SNOWY MOUNTAINS CLOUD SEEDING TRIAL AMENDMENT (EXTENSION) BILL 2008

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Second Reading

The Hon. IAN MACDONALD (Minister for Primary Industries, Minister for Energy, Minister for Mineral Resources, and Minister for State Development) [6.27 p.m.]: I move:

That this bill be now read a second time.

I seek leave to have my speech incorporated in *Hansard.*

Leave granted.

I move that this bill be now agreed to in principle.

The Snowy Mountains Cloud Seeding Trial Amendment (Extension) Bill authorises Snowy Hydro Limited to undertake further cloud seeding research over a larger geographical area.

The aim of the research project is to increase snowfall from clouds passing over the Snowy Mountains and to assess the effectiveness and reliability of precipitation enhancement technology in the region.

The bill will amend the 2004 Act to expand the geographical area and duration of the study.

The trial area will be extended eighty-seven kilometres from the Kiandra region in the north to the Ramshead Range in the south and forty kilometres from the Jagumba Range in the west to Eucumbene and Jindabyne in the east.

The total size will be approximately 2,250km2, which is about double the size of the current target area. This area covers the main catchments of the Snowy scheme.

However, no cloud seeding equipment such as cloud seeding generators will be deployed by Snowy Hydro in wilderness areas.

The trial will be extended in duration for a further 5 years to the current project, that is to April 2015. This additional time will allow Snowy Hydro time to build, set up and test the new equipment, and incorporate the new area into the experimental design.

The increased duration will also mean that the precipitation data Snowy Hydro analyses is statistically significant and that it will integrate with the data and analysis already underway.

In other words, continuation of the research project, with an expanded trial area, will assist Snowy Hydro to determine with increased certainty the effectiveness of cloud seeding for supplementing natural snowfalls and increasing inflows to storages of the Snowy Mountains Scheme.

The experimental design developed by Snowy Hydro relies on replication in time rather than in space to statistically demonstrate the impact of cloud seeding. The longer the trial runs the greater would be the chance to reliably demonstrate if cloud seeding has increased snowfall.

The amending bill presents an opportunity for the Government to further encourage and facilitate a project that will yield substantial benefits to the Snowy Mountains, rural irrigators, businesses and the environment.

This bill also has the potential to provide stronger rural and regional economies, which is a goal of the NSW Government and is outlined in the NSW State Plan.

With expansion of the trial area, there is potential to more than double the amount of extra precipitation produced than the trial is currently approved for.

Inflows remained significantly below average, with Lake Jindabyne around 50% capacity, Eucumbene about 17% capacity and Tantangara Reservoir around 7% (as at beginning May 2008). This is a serious concern.

At these levels, the threat to down stream communities and agricultural production, the environment and electricity generation continue.

The storages will remain vulnerable to further drought until prolonged above average inflows are received and water levels return to those seen prior to the start of the current dry sequence.

By replenishing water storages in the Snowy scheme, the additional water will increase certainty of releases for irrigators. Increased precipitation through cloud seeding will partially offset the impacts of the forecasted worsening drought conditions for New South Wales irrigators in the Murray and Murrumbidgee valleys.

Additional water is urgently needed to support down stream rural and regional communities.

The increased snowfall from the research project will also benefit tourism operators and communities in the Snowy Mountains. Improved snow depth and the length of the ski season are both expected outcomes from the research project.

Continuation and expansion of the project therefore has the support of the Snowy Mountains ski industry and the local chambers of commerce.

Alpine recreation makes a significant contribution to the economy. Many businesses in the region depend on a regular and good snowfall to provide a good ski season.

Good snowfall also provides incentive for future business investment in the region. In the past 10 or 15 years there has been a noticeable decline in annual snowfall.

Therefore maintaining good snowfall will assist the area to continue to provide substantial benefit to the New South Wales economy.

Research has indicated that snowfalls in the Snowy Mountains region have been decreasing on an average of 1 per cent per year for the past 50 years.

The decline in snowfalls, if continued, may lead to the extinction, within 70 years, of between 15 to 40 of the 200 alpine plant species.

Additionally, the research project has the ability to potentially benefit other species and ecological communities in the Snowy alpine regions.

In particular, species vulnerable to shallow or declining snow, such as the mountain pygmy possum, the endangered northern and southern corroboree frog, the alpine tree frog, the broad-toothed rat and the alpine herb fields may all benefit directly from the increased snowfall.

The research project also provides much needed relief to freshwater environments on the Snowy and Murray Rivers.

The research project will assist to avert the adverse effects of long term climate change on the alpine region of New South Wales.

It is important to register that the project is not simply about providing snow for skiers and water for irrigators, but also about looking after the national parks and wildlife of the area and the riverine environment of the Snowy and Murray Rivers.

The research project will also provide environmental benefits by increasing the capability of Snowy Hydro to produce clean, renewable energy.
The estimated additional water from the research trial will allow Snowy Hydro to produce an amount of hydroelectricity per annum that, if produced by a New South Wales coal plant, would emit over 200,000 tonnes of carbon dioxide or CO2 emissions.

Not only does cloud seeding present an opportunity to achieve all these benefits, it also does it with what the Government understands to be no significant adverse environmental impacts.

The environmental monitoring of the cloud seeding trials to date supports the conclusion of the Snowy Hydro Expert Panel that cloud seeding has no significant adverse environmental impacts.

Also, there has been no scientific evidence of adverse environmental impact produced.

The provisions in the 2004 Act relating to environment controls have not been altered.

The Act provides that cloud seeding may be suspended or terminated if the Minister for Planning and the Minister for Climate Change and the Environment are satisfied that one of several circumstances applies.

These circumstances include: the cloud seeding operations are having, or will have, a significant adverse environmental impact; or Snowy Hydro has not complied with any requirements with respect to the cloud seeding operations that have been imposed by the Ministers to minimise environmental impact.

The Ministers may also suspend or terminate the research project if Snowy Hydro fails to provide information concerning the environmental impact of the cloud-seeding activities.

It is important to note that none of these powers have been used in the cloud seeding trial so far.

In addition, the Act also provides that the Natural Resources Commission supervises the environmental impact of authorised cloud-seeding operations and report on the environmental impact of those operations to the relevant

Ministers.

In approving the extension and expansion of the trial, Snowy Hydro will be required to prepare a revised Environmental Management Plan.

Snowy Hydro has committed $20 million over the life of the trial and is responsible for extensive monitoring and reporting requirements based on trial design and risk assessment advice from Monash University.

The Snowy Mountains community and the community on the Murray River are supportive of the extension of the program. The Snowy Mountains community has also expressed satisfaction and confidence in the operational procedures implemented to minimise risk of impacts on the environment.

The Snowy Mountains Cloud Seeding Trial Amendment (Extension) Bill will enable Snowy Hydro Limited to carry out cloud seeding operations for a total of 11 years and extend the area to double the size of the current trial.

The extension and expansion of the research project will lead to increased snowfalls and inflows to storages in the Snowy Mountains generating further significant public and environmental benefit.

The bill will enable the NSW Government to provide for stronger rural and regional communities.

I commend the bill to the House.