

# ESG FRAMEWORK UTILITIES



# 01

## A Strong ESG Proposition Adds Value

As committed value investors, Pzena seeks to buy good businesses at low prices, focusing exclusively on companies that are underperforming their historically demonstrated long-term earnings power. Through bottom-up fundamental research we seek to determine whether such earnings shortfalls are temporary or permanent, and each investment decision weighs risk and return potential by considering all issues material to a company's prospects.

Because ESG issues can have a material impact on a company's earnings over time, they are evaluated like any other investment issue. Pzena's integrated approach to ESG ensures that an understanding of material ESG risks and opportunities is incorporated into the research process. As many ESG issues will play out over a long timeframe, they require a future-oriented perspective, consistent with our long-term, buy-the-whole-business approach to investing.

# 02

## What are ESG Industry Frameworks

ESG frameworks provide an overview of the ESG issues relevant to an industry which are part of our bottom-up, company-specific analysis. These frameworks distill material investment issues that can have an impact on a company's financial performance; help identify and quantify additional potential risks and opportunities; and prioritize the most material ESG issues by industry.

### Specifically, the frameworks:

1. Ensure coverage of key material ESG issues within an industry;
2. Provide a sound basis for quantifying and assessing these issues;
3. Provide a way of prioritizing issues for each company-specific situation.

While these ESG frameworks are relevant to all companies in a specific industry, company-specific nuances always determine any variation to, and prioritization of, our research into these areas. The issues highlighted in a framework do not reflect all potential ESG issues for a company but are a guide to what we think are the most common and material issues. Company-specific materiality will always be evaluated on a case-by-case basis by our investment team.

We developed these frameworks from a comprehensive set of inputs that we evaluated as part of our proprietary research process. In so doing we referred to a wide range of third-party ESG data sources, including SASB (the Sustainability Accounting Standards Board), MSCI, RepRisk, and company-reported information.

# 03

## Utilities Framework

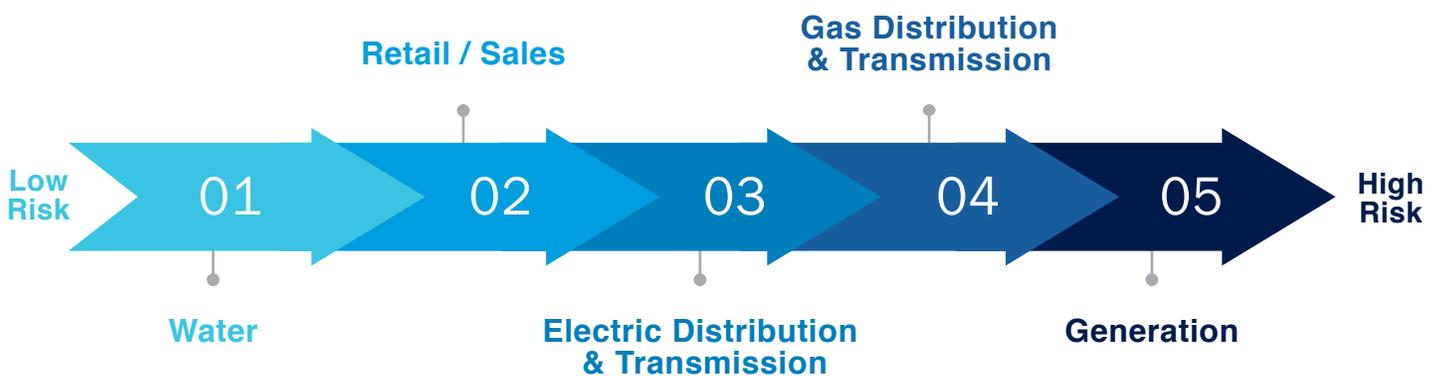
The framework maps the most critical ESG issues facing the utilities industry globally, and is used to assess a utility company’s effective financial exposure to these issues.

PRIORITY	ISSUE	RELEVANCE TO INVESTMENT THESIS
1	<b>Climate – Transition Risk</b>	<ul style="list-style-type: none"> <li>• Stranded asset risk</li> <li>• Transition costs (regulation, technology upgrades, etc.)</li> <li>• Potential for green revenue</li> </ul>
2	<b>Business Model Resilience</b>	<ul style="list-style-type: none"> <li>• Energy efficiency efforts to reduce demand</li> <li>• Off-grid solutions leading to lower customer demand and utilization</li> <li>• Potential upside from greater electrification</li> </ul>
3	<b>Operational Safety &amp; Risk Management</b>	<ul style="list-style-type: none"> <li>• Reputational damage</li> <li>• Litigation costs</li> </ul>
4	<b>Pollution Management</b>	<ul style="list-style-type: none"> <li>• Fines for non-compliance</li> <li>• Costs to reduce emissions, retire older plants, or invest in new technology</li> </ul>
5	<b>Affordability &amp; Access</b>	<ul style="list-style-type: none"> <li>• Pressure to reduce consumer tariffs and lower regulated returns technology</li> </ul>
N/A	<b>Governance</b>	<ul style="list-style-type: none"> <li>• Shareholder value leakage or mismanagement of acute issues</li> </ul>

While this framework is generally applicable to the industry globally, company-specific situations and geography are critical in its application. An example of how we apply this framework to stranded asset risk – the biggest risk for utilities– is outlined below.

The risk of stranded assets for any company will depend on a myriad of factors, including asset quality, regulatory regime and geographical market conditions. We applied this lens to the entire utilities sector, and identified the industry components (gas, electric, etc.) with the highest risk of stranded assets.

### Utilities Value Chain Stranded Asset Risk from Lowest to Highest Risk



#### Zeroing in on what matters.

The first determining factor is the part of the value chain a utility operates in. In general, industries such as retail electricity sales or water have limited material risk, aside from the need to decarbonize their own operations. Also, electric distribution and transmission, which are almost always regulated, may benefit from the climate transition due to the need for more investments in an electrified world. Gas distribution faces some long-term risks as heating may move from gas to electricity, but there are several distinct factors that mitigate the risk: specifically, the regulated nature of the assets with precedent examples of compensation for early retirements, and the possibility that the existing infrastructure could be repurposed to run on hydrogen. The segment that faces the highest stranded asset risk is generation. As the world moves toward decarbonization, fossil fuels-based (coal and natural gas) generation will have the highest risk of being stranded and replaced by other generation assets.

The other critical factor to consider is the country / geography within which a utility operates. Location dictates dependence on each source of fuel, and determines the growth rate of a company’s power demand. All things being equal, higher power demand growth means that a country has less opportunity to reduce its legacy power generation capacity – no matter how polluting it may be – for lack of a straightforward alternative to keep the lights on, and support economic growth. Additionally, if a high proportion of a country’s generation is coming from burning fossil fuels like coal, it takes significant investment and lead time to replace these assets with greener generation, postponing the stranded asset risk further into the future.

The third, and sometimes the most critical, factor to consider is the overall policy environment and decarbonization goals in the country the utility operates. Policy decisions can dramatically shift the industry landscape at short notice and can create stranded assets overnight. Broadly speaking, developed countries have aggressive carbon reduction targets in place, whereas emerging economies may allow overall emissions to grow before beginning to decarbonize in 2030 or later. Needless to say, immediate decarbonization presents a higher level of near-term risk to existing fossil fuel assets.

A fourth aspect we must consider is whether generation assets are regulated or free-market, and whether there is any past precedent for owners of stranded assets receiving compensation. A regulated generation system has risks, such as potential lower future returns, but the risk is lower than an unregulated free-market system where an asset could become stranded very quickly given policy changes.

These issues are generally some of the most critical in assessing the risk of stranded assets for company or sub-sector of the industry. Of course, these considerations are not exhaustive. For example, higher scale power plants are less polluting, so have lower stranded risk versus a smaller size plant in the same location.

We use these considerations to develop a risk hierarchy for publicly traded utilities across four major geographies: the EU, the US, China, and India. The EU has a slow-growth market, has strict decarbonization goals, and the generation fleet is largely unregulated. Fossil fuels make up a swiftly decreasing part of the asset base, owing to a widespread renewables buildout, and overall power demand is growing slowly – less than GDP growth. Taken overall, the EU has a high level of stranded asset risk, and coal assets in particular should essentially be seen as runoff assets with near term expiration dates.

The US also has robust decarbonization goals, though, compared to the EU, they are less detailed and lack tangible policies such as a carbon tax. Power demand growth is higher than in Europe, but also lower than GDP growth. The main nuance to consider in the US is that utilities are regulated on a state-by-state basis<sup>1</sup>; in some states, generation is free-market, while in other states it is entirely regulated. Consequently we must make a distinction between regulated and non-regulated generation, recognizing a higher degree of stranded asset risk embedded in the latter.

China and India are similar in that they have extensive fossil fuel asset bases (especially coal), and, as their economies are growing rapidly, both are seeing robust long-term power growth. Additionally, the decarbonization goals in both countries allow for total emissions to rise through 2030 (though emissions intensity is expected to decrease), before beginning to decline toward net zero in 2050, or later. The main difference between the two countries is that thermal generation in India is fully regulated, with generators allowed to earn a return on assets regardless of demand or actual production, while China’s generation is mostly a free-market system, where earnings are based on volumes sold. Thus, the stranded asset risk is higher in China.

**To put it all together, we created a hierarchy of stranded asset risk for the generation industry across these geographies:**

<b>RISK OF STRANDED ASSETS</b>	<b>EU</b>	<b>US</b>	<b>China</b>	<b>India</b>
<b>Coal Generation:</b> <i>unregulated</i>	VERY HIGH	VERY HIGH	HIGH	HIGH
<b>Coal Generation:</b> <i>regulated</i>	VERY HIGH	HIGH	HIGH	MEDIUM
<b>Gas Generation:</b> <i>unregulated</i>	HIGH	MEDIUM	MEDIUM	MEDIUM
<b>Gas Generation:</b> <i>regulated</i>	HIGH	MEDIUM	MEDIUM	LOW

We use this hierarchy when we analyze a utility with generation assets to determine its stranded asset risk. This is an important lens through which we view a utility, helping us accomplish our goal of identifying material key issues that may have an outsized impact on normal earnings.

■ VERY HIGH   ■ HIGH   ■ MEDIUM   ■ LOW

<sup>1</sup> Decarbonization policies and support for renewables can vary widely by state as well

# 04

## Application of the Framework: Enel

ESG issues can directly impact a company's earnings drivers (revenue, OPEX, CAPEX, etc.), and can also subjectively impact its risk profile by affecting the range of outcomes (positively or negatively). Below we highlight Enel (a diversified Italian utility) to illustrate how we incorporate the utilities framework into our research.

In addition to Italy, Enel has significant international operations in Spain, Latin America, and North America. The company operates across the utility value chain and has significant operations in traditional generation, renewables generation, infrastructure & networks, and end-use customer retail.

As Enel is managing its complex exposure to ESG effectively, it's a good example to show how ESG can connect to company value drivers.

### *How Enel rates on the broad framework issues*

PRIORITY	ISSUE	ENEL MATERIALITY	ISSUE DETAIL	ENEL STATUS
1	<b>Climate – Transition Risk</b>	<b>High</b>	Risk of stranded assets Positioning for emerging opportunities Costs of transition and compliance	Leading Leading In Line
2	<b>Business Model Resilience</b>	<b>High</b>	Demand reduction & energy efficiency Decentralized grid Upside from electrification	In Line Leading Leading
3	<b>Operational Safety &amp; Risk Management</b>	<b>Low</b>	Safety record Critical incident management	In Line In Line
4	<b>Pollution Management</b>	<b>Low</b>	Compliance and incident management Costs for pollution reductions	In Line In Line
5	<b>Affordability &amp; Access</b>	<b>Medium</b>	Regulator relations Energy affordability	In Line In Line
N/A	<b>Governance</b>	<b>Low</b>	Broad structure and independence Responsiveness to shareholder concerns	In Line In Line

Enel has faced ESG-related challenges to its business model primarily in the form of climate transition risk and business model resilience risk in the face of changing demand trends within the utility sector. However, Enel's management has embarked on a forward-thinking strategy that should ultimately position the company as a beneficiary of the move toward decarbonization, and we have engaged numerous times with senior management to understand their strategy and approach to the relevant risks.

## Climate Transition Risk

As a utility with a large traditional generation fleet, Enel inherently possesses some stranded asset risk, especially with coal-fired power. Management, however, has been forward-thinking in managing its asset base and has effectively turned a risk into an opportunity through three main initiatives:

1. The company has reduced its coal capacity from 16 GW in 2017 to 9 GW in 2020 and has accelerated its eventual exit to 2027, minimizing its interim investment in those assets;
2. Enel has invested heavily in renewables and we believe it has become the largest private renewable operator in the world, with 49 GW of capacity as of 2020. It has ample runway for further growth with about 200 GW of additional capacity in its project pipeline, giving it the optionality to pursue the projects with the highest returns, and its large existing asset base and project management experience give it advantages of scale compared to other renewable operators;
3. The company will maintain its position in select natural gas generation plants during the energy transition where plants are still profitable and offer sufficient returns. But overall thermal production is expected to decline to 16% of the company's total by 2030 vs. 34% in 2020.

Additionally, Enel is targeting emissions cuts consistent with a 1.5 degree warming scenario, including an 80% cut in Scope 1 emissions by 2030 and a 16% cut in Scope 3 emissions, and a commitment to net zero by 2050. All of these actions show that Enel's management team is well aware of the climate transition risk and has done a good job positioning the business to not only manage the risk, but also gain from it.

## Business Resilience Risk

The main threat to Enel here comes from potentially lower customer volumes through energy efficiency initiatives, on-site storage, or off-grid electricity sourcing. The main risk is to Enel's retail business, which is directly exposed to any fluctuation in customer demand; retail accounts for about 18% of the company's EBITDA.

Once again though, Enel's overall business strategy addresses this risk. First, its networks business earns a regulated return on capital invested, and its renewables business operates under long-term contracts, and both of these present stable earnings streams regardless of volume growth. Second, while the retail business may see an adverse impact from things such as storage and rooftop solar panels, these initiatives will require significant investments in the grid to allow for two-way movement of electricity, and that investment will come from Enel's regulated networks division. Finally, Enel has invested in its energy services businesses, building them out to offer customers not just energy volumes, but also services to help customers manage their demand and storage capabilities, which offsets lost earnings from lower volumes.

It is important to note that the course of decarbonization is uncertain, and that there is a plausible scenario where electricity demand actually increases as things like transportation and heating are converted to run off of zero-carbon renewable electricity. This represents an opportunity for Enel across its business lines.

## Other ESG Risks

We do not believe that Enel faces other material ESG risks among those laid out in our utilities sector framework. Enel has a strong commitment to safety and a track record of responsible asset management to avoid environmental issues, keeping pollution within regulatory-allowed levels. Additionally, while affordability & access is an issue to monitor, Enel generally operates in geographies with strong, independent regulation that resist political pressure to reduce tariffs. We continue to evaluate the company's various South American operations which is the likeliest location for this risk to emerge, but it does not appear to be material at this time.

## Engagement with Enel

We have had extensive discussions with management on decarbonization and how the company's strategy is aligned to mitigate the risks and benefit from these trends. We have met with Enel's CEO or CFO at least once per year, with additional engagements with Investor Relations and the company's ESG team when we are considering how to vote the proxy. We believe that the management is attuned to facing ESG-related challenges and has set stringent, tangible targets for the company, such as exiting coal by 2027 and reducing emissions by 80% by 2030. We have been pleased with Enel's progress toward these targets, but we will continue to engage with management and push them to continue making progress toward these goals.

## FURTHER INFORMATION

This document is intended solely for informational purposes. The views expressed reflect the current views of Pzena Investment Management, LLC (“PIM”) as of the date hereof and are subject to change. PIM is a registered investment adviser registered with the United States Securities and Exchange Commission. PIM does not undertake to advise you of any changes in the views expressed herein. There is no guarantee that any projection, forecast, or opinion in this material will be realized. Past performance is not indicative of future results. All investments involve risk, including risk of total loss.

This document does not constitute a current or past recommendation, an offer, or solicitation of an offer to purchase any securities or provide investment advisory services and should not be construed as such. The information contained herein is general in nature and does not constitute legal, tax, or investment advice. PIM does not make any warranty, express or implied, as to the information’s accuracy or completeness. Prospective investors are encouraged to consult their own professional advisers as to the implications of making an investment in any securities or investment advisory services.

The specific portfolio securities discussed in this presentation are included for illustrative purposes only and were selected based on their ability to help you better understand our investment process. They were selected from securities in one or more of our strategies and were not selected based on performance. They do not represent all of the securities purchased or sold for our client accounts during any particular period, and it should not be assumed that investments in such securities were or will be profitable. PIM is a discretionary investment manager and does not make “recommendations” to buy or sell any securities. As of September 30, 2021, Enel S.p.A. was held in several of our strategies. There is no assurance that any securities discussed herein remain in our portfolios at the time you receive this presentation or that securities sold have not been repurchased.

**For UK Investors Only:**

This document is issued by Pzena Investment Management, Limited (“PIM UK”). PIM UK is a limited company registered in England and Wales with registered number 09380422, and its registered office is at 34-37 Liverpool Street, London EC2M 7PP, United Kingdom. PIM UK is an appointed representative of Mirabella Advisers LLP, which is authorised and regulated by the Financial Conduct Authority. The Pzena documents are only made available to professional clients and eligible counterparties as defined by the FCA. Past performance is not indicative of future results. The value of your investment may go down as well as up, and you may not receive upon redemption the full amount of your original investment. The views and statements contained herein are those of Pzena Investment Management and are based on internal research.

**For Australia and New Zealand Investors Only:**

This document has been prepared and issued by Pzena Investment Management, LLC (ARBN 108 743 415), a limited liability company (“Pzena”). Pzena is regulated by the Securities and Exchange Commission (SEC) under U.S. laws, which differ from Australian laws. Pzena is exempt from the requirement to hold an Australian financial services license in Australia in accordance with ASIC Corporations (Repeal and Transitional) Instrument 2016/396. Pzena offers financial services in Australia to ‘wholesale clients’ only pursuant to that exemption. This document is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in Australia. In New Zealand, any offer is limited to ‘wholesale investors’ within the meaning of clause 3(2) of Schedule 1 of the Financial Markets Conduct Act 2013 (‘FMCA’). This document is not to be treated as an offer, and is not capable of acceptance by, any person in New Zealand who is not a Wholesale Investor.

**For Jersey Investors Only:**

Consent under the Control of Borrowing (Jersey) Order 1958 (the “COBO” Order) has not been obtained for the circulation of this document. Accordingly, the offer that is the subject of this document may only be made in Jersey where the offer is valid in the United Kingdom or Guernsey and is circulated in Jersey only to persons similar to those to whom, and in a manner similar to that in which, it is for the time being circulated in the United Kingdom, or Guernsey, as the case may be. The directors may, but are not obliged to, apply for such consent in the future. The services and/or products discussed herein are only suitable for sophisticated investors who understand the risks involved. Neither Pzena Investment Management, Ltd. nor Pzena Investment Management, LLC. For South Africa Investors Only:

Pzena Investment Management LLC is an authorised financial services provider licensed by the South African Financial Sector Conduct Authority (licence nr: 49029).