



COVID-19 RESPONSE

PREMIER'S ECONOMIC & SOCIAL  
RECOVERY ADVISORY COUNCIL

Workshop 9  
Energy, Circular Economy  
& Blue Economy



## **Introduction**

We are living in uncertain times.

Looking ahead and planning for our future is more difficult than ever before.

Understanding the complex health, economic and social challenges Tasmania might face over the next five years requires new approaches and bold thinking. Faced with circumstances few of us imagined possible, we need to think differently and plan for multiple possibilities.

PESRAC has undertaken broad consultation, drawing on the knowledge and ideas of experts, business people, community leaders and everyday Tasmanians in planning for our future.

PESRAC has developed two potential future scenarios to get Tasmanians thinking. The scenarios are stories of how COVID-19 might play out over the next three years for use as a tool for creative thinking. They are not predictions, or expected outcomes. (Attachment 3 - the scenarios used in the workshops)

The scenarios were used as part of a process to gather ideas from Tasmanians about potential economic and social recovery strategies in the context of a very uncertain future.

This process involved nine workshops across the State to facilitate creative thinking around potential:

- consequences and constraints of COVID 19 over the next 3 years; and
- recovery opportunities that could be implemented and delivered within the next 5 years.

### **Workshop Participation**

Peak bodies and networks were approached and asked to suggest people to participate in the workshop. They were asked to nominate people that have relevant expertise and knowledge, are creative thinkers, and do not normally have the ear of government.

The participants who attended this workshop are detailed in Attachment 4.

### **Key Purpose of Workshops**

The participants were informed that the key purpose of the workshop was to identify potential recovery opportunities that could be implemented and delivered within the next 5 years by governments, businesses and the community - noting that recovery is a community responsibility not just a responsibility of governments.

## **Workshop Methodology**

The workshops were held over a three hour period, and were based on a 'creative thinking' methodology developed by the University of Tasmania, referred to as "Stretch Thinking".

The methodology has been applied for considering COVID recovery in Western Australia and nationally, and in a range of disaster recovery and resilience applications by the public and private sectors. More information on the process is available on the PESRAC website.

Participants were provided with briefing information prior to the workshops to enable the workshops to quickly move into the "Stretch Thinking" process. A key foundational piece was the two scenarios (these are detailed in Attachment 3).

A facilitator guided groups of participants through the 'Stretch Thinking' process that involved identifying potential consequences, constraints, and opportunities associated with the two scenarios. Attachment 2 captures this discussion by participants during the workshop.

Having identified a range of potential opportunities under two scenarios, the groups of participants were asked to identify the 'best' or 'key' opportunities their workgroups identified, and these were presented to the whole workshop.

The last task was for all participants to individually identify which of the entire set of opportunities identified within the workshop were the 'best' opportunities (they were entitled to vote for as many opportunities as they liked).

Attachment 1 provides a summary of the key potential opportunities identified in the workshop. Those opportunities do not reflect the views of PESRAC or the Secretariat, rather, they give a 'sense of the room' from participants as to what opportunities are considered of a higher priority from all of those identified in the workshop.

## Attachment 1: Summary of Key Recovery Opportunities

### New Opportunities

- Develop a new hydrogen production industry based on renewable energy, firstly to provide a secure supply of hydrogen to Tasmania and secondly to supply export markets. The Premier should support this with policy in partnership with industry and have open conversations with the community to bring up public support for a renewable energy strategy.
- Create new start-ups in the circular economy - starts with government investment in waste reform. Adopt the EU circular economy model to improve Tasmania's environmental credentials and stimulate investment in new industries.
- Encourage both the Australian Government and companies world-wide to use Tasmania a test-bed for innovation. As a small island state we have unique piloting attributes.
- With increased supply chain risk, logistical challenges and costs, there would be opportunity to develop remanufacturing capabilities in Tasmania, especially in the advanced manufacturing sector, and this should be incorporated into design.
- Tasmania should enhance and promote the 'Antarctic gateway' concept and boost it with circular economy activities, providing waste processing services and remanufacturing for other countries.
- Innovative use of our comparative advantage. Antarctic gateway opportunities - recycling our waste and becoming the Antarctic and Southern Ocean home of recycling and remanufacturing of waste. Need to consider quarantining - how not to make it too hard for people to come to Tasmania and will this force them to make other arrangements
- The Coordinator-General could develop a database of locally available skills and expertise, to ensure that Tasmanian industry has knowledge of local expertise and the ability to draw on that expertise before importing skills from interstate or overseas.
- Use available technology for resource recovery from landfill, mining slag and other waste streams. This should be done as part of a national strategy.

### Leverage Tasmania's Position as a Safe and Great Place

- Develop an access strategy for Tasmania, which provides a better quarantine system that is safe, secure and more fun than the current arrangements. The key is to have a quarantine system that protects Tasmanians from importing COVID-19 to the State but rather than acting as a deterrent to travellers and migration, it is a source of relative advantage. This is particularly important for globally mobile people (e.g. research scientists) that are able to 'choose' where they locate.

- Attract Tasmanian diaspora by promoting our strong COVID performance with Tasmanian Expats, and take the opportunity to tap into their skills and knowledge on return.
- Build on and market Tasmania's reputation for 'clean green' for attracting investors and people to live in the state. Target high net wealth people to live and invest in sustainability, safety, future-proofing projects, social projects, the environment and skills. Attract investment through public-private partnerships.
- Tasmania could attract high wealth individuals to live and invest in Tasmania. Tasmania will have a reputation of being a safe/green place to live and invest. A big attraction to these individuals could be wide-spread access to digital infrastructure.
- Leverage our 'moat' - as a COVID-safe place:
  - gateway to Australia in self-contained 'bubble towns' (iso-tourism);
  - couple with next-gen testing to reduce quarantine time; and
  - allow people to experience nature, food, wine.

## Skills

- Higher education - help people build skills during career hiatus. Also in the trades there is an opportunity to provide unique offerings.
- Enhance the capabilities of schools to teach students about job demand, opportunities that exist and how to get there (pathways).
- Get Tasmanians onto career pathways that build the local expertise needed to support growth in the renewable energy, circular economy and sustainability sectors.
- Tap into the skills and knowledge of returning Tasmanian expats.
- Predictions of future skills requirements need to look at what is happening overseas, particularly in relation to new technologies and industries that could have application in Tasmania, to identify Tasmania's future skills needs.
- Improve education options and accessibility, recognising that not everyone is suited to university and learning should be targeted to supporting vocational outcomes.
- Get a clear understanding of skills gaps and target offers to trainers to come to Tasmania.
- Ensure awareness of our skilled pool of workers is known (i.e. a publicly available database through the Coordinator General). This would be beneficial to highlight the skills and workers that are available in Tasmania. This would also ensure they are easily identified and that these workers don't 'wither on the vine' and go unused.

- Highlighting the opportunities through the schools as to what the career pathways are. What is viable and what is available? Increase vocational educators (over the years there has been a decline which is leading to structural deficits) - improve their focus and highlight clear career pathways from an early age (show students what's there and give them a blueprint to get there - make them see that you don't have to leave Tasmania to have a fulfilling career).

## Planning and Approvals

- Infrastructure projects brought forward require agile government approvals processes and transparency, especially with respect to the availability of government resources to meet increased demand and timeliness.
- Approvals processes need to be appropriately resourced to enable quick analysis and decisions. Speeding up the process means that it will be more important for the process to be transparent, in order to build understanding and trust with the community. Developing and communicating a clear infrastructure investment plan is also part of the transparent process, dealing with environmental and social good.
- A review of office space and planning restrictions could help to re-purpose underutilised office space, which could potentially be used for affordable housing.
- Approvals processes need to be appropriately resourced to enable quick analysis and decisions. Speeding up the process means that it will be more important for the process to be transparent, in order to build understanding and trust with the community. Developing and communicating a clear infrastructure investment plan is also part of the transparent process.
- Getting planning systems right will be critical to support employment :
  - stronger timeframe requirements for utilities; and
  - organisations involved in planning need appropriate resources and skills - help local government to focus on core roles with LGA reforms.

## Partnerships and Cooperation

- Develop and promote international partnerships across multiple levels of government - don't rely on national-level partnerships, develop sub-national relationships and partnerships between institutions (which can mitigate the risks of broader geopolitical tensions).
- Tasmania should build on its relationships with other countries, especially for the purpose of linking research with industry and leveraging Tasmania's renewable energy platform.
- A better partnership between UTAS and Tasmania - UTAS could shift its focus to developing local expertise to retain in Tasmania for the benefit of developing local industry.

- Enhance research relationships with international partners.
- There is an opportunity to develop knowledge and intellectual capital transfer between sectors, to enhance our industrial capabilities and retain expertise in Tasmania.
- Lack of opportunities within place-based clusters (break industry silos) - work with local government/community, map connections and develop a place-based development plan.

## Attachment 2: Outcomes from the Workshop

### Scenario A

#### **Workshop discussion about 'consequences' of scenario A**

- The waste and recycling sector is going relatively well, not significantly affected by restrictions imposed during the pandemic.
- Tourism is likely to take time to recover back to levels previous to COVID-19.
- Tasmania's international profile for renewable energy will have risen.
- Tasmania will be advancing with new hydrogen and renewable energy industries.
- Environmental research will have boosted, feeding into Tasmania's brand.
- Research will have been impacted by international travel restrictions, preventing new student enrolments and access.
- COVID-19 forced us to find clarity in our future direction, especially in education and research.
- Education at all levels has been disrupted, limiting career prospects, opportunities and capabilities within the State.
- Despite relatively strong recovery, Tasmania will continue to have a fragile economy and will be susceptible to any future economic speedbumps or social setbacks.
- Reluctance of people to move.
- Local government struggles to keep up infrastructure build.
- Digital coverage a key barrier to growth - enabler of competing internationally
- Lower wealth creation due to lack of transition to circular economy.
- People have increased confidence in Government.
- Services, capabilities, capacities may be pressured from population increase, particularly health and education.
- An educational divide would be a barrier to employment for a larger portion of the population.
- Increased gap between the haves and have-nots, due to some failing to adapt; increased social stratification.
- Decline in job opportunities for some.
- Increased pressure on freight - every sector will be impacted - exports and imports.
- Unrelenting conditions worsen, for example in trade and movement - diversified markets will be required.

- Market manipulation (using COVID-19 as cover) may arise, increasing market aggression to lower prices.
- Failing businesses may be replaced by new higher tech businesses, as some people won't have the skills to pivot. Some old tech/systems may still be in use due to paused infrastructure investment, so maybe some older skills are still required.
- Niche businesses may not survive without adapting.
- The pandemic could have caused a lag in research and development.
- Investment decision would support Marinus business case.
- There may be losers from the V-shaped recovery.
- Community can make more change with collaboration.
- Science will be more valued and there will be more data to inform policy.
- Tasmania retains its uniqueness, it would have a market advantage.
- Better understanding of finite resources.
- Increased population (from net inward migration) may mean we are less capable of being self-sufficient and more reliant on imports for food and essentials. Housing shortages would worsen and there would be additional pressure on the existing health and education structures. Services will struggle to deliver under capability/capacity pressures.
- People may be reluctant to move around Australia. We may find it difficult to attract the skills we need. However, overall Tasmania's population may grow.
- Local Government is struggling now to invest in infrastructure and services, and this will continue to get worse.
- Our digital infrastructure is reaching its cap. It will be hard to provide services, work from home, and capitalise on new business models if our digital infrastructure is not widely spread and easily accessible.
- Our waste management will become an issue, and we have not invested in the circular economy in preparation.
- Educational divide between the 'haves' and 'have nots' will continue to expand.
- Supply chain disruptions will mean there is ongoing pressure on freight services with increased transport costs and reliability issues.
- A 'V' shaped recovery means that many marginal businesses may not survive, but new, fresh business models will establish - which will help to build a new sustainable future. This means that unemployed people may not have the necessary skills for the new job opportunities. Reskilling and upskilling will be required.
- Infrastructure development will slow down - particularly local government and utility infrastructure as they have had to freeze/pause rates and charges which

means that they may not be able to afford to continue their planned capital expenditure (as planned in 2019-20). However, this slow down also potentially means that the existing skill set/capabilities of the current workforce will need to be maintained, as opposed to the skill set that would be required if was possible/affordable to roll out 'smart assets/infrastructure'.

- Decisions on long term infrastructure investments may become easier if/when the future becomes a bit more certain - including the ongoing rates and charges that can be applied/recouped.
- Investment in early stage R&D is likely to reduce - niche businesses may not survive/grow.
- There could be more interest in, and a better community understanding of, government service provision. This assumes that the community has learnt to hold the Government more accountable - i.e. ask appropriate questions on what basis decisions are being made (e.g. suppression measures during COVID) - and Governments are more inclined to explain the 'drivers' of their decisions.
- With increasing population we will become less capable of being self-sufficient, and will become further reliant on imports (e.g. food, technology, etc.); and we will return to a housing market with shortages in 'buy' and 'rent' properties.

#### **Workshop discussion about 'constraints' of scenario A**

- The education system doesn't adequately expose students to career options available in Tasmania and a lack of modern technical skills available in the Tasmanian workforce and the TAFE/skills sector, especially in energy related fields, would be a constraint to growth. Tasmania lacks the depth of expertise in the training sector required to provide specialist skills.
- The size of businesses and a lack of scale in Tasmania would constrain our ability to increase the number of apprentices we can take on.
- Too many providers in skills/job readiness are producing poor consistency - for example, TAFE consistency is a constraint. It is difficult to get new skills and job readiness programs up. The standard of VET courses is very inconsistent. For many courses TAFE produces the better skilled students.
- New transmission line building is constrained by local skilled labour, due to lumpy workflow and low scale.
- With all of the government stimulus measures increasing demand in certain sectors, particularly building and construction, the availability of resources, workforce, skills and expertise required to progress additional investment may be limited, which could lead to adverse market outcomes, with higher costs and project delays.
- Insufficient resources in the approvals system, regulatory authorities and Ministerial Offices would constrain the timeliness of approvals and the commencement of projects. Regulation is seen as necessary and supports the State's 'clean green'

image but higher volumes of development applications will cause delays if not appropriately resourced.

- Tasmania does not have the scale or a clearly articulated pipeline of major projects that ensures Tasmanian businesses can recruit and skill up local people. Approval and capacity to provide approvals is a constraint on developments and major projects. 'Red tape'/regulation is a necessity but the approval process can be sped up. If approvals are fast tracked then it is critical that this process is transparent in order to bring the community on the journey.
- The skill set of aldermen and council members is a constraint. In addition, they do not often have the time to understand and consider some key challenging issues/proposals.
- There is a shortage of chemical engineers in Tasmania, who would be required to develop new technology for the circular economy, particularly in the area of extracting valuable chemicals and materials from waste products.
- Tasmania is constrained by a lack of data scientists and data analytics capability.
- The consequences of climate change will not go away simply because economic recovery from the pandemic becomes a more urgent challenge, so a lack of preparedness on climate change mitigation and adaptation could become a constraint for economic and social recovery.
- Bass Strait transportation capacity and costs could be a constraint for logistics and supply chains.
- Geopolitics, especially the Commonwealth Government's approach to trade relationships, may constrain Tasmania's trade growth.
- A reluctance in Tasmania to engage with international research would constrain our ability to develop intellectual capital and take advantage of technological advancements elsewhere for industrial implementation opportunities within Tasmania.
- The University of Tasmania's focus on its education export model to international students could constrain its ability to allocate sufficient teaching and research resources to developing the intellectual capital required in Tasmania to support industry growth and technological advancement for recovery.
- A lack of public and private financial capital and a lack of skilled people (due to housing shortages) would be a constraint to recovery and growth. Seed funding for big projects (including environmental solutions) may not be available.
- Tasmania's credit rating may have been downgraded and the Government may be risk averse.
- 3-year election cycles impacting long-term decisions relating to climate and Tasmania's Unique Selling Proposition (brand - environment) - need to manage the balance between industry growth and environment.

- Employees get news from social media - poor awareness.
- The 'authority voice' for reliable information has potentially been undermined with misinformation and new communication channels. Community may revert to single voices of authority, who are trusted leaders. There will be a need for transparency in Government.
- The skills of local government elected officials may be a constraint, especially for small councils who don't have access to good advice.
- Vested interests in politics.
- New working from home models vs traditional workplaces.
- Utility price catch-up.
- There is a need to get major projects going - to create jobs, stimulate demand, and address key environmental and social issues (such as waste management, renewable energy, erosion, etc.). However, it may be hard to attract private investment into major projects in Tasmania.
- There is likely to be a constraint on 'value'. Public (and private) may focus on taking the cheapest price, rather than looking at broader benefits associated with potentially higher prices - such as local content, recycled/reused products, etc. Reliance on low price business models would constrain the use of recycled materials.
- Governments may not be confident to continue (leverage off) the lessons learnt during COVID - i.e. making hard decisions, explaining those decisions, and bringing the community along on the journey. Hard decisions and clear communication are required for big policies/projects (such as delivering a sustainable future) which we will need as part of our recovery strategies.

### **Workshop discussion about 'opportunities' of scenario A**

- Improve education options and accessibility, recognising that not everyone is suited to university and learning should be targeted to supporting vocational outcomes.
- To create new jobs, we need to develop new markets or expand existing markets.
- Predictions of future skills requirements need to look at what is happening overseas, particularly in relation to new technologies and industries that could have application in Tasmania, to identify Tasmania's future skills needs.
- The role of the Coordinator-General needs to be refocussed to building local businesses.
- We need to build on Tasmania's story more.

- Tasmania should build on its relationships with other countries, especially for the purpose of linking research with industry and leveraging Tasmania's renewable energy platform.
- The University of Tasmania could shift its focus to developing local expertise to retain in Tasmania for the benefit of developing local industry.
- Tasmania has the opportunity to develop the lowest-cost hydrogen production in Australia, due to its abundance of water resources and wind powered energy supply.
- Enhance research relationships with international partners. Develop and promote international partnerships across multiple levels of government.
- Short term vs long term philosophies - take the opportunity to look to the long term and avoid the pressure arising from crisis to focus more heavily on the 'here and now'.
- Target high net wealth people to live and invest in sustainability, safety, future proofing projects, social projects, the environment and skills. Attract investment through private-public partnerships. Tasmania will have a reputation of being a safe/green place to live and invest and a big attraction to these individuals could be wide-spread access to digital infrastructure.
- Create new start-ups in the circular economy - starts with government investment in waste reform. See the EU circular economy report. Build on this investment with investment in education and skills. Facilitate the development of new business that emerge. Government could integrate the circular economy philosophy into other Government policies ('Ethical Leadership'). For example, Government could require the use of a certain amount of recycled products as part of the affordable housing strategy - this approach would potentially require a shift away from prioritising the lowest price. (This approach may require legislative amendments.)
- Legislate to make the use of recycled products compulsory.
- Political honesty must be maintained to manage realistic community expectations on sustainable taxes, fees, etc.
- Local governments need up-to-date infrastructure plans with costed impacts on rates. Infrastructure projects brought forward require agile government approvals processes and transparency, especially with respect to the availability of government resources to meet increased demand and timeliness.
- Approvals processes need to be appropriately resourced to enable quick analysis and decisions. Speeding up the process means that it will be more important for the process to be transparent, in order to build understanding and trust with the community. Developing and communicating a clear infrastructure investment plan is also part of the transparent process, dealing with environmental and social good.

- Universal access to Wi-Fi, hardware. Must have good state-wide internet coverage.
- A review of office space and planning restrictions could help to re-purpose under-utilised office space, which could potentially be used for affordable housing or UTAS.
- Government could leverage off its credibility that it has built with the community during COVID. Having made some hard decisions and delivered tough messages, the Government should continue with the honest and transparent approach and explain the key steps that need to be taken next - good and bad. For example, a decision (and communication) will need to be made around revenue sources that have been paused and frozen. Fees and charges will need to go up to continue required infrastructure maintenance, improvements and expansion. These may be difficult decisions but they need to be made and explained.
- Government could also make firm decisions within a clearly articulated policy framework - which is about sustainable Tasmania. For example, if/when we let cruise ships back to our ports we should do it on our terms - such as they must purchase local products/services, and use renewable energy.
- Ban large cruise ships - establish a point of difference for Tasmania at the global level. Take control of cruise ship visitation - we are in charge.
- Tasmania should build an equitable and flexible workforce. This should commence with the Public Service which is the largest employer. The workforce needs the skills and equipment to be flexible - for example flexible in terms of being able to work from home, and flexible in terms of working hours (which may have other flow on benefits such as reducing traffic congestion). Implementing this opportunity may require a review of work health and safety laws and practices.

## Scenario B

### **Workshop discussion about 'consequences' of scenario B**

- The renewables, waste and recycling sectors will have been relatively unaffected in this scenario. Investment interest remains strong because the market remains viable.
- This scenario will see lower morale across the community.
- Research organisations will be more isolated. With a lack of access to expertise and technology due ongoing closed borders, some will be forced to leave Tasmania.
- Pumped Hydro and Battery of the Nation projects may not go ahead due to changes in budget allocations as governments are forced to adopt austerity measures.
- Tasmania may 'revert to form', experience substantial labour market issues and economic stagnation if we only replicate what we already do rather than innovate and develop new industries. Industry will talk about what they want compared to what they need. Tasmania would at best tread water, without growth.
- Geopolitics will be extremely difficult for Tasmania. As the Australian Government drives foreign policy and focuses on national priorities, particularly strategic, which may not align with Tasmania's interests, Tasmania could suffer from any negative impacts on our trade relationships.
- There would be a loss of the knowledge economy in research and education due to international travel restrictions.
- Tasmania's economy may head back to the 1990s, where a lack of opportunity will cause people to leave, especially smart young people. Career options within Tasmania will narrow.
- A decline in good governance due to increased unrest, lower investment and more authoritarianism. Lower trust in government and rash decision making by government and industry, to retain their place - less ethics.
- Loss of 'clean green' image - can't afford high sustainability.
- There could be less pressure on natural resources, roads, water, etc. If so, these systems can 'reset'.
- There could be population decrease due to poor job prospects, or an increase if people see safety in moving to Tasmania. People with independent wealth could come to Tasmania seeking safety.
- The disadvantaged will fall further behind. There will be more disadvantaged people and a greater range of inequality.

- Wages decline would lead to less money in the economy.
- Economic deferral of large projects. Degraded public infrastructure.
- Investment will be on a shorter horizon, seeking quick payoffs with lower risk and less innovation. Decline in entrepreneurship, innovation and wealth creation.
- Work conditions will need to modernise for migrant labour industries due to ongoing closed borders.
- Rise in robotics.
- Decline of skills in the workforce, less apprentices.
- Decline in education attainment level, as people will not be able to afford higher education. UTAS will need to transform.
- There will be more pressure on the health system, whole service sector.
- Rising mental health issues (everyone).
- Aged care hospitals will be under pressure.
- Local government sustainability will be at risk, with higher debt, higher rates and a decline in services.
- Lower community connection (shift to digital)
- Planning 10-15 years of education/school cohort - declining birth rates, lower migration, and impacts on education progress of students.
- Less action on climate change, due to economic pressures.
- Stranded assets, spare capacity.
- Less higher education - trades more valued as people want quick job opportunities and traditional casual work for students will be in short supply.
- High popularity skills for survival, e.g., home renovation.
- New renewables development (wind, hydrogen, etc.) would not be affected much as they will still in development stage (this example was specifically about hydrogen in the end). Further, it would be hoped that the training side would be mirroring where the development progression currently is so that people are available and appropriately trained when we come out of COVID-19. From an overall 'renewable energy' perspective, things are continuing as normal (pre-COVID) - there is a 'business as usual' feel. Even under scenario B, there is still opportunity and investment appetite.
- There will be an increase in social isolation and disconnection from mainland/international businesses. A lot of work needs to be undertaken locally to ensure that there is not an uprooting of existing businesses, which may move to where other 'opportunities' are greater.

- Our market access for our premium products will be limited or potentially collapse. Export collapse and follow-on large employment losses.
- Out of necessity, Tasmanians would need to manage their resources more carefully (emphasis on the circular economy), however, Tasmanians must make alternative arrangements and optimise existing supply chains as we cannot rely solely on our own products/manufacturing capability.
- Under this scenario, the Federal Government will be forced to pick industry and sector 'winners' based on scope, scale and their ability to provide jobs. As a result, this could be a disadvantage for Tasmanian business due to their size and our smaller industry sectors overall (as compared to mainland Australia) - this would lead to job losses.
- The Federal Government could focus its payments and funding on energy security (i.e. progressing Marinus), as a 'priority' and this could create a shift in employment towards the renewables sector.

### **Workshop discussion about 'constraints' of scenario B**

- Reduced skills and expertise due to a narrowing of career options in Tasmania will be a constraint for new industry, technology and economic growth.
- A high number of displaced workers, especially from tourism and hospitality, will put pressure on the TAFE/Skills sector as workers will need to re-skill for alternative careers. The timeliness of education will exacerbate Tasmania's skills shortage. There is a need for micro accreditation to ensure we are ready to pivot out of scenario B with a pool of skilled and appropriately trained workers. There would likely also be a number of displaced workers who will require upskilling or cross skilling to be ready for an uptick in activity.
- Closed borders will constrain access to interstate or international technical expertise.
- Fatigue from the ongoing pandemic and restrictions will constrain Tasmanians' resilience, mental health, enthusiasm and capacity to climb out of recession.
- Tasmania's reliance on tourism will affect the whole State.
- Tasmania does not have a monopoly on green and renewable credentials - Tasmania will be competing with other states and locations around the world seeking competitive advantage from 'clean and green' branding. Tasmania has other disadvantages, such as distance and geographic isolation, lack of physical and technological infrastructure, etc., that can make it difficult to deal with Tasmania compared to other places.
- There is a risk that we become too inward focussed as a result of the impacts of the pandemic, which would limit our ability to take advantage of external capital, technology and relationships.

- Not much is likely to have changed in relation to climate change, meaning that climate change action will still be required and economic recovery may become a competing priority.
- There is likely to be declining capital investment for projects and developments, particularly where the appetite for risk would have also have declined.
- Mental health issues would impact productivity.
- Poor practices will worsen, such as a return to landfill and incineration for waste disposal. Science-based direction will have less public support, decline in trust.
- Public lack of trust in authority.
- Inability to access high-tech skills for quality infrastructure.
- Freight and access will become a bigger issue for Tasmania - higher cost and lower capacity.
- Reduced access to markets due to international protectionism would constraint export growth.
- Self-policing/discrimination in favour of COVID-19 immunity.
- COVID-19 exhaustion - the capacity of people to be healthy through an increase in issues such as mental health, will ultimately diminish Tasmanians' capacity to be healthy and contributing members of society.
- Tasmania needs to remember that it does not have a monopoly on green renewables - we need to be cautious under this scenario about how we keep the 'flow' from the rest of the world continuing through to Tasmania. Need to stay connected to ensure 'wealth' keeps inflowing into Tasmania. How do we maintain the international connectivity to keep this happening?

### **Workshop discussion about 'opportunities' of scenario B**

- There is an opportunity to develop knowledge and intellectual capital transfer between sectors, to enhance our industrial capabilities and retain expertise in Tasmania.
- The Coordinator-General could develop a database of locally available skills and expertise, to ensure that Tasmanian industry is aware of the availability of local expertise and has the ability to draw on that expertise before importing skills from interstate or overseas.
- Highlighting the opportunities through the schools as to what the career pathways are. What is viable and what is available? Increase vocational educators (over the years there has been a decline which is leading to structural deficits) - improve their focus and highlight clear career pathways from an early age (show students what's there and give them a blueprint to get there - make them see that you don't have to leave Tasmania to have a fulfilling career).

- Higher education - build skills during career hiatus. Also trades - opportunity to provide unique offerings (social inclusion, education). Get clear understanding of skills gaps and target offers to trainers to come to Tasmania. Provide work schemes for people unemployed that give long term benefits to Tasmania. There will be an opportunity for 'top-up' training to ensure skilled workers can easily transition to other careers through short, relevant accreditation and training programs. This will allow workers to pivot between careers more seamlessly.
- Tasmania should think about what we can do ourselves, where we may have previously relied on external resources which are now constrained by travel restrictions. There could be the discovery of 'new industries' as ongoing COVID-19 restrictions forces Tasmanians to explore what can be done within the State under different conditions.
- Attract Tasmanian diaspora. There may be an opportunity to tap into the skills and knowledge of returning Tasmanian expats. Attract business with lower wages (aged care, service industries).
- There is the potential for morale issues to escalate. To combat this, there is a requirement for strong leadership to navigate Tasmanians through this period. We need to project hope and communicate a vision (particularly to our youth to show that there is hope going forward and a future if they remain in the State).
- With increased supply chain risk, logistical challenges and costs, there would be opportunity to develop remanufacturing capabilities in Tasmania, especially in the renewables sector, and this should be incorporated into design. Think about how Tasmania can optimise our domestic economy and better use/repurpose what we already possess. For example, Scotland has a strategy and focus on re-manufacturing - this has led to improved capabilities (i.e. off-shore gas, etc.). This approach requires a focus on design in the first instance.
- Innovative use of our comparative advantage. Antarctic gateway opportunities - recycling our waste and becoming the Antarctic and Southern Ocean home of recycling and remanufacturing of waste. Need to consider quarantining - will this make it too hard for people and will this force them to make other arrangements?
- Establishment of travel-safe bubbles with other jurisdictions/countries - make it easy to travel and work in Tasmania and vice versa with other 'safe' countries (like Hawaii?). Develop an access strategy for Tasmania, which provides a better quarantine system that is safe, secure and more fun than the current arrangements. The key is to have a quarantine system that protects Tasmanians from importing COVID-19 to the State but rather than acting as a deterrent to travellers and migration, it is a source of relative advantage. This is particularly important for globally mobile people (e.g. research scientists) that are able to 'choose' where they locate.
- Use available technology for resource recovery from landfill, mining slag and other waste streams. This should be done as part of a national strategy. Greater opportunity for small scale initiatives - with the overall advancement in

technologies, there is no longer the need or requirement to fund large-scale, costly initiatives only. Technological advancement allows us to develop these initiatives far more easily these days (example of small scale bio-refinery in Sweden mining their existing landfills).

- Focus on the production of recycled products - how do we change consumer perceptions to encourage or build our want for recycled goods. They need to be conveniently available within the supply chain and also safe in their production and utilisation.
- We should build upon the Tasmanian reputation for 'clean green' but also re-brand on better data from visitors - we're more than just 'clean green'.
- People can help smaller regional towns to become more self-sufficient. For example, to develop intrastate tourism and farmers markets.
- Reduce investment in roads/infrastructure to create an incentive to maximise utilisation.
- Point of care advisor to assess viral load to allow larger gatherings/travel.
- Bubble creation for refugee communities globally to bring them here to support industries and augment diversity.
- To attract people to remote learning we must have high quality IT connection.
- Attract the best talent to become a global case study in sustainable living.
- Think tank to use trusted voices to rebuild cohesion in Tasmania. Sell/tell our story, analyse our strengths.
- Lack of opportunities within place-based clusters (break industry silos) - work with local government/community, map connections and develop a place-based development plan.
- Incentivise local government amalgamations - small councils can't manage complex issues.
- Pilot social services, as a test bed for national policies. We would be the 'guinea pig'.
- Attract foreign investors to do testing of sustainability innovation and technologies.
- Leverage our moat - as a COVID-safe place:
  - gateway to Australia in self-contained bubble towns (iso-tourism);
  - couple with next-gen testing to reduce quarantine time; and
  - allow people to experience nature, food, wine.
- Getting planning systems right will be critical to support employment:
  - stronger timeframe requirements for utilities; and

- organisations involved in planning need appropriate resources and skills - help local government to focus on core roles with LGA reforms.

## **Attachment 3: Scenarios Used in the Workshop for 'Creative Thinking'**

### **Scenario A (2020 to 2023)**

A long lasting and effective vaccine has been developed, and broad distribution across the globe is varied. Large numbers of developed countries have access to the vaccine, and the uptake of vaccinations is particularly good in those countries that established manufacturing contracts early on. By contrast, some countries that were not able to get at the head of the que have had less success in rolling the vaccine out to their populations. Uptake has been widespread in Australia and other developed countries. By early 2022 a significant proportion of the Australian population was immunised and community transmission has largely been suppressed. Methods for treating COVID-19 have also improved, resulting in decreasing mortality and hospitalisation rates, and new fast, affordable, accurate and painless saliva tests that provide immediate results are widely available. Over the past few years many Australians chose to test regularly which improved the speed and effectiveness of tracing.

Small, localised, virus outbreaks continued to occur nationally during 2021 but were suppressed quickly with small-scale localised restrictions, without broad-scale lockdowns (as seen in Melbourne in September 2020). Physical distancing requirements are no longer required. State and Territory borders opened in early 2021 and Australia's international borders opened around mid-2021. During 2021 to 2023 intermittent international travel restrictions applied to some countries and travellers that were considered to be high risk, however, these restrictions have now almost all been removed.

The global, national and Tasmanian economies have recovered after bottoming out in 2020-21. Tasmania is one of the best performing states, with people in the post-COVID-19 world demanding the safe and clean produce and a tourism experience that Tasmania has to offer. However the 2020-21 crisis resulted in structural changes in the economy and many businesses closed, particularly in sectors most impacted by COVID-19 suppression measures in 2020. Tasmania's population is now growing again after a short period of decline through 2020-22. National and international passenger and freight services have returned to pre-COVID-19 levels. After a short period of reduced demand and supply disruptions, international demand Tasmanian products and services exports slowly increased to record high levels in 2023.

The Tasmanian community has recovered well from the pandemic. Community support for the COVID-19 response led to increased social connectedness, while advances in the use of technology, such as telehealth, have made services more accessible to some isolated cohorts. While the community has a high sense of hope for a Tasmania with plenty of opportunities, and the level of anxiety and fear associated with COVID-19 has largely disappeared, the pandemic has highlighted the struggles of people living with disadvantage, and particularly the long term unemployed.

As the economy recovered Governments have incrementally removed most of the COVID-19 support measures to businesses and households, but retained JobSeeker payments at a higher rate, recognising that the pre-COVID levels were unsustainable.

## **Scenario B (2020 to 2023)**

After several false starts, a vaccine has been developed and was recently made available to Australians. However uptake has not been high due to ongoing social commentary around its overall effectiveness and whether it will provide long lasting immunity. Treatment methods have improved, but not to a point where they have reduced the desire for an effective vaccine. Testing technologies and tracing efforts have incrementally improved, and random testing is being conducted across the State on a large scale and regular basis. However, community commitment for suppression measures has reduced.

Globally countries continue to experience frequent outbreaks. Some countries have chosen to adopt a herd immunity management approach and have avoided a 'stop-start' economic recovery, other countries continue to struggle with the management of relatively high daily cases –nevertheless there is a general global sense of 'light at the end of the pandemic health crisis tunnel'. Without widespread uptake of an effective vaccine in Australia, the risks associated with international travel still exist and our international borders are effectively closed, other than to a small number of countries who's COVID-management approach (strong suppression) is similar to Australia's, with the first travel bubble opening to New Zealand in 2021. Governments around Australia continue to face difficult decisions around balancing public health and economic policies.

All State borders opened for a period of time in 2021, allowing some freedom of movement for domestic travel. However frequent and large outbreaks across the nation soon after, led to various States (including Tasmania) re-imposing tighter border controls. In 2023, travel restrictions continue to limit travel to hotspot regions and borders are closed to those without exemptions for several months. Physical distancing and restrictions around very large gatherings are still in place.

Economic conditions worldwide have not returned to pre-COVID levels. The global and Australian economies have entered into a prolonged period of 'drift' with a significant reduction in economic activity from pre-COVID levels characterised by no growth and sustained high unemployment. Tasmania's economic conditions are trending below the already weak national conditions -with an unemployment rate of around 12 per cent (more than double the pre COVID level) and youth and regional unemployment hit particularly hard. Industry sectors (such as Tourism) that are particularly affected by travel restrictions continue to struggle more than other sectors. Tasmanians are leaving the State in search for job opportunities, and the State's population has declined. National and international passenger and freight services have slightly improved but remain substantially below pre-COVID-19 levels. Freight costs are very high and capacity is unreliable. Many countries have

protectionist policies in place and international markets are difficult to access for many Tasmanian goods and services.

The economic crisis has resulted in decreases in Government revenue, and grants from the Australian Government have reduced for Tasmania. Governments feel under pressure to tighten and target expenditure (reduce some 'non-essential' services), and there is a growing acceptance that some support measures are creating distortions in the labour market. JobKeeper and JobSeeker supplements (and other support to businesses and supply chains), have either been revised, reduced and/or retargeted, and these reforms commenced with significant change occurring in 2021-22.

The inability for many Tasmanians to find sufficient work is leading to an increase in household stress and financial hardship, and more Tasmanians feeling isolated and disconnected (particularly young, old and disadvantaged Tasmanians). The Tasmanian community is very much feeling the social impacts of ongoing outbreaks of the virus and the ongoing impact of suppression measures in Tasmania. Students of all ages have also been impacted by frequent disruptions to their learning institutions, and the aged care sector in particular has faced ongoing unique challenges with the management of its work force and vulnerable clientele. Ongoing frustration and uncertainty has led to non-compliance with lockdown and social distancing requirements, and combined with the economic situation, is leading to increasing protests and unrest, a greater sense of fear and anxiety, and a loss of hope for a better future.

## Attachment 4: Workshop Participants

<b>Participant</b>	<b>Organisation</b>
Sarah Metcalf	Hydro Tasmania
Ben Wagner	TasNetworks
Peter Fewkes	Travtec
Indiah Hodgson-Johnston	IMOS
John Whittington	Blue Economy CRC
Christian Attfield	TasWater
Christine Bell	Southern Waste Solutions
Brad Mashman	The Glenorchy Tipshop
Erin McGoldirck	Glenorchy City Council
Phillipa Ormandy	CSIRO
Terry Bailey	University of Tasmania
Tony McCall	Consultant
Jenny Brown	Envorinex
Jessica Robbins	Tasmanian Way
Alex Simpson	Westcoast Renewable Energy