



ENERGY RATING PROJECT

SECTOR SUPPLEMENT

MINING AND BASIC COMMODITIES

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DRIVING
TRANSPARENCY,
ACCOUNTABILITY AND
ENERGY EFFICIENCY
IN CORPORATE
SOUTH AFRICA



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INTRODUCTION

49M ENERGY EFFICIENCY GUIDELINES

These Sector Supplements have been developed to support the implementation of the Energy Efficiency Guidelines by the companies included in the 49M Energy Efficiency Ratings Index. They are specifically intended to assist companies in reducing their electricity consumption as a function of usable space, number of employees or other appropriate metrics, thereby improving their performance in terms of the Index, both in overall terms and in comparison with their peers in various sectors.

SECTOR SELECTION AND GROUPINGS

The sector groupings for which these supplements have been developed have been selected based on a number of factors, including their level of representation within the Energy Efficiency Ratings Index, their relative degree of importance within the South African economy and the potential that they exhibit for substantive improvements in energy efficiency. In order to cover as wide a range of economic sectors as possible, it was decided in each case to group a number of sectors together on the basis of considerations such as; similarities in energy use profile, supply chain structures and most importantly, the material issues faced by these sectors.





MINING AND BASIC COMMODITIES

This particular sector supplement deals with the energy efficiency challenges of the mining and basic commodities sectors. Apart from mining and other basic extractive industries, this includes sectors such as mineral beneficiation and agro-processing.

These Sector Supplements will as far as possible retain the structure of the Energy Efficiency Guidelines in terms of the engagement levels and filters identified for each participant in the Index. Each one will, however, be based upon a unique set of issues identified as being most material for each particular sector in which substantive opportunities exist for energy efficiency improvements.



MATERIAL ISSUES

Within the mining and basic commodities sectors, it would appear that in the most material energy efficiency issues are as follows:

PROFITABILITY AND COST OF PRODUCTION

the rising costs of production as a result of increased electricity prices, as well as a global decline in the prices of many basic commodities, which has placed severe pressure on companies in these sectors;

STAKEHOLDER ENGAGEMENT

externally, in terms of customers and supply chains and internally to employees;

EXTERNAL STANDARDS

adherence to external governance standards such as King III or the UN Global Compact;

Each of these sector-specific material issues can in some way be directly linked to one or more of the general material issues identified in the Energy Efficiency Guidelines, namely:

- Rising operational costs from municipal electricity consumption
- Dependence on external infrastructure and decision-makers
- Reputational impacts from perceived inefficient energy use

According to these associations, companies in these sectors can then make use of the guidelines to develop specific interventions at various levels within their organisations, which can reduce their electricity consumption and provide a positive impact to their energy efficiency rating. Examples of such interventions are discussed below.

MATERIAL ISSUE: PROFITABILITY AND PRODUCTION COSTS

Issues of profitability and production cost are central to any company operating in the mining and basic commodities sectors. As a rule, the commodities produced are sold at global market prices that are highly sensitive to any external or internal shocks. Furthermore, the capital- and energy-intensive nature of these industries means that energy cost comprises a significant percentage of the cost structures for most companies operating in these sectors.

For this reason, the issue of **rising electricity costs** holds a major direct impact on the costs of production or beneficiation of basic commodities. Companies operating in these sectors are under constant pressure to reduce electricity consumption within their operations and improve their energy efficiency performance in order to remain competitive in global markets. This pressure is generally exerted across all levels within companies: from strategic intent and planning, to management processes within a company, to interventions aimed at promoting energy efficient behaviour at all levels.

In order to maintain or even enhance profitability, companies should as a matter of course seek to exploit every opportunity to reduce electricity costs; including through the implementation of energy efficiency measures and with particular emphasis on buildings and operations.

In the face of declines in global market prices for various commodities, production cost containment can be significantly enhanced by the procurement of the most energy efficient plant, equipment and machinery available.

With regards **reputational impacts**, given the situation described above, it can be considered highly unlikely that companies in these sectors operate in an irresponsible manner in the areas of energy efficiency. Instead, the most significant reputational risk for these companies might be considered as arising from their absolute electricity consumption and the energy-intensive nature of their operations. This is particularly the case in circumstances in which the country as a whole faces electricity supply constraints as is currently the case in South Africa. Under such circumstances, the possibility exists that the effective communication of initiatives to reduce electricity consumption might provide a degree of reputational benefit for these companies.

Companies that operate in energy-intensive sectors stand to gain significant reputational benefits through effective communication of their energy efficiency initiatives.

Levels: Strategic, Management, Behavioural
Filters: Buildings, Operations, Supply chains, Communication

MATERIAL ISSUE: STAKEHOLDER ENGAGEMENT

It would appear that appropriate and constructive action in this area holds the potential to significantly impact all three of the energy-efficiency related material issues.

In the first instance **rising electricity costs** are a critical issue for energy intensive activities such as mining and mineral beneficiation. It is therefore vital for the management of companies involved in these industries to engage constructively with management and employees at all levels. The most critical filters for such engagement would appear to be buildings and operations.

Effective employee engagement is critical to changing energy consumption behaviour within companies, as well as to implementing management policies and practices that promote energy efficiency.

In terms of **dependence on external actors**, companies in these sectors are mostly in a position to engage directly with the Eskom regarding the issues, such as price and electricity supply. From an energy efficiency

perspective, however, companies can exert significant levels of pressure on suppliers to improve the energy efficiency of their products and operations.

Companies should wherever possible engage with suppliers, particularly manufacturers of with energy-intensive plant and machinery, to improve the energy efficiency of their products.

In the area of **reputational impacts**, resource companies constantly find themselves under scrutiny by a variety of stakeholders due to the historic environmental and social impacts arising from their core activities. At the same time, however, given the energy-intensive nature of their activities, the possibility exists that any initiatives in the area of energy efficiency might provide tangible reputational benefits in terms of the manner in which these companies are viewed by their various stakeholders. Effective internal and external communication of these initiatives will once again prove vital to realising such benefits.

Proactive companies can use the public scrutiny under which resources sectors operate to their advantage by effectively communicating their energy efficiency initiatives and any successes arising from these.

Levels: Strategic, Management, Behavioural
Filters: Buildings, Operations, Supply chains, Communication

MATERIAL ISSUE: EXTERNAL STANDARDS

The issue of external standards is critical for companies in extractive sectors due to the massive and far-reaching impacts that can result from their activities. The intense public scrutiny under which these companies operate has resulted in the development of a number of voluntary industry standards with prominent examples including: the International Council on Mining and Metals (ICMM), Forestry Stewardship Council (FSC), Marine Stewardship Council (MSC), and Roundtable on Responsible Palm Oil (RSPO). In addition, companies in these industries are - as a rule - highly regulated by national and regional legislation; in an attempt to mitigate the impacts of their activities. In the case of South Africa, an additional standard relevant in this area is the national Energy Efficiency Accord, to which a number of companies in these sectors are signatories.

From an energy efficiency perspective, each of these standards mentioned above includes various recommendations regarding energy efficient behaviour. The adoption of these standards is often encouraged by the issue of rising electricity costs, particularly as they relate to the buildings, operations and supply chains of these companies.

Companies can often gain direct cost reduction benefits from the implementation of appropriate standards, particularly when these standards contain a significant degree of emphasis on energy efficiency.

With regard to **dependence on external actors**, it is probably the case that companies in these sectors are somewhat less affected by the activities of external actors in their supply chains - due to the fact that they are relatively high up the value chains of the products that they produce. At the same time, external actors, particularly those from the civil society sector, can play a significant role in promoting the adoption of and adherence to external standards by companies.

Under the right circumstances, proactive companies can gain significant first mover advantages from engagement with the organisations that set and manage industry standards, particularly as these standards relate to energy efficiency.

Finally, with regards the risks of **reputational impacts** faced by companies in these sectors, the inherently energy-intensive nature of resource extraction and beneficiation as well as the fact that these companies face far higher environmental and social risks from other sources means that issues of energy efficiency are often not particularly high-profile in the context of adherence on the part of these companies to international standards. At the same time, however, this implies that the opportunity exists for companies to gain a degree of reputational benefit by promoting their achievements in terms of the energy efficiency aspects of the standards relevant to their particular industry.

Even though the adoption of energy efficiency measures in the resources sector is often driven by operational rather than reputational considerations, companies do stand to gain significant reputational benefits from adopting appropriate external standards.

Levels: Strategic, Management
Filters: Buildings, Operations, Supply Chains, Communications





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