Vodacom Carbon Management Strategy
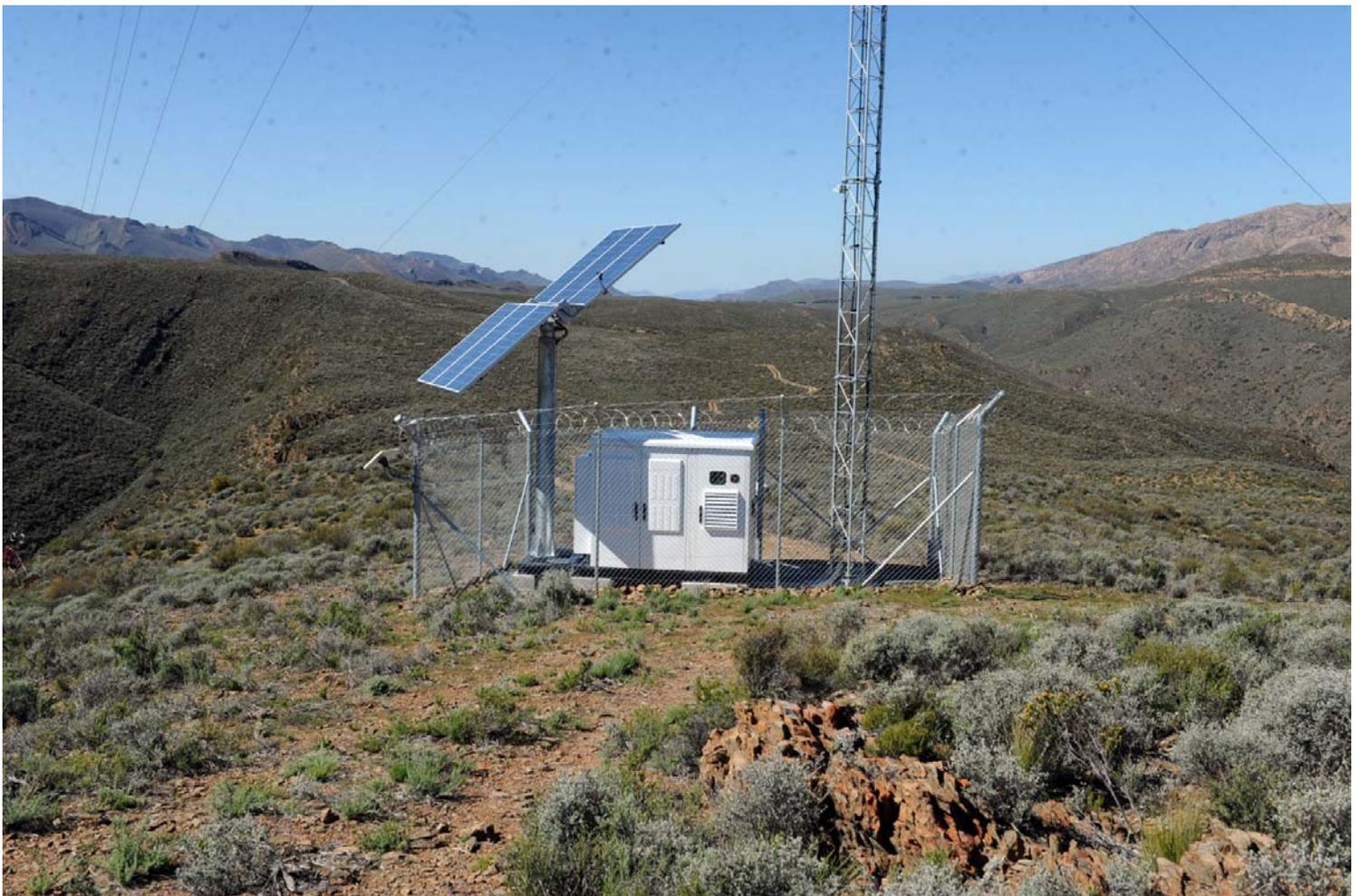
Transforming societies and enabling sustainable living for all

Contents

About this strategy: a message from our Leadership

Managing our environmental impacts and operational performance

This strategy has its origins in Vodacom's continued commitment to sustainability. Vodacom understands that it has an environmental impact and therefore has a duty to society to operate responsibly. Vodacom also has a role to play in future inclusive economic growth and helping our customers work more efficiently. Opportunities exist inside and outside our organisation for making positive change.

Vodacom has a business imperative to make sure that the organisation is able to provide the quality of services and products that we pride ourselves in and has the ambition to grow the market and expand its revenue base in a strategic and targeted way. Cost competitiveness is critical to ensure we can continue to provide our services and products to our customers affordably.

Vodacom is highly dependant on energy to power its business and is facing critical resource uncertainties and constraints at present. Vodacom's use of fuels and electricity also results in greenhouse gas emissions. Responsible corporate behaviour is particularly important in the case of greenhouse gas emissions which have a global impact.

Vodacom aims to balance these issues in order to respond to the business challenges and demonstrate our determination to pursue our strategic sustainability priorities. This strategy expresses the principles by which we will navigate the interaction between our business continuity, expansion and impacts. The foundation of these principles is that we will work efficiently, dedicate ourselves to tracking, managing and reporting our performance effectively and set ambitious performance targets.

Vodacom has strengthened the commitment to the sustainable use of our resources, by gathering all our projects that relate to our energy profile and carbon emissions within the Carbon Management Implementation Plan. As a living document, it is designed to evolve as the business and its context changes, staying true to our business strategy and our strategic sustainability priorities.

Therefore I encourage you to adopt these principles in driving our business forward and to share your views on our strategy with me or any member of the management team.

Maya Makanjee
Head, Corporate Affairs

Background

Objectives of this strategy

The **Vodacom Sustainability Strategy** sets the context for our sustainability journey as inseparable from our business journey and business purpose. The highly competitive, fast-paced and evolving nature of Vodacom's business context requires proactive responses to ensure organisational resilience. We understand the importance of identifying risks and opportunities to unlock value for the business, our people and our external stakeholders.

The **Vodacom Sustainability Strategy** identifies 10 strategic sustainability priorities, which frame Vodacom's most material sustainability issues, including the need to 'manage the environmental footprint of our business'. Two significant climate change related aspects of our environmental footprint are the consumption of energy as a natural resource and greenhouse gas emissions, which extend throughout our value chain.

Vodacom is an expanding business and its environmental footprint and requirement for resources is expected to grow on this growth path. The business also faces significant external pressures – amongst them competitor behaviour and the reliability of electricity supply. Network resilience and cost-competitiveness are fundamental to the sustainability of the business and the business objective of delivering value to its shareholders.

It is a business imperative to adapt rapidly and mitigate the risks posed by the external environment. Part of this response is building-in greater energy autonomy through diversifying energy sources where appropriate and driving reduction of operational expenditure.

Vodacom recognises that business strategy elements and sustainability strategic priorities are integrated. The **Vodacom Carbon Management Strategy** defines Vodacom's vision as it relates to climate change, with a focus on greenhouse gas emissions as its most material impact because of fuel and electricity consumption. This document provides guiding principles to our people at all levels, locations and types of operation, in our daily business and in execution of our business strategy.

This document serves as the bridge between the recognised sustainability risks and opportunities in our Strategic Priorities and the strategic action required to address these risks and realise the potential opportunities as addressed in the **Carbon Management Implementation Plan**.

The context: Vodacom's energy dependency and opportunities

Energy is a critical input to Vodacom's business model. Energy derived from electricity powers Vodacom's service delivery infrastructure and all support functions. Energy is also required along our value chain outside of our direct control; to create the goods sold and the technology and equipment utilised, to power the infrastructure we don't own and manage, to facilitate customer purchasing interactions, to power the technology and equipment employed by customers to use our services and eventually to deal with the waste generated through our operations.

The mix of power sources differ between regions, operations, units and activities. Presently, Vodacom's primary energy source is electricity purchased from external providers. Secondary and supporting energy sources (most of which are presently owned and/or managed by Vodacom) are electricity generated by diesel, solar panels, fuel cells, batteries and natural gas generators.

Vodacom's business continuity requires the secure supply of energy and Vodacom recognises that it is operating in an increasingly resource constrained world. The abundance of energy based on fossil fuels is expected to diminish in the long-term and the costs associated with this type of energy are set to rise as externalities are increasingly priced into the cost of this resource.

Purchased electricity contributes approximately 80% of Vodacom's energy needs, with the remainder supplied by diesel and other alternative sources. Vodacom in South Africa is the biggest user of electricity, which is predominantly generated from fossil fuels. In Tanzania, Mozambique, DRC and Lesotho, hydropower make up a much greater part of the national electricity supply energy mix and this reduces the carbon intensity of purchased electricity in these countries. However, this is offset by a lack of electricity infrastructure which requires Vodacom to generate its own power, mostly using diesel generators and some renewables. There is an opportunity to optimise energy sources, diminish dependency on single external service providers and improve energy efficiency. Vodacom aims to diminish supply uncertainty and reduce costs related to consumption with a drive towards reduced energy and carbon intensity where possible.

Energy supplier performance concerns means that Vodacom needs to put programmes in place to secure energy supply for its existing infrastructure. Cost-competitiveness and technology viability are important and the financial business cases for energy source alternatives inform Vodacom's decisions in responding to this risk. In the short- to medium-term Vodacom's response to the electricity supply crisis in South Africa is to expand diesel power to the existing infrastructure and develop smart-grids and hybrid energy solutions. Vodacom is also testing and targeting alternative and renewable energy supply sources where the cost and technology is viable.

Vodacom's growth strategy hinges on the availability of energy to power the expanding network and support infrastructure required. We also depend on our suppliers and customers having power. Innovative and regionally-appropriate solutions are called for to realise our ambitions of efficient and sustainable growth, superior quality of customer experience and societal enablement.

Vodacom has an important role to play in its ability to provide technological solutions to catalyse economic growth, equality and empowerment through our mobile networks and services.

The context: the importance of carbon emissions to Vodacom

Vodacom recognises that its business model has environmental impacts, which includes climate change as a result of greenhouse gas emissions produced along our value chain. Vodacom also faces the impacts of climate change, directly on its infrastructure and people, and indirectly through the impacts faced by our customers and the communities in which we operate.

Vodacom will need to adapt to change in the climate and we have the responsibility to society to curb our direct and indirect carbon emissions as far as possible and to play our part in limiting climate change. It is our ambition to be seen as champions and leaders in this arena in South Africa and Africa.

Vodacom calculates its greenhouse gas emissions and accounts for direct emissions (Scope 1) and indirect emissions. Indirect emissions are due to our use of purchased electricity (Scope 2) and the emissions in our value chain (Scope 3).

Vodacom's Scope 1 emissions arise directly from fuel combusted to power our operations, fuel combusted in our vehicle fleet and emissions arising from our use of air-conditioning and refrigerant gases. These direct emissions constitute about 10% of the emissions arising as a direct result of our business. Our FY2015 direct emissions profile by country of operation is: Tanzania (33%), South Africa (29%), DRC (27%) Mozambique (10%) and Lesotho (1%).

84% of our emissions result indirectly from upstream generators of electricity which we purchase (Scope 2). Our FY2015 Scope 2 emissions profile by country of operation is: South Africa (93%), Tanzania (3%), Mozambique (2.5%), DRC (1%) and Lesotho (0.5%).

Scope 3 emissions constitute 7% of our emissions footprint. The majority of our Scope 3 emissions come from employees commuting to and from work, travel conducted in the course of business, transportation and distribution (both upstream and downstream) and the upstream emissions from the manufacture of fuel and

energy which we use. The use of our products and the handling and disposal of our waste are not currently calculated, but we recognise that they may be significant to quantify and report.

The risks posed by climate change's projected physical impacts directly on our business functioning include:

- temperature increases which will affect the functioning of our equipment,

- changes in precipitation (specifically the incidence of greater average rainfall and more intense rainfall events) which may disrupt our fuel supply chain especially in remote areas of our network which rely predominantly on diesel generators, and

- the effects of extreme weather events which may cause damage to our infrastructure.

South Africa is considering the implementation of a carbon tax to price the costs of carbon emissions on society. This may affect Vodacom indirectly in the form of increased electricity and fuel pricing. Vodacom may also be directly liable for carbon tax due to our consumption of fossil fuels and use of refrigerants for air conditioning.

Vodacom should also pursue the following opportunities, as a sector well positioned to innovate and provide solutions.

- The cost burdens which Vodacom may face can be recognised as opportunities for us to hone a more efficient and responsible organisation, taking advantage of all possible incentives and efficiency gains.

- Our industry stands to participate integrally in the changing social dynamics of an increasingly interconnected world. Our products and services can help our customers pursue efficiencies and reduce costs.

- Our impacts extend well beyond our own boundaries and carbon and energy related issues provide a platform for engagement with our value chain. We can affect change through our procurement decisions and leverage change in our key supply partners.

- As champions in our industry, we stand to benefit from reputational gains achieved by strategic publicity for appropriate and effective mitigation and adaptation projects. We recognise that our customers' and investors' attitudes are shifting towards more sustainable products and services whilst continuing to demand superior quality and the latest in technology options.

Situation and purpose of this strategy

The **Vodacom Carbon Management Strategy** gives definition to the carbon related aspects of the **Vodacom Sustainability Strategy**. As the business context evolves, these strategy documents should be adopted in unison to reflect Vodacom's responses to its material sustainability issues. In turn, the **Carbon Management Implementation Plan** gives life to the **Vodacom Carbon Management Strategy** and is formulated in alignment with the guiding principles described herein. The implementation plan is a dynamic document, which defines the projects and programmes to realise this strategy and should be updated on an on-going basis.

The interdependent nature of business functioning requires that this document is formulated with due cognisance of the related business strategy elements and sustainability strategy elements which affect Vodacom's ultimate carbon performance. Similarly, the strategy should be formulated to define the primary objectives of all projects and programmes governed, in part or completely, by its objectives.

Figure 1 demonstrates the specific relationships and situation of the strategy, highlighting:

- the most pertinent business strategy elements,

- the sustainability strategy strategic priorities, and

- the primary objectives described in the implementation plan.

Figure 1: Overview of the situation of the strategy and defining elements
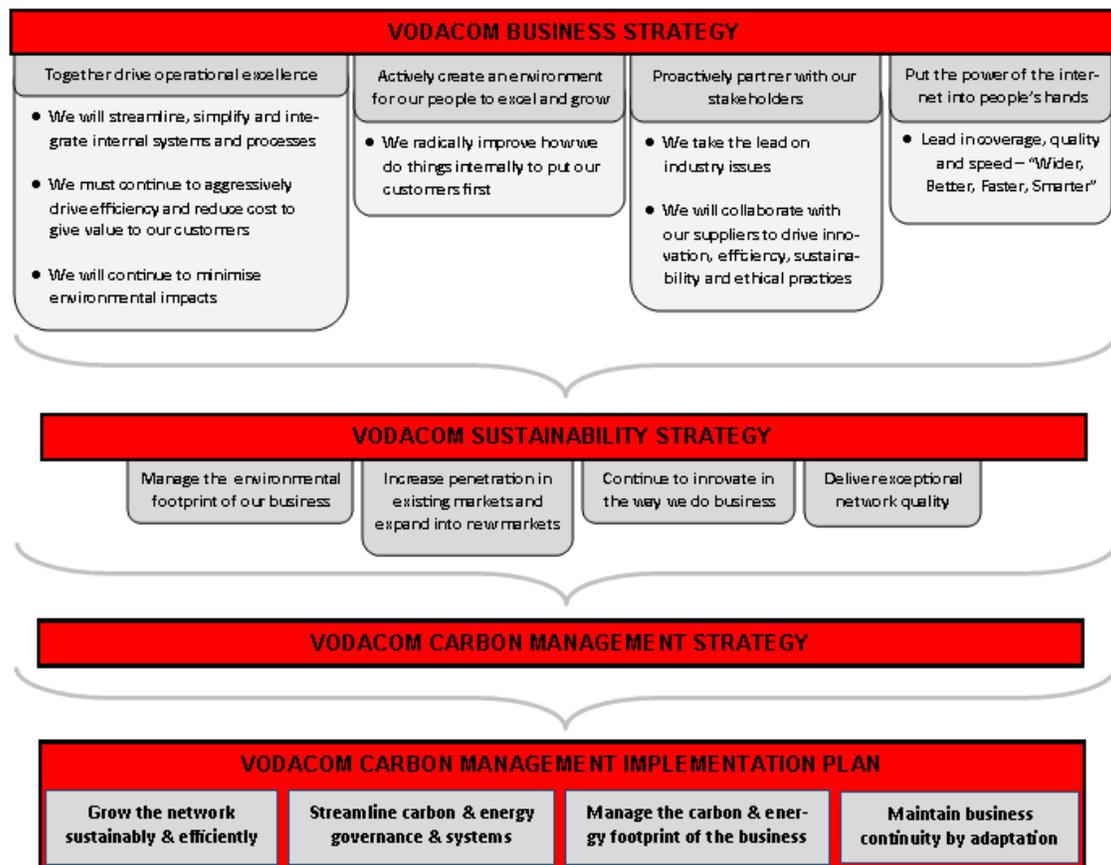
Vodacom's carbon management strategy

Our guiding principles

Our guiding principles present a set of statements which describes the key concepts which should be considered in any business decision. Our guiding principles, as they relate to climate change, should provide the required direction for all our people, at all levels, locations and types of operation, in our daily business and in execution of our business strategy. The objective is to keep these principles in mind when balancing business concerns, such that our climate change imperative is included suitably in decision making processes.

These principles are:

Principle 1: Take a full life-cycle view when assessing energy and carbon performance

Principle 2: Incorporate energy and carbon performance considerations into business and procurement decisions, design specifications and operational functioning

Principle 3: Strive to improve energy efficiency of our organisation by choosing energy efficient technology solutions as far as possible and eliminating waste

Principle 4: Manage the carbon intensity of our company by optimising energy choices where possible, driving awareness, reducing waste and growing sustainably

Principle 5: Ensure business continuity at all levels of Vodacom, by addressing energy shortages and pursuing alternative and independent energy solutions where the business case supports this

Principle 6: Engender and enable behavioural change in our organisation, along our value chain, in our customers and in our communities, to minimise our environmental impact, carbon intensity and energy intensity

Principle 7: Employ the latest technology and advanced ICT solutions, integrate smart measurement and control capability to facilitate energy and carbon performance measurement and management

Principle 8: Streamline and integrate governance and physical systems for a unified and optimal approach for Vodacom

Principle 9: Set ambitious targets for energy performance and carbon intensity, whilst driving operational expenditure reductions and ensuring network resilience

Strategy implementation and next steps

Our overarching target

We strive to set ourselves stretched goals, in order to gain competitive advantage and drive change in our organisation as a priority. Vodacom is a growth-orientated business facing significant energy challenges and recognises that growth is directly proportional to an increase in energy requirement and likely to be coupled with an increase in carbon.

The energy mix of the national grid supplied electricity is outside of our control and our reliance on this energy source is a risk to our business. Our ambition is to diversify our energy sources, to pursue growth through efficient and judicious use of energy and to decouple our growth from carbon emissions to the greatest extent possible.

For the FY2014 period, a target was set of 5% reduction in carbon emissions per base station from a FY2013 base year. Vodacom achieved a 10.23% reduction in carbon emissions per base station through a mix of efficient growth, energy efficiency measures executed internally and installation of renewables.
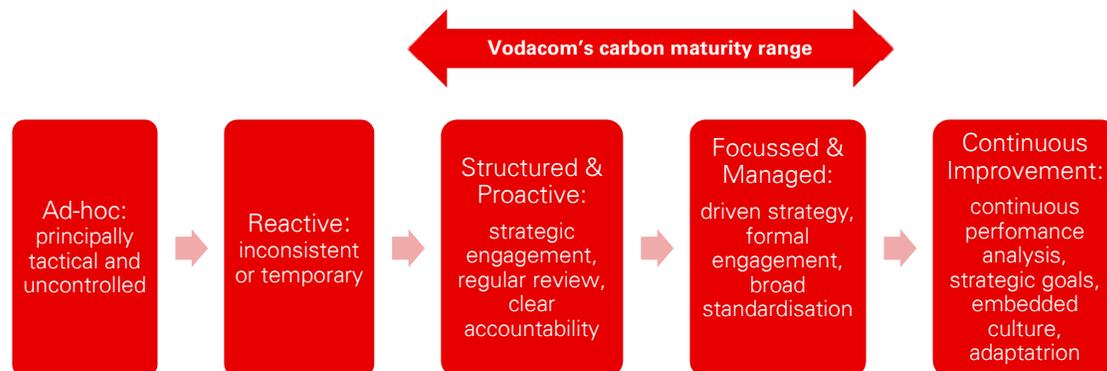
For the FY2016 period, a target has been set of 10% reduction in carbon emissions per base station from the FY2015 base year.

We recognise the specific constraints and multi-faceted nature of the requirements faced by our different business units and operational locations. An over-arching target allows the business units and operational locations the freedom to realise these reductions in the most appropriate manner.

Strategy execution and maturity journey

Figure 2 describes a general governance maturity journey and identifies Vodacom's current broad positioning in carbon management. Vodacom aims to grow in maturity in the management of carbon and integrate the management requirements into the existing business processes.

Figure 2: Vodacom's energy and carbon governance maturity positioning

Vodacom's carbon maturity range

| Ad-hoc: principally tactical and uncontrolled | Reactive: inconsistent or temporary | Structured & Proactive: strategic engagement, regular review, clear accountability | Focussed & Managed: driven strategy, formal engagement, broad standardisation | Continuous Improvement: continuous perfomance analysis, strategic goals, embedded culture, adaptatrion |

Key management actions have been identified which are needed to make climate change related energy and carbon management an integral part of Vodacom's business and to enable increasing governance maturity. These include:

- Endorsement of strategic direction by Senior Management in the organisation. Individual projects may also require endorsement to ensure success.

- Defined energy management structures, with roles, responsibilities and mechanisms for performance reporting clearly defined.

- Streamlining of governance systems, including the alignment of projects with strategic objectives.

- Dedicated budget allocations to realise project ambitions.

- Accountability throughout the organisation for energy and carbon management, with allocation of KPIs and suitable targets.

Figure 3 highlights the management activities required to bring the **Vodacom Carbon Management Strategy** to life and ensure coherent and accountable execution.

Figure 3: Overview of the strategy execution management activities

Carbon Management Implementation Plan

The **Vodacom Carbon Management Strategy** is a coordinating mechanism. It is intended to be a living document that evolves as the landscape of our business changes and the objectives we set for ourselves move in line with the changing competitive situation. The strategy is brought to life and operationalized through the various steps of the implementation process, documented in the **Carbon Management Implementation Plan**. Progress according to this strategy will be communicated through the Integrated Report and through the relevant Management Structures within the organisation.

Further Information

For further information on sustainability at Vodacom, please visit our website

You can also access this link on your smartphone through the following QR code.