**DRAFT**

# INPUT BY BUSINESS UNITY SOUTH AFRICA TO DISCUSSIONS WITH MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM ON THE LONG TERM MITIGATION SCENARIOS

**22 APRIL 2008**

## BACKGROUND

Business Unity South Africa (BUSA) is a confederation of chambers of commerce and industry, professional associations, corporate associations and unisectoral organizations. In that role it represents South African business on macro-economic issues that affect it at the national and international levels (Annexure A sets out the member organizations affiliated to BUSA). BUSA's function is to ensure that business plays a constructive role in the country's economic growth, development and transformation and thereby create an environment in which businesses of all sizes and in all sectors can thrive, expand and be competitive, while at the same time contributing to the national imperatives of halving unemployment and poverty by 2014.

BUSA welcomes the opportunity to make input on the Long Term Mitigation Scenarios and to work with Government in the development of an action plan to respond to the challenge of climate change.

This submission covers the following areas:

- Overall response to the Long Term Mitigation Scenarios
- The use of economic instruments in support of climate change mitigation
- Balancing electricity supply and demand
- Recommendations and way forward.

## OVERALL RESPONSE TO THE LONG TERM MITIGATION SCENARIOS

BUSA acknowledges the role that scenarios can play in informing long-term policy choices and negotiating positions. This submission is intended to address the following aspects of the report.

- Scenarios
- Strategic options
- National climate policy
- Multilateral negotiations.

### Acceptance of the scenarios

Comments on the scenarios are based on an acceptance that climate change is a major global challenge that needs to be addressed and that failure at a global level to address this challenge will ultimately have negative impacts on South Africa's socio economic situation.

Two scenarios are presented in the report, namely

- Growth without Constraints and
- Required by Science.

Although South Africa's current national development path will reduce emissions below the *Growth without Constraints* scenario, emissions will continue to rise to unacceptably high levels.

The *Required by Science* scenario means that South Africa would need to reduce its greenhouse gas emissions by between 30 and 40% based on a 2003 baseline. Although this scenario is not underpinned by the same rigour as the *Growth without Constraints*, mainly because achievement is dependent on knowledge that has not yet been acquired, it provides some measure of the level of reduction target, South Africa will need to aspire to.

The *Required by Science* scenario therefore allows us to begin to set an upper limit on national emission levels. BUSA believes that the discussion on national emission levels needs to commence and be informed by the national greenhouse gas inventory that is currently under way. BUSA is working with Government on completing the inventory and hopes to use it as the basis for more detailed discussions on possible sectoral upper limits. There is no doubt that this process will require numerous iterations before a sound national consensus will be achieved.

Based on the following assumptions about the global situation in which any scenario would operate

- An effective international climate consensus is reached;
- International flows of appropriate technology and finance occur;
- Oil is scarce and expensive, coal prices are high;
- High degree of trade integration and globalization exists.

it is clear that the *Required by Science* scenario is the more plausible long term. BUSA accepts this scenario as the basis for further work.

**Strategic options**

The LTMS process included exploring groups of mitigation options and considering their emissions reduction results and impacts on the economy. Four such strategic options are included in the report.

- Start now
- Scale up
- Use the market
- Reach for the goal.

BUSA believes that although the strategic options are helpful in developing the areas in which policy directions will need to be considered, they should not be seen as a range of choices that need to be made in the short term.

BUSA views these strategic options as a range of starting points for more detailed technical and economic investigation. While BUSA acknowledges the economic modelling that was undertaken as part of the Long Term Mitigation Scenario work , the approach is not considered robust enough to give the appropriate level of confidence in the economic impact that specific policy and technical interventions may have.

BUSA therefore believes that further economic analysis needs to be undertaken in parallel with the further development of the technical options.

**Start up**

Start-up includes the following possible technology and policy interventions, which are not all stand alone and may depend on others for implementation:

- Implementation of existing policies in energy efficiency;
- Increased use of renewable energy;
- Increased use of nuclear energy;
- Shifting passenger transport modes;
- Improving vehicle efficiency.

All of these interventions are the subject of existing policies and are being implemented to various extents by the responsible departments. Any work in this regard should therefore build on these platforms.

**Scale up**

This option results in zero carbon electricity by 2050 through the following interventions, which are not all stand alone and may depend on others for implementation:

- Use of nuclear energy
- Use of renewable energy;
- Extension of biofuels to the limit of constraints like water and land;
- More aggressive implementation of energy efficiency;
- Carbon capture and storage;
- Electric vehicles.

Again many of these interventions can be further explored using existing platforms.

**Use the market**

The key additional element of this scenario is implementation of a carbon tax starting at R100/t and rising to R750/t by 2050. The tax is used to provide a subsidy for

renewables and biofuels and solar water heating. This approach is contrary to the current National Treasury policy on earmarked taxes and requires significant further work.

BUSA prefers the broader concept of using a range of economic instruments to achieve specific policy goals and has already commenced work on the use of economic instruments to support energy efficiency in the context of the electricity crisis.

**Reach for the goal.**

In this strategic option costs cannot be modelled as insufficient knowledge is available on the technologies or behaviour changes required to achieve reductions on the scale required. However four sets of actions are recommended in the report, namely

- Social behaviour change
- Emerging technologies
- Resource identification
- Inducing a transition to a low-carbon economy.

BUSA agrees that further research is required to take these actions forward supports initiation of a comprehensive research agenda in this regard.

**PREPARATION FOR MULTILATERAL NEGOTIATIONS**

BUSA recognises the usefulness of the Long Term Mitigation Scenarios in informing South Africa's preparation for multilateral negotiations. However BUSA believes that it is imperative for South Africa to intensify its process of preparation for multilateral negotiations.

Between 2007 and 2009 a strengthened climate regime for the period after 2012 will be negotiated under the UNFCCC and its Kyoto Protocol. BUSA welcomes the recognition in the so-called Bali Action Plan adopted at the Conference of the Parties in 2007, of the need for greater collaboration between governments and the private sector in addressing climate change challenges.

Experience with the Clean Development Mechanism has clearly demonstrated the negative impact excessive red tape can have on climate change thus slowing down investments to reduce emissions. Any future international agreement needs to be much more business friendly.

In addition no national policy or regulatory interventions should be introduced which would compromise South Africa's ability to benefit from the current international instruments like the Clean Development Mechanism.

## Recommendations

BUSA recommends that all of the proposed options be further elaborated upon as part of a strategic national climate change response and that the research required to underpin this process be undertaken in consultation with stakeholders.

It is clear from the range of strategic responses that an integrated governmental approach would be required and BUSA recommends a more action orientated approach based on the direction provided at the Conference of the Parties held at Bali in 2007 and recommends the development of a national action plan rather than embarking on a protracted policy process.

In BUSA's view a plethora of policies already exist which could underpin these strategic options. BUSA believes that a Cabinet plan is required which assigns responsibilities to relevant national departments to develop climate response strategies using the relevant sections of the Technical Report and the Long Term Mitigation Scenarios as their departure point.

In this regard, BUSA is happy to be able to report that it has initiated discussions with **the dti** on how the necessary strategic approaches to climate change could be incorporated into the Industrial Policy Action Plan.

A significant body of work on climate change responses already exists both in OECD and non OECD countries and BUSA recommends exploring mechanisms to learn from such experience. BUSA has recently been invited to participate in an OECD initiative on the economics of climate change and is considering its response.

## THE USE OF ECONOMIC INSTRUMENTS TO SUPPORT OF CLIMATE CHANGE MITIGATION

### Introduction

One of the strategic options is to introduce an escalating carbon tax to fund subsidies for a renewable, biofuels and solar water heaters.

BUSA believes that the establishment of a carbon tax "wedge" results in an over simplification of the concept of carbon tax and believes that this is an area that requires significant further work.

In his speech introducing the 2008/9 national budget, the Minister of Finance, recognized the need for South Africa to address climate change . In this regard he mentioned economic instruments that could be considered as follows:

- Emission charges
- Tradeable permits
- Tax incentives for cleaner production technologies
- Reform of vehicle taxes to encourage fuel efficiency.

As a first step to developing specific and practical measures to support sustainable development, the Minister has announced the introduction of a levy on the sale of electricity generated from non renewable resources at a rate of 2c/kWh.

In addition the Minister announced that R2 billion would be set aside over the next three years to support programmes aimed at :

- Encouraging more efficient use of electricity,
- Generation from renewable sources
- Installation of electricity saving devices
- Cogeneration projects.

In addition to the stated intentions of the Minister of Finance there is the recent application by Eskom to the National Energy Regulator of South Africa (NERSA) for a tariff increase, which is partially motivated by the need to fund a more aggressive implementation of energy efficiency projects.

Although BUSA supports the use of a range of economic instruments to support climate change objectives, the approach set out in the Report is only accepted as a first step in an iterative process to develop a comprehensive suite of economic instruments that could be used to support climate change mitigation objectives.

**Economic instruments**

Consideration of the proposals in the budget speech of the Minister of Finance, reveal a range of possible instruments that could be considered.

BUSA is ready to engage with Government on any potential instrument. However BUSA reaffirms the position that some of its members presented during the LTMS process, namely that carbon tax should not be presented as a strategic option in isolation of the objectives it was intended to support.

An economic instrument as is the case with a regulatory or voluntary instrument must be introduced to achieve clear policy objectives and the selection of an appropriate instrument is dependant to a large extent on the nature of the objective.

In OECD countries the overarching aim of climate policy is that those who generate GHG emissions should face the marginal cost of emissions relative to the damage they inflict. These countries support market-based policies that allow for sufficient flexibility and include provisions for broad international cooperation and believe that such instruments will be important in effectively reducing GHG emissions globally with minimum disruption of economic activity.

To deliver reductions at least cost, economic analysis often underlines that a common price signal is required. which can be achieved by taxing emissions or by capping them and allowing permission permits to be traded. In this regard the proposed Eskom price increase is partially based on supporting energy efficiency

## Carbon tax

Both taxes and emissions trading have their pros and cons. While taxes have a role to play in the overall policy mix, competitiveness impacts of certain sectors and regions need to be given careful attention when a tax is introduced unilaterally. Overall tax neutrality is important, and using taxes purely as revenue raising mechanism should be avoided.

If one considers the relative competitiveness between solar power and fossil fuel generation in Germany, that country expects solar panels to be competitive with other sources by 2012. Achievement of such an objective in South Africa will require a sound high level commitment to a particular target and aggressive investment in the necessary research and development perhaps in collaboration with German firms.

## Subsidies

The proposed subsidies for biofuels also need to be considered carefully. Particularly how they may affect food security. One way to address the emissions from transport is a target to be set for a bioethanol supply from from SADC countries provided it is produced from sugar in those countries.
It is also important that subsidies be reviewed on a regular basis for both their economic and environmental effectiveness. In recent years, for example, government support to biofuel production has increased drastically across the OECD, creating impacts across several sectors resulting in calls for careful life-cycle and cost-benefit analyses.

In addition to carbon tax and subsidies the following ideas referred to in the Budget speech should be explored further.

## Emissions trading

GHG emissions trading systems are already in place or about to be implemented in several countries or regions. Experience of the EU emissions trading scheme demonstrates the need for careful design and a sound set of baseline data. The global dimension and potential impacts on energy intensive industries must be given due attention in discussions on regional trading schemes. In this regard it is proposed that once the Greenhouse gas inventory has been established work commence in the possibility of an emissions trading scheme in South Africa and the region.

## Tax incentives for cleaner production technologies

BUSA has long argued for tax rebates for investment in equipment to improve environmental performance and believes that additional support in this area should be explored. In particular BUSA believes that enhanced funding for the National Cleaner Production Centre, which is already doing significant work in facilitating energy efficiency in some sectors, should be provided to extend the scope of the centre to more sectors.

**Reform of vehicle taxes to encourage fuel efficiency**

BUSA supports an engagement with relevant stakeholders on this proposal.

BUSA believes that under the heading of economic instruments the following issues should also be addressed.

**Pricing**

There is no doubt that the price of electricity plays a role in how efficiently electricity is used. It is anticipated that any price increase approved by NERSA for this year will have a positive effect on energy efficiency. However the extent to which the economy can absorb such a shock is a separate question and highlights the need for work on developing action plans with appropriate phase in times to commence urgently in all strategic areas.

**Industry initiatives**

Voluntary initiatives, industry-led global sector initiatives, public and private innovation and deployment of new technologies as well as the benefits of public-private partnerships need to be given increased attention. Furthermore, it is crucial that in post-Kyoto discussions, there is clarity on the future of mechanisms such as the clean development mechanism (CDM), which needs to remain effective. While standards and building codes have a role to play, in particular in the case of broad international coverage, they should be carefully reviewed for their costs and continued usefulness as standards quickly become obsolete as technology evolves.

**Trade policy**

The current Doha round of World Trade Organisation negotiations includes consideration of duty free trade in a number of so-called environmental goods. The list under consideration includes solar panels and ancillary equipment for solar power and equipment for wind power. BUSA is participating in these discussions at Nedlac.

Another area of trade policy is the question of import duties. Import duties are generally used as an instrument of industrial policy, particularly to nurture emerging industries. Key issues currently under debate in this area include the potential to remove import duty on energy efficient motors, which on a preliminary survey are not manufactured in the South African Customs Union. A more difficult debate is underway in respect of compact fluorescent lights (CFLs). In order to meet energy efficiency targets in this respect will require literally millions of bulbs all of which will be imported. In South Africa's interest the current import duty should be removed. However Phillips with support from UNIDO is currently considering investment in a manufacturing plant in Lesotho, in other words in the South African Customs Union and therefore to protect that investment the duty should not be removed.

**Application of proposed levy on sale of electricity from non renewable sources**

Without commenting on the significant economic impact of this intervention almost simultaneously with a significant price increase, BUSA believes that there may be a case to be made for the application of this levy to be earmarked. While BUSA accepts the challenges in administering earmarked taxes BUSA believes that a debate should be held on the possibility of applying this levy directly to promotion of renewable energy sources as contemplated in the report.

**Recommendations**

The approach to carbon tax and subsidies taken in the report is considered too simplistic and in fact amounts to raising tax on non renewable energy sources to subsidise renewable.

BUSA does not support the simplistic approach and believes that in order to develop a sustainable suite of economic instruments, a clear set of objectives to be supported with such an instrument should be developed as the next step in taking the debate further.

In this regard it is imperative that the discussion takes place within a clear policy framework such as the one prepared by National Treasury. Although BUSA submitted extensive comments on this document, it is accepted as a sound departure point for continuing the debate.

Once the objectives have been formulated, a discussion can commence on how the objectives can be supported by economic instruments. At this stage the selection of a tax or a subsidy should not be taken as the only options.

While the recognition in the budget speech that these areas have to be addressed, given the work that needs to be done and the targets that will have to be reached, the amounts allocated to areas like renewable energy sources, including biofuels and energy efficiency will have to be reviewed upwards.

The use to which the proposed 2c/kWh levy is to be put also needs to be debated. BUSA would like to see a robust debate on whether the current reluctance by Treasury to support earmarked taxes should be reviewed to allow the proceeds from the levy to be used in ways that will contribute directly towards a shift to a low carbon economy/ BUSA is not convinced that the cost pressure alone will achieve this.

**BALANCING ELECTRICITY SUPPLY AND DEMAND**

**Introduction**

BUSA does not believe that any climate change response strategy can be developed in isolation of the current electricity crisis and recommends that further work on the supply and demand side management of electricity should be undertaken in conjunction with the significant work already being undertaken on an accelerated basis in this regard.

Although the immediate emphasis of the National Electricity Response Plan is on demand side measures like energy efficiency and load shedding, the issue of increased generation capacity remains a critical issue.

The Long Term Mitigation Scenarios identified two key domestic alternatives to coal namely nuclear and renewable. In this regard existing government policies need to be used as starting points for further discussion.

Energy efficiency is a component of all the strategic options. BUSA recognises the need to improve energy efficiency and is one of the signatories to the Energy Efficiency Accord concluded with the Minister of Minerals and Energy in 2005.

Company members of BUSA affiliates have made significant progress towards achievement of the 15% energy efficiency target set for industry to achieve by 2015 from 2000. Members are now exploring mechanisms reduce consumption to 90% of last years use.

The current electricity shortage has reaffirmed the need for the aggressive pursuit of energy efficiency targets. In this regard the National Electricity Response Plan provides a sound platform for energy efficiency targets to be agreed and achieved through a range of mechanisms both regulatory and voluntary.

**Energy efficiency**

Preliminary economic impact assessment of a 10% reduction in electricity use through rationing reflects a significant negative impact on the economy with consequential negative social impacts.

A range of interventions to improve energy efficiency have been identified as part of the engagement on the National Electricity Response Strategy as follows:

- Installation of more sophisticated metering systems
- Installation of Power Factor Control
- Installation of remote motion sensing connected to various electrical appliances
- Energy efficient lighting
- Energy efficient motors
- Good HVAC design
- Use of solar power range of activities
- Specific interventions in the Hospitality industry

    - Use low energy light fittings, and motion sensors to switch off lights / air cons / TV when there is no motion.
    - Using electronic card key systems which switch off lights and air-conditioning when rooms are not occupied.
    - Using gas for cooking.
    - Encouraging guests to re-use towels, thereby reducing laundry and resulting in energy saving.

- Changing all lifts to a merit system

It is clear from the above that significant opportunities for energy efficiency exist, the key question is how can these interventions most successfully be implemented in the short term.

In order for some of these interventions to be successfully implemented policy adjustments are required as follows:

- Review of import duty on energy efficient industrial equipment
- Increased funding of the National Cleaner Production Centre
- Favourable tax treatment for investment in energy efficient installations (retrofitting)
- Regulatory instruments on energy savings devices and equipment
- Improvement in billing at Local Authority level.

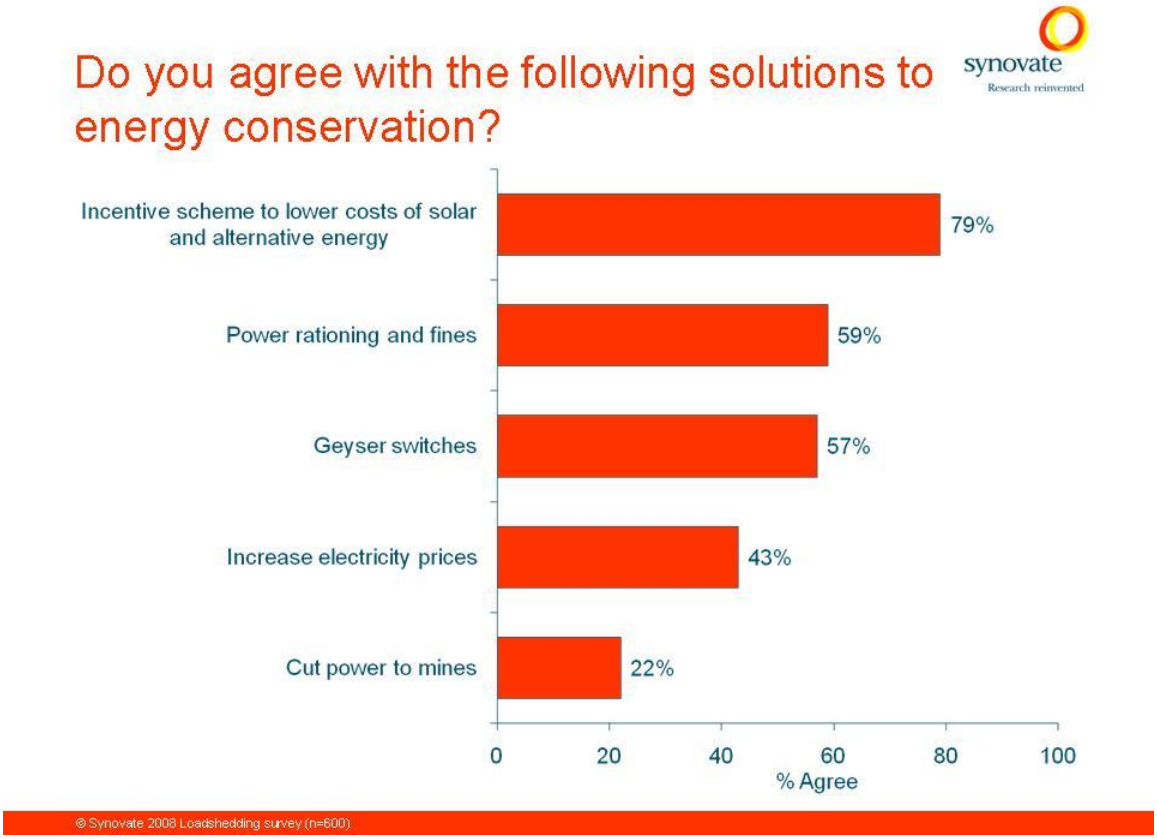
BUSA believes that the Budget speech provides the platform for intensive engagement on developing a set of support mechanisms in the manner envisaged above.

Government is contemplating a comprehensive regulatory framework to give effect to a number of objectives set out in the National Electricity Response Plan. Regulatory and policy instruments released to date cover compulsory use of energy efficient equipment and installation of energy saving devices and more sophisticated metering systems. A regulatory framework to implement a mandatory rationing programme is also under urgent consideration. BUSA supports the introduction of these measures and is working with Government to ensure that negative economic impacts as a result of thjier introduction are minimized.

The need to save electricity in the short term has raised the profile of energy efficiency to a level where an opportunity exists to consider a range of solutions. Whatever price increase is approved by NERSA, all electricity consumers will be motivated to use electricity more efficiently, thus directly contributing to Greenhouse Gas mitigation.

A recent survey undertaken Synovate have revealed a significant positive response from consumers is respect of the need to save electricity. It is clear that the current electricity crisis has alerted people to a reality that might otherwise have taken much longer to be understood. The synergy with climate change mitigation is clear and should be exploited.

It is interesting to note the views of the respondents to the survey on various conservation interventions. See figure below.




**Electricity generation capacity**

The report refers to increasing generation capacity from renewable and nuclear. BUSA believes that the consideration of a revised policy on the generation mix needs to be considered in the light of the current electricity crisis. The current generation capacity constraints being experienced are unlikely to be resolved before 2012. In view of the current ongoing crisis urgent attention needs to be paid to the planned Eskom expansion programme at the same time as aggressively pursuing investment in alternative technologies.

**Cogeneration**

A range of cogeneration projects are under consideration and BUSA is actively engaged with Government in an attempt to reach agreement on a more investor friendly environment. Estimates of the potential for supply from cogeneration projects in the next two years range from 1 000 to 5 000 MW.

Agreement at a technical level on a special dispensation for cogeneration projects is almost in place. Two areas require further work to complete this special dispensation. These are a fast tracking mechanism for Environmental Impact Assessments and granting of Generation Licences.

BUSA believes that accelerating implementation of cogeneration projects will achieve the dual objective objectives of reducing demand on the national electricity

grid while at the same time increasing generation from less carbon intensive sources.

**Recommendations**

BUSA believes that implementation of energy efficiency activities should be aggressively pursued with appropriate support from Government and the policy adjustments to facilitate successful implementation should be addressed urgently.

BUSA will continue to support the current process of economic impact assessment of a range of energy efficiency measures and recommends that the outcome be incorporated in any action plan development that may ensue from the LTMS process.

Any discussion on amendments to electricity generation policy should be fast tracked so that no policy impediments delay implementation of Eskom's build programme. In addition cogeneration projects should be aggressively pursued and current processes to develop a special dispensation for a tranche of cogeneration projects should be supported and the experience gained with these projects should be used as the basis for further action plans as part of an overall climate change response.

**WAY FORWARD**

BUSA is conscious of the significant demands that the processes towards a strategic action plan and the time pressures on finalising inputs for the multilateral negotiations pose for the country, and therefore proposes the establishment of a high level think tank of business representatives from a range of sectors who would be available at short notice to provide a sounding board for any issues that could impact on business.

BUSA recommends the following short term actions:

To Government:

- Accelerate completion of the Greenhouse gas inventory and use it as the basis of discussions on a potential upper emission limit for South Africa;
- Further analysis of the economic implications of climate options;
- Giving preference to implementation of least-cost policy options based on comprehensive cost-benefit analysis of existing instruments
- Developing action or implementation plans for all existing policies which would support the achievement of a national mitigation target
- Fostering innovation and deployment of climate-friendly technologies through a holistic approach to innovation support;
- Encouraging broad international dialogue and cooperation.

To Business:

- Prepare to respond to the requests by the consultants appointed to collect greenhouse gas emission data for the inventory

- Explore every avenue of energy efficiency in the workplace including considering Labour's offer that shop stewards be used as energy stewards
- Participate in BUSA's electricity task team
- Share energy efficiency successes with others
- Participate in the BUSA engagement with **the dti** on the incorporation of climate change mitigation into industrial policy.

In conclusion BUSA remains committed to working constructively with Government and other stakeholders to develop and implement the necessary action plans in a manner that achieves not only climate change mitigation objectives but also the national imperatives of economic growth, employment creation and eradication of poverty.