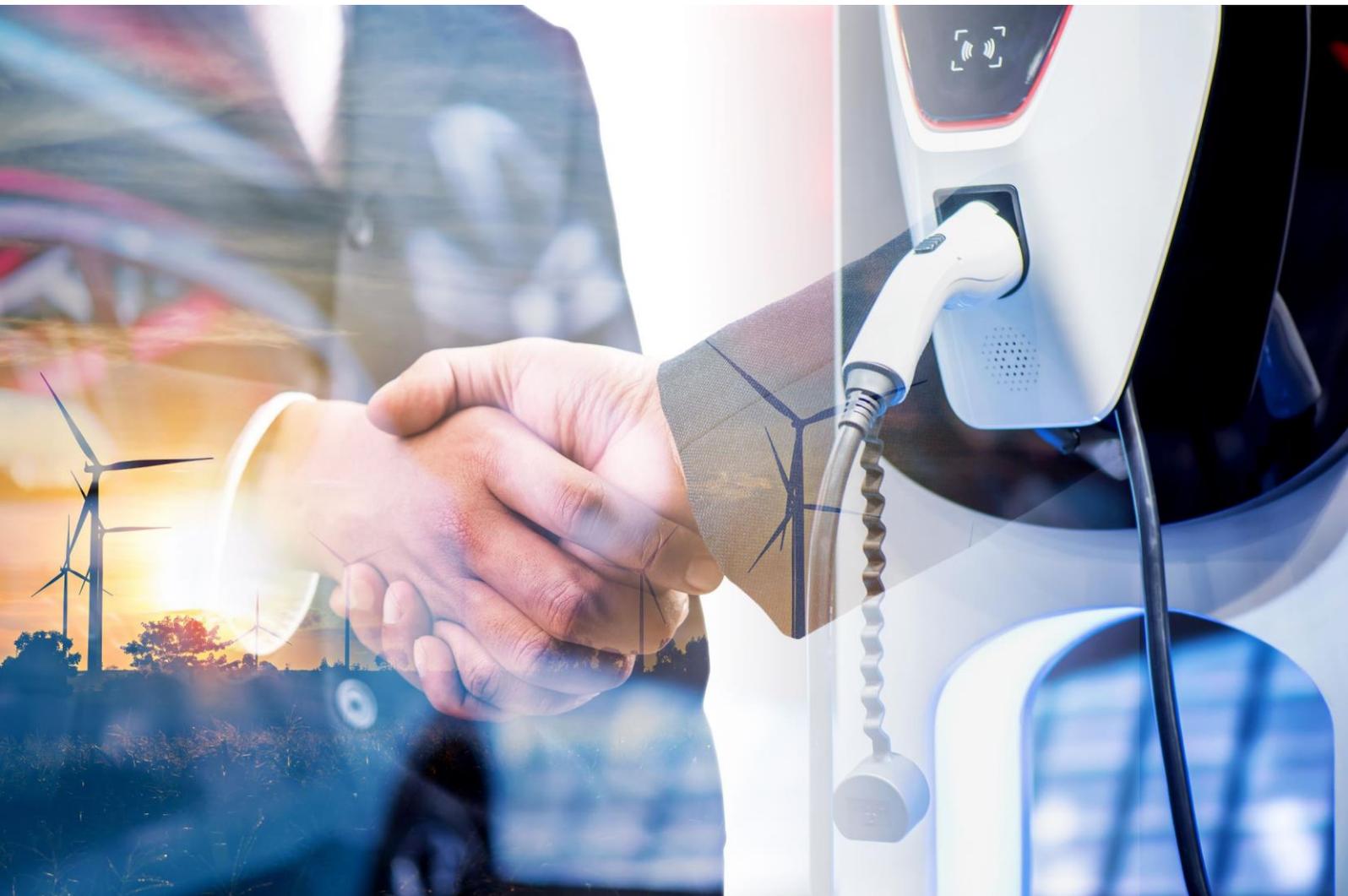


# Assuming climate control

*A practical strategy to accelerate the carbonless economy*



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# Assuming climate control

## A practical strategy to accelerate the carbonless economy

### The problem

Most Australians want the risks of climate change to be addressed more seriously and urgently. Unfortunately, both major political parties have tied themselves in knots over energy and climate policy. More effort and investment into advocacy by business and community groups may only sustain the political impasse. But Australians have the power to make real progress in spite of government and, in doing so, make it easier for governments to ultimately adopt policies that better serve the national interest.

### The solution

Australians should refocus their effort and investment in the pursuit of carbonless growth.

By operating collectively and employing novel investment models far better use can be made of the available intellect, insight, effort and resources.

To make real progress in tackling climate change it will be necessary to create new paths to prosperity for coal-dependent communities, transform the energy system and achieve widescale adoption of regenerative carbon farming.

The Australian business, not-for-profit and research and development communities must be central players in achieving collective impact.

### The benefits

Multiple benefits will emerge from this collective impact approach.

Action on climate change will be real, practical and impactful. Resources will be deployed in a focused and effective way that avoids naively simplistic 'solutions'.

A transition to a new model of inclusive and sustainable prosperity will also be enabled. Lessons from this approach can be transferred to other public policy and social challenges.

When we are successful, politicians may then feel emboldened to back Australians and their capability to tackle big challenges and win.



In 2019/20, the Australian Government allocated \$38.7 billion to Defence, compared to \$0.9 billion to the environment<sup>1</sup>. Over the forward estimates period to 2022/23, \$6.25 billion is allocated to initiatives relating to climate change compared to \$175.7 billion on Defence<sup>2</sup>. Over the same period, roughly \$40 billion will be paid to businesses in subsidies for diesel fuel usage<sup>3</sup>. While the money spent on public policies is a poor indicator of their value or effectiveness it nonetheless reflects a government's values and priorities. There are no right or wrong answers. It's just a matter of just choices.

# Foreword

This past January, I travelled through France and Morocco with my family. I'm one of many Australians who love to travel, whether for business or pleasure. It's a great opportunity to learn from and about other people. I'm constantly reminded of how fortunate and wealthy we are as Australians.

When people we met realised we were from Australia, they asked two questions: "Are the fires as bad as we're hearing?" and "Why won't Australia do something about climate change?" There was a sense of concern and scorn in equal measure. The answer to the first question is simple. The answer to the second question is a little more complex.

This paper endeavours to provide a practical strategy for concerned Australians to address the climate change challenge and benefit by doing so. I hope it confronts business-as-usual thinking in a constructive way, catalysing a new approach to our persistent challenge.

I look forward to collaborating with you in achieving carbonless growth for the benefit of all.

**Dr Nick Fleming**

Managing Director, Innergise Pty Ltd

February 2020

# Standing still is going backwards

Politically, we've been treading water on climate and energy policy for years with no obvious end in sight.

Where countries like the United Kingdom have addressed climate change on the basis of science and achieved a bipartisan response, politicians in Australia have concocted the "climate wars". A false conflict is being created, pitting technology and "practical action" against an "evil carbon tax", while "quiet Australians" are favoured over those prepared to express their concerns more publicly.

**Both major political parties have tied themselves in knots over energy and climate policy, unable to give credible answers to simple questions** nor navigate a sensible course (involving a price on carbon) that is advocated by economists from across the political spectrum.

This situation is unlikely to change while many government parliamentarians sustain the view that climate change is a bogus belief (that conflicts with their own beliefs) rather than evidence-based science<sup>4,5,6,7</sup>.

But, as concerned leaders of business and civil society, have we also contributed to the political impasse?

# Ideas that impede progress

Organisations can thrive when their leaders are prepared to be brutally honest about their challenges, face into problems constructively, and “play the ball, not the man”.

If we adopted similar brutal honesty about our approach to climate change in Australia, what would we admit? I think there are several important observations we need to make.

The first is that the ongoing effort by business, industry and community groups to change the minds of government ministers in favour of a better energy and climate policy also **sustains the idea that politicians hold all the power and situational control.**

The second observation is the climate “debate” has been framed in a binary way. Apparently, our choice is to tackle climate change or have jobs in the coal, oil and gas sectors. Politicians and aligned lobbyists would have us believe there are no intermediate options.

This is further reinforced by the idea that we must “balance the economy and costs of climate action”. The implication is that action on climate change works against our economic interests and that decarbonising the economy is excessively expensive<sup>8</sup>.

**We must critically examine these ideas and pay attention to how we might unwittingly contribute to spreading them.**

What we say, how we say it, and who we say it to matters. Our constant collective focus on the “climate debate”, the costs of action, “achieving balance” and “managing trade-offs” is constraining, unhelpful to progress and, in some cases, is a deliberate ploy to sustain the status quo.

*For every complex problem there is an answer  
that is clear, simple, and wrong.*

H. L. Mencken, influential American writers (1880-1956)

### Putting the costs of climate change in perspective

There are costs and benefits to both action and inaction on climate change. Focusing solely on the costs of action is, quite frankly, foolish or manipulative. But it resonates with people. Humans are hard-wired to be more attentive to risks than benefits. We also prefer easy choices to hard choices. So, any story that is simply framed around risks and costs of action will gain traction.

In reality, the thermal coal industry will contract substantially within a generation along with the 38,000 jobs, taxes, billions of dollars in export income and wealth it provides today<sup>9</sup>.

Why? Because renewable power with backup storage is simply cheaper and less risky. Insurers, investors, bankers, company directors and scientists all know this<sup>10,11,12,13</sup>. The Young Liberals in New South Wales and global coal miners also acknowledge this fact<sup>15,16</sup>.

Taxes imposed by other countries on imported products with high embodied carbon will further dampen demand for coal<sup>17,18</sup>.

Only bad choices or a massive, unexpected breakthrough in the technology and costs of carbon capture and sequestration can avoid this fate.

The oil and gas industry may ultimately suffer a similar fate but over a longer time period. In the meantime, we will need gas as a complementary energy source, but it won't be cheap<sup>19,20</sup>.

If we want to be honest and care about the people who depend on fossil fuels for jobs, we need to face this reality and start creating new jobs and sources of export income in their regions. **Our choices will either create a story of steady growth or disorderly collapse**<sup>21,22</sup>.

The costs of action clearly need to be compared with risk-weighted costs of inaction, which are mind boggling. Australians have had a small but direct experience of such costs through the recent drought, fires and floods. The national consequences of these events are many and varied, prolonged and cascading. Water security, food security and biosecurity are all undermined, habitats are depleted and the risk of species extinction is elevated, while communities experience poorer health outcomes, damaged infrastructure and battered economies. Globally, tipping points<sup>23,24</sup> could be breached, triggering disastrous and irreversible impacts on communities and economies.

The investment required to facilitate Australia's transition to a low emissions economy is substantial but also manageable. This has been clear for well over a decade<sup>25</sup>. Estimates<sup>26</sup> place the investment needed to reach net zero emissions by 2050 at \$22 billion a year; compared with the \$20 billion that has been incurred in damages from the fires this year alone<sup>27</sup> and an estimated \$29 billion in annual damages by 2050<sup>28</sup>.

Low interest rates and declining costs of technology are making the transition far more affordable and the benefits of early action more substantial<sup>29</sup>.

The investment in transition will generate many jobs and opportunities<sup>30</sup>, just as the investment in recovery after the fires does.

### The benefits of action and inaction

There are benefits of inaction. Inaction sustains business as usual, which is comfortable and easy (until it's not) and typically serves the interests of those with wealth and power. Inaction will mean that the poor will suffer the most under a changed climate. Conversely, the benefits of action would be very large but more broadly distributed.

The global effort and investment to develop low carbon, sustainable economies is generating demand for many things that Australia can provide.

For example, there are big and growing markets for carbon sinks and metals for batteries. There's also growing interest in steel and aluminium that has been produced free from greenhouse gas emissions. Being blessed with abundant renewable energy and natural resources, Australia is perfectly placed to meet these needs.

Importantly, these products would likely be developed in the regions currently feeling the stress of drought and declining demand for fossil fuels. It can and should be **a source of rejuvenation for rural and regional Australia.**

We also have access to the financial resources and intellect to develop these products and the associated technologies and services to deploy them.

Furthermore, as we transition away from fossil fuels, the public subsidies they currently attract – estimated at \$12 billion per year<sup>31</sup> – can be freed up to invest in public value creation in other areas of the economy.

In aggregate, these products and services can more than offset any loss of export income from coal, oil and gas<sup>29</sup>.



Australia is one of six countries that together hold around 50 per cent of the world's tree planting potential.  
(ABC Newcastle: Robert Virtue)

# A frank assessment

For all intents and purposes, there is no debate over the fundamental science of human-induced climate change<sup>32</sup>. There are just people that choose not to accept (or actively undermine) the science because it conflicts with their beliefs, identity and self-interests<sup>4,33</sup>.

The role of fossil fuels in accelerating climate change does not, however, make fossil fuels evil. Nor are coal workers evil. They are just people like you and me, making a living, supporting their families and communities by providing a commodity for which there is legal international market, albeit shrinking.

Efforts to reduce the use of fossil fuels will obviously be countered by elements within the fossil fuel industry and aligned lobby groups. They **exercise power in their opposition, but only because we give it to them**. That can change, and not just through the electoral cycle. We can simply redirect our attention, effort and investment and place it elsewhere.

The options open to our community and economy are not binary. We can grow our economy and reduce emissions at the same time. Indeed, it's already happening. Gross domestic product in Australia is growing while emissions remain stable<sup>34</sup>. (In the UK<sup>35</sup>, for example, gross domestic product has grown by 67% while emissions have fallen by 42%.)

We have already made considerable progress in reducing emissions, and experience demonstrates that the costs of adjustment are routinely over-estimated<sup>29,36</sup>.

However, despite the considerable efforts being made by organisations and individuals across Australia to mitigate and adapt to the effects of climate change, **the scale and pace of change is less than we desire and need**.

Furthermore, a sizeable majority of Australians want substantially more action to prevent dangerous climate change<sup>37</sup>, but often feel (perhaps somewhat fairly) that their personal actions are inadequate in comparison to the scale of the challenge.

So, with this in mind, what should we do?

# Change the prevailing dynamic

In principle, we must act to deliberately bring about the circumstances in which meaningful progress can occur. To do so, we need to pay careful attention to the handbrakes on progress and why they exist, as well as identifying the few most effective levers we can pull to efficiently accelerate progress.

We must also challenge our ideas about how to best respond to these handbrakes and levers for change. **Too often, we're inclined to do what we've always done in these situations, hoping that somehow it will get a different result.**

What if there's a quicker and more effective way of catalysing progress?

A vast amount of time, energy, words and resources are aimed to influence government. Clearly, government involvement to provide well-framed policy and leadership is unquestionably desirable. But it's not essential to make substantial progress, nor must it come first. Indeed, at this stage, it's probable that others must and should act to make it easy for governments to adopt more useful policy positions. **It is now our job to create the conditions in which politicians can more easily do their job.**

The purpose of our action must also be clear, and all choices and actions should be filtered through this lens.

*“There is no doubt that if we just tackle this problem using business-as-usual strategies, we are going to sleepwalk straight into an extinction crisis.”*

Professor James Watson, University of Queensland  
on the habitat and species damage caused by recent bushfires<sup>38</sup>

# Carbonless Growth

First and foremost, we need a sensible, positive goal or purpose that can be simply articulated around which citizens from all walks of life can coalesce. It doesn't require people to know how to achieve the goal, just that the goal is worth achieving.

Building our economy and prosperity in an inclusive and sustainable way, without greenhouse gas emissions, should be our shared purpose. We could call it **Carbonless Growth**.

Around this shared purpose we should facilitate a suite of four complementary and inter-dependent **levers for change**:

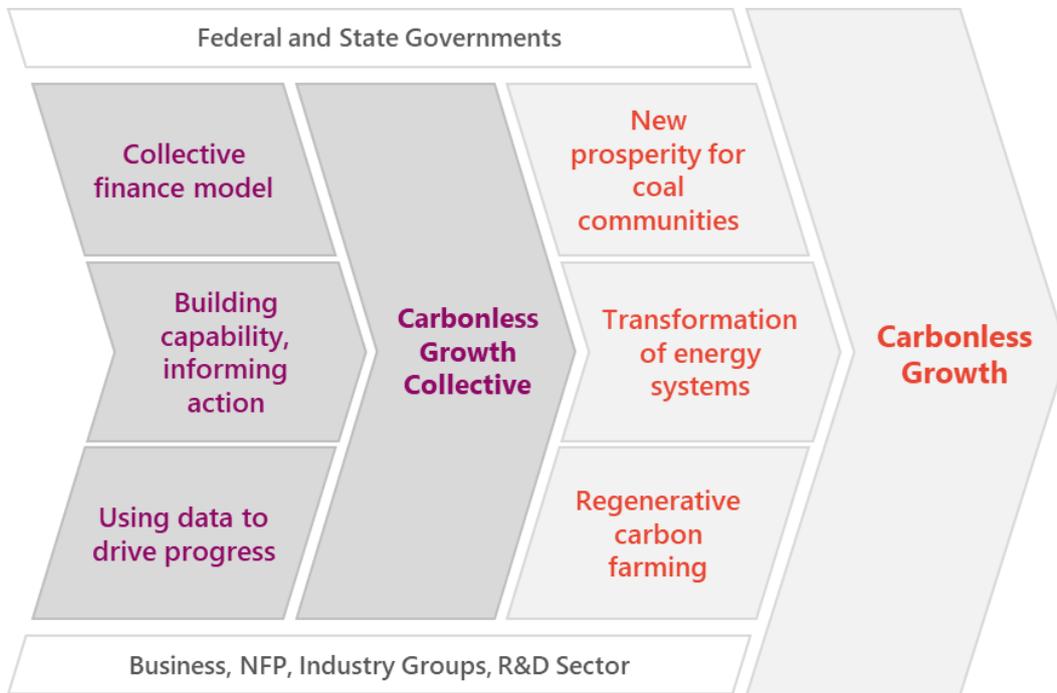
1. New prosperity in coal communities
2. Transformation of energy systems
3. Regenerative carbon farming
4. Carbonless Growth Collectives

Levers 1 through 3 are priorities for transitioning key industries and dependent communities. The fourth lever is the critical mechanism through which this can be guided and governed.

Three further initiatives will be required as **enablers** of the key levers of change:

5. A collective financing model
6. Informed capability building for action
7. Use of data to drive progress.

Each of these levers of change and enablers are explained further below.



Carbonless Growth Collectives are virtual organisations comprised of willing partners from business, not-for-profit, research and other sectors. They will employ novel financial models, their collective information, skills and data to drive a few focused initiatives that provide maximum leverage for change. Priorities include the creation of new pathways to prosperity for communities that depend on thermal coal, the transformation of energy systems, and widescale adoption of regenerative carbon farming practices. Through collective, synergistic efforts and investments, progress toward a carbonless economy will be accelerated.

# Transitioning industries and communities

A transition plan should be developed for each sector of the economy to guide low carbon growth, prosperity and resilience. The plans must address development, not just decarbonisation. Rather than ‘picking winners’ (specific solutions or technologies), the plans should present a series of desired outcomes that provide the cascading priorities for effort and investment based on the best collective insight. The plans will provide the focus for collective effort through multiple inter-related actions that evolve over time while helping to ensure that resources are not spread too thinly.

Three inter-related priorities are:

**New prosperity in coal communities.** We need people that depend on thermal coal for jobs to have viable, alternative paths to sustained prosperity. Just as we rally around communities devastated by fires, we should direct intellect and resources to support these communities to build new and sustainable futures. By doing so we will also build new sources of export income and government tax receipts.

By building prosperous communities that don’t depend on coal we can release a political handbrake to better energy and climate policy.

**Transformation of energy systems.** Secure, reliable and affordable generation of net-zero carbon power is essential. Electrification of transport and industry will massively increase power demand. Reliable and renewable sources of power need to be connected through a regionally-expanded and more robust transmission and distribution network.

Portable and exportable fuels will also be essential, underscoring the critical role for hydrogen and biofuels (both of which are major economic opportunities for Australia)<sup>29,39,40</sup>.

**Regenerative carbon farming.** Australia’s growing population – and that of our Asian neighbours – will provide a vast market for high quality food with evolving tastes and needs.

We must drive greater productivity, efficiency and resilience in our agricultural production and distribution, mindful of growing pressures from dwindling water supplies and changing climatic regimes.

A large expansion in vegetation is also warranted to generate carbon sinks and exportable carbon credits, as well as to produce biomass as a feedstock into chemical manufacturing.

This modernisation of agriculture must support landscape restoration and provision of ecosystem services like water quality protection, habitat restoration and ecotourism.

# Capturing the benefits

To minimise the transition costs to all parties and maximise the benefits we will need to collaborate. **We simply must direct and leverage the huge collective effort and investment that is already being made better.**

This will require partners who can trade in brutal honesty and embrace an unswerving focus on solutions.

We should embrace critics. If they care enough to criticise, then engage their perspective, experience and resources, always maintaining a clear focus on how to achieve a better approach to building the low carbon economy.

We must also accept that some people do not and may never accept the science of climate change and the response that it demands. Rather than engage in debate that will only harden division, we must simply smile and move on.

**We will also need to accept 'free riders'** ... people, organisations and even nations that contribute little but nonetheless benefit from the action taken. (Equally, we must be prepared to examine whether Australia is itself a free rider. An honest assessment<sup>41</sup> reveals many countries are taking more serious action to build low carbon economies than Australia has done to date.)

# Building capability, informing action

Good information and new technology development and deployment will be pivotal to designing and facilitating an efficient transition<sup>42,43</sup>.

Research, development and education organisations should collaborate with the professional and technical services sector to develop and disseminate general and industry-specific knowledge on topics including:

- climate change mechanisms and risks
- climate-related financial risk analysis and reporting
- infrastructure risk and resilience assessment
- energy efficiency improvement measures
- cyber security and redundancy development in power networks
- measurement of fugitive emissions in the oil and gas sector
- measurement of biosequestration of carbon
- regenerative farming techniques
- landscape management and fire hazard reduction regimes.

This information should be presented in a form that makes its appreciation and adoption as easy as possible. This could, for example, take the form of commercial opportunity roadmaps for the business community.

We can also harness the market power of climate-aware citizens by providing evidence-backed information to inform their purchasing choices, thereby rewarding businesses aligned with Carbonless Growth.

# Achieving collective impact

Thousands of individuals and organisations are already working on the sort of initiatives described above. But is the goodwill, effort and investment delivering the scale of positive impact at the pace we require? Are we achieving the sort of leverage and return on the financial resources that could be achieved?

A new philosophy and mechanism of “collective impact” could be embraced to better leverage the effort and investment being made<sup>44</sup>. It’s a model of service delivery and public value creation that has delivered benefits in the social welfare sector and has potential to be applied in many other realms.

Rather than create yet more new organisations, virtual organisations would form comprised only of willing partners. We could call them **Carbonless Growth Collectives** (CGCs).

These collectives critically examine how their desired outcome could be achieved, and then how their individual talents, resources and interventions can fit together and reinforce each other to solve the problem. They develop and work to a common agenda, use shared measurement and continuous communicate to ensure efforts are optimally effective.

**The business and not-for-profit sectors are likely to play critical, leading roles in the CGCs together with research and development organisations and industry bodies.** This is consistent with the community’s desire for businesses to play a stronger leadership role, mirroring their stronger voice on societal issues<sup>44,45</sup>.

These virtual organisations would be governed by their members with a clear, overarching principle of “making their system operate better” to deliver specific outcomes more impactfully at less cost.

Evidence of success and competitive advantage experienced by participants in the collective impact model would be the motivation for new members to participate, thereby expanding its impact potential.

Beyond better use of resources for greater impact, a key benefit of the collective impact model is that the virtual organisation can sustain its focus beyond short-term political cycles. It could also demonstrate how communities can be less reliant on governments to deliver public benefits.

# Financing collective impact

Post-disaster recovery efforts in Australia have demonstrated that businesses and individuals will generously contribute their cash and time to help fellow Australians.

Similarly, many individuals and organisations want to make a meaningful contribution to avoiding a climate catastrophe<sup>37</sup> but can't see a way to do it.

Hence, the task is to provide an easy and rewarding way to contribute to through Carbonless Growth Collectives.

**A novel financing model could be employed, such as a not-for-profit or charity structure<sup>8</sup> offering tax benefits to "investors". Each dollar contributed could be matched by cash or in-kind donations from philanthropists or the private sector.**

Collaborative use of finance and resources in this way achieves greater leverage of each dollar and hour of time, which is invariably attractive to investors.

# Using data to drive progress

To guide and measure progress, clear outcome-focused goals are required.

One of these goals is net zero emissions by 2050. This reflects the fact that the global community can only generate greenhouse gas emissions at the current rate for a further 15 years without putting the world at risk of excessive temperature rises. By the same measure, this means we have 30 years to reduce our emissions to zero<sup>29,47</sup>.

Other **complementary goals are essential to provide the focus on achieving low carbon growth**. Such a goal could focus on the level of zero-carbon export income being generated from regions that depend on fossil fuels.

Performance measures must be well crafted and explicit about the outcomes required. For example, emissions per capita is not a useful measure. Absolute or total emissions must be the focus.

Furthermore, explicit attention should be given to the rate at which the outcomes are likely to be achieved. It will be unrealistic to draw a straight-line trajectory from 2020 to a goal in, say, 2050. Initial progress may be slow but then accelerate as buy-in grows and economies of scale develop. Realistic trajectories will be important to maintain engagement and address early potential criticisms.

Ultimately, outcome measurements should come together in the form of a national report card to investors and other interested parties that highlights progress, achievements and priorities to close gaps.

# Re-engaging government

A central idea in this plan is that we need not wait a moment longer or waste further effort and resources to cajole our governments into action at the scale and pace we desire.

**All Australian state and territory governments have already committed to achieve net zero emissions from their jurisdictions by 2050<sup>48</sup>.** So, our collective efforts should be deployed to enable these commitments in line with the Carbonless Growth strategy.

This is not to suggest, however, that the Australian Government doesn't have a major role to play. There are several key contributions it can make to accelerate and magnify the benefits of the collective impact model for carbonless growth.

The Australian Government should assist by:

- Establishing a carbon pricing mechanism to catalyse the least cost and most efficient transition to a low carbon economy<sup>29,49</sup>.
- Facilitating a carbon market at the largest geographic scale that is feasible (ideally with Europe and other nations).
- Encouraging climate risk reporting by businesses (such as through government procurement requirements).
- Facilitating and coordinating nationally consistent policies and regulations, such as time-of-use pricing for power to optimise use of the energy network.

These policy measures are arguably essential to Australia's contribution to mitigating dangerous climate change, but their absence is not a reason or impediment to substantial progress.

# Now for action

Australians want the risks of climate change to be addressed more seriously and urgently. In the absence of meaningful action by governments, we should look for alternative solutions. More of the same – whether arguing about climate science or engaging advocacy to influence the thinking and intentions of politicians – is unlikely to achieve a materially different result anytime soon.

Real progress is possible, however, if we look at the problem from a different angle. Australian businesses, not-for-profit organisations and citizens hold considerable power to influence and achieve change if cleverly organised and focused.

Australians should refocus their effort and investment and pursue a positive agenda that people from all walks of life can get behind. That agenda is carbonless growth.

By operating collectively and employing novel investment models far better use can be made of the available intellect, insight, effort and resources.

If the ideas set out in this strategy make sense and you or your organisation have been advocates for action on climate change, what action will you take now to assume climate control?

We are not helpless. Collectively, we have tremendous resources at our disposal. And the know how exists to put them to impactful use.

So, what simple action can you take now, right away, to act on your concerns, to move beyond words to deeds and, with others, start to build the momentum towards carbonless growth?

You're not alone.

Carpe diem.



*“I have never been prouder of my nation.  
Leaderless, leaders emerged ... [and] this is the comfort  
we must give our children: in the past weeks,  
Australia has been a truly great nation.  
We must remain one. We must not forget.”*

Jackie French, internationally acclaimed Australian author (1953-)  
reflecting on the unprecedented bushfires during 2019/20

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Innergise is a firm focused on fuelling progress and prosperity by helping people to conceive, design and deliver better programs and projects. We remove the impediments to superior productivity by unleashing and focusing the talents of your people, achieving your current goals and setting you up for enduring success. Monotony becomes momentum. Risks become results.

Innergise provides proven skills in strategic thinking, complex problem solving, innovation and facilitation.

We apply hands-on experience in executive leadership and change management, with insights drawn from our work across industry sectors and regions of the world, to generate a sharper focus and more realistic, integrated solutions that stick.

It's all about better placed effort – not more effort – to deliver immediate and lasting results.



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