Chapter 11

Te Kaupapa – Kia whakawhanake tohutohu tukanga
Approach to developing advice on policy direction

1 Meeting emissions budgets and sustaining emissions reductions over the long term will require fundamental changes to the economy and society. Aotearoa will look different in 2050 than it does today.

2 Transitioning to a low-emissions Aotearoa will mean changes to the way energy is produced, the way people travel, the communities people live in, and the way land is used. It will involve changes to individual and corporate behaviour, changes to existing processes and ways of operating, as well as technological innovation.

3 The shift away from high emitting technologies, practices and behaviour will not happen all at once, but over the course of the coming decades.

4 In developing our advice on policy direction, we have drawn on international research showing that the best approach is to implement a comprehensive suite of climate policies.

5 Policies must target a range of different problems and can reduce emissions in a way that supports other goals. The transition to low emissions presents opportunities to contribute to health, freshwater quality, biodiversity, reducing existing inequities, and addressing historic grievances.

6 At the same time, policies that push against the goal of reducing emissions should be amended or removed.

7 Reducing emissions is not the only objective. The nature of the transition also matters. Aotearoa needs to transform in a way that maintains and builds wellbeing, and supports natural, social, and human capital. The transition also needs to endure over time, well beyond 2050.

11.1 Elements of an effective policy package

8 The Commission's overall vision is of a thriving, climate-resilient and low-emissions Aotearoa. Our approach to developing advice on policy direction for the Government's emissions reduction plan is summarised in Figure 11.1 below.

9 Our policy approach is informed by the Climate Change Response Act 2002 (the Act), and supports the principles that have informed our advice on emissions budgets – which are described in *Chapter 5: Recommended emissions budgets.*

10 Building on these foundations, our policy approach focuses on the importance of mutually reinforcing policies that can achieve and sustain emissions reductions in line with targets, and in a way that supports, maintains and builds wellbeing.

11 The elements of this policy approach sit within two broad categories. First is creating an enabling environment for socially acceptable climate policy. This is about the foundations that need to be put in place so that people can get behind and support efforts to achieve emissions budgets and targets. Second is driving the creation, and choice, of low-emissions options in different sectors and across the economy. Three main areas of policy intervention will support this.

12 In this chapter we discuss how these elements have guided our advice, and the rationale behind them. Our specific recommendations for the direction of policy in the Government's first emissions reduction plan are presented in the following chapters.

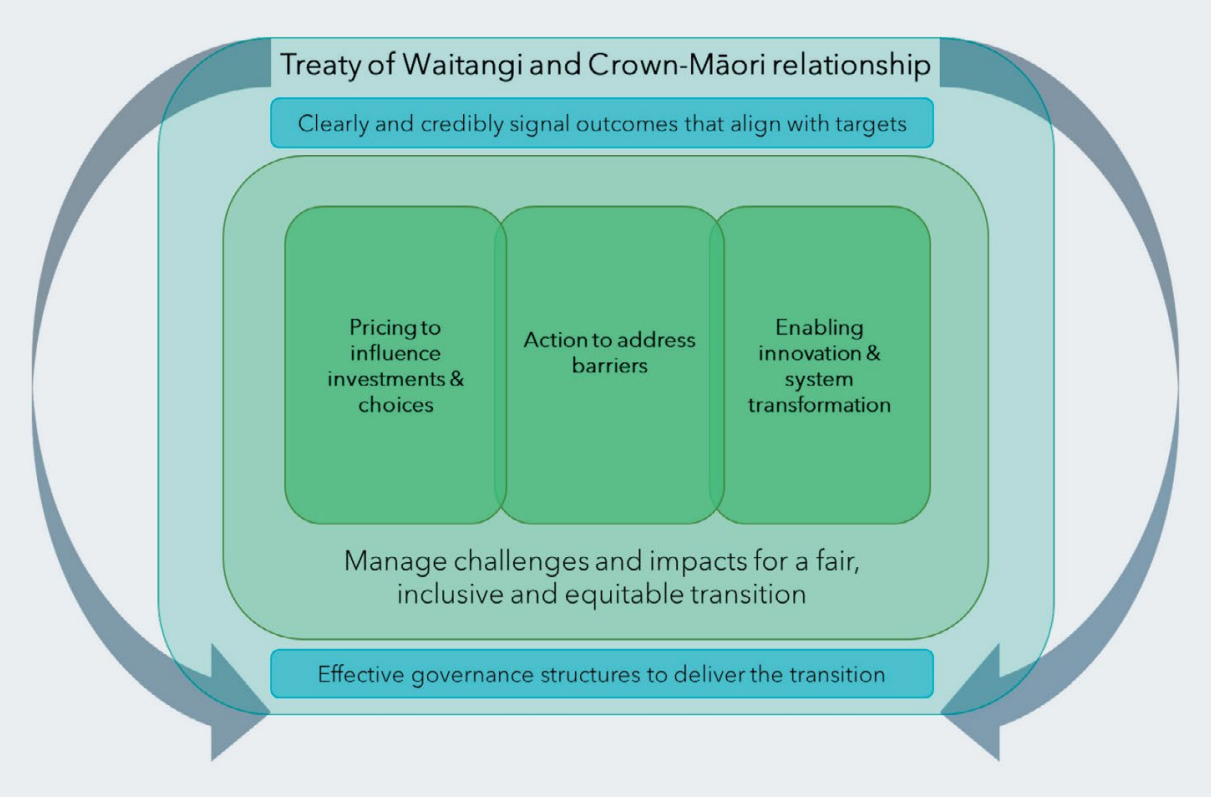

Figure 11.1: Elements of a comprehensive climate policy package

11.2 Creating an enabling environment

13 Achieving our vision will require an enabling environment that supports ambitious and enduring change. This means ensuring social, political, and institutional systems and structures are fit for purpose, because it is these systems and structures that create the conditions for behaviour and technological change.

14 There are four key areas in our framework that are important for creating an enabling environment, which are described in the following sections.

11.2.1 The Crown-Māori relationship

15 In Aotearoa, an enabling environment must be firmly rooted in The Treaty principles of partnership, participation, protection, and equity. These principles underpin the unique relationship between the Government and tangata whenua under Te Tiriti o Waitangi/The Treaty of Waitangi.

16 Te Tiriti o Waitangi/The Treaty of Waitangi is widely accepted to be a constitutional document that sets out principles that recognise the rights and interests of Māori and underpin the Crown-Māori relationship.

17 Submission feedback, and the recent *Hauora Wai 2575 Waitangi Tribunal Report 2019*, emphasise the importance of upholding the principles of Te Tiriti o Waitangi/The Treaty of Waitangi (see Recommendation 5, in *Chapter 12: Policy direction to create an enabling environment for change*).

18 In developing emissions reduction plans, the Government must take an approach that upholds Te Tiriti o Waitangi/The Treaty of Waitangi. This will support an equitable transition that should mitigate against compounding historic grievance or creating ongoing disadvantage for Iwi/Māori and will set Aotearoa up to achieve long-term success for tangata whenua and all New Zealanders. See *Chapter 19: Policy direction for an equitable transition for Iwi/Māori*.

He Ara Waiora

19 As well as focusing on the importance of upholding Te Tiriti o Waitangi/The Treaty of Waitangi, the Commission has also applied the framework 'He Ara Waiora – A Pathway towards Wellbeing' throughout our work. He Ara Waiora is a developing framework, designed by Māori in collaboration with the Treasury.

20 Drawing from mātauranga Māori, the framework has been designed for government, rather than for Māori, as a tool to help policy teams build a high-level understanding of Māori perspectives on wellbeing. It helps to improve awareness of how policy can impact on Iwi/Māori, to achieve more equitable policy outcomes.

21 Submission feedback was mainly supportive of using He Ara Waiora as a policy analysis tool for incorporating Iwi/Māori perspectives, but stressed the importance of achieving equity by upholding the Treaty.

22 However, some submitters cautioned that He Ara Waiora should not be interpreted as a proxy for all Iwi/hapū based tikanga and emphasised that while it has resonance within te ao Māori, it should be tested further at the hapū/marae level. Submitters also indicated that the application of the He Ara Waiora framework should extend beyond an impact analysis on Iwi/Māori, to include impacts more broadly.

23 A te ao Māori view, as captured in the framework, is integrated and recognises that we exist in an ecosystem. Aspects of the system should not be considered in isolation of the interrelated parts. Effective policy design should balance what is good for people, the whenua, water, and climate, and protect whakapapa, enhance whanaungatanga, and ensure intergenerational sustainability and prosperity.

24 This is important for the wellbeing of all New Zealanders and for long-term policy approaches to meeting climate change goals.

25 He Ara Waiora is anchored in wairua (energy/spiritual realm) as a source of wellbeing. The taiao (environmental realm) sits at the centre, iterating a Māori perspective that environmental wellbeing is a precursor to human wellbeing. The framework also identifies four dimensions of wellbeing within the ira tangata (human realm):

- **Mana tuku iho** – identity and belonging
- **Mana tauutuutu** – individual and community rights and responsibilities
- **Mana āheinga** – aspiration and capability
- **Mana whanake** – sustainable prosperity

26 In addition to thinking about integrated policy design, applying tikanga helps to qualify how policy will enhance intergenerational wellbeing. He Ara Waiora sets out the following tikanga to support policy development:

- **Manaakitanga** – having a deep ethic of care towards the people and systems involved.
- **Tikanga** – ensuring the right decision makers are involved, and the right decision-making process is implemented.
- **Whanaungatanga** – being mindful of the relationship between all things, our connections to each other and how we connect to our whenua.
- **Kotahitanga** – taking an inclusive approach and working collaboratively with other agencies/organisations, to have access to the best information, and to do the best work we can, collectively.

27 More information on He Ara Waiora is contained in *Chapter 10: Perspectives from Tangata Whenua: Considering impacts of emissions reductions and removals for Iwi/Māori* of the *2021 Supporting Evidence*.

11.2.2 Clearly and credibly signal outcomes that align with targets

28 The Government must signal policy changes well in advance, while articulating a clear and credible vision for the future of different sectors, industries, and communities. People need to understand the speed and direction of travel for transitioning to a low-emissions Aotearoa.

29 To support this, the Government must take a long-term view, and present a clear strategy for achieving climate goals. This will provide communities, businesses, and investors with the predictability that they need to plan. It will also help to spur innovation and avoid the creation of stranded assets.

11.2.3 Effective governance structures for delivering the transition

30 Transitioning to a low-emissions Aotearoa involves balancing the country's short electoral cycle and bias towards short-term decision-making with the sort of enduring long-term change needed across our economy and society.

31 Developing effective policy approaches, implementing, and monitoring those approaches, and supporting an equitable transition to low emissions will require coordination across a wide range of government agencies, levels of government, and partnership with Iwi/Māori.

32 Meeting our climate change targets will need governance structures and institutional arrangements that support stability and coordination and keep the government focused on long-term goals.

11.2.4 Manage impacts for a fair, inclusive and equitable transition

33 The climate transition can bring significant benefits to New Zealanders' health and wellbeing. A fair, inclusive and equitable transition involves making sure that the benefits of climate action are shared across society, and the negative impacts do not disproportionately fall on those least able to adjust.

34 It means making sure New Zealanders are involved by working collaboratively and inclusively in line with kotahitanga and tikanga. It means not creating or exacerbating existing inequities.

35 A fair, inclusive and equitable transition also means supporting people most impacted and least able to adjust, and investing in people.

36 The importance of maintaining social and political licence for government action to reduce emissions, and ensuring public support for climate goals, was highlighted in many submissions.

37 Actions for achieving emissions budgets and targets should be deliberately paced and planned to give households, communities and companies certainty about the direction of change, and time to find the opportunities for transition. In some instances, targeted support may be needed (see *Chapter 20: Policy direction for a fair, inclusive and equitable transition* for more discussion).

11.3 The three pillars for a comprehensive policy package

38 No single policy will be able to overcome all the barriers to reducing emissions. At the same time, it is important that climate policies do not waste resources or direct efforts at the wrong things.

39 To help navigate the most appropriate policies and approaches, our framework identifies three main areas ('pillars') for interventions:

- Pricing to influence investments and choices
- Action to address barriers
- Enabling innovation and system transformation

40 To date, the New Zealand Emissions Trading Scheme (NZ ETS) has been the key policy tool for reducing emissions.

41 There continue to be calls to rely heavily on the NZ ETS to drive the transition to low emissions, and this was reflected strongly in some submissions received during consultation. There were also many submitters who thought that there should be a stronger focus on other policies or even that the NZ ETS should be repealed.

42 Some business submitters thought the NZ ETS should be the central policy tool but acknowledged that other policies were needed alongside it.

43 International research and experience clearly show that the most effective approach to reducing emissions is to implement a comprehensive suite of climate policies. What is needed is emissions pricing that works in conjunction with companion policies that help to provide a wider range of low-emissions options.

44 This includes policies that enable the infrastructure needed for low-emissions options to work, promote access to finance, and raise awareness and increase access to information that supports good decision making.

45 Policies alongside the NZ ETS can put people and businesses in a better position to respond to a rising emissions price – and lower their exposure and vulnerability to that price.

11.3.1 Emissions pricing and other market incentives to influence choices

46 Emissions pricing incentivises businesses and individuals to make choices that lower emissions. The main pricing tool in Aotearoa is the NZ ETS, but there are others that can also be used to incentivise investments and choices – such as taxation, electricity pricing and grants or subsidies.

47 Emissions pricing is a strong and flexible lever for tackling climate change, as it makes emitters feel the costs associated with the emissions their decisions create. Its power comes from how it allows those driving emissions to find their own way of reducing them. It also has broad coverage, affecting a much wider range of decisions than would be possible with more targeted policies.

48 However, some sectors have characteristics that impact how effective emissions pricing can be. Characteristics of the NZ ETS also moderate its ability to drive emission reductions.

49 Experience shows that emissions pricing works best when decisions about emitting activities are made based on optimising costs. This decision-making behaviour generally holds true for large businesses operating in industries where energy costs make up a large proportion of total costs.

50 An Emissions Trading Scheme (ETS) can push choices towards low-emissions alternatives that are already commercially available, especially if they are being deployed at scale and have a low-to-medium cost gap relative to standard technology.

51 On the other hand, emissions pricing plays a more limited role where decisions are made by individuals, or by small businesses or firms for whom energy and emissions are not business critical. These decision makers are less likely to optimise effectively for cost, largely due to behavioural factors, lack of information or capability.

52 Other factors that hinder response to an emissions price include barriers like high up-front capital costs, lock-in to existing systems or infrastructure, and lack of readily available or affordable low-emissions options.

53 Looking across sectors in Aotearoa, the potential for emissions pricing to drive emissions reductions differs.

54 In areas such as buildings, urban form, and transport, existing infrastructure and long-lived assets lock in emissions and make it difficult for people to alter choices in response to the emissions price. In other areas, such as some industrial processes and agriculture, pricing can be expected to drive efficiencies, but is unlikely to deliver the new technologies and processes needed to reduce emissions at scale.

55 In contrast, experience in Aotearoa has demonstrated that forestry is highly sensitive to an emissions price. International experience also shows that emissions pricing can strongly influence the power sector, in particular helping to drive out fossil fuels.

56 Concern was raised by several submitters that the NZ ETS has a 'neutralising effect' on emissions reductions achieved by other policies. They cited that in an ETS with a fixed emissions cap (limit on total emissions), every tonne not emitted by one party will be available for someone else to emit.

57 The NZ ETS, however, does not have a fixed cap. This is partly the legacy of how the NZ ETS was run in the past, which has led to over 130 million units banked in participant accounts. This represents significant oversupply beyond what is likely needed for annual demand and hedging purposes.

58 The lack of a fixed cap is partly by design – recent reforms have implemented price measures to either withhold or release units, to put a brake on the emissions price from going above or below certain levels. These reforms reflect the political context in which the NZ ETS operates, where policy makers are concerned not just about efficiency but also about where costs fall.

59 This is not unusual. Every functioning ETS in the world today contains market stability mechanisms that alter the number of units available depending on the market price or other factors. This means that ETSs are hybrid instruments, with safety valves to manage price or adjust the cap in response to economic changes – given the inherent uncertainty in setting a cap based on forecast emissions.

60 The recent NZ ETS reforms also implemented a flexible, five-year rolling cap. Emissions reductions that are expected to be achieved through other policies can be factored in when the cap is set.

61 The cap can be adjusted over time to reflect actual emissions reductions achieved through other measures, or reductions to emissions not covered by the NZ ETS. This is important in Aotearoa, as significant emissions are not covered by the NZ ETS, such as agricultural emissions and emissions and removals by some forests.

62 The combination of oversupply, price measures and a flexible cap in the NZ ETS mean that it will not necessarily guarantee a specific emissions outcome. It also means that the NZ ETS can be managed in conjunction with other policies so that emissions reductions or removals from other policies are not a wasted effort (see *Chapter 19: The direction of policy for Aotearoa* of the *2021 Supporting Evidence* for more information).

11.3.2 Regulation, information and other action to address barriers

63 There are a range of structural, political and behavioural barriers that prevent people and businesses from making the most of cost-effective opportunities to reduce emissions. These barriers will vary by sector.

64 The NZ ETS is focused on addressing the climate change externality (the costs that emissions put on others), and is not suited to addressing these other barriers. Removing these barriers can boost responses to the emissions price and reduce the cost of achieving emissions reductions.

65 Table 11.1 below outlines some of the many market distortions or failures that can make the emissions price less effective. Measures to address these sorts of barriers can include standards or regulation, information and support to address knowledge and capacity gaps, or removing regulatory barriers that push against achieving emissions reductions.

Table 11.1: Market problems that need other policies alongside emissions pricing

Market Problems	Description
Imperfect or asymmetric information	Carbon pricing works best if emitters make informed decisions. But critical information about the emissions and lifetime costs of alternative products and technologies can be difficult or too expensive for an individual household or firm to get. Government can introduce regulations to require that this information is made available or can exploit economies of scale to provide it at lower cost. For example, in Aotearoa energy rating labels must be displayed on household appliances such as refrigerators or dryers.
Uncertainty about future emissions prices	A rising emissions price can signal to the market that investing to reduce emissions will be rewarded. However, these price signals are relatively short term, as NZ ETS caps are only set for a few years into the future. Emissions prices in Aotearoa and other countries have also been volatile, sometimes due to uncertainty about the future of pricing policy – for example, due to changes in government. This makes investing in reducing emissions riskier, so households and businesses may under-invest. Putting standards or target dates in place for phasing certain technologies in or out can provide the certainty people need to invest in reducing their emissions in a timely manner.
Split incentives	This refers to where the person who pays for an action is not the one who will benefit from that action. For example, landlords have little incentive to install insulation as it is the tenants who benefit from the warmth and reduced bills. An example of addressing this problem in Aotearoa is the healthy homes standard, which introduced minimum standards for insulation of rental properties.
Bounded rationality and myopia	Businesses and individuals do not always base their decisions on an economically rational optimisation of costs. Due to limited time and resources, decision makers may rely on rules of thumb or routines that they have established over time. They may also discount future costs disproportionately when making purchase decisions. For example, consumers might short-sightedly choose a good with a lower purchase price despite it incurring higher costs over its lifetime. Approaches like product labelling to encourage longer-term thinking, and minimum efficiency standards can help steer these decision makers towards low-emissions options.

Barriers to accessing capital	Accessing the finance needed for the significant up-front capital costs involved in reducing emissions can be difficult for a range of reasons. A specific example in Aotearoa is Māori land, which cannot be used as collateral for loans. This creates challenges for owners of Māori collectively-owned land wishing to fund farm improvements, forest planting or land-use change. Introducing alternative funding options or changing regulation so particular groups are not disadvantaged can help to overcome this barrier.
Infrastructure lock-in	The options for reducing emissions can be constrained by available infrastructure. Infrastructure can refer to physical structures such as buildings and electrical grids, but also to networks or services such as public transport. For example, if public transport is not available or convenient, it is difficult for individuals to choose not to use a car. Avoiding high-emissions lock-in is also a concern for new infrastructure, as infrastructure has a long lead in time and a long life, so once investments are made there is little scope for revisiting earlier decisions. Buildings, in particular, last for several decades, so those built or renovated now, should ideally be compatible with net zero emissions in 2050.
Network externalities	This is when the benefits to an individual from using a product depend on how many others are also using the product in question. Where these occur, individuals might be discouraged from using an available low-emissions alternative if it is not yet deployed on a wide enough scale. Policies that encourage network development or densification can induce greater adoption, for example promoting charging infrastructure can hasten the adoption of electric vehicles (EVs).
Policy coordination or regulatory failure	Government policies can also undermine or obstruct the emissions price. For example, cost-effective options to reduce emissions may be blocked if planning rules do not encourage urban development that is compatible with low-emissions transport options.
Co-benefits or other externalities	Actions to reduce emissions may also have other benefits, such as for health or for biodiversity. These wider benefits can justify certain policies to reduce emissions, even if when judged by their ability to reduce emissions alone, they are not cost-effective. For example, encouraging active transport options like cycling can contribute both to health and a range of environmental benefits, including reduced emissions from private vehicle use.
Innovation and learning spillovers	See next section

66 Figure 11.2 illustrates how a range of policy instruments will be needed to address the wide range of existing market failures and cover the whole economy. It draws on current policy as well as the Commission's advice on direction of policy to show what a more comprehensive policy package could look like in Aotearoa.

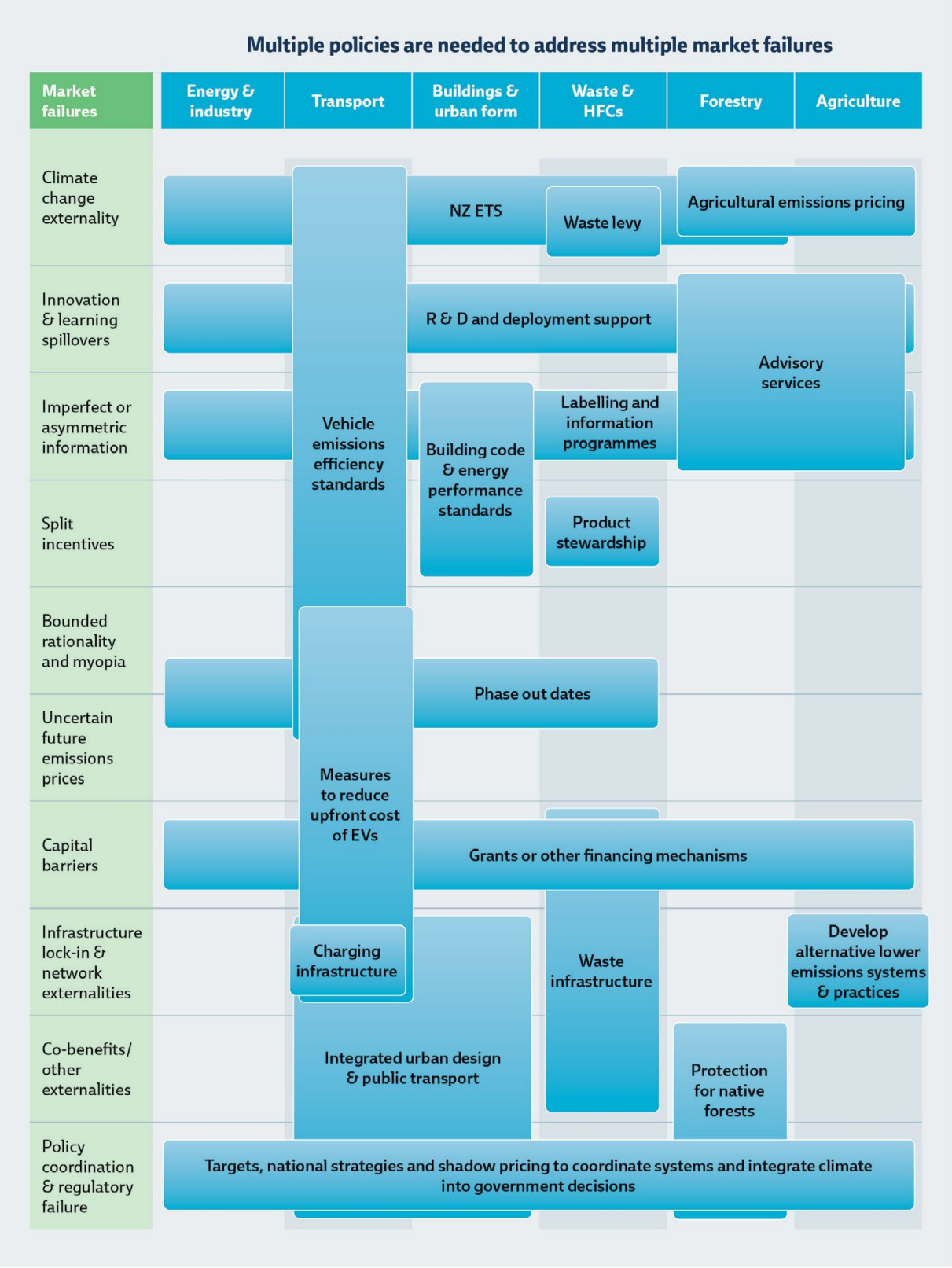

Figure 11.2: A package of policies is needed to address multiple market failures

11.3.3 Enabling innovation and system transformation

67 To achieve the scale and pace of change needed, efforts to create and adopt new technologies and systems that give people and businesses more, better and less costly ways of reducing their emissions need to speed up.

68 There are many areas where low-emissions options do not exist or are not yet commercially available at scale. Investment in innovation and infrastructure can help create and deploy new solutions to unlock and bring down the costs of future emissions reductions.

69 There are broader societal benefits when innovations are used and dispersed – when knowledge 'spills over' to those who did not produce it. A good example of this is where the innovation behind mobile payment technology spilled over into the transport sector and unlocked rapid advances such as ride share systems and micro mobility options like bike hire and e-scooters.

70 An emissions price boosts the incentive for low-emissions innovation, but it is still unlikely to be enough to encourage the level of research, development and deployment of new technologies and practices that is needed. The spill-over benefits from innovation and learning often justify targeted interventions.

71 Aotearoa is a 'technology taker' in some areas, for example in relation to new vehicles and many industrial technologies.

72 Research and development efforts here are likely to focus more on primary industries (including the bioeconomy), given our capabilities and emissions profile. For example, further innovation and development of expertise could bring down costs for regenerating and planting new native forests.

73 Nevertheless, adapting and deploying technologies developed elsewhere for local circumstances still requires a great deal of learning-by-doing to enable them to spread. This means that technology-specific policy support can be justified to speed up deployment beyond early research and development (R&D). R&D on behaviour change may also be needed, to make sure technologies and approaches suit local circumstances.

74 Before committing high levels of resources, it is important to assess and have confidence in a technology's role over the longer term.

75 Even where limited or no technical change is expected, another reason for early investments is because reducing emissions takes time. This is particularly relevant where transformation of long-lived infrastructure or systems is needed, such as in buildings, urban form and urban transportation systems.

76 While reducing emissions in these areas is expensive and difficult, it makes sense to start early to spread the effort and reduce cost over time. In most cases, abrupt transformation would be more expensive than a gradual transition.

77 This may mean accepting a higher cost in the short term. However, it avoids the highly costly scenario of having to transform a city over an infeasibly short timeframe, such as only a decade.

78 Emissions pricing can only play a limited role in bringing new technologies or system change online. This is because a price on emissions, assuming rational behaviour by those subject to it, leads to cheaper emissions reduction opportunities being used up first.

79 As long as these less expensive options exist (for example, efficient internal combustion engine vehicles), the emissions price will not incentivise the uptake of new options that are at an earlier, costlier stage in the 'S-curve,' or which require upfront investment in new infrastructure (for example, EVs.

80 But by the time these cheaper options have been exhausted, or are no longer viable given tighter limits on emissions, it will be too late to develop and deploy the transformative solutions needed.

81 Emissions pricing is key for scaling up solutions that are approaching market maturity, but will not initiate and guide the roll-out of transformational solutions. Other policies, along with capital to fund investment, will be needed to drive deep and enduring systems change.

11.3.4 Policies should complement and reinforce each other

82 Emissions pricing works better when accompanied by other policies that address the full range of market and policy failures and barriers. However, it is still important to carefully design these policies so that they are effective, efficient, and reinforce, rather than undermine each other.

83 When developing a package of complementary policies to reduce emissions, the Government will need to consider the nature of different options available, how mature they are, what the barriers preventing their uptake are, their costs and how those costs might reduce over time.

84 Understanding effectiveness and efficiency requires a long-term perspective. Dynamic effects mean that some policies may appear in the short term to be expensive, but can contribute to a more economically efficient transition over time.

85 The reverse is also true – some policies that appear to be least cost today may increase costs over the long term because they lock in future emissions or create assets that will become stranded in the future.

86 It is important to consider these dynamic effects, and to take a long-term view of cost effectiveness. We have factored this into our approach to developing our policy advice.

87 The Commission's analysis out to 2050 and beyond has helped to make it clearer what this means for Aotearoa. For example, our analysis shows that EVs will need to play a key role in any credible approach to delivering the emissions reductions needed to meet the 2050 net zero target. Investing in charging infrastructure and other ways to speed up their adoption is therefore justified.

88 Emissions pricing should be key to any policy package, so how other policies interact with it should be considered. Figure 11.3 below illustrates how different combinations of an ETS and companion policies can interact to affect the emissions price and reductions. It highlights that heavy reliance on an ETS risks triggering cost containment measures and failure to meet reduction goals, while relying too heavily on other policies can be inefficient. A balanced mix of policies should be the aim.

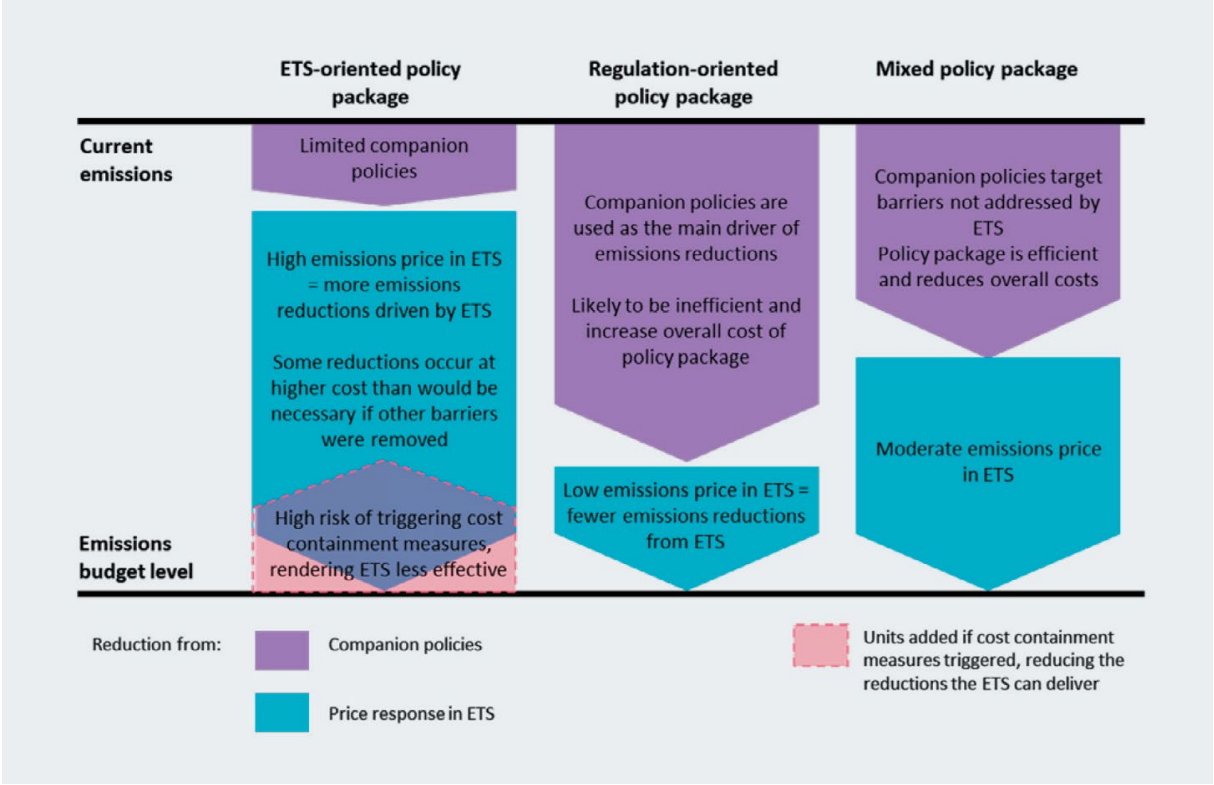

Figure 11.3: How different packages of ETS and companion policies impact emissions prices and reductions

Source: Climate Change Commission, adapted from IEA (2011), *Summing up the parts,* IEA, Paris; and Agora Energiewende and Ecologic Institute (2021); *A "Fit for 55" Package Based on Environmental Integrity and Solidarity: Designing an EU Climate Policy Architecture for ETS and Effort Sharing to Deliver 55% Lower GHG Emissions by 2030.*

11.4 How we have applied our approach to our advice on policy direction

89 The following chapters outline our advice on the direction of policy for meeting the first emissions budget and setting Aotearoa on the path to meet future emissions budgets and our 2050 targets.

- *Chapter 12: Policy direction to create an enabling environment for change* looks at how some systems, institutions and arrangements may need to change to help to create an enabling environment to support the transition.
- *Chapter 13: Policy direction that cuts across sectors* looks at policies and outcomes that cut across sectors.
- *Chapter 14: Policy direction for transport, Chapter 15: Policy direction for energy, industry and buildings, Chapter 16: Policy direction for waste, Chapter 17: Policy direction for agriculture* and *Chapter 18: Policy direction for forests and other carbon stocks* look at policies and outcomes in specific sectors.
- *Chapter 19: Policy direction for an equitable transition for Iwi/Māori* looks at how to support an equitable transition for Iwi/Māori.
- *Chapter 20: Policy direction for a fair, inclusive and equitable transition* looks at policies and outcomes to support an equitable transition.

90 This advice has been informed not only by our policy approach, but also by the analysis carried out for our emissions budget advice.

91 For this, we gathered information about current and likely future costs for various technologies. We tested different paths, gaining insights about the nature and timing of the actions needed to meet the 2050 targets.

92 We also assessed current climate policy in Aotearoa to identify the gaps, barriers and opportunities. We considered where emissions pricing is likely to drive change. For each sector, and across the broader system, we identified where barriers currently deter low-emissions choices, and where strategic investment can help drive deeper change over the long term.

93 In doing this, we reviewed a broad range of literature, and engaged widely with government agencies, NGOs, businesses, industry groups and other stakeholders. The more than 15,000 submissions we received during consultation have also been invaluable for informing our advice on policy direction.

94 In some areas, such as in relation to the NZ ETS, a strong evidence base supports relatively specific policy advice. In other areas, particularly ones that have not been the focus of climate policy in the past, our advice is more focused on outcomes.

95 Overall, our policy advice is intended to provide strategic direction. It is the Government's role to consider the detailed design and implementation of policies, guided by this direction.

11.5 Assessing the Government's progress

96 The Commission has a statutory monitoring and reporting function, which is set out in the Act. As part of this role, we will monitor the Government's progress in implementing its emissions reduction plan and assess its adequacy. We will report on this annually from 2024 (See *Chapter 3: The role of the Climate Change Commission*).

97 Monitoring the emissions reduction plan will be critical for understanding whether the Government is taking sufficient action, quickly enough, to achieve emissions budgets and targets. The process for doing this will evolve over the period of the first emissions reduction plan.

98 As part of our ongoing monitoring role we will publicly assess and report on the:

- Most recent reported emissions and removals
- Latest projections for current and future emissions and removals
- Government's progress implementing the emissions reduction plan
- Adequacy of the Government's emissions reduction plan, including any new opportunities to reduce emissions

99 Carrying out our monitoring role will require a framework that draws on multiple sources of data. This includes *New Zealand's Greenhouse Gas Inventory,* which is published annually by the Ministry for the Environment and provides much of the core information we will need. It provides the data and information for the latest projections of emissions and removals.

100 However, data in the inventory lags two years – for example, emissions from 2021 will be reported in 2023. This means we will not be able to track emissions using the inventory in the very short term. Because of this lag, we will also need other types of activity indicators. For example, reporting on the number of EVs purchased each year would let us anticipate likely reductions in transport emissions.

101 We will also need additional information linked to government processes. The Government can design and implement policies in a relatively short timeframe, but the associated emissions savings can take time to become evident.

102 For example, incentives to increase uptake of low-emissions vehicles could be put in place relatively quickly. However, the emissions reductions from those policies would build over a number of years, affected by the rates at which new cars are bought, and emitting cars are retired each year.

103 To monitor progress, the Commission will therefore initially need to rely, to a large extent, on measuring the actions and policies implemented by the Government. Potential indicators of progress could include, for example, legislation that has been passed, additional budget committed and spent on programmes, or internal government resources being deployed.

104 To do this, we will need a monitoring framework that includes progress indicators – to set expectations for what should be delivered, by when, under the emissions reduction plan. Progress indicators should be designed around the information we need to assess the adequacy of the plan, and track government progress on implementing it.

105 The Commission acknowledges that the Government's choice of a package of policies may differ from what the Commission has recommended. Therefore, the monitoring framework will need to be completed once the emissions reduction plan is in place, and the objectives are understood.

106 However, in order for us to be able to assess the implementation of the emissions reduction plan, the Government should state, in the plan, the date each action or policy will be initiated, implemented and completed by. This should include milestone reporting periods. The Government should also consider reporting other complementary information, such as on budgeting and resourcing.

107 At the same time, in order for us to be able to assess the adequacy of the emissions reduction plan, the Government should create a headline statistic (or measurement) linked to the policy objective. It could also select and track additional or supporting indicators, where appropriate.

108 In our advice on policy direction in the chapters that follow, we have included some provisional progress indicators. These illustrate the types of indicators that will help us to assess the implementation and adequacy of the Government's emissions reduction plan.

109 We have not included progress indicators for all recommendations. Rather, we have provided example indicators for the actions we regard as being particularly important – either because of the large potential emissions reductions, or because policy action needs to begin immediately. Once the Government has released its emissions reduction plan, the Commission will need to reassess the provisional progress indicators and develop a final full set.