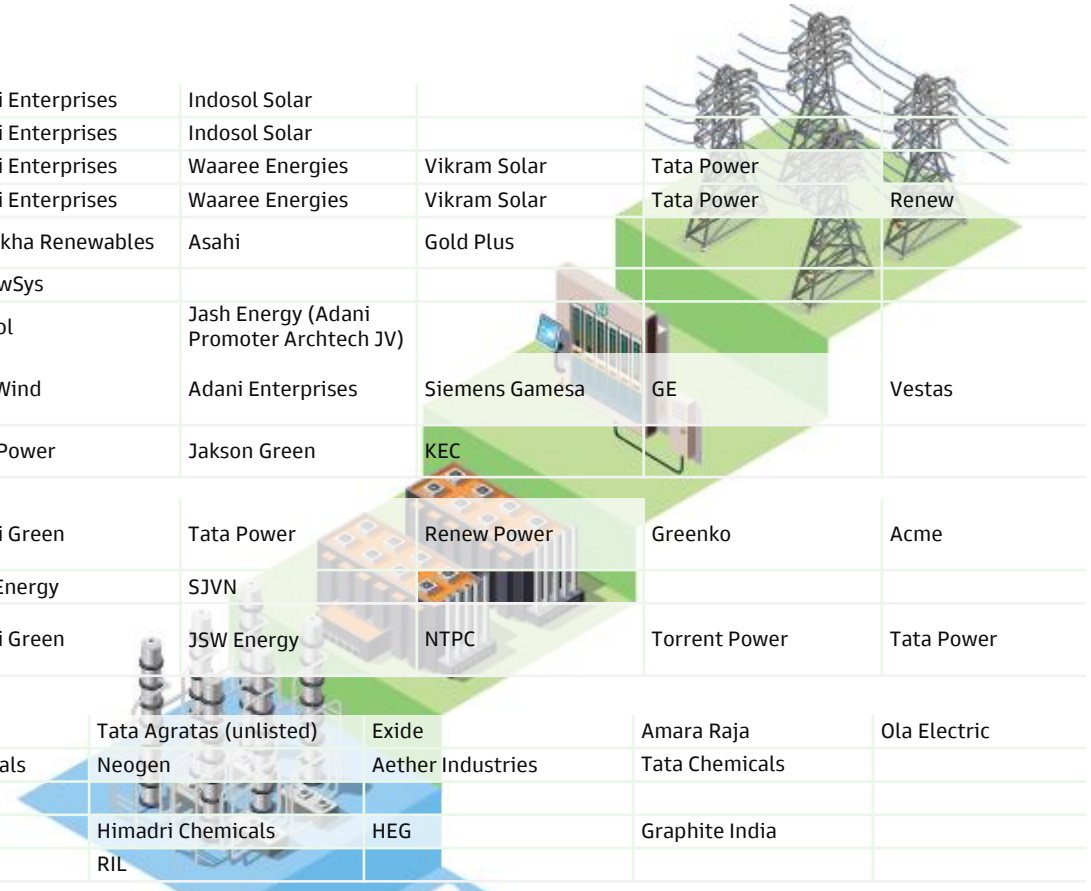
Source: MoP, Goldman Sachs Global Investment Research

BUY पावरग्रिड POWERGRID

BUY HITACHI

SELL Schneider Electric

India's Energy Transition Value Chain



Renewable Power

Solar Module Manufacturers

Polysilicon	RIL	Adani Enterprises	Indosol Solar			
Ingot & Wafer	RIL	Adani Enterprises	Indosol Solar			
Cell	RIL	Adani Enterprises	Waaree Energies	Vikram Solar	Tata Power	
Module	RIL	Adani Enterprises	Waaree Energies	Vikram Solar	Tata Power	Renew
Solar Glass	Borosil Renewables	Vishakha Renewables	Asahi	Gold Plus		
Encapsulant	RIL	RenewSys				
Tracker	Nextracker	Gensol	Jash Energy (Adani Promoter Archtech JV)			

Wind Turbine Manufacturers

Suzlon	Inox Wind	Adani Enterprises	Siemens Gamesa	GE	Vestas

Solar EPC Players

Sterling & Wilson	Tata Power	Jakson Green	KEC		

Renewable Developers

NTPC	Adani Green	Tata Power	Renew Power	Greenko	Acme
Torrent Power	JSW Energy	SJVN			

Pump Storage Developers

Greenko	Adani Green	JSW Energy	NTPC	Torrent Power	Tata Power

Battery Manufacturers

Battery Cell & Pack	RIL	Tata Agratas (unlisted)	Exide	Amara Raja	Ola Electric
Electrolyte	Gujarat Flourochemicals	Neogen	Aether Industries	Tata Chemicals	
Separator	Daramic				
Anode	Epsilon	Himadri Chemicals	HEG	Graphite India	
Cathode	Epsilon	RIL			

Transmission Value Chain

Transmission Equipment suppliers	Hitachi Energy India	Siemens	GE T&D	Schneider Electric Infra	Voltamp	CG Power	Apar Industries
Transmission EPC Players	KEC	Kalpataru	Tata Projects	L&T			
Transmission Developers	Power Grid	Adani Energy	IndiGrid	Sterlite Power	Renew Power	Tata Power	

GH2 up-stream

Electrolyser

Stack manufacturers	RIL	Adani Enterprises	L&T	Greenko-John Cockerill	Ohmium	homiHydrogen	GreenH
Metal producers	Tata Steel	JSW Steel	Hindalco	Hindustan Copper			

Electrolyser BOP

Transformer & Rectifiers	Hitachi Energy India	Siemens India	GE T&D	TRIL	Kirloskar Electric Co	Voltamp	Hind Rectifier
DC Voltage Transducer	Rishabh Instruments ■	MEPCCO ■	Globetek India ■				
Oxygen separator plant	Universal Boschi ■	Gaztron ■	Oxyplants India ■	Better Deal Machineries ■	Delhi Cryogenic Products ■		
Pumps	Kirloskar Pneumatic	Elgi Equipment					
Plate heat exchanger	Thermax	Paharpur Cooling Towers ■	Ruhrpumpen India ■				
Cooling pump	Paharpur Cooling Towers ■	Acme Pumps ■	Ruhrpumpen India ■				
Electrolyte manufacturer (Alkaline)	Gujarat Alkaline	Meghmani Finechem					
Green Hydrogen Producers	RIL	AM Green	Adani Enterprises	NTPC	Torrent Power	Acme	

GH2 mid-stream

H2 storage	Inox India	Linde India / Praxair	Time Technoplast				
Fuel cells	RIL	Adani Enterprises	H2E				
H2 pipeline infra	Welspun Corp	Man Industries					

■ Privately owned company

We note that the list of companies across the ecosystem we present above is not exhaustive, and the universe of companies involved is likely to be larger than what is presented.

Exhibit 1: Valuation Comparison - Power Grid trades at a discount to Indian power companies

Company	Rating	Market Cap ($ bn)	Price (LC) Apr 16	Curr.	Target Price	Up/Downside (%)	P/E (x) FY24E	P/E (x) FY25E	P/E (x) FY26E	EV/EBITDA (x) FY24E	EV/EBITDA (x) FY25E	EV/EBITDA (x) FY26E	P/B (x) FY24E	P/B (x) FY25E	P/B (x) FY26E	ROE (%) FY24E	ROE (%) FY25E	ROE (%) FY26E
Coverage																		
NTPC*	Buy	41.7	359.25	INR	395.00	10.0	18.0	15.9	13.8	11.9	10.8	9.7	2.2	2.0	1.9	12.7	13.3	14.0
Powergrid	Buy	30.5	274.35	INR	355.00	32.8	16.9	16.4	15.4	9.5	9.5	9.4	2.9	2.7	2.4	17.5	16.8	16.5
SJVN	Sell	6.0	127.40	INR	72.50	-43.1	45.8	44.9	23.8	34.6	30.4	13.8	3.5	3.3	3.0	7.7	7.5	13.0
Tata Power	Sell	15.5	430.35	INR	240.00	-44.2	52.6	33.7	33.1	18.1	14.3	13.6	4.2	3.8	3.4	8.3	11.8	10.9
Median							**31.9**	**25.0**	**19.6**	**15.0**	**12.6**	**11.6**	**3.2**	**3.0**	**2.7**	**10.5**	**12.6**	**13.5**
India RE & Utilities																		
JSW Energy	NC	12.6	601.40	INR	N/A	N/A	57.2	39.4	31.5	22.0	16.6	13.6	5.0	4.5	4.0	8.9	11.5	13.9
CESC	NC	2.2	141.10	INR	N/A	N/A	13.0	11.9	10.7	9.2	7.9	7.2	1.6	1.5	1.4	12.4	12.5	11.9
NHPC	NC	11.0	91.17	INR	N/A	N/A	24.5	20.2	16.3	22.6	16.0	12.4	2.4	2.2	2.1	11.0	11.5	12.7
Torrent Power	NC	8.7	1505.70	INR	N/A	N/A	36.7	26.7	24.6	17.4	14.2	13.2	5.7	5.0	4.4	20.2	19.5	18.6
Median							**30.6**	**23.4**	**20.4**	**19.7**	**15.1**	**12.8**	**3.7**	**3.4**	**3.1**			
															4.0			
India RE & Utilities Median							**30.6**	**23.4**	**20.1**	**17.7**	**14.3**	**12.8**	**3.2**	**3.0**	**2.7**	**11.7**	**12.1**	**13.5**
European RE & Utilities																		
Edp Renovaveis	Buy	14.8	12.83	EUR	17.50	36.4	41.1	50.5	28.4	15.4	14.5	12.2	1.2	1.2	1.1	2.9	2.4	4.0
Edp-Energias De Portugal	Buy	16.0	3.60	EUR	4.40	22.2	11.4	13.9	14.5	9.6	9.9	9.9	0.9	0.9	0.9	8.5	6.4	6.0
Enel Spa	Buy	62.6	5.79	EUR	8.65	49.3	9.1	8.5	8.6	6.4	6.0	6.0	1.9	1.7	1.6	14.9	14.8	13.6
Solaria Energia	Neutral	1.3	9.76	EUR	12.50	28.1	11.3	14.4	11.2	14.6	12.7	10.8	2.3	2.0	1.7	24.7	14.9	16.4
Rwe Ag	Buy	25.2	31.90	EUR	47.00	47.3	5.0	12.4	16.4	5.2	8.4	9.7	0.7	0.7	0.7	14.5	5.7	4.2
Orsted A/S	Buy	23.0	383.40	DKK	505.00	31.7	20.0	18.6	16.5	14.5	8.5	7.9	2.1	1.9	1.7	9.3	10.6	10.8
Acciona Energia	Sell	7.0	19.95	EUR	20.00	0.3	14.0	26.2	25.6	11.1	10.2	9.9	1.1	1.1	1.1	7.4	3.9	4.0
Iberdrola	Buy	76.0	11.13	EUR	14.00	25.8	15.2	14.2	13.0	9.6	9.2	8.8	1.7	1.6	1.5	7.9	8.3	8.8
Elia Group	Buy	7.2	92.30	EUR	135.00	46.3	20.9	18.2	17.3	14.1	13.3	13.6	1.3	1.3	1.2	5.8	6.6	6.7
Endesa	Neutral	19.3	17.17	EUR	19.75	15.1	13.3	11.0	10.7	7.7	6.1	5.9	3.3	2.6	2.4	24.2	25.4	22.7
E.On*	Buy	33.9	12.08	EUR	16.50	36.6	10.4	10.7	10.9	8.7	9.0	9.1	2.3	2.0	1.8	12.0	12.9	12.9
Terna	Neutral	15.5	7.26	EUR	7.95	9.5	16.5	13.8	14.0	11.8	10.5	10.8	2.3	2.2	2.1	14.1	16.1	15.2
Median							**13.7**	**14.0**	**14.3**	**10.4**	**9.5**	**9.8**	**1.8**	**1.7**	**1.6**	**10.6**	**9.4**	**9.8**
US RE & Utilities																		
Nextera Energy Partners Lp	CS	2.5	27.00	USD	N/A	N/A	13.7	12.0	14.8	9.5	9.2	9.2	0.9	1.4	N/A	NA	NA	NA
Brookfield Renewable Partner	NC	13.2	20.01	USD	N/A	N/A	19.6	15.5	12.4	28.8	26.1	27.8	1.0	0.8	N/A	NA	NA	NA
American Electric Power	Buy	41.0	79.51	USD	99.00	24.5	15.2	14.1	13.0	11.9	10.8	10.5	1.6	1.6	1.5	11.0	11.5	11.8
Nextera Energy Inc	Buy	123.7	61.70	USD	73.00	18.3	19.4	18.5	16.7	13.9	13.7	12.0	2.1	2.1	1.9	11.9	11.3	11.9
Duke Energy Corp	Neutral	71.5	92.87	USD	100.00	7.7	16.7	15.8	14.9	11.5	10.6	10.2	1.5	1.5	1.4	8.4	8.9	9.2
Xcel Energy Inc	Buy	28.6	52.53	USD	71.00	35.2	15.7	14.6	13.4	12.5	10.4	10.3	1.7	1.5	1.5	10.8	11.1	11.3
Median							**16.2**	**15.1**	**14.1**	**12.2**	**10.7**	**10.4**	**1.6**	**1.5**	**1.5**	**10.9**	**11.2**	**11.6**
Global RE & Utilities Median							**15.2**	**14.3**	**14.3**	**11.6**	**10.3**	**10.0**	**1.6**	**1.6**	**1.5**	**10.9**	**10.8**	**11.0**

* denotes stock is on the Conviction List; NC is Not Covered; CS is Coverage Suspended; closing price on April 16, 2024

Source: Datastream, Bloomberg, Goldman Sachs Global Investment Research, Company data

Exhibit 2: Valuation Comparison - India MNC industrials trade at a significant premium to their global parents

Company	Rating	Market Cap ($ bn)	Price (LC) Apr 16	Curr.	Target Price	Up/Downside (%)	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (%)		
							FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E
Coverage																		
Hitachi Energy India	Buy	2.9	7,564.45	INR	8,250.00	9.1	264.2	99.6	54.7	110.6	51.6	30.1	24.3	20.2	15.6	9.6	22.1	32.1
Schneider Electric Infra	Sell	1.2	794.15	INR	470.00	-40.8	80.4	83.4	57.0	63.2	51.5	36.9	48.1	31.7	21.5	85.3	45.8	45.0
Coverage Median							**172.3**	**91.5**	**55.8**	**86.9**	**51.6**	**33.5**	**36.2**	**25.9**	**18.5**	**47.4**	**34.0**	**38.5**
India MNC Industrials																		
ABB India	NC	12.3	818.60	INR	N/A	N/A	84.5	73.5	64.7	68.2	58.2	50.0	17.2	14.4	12.1	21.9	26.1	31.3
Siemens India	NC	17.5	5,532.55	INR	N/A	N/A	66.6	55.2	45.5	48.9	40.0	32.5	9.9	8.7	7.8	15.1	15.9	17.0
Cummins India	Neutral	10.4	3,121.65	INR	1,737.00	-44.4	70.5	56.6	54.0	33.1	57.3	53.9	15.0	13.1	11.7	22.5	24.7	22.9
Median							**70.5**	**56.6**	**54.0**	**48.9**	**57.3**	**50.0**	**15.0**	**13.1**	**11.7**	**21.9**	**24.7**	**22.9**
Japan Industrial Electronics																		
Hitachi*	Buy	86.8	13,880.00	JPY	16,700.00	20.3	20.0	23.2	20.6	7.3	11.3	10.4	2.6	2.9	2.6	12.1	11.1	12.1
Fujikura	Buy	4.7	2,613.00	JPY	2,700.00	3.3	17.6	16.0	13.0	4.1	8.8	7.4	3.1	2.6	2.3	15.2	15.2	17.4
Panasonic HD	Neutral	20.5	1,359.50	JPY	1,650.00	21.4	12.0	7.8	11.8	5.6	5.0	4.8	0.9	0.8	0.8	7.4	10.3	6.4
Fuji Electric	Buy	9.2	9,918.00	JPY	11,600.00	17.0	23.1	19.1	17.4	6.4	9.7	8.4	2.7	2.5	2.2	11.2	12.5	12.5
Daihen	Buy	1.6	9,960.00	JPY	10,600.00	6.4	18.5	15.1	15.4	6.7	12.7	9.6	2.4	2.1	1.9	12.9	14.3	12.6
Sumitomo Elec.	Neutral	12.0	2,388.00	JPY	2,600.00	8.9	16.5	14.3	12.1	5.0	6.2	5.7	1.0	1.0	1.0	5.4	6.3	7.3
Furukawa	Sell	1.5	3,367.00	JPY	2,900.00	-13.9	14.9	38.3	20.9	9.6	11.8	8.8	0.8	0.8	0.8	4.9	1.9	3.4
Meidensha	Sell	0.9	3,200.00	JPY	2,600.00	-18.8	20.4	20.7	17.1	6.0	8.0	7.1	1.3	1.3	1.2	6.4	6.0	7.0
Median							**18.1**	**17.5**	**16.2**	**6.2**	**9.3**	**7.9**	**1.9**	**1.7**	**1.6**	**9.3**	**10.7**	**9.7**
European Industrials																		
ABB	Buy	97.7	41.45	CHF	44.00	6.2	17.8	18.5	16.4	12.2	14.2	12.7	5.7	5.4	5.0	31.5	28.5	30.1
Siemens AG	Buy	145.5	173.08	EUR	220.00	27.1	15.9	16.0	13.9	8.9	10.3	8.6	2.9	2.8	2.6	14.7	14.8	16.3
Schneider Electric	Sell	123.4	208.70	EUR	167.00	-20.0	25.4	24.1	21.8	12.1	14.9	13.5	4.4	4.1	3.9	17.3	17.3	17.8
Rexel S.A.	Buy	7.6	23.82	EUR	29.00	21.7	9.3	9.2	8.4	5.9	6.9	6.4	1.3	1.2	1.1	14.3	13.6	13.8
Median							**16.8**	**17.2**	**15.2**	**10.5**	**12.2**	**10.7**	**3.6**	**3.5**	**3.2**	**16.0**	**16.0**	**17.0**
US Industrials																		
Cummins Inc.	Neutral	42.1	294.58	USD	306.00	N/A	14.9	15.2	14.5	6.9	8.9	8.6	4.7	6.1	5.3	27.9	30.4	33.6
Generac Holdings	Buy	7.9	129.10	USD	123.00	-4.7	31.2	29.7	25.5	14.4	14.6	12.5	3.5	3.1	2.8	10.9	11.1	11.4
Median							**23.1**	**22.4**	**20.0**	**10.7**	**11.8**	**10.6**	**4.1**	**4.6**	**4.0**	**19.4**	**20.7**	**22.5**

* denotes stock is on our Conviction List; NC is Not Covered; as on April 16, 2024

Source: Datastream, Bloomberg, Goldman Sachs Global Investment Research, Company data

PM Summary

Why power transmission has an outsized importance in India's energy transition?

1. India's large, advanced, fully integrated transmission network allows development of the least-cost renewable energy (RE) sites, helping overcome geographical constraints between supply and demand centers. This in turn allows the system to focus on pan-India resource / cost optimisation, rather than catering to local maxima, helping unlock new business models, like storage-as-a-service, green open access etc.
2. Additionally, by keeping network access free of cost, the government is helping improve financial viability of RE projects, while at the same time improving its cost competitiveness for consumers.
3. Lastly, we view India's grid enabled cost leadership in Round-the-clock Renewable Energy (RTC RE) as just the intermediary layer of our India Energy Transition Stack (Exhibit 14), which, over the long term will help it attain Food and Fuel self-sufficiency (production of green hydrogen and its downstream derivatives like ammonia, methanol, chemicals, fertilisers, synthetic hydrocarbons etc.).

How are we leveraging this?

1. By virtue of having built a robust national power transmission grid, India was able to add c.70GW solar capacity between FY14-23, without material corresponding investment in the grid.
2. Benefit of free of cost grid access for RE generators and consumers is equivalent to financial support of c.USD270bn, in our estimate. This helps materially improve the cost competitiveness of renewables while simultaneously making it more palatable for consumers.
3. More importantly, we believe this strategy is helping unlock new business models and solutions critical for deeper decarbonisation of the economy. For example, free, adequate grid access has improved the cost competitiveness of closed loop pump storage systems, which, in turn has led to the country's global RTC RE cost leadership and unlocked **c.300GW Corporate and Industrial renewable transition opportunity**.

Evaluating India's transmission for transition strategy - is it net positive?

1. Since the cost of transmission waiver is spread across each unit of non-renewable electricity consumed, the subsidy / support burden on the government is minimal, even though the quantum of incentive is at par with that being offered by much larger economies.
2. In our opinion, consumers will be impacted in the medium term as cost of surplus transmission network build out is loaded on retail electricity tariffs, and we expect the transition to be deflationary over the longer term (as shift to RE breaks linkage of electricity generation cost with commodity price movements). Additionally, distribution sector reforms (technical and commercial loss reduction) is a low

hanging fruit, and can help offset the rise in tariffs partially.

How can the Grid be reimagined?

1. India could reimagine its Grid as a transition enabler, rather than as an infrastructure asset, in our view, by taking an integrated energy transition-centric approach for network planning over the traditional one based on regional demand-supply equations.
2. We assess the strategy of overbuilding transmission grid and keeping it free for renewables to be net positive at system level over the longer term, as the gains from energy transition (and global new energy cost leadership) would far outweigh the incremental burden of network cost socialisation.
3. Availability of adequate, free grid access could unlock new and unexpected business models, creating a flywheel effect facilitating decarbonisation. New demands and use-cases for renewable energy could emerge, absorbing the surplus transmission capacity over time.
4. Consequently, we expect transmission TAM could become much larger than current consensus estimates and published government targets. We estimate c.USD100bn spend over FY24-32E and USD500bn+ by FY50E on upgrading India's transmission infrastructure. Relevant capex for transmission equipment suppliers could be even larger, as apart from network upgrade, there are likely to be material opportunities in RE grid-connectivity capex and electrolyser manufacturing.
5. Lastly, this potential opportunity would begin materialising at least 2-3 years before the actual ramp up in new energy production, given transmission is among the longest lead items in the entire value chain. Within transmission, equipment manufacturers would be the earliest beneficiaries of a capex upcycle, followed by EPC providers and then project developers.

Who Stands to gain?

1. Asset developers like Power Grid will potentially capture the bulk of upcoming transmission capex opportunity, backed by large balance sheets and low cost of debt. We estimate Power Grid's annual cash generation to be adequate to fund c.30% of India's overall FY23-32E grid capex, even when maintaining its current dividend payout.
2. Transmission equipment manufacturers like Hitachi Energy will have an even wider TAM - not only will they be one of the earliest beneficiary of USD385bn government grid-expansion linked transmission capex opportunity, they will have access to another USD190bn capex from private grid and non-grid investments over FY24-50E.

Where can we go wrong?

1. In the near term, global shortages in high voltage equipment and transformers could lead to disappointment in ordering / execution, vs. our estimates. It could also drive technology / voltage downgrades in key projects (400kv instead of 765kv), leading to reduction in capital cost.

2. Over the longer term, we view battery storage is a competitor for transmission network expansion. Co-location of batteries along with solar / wind can help increase line utilisation, thereby reducing the requirement of oversizing network for evacuation of surplus RE to PSP sites. Our estimates suggest that a combination of co-located solar and batteries becomes cost competitive against the CEA suggested RTC configuration (solar and wind in the ratio of 1:3 generation along with marginal storage), once BESS prices (pack + BoS) decline from the current c.USD250/kWhr to below USD90/kWhr if grid charge waivers continue, and USD105/kWhr if they are removed.

What can surprise us?

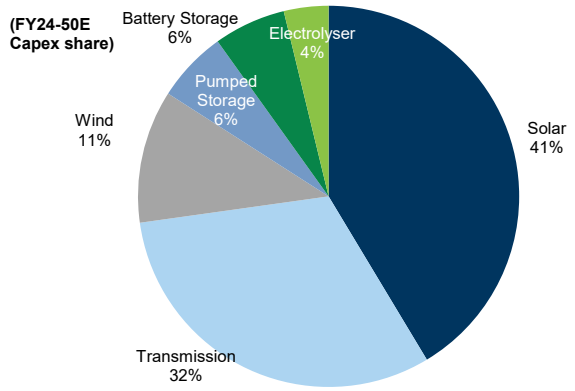
DISCOMs' pushback, especially the ones of states with low RE generation / potential, against rising per unit transmission cost on continued loading of grid charges on non-renewable consumers. While we maintain that the transition will be deflationary in the long-term, rise in cost burden on DISCOMs / consumers over the medium term might have to be addressed via capital subsidies for large transmission projects.

Stock picks

- India's largest transmission asset developer **Power Grid (PGRD.BO; Buy; 12m TP of Rs355/sh) is our top pick** to play our grid capex super cycle thesis, for its large balance sheet (ability to **fund c.30% of India's FY24-32E grid capex** while maintaining its current dividend payout), **structural funding advantage** and **consistency of core regulated earnings**. We see +30 / +69% / -14% return potential in our base-bull-bear scenarios.
- Among the grid equipment manufacturers, we like **Hitachi Energy India (HITN.BO; Buy; 12m TP of Rs8,250/sh), for its large TAM, global technology leadership, indigenous manufacturing capability** in a globally supply constrained environment and positioning as a **potential China+1 beneficiary** as global supply chains re-align. We see +9% / +107% / -28% return potential in our base-bull-bear scenarios.
- Lastly, while we like **Schneider Electric Infra (SEIN.BO; Sell; 12m TP of Rs470/sh)** for its technological capabilities and strong presence in the large TAM medium voltage segment, we find the **risk reward unfavorable after the 375% rally** in its share price over the last 12 months. We see -38% / -8% / -72% return potential in our base-bull-bear scenarios.

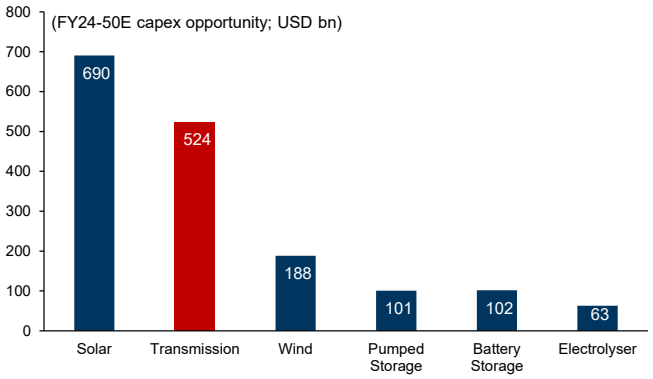
Thesis in 11 charts

Exhibit 3: We estimate power transmission to have the second largest share in India's energy transition capex requirement...



Source: Goldman Sachs Global Investment Research

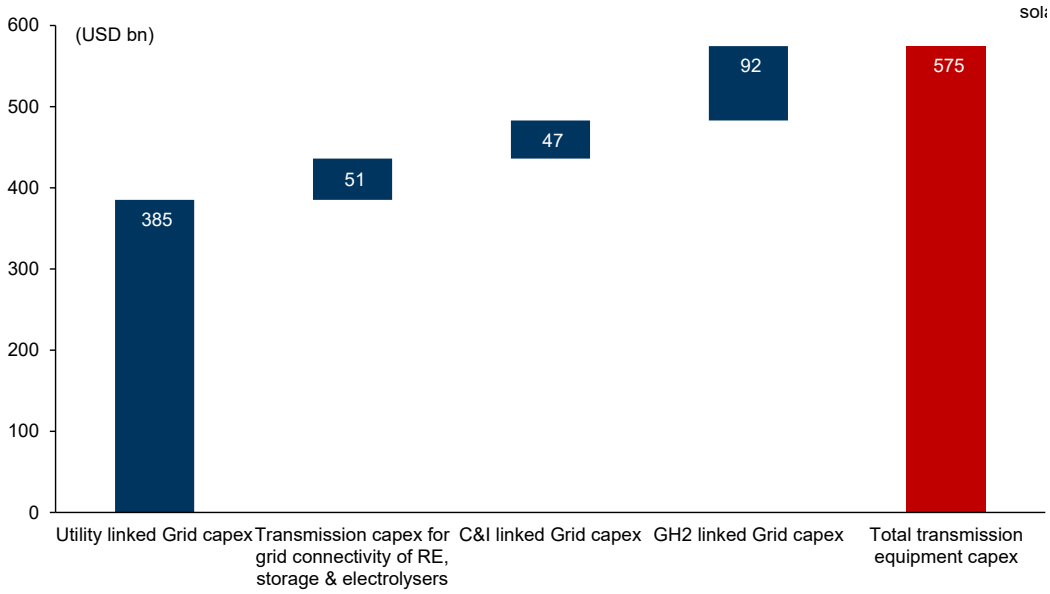
Exhibit 4: ...at USD524bn over FY24-50E, spread across utility-scale, corporate decarbonisation and green hydrogen segments



Source: Goldman Sachs Global Investment Research

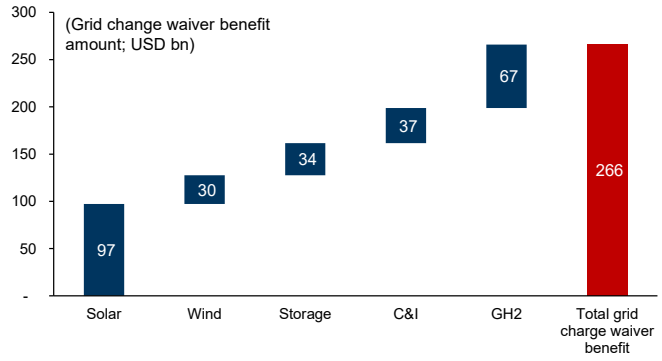
Exhibit 5: Transmisssion equipment manufacturers will have multiple demand pools (Green Hydrogen, Corporate Decarbonisation and RE capacity grid connectivity projects), in addition to the utility linked grid capex opportunity

Estimated capex opportunity between FY24-50E



Source: CEA, Goldman Sachs Global Investment

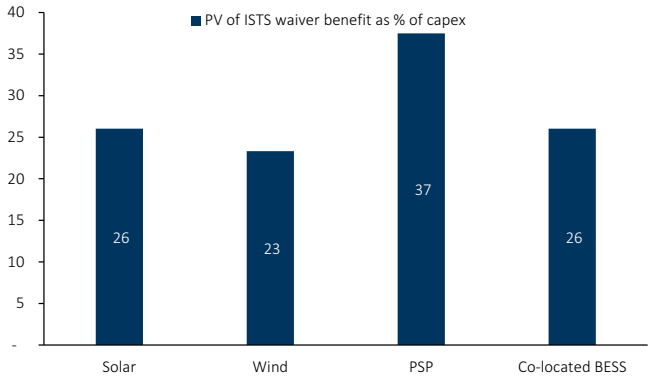
Exhibit 6: India's grid charge waiver for new and renewable energy projects is providing a cumulative financial benefit worth USD266bn b/w FY14-55E



*ISTS waiver benefit calculated assuming extension of waiver till end-FY30; *GSe of USD1.2tn

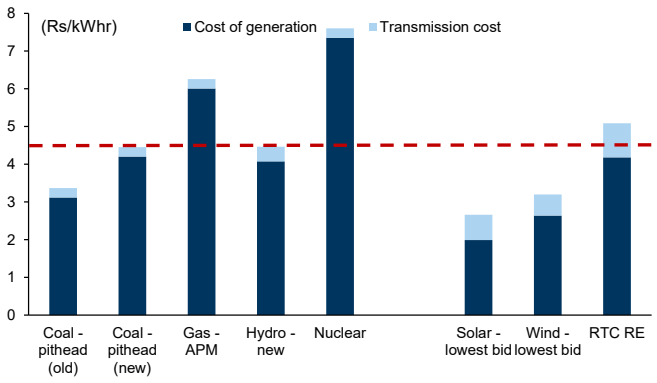
Source: MoP, Goldman Sachs Global Investment Research

Exhibit 7: ...which translates to capex subsidy of 25-35% for RE / storage projects



Source: Goldman Sachs Global Investment Research

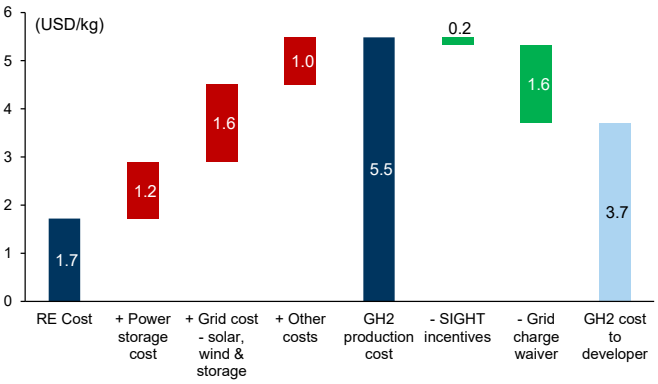
Exhibit 8: The technical & financial support provided by free transmission access is instrumental in driving cost competitiveness of RE vs. fossil based generation



*as on Mar'24

Source: CEA, Goldman Sachs Global Investment Research

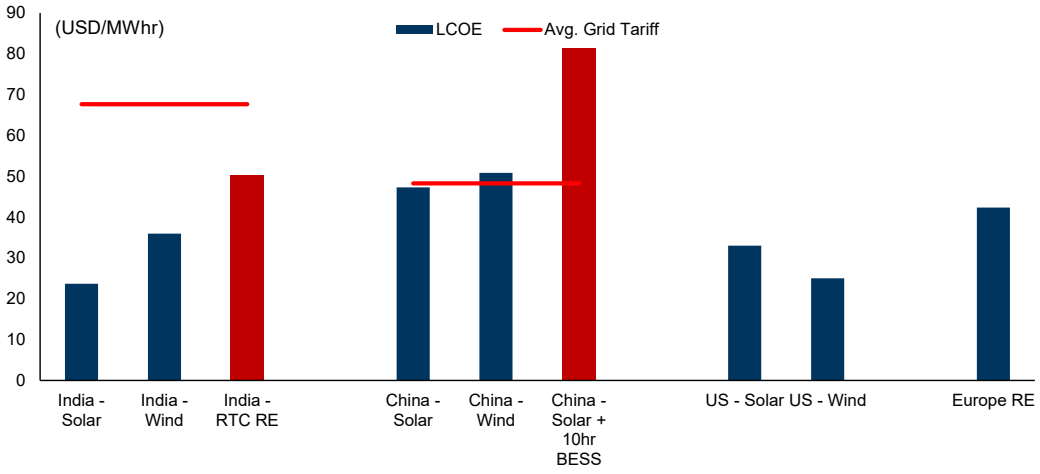
Exhibit 9: For green hydrogen production, we estimate India's central grid charge waiver to provide implied benefit equivalent to c.30% of production cost



* RE - Renewable, GH2 - Green Hydrogen, SIGHT- Strategic Interventions for Green Hydrogen Transition Scheme, ISTS - Inter-state Transmission System; as on Mar'24

Source: SECI, CEA, MNRE, MoP, Goldman Sachs Global Investment Research

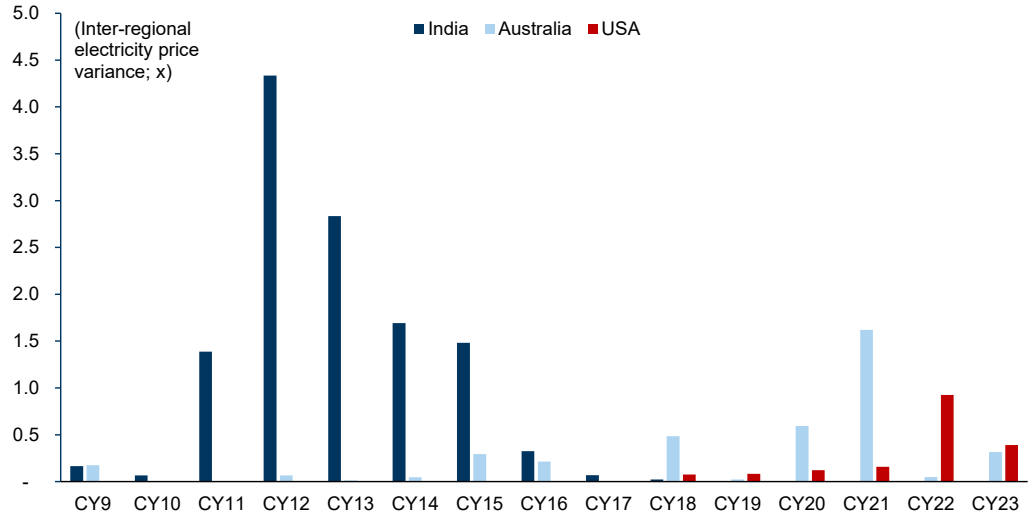
Exhibit 10: India's firm renewable energy cost is c.27% lower than that of China, despite not having a fully integrated upstream manufacturing base yet



*LCOE - Levelised Cost of Energy; as on Mar'24

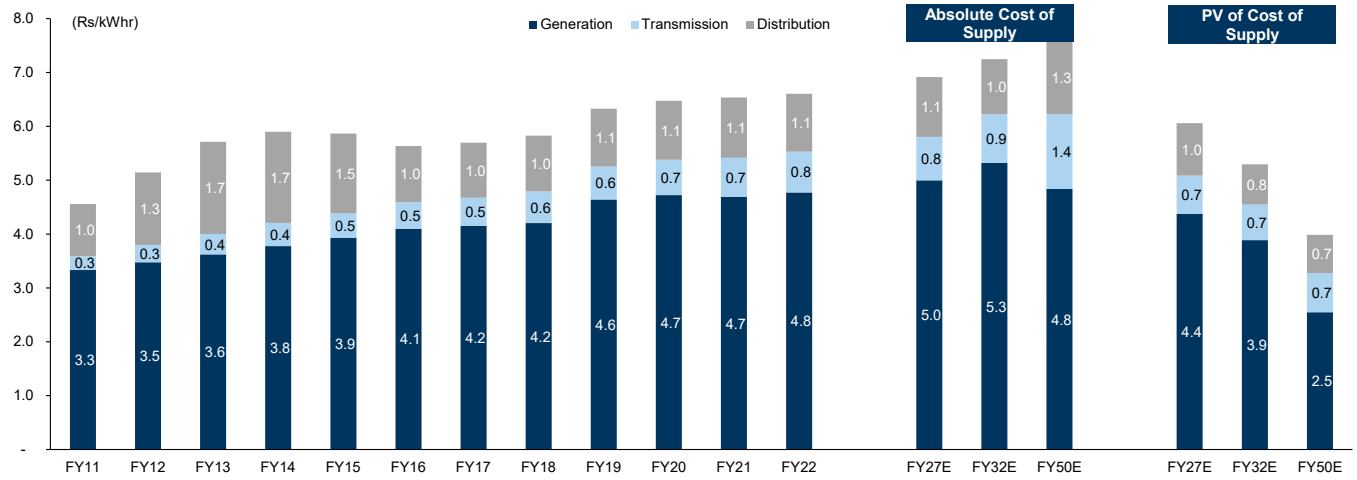
Source: Goldman Sachs Global Investment Research

Exhibit 11: The robustness and integration of India's national grid can be guaged from the fact that post previous transmission capex cycle, the country has reported least variance in regional power prices
Variance of regional power prices from national average



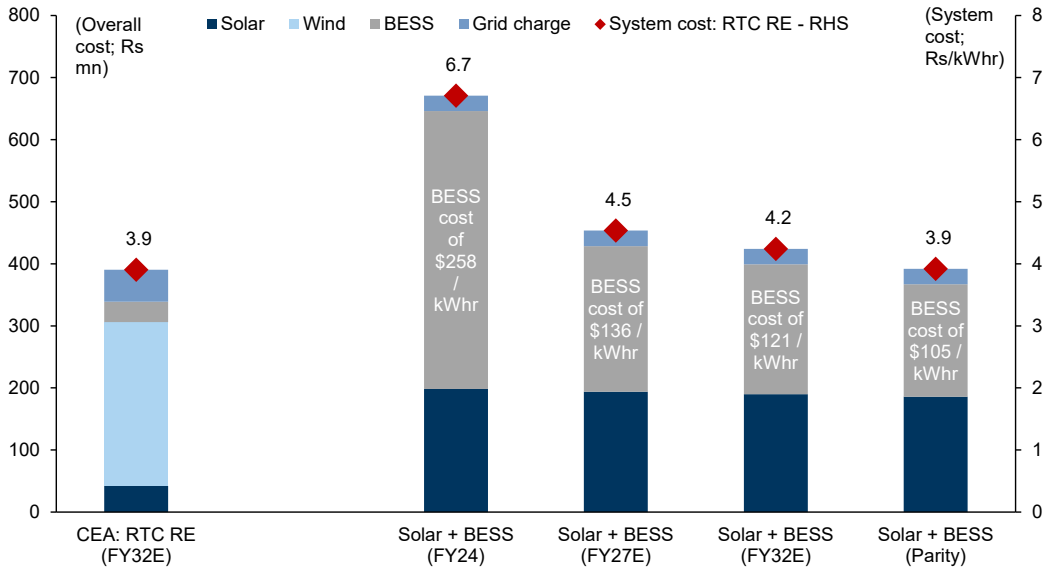
Source: IEX, AEMO, US Bureau of Labor Statistics, Data compiled by Goldman Sachs Global Investment Research

Exhibit 12: While the burden of overbuilding transmission network & socialising costs will lead to rise in electricity tariffs in the medium term, we estimate it to be deflationary over the longer term - and hence net positive for consumers



Source: CERC, SERCs, Goldman Sachs Global Investment Research

Exhibit 13: Key risk - BESS prices need to decline to USD105/kWhr for it to begin impacting the transmission intensity of a round-the-clock renewable power supply system



*CEA RTC RE calc. factors solar & wind generation in 1:3 ratio

Source: CEA, Goldman Sachs Global Investment Research