



# AUSTRALIA'S ENERGY FUTURE & THE RECOVERY FROM COVID-19:

How we can help end poverty and fight the climate crisis



**OXFAM**  
Australia

**AUSTRALIA'S ENERGY FUTURE AND THE RECOVERY FROM  
COVID-19: HOW WE CAN HELP END POVERTY AND FIGHT  
THE CLIMATE CRISIS**

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# INTRODUCTION

In Australia, we began the year watching the deadly Black Summer fires burn through towns and huge tracts of bushland, with smoke blanketing major cities and affecting 80% of Australians. Around the world, the twin challenges of a rapidly escalating climate crisis and rising global inequality have never been more pressing than they are in 2020.

This year, we have seen that no-one is immune to the climate crisis, including here in Australia. But it is people living in poverty who are paying the greatest cost, despite having contributed the least to global climate pollution. After decades of decline, the number of people without enough food to eat rose for the third year in a row, to 820 million people, with extreme weather a dominant cause.<sup>1</sup>

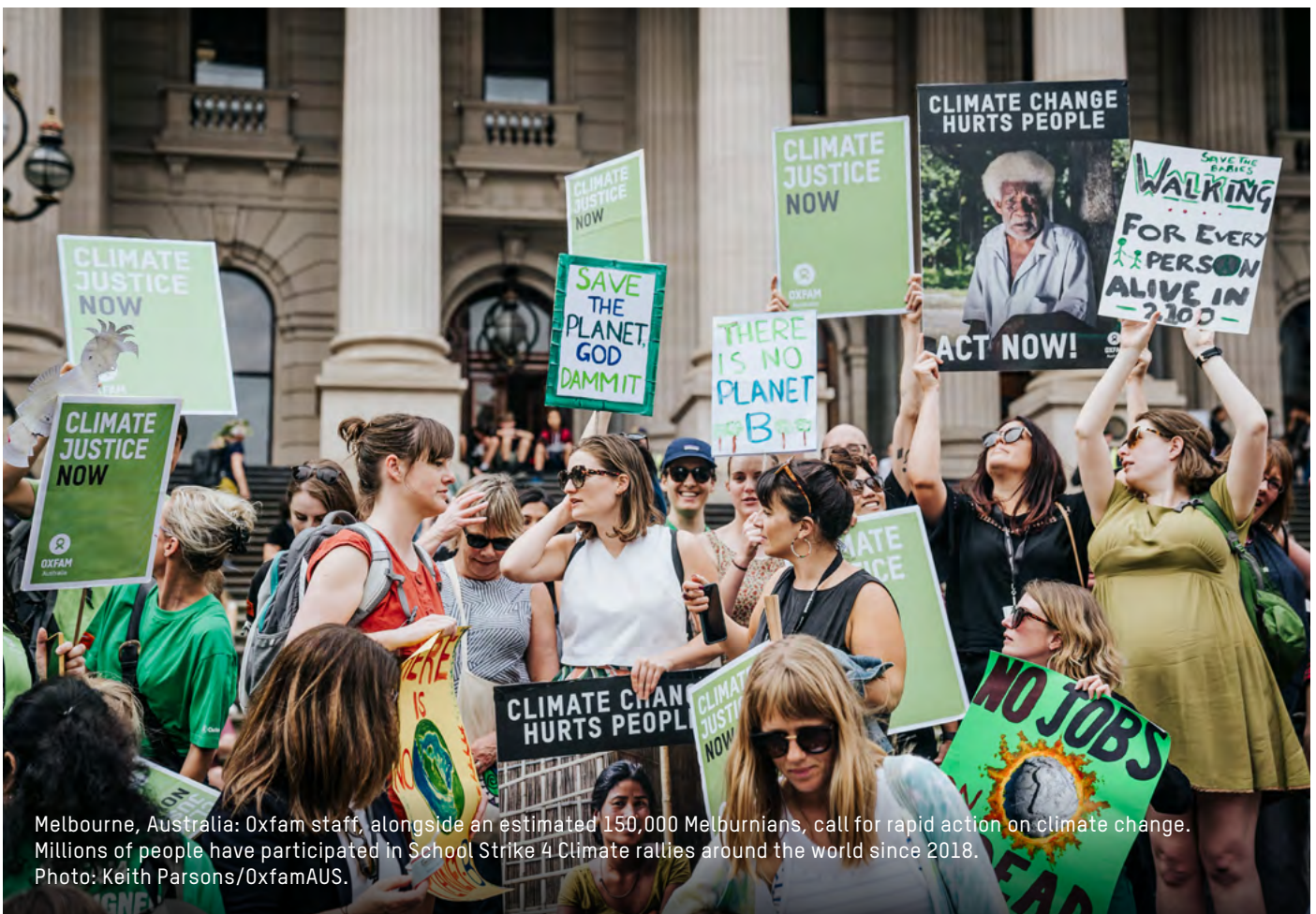
More than 735 million people around the world still live in extreme poverty, on less than US\$1.90 a day. Meanwhile, the world's 2,153 billionaires have accumulated more wealth than more than 4.6 billion people combined, or 60% of the world's population.<sup>2</sup>

The COVID-19 crisis has further exposed the extreme inequalities at the heart of today's societies. While the billionaire class has seen its wealth increase during the pandemic,<sup>3</sup> many millions of people worldwide have lost

their jobs and seen their livelihoods decimated. Many are going hungry and lack access to life-saving healthcare. The economic consequences of the COVID-19 crisis could push over half a billion people into poverty.<sup>4</sup>

In efforts to stem the social and economic fallout from COVID-19, governments are responding with unprecedented levels of public spending and economic intervention. The choices being made today will shape our societies for decades to come. When it comes to climate change and inequality – the two defining challenges of our age – they can either sow the seeds of a fairer and more sustainable world or accelerate us down the path to catastrophe.

For Australia, no areas of policy are more central to our economic future and place in the world than energy and climate change. A renewable energy powered recovery can create a brighter future for all Australians and ensure we



Melbourne, Australia: Oxfam staff, alongside an estimated 150,000 Melburnians, call for rapid action on climate change. Millions of people have participated in School Strike 4 Climate rallies around the world since 2018. Photo: Keith Parsons/OxfamAUS.

play our part in ending poverty worldwide. Doubling down on fossil fuels, like coal and gas, can only bring harm to Australians and to communities everywhere.

The signs so far are of deep concern to Oxfam and all those concerned about a just and sustainable world. Stacked with people linked to fossil fuel companies or interests,<sup>5</sup> leaked documents from the Government's National COVID19 Coordination Commission has suggested the Government underwrite a huge expansion of Australia's gas industry.

Meanwhile, the draft Technology Investment Roadmap places a similar emphasis on gas and ignores Australia's responsibility to respond adequately to the challenges of climate change.<sup>6</sup> In this briefing we present a broad range of arguments against attempting a gas-fired recovery and in favour of a renewable energy powered recovery.

Right now, the Government has a once in a generation opportunity to drive long-term economic renewal and put in place a meaningful national framework for action on climate change, including cutting emissions. It should not be wasted.






Much has already been written about the opportunities for a renewable energy powered recovery for Australia.<sup>7</sup> This briefing expands on existing analysis by placing Australia's choices in a global context and looking

at issues of both domestic and foreign policy. As a potential clean energy super-power, with unparalleled resources in solar and wind energy, Australia is uniquely placed to help drive the global transition to a clean energy future: a future of greater resilience, of new jobs and industries, and in which prosperity can be shared more equally.





To better understand the choices Australia faces, we must first take a look at the inequities, injustices and destruction of the fossil fuel era, and the mistakes we risk needlessly repeating. In particular, we show how turning to gas will entrench the same problems as coal, including high energy costs, climate damage and pollution, violation of land rights, and concentration of wealth. We then present an alternative vision of a strong, resilient and equitable recovery led by renewable energy and other climate solutions. We look at the advantages of renewable energy over fossil fuels for communities around the world. And how Australia, in addition to transforming our own energy system, can also choose to be a catalyst for action beyond our shores.

The COVID-19 crisis has shown we're capable of listening to the science, working together, and taking bold action across all levels of government, business and the community. We must now apply that same resolve and foresight to the even greater challenges that lie ahead.

### LOOKING BACK THE FOSSIL FUEL ERA

- 
**CLIMATE BREAKDOWN**  
 Extreme weather  
 Collapse of ecosystems
- 
**RIGHTS ABUSES**  
 Displaced communities  
 Damage to Country
- 
**INEQUALITY**  
 Wealth concentration  
 Billions of people left behind
- 
**COSTLY & UNPREDICTABLE**  
 Market volatility  
 Ongoing fuel costs  
 Geopolitical risks
- 
**THREATS TO PUBLIC HEALTH**  
 Air pollution  
 Premature deaths

### LOOKING FORWARD OUR CLEAN ENERGY FUTURE

- 
**ENERGY FOR ALL**  
 Cheapest access to electricity  
 A route out of poverty
- 
**SAVINGS & SELF SUFFICIENCY**  
 Assets owned by families & communities  
 Cheapest form of new generation  
 Low ongoing costs
- 
**AUSTRALIA'S ADVANTAGE**  
 Exporting clean energy & low carbon  
 manufacturing to the world
- 
**A FORCE FOR GOOD**  
 Rebuilding relationships with our region  
 Tackling the global climate crisis



# LOOKING BACK: CARBON INEQUALITY

While fossil fuels have underpinned much of the economic, technological and social development of the last two centuries, the benefits have been unequally shared, with wealth increasingly concentrated in the hands of a few company owners and leaders. Furthermore, the toll on our climate and on the ecosystems upon which we depend has become a threat to our very survival. In this section we take stock of the dark side of fossil fuels, and the risks of attempting a gas-fired economic recovery – both to Australia and the world.

## CLIMATE DAMAGE

For many Australians, 2020 was the year that the climate crisis shifted from a perceived faraway threat to a very real, grave and immediate danger. Almost 80% of Australians were affected by the Black Summer fires and choking smoke.<sup>8</sup> More than a billion animals perished.<sup>9</sup> The devastating fires followed a crippling drought that pushed many farmers to the brink. And they were soon followed by the third major bleaching of the Great Barrier Reef in five years.<sup>10</sup> While unprecedented, these tragedies were not unforeseen, with climate scientists predicting an increase in disasters like these for decades.<sup>11</sup>

Beyond our shores, from the atoll and island nations of the Pacific to the vast Sundarbans coastal delta and mangroves of Bangladesh, the kind of fear and suffering brought upon so many Australians this last summer has long been a part of everyday life. People in low and lower-middle income countries are more than four times as

likely to be forced from their homes by extreme weather disasters than people in high income countries.<sup>12</sup> A study by Climate Analytics projected the likely economic damage inflicted upon the world's Small Island Developing States (SIDS) and Least Developed Countries (LDCs) by warming of 3°C (an amount in-line with the current pace of climate action globally) versus warming of 1.5°C (the long-term goal of the Paris Agreement). The study shows that even with warming held at 1.5°C, on average Pacific Island countries would suffer a hit to their GDP per capita of around 25% by 2100. At 3°C, this would rise, on average, to well over 50%.<sup>13</sup> Pacific Island nations have long recognised the climate crisis as the single greatest threat to their wellbeing and security, a reality that has been formally acknowledged by Australia.<sup>14</sup>

Already, at around 1.1°C of global heating, the climate crisis is leaving millions more people hungry, forcing communities from their homes,<sup>15</sup> and threatening to undermine decades of progress in reducing poverty.

Phelina Cyrus lives on an island in Vanuatu. "Since Cyclone Pam there has been a lot of drought. We can't grow sweet potatoes or taro anymore, and crops like yams and bananas are only growing to half the size they used to. We are harvesting our bananas before they're ripe because the root crops aren't ready, and we need something to eat. Because of the droughts, the grasses that used to feed the goats are gone, so we raise fewer goats. Now, we are eating more food that we didn't grow, so we have less money. Now, during storms and high tides the sea is flooding our homes." Cyrus is considering moving inland and upland, but she has no plot to build on. "I'm already worried about the next cyclone season. In Vanuatu, we are really suffering from the effects of climate change, but we didn't cause it. We want to ask the countries responsible to please reduce their emissions before it's too late."



Photo: Elizabeth Stevens/Oxfam

## DAMAGE TO COUNTRY, INFRINGEMENT OF INDIGENOUS COMMUNITY RIGHTS

In 2020, as governments devise economic interventions and COVID-19 recovery packages that will shape the world for decades to come, it is clear we have entered the end game in the world's efforts to limit the climate crisis to heating of 1.5°C. Only a determined and transformational agenda – the kind perhaps only possible during moments of upheaval like the current health and economic crisis – can get us on a path to limiting global heating to 1.5°C. Failure will push many more communities and ecosystems beyond their ability to adapt, and leave the lives of hundreds of millions of people in peril.<sup>16</sup>

To achieve the long-term goals of the Paris Agreement, the world must roughly halve global greenhouse gas emissions by 2030 and achieve zero emissions by 2050. Emissions will need to fall around 7.6% every year over the decade.<sup>17</sup> Australia – a developed country with very high emissions per person,<sup>18</sup> a hefty historical responsibility for climate pollution and, on the positive side of the ledger, almost unparalleled opportunities for decarbonisation – has a responsibility to get ahead of the curve. And yet, Australia has stubbornly remained among the most carbon intensive and polluting nations on the planet. Australia is the largest exporter of liquefied natural gas (gas) in the world, and the second largest exporter of thermal coal. Even before factoring in the emissions resulting from these burgeoning exports, Australia's emissions per person are the largest of all developed countries, and the highest among all the world's major economies.<sup>19</sup>

In recent years, emissions from the mining, processing and transporting of gas have become the main reason behind Australia's utter failure to curb its climate pollution in line with our responsibilities under the Paris Agreement.<sup>20</sup> Furthermore, recent studies have suggested that the emissions and consequent climate damage associated with gas may be far worse than previously thought.<sup>21</sup> Although gas-fired power plants produce less carbon emissions than coal, the mining, processing and transportation of gas releases large quantities of methane – a highly potent greenhouse gas with many times the warming potential of carbon dioxide.<sup>22</sup>

Claims that Australia's gas exports may have a net positive impact on global emissions by replacing the burning of coal overseas have been repeatedly called into question.<sup>23</sup> The Government has failed to provide any evidence to back its claim that gas is displacing coal.<sup>24</sup> Furthermore, with new research suggesting that methane may have a greater role in the climate crisis than previously thought, it is possible that fugitive emissions from proposed new gas extraction and processing will have a larger global heating impact than proposed coal power expansion.<sup>25</sup> The danger increases for unconventional forms of gas mining, including hydraulic fracturing ("fracking"), which results in higher levels of fugitive emissions.<sup>26</sup>

Put simply, from the perspective of the global climate crisis, in 2020 the arguments for stopping the further exploitation of fossil fuels, and against the gas-fired recovery favoured by Energy Minister Angus Taylor and members of the National Covid-19 Coordination Commission, are overwhelming.

Across the world, the fossil fuel industry has forced communities from their homes, depleted scarce water resources, and violated the rights of Indigenous peoples. In 2015, Oxfam documented the experiences of people forced from their land and homes by the Benga coalmine in Mozambique. Despite a planned resettlement program, people who were displaced have been significantly disadvantaged, faced with the loss of livelihoods and economic opportunities, the fracturing of their community, and uncertainty about their health and future.<sup>27</sup>

Closer to home, the proposed expansion of Australia's gas industry is of grave concern to communities across the Northern Territory (NT), who fear they will have to deal with the long-term impacts of onshore gas development, while the benefits will be short-term and flow mostly to people outside the community.<sup>28</sup> The NT has more than one-third of Australia's shale gas resources, and 70% are found in the Beetaloo Sub-basin.<sup>29</sup>

In 2018, the NT Government lifted its moratorium on fracking, and over 85% of the NT is now either under a gas exploration license or subject to an application.<sup>30</sup> Most of these exploration licenses have been granted without gaining the proper free, prior and informed consent (FPIC) of Aboriginal communities in the NT.<sup>31</sup> FPIC is recognised by the United Nations Declaration on the Rights of Indigenous Peoples,<sup>32</sup> and constitutes more than just consultation, but the right of Indigenous peoples to give or withhold consent to actions that affect their lands, territories and natural resources.<sup>33</sup> In fact, given that communities are required to provide consent at the exploration phase of gas projects when information about the scale of impacts is not comprehensive – and cannot subsequently withdraw their consent for a project at the production stage once they have said "yes" to exploration – the ability of the Aboriginal Land Rights (Northern Territory) Act 1976 to uphold the rights of Aboriginal communities when it comes to gas development has also been called into question.<sup>34</sup>

Communities are concerned about the multitude of potential impacts of gas exploration and production, such as habitat and cultural heritage destruction, landscape changes, and the risks of contamination and depletion of groundwater.<sup>35</sup> Water is vital to both agricultural and pastoral activities and traditional practices that connect Aboriginal landowning groups with their Country.<sup>36</sup> Fracking is a water-intensive process and it is estimated that the gas industry in the Beetaloo Sub-basin will use between 2,500 and 5,000 megalitres of water each year – the equivalent of between 1,000 and 2,000 Olympic swimming pools.<sup>37</sup> Moreover, exploiting the NT's gas reserves could produce emissions far exceeding those associated with Adani's proposed Carmichael mine, further fuelling climate disasters, which will disproportionately impact First Peoples.<sup>38</sup>

## INEQUALITY AND WEALTH CONCENTRATION

By its very nature, the fossil fuel industry tends to encourage the concentration of wealth. It relies on expensive infrastructure owned by large corporations. And while almost all places on earth have some potential to generate renewable energy, fossil fuel reserves are concentrated in a few areas, which have become tremendously wealthy at the expense of the rest of the world. Furthermore, 13 of the 40 top tax-evading companies in Australia are fossil fuel companies.<sup>39</sup>

People living in poverty are disproportionately affected by climate change. They lack the safety nets that we are fortunate to have in countries such as Australia. They are more directly reliant on the land and have little to no assets to help them recover from extreme weather disasters. And despite being the most affected by climate change, the poorest half of the world's population has barely contributed to its causes. They are responsible for just 10% of carbon emissions, while the richest 10% of people produce around half of all emissions.<sup>40</sup>

The fossil fuel industry can also exacerbate existing social inequalities.<sup>41</sup> In many cases, and in addition to bearing the brunt of climate damage, communities located close to fossil fuel projects may see no benefit in terms of access to electricity and other development opportunities. The energy produced may be for industry or only accessible to those wealthy enough to be connected to the grid. This striking inequity is exemplified in India's coal belt. Despite living among the country's highest concentration of coal-fired power plants, communities here have among the lowest rates of electricity access in the country.<sup>42</sup> Coal mines and coal-fired power stations also have a detrimental effect on community health, as a result of air, soil and water contamination.<sup>43</sup>

## MARKET VOLATILITY, GEOPOLITICS AND STRANDED ASSETS

In early 2020, the oil price war between Saudi Arabia and Russia resulted in oil prices collapsing, and even turning negative for a time, due in part to supply outstripping demand combined with the expense and limitations of oil storage. The price of oil and gas are interlinked. Australia is already vulnerable to volatile global fossil fuel pricing and would become all the more so if it further increases reliance on gas to support its economy. Recent events have already forced some of Australia's largest oil and gas companies to drop planned expansions<sup>44</sup> and there have been heavy job losses within the sector.

Japan, the world's largest gas importer, shows how reliance on natural gas for their power needs leaves countries vulnerable to global supply chain disruptions. During the COVID-19 pandemic and lockdowns, the

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**Gas is a very unstable foundation on which to rebuild an economy. It risks failing not only to meet immediate needs but also imposing a crippling burden on future generations.**

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country faced potential power shortages and was left with only two weeks' supply of gas, which is not suited to long-term storage and stockpiling.<sup>45</sup>

At the Paris climate conference in 2015, countries agreed to take action that would limit global heating to well below 2°C and pursue efforts to limit temperature rise to 1.5°C. In the wake of this agreement, there has been an ever-growing number of governments and corporations moving to decarbonise. Now, numerous jurisdictions, including the European Union, are looking to the recovery from the COVID-19 crisis as an opportunity to accelerate this shift.<sup>46</sup> In this context, the risk of stranded assets – assets which are not able to meet a viable economic return – within the fossil fuel industry looms large.<sup>47</sup>

Gas is a very unstable foundation on which to rebuild an economy. It risks failing not only to meet immediate needs but also imposing a crippling burden on future generations.



Photo: Geoff Law/AdaniWatch



Coal to be mined by Adani from the controversial Carmichael coal project in the Galilee Basin in Queensland, Australia, is destined for Godda in the state of Jharkhand in eastern India, close to the border with Bangladesh, where Adani plan to construct a new coal-fired power station.

Despite claims that Adani's Australian coal will help address energy poverty in India, the electricity produced at Godda is not intended for India and will actually be exported to Bangladesh at inflated prices.<sup>48</sup> While 100% renewable energy by 2050 is a possibility for Bangladesh,<sup>49</sup> the deal with Adani will lock the country into expensive, non-renewable electricity with high emissions for decades.<sup>50</sup>

Adani requires 1,214 acres of land across 10 villages for the Godda project, much of which is fertile farmland and home to thousands of people. Three of the villages are predominantly Santhal, an Indigenous Adivasi community for whom the land is sacred. The land has been forcibly acquired by the government by declaring the project for 'public

purpose'. Villagers are seeking to contest this declaration in court, arguing that there is no 'public purpose' as all the energy will go to Bangladesh and is for private profit of the Adani group. As one farmer said:

"We are tribal people dependent on agriculture alone. We don't do any business but rely on this totally. This has been our culture since our forefathers and therefore we do not want to sell our land. In 2018 they bulldozed the fields, women and children fell at their feet, yet they didn't listen and devastated it all."

Adani has used local groundwater to construct the power station. Locals around Godda say the water table has fallen dramatically since the arrival of Adani, with farmers unable to grow crops and wells running dry. Adani also plans to construct a 100km water pipeline to extract 36 billion litres of water from the famous Ganges River, which is a sacred site for Hindus, once the power station starts running.



Photo: Geoff Law/AdaniWatch



# LOOKING FORWARD: THE CLEAN, EQUITABLE ECONOMIES OF THE FUTURE

The tragedy of COVID-19 has come at a time when the solutions to the climate crisis, such as renewable energy, are not only readily available but also offer a more promising path to recovery from the social and economic shocks of the pandemic. We have the opportunity to reshape our economy, and in particular our energy systems and exports, in ways that promise a bright future for all Australians and ensure that Australia plays its part in tackling climate change and global poverty.

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**Solar and wind provide the most cost-effective form of new energy generation in most markets, even before pricing in the many negative impacts associated with fossil fuels.**

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## ENERGY FOR ALL

The Australian Government and fossil fuel industry often wrongly present Australia's coal and gas exports as an important contribution to ending 'energy poverty' in developing countries, thereby helping to raise living standards and achieve development goals. As previous Oxfam analysis has demonstrated, fossil fuels can do little to bring electricity to people who live without it, the majority of whom live beyond the reach of conventional electricity grids.<sup>51</sup> It's also important to note that the industry relies heavily on government subsidies, which have risen in recent years. The Group of 20 (G20) governments provide at least US\$63.9 billion per year in government support to the production and consumption of coal alone.<sup>52</sup>

In contrast, local, decentralised renewable energy schemes and micro-grids are at the centre of efforts to ensure that every family worldwide has access to clean,

affordable and reliable energy. For a number of years now, small solar systems have been offering many communities the cheapest and fastest route to having electricity for lighting, refrigeration and other basic energy needs. The results can be transformative, including giving a vital boost to healthcare, education and safety in the community,<sup>53</sup> and promoting local economic development.<sup>54</sup> Increasingly, as technologies advance and costs decline, renewable energy is also offering a solution to larger energy needs, such as for cooking and heating homes.<sup>55</sup> This means that households do not need to look to gas as an alternative to burning wood, animal dung and other highly polluting fuels.<sup>56</sup>

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**The potential for job creation in renewables is far greater than any possibility of job creation in the fossil fuel industry.**

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While the advantages of renewable energy over fossil fuels in helping achieve universal energy access are now well established, the question of how to significantly expand electricity generation to meet the needs of growing industries and a country's overall energy demands remains. Fortunately, the scales have again tipped more and more in favour of renewables. Solar and wind provide the most



Jordan Valley, Occupied Palestinian Territory: Ahmad, a date farmer, takes care of a new solar water system installed by Oxfam and partner Economic and Social Development Centre. Nearby farmers now have access to water at all times and their crops are thriving. Photo: Kieran Doherty/Oxfam.

cost-effective form of new energy generation in most markets, even before pricing in the many negative impacts associated with fossil fuels.<sup>57</sup> These realities, coupled with the urgent imperative of tackling the climate crisis, have prompted many of the world's big emerging economies to steadily increase the scale of their renewable energy ambitions,<sup>58</sup> and even prompted many of the world's least developed countries to aspire to 100% renewable energy as soon as possible.<sup>59</sup> In Southeast Asia, there are signs that the COVID-19 crisis may be further encouraging the shift to renewable energy, as volatility in fossil fuel

markets prompts countries to embrace the security of domestic renewable energy.<sup>60</sup>

As explored further in the section below on Australia's renewables advantage, Australia has unparalleled resources in solar and wind energy and could choose to play a positive and profound role in supporting this energy transition globally. This could be done by drawing on Australian expertise and resources, and by making it a priority across Australian trade policy, diplomacy and international development assistance.

PEG Africa is one company working to reduce energy poverty by providing the poorest households in West Africa with affordable solar-powered systems using an innovative pay-as-you-go financing approach. From its humble beginnings, the company now employs more than 1,200 people across Ghana, Ivory Coast, Senegal, and Mali and has delivered energy to over 600,000 people (90,000 households).

PEG focuses on the poorest rural households and small businesses. Half of PEG's customers live off less than US\$3 per day and 82% had never accessed financial credit prior to becoming a customer. Nearly 90% of PEG's customers have no access to an electricity grid and would previously rely on expensive batteries or polluting and unsafe fuels like kerosene and candles, which cause more deaths in Sub-Saharan Africa than malaria and HIV combined.<sup>61</sup> Because women do the majority of domestic work, they are the most affected.<sup>62</sup> In addition to saving lives, PEG estimates that their customers save up to US\$1,000 over the life of a solar home system, which can power lighting, phone charging, radios, TVs and fans. The systems eventually lead to

households becoming self-sufficient in their energy requirements as the loan payments they make (generally via mobile money) go directly towards gaining ownership of the assets they are paying off.

Nearly two-thirds of PEG's customers are farmers. In late 2018, PEG began supplying solar pumps and generators to small agricultural businesses, kiosks and health centres in West Africa, to replace diesel generators and pumps. This initiative has been of particular benefit to women farmers and business owners, who face greater challenges than men when it comes to obtaining finance. PEG has also partnered with village savings and loans groups to expand energy access to more women and has developed field roles tailored to women's working limitations in rural communities. The company is also challenging gender stereotypes by encouraging brand ambassadors to install the solar panels themselves and has implemented a strategy that has doubled the number of women within the company's leadership, such as Eunice Atingane, a PEG Village Savings and Loan Associations Brand Ambassador (pictured below) installing a solar home TV system for a customer.



Photo: PEG Africa



## SECURITY AND AFFORDABILITY

Alongside tackling climate change, Australia and the world are today faced with shocking levels of inequality both between and within nations.

In contrast to fossil fuels, which by their very nature encourage the concentration of wealth and assets in the hands of the few, renewable energy can offer the foundations of a more human- and community-centred economy in which prosperity is more evenly shared.<sup>63</sup>

Taking the example of household renewable energy systems, or larger community-owned renewable schemes, after initial investment the family or community is then the owner of a productive asset that provides for some or all of its energy needs. At today's set-up costs, the family or community can quickly make good on the investment through saving on its bills. It no longer faces ongoing fuel costs and seeing a hefty portion of its wealth flow to the pockets of big energy producers and retailers. And it is no longer at the whims of volatile energy markets.

This greater degree of de-centralisation is also an important factor in community resilience, and thereby the resilience of whole countries, to future shocks. An energy system reliant on fossil fuels and on a small number of large generators has many vulnerabilities. Faults in the system can end up leaving large numbers of people and businesses without power and with no back-up. And those countries reliant on fuel imports are exposed to volatile markets and to competition – or even conflict – among producers. By contrast, an energy system built on renewables offers resilience through self-sufficiency and long-term energy security.

## AUSTRALIA'S RENEWABLES ADVANTAGE

Australia, as one of the sunniest and windiest countries on earth, is blessed with extraordinary advantages when it comes to renewable energy. We are in a position to both transform our own energy system and, through the sharing of solutions and the export of clean energy, to play a vital role in the world's energy transition.

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**With renewable energy potential that far exceeds our domestic needs, Australia is in a position to become the world's largest exporter of renewable energy.**

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In 2020 there are no technical or economic barriers to developing a 100% renewable electricity system for Australia. Indeed, multiple studies have shown this to be the most economically sensible path for Australia, in both the near and long term.<sup>64</sup> Near-100% renewables

could be achieved using existing and already mature technologies, for example through expanding solar and wind generation, firmed by existing hydropower and coupled with significant but readily achievable investment in storage.<sup>65</sup> The common argument from the Australian Government that the decarbonisation of the energy system will require greater use of gas as a 'transition fuel' has been widely called into question, and is not supported by scenarios presented by the Australian Energy Market Operator (AEMO).<sup>66</sup>

### Jobs

The potential for job creation in renewables is far greater than any possibility of job growth in the fossil fuel industry.<sup>67</sup> A recent paper by think tank Beyond Zero Emissions, which constitutes the first step in its vision for a million new jobs in renewable industries created through the COVID-19 recovery, provides a scenario for the rapid expansion of renewable energy over the next five years that could create 124,000 jobs in construction and 22,000 ongoing jobs.<sup>68</sup> Conversely, some research has suggested that an expansion of the gas sector would be capital intensive and create a relatively small number of jobs.<sup>69</sup>

### Low and zero-carbon manufacturing

With its abundant potential for renewable energy, Australia can also choose to become a powerhouse of low and zero-carbon manufacturing.<sup>70</sup> In particular, as revealed by the Grattan Institute, Australia has an exceptional opportunity to capture the global market for green steel; that is, steel produced using hydrogen from renewable sources rather than metallurgical coal. Significantly, this offers not only a major new export industry but the potential to create tens of thousands of jobs in regional New South Wales and Queensland.<sup>71</sup>

### Clean exports

Last but by no means least, with renewable energy potential that far exceeds our domestic needs, Australia is in a position to become the world's largest exporter of renewable energy. Energy exports have long been a major part of the Australian economy. With the demand for traditional energy sources set to steadily decline, Australia's equally strong endowment of renewable energy sources is a blessing we simply cannot afford to ignore.

Renewable energy exports can take many forms, including direct transmission of electricity via undersea cables, clean hydrogen or ammonia, and manufacture and export of renewable energy components. Each option provides potential new sources of revenue for Australia.

In addition, by also making climate and energy a major focus of Australia's international development assistance program, we can play an important role in ensuring communities everywhere can access clean, affordable and reliable energy.

## REGAINING OUR PLACE IN THE WORLD

Australia's reputation as a responsible, trustworthy and progressive nation has taken a battering following years of abject failure to respond to the mounting global climate catastrophe. Staunch allies, including the United Kingdom, have been left bewildered by our reluctance to turn away from coal and gas, even after seeing vast tracts of our country engulfed in flames.<sup>72</sup> When it comes to our immediate region, this stubborn resistance has become more than a mere cause for embarrassment, and without a change in course may increasingly affect Australia materially and strategically. After decades of seeing their pleas for action ignored, Pacific Island countries have become impatient with Australia and are increasingly turning to other development partners.<sup>73</sup> A determined pivot towards a cleaner economy would greatly enhance Australia's standing and influence in the Pacific – a region now at the centre of 21st century geopolitics.<sup>74</sup>

Few, if any, developed countries are more vulnerable in our warming world than Australia. As our Government often reminds us, Australia's future depends on global action to curb climate pollution. Yet right now Australia is unequivocally a regressive force on global climate action – doubling down on exploiting fossil fuels at home, while working to open up new markets for coal and gas exports,<sup>75</sup> and holding back progress in international climate negotiations.<sup>76</sup>

By taking meaningful action at home, through working to enable rather than hinder the renewable energy transition globally, and by engaging in strong international diplomacy for greater global action, Australia can help to accelerate the world's response to the climate crisis, thereby safeguarding our own future. Recently, our key role in pushing for an independent inquiry into the origins and response to the COVID-19 pandemic has reaffirmed that Australia can be a highly effective 'middle power'. When it comes to the climate crisis, it's time to once again use our powers for good.

## RECOMMENDATIONS

### COMMIT

- To a renewables-led recovery from the COVID-19 crisis that aligns with our responsibility to help limit global heating to 1.5°C.
- To no further expansion of Australia's coal and gas industries, and to the phase-out of fossil fuels in both our domestic energy system and exports by 2030.
- To a national goal of zero emissions well before mid-century, and to strengthening Australia's initial contribution to the Paris Agreement, including our 2030 emissions target.
- To the rapid expansion of renewable energy in Australia to well beyond 100% of current electricity demand, in order to replace fossil fuel use across all sectors, and power a renewable energy export industry.
- To ensuring all overseas development assistance, export credit, and trade promotion is compatible with the long-term goals of the Paris Agreement.
- To ensuring no overseas development assistance, export credit, and trade promotion supports fossil fuels, and that all international cooperation on energy is geared towards renewable energy, achieving universal energy access, and supporting equitable development.
- To embracing Australia's potential as a middle power to help strengthen global commitments to tackling the climate crisis.

### INVEST

- In economic stimulus measures that accelerate the transformation of our energy system to being powered by renewable energy, lay the ground for low-carbon manufacturing industries, and protect and restore ecosystems.
- In the research and infrastructure needed to establish Australia as a major exporter of renewable energy.
- In international climate action through providing a fair share towards international climate finance.

### PRIORITISE

- Indigenous-led climate solutions and the right of First Peoples to protect Country.
- Opportunities for new jobs and industries in regional areas through climate action.
- Building community resilience to climate change, both in Australia and through our development partnerships with the Pacific and beyond.

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