SEPTEMBER 2021

# THE BOTTOM LINE

## FINANCING THE GREEN FRONTIER

Credence Capital

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# FOREWORD

## Dear Readers,

Hope this finds you well. We are pleased to launch the eleventh edition of The Bottomline – a joint initiative of the finance and investment clubs of IIM Ahmedabad, IIM Bangalore, IIM Calcutta and IIM Lucknow.

If a poll were to be taken today of the most used acronym in business newspapers and magazines across the globe, 'ESG' would probably sit at the top of the rankings. ESG which stands for Environmental, Social and Governance has become as important, if not more, as profit maximization or shareholder wealth maximization for driving business strategies and achieving long-term goals for various stakeholders. Businesses, governments as well as the public at large are realizing that unless adequate attention is paid to sustainability now, economic growth and development would be elusive for our future generations. One of the most important aspects of sustainable investment is 'green investing' which concerns itself with undertaking environmentally sound business practices like increased usage of renewable energy as opposed to fossil fuels, reduction of carbon emissions to contain climate change, introduction of innovative financial products like 'green bonds' and the like.

Over the past couple of years, a lot has transpired to bring about a paradigm shift in broader investment philosophy. While a few decades ago, the norm would have been to simply go by the adage 'The business of business is business', which means the sole motive of business is to generate cash flows and profits, that would no longer hold true, especially for large, global enterprises. As an example, several Fortune 500 companies have proactively set targets for becoming carbon neutral or net carbon negative in the near future, which is more of a prerogative of governments. A new breed of the so-called 'activist investors' are also keeping a strict tab on the decisions and stands taken by big businesses, even strongly demanding a seat on the decision-making table, which has in a way compelled the investing world to become more conscious and introspective of their actions.

With corporate governance and citizenship in India not being as evolved as in the developed economies like the US, Europe coupled with continued high reliance on traditional, non-green energy sources to meet the ever-growing demands of economic development, India will find itself in a precarious situation on the world stage in the coming years and will require nothing but innovative solutions to problems on each step of the long-winding way.

The contributors to this edition of The Bottom Line have provided deep insights into the broader theme of 'Financing the Green Frontier'. As always, any feedback from our readers is welcome and we strive to achieve new heights with each subsequent edition.

**Happy Reading!**

**The Editorial Team**

# GLOBAL MACRO COMMENTARY

## Central Bank actions

While Federal Reserve officials have been discussing for months about the central bank's way forward, minutes from the September meeting reveal that officials were broadly united in their opinion that tapering should commence in mid-November or mid-December and end by mid-2022.

Elsewhere, central banks are adopting a cautious stance in rolling back their bond buying. As European Central Bank, Bank of England, Reserve Bank of Australia, and Bank of Canada, all released mixed guidance on the pace of bond purchases.

Closer to home, RBI maintained status quo on interest rates while announcing measures to temporarily suck out excess liquidity from the system. VRRR to the tune of Rs. 21 lakh crore are to be conducted till the first week of December, while other liquidity management tools including OMO and Operation Twist are expected to continue.

## Fixed Income


Markets have started indicating that the current bout of inflation may be persistent and breakevens are bid up in US and Europe, while US 10Y yield is approaching its post-pandemic peak. Taper talk by central banks has added to the supply side pressure in treasuries. Indian 10Y yields have also inched higher and breached the 6.4% mark as RBI discontinued G-SAPs and seems to be increasingly comfortable with yields moving higher as a part of normalization.

## Currencies


USD remained steady and rallied through the month as investors look for shelter. China growth concerns, and subsequently deteriorating reflation picture has led to renewed demand for the greenback. Euro dropped to its lowest level against the US dollar since July 2020, breaching the 1.16 mark.

This has been felt across currencies with the rupee going down by 1.9%. The euro was down by 1.7%, yen by 1.78% and pound sterling by 2.4%. The Brazilian Real, Turkish lira and Thai baht all went down by more than 5% in September. Interestingly the renminbi was virtually unchanged with just 0.11% depreciation.

## Commodities

Crude oil has hit multi-year highs with Brent averaging $75/bbl in September, an increase of 35% year to date. Re-opening of economies, and easing of pandemic restrictions have led to improved global demand outlook amid supply tightness. There has been a larger than anticipated decline in US oil inventories following hurricane Ida in August.

With the OPEC+ producer group unlikely to increase supply beyond the agreed upon 400,000 bbl/day from November, crude oil supply is not

expected to increase even with an improvement in demand.

On the other hand, gold has seen a steady drop in prices as risk appetite improves and dollar rallied. Additionally rolling back of liquidity has moderated demand for the metal, as it dropped to its lowest level in 5 months, averaging $1,775/oz in September.

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# IMPACT INVESTMENTS: ISSUES AND CHALLENGES

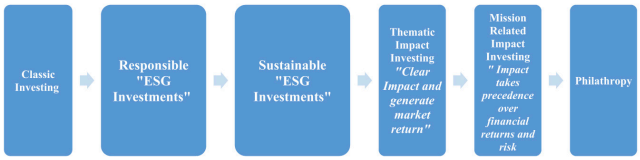
In 1962, Milton Friedman declared that the only responsibility of business is to "use its resources and engage in activities designed to increase in profits". Directly challenging Friedman's view, in as late as 2011, Michael Porter and Mark Kramer released the Harvard Business Review article called "Creating Shared Value". The piece raised core questions regarding the role of "for profit business in society." In recognizing that societal needs as well as economic needs define markets, creating shared value implied that firms can actually increase their profits and productivity through initiatives that address social issues.

Coined in 2007, the term Impact Investing is defined as the act of making investments *"made with the intention to generate positive, measurable social and environmental impact alongside a financial return."* (GIIN, 2021). Impact investments can be made in both emerging and developed markets, and target a range of returns from below market to market rate, depending on investors' strategic goals. The growing impact investment market provides capital to address the world's most pressing challenges in sectors such as sustainable agriculture, renewable energy, conservation, microfinance, affordable and accessible basic services including housing, healthcare, and education. In India, despite the global health pandemic and its accompanying effects on the business and economic environment in 2020, impact enterprises received USD 2.6 billion in investments across 243 equity deals and saw 13 successful exits. Agriculture, Education and Healthcare received the bulk of investments.

However, the term impact investment is often used interchangeably for any investment that incorporates environmental, social, and governance (ESG) aspects. I would like to clarify this conceptually, although with a caveat. In both theory and practice, sustainable investments are often referred to as social, ethical, responsible, or socially responsible investments. These terms are overlapping and complementary and have varying interpretations. The discussion of what exactly a truly sustainable investment is and what it is not is pointless. But still, I try to explain so that it helps a potential impact investor create a good Impact Investment Thesis.

The investment spectrum for a fund can be shown in the Figure 1.

Figure One: Investment Spectrum




One can see the differentiation between ESG and Impact Investments. ESG investing is the systematic incorporation of environmental, social and governance (ESG) factors to improve performance. The specific ESG factors/screens included may be selected according to materiality to financial performance of the portfolio and/or relevance to the asset owners. ESG is used commonly in public markets strategies and can involve screening out investments that do not meet ESG criteria. ESG criteria allow for more stakeholder advocacy because they force companies to track and report how they are doing with regards to a range of topics, including issues such as pollution and worker safety.

Impact investing at present is commonly applied in private markets strategies that intentionally seek investments that contribute measurable solutions to global challenges like the United Nations Sustainable Development Goals (SDGs). There are four necessary conditions for an Impact Investment.

**Provide capital**

• Transactions currently tend to be private debt or equity investments

• One can expect more publicly traded investment opportunities will emerge as the market matures

**Businesses designed with intent**

• The business (fund manager of company) into which the investment is made should be designed with intent to make a positive impact

• This differentiates impact investments from

investments that have unintentional positive social or environmental consequences. Achieving transformational change is not the main purpose of such investments, which therefore carries the risk of impact washing (akin to "green washing")

**Expect financial returns**

• The investment should be expected to return at least nominal principal

• Donations are excluded

• Market-rate or market-beating returns are within scope

**Generate positive social and/or environmental benefit**

• Positive social and/or environmental impact should be part of the stated business strategy and should be additional (incremental) and can be measured as part of the success of the investment.

With this in mind, I present Impact Investment asset class spectrum. (Figure Two)

**Figure Two: Impact Investment Asset Class spectrum**

| | Public | | Private | | |
|---|---|---|---|---|---|
| | Green Bonds | Public Equity | Sustainable Infrastructure | Buyouts/Growth | Venture Capital |
| Description | Sustainable Corporate and Social bond strategies that target green projects | Incorporate ESG factors/ pursue specific sectors themes such as water, sewerage, waste and alternative energy | Equity and /or debt investments in sustainable infrastructure project assets | Private equity/ Later – stage growth equity investments | Early stage venture capital investments |
| Return drivers | Coupon Payments, Credit Rating of Issuer | Broad Equity Market beta, sector specific equity market beta | Project execution and cash flows, Offtake and technology risk | Financial strength, Projected Profitability and Valuation, Exit values | Technological Innovation, Competitive advantage , Exit |
| Likely Impact Thesis | Accelerate low carbon transition and deployment of scalable debt and equity capital.<br>Validate emerging asset class for large institutional capital | | | Accelerate adaption of products and services that promote resource efficiency and validate emerging technologies. | Catalyse new/ emerging technologies to address climate change. |

To conclude, one can see from the figure above, financial markets experienced a substantial mainstreaming of sustainability-related investment practices in recent years. Now it is the time to put impact at the center of the debate. In many cases, impact investments are simply seen as a new framing for what has already been happening. But impact does not equal ESG. (Busch et al, 2021) Impact Investment thesis should provide a detailed description of how an investment aims to achieve a better social and/or environmental performance, relative to a benchmark, and how the investment contributes to the Sustainable Development Goals (SDGs). Investment-induced change is at the core of impact-generating investments. The objective of these investments is to contribute to—i.e., generate and accelerate—solutions to environmental and societal challenges and, thus, to the required transformation of the economy. However, one needs to humbly acknowledge that only the financial sector will not be able to help the world move towards achieving climate change goals. Along with the investors and asset managers, regulators and policy makers will need to contribute meaningfully and substantially.

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# CROSSING THE FRONTIER, INTO THE FUTURE

## STRATEGIC RESPONSES BY OIL & GAS COMPANIES

True to the theme of the current issue of The Bottom Line – 'Financing the Green Frontier', the entire world is currently in a constant state of dialogue as well as rhetoric on the topic of a low-carbon future. With countries around the world pledging to be carbon neutral and/ or carbon negative by the second half of the century, it is bound to put new age 'green energy' companies in the spotlight to develop, implement and enhance the technologies which have lower carbon emissions, or which suck out the excess emissions from the atmosphere. However, at the same time, it is imperative to think about the future of traditional energy companies, especially in the oil & gas sector, which contribute amongst the highest to global carbon emissions but also act as the backbone of global trade and commerce.

The COVID-19 pandemic acted as an important reality check for the oil & gas companies globally as energy demand plummeted sharply in response to a substantial decline in economic activity. To substantiate this point, we can take the example of WTI crude prices turning negative in April 2020. With a gradual pick-up of economic activity, coupled with production cuts announced by OPEC+, crude prices have increased and settled in the $80/ barrel range. However, production cuts are only temporary measures and OPEC+ has pledged to fully phase them out by September 2022.

Considering the dynamics of climate change, carbon neutrality, renewable or 'green' energy to play out in big measure in the coming decades, the oil & gas companies find themselves in a precarious position and therefore, they need to take important, paradigm shifting decisions today. An article published by McKinsey & Co in February 2021 provides valuable insights on the alternatives available with oil & gas companies to stay relevant in the future, which are briefly summarized below:

1. **Building a more resilient core business**

The oil & gas sector is highly capital intensive, requiring billions of dollars of investment every year. However, the returns on these investments have consistently been lower than average returns in the economy over the past 15 years. And these results need to be seen from the lens of future climate change predictions as financial resilience is increasingly becoming a function of climate resilience in the oil & gas sector. Accordingly, oil & gas companies need to strengthen their core business such that it is resilient to two important factors namely (i) prices which their crude oil and refined products can fetch in the market (from a break-even/ profitability perspective); and (ii) monetary equivalents of their carbon emissions. This resilience can be achieved by concentrating on future capital investments in technologies which offer the best combination of lower emissions and lower break-even prices or by retiring the least productive and/ or the most carbon emission intensive wells and associated investments.

2. **Exploring profitable growth options in low-carbon businesses**

Oil & gas companies may adhere to one of the following three philosophies in the future:

a. Resource specialists: Continue as is with the expectation that hydrocarbon demand would exist for the next 3-5 decades by sticking to the core competencies developed over time, coupled with M&A and consolidation opportunities from oil & gas companies either shifting to low-carbon business alternatives or going bankrupt;

b. Integrated energy players: Retain existing profitable core and at the same time capture the opportunities emerging in low-carbon alternatives like renewable power, hydrogen cell, bioenergy; and

c. Low-carbon pure plays: Divestment of traditional high-carbon portfolios and simultaneous investment in future ready low-carbon alternatives.

For companies following the philosophies in (b)

and (c), a three-way risk and reward trade-off will need to be ensured – (i) quantum of fresh capital investment in low-carbon technologies; (ii) revenues generated from operations; and (iii) level of reduction in carbon emissions. Considering the global commitment to rein in climate change under the UN Paris Agreement by limiting warming to 1.5 to 2 degrees Celsius above pre-industrial levels, thereby leading to a proactive adoption of green low-carbon technologies, which is expected only to increase in the future, integrated energy players and low-carbon pure plays shall be the disruptors of the oil & gas sector, turning the traditional business model on its head. What needs to be seen is how soon does this disruption achieve fruition.

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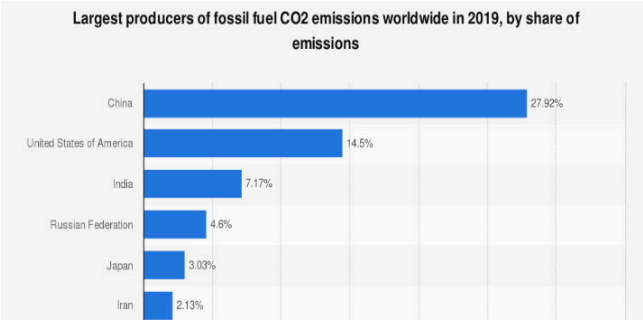
# THE GREEN MILE

In late July this year, only one nation out of 51 that were invited to a two-day climate conference in London decided not to attend. The ministerial meeting's agenda was to prepare for the annual UN Climate Change Conference (COP26) scheduled to be held between October-November. India's absence was considered as lack of its commitment towards speeding up its energy transition.




With all of the G-7 nations now committed to eliminate their greenhouse gas emissions by 2050, pressure is now starting to mount on China and India to follow suit. China and India are the world's largest consumers of coal. Coal accounts for 56% and 70% of the two countries' electricity generation respectively. Consequently, the two feature on the list of top three polluters in the world-with China being the largest, and India the third largest emitter of CO2.

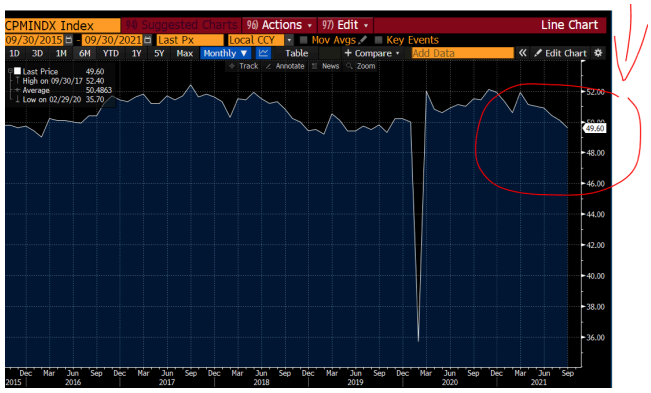
## Current Crisis

The reliance of the two countries on coal for its power generation has come into limelight with recent coal shortages resulting in mass blackouts and factory shutdowns.

## China

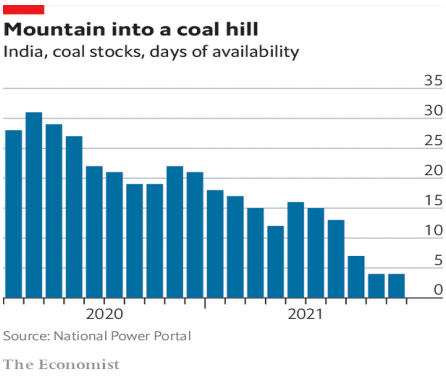
Between 2017 and 2021, China has reduced its reliance on coal for electricity generation from 80% to 56% with wind and solar energy on the rise. However, the current increase in global demand for Chinese goods has led to an increased demand for energy by factories that the current shortage for coal has intensified.

Due to a rise in prices, electricity providers in China have had to dive into their coal reserves-they've been counting on either a price reduction or easing of new environmental regulations by the Chinese government that would make it cheaper to burn coal. Neither seems to be on the radar. Moreover, Australia's ban on coal exports as a part of an international probe into determining the origins of the pandemic has only aggravated the existing supply side bottlenecks. Industry data shows that in September 2021, China's factory activity contracted for the first time since February 2020 lockdowns, pointing towards what is the worst energy crisis the country has faced in a decade.




## India

Central Electric Authority of India data revealed that stocks of coal in about 80% of country's coal fired power plants (132 Gigawatts of the 165 Gigawatts monitored daily) were in the critical or supercritical stage i.e., their stocks were enough only for less than five days.




To put things in perspective, the recommended stock levels by the government are 14 days. Many of the state governments, who are responsible for ensuring power supply have reached out to the government for help. Rajasthan has scheduled one-hour and four-hour power cuts in 12 districts;

Maharashtra's energy department said it needs "730 bn rupees immediately or the state goes into darkness".

As India's post-pandemic economic recovery gathers pace, pent-up demand from the lockdown is driving consumption with an increase of 16% between August 2019 and August 2021. Coal India had failed to anticipate this rise. Delayed monsoons and heavy rainfalls in the coal belt flooded mines hampered transport. Finally, surging prices on the international spot market for coal only accentuated the problem as a few plants on the coast that require imports seem to be struggling to afford it.

**Response**

It becomes important to understand how the two countries respond to the crisis. There are stakeholders using the crisis as an opportunity to push for increasing coal-based power generations so there are no supply side constraints.

Chinese government has ordered ramping up of production and relaxation of production quotas on certain mines to tackle the crisis-the objective is to meet demand to get through the winter. In India, Coal India and NTPC Ltd. are already working to raise outputs from mines as the government tries to bring more mines on stream to increase supply.

**Cleaner, cheaper and independent**

But the crisis also presents a call to action to catalyse the shift towards renewable energy. To meet its climate targets, India must reduce its dependence on coal. The economic arguments for reducing dependencies also seem sound-coal based generation is already expensive and prices are set to increase further. Renewable energy generation is economic and prices are only expected to fall going forward.

In August 2021, Indian Prime Minister Narendra Modi announced his target to transform India into an "energy independent" nation by 2047, with less reliance on fossil fuels. Price volatility in the global fossil fuel markets stand as a major hindrance to this target, making the alternative look much more attractive.

While India hasn't made a pledge to reduce its carbon-dioxide to net zero arguing that it must prioritize growth, it has set a target to reach 450 GW of renewable capacity by 2030. Solar energy in the country is already witnessing high investments- Reliance Industries has recently announced several clean energy projects, acquired REC Group, a large European solar manufacturing company; Coal India invited partners for its plan to implement and operate a 4 GW solar manufacturing facility in India.

China targets reaching carbon neutrality by 2060. In April 2021, President Xi Jinping said that China will start phasing down its coal use from 2026. It is already a renewable energy leader and contributes about 50% towards the world's growth in renewable energy capacity in 2020.

At COP26 later this year, the world will keenly watch the stance that the two fastest growing and largest emitting countries take as it determines the global course of climate action and sustainability. Two roads diverge in a yellow wood. The path they choose now will make all the difference.

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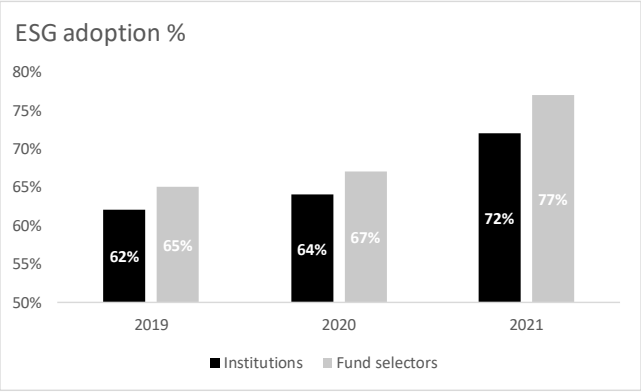
# INCREASING POPULARITY OF ESG INVESTING

Let us have a look at ESG adoption over the years. Bloomberg projects ESG AUM to reach $53 trillion by 2025, a third of global AUM.[1]



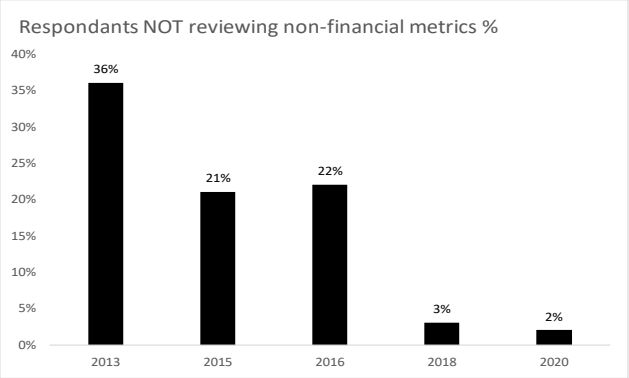

*Sources: Natixis Investment Managers 2019, 2020 and 2021, Global Institutional Investor Outlooks and 2019, 2020 and 2021, Professional Fund Buyer Outlooks*

As it can be seen, a dramatic change can be observed in the ESG adoption from 2019 to 2021.

Here's why.

As opposed to the Trump administration, Biden administration is keen to address climate change. The current POTUS, Joe Biden committed to join the Paris Accord in November 2020. The Biden Plan will "Ensure the U.S. achieves a 100% clean energy economy and reaches net-zero emissions no later than 2050.[2]" The Biden administration has committed c.$2 trillion to address sustainability targets.

Further, as per EY's Global Institutional Investor survey (2020), we understand that there is an increasing focus of investors towards non-financial disclosures.

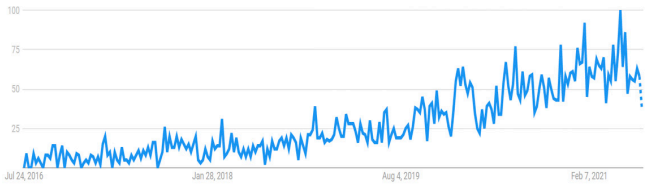



The same survey quotes that c.78% of the investors surveyed in 2020 who make use of non-financial disclosures (as per TCFD framework) say that such information has a significant impact on decision making and have had positive impact on portfolio returns with the added benefit of creating value for societies. Only c.61% believed the same in 2014 as per EY.[3]

Investors are calling for more disclosures especially in the United States. In 2014, almost two-thirds of the respondnts feel that ESG disclosures are inadequate. [2]

Academicians like Michael Porter have also expressed concerns that corporate leaders project their sustainability efforts to enhance their reputations and do not report relevant ESG metrics. Further, investment analysts mostly use ESG metrics to reduce risk in their own portfolios. Both the companies (including their sell-side analysts) and investment analysts, miss the economic value bandwagon by not understanding the impact of their own social innovations.[4]

This has led to creation of new climate-related financial disclosure requirements (by Task Force on Climate-Related Financial Disclosures (TCFD)) in April 2021 which may take effect from 2022. The aforementioned amendments have flooded the internet with 'ESG investing' being the buzzword in the last few months.




*Source: Google Trends. ESG Investing. Retrieved on July 18, 2021*

### ESG investing in India

According to a study, ESG practises result in better operational performance and stock performance than most of the surveyed companies. Lower cost of capital, lesser investment risk and higher resilience were some identified positive traits of such. [6] Basis

past experience, Nifty 100 ESG Index has outperformed Nifty 100 index. Standard deviations are also lower for the former (22% vs 31%).[5]

Currently, ESG Funds have an AUM of INR 10,500 crore with returns of 58.5% in the preceding year as compared to Sensex's 55.4%.[6]

SBI established India's first ESG fund in May 2018.[7] Since then, 8 mutual fund schemes are available to the investors as of 2021 with the latest addition being Aditya Birla Sun Life ESG Fund in December 2020. Note that 6 out of the 8 funds mentioned were launched in 2020.

Given the increasing focus on ESG especially in OECD nations, SEBI has made it mandatory for top 1000 companies by market capitalization in 2019 to comply with TCFD framework. SEBI aims to apply economy-wide mandatory climate related disclosures by FY25.[8]

Over a period of 14 years, companies with strong ESG values (part of MSCI India ESG Leaders Index) have performed better than MSCI India Index companies (CAGR - 7.79% vs. 3.83%).[9]

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# HOW TO GO GREEN?

**The Story**

The Paris Climate Agreement was a watershed moment for all of earth's inhabitants. It marked a turning point in the fight against climate change. It was the culmination of years of negotiations during which 196 countries pledged to up the ante against climate change, greenhouse emissions, global warming, and all that bad stuff. The goal of the agreement was simple. All countries big and small had to meet certain targets. They had to curb greenhouse gas emissions, pollute less, and do their best in adopting green energy before the whole problem became irreversible. Overall, the plan was to limit the rise in global temperature to 2 degrees, or possibly even 1.5 degrees Celsius, compared to pre-industrial levels.

So, the world made a few promises, deadlines were set and everybody got to work, including India. But let's not mince words here. Our targets were pretty stiff. First, we pledged to reduce the emissions intensity by 33%-35% before 2030. Now if you don't know what that is—It's the volume of emission per unit of GDP. Sort of like the amount of pollutants India pumps out in a bid to foster growth. We all know economic progress hinges on producing new energy. But if you're constantly doing it by burning dirty fuel, then you're likely going to have a higher emission intensity.

India for its part though has already reduced the emission intensity of its GDP by about 21 % compared to the levels from 2005 (which is our benchmark). However that being said, we still have a fair bit of work to do. Next, we vowed to source around 40% of the nation's electric power from non-fossil fuel-based energy resources before 2030. And finally, we promised the world we'd create a new carbon sink that would extract about 2.5 to 3 billion tonnes of carbon dioxide from the air. How would we do this? Well, we promised to do it by growing additional forest and tree cover. But technically, anything would classify as a carbon sink so long as it absorbed more CO2 from the atmosphere than it put out.

And truth be told, we've made some progress. But going green isn't always easy. We can't just flip a switch and adopt clean energy overnight. The coal and thermal plants (despite their drawbacks) still power the country in many ways. So the next logical approach is to gradually ween away from these sources by increasing the share of renewables in our energy mix. Basically making sure that we achieve our targets without breaking the economic engine.

So how do you promote the adoption of renewables and disincentivize the use of fossil fuels?

Well, one idea is to enforce renewable purchase obligations (RPO). It's a diktat that mandates Discoms (power distribution companies) and large electricity consumers to source a certain percentage of their energy requirement from renewable energy sources. They could do this by setting up their own renewable power plants or buying them from other renewable energy producers. In other cases, they could even meet their obligations by purchasing Renewable Energy Certificates (REC).

Think of it this way. RECs are issued to folks who produce renewable energy. However, these people can then choose to trade these certificates with those who may have trouble meeting their clean energy quotas. The object here is to penalize institutions that refuse to mend their ways and get them to act quickly. For instance, if you are a large electricity consumer and you're still sourcing most of your energy needs from coal plants, then making you pay extra will inevitably get you to adopt the clean energy mandate sooner or later.

And these renewable power obligations have done just that.

But so far they have been met via the usual mix of solar and wind-based power. In fact, it's worked quite well for those who produce solar and wind power. We've seen some investments in these institutions and the cost of deploying solar and wind energy is on the downtrend. But the government isn't happy with just this much. They want to diversify and see if we could replicate this success elsewhere too. And they want to include Green Hydrogen in the mix as well. Meaning if you produce energy by electrolysis of water, then the government may soon make it

mandatory for some institutions to source a certain percentage of their requirements from you.

So yeah, they are trying to switch things up a bit and if they really push and enforce these laws rigorously we will likely start seeing some real developments very soon.

Until then...


http://finshots.in

# GREEN BONDS - THE RISING ASSET CLASS FOR THE FUTURE

There is lot of talk around the green bonds recently. What exactly are these green bonds?

Green bonds are fixed-income instruments like corporate or government bonds. The difference is that these bonds are only to raise money for climate & environmental projects. The idea behind these bonds is to encourage sustainable and special environmental projects like pollution control, eco-system protection, and renewable energy projects. Like any other bond, the credit rating of these bonds is determined based on debt obligations of the issuer.

In 2007, few Swedish Pension funds called upon World Bank to enquire if there are any opportunities to fund the projects working on Climate. Then World Bank worked on this idea and created 'Green bond', a new financing option that changed the way investors, development experts, policymakers and scientists work together. The world's first green bond of $807.2 mn value was issued by European Investment Bank (EIB) and World Bank. From then on, this green bond market contributed to a major shift in the finance sector, where investors can earn interest and save the planet.

In 2012, Green bonds valued around $2.6 billion and by 2021, just World Bank alone issued nearly $16 billion in green bonds through 185 bonds in 23 currencies. Money raised through these bonds helped finance around 111 projects around the world. These funds were used to support projects in renewable energy, clean transportation, and land use. Overall, the green bonds reached over $1 tn with new issuances of $269.5 billion in 2020, raised through governments, corporates, and other supra-national entities like the World bank. With respect to green bond issuance in 2020, USA ($51.1 billion) is leading in Green Bond issuance with Germany ($40.2 billion) & France ($32.1 billion) following closely. As far as largest bond issuers in 2020, Fannie Mae, The Federal National Mortgage Association of USA, came first with around $13 billion whereas Germany sovereign government came second with around $12.8 bn.

Recently, European Union announced that it would issue its first green bond in October 2021 as part of its Next Generation EU (NGEU) budget and, over the next five years, planning to issue over €250 bn. In India, it is the second-largest emerging market after China in the green bond market. The first green bond in India was issued by Yes Bank for around ₹10 bn to finance solar, wind, biomass and small hydropower projects.

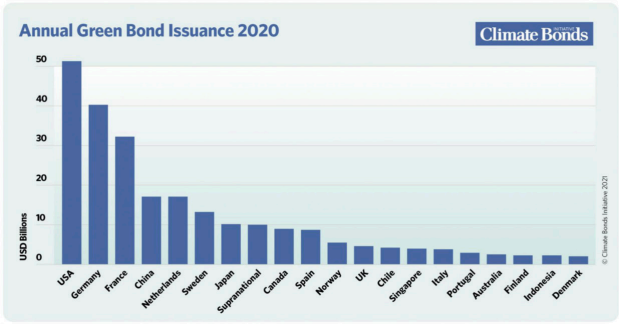


*Figure 1 Amount of Green bonds issued in 2020 by countries. Source: Climatebonds.net*

As per the Green Bond Impact report by Yes Bank, it is estimated to avoid annual fossil fuel usage of 629.74 KT equivalent to annual emissions from more than 64.49 mn passenger vehicles. Recently, Power Corporation of India (PFC) Ltd issued its first Euro-denominated bond from India for about €300 mn. This green bond got oversubscribed 2.65 times by institutional investors across Asia & Europe.

With ESG (Environmental, Social, and Governance) as a framework on the rise, there are expectations that more sovereign entities and companies can issue green bonds. Also, the rise in investments in green bonds reflects the shift in investors' interest towards social & environmental purposes. To ensure that green bonds are particularly used for the ear-marked issues, several certifications & ratings were introduced to verify the claims of these asset classes. Post the green bonds, several other bonds i.e. Social bonds, Blue bonds and other bonds for specific development, were introduced. This rising asset class might help reach the bigger goal of achieving Sustainable Development Goals by 2030.

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# ESG INVESTMENT

Every Business is deeply intertwinedwith Environmental, Social and Governance (ESG) concerns. It thus makes sense for a business to have a strong ESG proposition to create value. Let's quickly go through the elements of ESG.

- **Environmental:** It consists of the energy a company needs and the waste it discharges, its carbon footprints and its impact on living beings. Every company affects and is affected by the environment.

- **Social:** It addresses the relationship a company has with the people and its reputation among the community it is doing business in. It comprises of the diversity, inclusivity, and what labour practices does it follow.

- **Governance:** This includes the internal policies and procedures a company follows to govern itself to make effective decisions and follow regulatory laws.

All these elements are closely connected and a strong ESG proposition can guarantee a long-term success for a company. Lately, investment in ESG has grown rapidly and it has come out as more than a feel-good exercise. Research has found that a company with a strong ESG proposition experiences a strong equity return, reducing downside risk. ESG links to cash flow in five ways, but there is no assurance that each will apply in same degree. Some may apply in certain industries while others in some other geographies. But it's a risky proposition for a company to keep any link unexplored.

**1. Top Line Growth:** A company with a strong ESG proposition can find it easy to enter new markets or expand into existing ones. It allows them to gain the trust of the governing authorities to get easy access to resources, licenses, approvals which can be vital for a business to succeed. Customers also tend to validate such companies with their sustainable products by creating an image of a responsible organization.

**2. Cost Reductions:** ESG can help reduce energy consumptions and water intake thus reducing the operating expenses of a company. Consider Levi's, who came up with its environment friendly Jeans which uses less water, achieved reasonable success over the years.

**3. Regulatory and Legal Interventions:** A strong ESG proposition can help companies to achieve greater strategic freedom by easing regulatory pressures. This can help in gaining government support and reducing the risk of adverse government actions.

**4. Increased Employee Productivity:** ESG can help companies attract top talent and retain them which can increase its overall productivity. Various research has found that positive social impact is directly correlated with employee satisfaction.

**5. Investment and Asset Optimisation:** A strong ESG proposition can enhance investment returns by allocating capital to more promising and more sustainable opportunities (for example, renewables, waste reduction, and scrubbers

However, from a long-term perspective it's important for a firm to understand the different ways that environment, social and governmental factors can create value. Large companies can have dozens of projects working simultaneously. Taking too many projects can sometimes be a muddle or may work at cross purposes. Moreover, it's important to prioritize initiatives and get the most out of them. Different companies can have different ESG profiles depending on the where they are in the corporate life cycle. For start ups it can have profiles of high growth from ESG initiatives while mature firms ESG initiatives can be more aligned to maintain social ties.

The linkage from ESG to value creation is solid indeed. Its five levers can be the difference makers for a firm. In a world where environmental, social, and governmental concerns are getting more traction than ever, these linkages are becoming more crucial for the leaders around.

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# NEW AGE INVESTMENT OPPORTUNITIES FOR RETAIL INVESTORS

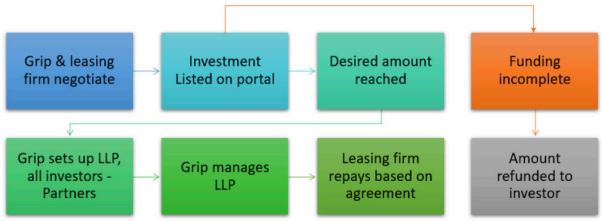
Traditionally, Indian retail investors like you and me with a relatively moderate ticket size have been restricted to either FD, PPF etc on one end or the equity stock markets on the other, both of which have a divergent risk-return profile. Hence there has always been whitespace in between for investors looking to earn more than conventional FDs, PPF etc but at the same time looking to take on a lower risk than stock markets (or looking for fixed income opportunities). There is now a plethora of options emerging in this whitespace providing new opportunities to invest in fixed income instruments which were earlier not an option for the common retail investors. In this article, we explore three of these asset classes through one startup each - Grip Invest, Wint Wealth and Trade Cred

**Grip Invest** (Grip Invest)

Grip Invest is an investment platform for small and retail investors with the opportunity to invest in varied listings with investments as small as Rs. 20,000 and for periods as short as three months. The primary business of Grip is leasing and the capital is used to buy physical assets, which are subsequently leased out. Grip claims an average IRR of 21% (please note, these are IRR returns) on its investment listings for 36-month tenure, much higher than fixed deposits and corporate bonds. Repayment of funding ranges between 30 days to 3 years.

*How does it work?*

Grip partners with clients looking for funding of assets such as - ambulances, computers, and inventory. There are an increasing number of firms who wish to remain asset-light and are therefore looking to lease which is fuelling the demand for lease deals. The process of investing can be summarised below -



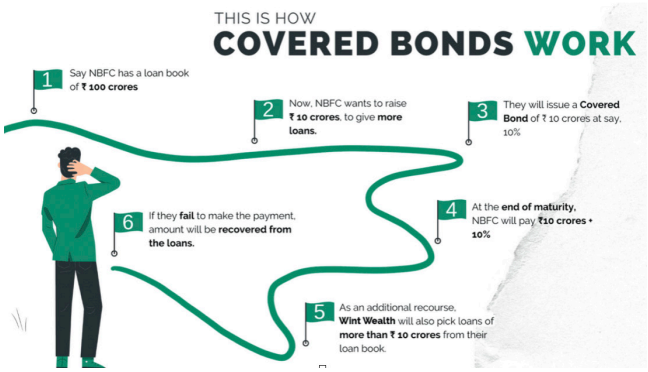

Grip provides a lucrative investment opportunity given its attractive rate of return. It provides monthly return options to investors, vets the leasing partners based on their financing, promoters, and core assets. The detailed monthly reports on Grip's investment portfolio provide a comprehensive understanding to the investor. Also, investors are subjected to lower applicable tax owing to asset depreciation.

The investment with Grip provides no option of an early exit and investor risk is subject to the repayment capability of the leasing partner. In terms of Grip's business model, Grip charges a 2.0% management fee on every repayment to the investor and charges a processing fee from the lessee.

**Wint Wealth** (Wint Wealth)

Wint Wealth (erstwhile Growfix) helps you invest in debt instruments with a minimum investment of ~10K, and yielding returns close to 10-11%. The repayment structure depends on each asset, varying from monthly to quarterly to getting paid at maturity (1-3 years)

The basic instrument used here is called a "covered bond". The below infographic by Wint very well summarizes how covered bonds work.




*Source: Covered Bonds by Wint Wealth | Covered Bonds*

Let's look at the risk in these instruments. In the event NBFC defaults, the cover pool of loans (such as gold loans, property loans, vehicle loans) is used to make payments. In case even these loans default, the collateral for the loans can be used for recovery. This kind of a security structure is what is referred to as "dual recourse". Also, the cover pool of loans is

usually higher than the bond issue amount (1.2 - 1.5 times) and the same applies for the physical collateral (such as vehicles, gold, etc) for the cover pool of loans as well. This provides additional security for the investors.

Wint works with NBFCs who are looking to raise capital and gets them to issue such securities. They pick and scrutinize the pool of loans via rating agencies, and list the asset on BSE. However, do note that the liquidity is poor in such assets, and ideally, one should be willing to hold till maturity. Wint makes money by charging a 1-2% spread from the NBFC for structuring the deal, marketing, and selling the asset to retail investors.

**TradeCred** (TradeCred)

TradeCred is an alternative debt platform which aims to provide retail investors access to multiple credit-based asset classes which were erstwhile been out of the reach of individual investors like you and me. The current primary proposition of TradeCred is investment into discounted invoices of blue-chip companies, starting from minimum investment of Rs. 50,000 providing annualized returns of ~10-13% on deals maturing in 90-100 days.

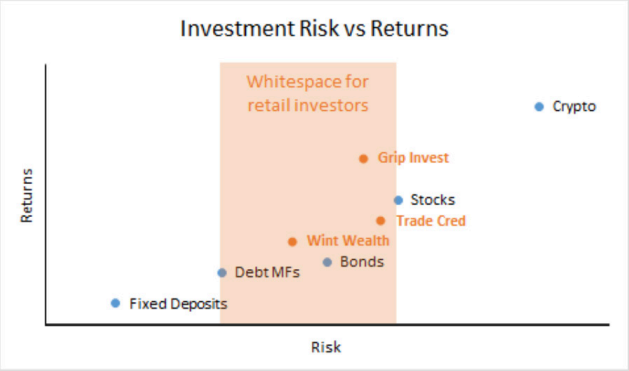
Now, you may ask what exactly is bill discounting (also known as invoice factoring)?

We will try to simplify this in layman's terms. All companies have a set of suppliers from whom they purchase products or services, and generally, the payment terms for these are on credit with a normal payment period varying anywhere between 30-90 days from the date of invoice. Suppliers may not want to wait for that long and will agree to receive a lower amount also if it is available immediately. For example, a supplier has Rs. 1,00,000 due 90 days from today, but does not want to wait that long. As a TradeCred investor, you agree to pay him Rs. 95,000 immediately in exchange for the due invoice amount. 90 days later, the dues from the invoice are settled and you get Rs. 1,00,000 in exchange for the Rs. 95,000 you paid 3 months earlier. The Rs. 5,000 differential is the source of return for you, or the interest amount you earn (figures used for example only, do not reflect actual returns).

In terms of risk, since suppliers are operational creditors vis-a-vis banks who are financial creditors, bill discounting as an asset class is riskier than company bonds but less risky than equity.

TradeCred claims to 0 defaults since inception and have so far completed invoice deals of ~ Rs 600 Cr of blue chip highly rated companies. TradeCred is an attractive option for those who are looking at higher returns than FDs / debt in smaller tenures / batches of 90-100 days, those who don't wish to lock in their money for longer tenures of multiple years.

Here is a short summary of the investment opportunities we have discussed above, also tabulated in terms of the risk, return, liquidity, maturity, minimum amount and tax treatment of returns




| Investment | Risk | Pre Tax Returns (IRR basis) | Liquidity | Maturity | Minimum Amount | Tax Implications |
|---|---|---|---|---|---|---|
| Fixed Deposit | Very Low | 4-5% | High | Can vary from 10 days - 10 years | INR 5K | Taxed according to income tax slab |
| Nifty 50 | High | 12-14% | High | Variable | Variable | Taxed as capital gains |
| Grip Invest | Low to Moderate | Upto 21% | Low to Moderate | 3 months to 3 years | INR 20k | Taxed as leasing income, benefit through depreciation expense (ITR3) |
| Wint Wealth | Low to Moderate | 9-11% | Low to moderate | 2-3 years | INR 10k | Taxed as LT capital gains (10%) if held for >1yr |
| TradeCred | Low to Moderate | 10-13% | High | 90-100 days | INR 50k | Taxed according to income tax slab |

In summary, these startups have democratized access to certain classes of high yield debt instruments which traditionally required investments in large amounts. This was a barrier, effectively making such assets outside the reach of a common retail investor.

While this article summarizes some of the attractive alternative investment options available to retail investors, there are many more alternative investment opportunities coming up in the white space between equity and normal debt. Some other interesting asset classes brought to life by new age startups are listed below -

**Growpital** - fix-pay-outs based direct farming investment platform

**LegalPay** - litigation funding as an asset class for retail investors

**Strata** - commercial real estate investments

Happy investing! :)

**Disclaimer** - Nothing contained in this article should be construed as investment advice. Any reference to an investment's past or potential performance is not, and should not be construed as, a recommendation or as a guarantee of any specific outcome or profit.

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# ESG INVESTING

Investment, in the traditional sense, involves considering the profitability, business model, and competitive advantage of a company. But this is not an exhaustive list of parameters. Prominent investors are now finding new factors to consider while investing, especially with the onset of the Covid-19 pandemic, which brought the fear of the future. While niche practices like Greenwashing, CSR, and sustainable investing have existed, Environmental, Social, and Governance (ESG) encompass all the above.

**Environment**: Conservation of natural resources, management of waste, protection of animals, clean energy usage, and much more are included in environmentally-conscious business practices.

**Social**: Favorable labor policies, human resource rights, protection of human capital, and community standards are considered good social practices.

**Governance**: There is no E and S without proper G. Transparency in financial reporting, and ethical management procedures come under Governance. This also involves following accounting and taxation regulations.

Though India is ahead of other developed countries in corporate Governance and social responsibility due to mandatory CSR requirements, ESG takes it one step forward. ESG is based on the foundational belief that investors can encourage companies to adopt sustainable business practices that will benefit all the stakeholders instead of just the company's shareholders. Historically, we see instances of socially responsible investing when firms halted business with South Africa during the Apartheid and California's giant pension plans divested in tobacco stocks. Once it was meant only for morally inclined investors, now everybody wants to be a considerate investor. Nifty 100 ESG Index, which reflects its parent's (NIFTY 100) performance, reduces the exposure in portfolios to high ESG Risk companies. Mutual Funds in India now offer funds that score high on the ESG parameters. Citibank Korea encourages corporate clients to adopt ESG standards. Investment in ESG funds increased 76% to ₹3,686 crores in FY21 against ₹2,094 crores in FY20. But does all this buzz around ESG investing hold merit?

While this strategy looks good on paper, it is nowhere near perfect. Environmentally- conscious investing automatically eliminates companies that involve fossil fuel in their operations. While we are looking at alternatives, it is not possible to produce power without coal in the near future. Can developing countries afford to comply with ESG norms set by developed nations? Aswath Damodaran, a Finance professor at the Stern School of Business, is not a fan of ESG. In his blog, he calls it the "Goodness" Gravy train by pointing out some interesting points like how goodness is a complex measurement, and it is near impossible for something to be beneficial to everyone. Similarly, Tariq Fancy, Chief Investment Officer for sustainable investing, BlackRock, explains how ESG investment decisions by company managers might be flawed as they are driven by their desire to increase investment returns. There is very little credible research on the relationship between ESG investing and yields.

The recent warning from The Bank for International Settlements about a bubble forming around green investments if market transparency is not ensured has made investors hesitant. The bank compared this phenomenon to the dot-com boom in the 2000s and railway stocks in the 1800s. A significant issue with determining the valuation of ESG assets is the vague parameters used to quantify them. While it's still in the nascent stage in India, it would be wise to consider investments on a more quantifiable basis.

Until we see ESG investing done for the right (which is very subjective) reasons and with a proper framework, it might just be a trend that helps wealthy investors sleep peacefully at night.

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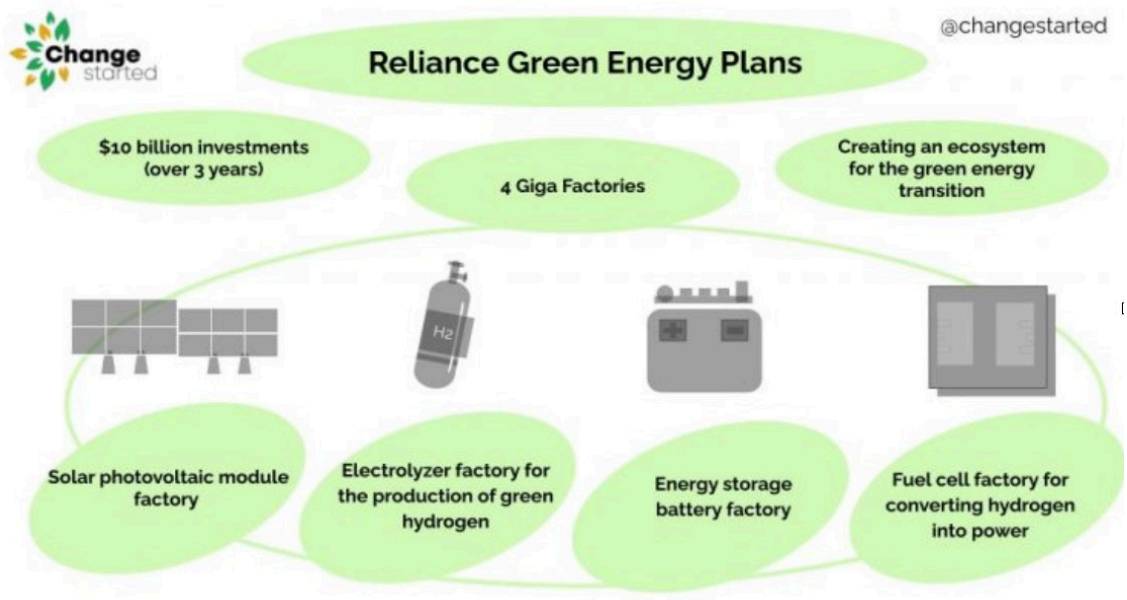
# INEVITABLE ENTRY OF RELIANCE IN RENEWABLE ENERGY

Reliance Industries Limited, in its Annual General Meeting on 24th June, announced its plan to invest **₹75k crores in renewable energy.** This was in continuation to making Reliance a net carbon zero company by 2035. The funds will be used to build four Giga factories that will produce and fully integrate all of the important components of the new energy ecosystem, including solar energy generation, intermittent energy storage, green hydrogen production, and hydrogen conversion into motive and stationary power. The company has already initiated developing the **Dhirubhai Ambani Green Energy Giga Complex** on 5,000 acres in Jamnagar.

Reliance stated it will build at least 100 GW of solar energy capacity by 2030, with rooftop solar and decentralised solar installations in villages accounting for a substantial portion of this. It will also would spend over ₹60k crores in these projects and an additional ₹15k crores in value chain, partnerships, and future technologies, which will include upstream and downstream operations.

Reliance entered a deal to sell 20% stake in its oil-to-chemical business to the Oil giant Saudi Aramco in recent past. The world is moving towards green energy, and it was the need for Reliance as well. The only question surrounding this was When? Such a huge investment will be a big push for the Indian renewable space which is even struggling to meet the 175 GW target by 2022. In response to Reliance, Adani Group announced plans to invest USD 20 billion in renewable energy generation and component manufacturing over the next ten years. Over the next four years, Adani Group intends to triple its renewable power generating capacity, venture




establish an **Advanced Energy Storage Giga Factory** to manufacture large-scale grid batteries to store the energy generated. The company will also focus on establishing an **Electrolyser Giga Factory** to produce modular electrolysers with the best efficiency and lowest capital cost. Another project will be a **Fuel Cell Giga Factory**, which will create energy using oxygen from the air and hydrogen. It into green hydrogen production, power its data centers with renewable energy, make its ports carbon-neutral by 2025, and invest over 75% of capital investment in green technology till 2025.

Reliance has already entered into a buying spree through its wholly-owned subsidiary Reliance New Energy Solar Ltd. Three investments have been

already made since its incorporation in June:

- Investment of **USD 50 million** in **Ambri Inc,** an energy storage company based in USA. The overall investment in Ambri Inc is USD 144 million, along with strategic investors Paulson & Co. Inc. and Bill Gates, and a few other investors.
- Acquisition of 100% shareholding of **REC Solar Holdings AS** (REC Group) from China National Bluestar (Group) Co Ltd., for an Enterprise Value of **USD 771 million**
- Acquisition of 40% stake in Shapoorji Pallonji-backed **Sterling & Wilson Solar** for **₹2,845 crores** through a combination of primary investment, secondary purchase and open offer

Going by the intensity of scale-up of businesses by Reliance in the past, renewable energy space is poised to grow substantially in India on the back of Reliance's delayed but inevitable entry.

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