



# Carbon Budgeting

## Integrated Planning for Climate Action

**A carbon budget is essential to planning for serious emission reductions. It details the expected carbon flows and how these can be reduced by practical actions. The more it is recognised that pricing instruments such as the ETS are simply tools, and the real action lies in how carbon budgets are set, the greater will be the interest in converting today's implicit budgets into explicit ones.**

Decisions on climate policy, such as the detailed settings of the ETS, result in quantifiable changes in total emissions. At present, the implicit carbon budgets set by those decisions are not geared to achieving any overall emissions outcome. So New Zealand is left with emissions reduction targets but no plan to meet them.

Pressure will mount on New Zealand to actually reduce emissions and achieve quantitative targets. Carbon budgeting becomes key under these circumstances because it puts outcomes first. It takes targets, assesses the options, and describes an overall plan for achieving those outcomes.

Carbon budgets are usually driven by targets specified in legislation. In order to provide some flexibility, targets are locked in only at key intervals. In between these milestones, a series of five-year budgets are progressively struck that guide decarbonising of the economy within the legislated boundaries.

### **A Climate Commission**

The UK has fully adopted the carbon budgeting process and has established an advisory committee to research options for the government and recommend particular budget limits. Its reports are independent and carry a depth of analysis that allows the options to be fully understood by interested parties before the UK government makes decisions. This is an important component of an open budgeting process and establishment of a Climate Commission would be part of an overall reform package for New Zealand.

The Climate Commission would be responsible for working with stakeholders to explore options and their costs, in order to devise sector action plans that build into the carbon budgets required. This process involves estimating the impact of pricing instruments and non-price regulatory measures, and testing combinations against the government's financial constraints.

***Carbon budgeting becomes the process that integrates the ETS, complementary measures, and financial limitations. It is set to become the commanding heights for domestic climate action.***

### Account in Carbon, Not Dollars

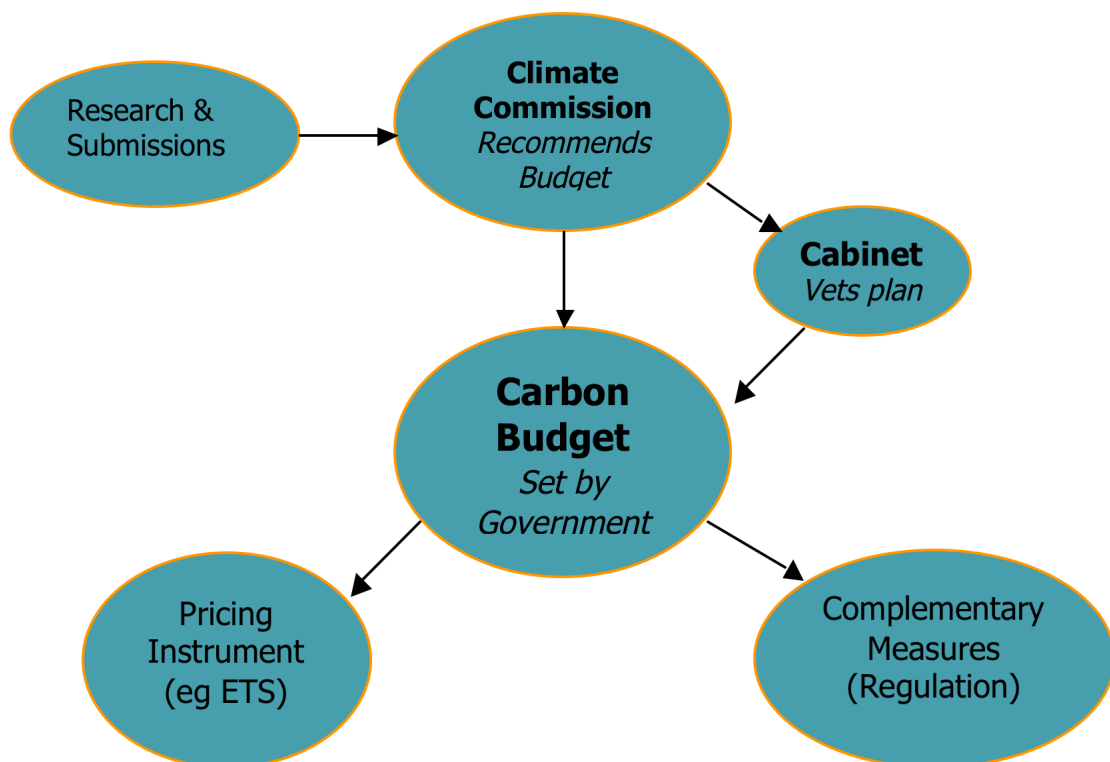
Carbon budgets are cast in the measure that ultimately matters – tonnes of carbon. They are budgets in the sense that they allocate a scarce commodity – the ability to emit greenhouse gases. But rather than being denominated in dollars, as far as possible they track real flows of carbon. This cuts through many of the problems that arise from accounts based on carbon credits. For NZUs are not backed by actual carbon flows and the same is true for some credits issued under the Kyoto Protocol (such as certain credits generated under the Clean Development Mechanism).

To what extent foreign credits feature in a carbon budget depends on factors such as: how ambitious the targets are, the capacity to make reductions domestically at reasonable cost, and the price and environmental integrity of the credits available. Once the full range of local emission reduction options have been costed, these can be assessed against the price and desirability of using offsetting credits.

Carbon budgeting provides a process that brings together future visions, policy preferences, short and long term options, to resolve these and issues surrounding foreign credits into a projection for how the nation’s emissions will be shaped in future. This includes working through when setting a price on carbon is sufficient, and when non-price measures need to be employed in substitute or as complementary measures. The overall set of actions becomes the plan that is embodied in a five-year carbon budget.

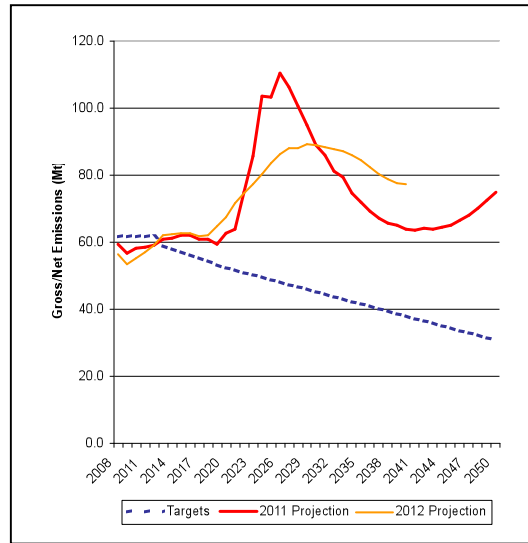
An early task for a Carbon Commission would involve evaluating domestic emission reduction options to allow domestic targets to be specified that would operate as minimum settings, irrespective of international obligations.

### The Budget Setting Process



### New Zealand's Exposed Position

During the period from 2013 to 2050, the Treasury has projected that even with the ETS as previously configured, New Zealand's net emissions would exceed government targets by 1,131 megatonnes of carbon dioxide equivalent. That is over a billion tonnes of carbon, and the targets are weak. Net emissions peak during the 2020s and the accompanying graph shows two official projections of this.<sup>1</sup>



Excess emissions are not manifesting as large bills to New Zealand at present because the government is offsetting excess fossil emissions by claiming credit for carbon sequestered in crop forests.

However, the owners of crop forests providing those credits generally intend to fell their trees in the 2020s (hence the peak). When the forests are logged, the excess emissions that New Zealand ducked come back as a liability for a 2020s government.

Carbon prices have been low in recent times (from \$20/tonne to as low as 15 cents a tonne) but are expected to be much higher in the 2020s. This risks New Zealand facing a major financial haemorrhage if the projected rise in emissions is accompanied by serious carbon prices at a time New Zealand expects to recommit to an international agreement in the 2020s.

**It is not useful to imagine being just a 'fast follower' when New Zealand is facing an emissions cliff. Early action needs to be taken to get a head start on reducing the incline and building resilience to shocks.**

Carbon budgeting provides a mechanism to cope with a world that currently places little importance on effective international action, and a future one that could require countries to quickly take on serious commitments. At the point the world decides to get serious, New Zealand is not going to escape paying a proportionate share of the costs and it needs a mechanism that can plan with this in mind.

Priority	Action	Effect
1. New Institutional Architecture	Establish carbon budgeting process: 5 year budgets and a Climate Commission	New process provides transparency and accountability
2. Performance Requirements	Legislated medium and long term targets to bound the budgeting process	Boundary markers provide clear signal of overall outcomes sought
3. Delivery Mechanisms	Tune capabilities of price and non-price tools to enable delivery of targets	Sector plans given effect through a mix of price and non-price measures

<sup>1</sup> In September 2012, the Sustainability Council proposed that New Zealand adopt a carbon budgeting process after a detailed review of official projections and carbon accounting policies. The Treasury projections are detailed in that report: <http://www.sustainabilitynz.org/wp-content/uploads/2013/02/TheCarbonBudgetDeficit.pdf>