

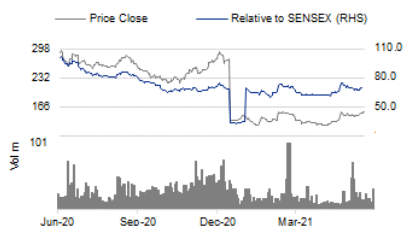
India

REDUCE (previously ADD)

Consensus ratings*:	Buy 21	Hold 5	Sell 1
Current price:	Rs159		
Target price:	Rs149		
Previous target:	Rs270		
Up/downside:	-6.3%		
InCred Research / Consensus:	-12.2%		
Reuters:	COAL.NS		
Bloomberg:	COAL IN		
Market cap:	US\$13,402m		
	Rs982,031m		
Average daily turnover:	US\$36.8m		
	Rs2693.7m		
Current shares o/s:	6,162.7m		
Free float:	33.9%		
*Source: Bloomberg			

Key changes in this note

- FY22F EPS cut by 49.8%
- FY23F EPS cut by 61.6%



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	8.5	5.9	18.3
Relative (%)	0.7	1.5	(25.2)

Major shareholders	% held
Promoter & Promoter Group	66.1
HDFC Trustee Company Ltd	4.1
CPSE Exchange Traded Scheme	2.6

Analyst(s)

Shaily RUPARELIA
T (91) 22 4161 1556
E shaily.ruparelia@incredcapital.com
Satish KUMAR
T (91) 9004603998
E satish.kumar@incredcapital.com

Coal India

Downgrade to Reduce

- Renewable energy is replacing coal-based power globally and in India. At best, Coal India could grow sales volumes by 5% CAGR over FY21-24F, in our view.
- Staff cost is likely to go up as Coal India will start wage negotiations with the employee union from Jun 2021.
- We expect EPS to decline at 6.8% CAGR over FY21-24F. We downgrade Coal India's rating to Reduce, with a lower 12-month TP of Rs149.

Coal-based power is losing its sheen, CIL volume growth at risk

Globally fossil fuels are losing their sheen, and it is no different in India. According to Enerdata (www.enerdata.com), incremental demand for electricity in India was met by renewables energy in 2019 (for the first time since India's independence). While the world is becoming an increasingly efficient user of energy (energy intensity vis-à-vis GDP is coming down), the levelised cost of solar energy has become cheaper than coal-based energy. This is leading to the global replacement of fossil fuel-based electricity power by solar power. Globally, coal has been losing its shine for the last five years. In India coal-based power costs at least Rs4-4.5/KwHr for a new plant, based on CIL-supplied coal, but solar power cost is Rs3.24/ KwHr (Source: IRENA Energy database). CIL's volume growth depends on incremental coal demand coming from new plants, which would be miniscule in our view. At best, CIL could grow sales volumes by 5% CAGR over FY21-24F.

Costs to increase, but unlike previously FSA price will not rise easily

Earlier, after every wage negotiation, CIL raised fuel supply agreement (FSA) prices of coal and its customers accepted it as they used to pass it on to their end consumers. However, with solar becoming cheaper, producers do not have the leeway to pass on costs. While there is always a question of grid stability if the share of renewables share goes up, we have solved this problem with the green energy corridor for the time being. The rapid decline in energy storage cost and advent of super capacitor-based energy storage systems could resolve this issue in future. Overall, CIL does not have the pricing power it had some years ago.

Downgrade the stock to Reduce, and lower TP to Rs149

We value the stock at 5x FY23F EV/EBITDA, in line with the trading multiple of its global peers. While this multiple is below the historical average, it has little meaning in the current context. The sharp decline in solar-based power cost means coal is out of favour in countries like India, where solar irradiation is quite high. While the government's decision to impose 40% basic customs duty (BCD) on solar modules and 25% on solar cells from 1 Apr 2022 is slightly positive for CIL, the easy availability of technology and 12-month window is enough for power producers to either stock photovoltaic (PV) cells or import technology to make it locally. Risk: Lower-than-estimated wage hike will be positive for Coal India.

Financial Summary	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Revenue (Rsm)	960,803	900,260	958,856	1,041,892	1,093,953
Operating EBITDA (Rsm)	219,209	185,734	136,766	118,766	149,531
Net Profit (Rsm)	167,003	127,022	92,010	80,385	103,116
Core EPS (Rs)	27.1	20.6	14.9	13.0	16.7
Core EPS Growth	(4.0%)	(23.9%)	(27.6%)	(12.6%)	28.3%
FD Core P/E (x)	5.88	7.73	10.67	12.22	9.52
DPS (Rs)	12.0	12.5	12.5	12.5	12.5
Dividend Yield	9.85%	7.84%	7.84%	7.84%	7.84%
EV/EBITDA (x)	3.40	4.38	5.12	5.38	3.93
P/FCFE (x)	14.53	9.49	4.24	6.77	7.29
Net Gearing	(67.9%)	(40.8%)	(67.9%)	(82.8%)	(89.7%)
P/BV (x)	3.05	2.69	2.52	2.50	2.34
ROE	57.0%	37.0%	24.4%	20.5%	25.4%
% Change In Core EPS Estimates			(49.78%)	(61.59%)	
InCred Research/Consensus EPS (x)			0.68	0.55	0.87

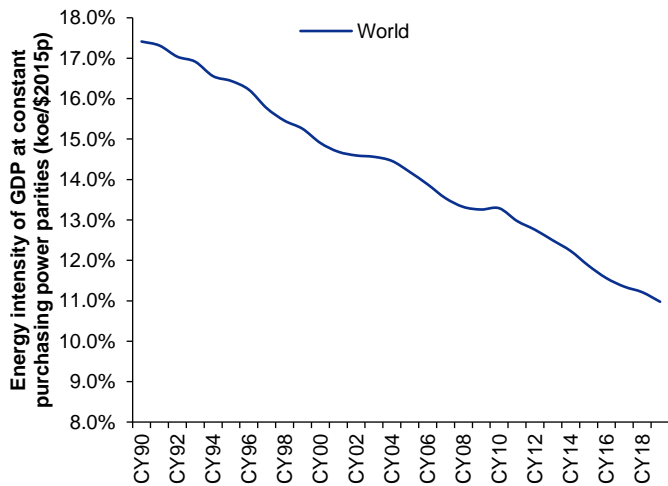
SOURCES: INCRED RESEARCH ESTIMATES, COMPANY REPORTS. PRICED AS AT 14 JUN 2021

Downgrade to Reduce

**Fossil fuel losing sheen globally, India is no different
World is increasingly becoming an efficient user of energy ➤**

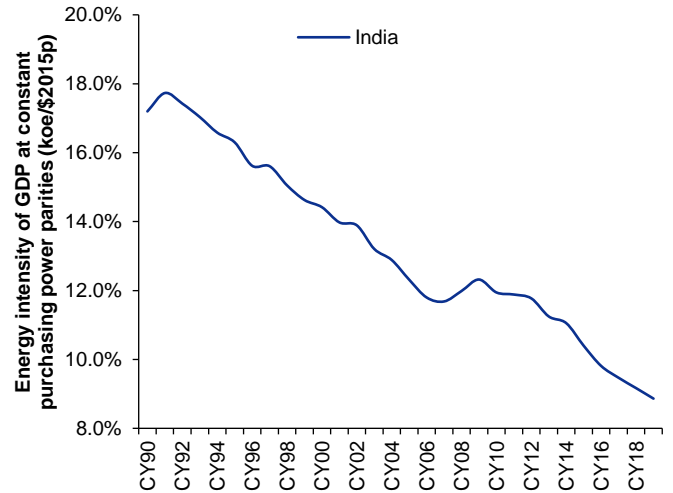
This is clear from the declining energy intensity of global GDP. Even developing countries like India and China are showing remarkable efficiency in this segment.

Figure 1: Global energy intensity declined 37% over 30 years



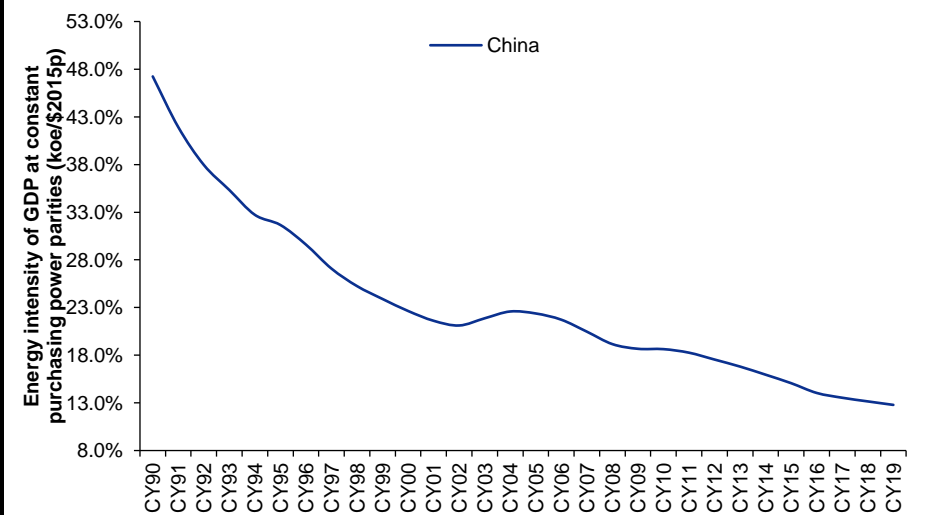
SOURCES: INCRED RESEARCH, ENERDATA.COM

Figure 2: India's energy efficiency improved faster, and its energy intensity declined by 48%



SOURCES: INCRED RESEARCH, ENERDATA.COM

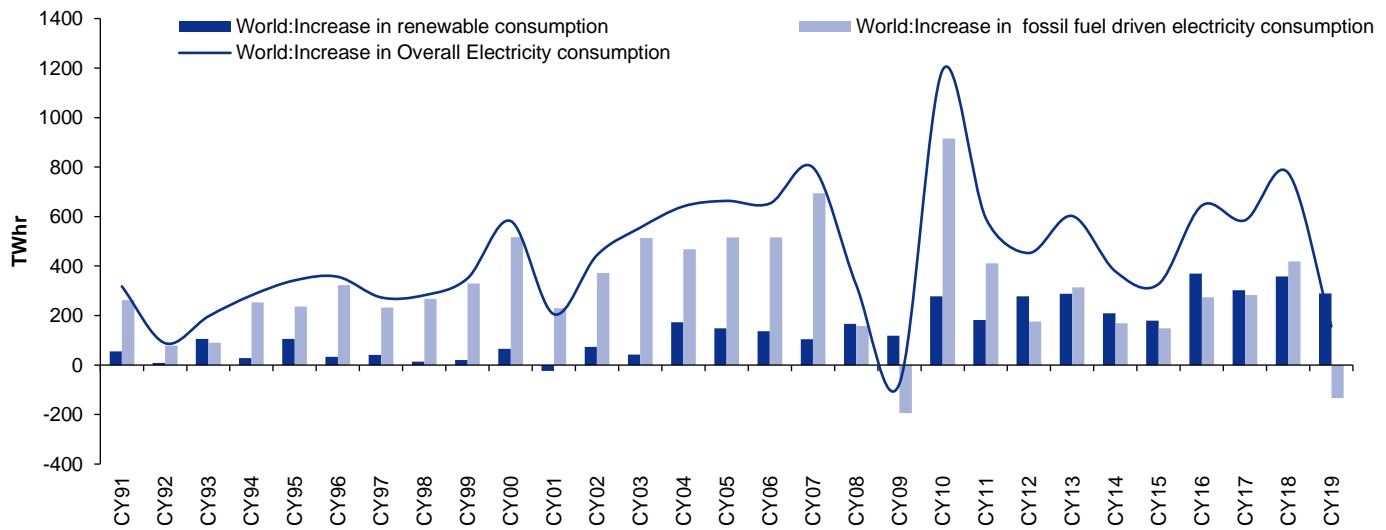
Figure 3: China's improvement is most remarkable. It reduced its energy intensity to GDP by 73% over the last 30 years



SOURCES: INCRED RESEARCH, ENERDATA.COM

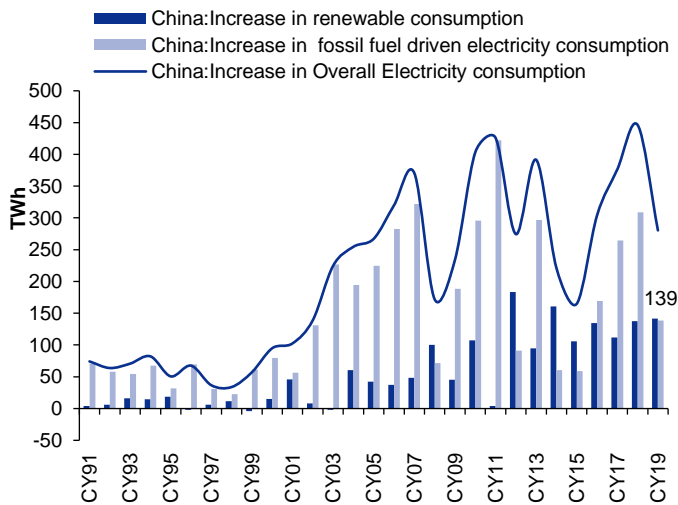
Renewables are fulfilling incremental energy demand in India, China and the world

Figure 4: In CY19 Indian electricity demand increased by 3tr watt/hour, but renewable energy production rose by 28tr watt/hour indicating that renewables replaced ~25tr watt/hour of fossil fuels (coal-driven energy)



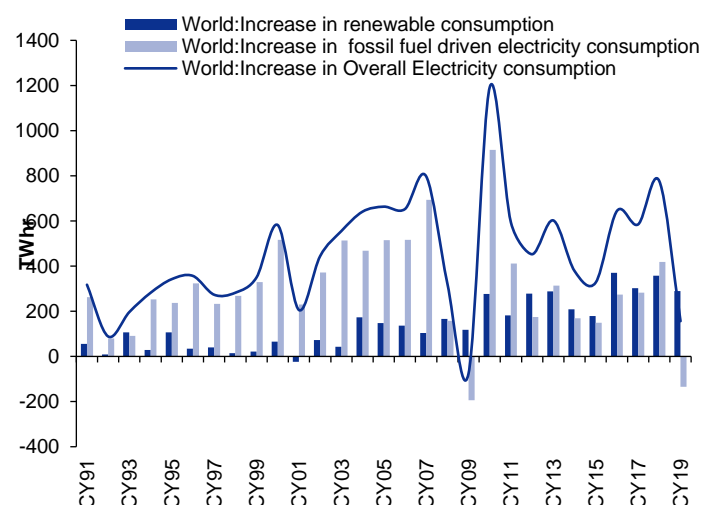
TWHR = TRILLION WATT/HOUR
SOURCES: INCRED RESEARCH, ENERDATA.COM

Figure 5: China's renewable electricity production surpassed fossil fuel-driven electricity production in CY19



TWHR = TRILLION WATT/HOUR
SOURCES: INCRED RESEARCH, ENERDATA.COM

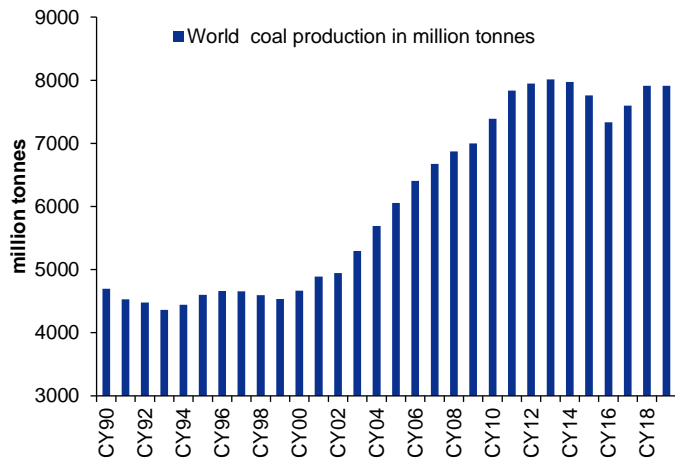
Figure 6: Like India, renewable electricity is replacing coal-driven electricity globally



TWHR = TRILLION WATT/HOUR
SOURCES: INCRED RESEARCH, ENERDATA.COM

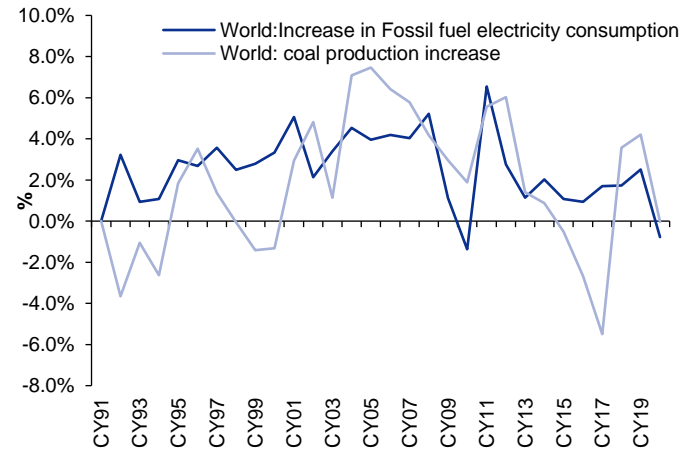
Coal production is increasing ➤

Figure 7: Global production fell in CY15, but rose from CY16



SOURCES: INCRED RESEARCH, ENERDATA.COM

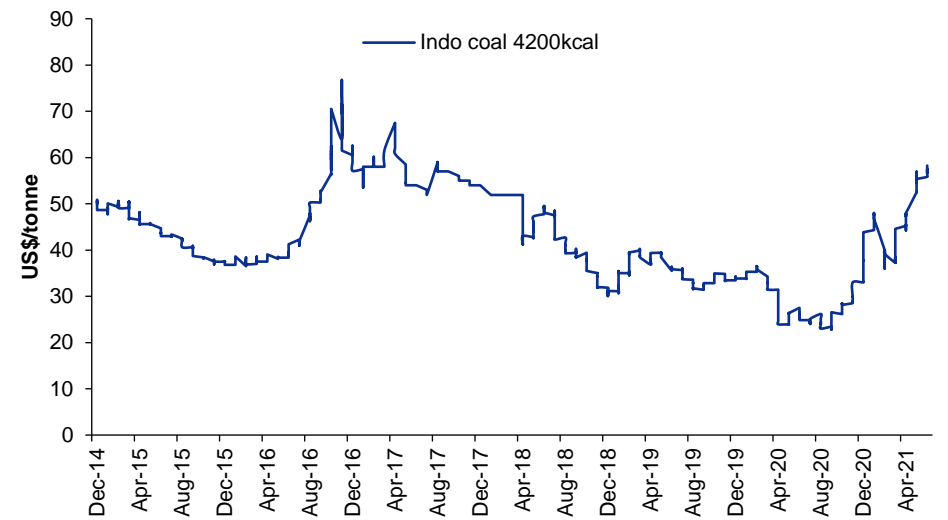
Figure 8: While coal production has broadly tracked change in fossil fuel electricity consumption, in recent years coal production rate has been higher



SOURCES: INCRED RESEARCH, ENERDATA.COM

Structural headwinds are leading to stagnation/ fall in global coal prices ➤

Figure 9: Indian coal competes with 4200kcal/kg Indonesian coal, whose prices hover around US\$40-60/tonne



SOURCES: COMPANY REPORTS, INCRED RESEARCH

Falling global demand of coal is negative for CIL

Coal India gets almost 25% (FY21 EBITDA) of its operational EBITDA from e-auction coal, whose price depends on international market prices. Most buyers of e-auction coal have the option to buy coal from the international market, hence landed price of e-auction coal becomes important for Indian users.

CIL-supplied coal has higher taxes ➤

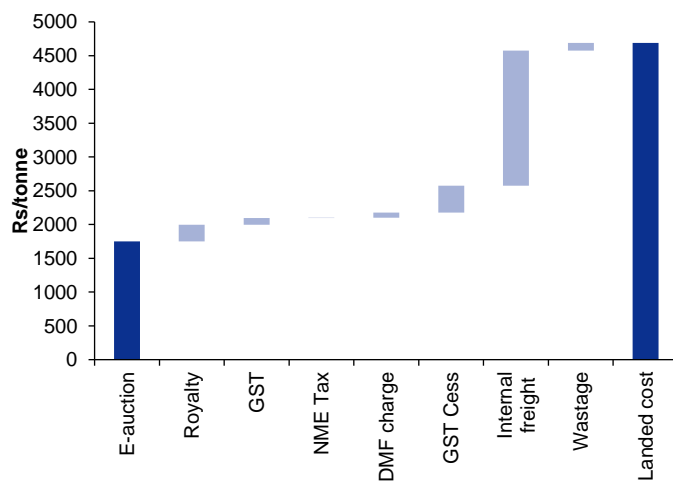
Figure 10: Coal attracts high level of taxation, primarily GST compensation cess of Rs400/tonne

	Cost (Rs)	Units
4Q FY21 Base E-auction price	1,752.0	Rs/tonne
Royalty	245.3	14% of base prices
GST	99.9	5% of price
National mineral exploration tax	4.9	2% of Royalty
District mineral foundation charge	73.6	30% of Royalty
GST compensation cess	400.0	Rs/tonne
Overall cost	2,575.6	Rs/tonne

SOURCES: INCRED RESEARCH, COMPANY REPORTS

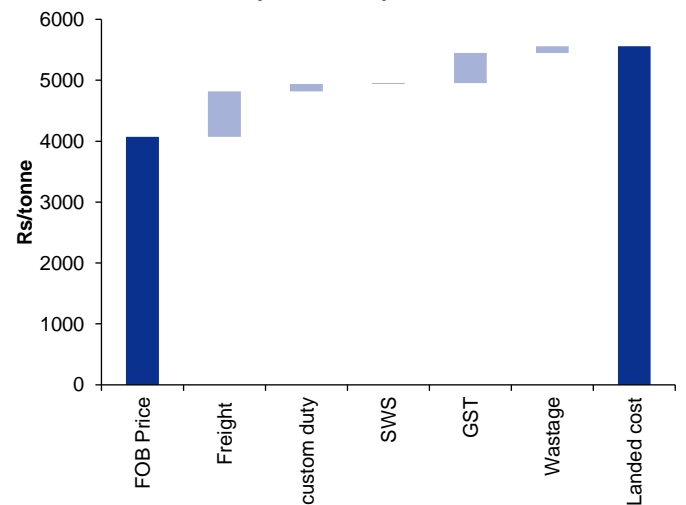
Port-based plants are better off buying low-grade Indonesian coal than CIL's e-auction coal ➤

Figure 11: For normal CIL e-auction coal, cost per '000 kcal works out to Rs1.35 for port-based plants



NME= NATIONAL MINERAL EXPLORATION TAX, DMF= DISTRICT MINERAL FOUNDATION
SOURCES: INCRED RESEARCH, COMPANY REPORTS

Figure 12: At US\$55/tonne, 4200kcal Indonesian coal works out to Rs1.32/'000 kcal for port-based plants



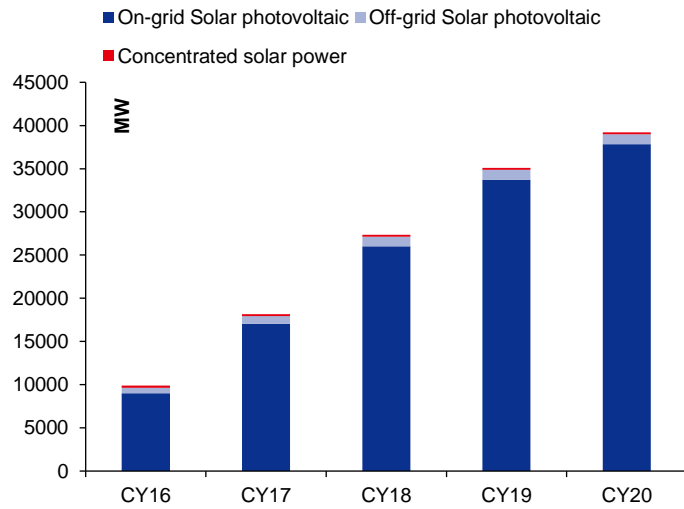
SWS= SOCIAL WELFARE SURCHARGE
SOURCES: INCRED RESEARCH, COMPANY REPORTS

E-auction prices unlikely to rise if Indonesian 4200kcal/kg coal price does not ➤

As mentioned previously Coal India's e-auction coal competes with Indonesian coal, hence its prices are closely tied to Indonesian coal. Given the global trajectory of coal demand, we do not see any structural rise in coal prices which does not bode well for Coal India's e-auction prices.

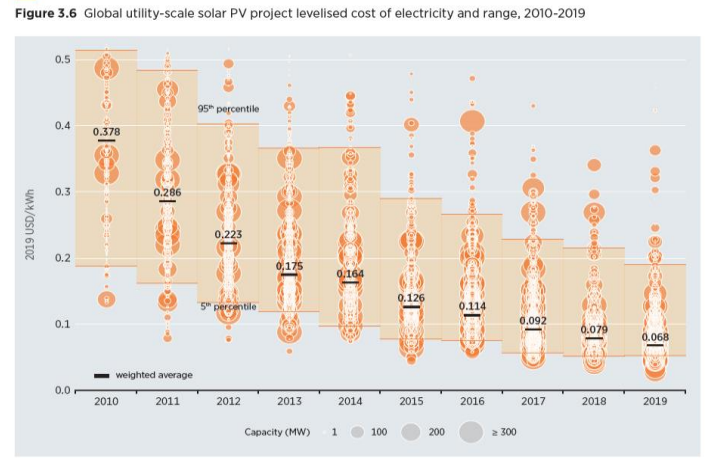
Any large rise in coal prices will be self defeating as it will lead to a more rapid transition to solar power ➤

Figure 13: India's solar power capacity rose in the past 5 years



SOURCES: INCRED RESEARCH, IRENA RENEWABLE COST DATABASE

Figure 14: On average, global utility scale solar power costs fell significantly over the last 10 years

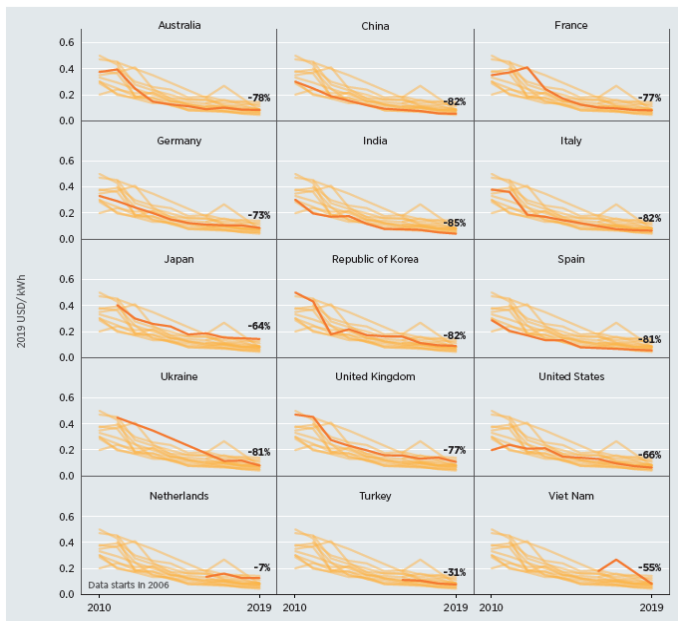


Source: IRENA Renewable Cost Database.

SOURCES: INCRED RESEARCH, WWW.IRENA.COM

Figure 15: Almost everywhere, costs reduced ~70%

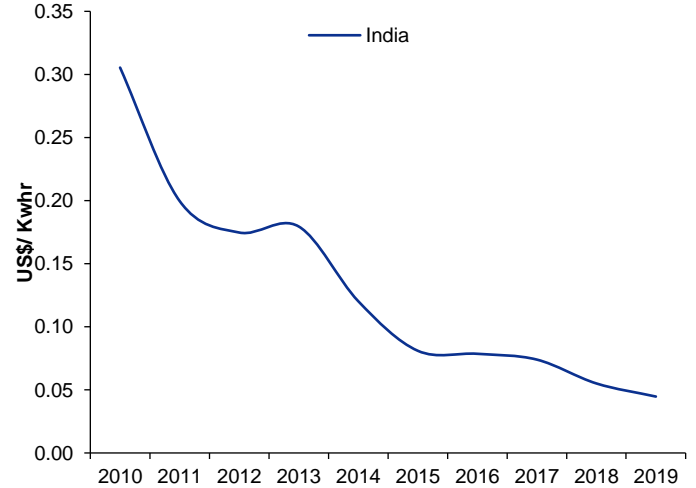
Figure 3.7 Utility-scale solar PV weighted average cost of electricity in selected countries, 2010-2019



Source: IRENA Renewable Cost Database.

SOURCES: INCRED RESEARCH, IRENA RENEWABLE COST DATABASE

Figure 16: India has been leading the cost reduction race. Solar power costs fell by 85% in the last 10 years

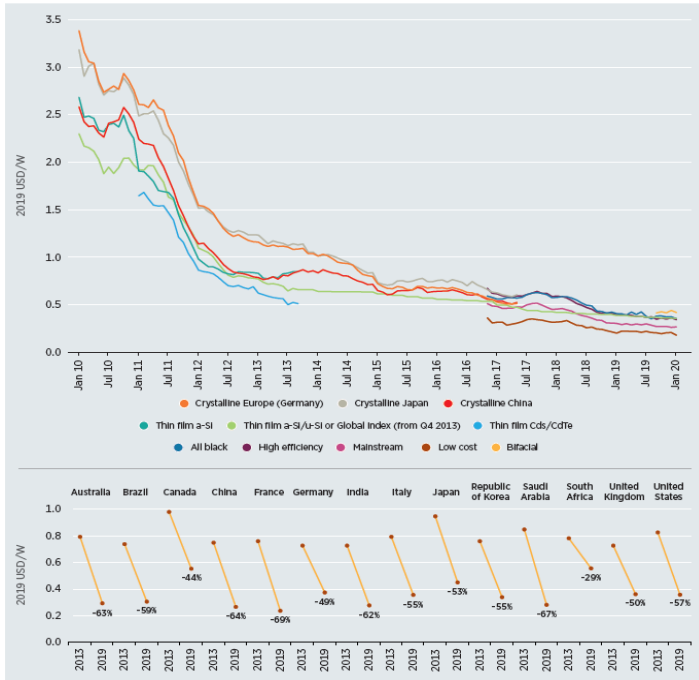


KWHR = KILOWATT PER HOUR
SOURCES: INCRED RESEARCH, IRENA RENEWABLE COST DATABASE

PV cell costs are declining, resulting in significant fall in overall utility scale plant costs ➤

Figure 17: In India average PV module costs (2019 US\$ terms) declined by 55% over the last 10 years

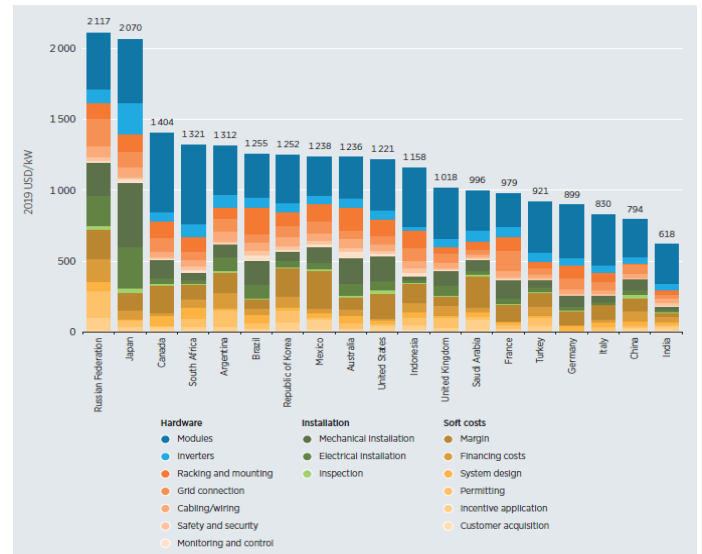
Figure 3.2 Average monthly solar PV module prices by technology and manufacturing country sold in Europe, 2010 to 2020 (top) and average yearly module prices by market in 2013 and 2019 (bottom)



Source: GlobalData (2019); pvXchange (2020); Photon Consulting (2017).
SOURCES: IRENA, GLOBALDATA (2019), PVXCHANGE (2020), PHOTON CONSULTING (2017), INCRED RESEARCH

Figure 18: India has one the lowest costs of utility-scale solar power plant

Figure 3.5 Detailed breakdown of utility-scale solar PV total installed costs by country, 2019



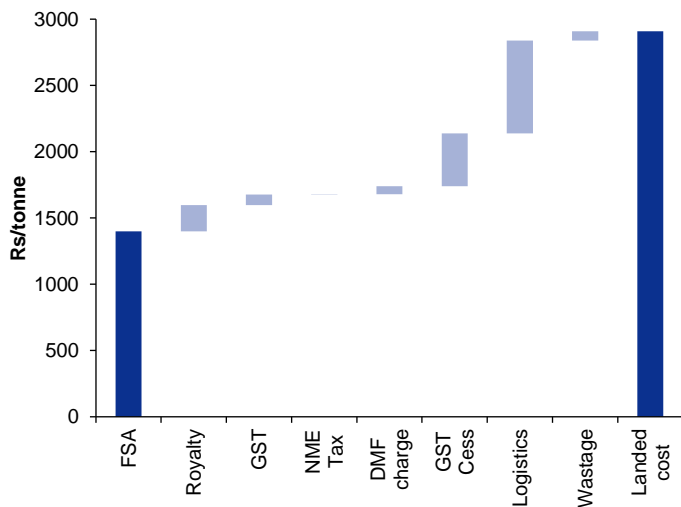
Source: IRENA Renewable Cost Database.

SOURCES: IRENA RENEWABLE COST DATABASE, INCRED RESEARCH

The above-mentioned developments put a natural cap on fuel supply agreement and e-auction prices of CIL coal ➤

With average solar power costs at Rs3.24/unit, thermal power plants are having a tough time.

Figure 19: Landed cost of FSA coal for a plant located 200-300km away from the mine is Rs3,000/t at as FY21



FSA = FUEL SUPPLY AGREEMENT
SOURCES: INCRED RESEARCH, COMPANY REPORTS

Figure 20: At present coal's power production cost is Rs4-4.5/unit

Head	Price (Rs)	Unit
Landed cost of coal	2,909.5	Rs/tonne
GCV	3,500.0	Kcal/kg
Heat rate of plant	2,500.0	Kcal/ KwHr
Coal cost per KwHr	2.1	Rs/KwHr
Overheads	1.4	Rs/ KwHr
Interest and Depreciation	1-1.5	Rs/ KwHr
Overall cost	4-4.5	Rs/ KwHr

SOURCES: INCRED RESEARCH, COMPANY REPORTS

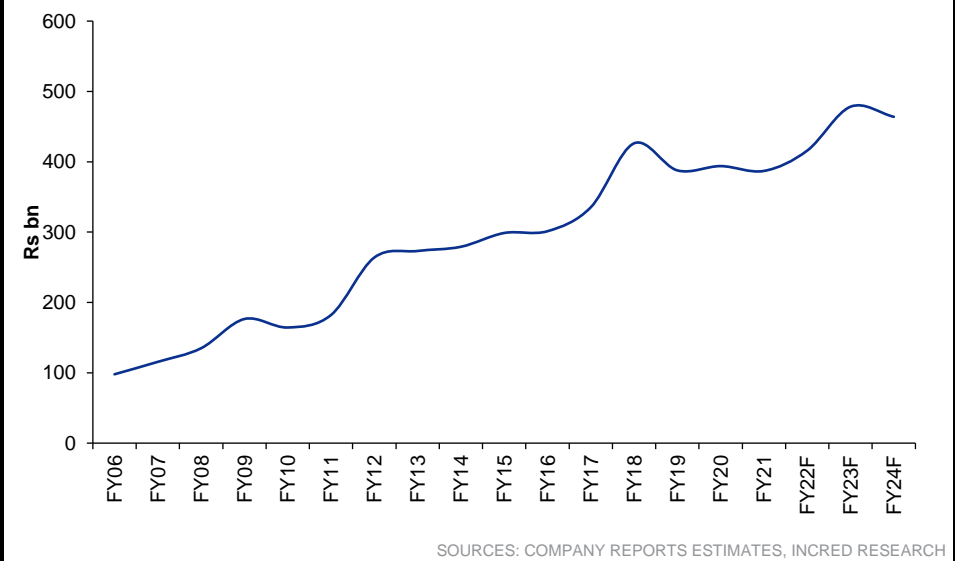
For CIL incremental demand of coal will be difficult to come by in the near future, expect for volume growth of 4-5% CAGR ➤

With coal losing out to solar power, incremental power demand is likely to be fulfilled by solar power in India. That is why we saw renewables (mainly solar) take market share from coal in 2019 and this trend is likely to continue. We do not expect volume growth of more than 4-5% in the medium to long term for Coal India.

Wage increase is another headwind for CIL ➤

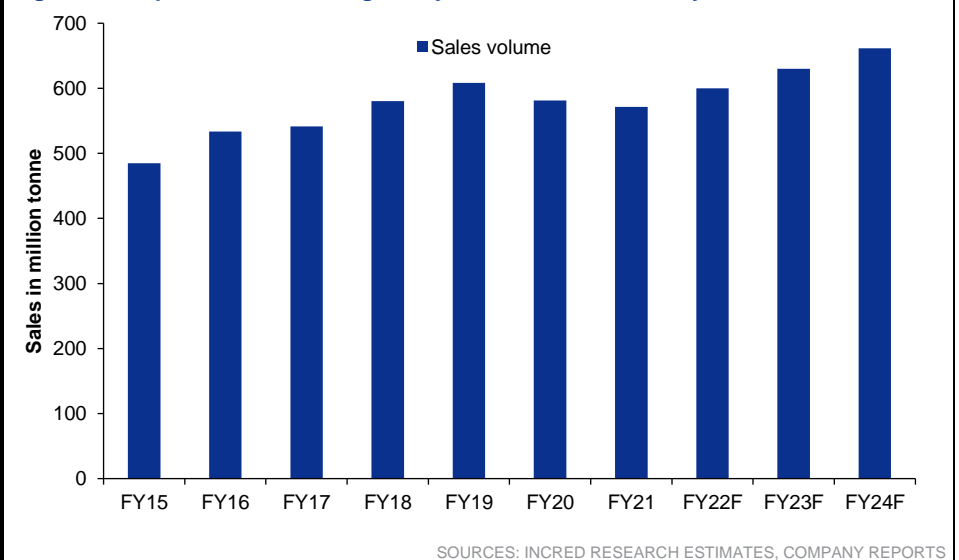
CIL has started wage negotiations with its workers and, going by past trends, we can expect a hike of at least 15% in the overall wage cost. Given the competitiveness of coal, CIL will be unlikely to pass through this cost rise to new buyers.

Figure 21: We expect CIL's staff cost to increase by 20% over the next 2 years as the wage hike comes into effect



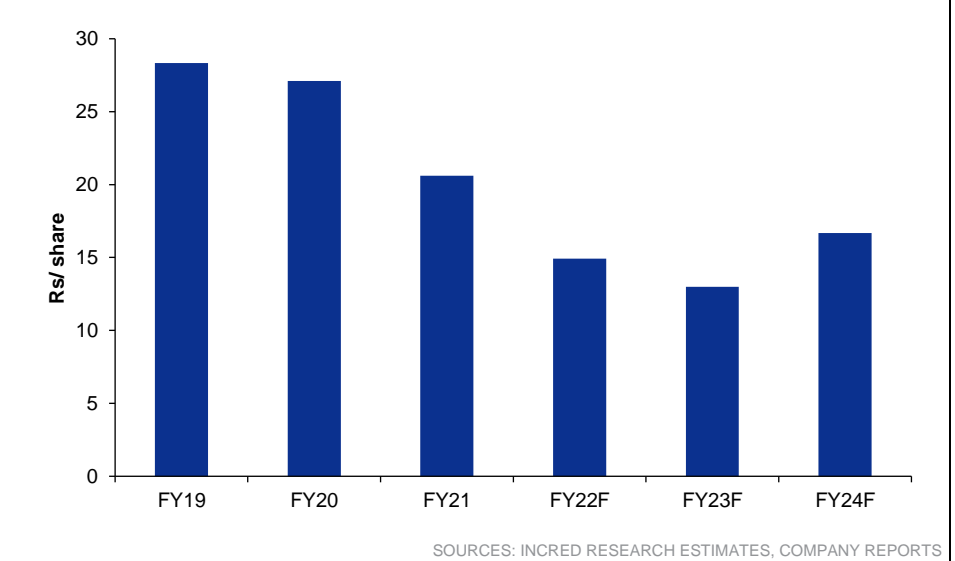
We expect volume growth of 5% CAGR over FY21-24F ➤

Figure 22: Expect CIL's sales to grow by 5% CAGR over next 3 years



EPS is likely to decline 6.8% CAGR over FY21-24F ➤

Figure 23: EPS to decline at 6.8% CAGR over FY21-24F



We value Coal India at 5x FY23F EV/EBITDA to arrive at TP of Rs149, downgrade to Reduce ➤

Figure 24: In the recent past Coal India traded in line with its global peers on an EV/EBITDA basis

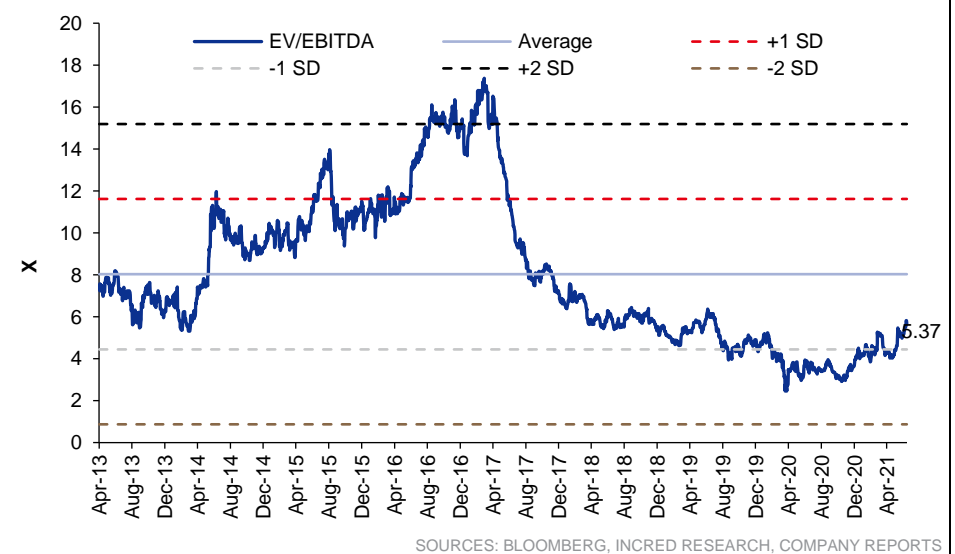


Figure 25: We value Coal India at 5x FY23F EV/EBITDA to arrive at our TP of Rs149

	Rs m
FY22F EBITDA	1,36,766
FY23F EBITDA	1,18,766
Cash at end of FY22F	3,22,564
EV/EBITDA multiple(x)	5.0
EV	9,16,394
Equity value (Rs)	149

SOURCES: INCRED RESEARCH ESTIMATES, COMPANY REPORTS

Earnings revisions and peer comparisons >

Figure 26: We lower our EPS estimates by 49.8% for FY22F and 61.6% for FY23F

Earnings revisions

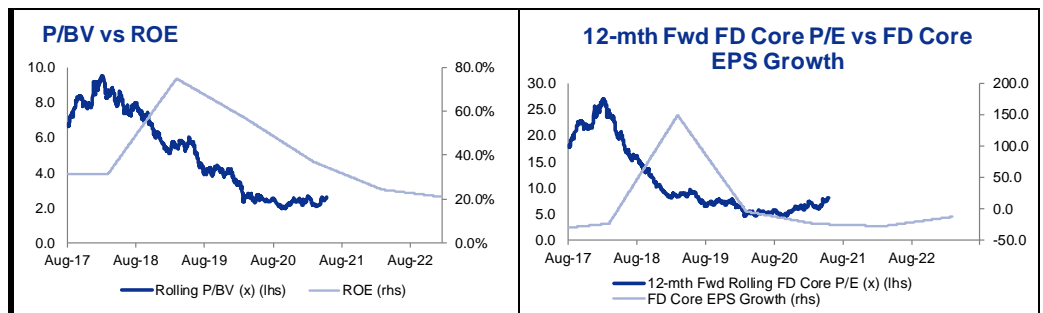
Rs bn	Old Estimates		New Estimates		Change (%)	
	FY22F	FY23F	FY22F	FY23F	FY22F	FY23F
Sales volume (mt)	632.0	669.0	599.9	629.8	(5.1)	(5.9)
Blended realisation (Rs/t)	1,555	1,570	1,598	1,654	2.8	5.4
Revenue	1,054	1,128	959	1,042	(9.1)	(7.6)
EBITDA	267	304	208	198	(22.1)	(34.7)
PAT	183	209	92	80	(49.8)	(61.6)
EPS (Rs/Share)	29.7	34.0	14.9	13.0	(49.8)	(61.6)

SOURCES: INCRED RESEARCH ESTIMATES, COMPANY REPORTS

Figure 27: Average trading multiple of global peers is 4.5x EV/EBITDA for CY22F

Company	Bloomberg Ticker	CMP (LC)	EV (\$ mn)	Market cap (US\$ m)	EV/EBITDA (x)		P/BV (x)		P/E (x)		RoE (%)		RoCE (%)	
					CY21F	CY22F	CY21F	CY22F	CY21F	CY22F	CY21F	CY22F	CY21F	CY22F
India Coal														
Coal India Ltd	COAL IN	158	11,319	13,318	4.5	5.0	2.5	2.5	7.4	10.7	37.0	24.4	36.3	21.1
Global Coal														
Whitehaven Coal Ltd	WHC AU	2	2,388	1,669	6.7	5.7	0.7	0.6	26.9	17.0	-3.2	-3.2	-1.1	-1.1
South32 Ltd	S32 AU	3	10,278	10,554	5.5	5.1	1.1	1.0	14.3	12.6	0.6	0.6	-0.9	-0.9
Adaro Energy Tbk PT	ADRO IJ	1290	3,411	2,898	3.7	3.7	0.7	0.7	8.8	8.5	5.2	5.2	3.4	3.4
Indo Tambangraya Tbk	ITMG IJ	15000	968	1,190	3.6	3.6	1.3	1.2	8.3	8.3	9.2	9.2	11.8	11.8
Bukit Asam Tbk PT	PTBA IJ	2240	1,549	1,812	4.6	4.2	1.3	1.2	7.6	7.1	10.7	10.7	8.5	8.5
Global coal average					4.8	4.5	1.0	1.0	13.2	10.7	4.5	4.5	4.3	4.3

SOURCES: SOURCES: INCRED RESEARCH ESTIMATES, BLOOMBERG. PRICED AS AT 14 JUNE 2021

BY THE NUMBERS

Profit & Loss

(Rs mn)	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Total Net Revenues	960,803	900,260	958,856	1,041,892	1,093,953
Gross Profit	899,967	845,096	881,480	958,210	1,003,451
Operating EBITDA	219,209	185,734	136,766	118,766	149,531
Depreciation And Amortisation	(34,508)	(37,089)	(43,154)	(49,440)	(56,057)
Operating EBIT	184,700	148,645	93,613	69,326	93,474
Financial Income/(Expense)	(5,029)	(6,447)	(6,447)	(6,739)	(6,739)
Pretax Income/(Loss) from Assoc.	(12)	(30)			
Non-Operating Income/(Expense)	61,054	37,924	43,277	51,375	59,454
Profit Before Tax (pre-EI)	240,713	180,092	130,443	113,962	146,189
Exceptional Items					
Pre-tax Profit	240,713	180,092	130,443	113,962	146,189
Taxation	(73,710)	(53,071)	(38,433)	(33,578)	(43,073)
Exceptional Income - post-tax					
Profit After Tax	167,003	127,022	92,010	80,385	103,116
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	167,003	127,022	92,010	80,385	103,116
Recurring Net Profit	167,003	127,022	92,010	80,385	103,116
Fully Diluted Recurring Net Profit	167,003	127,022	92,010	80,385	103,116

Cash Flow

(Rs mn)	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
EBITDA	219,209	185,734	136,766	118,766	149,531
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(123,268)	(56,552)	79,553	38,989	4,848
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense	(52,589)	(20,096)	(54,648)	(50,932)	(66,183)
Other Operating Cashflow	122,606	59,589	121,347	137,806	148,008
Net Interest (Paid)/Received	(5,029)	(6,447)	(6,447)	(6,739)	(6,739)
Tax Paid	(119,463)	(56,630)	(38,433)	(33,578)	(43,073)
Cashflow From Operations	41,465	105,599	238,137	204,311	186,392
Capex	(56,445)	(108,525)	(85,079)	(100,000)	(100,000)
Disposals Of FAs/subsidiaries					
Acq. Of Subsidiaries/investments	24,871	86,578	39,774		
Other Investing Cashflow	34,898	25,335	33,340	40,743	48,392
Cash Flow From Investing	3,324	3,389	(11,966)	(59,257)	(51,608)
Debt Raised/(repaid)	22,776	(5,508)	5,585		
Proceeds From Issue Of Shares					
Shares Repurchased					
Dividends Paid	(96,760)	(77,064)	(77,034)	(77,034)	(77,034)
Preferred Dividends					
Other Financing Cashflow	4,482	(1,982)	(6,447)	(6,739)	(6,739)
Cash Flow From Financing	(69,502)	(84,554)	(77,896)	(83,774)	(83,774)
Total Cash Generated	(24,712)	24,433	148,275	61,281	51,010
Free Cashflow To Equity	67,565	103,479	231,756	145,055	134,784
Free Cashflow To Firm	49,819	115,434	232,619	151,794	141,523

SOURCES: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS...cont'd

Balance Sheet					
(Rs mn)	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Total Cash And Equivalents	285,465	209,429	332,398	393,680	444,690
Total Debtors	144,082	196,231	131,350	128,452	134,871
Inventories	66,189	89,475	65,675	62,799	65,937
Total Other Current Assets	339,385	352,114	339,655	340,924	341,037
Total Current Assets	835,122	847,249	869,078	925,855	986,534
Fixed Assets	451,119	528,951	570,876	621,436	665,379
Total Investments	18,732	23,176	18,732	18,732	18,732
Intangible Assets					
Total Other Non-Current Assets	195,243	218,421	214,012	225,430	232,820
Total Non-current Assets	665,094	770,548	803,620	865,598	916,930
Short-term Debt	44,326	31,872	44,326	44,326	44,326
Current Portion of Long-Term Debt					
Total Creditors	101,076	76,376	88,543	96,210	101,018
Other Current Liabilities	339,157	408,180	374,427	401,243	410,953
Total Current Liabilities	484,559	516,429	507,296	541,779	556,297
Total Long-term Debt	20,012	26,881	20,012	20,012	20,012
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	67,869	73,117	67,869	67,869	67,869
Total Non-current Liabilities	87,880	99,998	87,880	87,880	87,880
Total Provisions	602,266	631,786	682,939	763,859	835,272
Total Liabilities	1,174,705	1,248,213	1,278,115	1,393,519	1,479,449
Shareholders Equity	321,569	365,174	390,172	393,523	419,605
Minority Interests	3,941	4,411	4,411	4,411	4,411
Total Equity	325,510	369,584	394,583	397,934	424,016

Key Ratios					
	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Revenue Growth	(3.5%)	(6.3%)	6.5%	8.7%	5.0%
Operating EBITDA Growth	(12.3%)	(15.3%)	(26.4%)	(13.2%)	25.9%
Operating EBITDA Margin	22.8%	20.6%	14.3%	11.4%	13.7%
Net Cash Per Share (Rs)	35.88	24.45	43.50	53.44	61.72
BVPS (Rs)	52.18	59.26	63.31	63.86	68.09
Gross Interest Cover	36.73	23.06	14.52	10.29	13.87
Effective Tax Rate	30.6%	29.5%	29.5%	29.5%	29.5%
Net Dividend Payout Ratio	57.9%	60.6%	83.7%	95.8%	74.7%
Accounts Receivables Days	37.81	68.99	62.35	45.51	43.93
Inventory Days	366.07	514.98	365.94	280.19	259.60
Accounts Payables Days	585.74	587.06	388.98	402.93	397.72
ROIC (%)	24.0%	13.9%	7.3%	5.7%	7.5%
ROCE (%)	54.3%	36.3%	21.1%	15.1%	19.7%
Return On Average Assets	12.0%	8.4%	5.9%	4.9%	5.8%

SOURCES: INCRED RESEARCH, COMPANY REPORTS

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Corporate Governance Report:

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. CGS-CIMB Thailand does not confirm nor certify the accuracy of such survey result.

Score Range:	90 - 100	80 – 89	70 - 79	Below 70 or	No Survey Result
Description:	Excellent	Very Good	Good	N/A	N/A

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Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2020, Anti-Corruption 2020

ADVANC – Excellent, Certified, **AMATA** – Excellent, Certified, **ANAN** – Excellent, n/a, **AOT** – Excellent, n/a, **AP** – Excellent, Certified, **ASP** – Excellent, n/a, **AU** – Good, n/a, **BAM** – Very Good, Certified, **BAY** – Excellent, Certified, **BBL** – Very Good, Certified, **BCH** – Good, Certified, **BCP** - Excellent, Certified, **BCPG** – Excellent, Certified, **BDMS** – Excellent, n/a, **BEAUTY** – Good, n/a, **BH** - Good, n/a, **BJC** – Very Good, n/a, **BLA** – Excellent, Certified, **BTS** - Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – n/a, n/a, **CENTEL** – Excellent, Certified, **CHAYO** – Very Good, n/a, **CHG** – Very Good, n/a, **CK** – Excellent, n/a, **COM7** – Very Good, Certified, **CPALL** – Excellent, Certified, **CPF** – Excellent, Certified, **CPN** - Excellent, Certified, **CPNREIT** – n/a, n/a, **CRC** – Very Good, n/a, **DELTA** - Excellent, Certified, **DDD** – Very Good, n/a, **DIF** – n/a, n/a, **DOHOME** – Very Good, n/a, **DREIT** – n/a, n/a, **DTAC** – Excellent, Certified, **ECL** – Excellent, Certified, **EGCO** - Excellent, Certified, **EPG** – Excellent, Certified, **ERW** – Very Good, Certified, **GFPT** - Excellent, Certified, **GGC** – Excellent, Certified, **GLOBAL** – Very Good, n/a, **HANA** - Excellent, Certified, **HMPRO** - Excellent, Certified, **HUMAN** – Good, n/a, **ICHI** – Excellent, Certified, **III** – Excellent, n/a, **INTUCH** - Excellent, Certified, **IRPC** – Excellent, Certified, **ITD** – Very Good, n/a, **IVL** - Excellent, Certified, **JASIF** – n/a, n/a, **JKN** – Excellent, Declared, **JMT** – Very Good, Declared, **KBANK** - Excellent, Certified, **KCE** - Excellent, Certified, **KEX** – n/a, n/a, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** - Excellent, Certified, **KTC** – Excellent, Certified, **LH** - Excellent, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MAKRO** – Excellent, Certified, **MC** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** - Excellent, Certified, **MTC** – Excellent, Certified, **NETBAY** – Very Good, n/a, **NRF** – n/a, n/a, **OR** – n/a, n/a, **ORI** – Excellent, Certified, **OSP** – Very Good, n/a, **PLANB** – Excellent, Certified, **PRINC** – Very Good, Certified, **PR9** – Excellent, n/a, **PSH** – Excellent, Certified, **PTT** - Excellent, Certified, **PTTEP** - Excellent, Certified, **PTTGC** - Excellent, Certified, **QH** – Excellent, Certified, **RBF** – Good, n/a, **RS** – Excellent, n/a, **RSP** – Good, n/a, **S** – Excellent, n/a, **SAK** – n/a, n/a, **SAPPE** – Very Good, Certified, **SAWAD** – Very Good, n/a, **SCB** - Excellent, Certified, **SCC** – Excellent, Certified, **SCGP** – n/a, n/a, **SHR** – Very Good, n/a, **SIRI** – Excellent, Certified, **SPA** – Very Good, n/a, **SPALI** - Excellent, Declared, **SPRC** – Excellent, Certified, **SSP** - Good, Declared, **STEC** – n/a, n/a, **SVI** – Excellent, Certified, **SYNEX** – Very Good, n/a, **TCAP** – Excellent, Certified, **THANI** – Excellent, Certified, **TISCO** - Excellent, Certified, **TKN** – Very Good, n/a, **TMB** - Excellent, Certified, **TOP** - Excellent, Certified, **TRUE** – Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Excellent, Certified, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – n/a, n/a, **WICE** – Excellent, Certified, **WORK** – Good, n/a.

- CG Score 2020 from Thai Institute of Directors Association (IOD)

- Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of January 30, 2021) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.

Recommendation Framework

Stock Ratings

Definition:

Add	The stock's total return is expected to exceed 10% over the next 12 months.
Hold	The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
Reduce	The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings

Definition:

Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.