The Kyoto Protocol – the world’s first emission reduction treaty – came into force in 2005; emission targets were imposed on industrialised countries only. From this time, a feature of the problem-solving approach to address global climate change, has seen an inordinate focus on commitments to reduce or limit GHG emissions.

Yet, the Kyoto Protocol (Article 2) required policies and measures aimed at reducing or limiting GHG emissions, to promote sustainable development!

*If emission reduction commitments had been considered in the context of sustainable development, from the outset of Kyoto,*

*it may not have taken over a decade to identify whether energy security would be problematic for mitigation measures to reduce emissions!*

Australia is now confronted with such a problem. More than ever, an effective national energy framework is a crucial policy need for Australia.

The public debate over energy security was galvanized in Australia because of significant concern and uncertainty over the reliability and affordability of power supply and their impacts on the community, business and industry e.g. prices, investment decisions.

In September 2016, the trigger for concern was a one-in-50-year storm, with tornado-like winds, that swept through South Australia. It *plunged the entire State into darkness*: power returned to most of the capital, Adelaide, in hours; but, for some regional areas, this took more than a day.
A further source of concern followed in **February 2017, because of load-shedding events** in NSW (on a day where the State’s heatwave caused electricity demands to soar to record highs); and in South Australia (power cuts to 90,000 homes in Adelaide to protect a struggling power network).

These events fuelled controversy. Questions followed over the extent that relying on renewables and intermittent energy contributed to the blanket blackout in South Australia; as well, the future role for coal-generated energy and baseload power in transitioning to a low-carbon economy to meet the Paris temperature goals.

Electricity reliability, as well as affordability, continue to be significant sources of concern for consumers and businesses throughout Australia.

A **comparative evaluation study posted in August 2017**, revealed that Australian residential customers were paying some of the highest electricity prices in the world - two to three times more than American households; South Australian households were paying the highest prices in the world; NSW the 5th, Queensland the 7th and Victoria the 9th highest prices in the world!

Fast forward to 01 August 2018, and the Federal Government’s proposal to implement a policy - the **National Energy Guarantee** (“NEG”) - as a long-term blueprint for energy for Australia. The proposal was based on the advice provided to Government by the independent **Energy Security Board**.

*The foundation for the NEG was*

**the effective integration of energy and climate policy**

*to be achieved*

*through three cornerstones:*

**Affordability, reliability and emissions.**

The goal of the NEG is to provide cheaper and more reliable power, while complying with the GHG emission reduction target that Australia has pledged under the Paris Agreement.

But a problem for Australia’s NEG policy was the difference between the Federal Government (Liberal National Party) and the Opposition (Labor) in their Paris emission targets; it created a “parliamentary” log-in-the-road.
The Federal Government’s Paris Agreement pledge was a much lower target (26% emissions reduction by 2030) than Labor’s proposal (45% by 2030).

On 20 August 2018, the then Prime Minister of Australia announced new measures for the NEG: Measures aimed at reducing power prices. Also, to abandon proposed legislation that prescribed a 26% Paris emission reduction component for the NEG - as it did not have adequate support to pass Parliament.

*The opportunity for Australia to lead the world by combining climate and energy policy – emissions intensity and energy security – was lost.*

**Future Directions for Australia to Implement the NEG Policy: Focus on the Known Knowns**

Having ratified the Paris Agreement, so that Paris is legally binding for Australia, there is a significant area of uncertainty that needs to be resolved: To ensure the NEG complies with Paris obligations.

*The three stated NEG cornerstones to integrate climate and energy policy were affordability, reliability and emissions.*

*But the issue is that they do not resonate with the legal obligations imposed by the Paris Agreement to meet its long-temperature goals: Obligations that require the reduction of GHG emissions, to be made on the basis of equity and in the context of sustainable development (Article 4).*

To effectively integrate energy security and climate policy in the NEG, in accordance with Australia’s legal obligations under the Paris Agreement, will require the systematic evaluation of mitigation measures to reduce emissions to be linked to the Paris obligations of equity and sustainable development.
Adopting this approach will give effect to the interdependence and mutual support between energy security and climate policy.

There are a number of dimensions to consider in the NEG for the application of the linkage between equity, sustainable development and the mix of mitigation measures Australia’s intends to adopt to achieve its emissions reduction pledge under the Paris Agreement.

**Equity**

Equity provides the foundation for ensuring “*fair treatment*” of consumers, businesses and industry in Australia under the energy security-climate policy of the NEG.

*The application of equity, as a fair treatment guideline, should mean that no consumer, business or industry in Australia should bear a disproportionate share of the negative consequences resulting from mitigation measures taken to reduce emissions to manage the risk of global temperature rise.*

At the global level, equity also provides a framework for “*fair treatment*” to address the historical responsibility for cumulative CO₂ emission: By providing the foundation for creating a level playing field.

Consider the following conclusions from a *Canadian research study (2014)* that estimated the national contributions to observed global warming from CO₂ emissions (*fossil fuels & land-use change*) & non-CO₂ GHG emissions:

- *The global temperature rise for the baseline period of pre-industrial to 2005, was 0.7°C.*
- *Developed countries and major emerging economies led in the historical contribution to global temperature rise over this time period.*
- *The contributions by the top seven ranking countries accounted for about 63% of historical global warming; the top 20 around 82%.*
- *USA was ranked #1 as the highest contributor to global temperature rise (0.151°C) over this period, China was ranked #2 (0.063°C) and Australia was ranked #19 (0.006°C).*
What does this study mean for the NEG and Australia’s emissions reduction pledge under Paris?

Firstly, the Paris emissions reduction pledge for Australia should be expected to resonate with Australia’s actual contribution to historic temperature rise over some defined baseline period to be set by the UNFCCC e.g. late 19th century to 2015\(^1\) (Paris Agreement).

And, a comparison of the reduction in global temperature rise achieved by the efforts of each Paris signatory to reduce CO\(_2\) emissions over the same baseline period, would be the basis for deciding whether each country’s contribution was fair; and so, a cornerstone for a level playing field.

Sustainable Development\(^2\)

In June 1992, Australia became a signatory to two international declarations: The *Rio Declaration on Environment and Development* (which set out principles to guide decision-making on sustainable development) and *Agenda 21* (a future global plan of action for sustainable development).

Australia responded to these global treaties by developing an innovative, national environmental policy released in December 1992: “*The National Strategy for Ecologically Sustainable Development*”.

Four of its seven ‘Guiding Principles’ provide the essential framework for evaluating the linkage between emissions intensity, equity and sustainable development in Australia’s NEG policy.

- “Decision making processes should effectively integrate both long- and short-term economic, environmental, social and equity considerations;
- The need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised;
- The need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised;
- The global dimension of environmental impacts of actions and policies should be recognised and considered”.

\(^1\) UNFCCC

\(^2\) Sustainable Development
**Equity/Sustainable Development**

*Equity* ensures a sustainable solution is not weighted in favour of only one objective *e.g.* economics:

*Equity* requires the multiple and competing objectives for *sustainable development*:

- **Ecological** *e.g.* Effectiveness of the mix of mitigation measures of Australia’s emissions reduction pledge to meet the Paris temperature goals;

- **Economic** *e.g.* Cost-competitiveness of the mix of mitigation measures undertaken by Australia for reducing CO₂ emissions; and

- **Social** (*including Cultural*) *e.g.* Ensuring affordability and reliability to offset inequalities in access to energy.

*These objectives must be assessed and balanced fairly in meeting the long-term temperature goals of the Paris Agreement:*

*To ensure the future risks to people, economies and ecosystems, from climate change, are effectively managed.*

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**Conclusions**

(i) *Following the Rio Declaration in June 1992 Australia led the world by implementing an innovative national environmental policy for sustainable development in December 1992, drawn up and agreed to by all levels of Government in Australia – Federal, State, Territory and Local*.  

(ii) *There is now an opportunity for Australia to once again, lead the world. That is, by being the first country to introduce and implement a policy that combines climate change and energy security by focussing on the Paris Agreements cornerstones of emissions reductions, equity and sustainable development.*
Guidelines to address global temperature rise arising from cumulative CO₂ emissions have two dimensions in time: Historical Responsibility and Current/Future Responsibility. Only the Historical Responsibility is discussed here - notwithstanding both dimensions in time share common elements.

The aim of the UN’s “Transforming our World: 2030 Agenda for Sustainable Development” is to wipe out poverty, fight inequality and tackle climate change over the next 15 years. One of its 17 interrelated, Sustainable Development Goals (“SDGs”) is SDG 13, “Climate Action”: Achieving this Goal will be guided by five Targets:

- But, the log-in-the-road for the UN’s 2030 Agenda, at present, is the need to define the objective guidelines that will provide the basis for evaluating SDG 13 (and its five Targets).

The environmental policy, National Strategy for Ecologically Sustainable Development.