



## AUSTRALIA

### Submission under the Kyoto Protocol: Quantified Emission Limitation or Reduction Objective (QELRO) | November 2012

#### I. Overview

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This submission is a response to the invitation in Decision 1/CMP.7 for Annex I Parties to submit information on Quantified Emissions Limitation or Reduction Objectives (QELROs) for the second commitment period of the Kyoto Protocol.

Australia is committed to playing its fair part in effective global climate change action, with our efforts grounded in robust domestic implementation arrangements that support Australia's low-carbon economic transformation.

In this context, Australia is prepared to join a second commitment period of the Kyoto Protocol starting 1 January 2013, and will nominate a provisional QELRO of 99.5 per cent of 1990 levels over an eight year commitment period.

The QELRO represents a substantial emission reduction effort backed by Australia's broad package of domestic policies and legislation. Australia's net cumulative emissions from 2013 to 2020 are now projected to be around 14 per cent or 750 million tonnes of carbon dioxide equivalent (Mt) lower than they would have been without a carbon price and the Carbon Farming Initiative (CFI). In 2020 Australia's net emissions are projected to be 22 per cent below where they would otherwise be without a carbon price or the CFI. The 22 per cent and 750 Mt reductions are on top of considerable abatement from a wide range of measures put in place before the carbon price in energy efficiency, renewable energy and the land sector.

Australia's provisional QELRO of 99.5 per cent is consistent with the unconditional commitment to reduce emissions by 5 per cent below 2000 levels in 2020. The option later to move up within the full target range of 5 to 15, or 25 per cent, below 2000 levels in 2020, remains if Australia's target conditions relating to the extent of global action are met.



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## **II. The basis for joining a second commitment period**

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Australia's preparedness to join a second commitment period of the Kyoto Protocol at the UN climate change negotiations in Doha, Qatar (26 November to 7 December) and confirmation of its provisional QELRO will be conditional on:

- Continued progress in international negotiations towards the new 2015 agreement. This will require serious commitments from all countries, developed and developing alike.
- The second commitment period ending in 2020 in line with the start of the new agreement.
- Access to the Kyoto market mechanisms, including the Clean Development Mechanism, from 1 January 2013.
- Continuation of the existing land sector rules including retention of the ability to include land use change emissions in the 1990 base in accordance with current provisions of Article 3.7 of the Kyoto Protocol.
- The rules applying to carryover of units from the first commitment period of the Kyoto Protocol being appropriate for Australia.

## **III. Australia's Clean Energy Future**

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Australia is committed to transitioning to a low carbon economy, and meeting its second commitment period QELRO, through a Clean Energy Future plan which includes an emissions trading scheme which places a cap on about 60 per cent of Australia's emissions.

This transition represents a significant effort given Australia's heavy reliance on fossil fuels. Over 70 per cent of Australia's emissions are from the burning or mining of fossil fuels. And around 90 per cent of Australia's electricity is generated from fossil fuels. Australia's QELRO and 2020 emission reduction targets are a commitment to transforming Australia's economy, by delivering a fundamental change to the nation's emissions profile and energy generation mix.

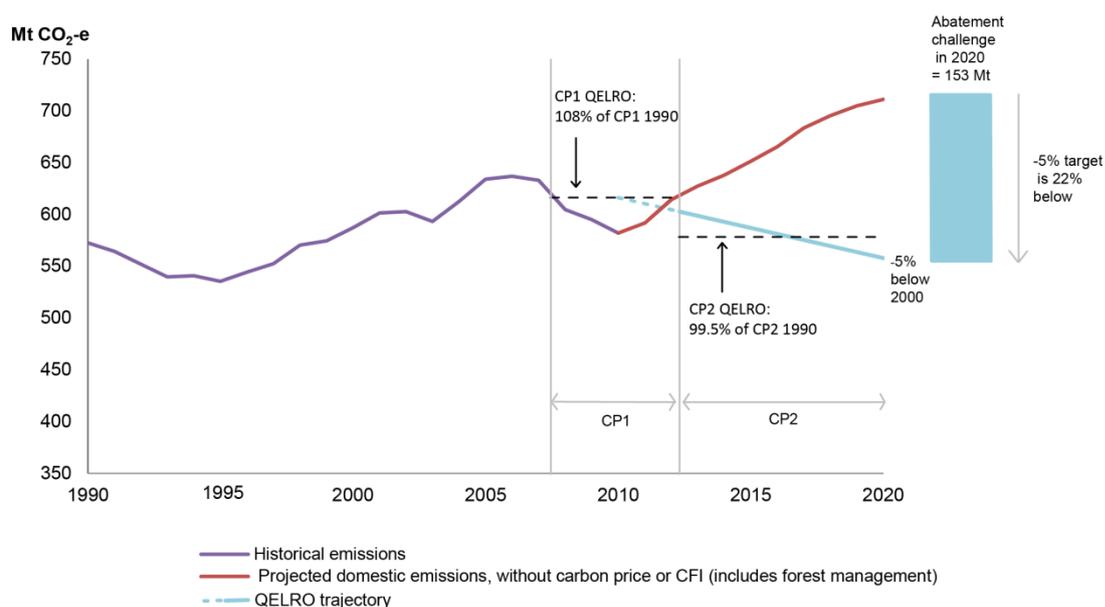
Australia's efforts to reduce emissions also represent a considerable effort given expected strong population and economic growth – both key drivers of emissions growth due to increased demand for a range of goods and services. Australia's population is expected to increase by 12 per cent between 2012 and 2020, and the economy is projected to expand by about 3 per cent per year on average over the same period.

In this context, Australia's unconditional 2020 target of 5 per cent below 2000 levels and QELRO of 99.5 per cent represent large declines in Australia's emissions, per capita emissions and emissions intensity:

- In 2020 Australia's net emissions are projected to be 22 per cent below where they would otherwise be without a carbon price or the CFI (Figure 1).
- Australia's net per capita emissions and net emissions intensity are projected to decline by about 19 and 28 per cent respectively between 2012 and 2020.
- Australia's net cumulative emissions from 2013 to 2020 are now projected to be around 14 per cent or 750 Mt lower than they would have been without a carbon price and the CFI.

The 22 per cent and 750 Mt reductions are on top of considerable abatement from a wide range of measures put in place before the carbon price in energy efficiency, renewable energy and the land sector.

Figure 1: Australia's QELRO: reducing emissions



Source: *Australia's Emissions Projections 2012* using global warming potential (GWP) values from the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC). Historical data is used to 2010. Emission projections are indicative only. The latest inventory estimate (Kyoto Protocol accounting basis) has been used as the 1990 base year for the CP2 QELRO (CP2 1990).

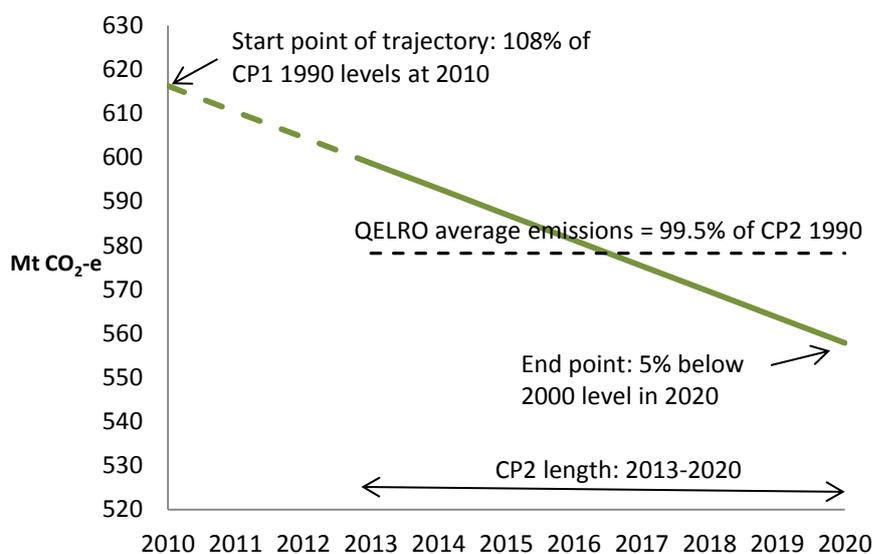
#### IV. Australia's provisional QELRO: calculation methodology

Australia's provisional QELRO for a second commitment period of the Kyoto Protocol is 99.5 per cent of 1990 levels covering the period 2013-2020. This provisional QELRO equates to an estimated carbon budget of 4,626 Mt over 8 years, or 578 Mt on average each year. Australia will meet this commitment to serious action through a broad package of domestic policies and legislation, including an emissions trading scheme. In 2020 Australia's net emissions are expected to be 22 per cent below where they would otherwise be without a carbon price or the CFI.

Australia's provisional QELRO has been calculated using a transparent methodology that maintains the environmental integrity of the emission reductions. Australia's QELRO is based on the Kyoto Protocol accounting rules agreed in Durban, including for the land sector. GWP values from the IPCC AR4 have been used to calculate emissions for 1990 and 2000, and the latest inventory estimate (Kyoto Protocol accounting basis) has been used as the 1990 base year for the CP2 QELRO.

A straight line is drawn from the emissions implied at the midpoint (in 2010) of Australia's first commitment period target – the average Assigned Amount (108 per cent of 1990 levels) adjusted for AR4 GWP values – to 5 per cent below 2000 levels in 2020 (Figure 2). This approach is based on a methodology put forward in the 2011 UNFCCC Secretariat technical paper (FCCC/TP/2010/3/Rev.1) on issues relating to the transformation of pledges for emission reductions into QELROs. Starting from the emissions implied by the previous commitment period target maintains the incentive to "over-achieve" in a particular period, and provides continuity with the target from the previous commitment period.

Figure 2: Translating Australia's 5 per cent 2020 target into a second commitment period QELRO



Note: Australia's emissions are presented using AR4 GWP values. The latest inventory estimate (Kyoto Protocol accounting basis) has been used as the 1990 base year for the CP2 QELRO (CP2 1990).

#### V. Australia's provisional QELRO and QELRO reference year

As agreed in Durban countries can nominate a reference year against which to express their second commitment period QELRO in Annex B of the Kyoto Protocol. Australia's nominated reference year is 2000 – consistent with the base year used in Australia's 2020 pledge under the Copenhagen Accord and Cancun Agreements, and consistent with Australia's 2050 target (Table 1). Australia's provisional QELRO and draft amendment to Annex B to the Kyoto Protocol is in Table 2.

Table 1: Australia's provisional QELRO for the second commitment period expressed against different reference years

Reference year	Provisional QELRO
1990	99.5
2000	98
2012	94

Note: All data use AR4 GWP values. The 2012 number is drawn from data in *Australia's Emissions Projections 2012* and is indicative only.

Table 2: Australia's provisional amendment to Annex B to the Kyoto Protocol would be:

Party	Quantified emission limitation or reduction commitment (2008-12) (percentage of base year or period)	Quantified emission limitation or reduction commitment (2013-20) (percentage of base year or period)	Reference year	Quantified emission limitation or reduction commitment (2013-20) (expressed as percentage of reference year)	Pledges for the reduction of greenhouse gas emissions by 2020 (percentage of reference year)
Australia	108 <sup>+</sup>	99.5 <sup>+</sup>	2000	98	5-15 or 25*

<sup>+</sup>1990

\* Australia's QELRO under the second commitment period of the Kyoto Protocol is consistent with the achievement of Australia's unconditional 2020 target of 5 per cent below 2000 levels. Australia retains the option later to move up within its 2020 target range of 5 to 15, or 25 per cent below 2000 levels, subject to certain conditions being met. This reference retains the status of these pledges as made under the Cancun Agreements and does not amount to a new legally binding commitment under this Protocol or its associated rules and modalities.

## VI. Australia's 2020 and 2050 targets

Australia's provisional QELRO is consistent with the unconditional commitment to reduce emissions by 5 per cent below 2000 levels in 2020. The option to move up within the full target range of 5 to 15, or 25 per cent, below 2000 levels in 2020, remains if Australia's target conditions relating to the extent of global action are met.

The Australian Government set out Australia's conditions for moving up its 2020 target range in public statements in May 2009, and January 2010. The May 2009 statement is available at: <http://www.climatechange.gov.au/minister/previous/wong/2009/media-releases/May/mr20090504c.aspx>. The January 2010 statement is available at: <http://www.climatechange.gov.au/minister/previous/wong/2010/media-releases/January/mr20100127.aspx>.

Australia is prepared to move beyond 5 per cent and up to 15 per cent below 2000 levels in 2020 under strict conditions that relate to the extent of global action, which include reference to:

- Major developing economies make clear commitments to substantially restrain emissions;
- Advanced economies take on clear commitments to reduce emissions comparable with Australia's;
- That the restraints and reductions are verifiable;
- That the credibility of the commitments and actions is established by a robust global agreement;
- That there is access to broad, liquid carbon markets, and appropriate land sector rules; and
- That there is clarity on assumptions for emissions accounting and market access.

Australia remains prepared to adopt a 2020 target of 25 per cent below 2000 levels under strict conditions including comprehensive global action capable of stabilising atmospheric greenhouse gas concentrations at 450 parts per million or lower.

Australia's independent Climate Change Authority will make recommendations to the Government by early 2014 on emission reduction targets and national carbon budgets, taking into account global action to reduce emissions. Australia will work with other countries in Doha on means by which countries can voluntarily increase, but not reduce the stringency of their QELRO.

Australia has also included in domestic legislation a 2050 target of reducing emissions by 80 per cent below 2000 levels. This 2050 target is in line with the IPCC's advice on the long term mitigation targets required to avoid dangerous climate change.