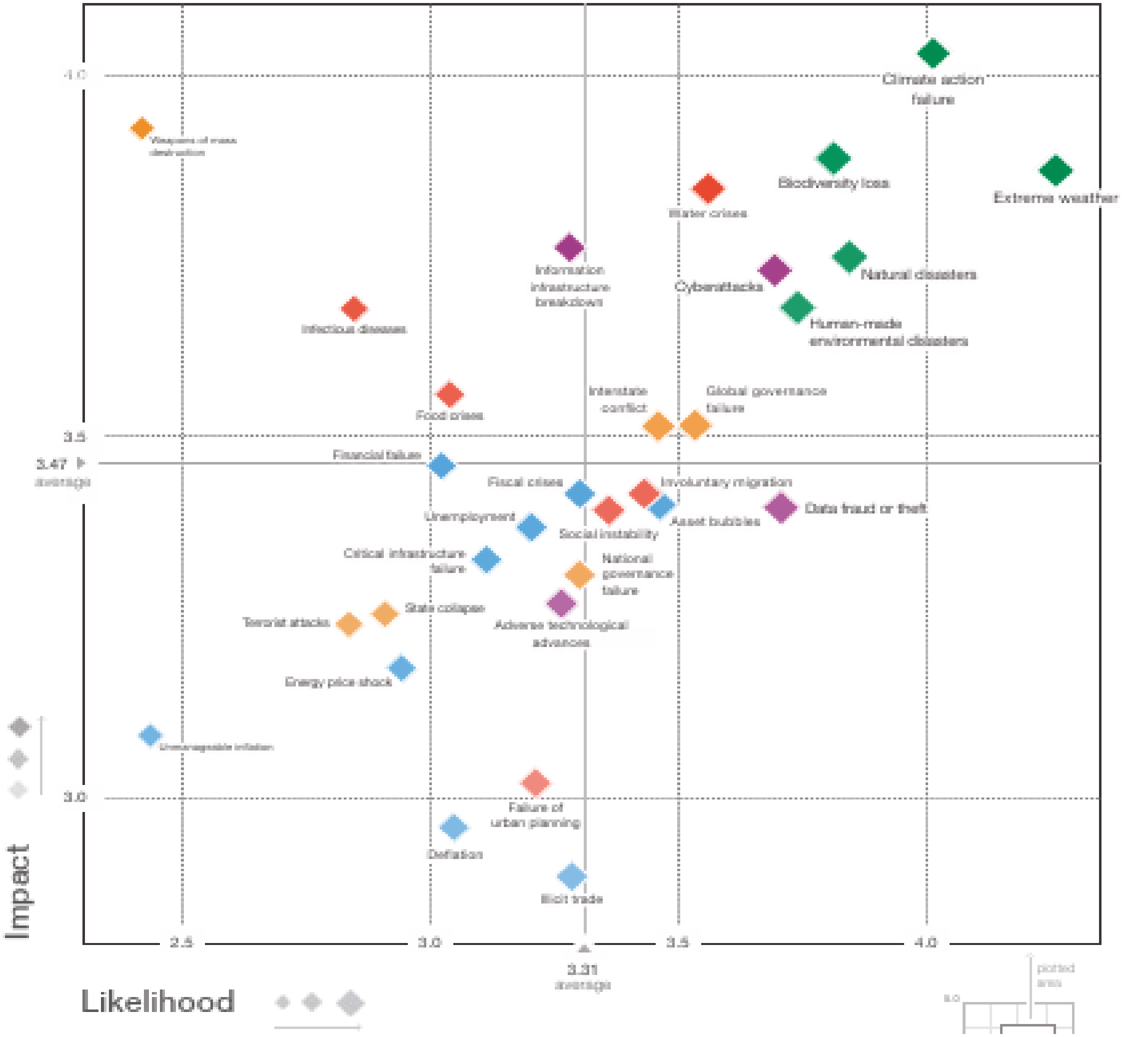
DBSA: EMERGING PERSPECTIVES ON DEVELOPING INSTITUTIONAL CAPACITY TO MANAGE AND MITIGATE TRANSITIONAL RISK

ADDRESSING CLIMATE RISK IN THE CONTEXT OF THE GLOBAL COVID 19 PANDEMIC

DBSA

The World Economic Forum (WEF) 2020 Global Risks Report



- Context facing a silent enemy : unprecedented global financial crisis impacting on every fabric of our collective human, societal and economic systems
- Scientific evidence informs us that climate change impacts likely to be more extreme & catastrophic with related financial implications
- The WEF 2020 Global Risks Report identified climate change and related environmental issues as the top five risks in terms of likelihood with climate action failure as having the most severe impact
- Previous global risk reports have identified the high likelihood of global health risks and related pandemics
- Context requires that development finance practitioners adopt fresh approaches & solutions
  - Financing to match market & societies needs
  - Understand the interplay between local & global interventions & financing
  - Long term & resilience based risk approaches
  - Multi-stakeholder & partnership based interventions

DBSA RESPONSE TO THE CPI REPORT: CLIMATE TRANSITION RISK IMPLICATIONS FOR SOUTH AFRICA

- Implications of the CPI Report considered by DBSA Board in 2019

- Board directive to address implications for DBSA energy sector decision-making In respect of :
  - Strategic positioning of the DBSA as a responsible energy sector investor on the African continent
  - Implications of transition risk and the threat of stranded assets in the DBSA energy sector investment portfolio
  - Adoption of appropriate measures, to enable the bank to identify, quantify and mitigate transition risk
  - Help inform the role the Bank plays in contributing and adding impetus to efforts to support a just transition to a low carbon economy

- Guide implementation of actionable investment framework to support for all of the above

- Process is near finalisation with Board to make formal decision on recommendations arising from the study

DBSA AS A RESPONSIBLE ENERGY SECTOR INVESTOR

Vision:
A prosperous and integrated region, progressively free of poverty and dependence

Strategic Objectives:
Sustained growth in development impact, Integrated infrastructure solutions, Financial sustainability

UNFCCC Paris Climate Agreement

- South Africa ratified the Paris Agreement with a commitment to not exceed the projected growth of 398 – 614 MtC02e under Business as Usual
- IRP marks a low carbon shift in energy policy
- Coal still a dominant energy source to 2040 and, to be Paris-aligned, coal in SA must decrease to no more than 10% of energy mix

South Africa National Development Plan 2030

- Raising employment through faster economic growth
- Improving the quality of education, skills development and innovation
- Building the capability of the state to play a developmental, transformative role.
- Procuring at least 20 000MW of renewable electricity by 2030, importing electricity from the region, decommissioning 11 000MW of ageing coal-fired power stations and stepping up investments in energy-efficiency.

South Africa Integrated Resource Plan

- A new direction for the power sector, and opens the door for alternatives to coal-fired generation based on a market-based model.
- The government seeks to procure over 30 GW from independent power producers, half of which will come from the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).
- The IRP sets an overall emissions constraint of 275 MtCO2/year for electricity generation after 2024,

Agenda 2063

- Diversification of the generation mix, driven by improved maintenance and management of the power system as well as the increased effectiveness of the procurement program.
- The contribution of renewables to electricity supply grows at a much faster rate to provide over half of generation with wind and solar PV the most attractive options.
- Energy imports more competitive e.g., Grand Inga in DRC.

UNGC SDGs

By 2030: :

- Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all **(SDG 4)**
- Achieve universal access to affordable and clean energy **(SDG 7)**
- Achieve full and productive employment, and decent work, for all women and men **(SDG 8)**
- Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation **(SDG 9)**
- Reduce inequality within and among countries **(SDG 10)**
- Make cities and human settlements inclusive, safe, resilient and sustainable **(SDG 11)**
- Take urgent action to combat climate change and its impacts **(SDG 13)**

DBSA Climate Policy

Objective:	Target:	Sub-target:
Investment into projects that support climate change including funds catalysed from other sources	Minimum 35% of annual lending by 2022	70% for mitigation (e.g. energy projects) and 30% for adaptation (e.g. water projects)

Source: DBSA Hatch Interim Energy Sector Investment Framework

DBSA ENERGY PORTFOLIO & VULNERABILITY TO CLIMATE CHANGE-RELATED RISKS

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Assess climate risk in DBSA Energy investment strategy utilizing the Task force on Climate-related Financial Disclosures (TCFD) disclosure framework

Source: DBSA Hatch Interim Energy Sector Investment Framework

Implications : Financial risks to DBSA

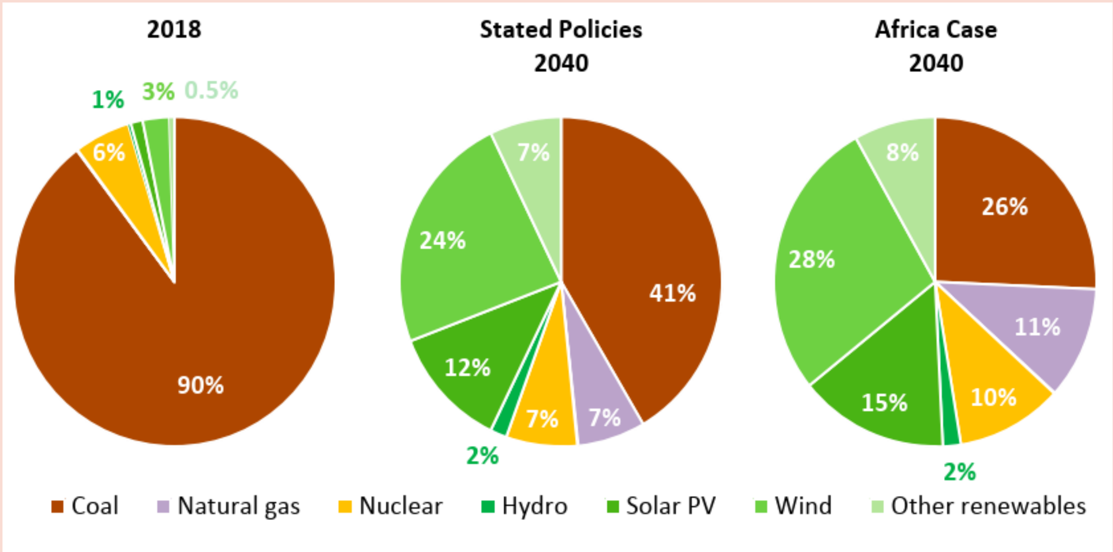
- Strategic risk: Energy portfolio exposure to carbon-intensive assets that may misalign with DBSA's mandate and the political agenda
- Business risk: Vulnerability to low carbon alternative technologies, and new policies, regulations and incentives that could replace higher carbon assets,
- Financial risk: Exposure of energy portfolio to changes in energy prices, carbon pricing and divestment campaigns
- Operational risk: Vulnerability of energy portfolio assets to climate change

LOW CARBON TRANSITION SCENARIO IMPLICATIONS FOR THE DBSA BUSINESS

The impact of the low carbon transition on DBSA's business is assessed against three possible scenarios drawing on the International Energy Agency's (IEA) World Energy Outlook (WEO) 2019 report.

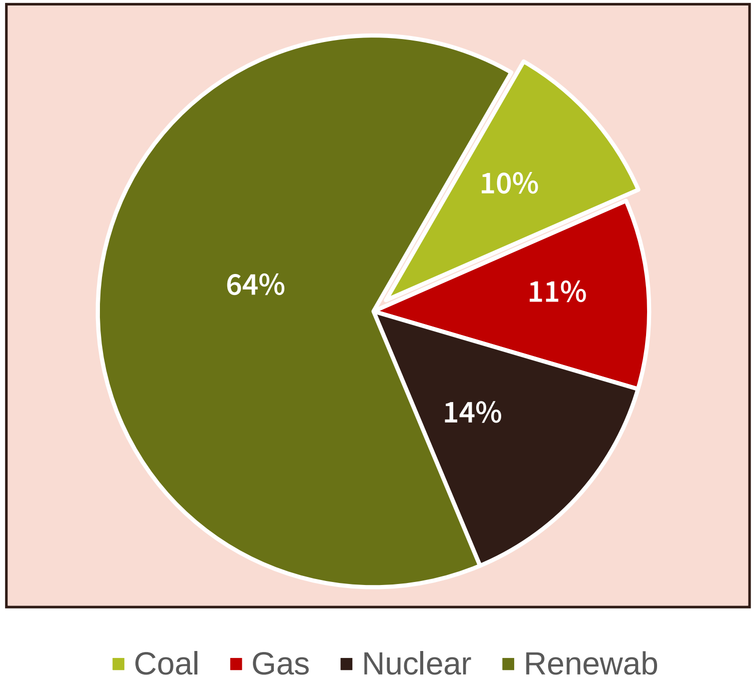
- Stated Policies Scenario (STEPS): Maps where national climate-related commitments & policies to meet Paris Agreement objectives for energy system by 2040.
- Africa Scenario (AC): outlines the Africa Union Agenda 2063 vision to achieve a sustainable future for next 50 years.
- Sustainable Development Scenario (SDS): Designs a developed pathway to maintain global temperature risk rise to below 2°C by 2050 & changes to global energy system to achieve this goal.

IEA World Energy Outlook Scenario – South Africa



Source: IEA WEO

Sustainable Development Scenario 2040



Source: Hatch estimates based on IEA WEO SDS scenario

Source: DBSA Hatch Interim Energy Sector Investment Framework

ENERGY PORTFOLIO CLIMATE-RELATED RISK ASSESSMENT

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Maps outlook of DBSA energy sector portfolio exposure (by country, technology & term) to high risk climate assets against the three identified scenarios over 5 -15 years.

High level risk segmentation of assets: High (H) / Medium (M) / Low (L)

1. Risk factors

Transition risk
- Shifts in policies & regulations
- Access to markets / capital
- Reputation: Shifting customer & societal expectations
- Technological advancement & innovation

Physical risk
- Weather-related stresses (e.g., increased drought)

2. Risk assessment criteria

Strategic risk: Exposure in energy credit portfolio to carbon-intensive assets

Business risk: Vulnerability to low carbon alternative technologies or fuels

Financial risk: Exposure of energy credit portfolio to changes in energy prices, carbon pricing and divestment campaigns

Operational risk: Vulnerability of asset to physical impacts associated with climate change e.g., increased drought, adverse economic conditions

Market risk

A. Monetary value of loan (or investment if applicable)

B. Term of loan (or investment if applicable)

3. Risk scoring protocol

Criteria	Score	Weight
1	1 – 3	15%
2	1 – 3	15%
3	1 – 3	10%
4	1 – 3	20 %
5	1 - 3	20%
A	1 – 3	20%
B	1 – 3	

→ Weighted score → Risk rating (H/M/L)

Scenarios assessed against capacity to achieve DBSA Climate Policy Framework

- **Base case:** reflects the DBSA's indicative target of achieving **30%** of annual lending towards climate change adaption (30%) and mitigation (70%) projects by 2022.
- **Enhanced Case:** reflects a step up in the DBSA's indicative target from 30% of annual lending to **50%** of annual lending towards climate change adaptation and mitigation projects.

Source: DBSA Hatch Interim Energy Sector Investment Framework

POSSIBLE FUTURE ENERGY OPPORTUNITY LANDSCAPE FOR DBSA

- Identify opportunities to further commit to supporting the energy transition through sustainable finance
- Suggest sustainable finance products to achieve DBSA Climate Policy Framework.
- Indicative energy sub sector investment targets proposed to achieve Africa Case Scenario for 30% & 50% of Investment Portfolio

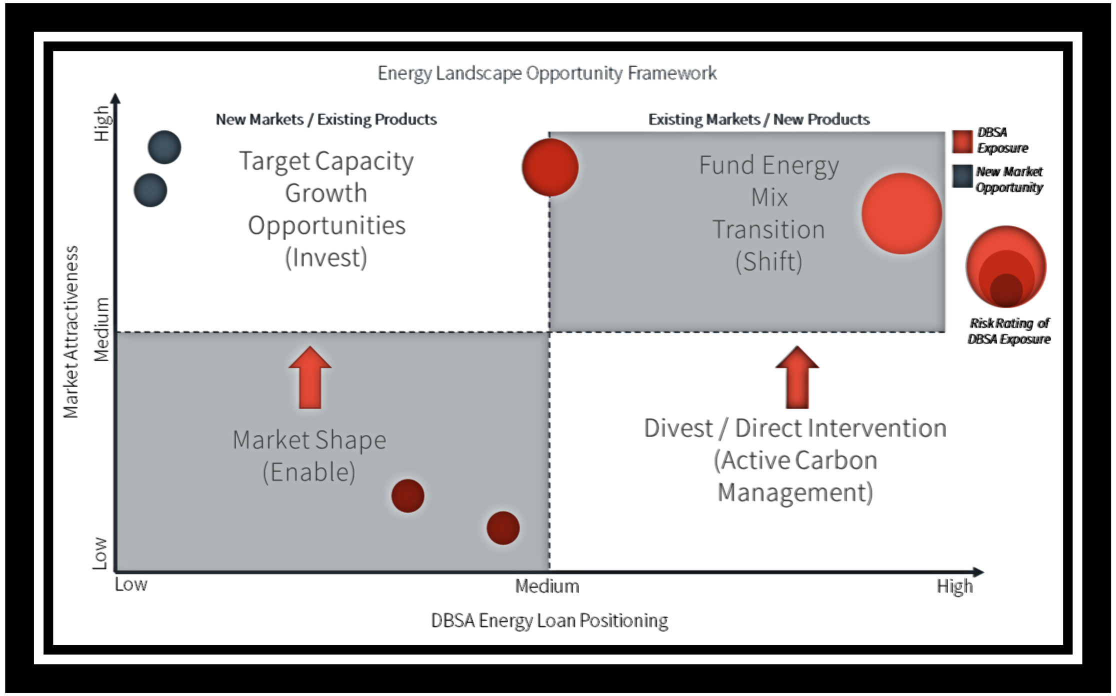
Technology	Average CAPEX / MW	Average SSA Project Size	Number of Loans Average Loan of 500 ZAR		Capital Unlocked w/ Partner Investors		Full time Employment Total Jobs Created from Projects	
			Base Case – 30%	Enhanced Case – 50%	Base Case – 30%	Enhanced Case – 50%	Base Case – 30%	Enhanced Case – 50%
Solar PV	20.75m ZAR	67.75 MW	12	22.6	16.9bn ZAR	31.8bn ZAR	17,760	33,448
Onshore Wind	28.9m ZAR	140 MW		2		8.1bn ZAR		5,560
Geothermal	54m ZAR	16 MW	0.6	0.8	864m ZAR	864m ZAR	479	479
Small Hydropower	57m ZAR	4.3 MW	29*	49*	7bn ZAR	12bn ZAR		

Source: DBSA Hatch Interim Energy Sector Investment Framework

ENERGY INVESTMENT FRAMEWORK PROPOSALS TO ADDRESS TRANSITION RISK

Integrated Energy Investment Framework proposes the construction of a climate aligned portfolio to lower the potential of transition risk relating to stranded assets through:

- Redeployment of historically concentrated DBSA capital to lower carbon solutions
- Uptake of investment in a larger range of generation technologies
- Scaling up of sustainable investment projects to support bankability
- Unlocking focused interventions to support the energy transition
- Pursing regional disbursement opportunities within identified resource locations including:
  - Strengthening DBSA footprint in markets where Bank currently invested
  - New target markets for deployment of existing DBSA service offerings for energy sub-sector technologies



Source: DBSA Hatch Interim Energy Sector Investment Framework

CAPITAL DEPLOYMENT TO SUPPORT A CLIMATE ALIGNED PORTFOLIO

Investment Strategy Prioritization proposes:

- Phased redeployment of capital based on the current disbursements profile & matching DBSA responses to changing low carbon scenarios,
- Continued role for project preparation and planning in supporting the development of low carbon solutions and in bring projects which meet DBSA's criteria to bankability
- Strengthening interventions to support climate aligned product development including the uptake of green & sustainability bonds
- The business to aggressively pursue the expansion of development and investment partnerships and institutional arrangements to enhance investment in a low carbon opportunities
- Ongoing and consistent monitoring of the DBSA investment portfolio to determine potential increase or decrease in transition risk (stranded asset exposure) as DBSA responds to the changing & address any interventions in response to the shifting risk profile
- Short, medium & long term investment targets to strengthen the climate aligned portfolio

Source: DBSA Hatch Interim Energy Sector Investment Framework

ENERGY INVESTMENT ROADMAP PROPOSES A RESPONSIBLE INVESTMENT STRATEGY

DBSA

Energy investment recommendations align with **Responsible Investment Principles:**

- Enables DBSA to effectively incorporate environmental, social and governance (ESG) factors in its investment decision-making.
- Achieves superior returns through an effective ESG aligned portfolio which at the same time bears reduced financial and stranded asset risk
- Reduces risk related to declining value of high carbon assets.

The proposed investment framework aligns to the following UN SDG's:
#4 Quality Education
#7 Affordable and Clean Energy
#8 Decent Work and Economic Growth
#9 Industry, Innovation and Infrastructure
#10 Reduced Inequalities
#11 Sustainable Cities and Communities
#12 Responsible Consumption and Production
#13 Climate Action
#15 Life on Land
#16 Peace, Justice and Strong Institutions
#17 Partnerships for the Goals

Source: DBSA Hatch Interim Energy Sector Investment Framework

JUST TRANSITION RECOMMENDATIONS

Investment strategy

- Assess portfolio exposure to the social dimension of the transition – 55% of DBSA energy portfolio exposed to the risk of job losses - maximise job creation and local economic development potential arising from renewables expansion.
- Dialogue with stakeholders – focus on priority interventions such as those through the National Planning Commission
- Integration into investment strategy – uptake of social investment opportunities such investments in biomass projects in areas where coal plants are being decommissioned / local agriculture investment opportunities

Corporate engagement

- Engage with management of loan recipients to ensure strong performance on labour & community practices
- Work with loan recipients to develop opportunities to mitigate socio-economic impacts
- Partner with large employers to develop financial products and services that support pre and post-layoff planning and assistance

Capital allocation

- Incorporate economic development in communities negatively affected by the low carbon transition – ramp up infrastructure investment in social & municipal infrastructure
- Explore new investment products and services that result in positive social impacts
- Link investments in products and services to business models that promote local job creation and training

Policy advocacy and partnerships

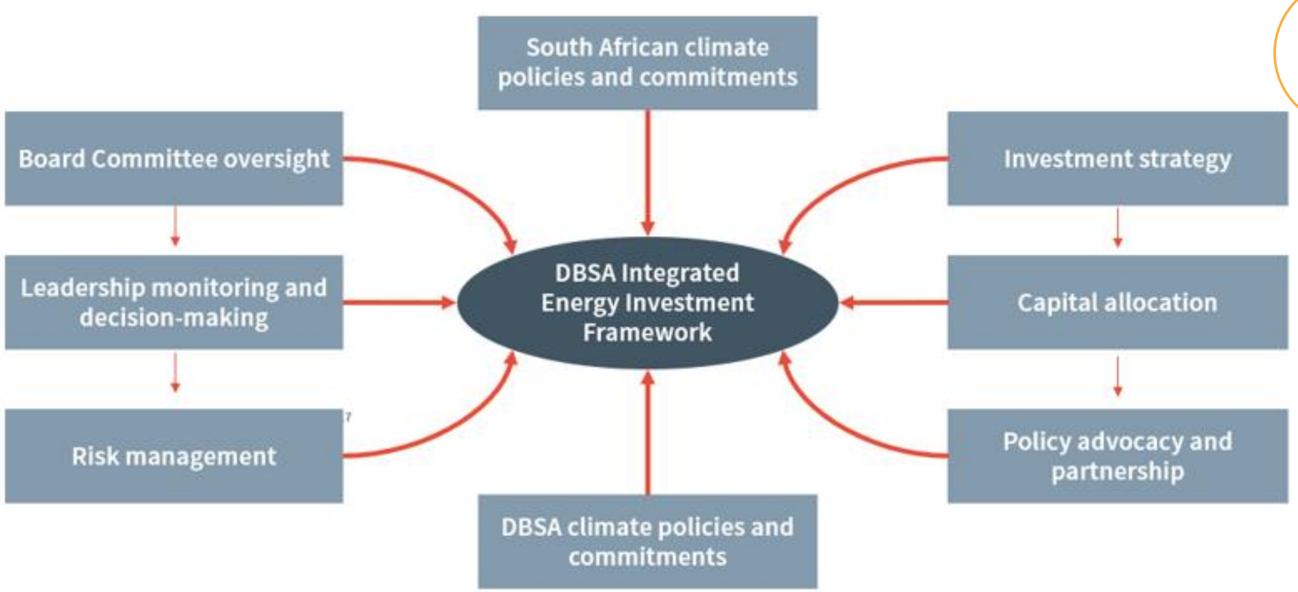
- Engage with governments to drive policy outcomes
- Advocate for governance improvements to ensure predictability and stability for potential investors in Africa

EMERGING HIGH LEVEL FINDINGS

- DBSA Strategic alignment to development policy frameworks globally & nationally
- Climate risk within the DBSA energy portfolio to be managed
- Clear role for DBSA identified as a responsible energy sector investor on the continent
- High level financing opportunities identified within energy sub sectors aligned to a low carbon transition
- Need for further project preparation and business development to maximise the role that the Bank can play in supporting the transition to a low carbon economy
- Work to be undertaken at operational level in bedding down investment approach within DBSA operations

PROVISIONAL MANAGEMENT RECOMMENDATIONS BEING CONSIDERED FOR OPERATIONALISATION OF CLIMATE RISK MANAGEMENT & ENERGY INVESTMENT STRATEGY

DBSA



Governance & oversight
- Develop Climate Change Position Statement
- DBSA climate change accountability structure & performance reporting to CEO

DBSA data, reporting & monitoring protocols
- Create DBSA climate change working group
- Management & Board engagement

Strategy & business development
- Map DBSA short, medium & long term low carbon pathway & aligned investment plan
- Develop DBSA's climate vision & investment plan
- Align DBSA investment targets to vision
- Incorporate climate scenarios in annual investment strategy

Risk assessment & management
- Develop macro-level inventory of climate-related drivers
- Embed climate change in DBSA's risk management
- Review DBSA risk appetite & risk capacity
- Build climate change awareness in business teams
- Determine DBSA position on future energy supply
- Stress test climate change risk factors on portfolio assets

Climate aligned metrics, targets
- Refine & review metrics &targets to assess climate-related risk impacts
- Develop metrics to evaluate progress toward targets

Transparency
- Assess impacts of climate change
- Develop reporting strategy for DBSA

Source: DBSA Hatch Interim Energy Sector Investment Framework

THANK YOU