

Metals and Engineering Sector Load Shedding Impact Assessment

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Presentation Outline

- **Introduction: SEIFSA**
- **Overview of the metals and engineering sector**
- **Survey and Sample**
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Introduction to SEIFSA & The M&E Sector

- The Steel and Engineering Industries Federation of Southern Africa (SEIFSA) represents 18 Employer Associations, who collectively represent in excess of 1 300 companies and employ 170 000 employees in the metals and engineering sector.
- The federation was established in 1943 and celebrates 80 years in 2023
- SEIFSA's primary function is to lobby and advocate on behalf of its members for a conducive and business friendly economic environment
- The M&E sector constitutes 26.5% of the manufacturing sector, based on output, and 2.6% the country's gross domestic product (GDP) on a value-add basis. As at December 2022 the sector employed 374 496 (of which 217 618 are factory workers) who are employed in approximately 10 000 companies.

METALS AND ENGINEERING SECTOR ECONOMIC DASHBOARD

Economic Variable	2020	2021	2022
M&E Production (% growth/contraction)	-12,3%	27,2%	1,6%
M&E GDP (Rand billion)	115,7	130,6	131,1
M&E GDP (% growth/contraction) (2015 Prices)	-23,9%	-0,8%	-6,5%
Manufacturing Sector Share of GDP (%)	15,0%	15,5%	14,8%
M&E Share of Manufacturing (%) – Value add	17,0%	17,1%	17%
M&E Share of GDP (%)	2,5%	2,6%	2,5%
M&E Capacity Utilisation (%)	66,6%	75,5%	75,8%
M&E Sector Input Cost Inflation (%)	12,4%	9,8%	13,1%
M&E Employment (number)	371 955	371 390	374 496
M&E Employment (% growth/contraction)	-5,1%	-0,2%	0,8%
Gross Earnings (Rand billion)	96,6	105,6	107,7
M&E Total Sales (Rand billion)	638,5	809,4	914,2
M&E Export Sales (Rand billion)	256,1	323,5	342,9
Export sales % of total sales	40,1%	40,0%	37,5%
M&E Imports (Rand billion)	347,4	416,6	471,1
M&E Trade Balance (Rand billion)	-91,3	-93,1	-128,2

Metals and Engineering Sector in more detail

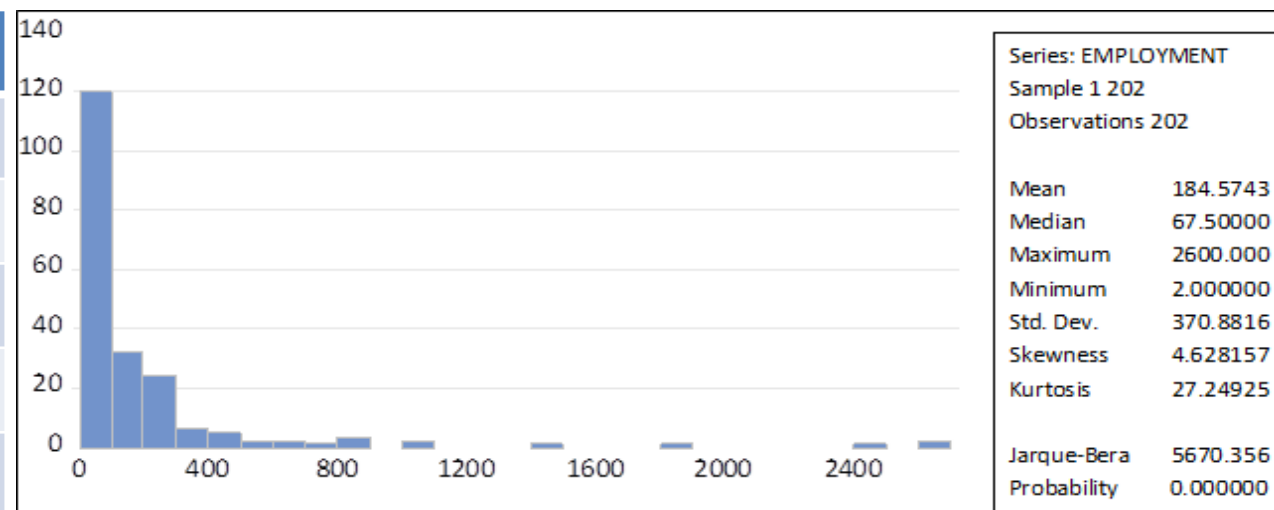
- The sector constitutes 26.15% of the manufacturing sector based on output, representing the metal production, fabrication, the heavy engineering value chain and the plastics product sub-sector.
- The definition of the sector is as per the Metals and Engineering Industries Bargaining Council (MEIBC).
- The respective weights of the sub-sectors relative to total manufacturing and the rebalanced weights to indicate the sub-sectors weighting in the aggregated metals and engineering sector production index.
- The sector represents the real economy and the backbone of industrialisation.

Sub-Sector	% of Manufacturing	M&E Weights (%)
Plastic products	2,29%	8,8%
Basic iron and steel products	2,82%	10,8%
Non-ferrous metal products	3,26%	12,5%
Structural metal products	1,98%	7,6%
Other fabricated metal products	3,35%	12,8%
General purpose machinery	3,46%	13,2%
Special purpose machinery	3,87%	14,8%
Household Appliances	0,73%	2,8%
Electrical machinery and apparatus	2,31%	8,8%
Bodies for motor vehicles, trailers and semi-trailers	0,71%	2,7%
Other transport equipment	1,37%	5,2%
Total M & E Sector	26,15%	100,0%

The Survey and Sample

- In January 2023, the SEIFSA office was tasked by its board to undertake this load shedding impact assessment with the view that the outcomes will assist the office in the advocacy work in the electricity supply industry.
- The reference period covered in the survey is February 2022 to February 2023
- The employee head count is the pivot variable on which the weighted statistics are consolidated
- Average company size of the companies that responded to the survey is 184, with a good mix between small, medium and large companies

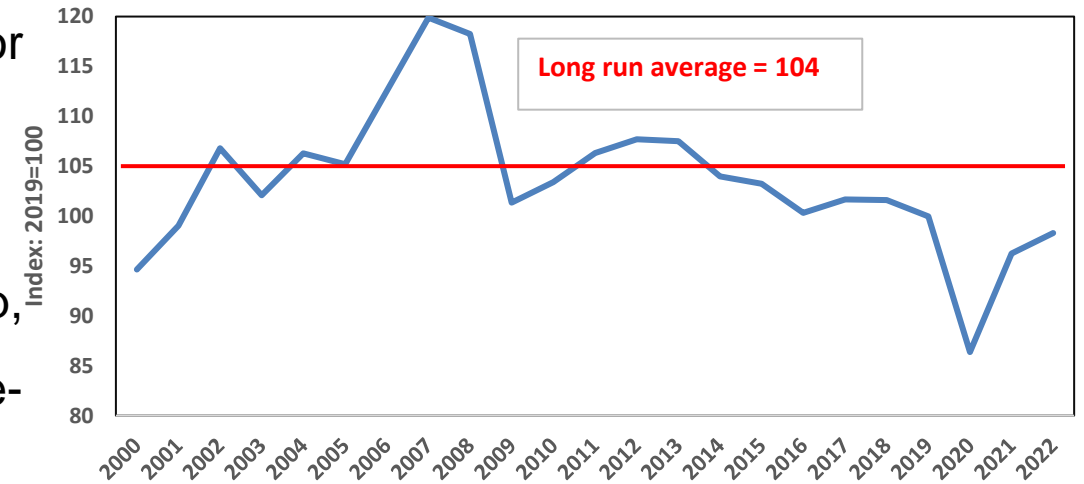
Category	Sample
Number of respondents (companies)	206
Total Employee Count (from responding companies)	37 284
Average number of employees (proxy for company size)	184
% of sample to total SEIFSA member employee headcount	26.5%
% of sample to total M&E Sector employee headcount	9.9%



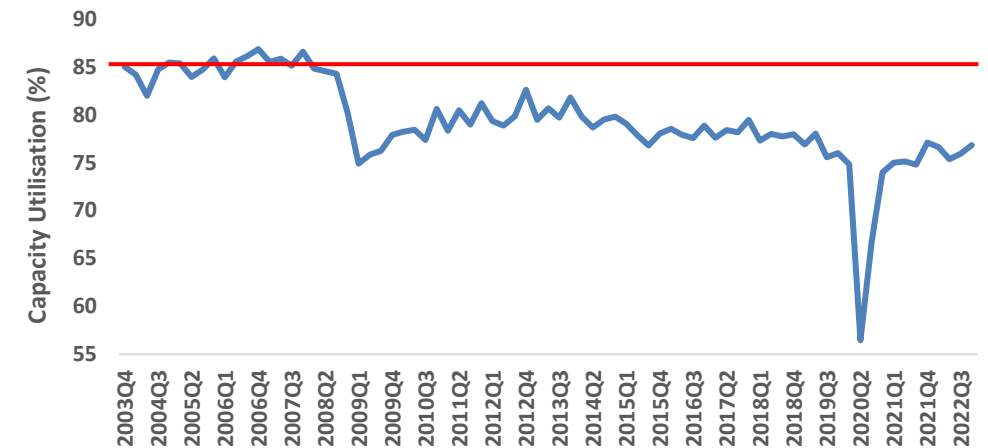
Production and Capacity Utilisation

- Aggregate production from the sector has contracted at 1,2% CAGR since the 2008 financial crisis from which the sector has never recovered.
- The sector is locked in a deep multi-year structural recession
- The bounce back from the covid-19/lockdown was sharp, however, the production level is still 1,6% below the pre-covid19 levels and 5,2% below the adaptive moving average
- In 2022, production expanded by 1,6% but has continued to contract in 2023
- The capacity utilisation for the sector was recorded at 76,2% in 2022, still below. This is notable below the 85% optimal capacity

Index of M&E Production



M&E Sector Capacity Utilisation (%)



Production

Sub- Sector	Weight	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	2022
Plastic Products	9%	3,5%	3,8%	5,5%	-0,1%	1,1%	13,9%	22,2%	6,0%	5,3%	6,7%	8,6%	2,8%	6,6%
Basic Iron And Steel Products	11%	10,6%	22,4%	-5,6%	0,1%	-1,2%	-17,8%	-10,4%	-8,5%	-12,5%	-5,1%	-14,3%	-15,0%	-4,8%
Non-Ferrous Metal Products	12%	-5,0%	-1,2%	-0,1%	-0,5%	-0,8%	-11,1%	-0,6%	3,5%	0,3%	31,1%	1,1%	-5,0%	1,0%
Structural Metal Products	8%	-6,8%	-1,4%	6,1%	-1,1%	-1,0%	-0,5%	-3,5%	8,4%	0,1%	17,7%	6,9%	12,8%	3,1%
Other Fabricated Metal	13%	4,3%	9,7%	-0,3%	-1,5%	-0,5%	-2,2%	-1,0%	10,6%	-1,8%	17,5%	-7,8%	-7,3%	1,7%
General Purpose Machinery	13%	14,1%	1,6%	6,4%	-1,6%	1,7%	6,0%	13,4%	6,3%	3,7%	25,9%	11,3%	-14,4%	6,2%
Special Purpose Machinery	15%	-1,5%	-3,6%	-9,2%	0,8%	-0,2%	-4,2%	-2,0%	3,4%	-7,2%	7,6%	-8,2%	-0,1%	-2,0%
Household Appliances	3%	-8,3%	6,0%	7,5%	0,1%	0,0%	4,0%	21,6%	10,3%	5,4%	13,1%	6,8%	-0,8%	5,5%
Electrical Machinery	9%	13,5%	16,4%	13,7%	0,6%	0,9%	-1,1%	2,0%	-6,9%	-1,1%	4,2%	-8,8%	-11,4%	1,8%
Parts and Accessories (MV)	3%	5,8%	-9,5%	10,6%	-0,1%	0,3%	8,2%	14,7%	14,1%	3,6%	21,6%	13,1%	2,9%	7,1%
Other Transport Equipment	5%	3,2%	8,3%	7,2%	0,3%	0,5%	6,3%	-6,2%	-5,7%	7,4%	6,3%	-5,3%	3,6%	2,2%
Total M&E Sector (Weighted)	100%	3,8%	5,2%	1,8%	-3,1%	0,8%	-1,7%	2,7%	3,1%	-1,1%	13,7%	-1,4%	-4,7%	1,6%

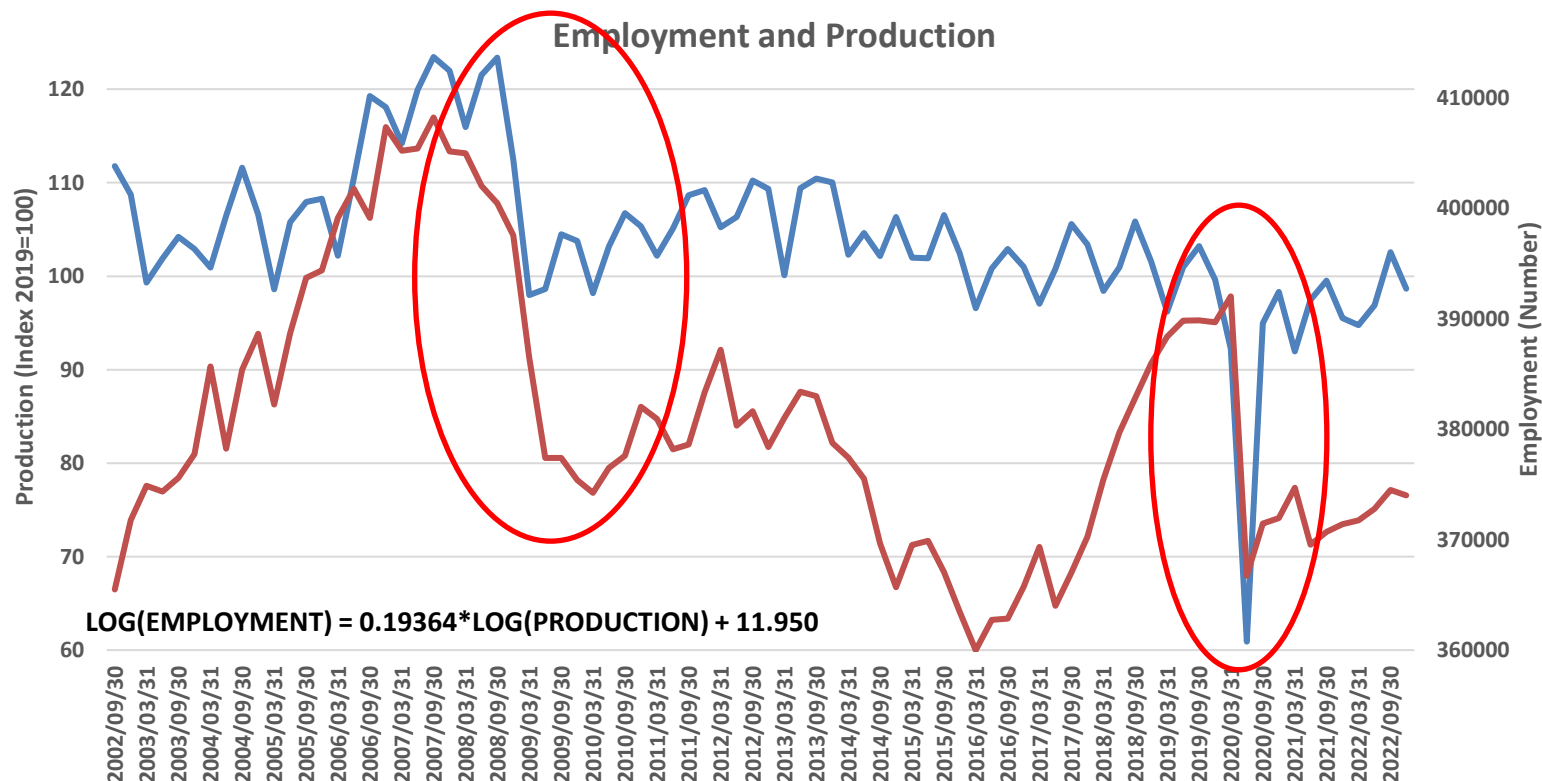
Impact to Production

- The respondents to the survey indicated production declines as much as 34.2% (weighted) as a result of the impact of load shedding
- However, factoring in the results from this survey, the forecast for the 2023 year deteriorates to – 5.3% for the 2023 (a deterioration from the -2.2% originally calculated at the beginning of the year)

		DOMESTIC ECONOMY					EXPORT		
M&E % =		61,8%					38,20%		
		SA GDP	Primary Sector	Agriculture	6,8%	+	Africa		39,6%
				Mining	21,0%		Asia		24,7%
			Secondary				Europe		21,8%
				Basic Iron and Steel	23,3%		Americas		12,2%
				Machinery and Equipment	19,8%		Oceania		1,3%
				Chemicals	4,2%		Antarctica		0,0%
				Construction	16,7%		Not Allocated		0,4%
				Automotive	4,9%				
			Tertiary	Government (direct)	3,2%				

Employment

- In 2022, employment in the sector increased by 0,8% of 1622.
- However, the link between production and employment has been weakening.



Sub-Sector	(Year on Year %) 2022/2021
Plastic products	-0,6%
Basic iron and steel	-0,5%
Basic Non-ferrous metals	-3,4%
Casting of metals	3,6%
Structural metal products	-0,1%
Other fabricated metal products	-1,6%
General purpose machinery	1,8%
Special purpose machinery	2,2%
Household appliances	7,2%
Electrical machinery	0,4%
Parts and Accessories	4,4%
Transport equipment	-7,9%

Dates	Production	Employment
Dec 2019 to June 2020	-38,87%	-5,89%
June 2020 to June 2021	60,1%	0,8%
Dec 2019 to Dec 2022	-0,9%	-4,0% - 15667 jobs

Impact to Employment

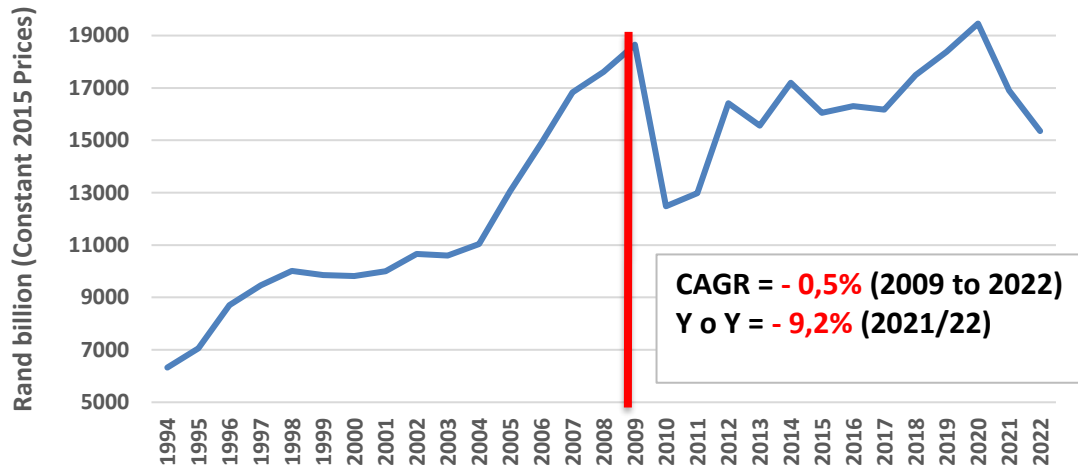
EMPLOYMENT	OUTCOME
Number of companies indicating that they have reduced head account as a result of the energy crisis	24,2%
Weighted average employment reduction	-25,32%
Employment reduction (number)	9432
Number of companies that have implemented short time	33,20%
Vulnerable (companies that have already reduced head count AND are working short time)	16,90%
Number of companies that have not reduced head count, but working short time (leading indicator for job losses)	17,30%

- The employment losses, mostly attributable to companies responding to the energy crisis over the reference period, indicate some very concerning trends.
- A quarter of companies indicated that they have had to reduce head count in response to the electricity crisis, by as much as a quarter of their employment, equating to 9 432 people.

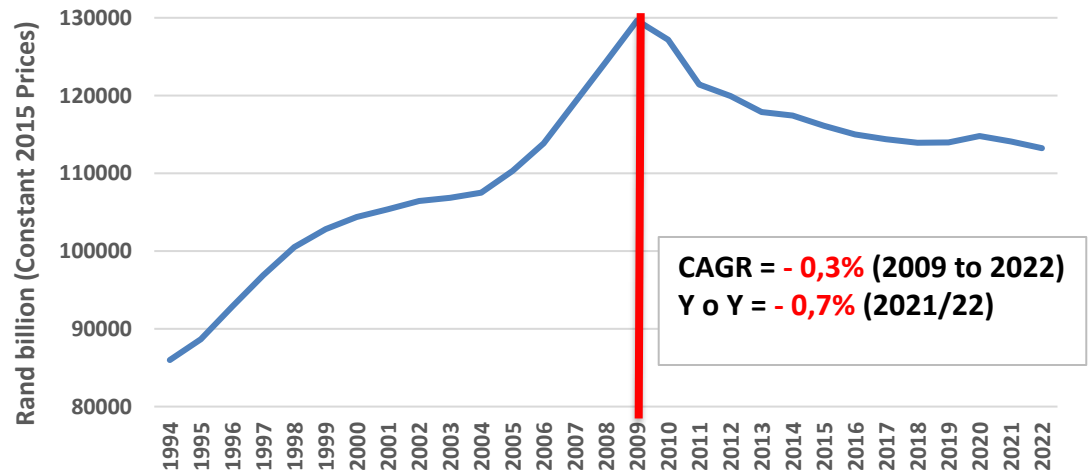
Investment

- Real gross domestic fixed investment declined by 9,2% in 2022.
- Fixed capital stock has also continued to deteriorate, as net investment has not been sufficient
- This presents long term risks to competitiveness

Real gross domestic fixed investment



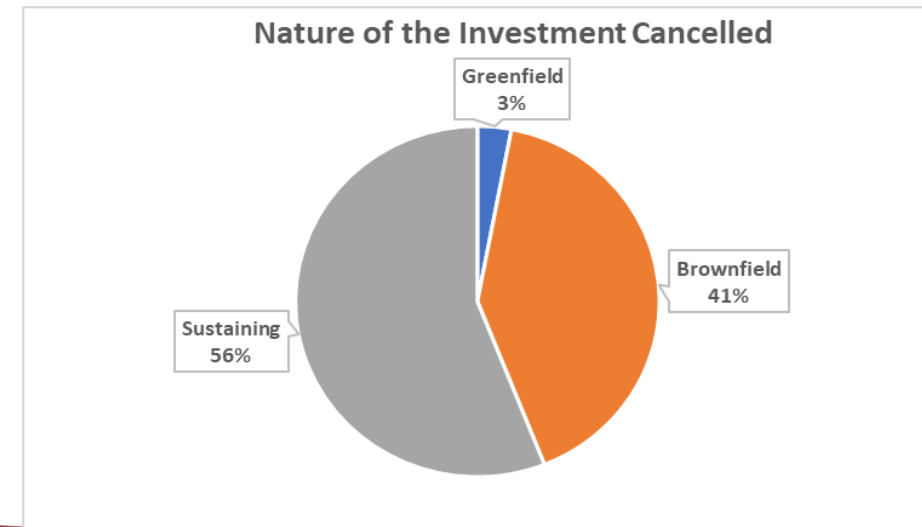
Real fixed capital stock



Impact to Investment

INVESTMENT	
Companies that have cancelled investment/expansion plans (motivated by the energy crisis)	42,70%
Value of Investment Cancelled	R2,64 billion
Potential jobs not created due to cancelled investments	1620

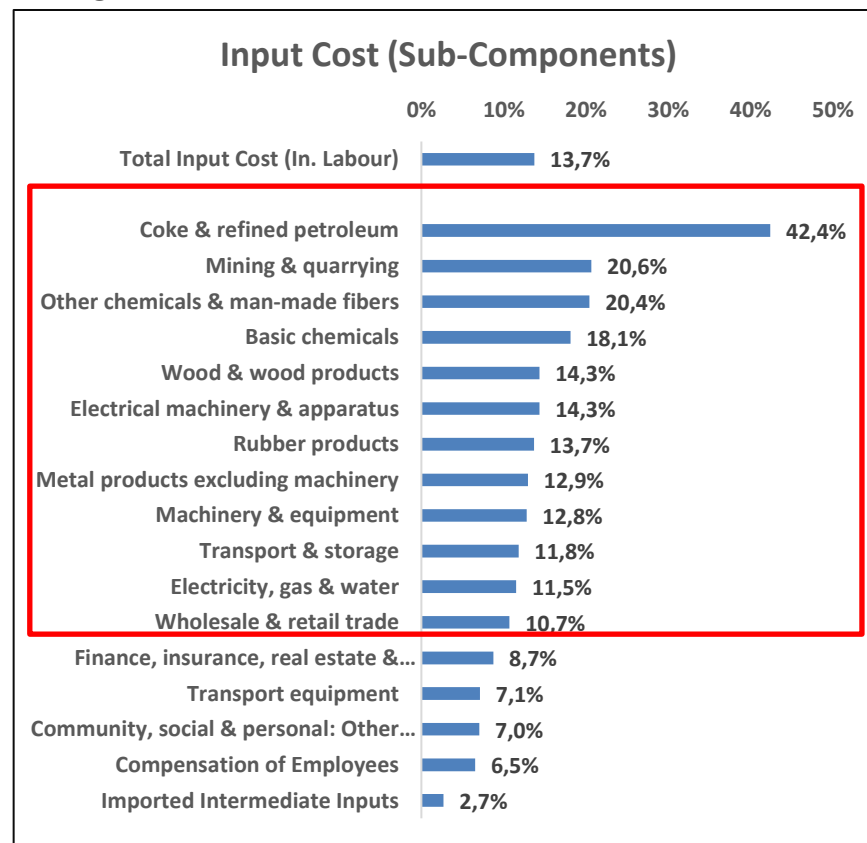
- It is therefore concerning that 42.6% of companies have indicated that they have cancelled investment and/or expansion plans owing to the uncertainty presented by the electricity crisis.
- The value of these investments amounts to R2.64 billion with the potential of creating 1 620 new jobs. The split of the nature of investment is included below.



Input Cost Inflation

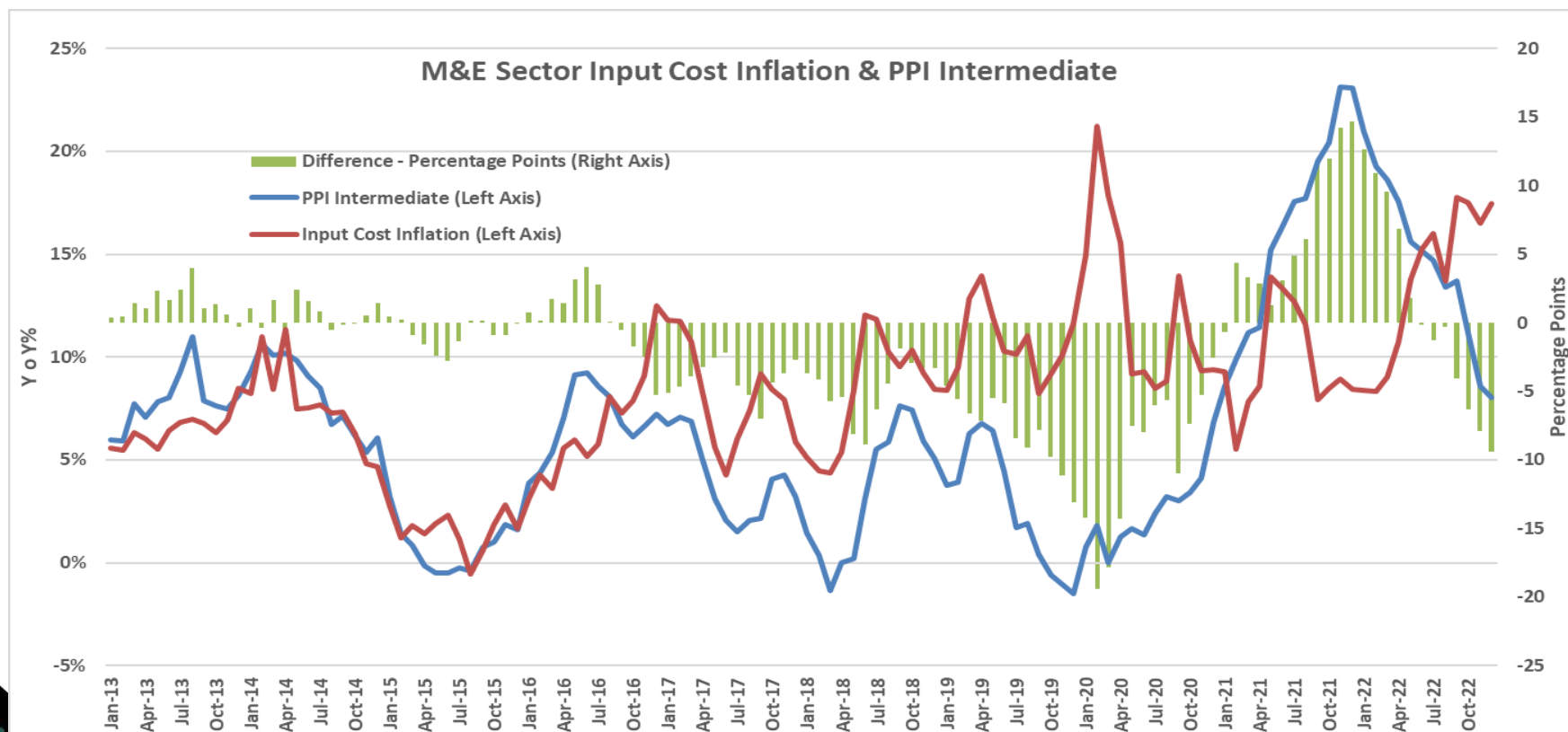
- In 2022, input cost inflation for the sector was recorded at 13,7%
- 70 % of the input cost items increased at double digit rates

Cost Basket	2022	Total Mining
Intermediate Cost Basket		
Mining & quarrying	106 466	30,84%
Wood & wood products	1 527	0,44%
Coke & refined petroleum	4 290	1,24%
Basic chemicals	198	0,06%
Other chemicals	777	0,23%
Rubber products	187	0,05%
Metal products excluding machinery	80 566	23,34%
Machinery & equipment	11 397	3,30%
Electrical machinery & apparatus	962	0,28%
Transport equipment	1 012	0,29%
Electricity, gas & water	7 057	2,04%
Wholesale & retail trade	26 046	7,55%
Transport & storage	11 397	3,30%
Finance, insurance, real estate & business services	16 760	4,86%
Government and Community	1 122	0,33%
Other Intermediate Inputs	242	0,07%
Imported Intermediate Inputs	75 182	21,78%
Total Intermediate Costs (Ex Labour)	345188	100%
Intermediate Costs	345 188	82%
Compensation of Employees	77 991	18%
Total Input Costs	423 179,0	100%



Input and Selling Price Inflation

- PPI Intermediate (which measures factory gate prices) is a proxy for selling price inflation averaged 15%
- For the year, this result in a positive difference between selling and cost inflation, however, the long term trend between these variables has been negative.



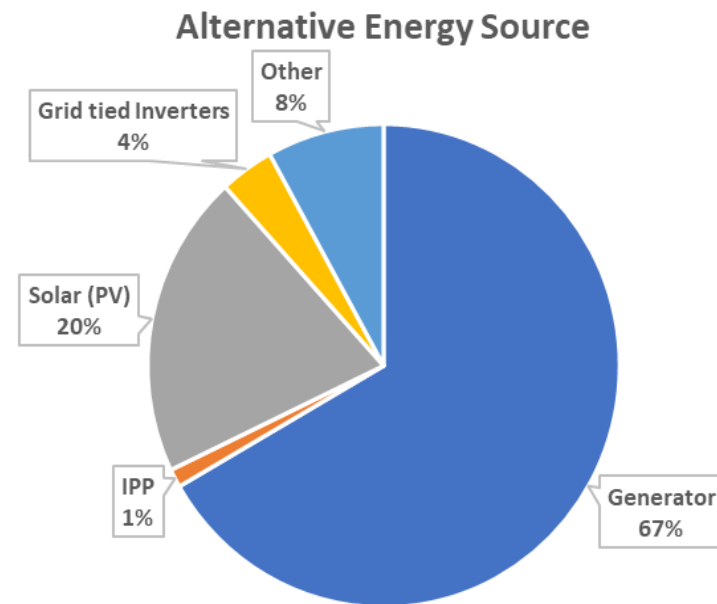
Impact to Input Costs

- On a weighted average basis, companies have indicated increases to monthly operating costs to the extent of 24.9% from the extensive use of generators.
- This does not bode well for a sector whose input costs are running at 17.6% (y o y - February 2023).
- Factoring in the results of the survey to the input cost model results in input costs increasing by 1.7 percentage points to 19.3% for the sector.
- The less supportive demand environment means that these companies cannot easily pass on these costs, thereby resulting in considerable margin squeeze and ultimately long-term sustainability.

Analysis of the alternative energy investments

ALTERNATIVE ENERGY SOURCE INVESTMENT	
Companies that have invested in alternative energy solutions (in the last 12 months)	79,20%
Capital Cost of alternative energy	R 985,9 million
Extent to which alternative power source meeting consumption	53,60%
Installed capacity (Generator)	116,6 MW
Installed capacity (Solar)	36,2 MW

- The invested amount of R985 million is considerable when put into perspective that it accounts for 37% of the value of investments cancelled.
- This again highlights the point that SEIFSA has repeatedly stressed that companies are sacrificing scarce long-term capital to fulfil an immediate survival, presenting long-term adverse implications regarding the sustainability of the sector.



Conclusion

- The provision of reliable and affordable baseload electricity is fundamental to industrialisation.
- Therefore the electricity crisis faced by the country (and the metals and engineering sector), presents the most sever binding constraint to current survival and the long-term economic prospects.
- Resolving this crisis should be the foremost priority in which the private and public sector collaborate.
- **Low hanging areas of intervention**
 - Fast track the deployment of PV installations at residential level, to free up the baseload grid capacity
 - Demand side management (with incentives), particularly aggregating smaller loads below 3MVA consumers
 - The installed diesel generator capacity, presents an opportunity for manufacturers to feed capacity into the grid. This instrument already exists within Eskom (emergency buy-back program), however, requires a wider

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