

FULL STEAM AHEAD



My Lord!
Here it is - 99.9%
Pure Lead.

**LEADING
To A Better
Planet**

Oh Genie!
Convert this
Waste Battery
into Pure Lead.

HOW DO
WE FIGHT THIS
POLLUTION?

**CHANGE IS
IN THE AIR**

WITH CLEAN GAS,
JAHANPANA



In our previous newsletters, we wrote to you about specific themes, and how select firms there-in are doing their bit for a greener planet, and are doing so, at a commercially befitting scale. This time around, we are sharing a few interesting developments in such sectors and how such trends could lead to a positive impact not just on environment and but also earnings growth in the times to come. We are sharing with you the developments in a few important areas within the Green fund and look forward to covering a few more in the times to come.

Natural Gas – Change is in the Air!

In our maiden communication to you we outlined our views on how increasing penetration of natural gas would help in decreasing pollution and in turn benefit companies in the entire gas value chain. As in past, the Supreme Court of India continues to remain India’s pollution controller in chief. In Q3FY18, it passed a directive to ban the usage of pet coke and furnace oil by industries in Haryana, Rajasthan and Uttar Pradesh. This move from the apex court was long overdue as pet coke and furnace oil have about 65,000-75,000 ppm and 20,000 ppm of Sulphur content respectively (*source:*

Environment Pollution Control Authority). This move, while helping control pollution levels in the North is bound to trigger fresh demand of Natural Gas within the NCR region.

Meanwhile, the Petroleum and Natural Gas Regulatory Board has begun with its latest round of city gas distribution auctions for 86 geographies in India. As more geographies are covered with natural gas supply, it is estimated that gas would reach to 48% of India’s population from 19% currently and the existing incumbents in the Gas value chain, i.e., players across generation, regasification, logistics, distribution and marketing are bound to benefit from the same.

In yet another likely evolution within this space, what would immensely benefit the industry is inclusion of natural gas under GST. Currently, consumers of gas are not allowed to get Input Tax Credit (ITC) on the VAT paid and this has resulted in the increase in cost of consumption for gas. Gas consumers will get ITC with the inclusion of natural gas under GST and this would result in 5-19% reduction in cost as shown in Figure 2. More importantly, it would make Natural gas more competitive over fuel oil. Gas would be 12-18% cheaper than fuel oil compared to 6-13% now with the inclusion of natural gas under GST as shown in Figure 3.

Figure 1: Assumptions

Assumptions		
Particulars	Unit	
Exchange rate	Rs/USD	68
Price of Imported LNG	USD/mmbtu	10.0
Customs duty on LNG @2.5%	USD/mmbtu	0.3
Regasification charges(@ Petronet's Dahej Terminal)	USD/mmbtu	0.7
Landed price of LNG	USD/mmbtu	11.0
Landed price of LNG	Rs/mmbtu	744.6
Road transportation cost	Rs/Tonne/km	6.7
Conversion - tonne to mmbtu for Fuel Oil		41

Figure 2: Inclusion of Natural Gas under GST: Benefit To Existing Gas Users

Particulars	Unit	Gujarat		Maharashtra		Uttar Pradesh	
		VAT regime	Gas under GST	VAT regime	Gas under GST	VAT regime	Gas under GST
VAT	%	6.0		13.5	-	26.0	-
VAT	Rs/mmbtu	44.7		100.5	-	193.6	-
GST	%	-	5.0	-	5.0	-	5.0
GST	Rs/mmbtu	-	37.2	-	37.2	-	37.2
Transmission Cost	Rs/mmbtu	35.5	35.5	35.5	35.5	98.5	98.5
GST on transmission service at 18%	Rs/mmbtu	6.4	6.4	6.4	6.4	17.7	17.7
Cost to customer	Rs/mmbtu	831.2	823.7	887.0	823.7	1,054.4	898.1
GST credit to consumer	Rs/mmbtu	6.4	43.6	6.4	43.6	17.7	55.0
Net cost of NG to customer	Rs/mmbtu	824.8	780.1	880.6	780.1	1,036.7	843.1
Reduction in cost	Rs/mmbtu	44.7		100.5		193.6	
Reduction in cost	%	5.4%		11.4%		18.7%	

Figure 3: Inclusion of Natural Gas Under GST: Benefit Over Fuel Oil

Particulars	Unit	Gujarat	Maharashtra	Uttar Pradesh
Selling price of Fuel Oil	Rs/tonne	37,100	36,620	37,300
GST on Fuel Oil	%	18	18	18
GST on Fuel Oil	Rs/tonne	6,678	6,592	6,714
Transportation cost for 300km	Rs/tonne	2010	2010	2010
GST on Transportation service	%	18	18	18
GST on Transportation service	Rs/tonne	362	362	362
Cost of Fuel Oil to customer	Rs/tonne	46,150	45,583	46,386
GST credit to consumer	Rs/tonne	7,040	6,953	7,076
Cost of Fuel Oil net of GST	Rs/tonne	39110	38630	39310
Cost of Fuel Oil net of GST	Rs/mmbtu	953.9	942.2	958.8
Under VAT regime				
Cost of Gas	Rs/mmbtu	824.8	880.6	1036.7
Gain/(Loss) on use of NG over Fuel Oil	Rs/mmbtu	129.13	61.57	-77.9
Economic benefit of using NG	%	13.5%	6.5%	-8.1%
Under GST regime				
Cost of Gas	Rs/mmbtu	780.1	780.1	843.1
Gain/(Loss) on use of NG over Fuel Oil	Rs/mmbtu	173.8	162.1	115.7
Economic benefit of using NG	%	18.2%	17.2%	12.1%

While there is increasing demand and support from government towards natural gas as a fuel to run automobile and cooking, there are concerns if it would still be the best fuel post transition to Bharat Stage 6 compliance from April 2020. Our interactions with

industry experts indicate that the quantum of emissions from natural gas would be similar to BS 6 fuel. However, natural gas would still be economical and continue to remain fuel of choice. We would

continue to keep a close watch on various developments happening in this sector.

We continue to have exposure in this sector through (a) Petronet, which is India's largest gas regassifier and (b) Indraprastha gas, which has CGD licence for national capital region among others.

Lead Recycling – LEADING to a Better Planet

The theme of lead recycling continues to be an important part of Green Fund portfolio. We continue to retain our exposure to Exide Industries and Gravita India Ltd. Recently, Gravita India signed a contract with a leading battery manufacturer, Amara Raja, for collection of lead acid battery Scrap and then Recycling.

Under this contract Gravita shall collect/purchase lead acid battery scrap from designated locations of Amara Raja. Post recycling at Gravita's plant, pure lead/lead alloys will then be supplied back to Amara Raja.

We outlined in our earlier newsletter that the informal recycling of Lead is particularly inefficient in terms of lead losses and it causes significant environment degradation. Also, Lead mining uses large amounts of energy and environmental resources. Responsible lead recycling using appropriate technologies and with adequate environmental compliance is the solution.

Obviously, the above arrangement between Gravita India and Amara Raja is an important step towards responsible lead recycling. Besides, Gravita continues to consolidate its efforts in deepening its procurement channel in India, by encouraging the disposal of used lead to the formal collection eco-system.

Coastal Shipping – Full Steam Ahead

With Government's push for movement of goods through waterways, it is being observed that shift of cargo from road and rail to coastal waterways is happening. The average growth rate of cargo moved through coastal waterways was only 1.4% between

2009-10 and 2013-14. This has increased to 14.2% during 2014-15 and 2017-18 period.

According to the latest data from the shipping ministry, in FY 2018 coastal cargo traffic handled by all ports stood at 234 million tonnes, which was 16% more than the previous year.

The Government recently relaxed the cabotage regulations. While we believe that the negative impact of this would not be immediate, we closely watch further developments in this space.

We continue to have investment in India's largest owner and operator of container fleets on coastal routes – Shreyas Shipping & Logistics Limited.

Unifi's Strategy in Green Fund

To quote Rabindranath Tagore - *"Trees are the earth's endless effort to speak to the listening heaven"*.

Through Unifi Green Fund, we believe that a holistic approach to address the problem of environmental pollution and global warming will have significant implications for quite a few listed stocks. Unifi expects

- a) Natural Gas demand to accelerate over the next 5 years and apart from the social positives, this offers an economic opportunity as well;
- b) Responsible Lead Recycling is efficient and environment friendly and efforts to prevent Lead poisoning would accelerate. This would shift the market share from informal backyard lead smelters to the organised ones.

And

- c) Coastal shipping provides fuel efficient, cost effective and environment friendly mode of transportation. With increased focus towards coastal shipping industry in India, it is expected that the penetration levels of coastal shipping within the entire space would accelerate and benefit service providers in this space.