

ENERGY POLICY

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The 2022 federal election has been dubbed as the ‘climate election’, with voters supposedly ushering in the Albanese-led Labor Party and a diverse crossbench, motivated in large part by climate concerns (Slezak 2022). After distinct policy stasis under successive federal Coalition governments, a change is most welcome. Indeed, to go from a Question Time coal-wielding PM in Scott Morrison to a near-doubling of the national emissions reduction target and a declared \$40 billion in renewables investment, that change would seem significant. Yet, in the year to June 2023, Australia’s greenhouse gas emissions increased (DCCEEW 2023a). Excluding the land sector, where questionable offsetting abounds, Australia has only decreased its emissions on 2005 levels by 1.4%. Considering this context, we provide an overview and assessment of climate and energy policy under the Albanese government.

Labor’s policy approach has looked to build on past initiatives. Labor’s pre-election policy *Powering Australia* pledged substantial funding to escape the legacy of Coalition policies and to help reduce the carbon footprint of domestic energy markets. Plans for other sectors are yet to emerge but will ostensibly be addressed by ‘sectoral plans’ in their *Net Zero 2050* plan (DCCEEW 2023b). As these sectoral plans are yet to emerge, this article focuses on the most advanced facet of Labor’s emissions reduction policy: energy. This has involved reinforcing and extending some of the policy schemes introduced by the Gillard Labor government: namely, the Clean Energy Finance Corporation and the Australian Renewable Energy Agency that provide access to discounted finance and seed funding. Other key policies represent a continuation of Coalition policy, especially the reliance on carbon offsets to meet emissions reduction goals, and (relatedly) the Safeguard Mechanism. The

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centrepiece policy for Labor is *Rewiring the Nation*, – funding set aside to enable the energy transmission network to accommodate growing renewable energy generation. Through these various policy mechanisms, Labor asserts it has increased ‘the Government’s total investment [in renewable energy] to more than \$40 billion’ (Chalmers 2023). That claim relies on some interesting accounting – especially ‘off book’ financing. But there has certainly been a distinct pivot in energy policy under Labor, which we might characterise as supporting a nascent fraction of private renewable capital.

Energy policy under Labor is not, however, without contradiction. The key policy designed to directly reduce heavy industrial emissions, the *Safeguard Mechanism*, has been found to be ineffectual: it will not directly reduce emissions until 2030 (Tilly 2023). When this is taken alongside Australia’s enormous – and growing – fossil-fuel export industry, Labor’s climate halo begins to slip. When we contextualise Labor’s climate and energy policy in terms of our remaining global ‘carbon budget’, the halo falls off entirely. Even assuming Australia will hit its emissions reduction targets – an heroic assumption, as this article will show – if the world followed the same decarbonisation trajectory as Australia, we would have a 50:50 chance of warming exceeding 2.5°C – a truly cataclysmic future (Ryan 2023). Australia has even been named by the UNEP as one of the worst countries in the world, in terms of the ‘production gap’ between allowable emissions and the impact of planned fossil fuel expansion (SEI, Climate Analytics, E3G, IISD, and UNEP 2023). In short, Australia’s historical entwinement with fossil capital is yet to be seriously challenged by the Albanese-Labor government. Meanwhile the transformation of the domestic energy market continues to proceed along market lines.

Here we explore this conundrum, tracing the way Labor energy policy is pulling in different directions: while there is absolutely a gradual decarbonisation of the domestic energy grid occurring – captured under *Powering Australia* and *Rewiring the Nation* (though contested, especially around the role of gas) – this policy direction is justified as an attempt to mitigate the impact of climate change. That mitigation is being entirely offset by the contradictory expansion of fossil fuel production and export. Against both of those futures, however, is a small, embattled alternative: community energy, a ‘real utopia’, which cuts against the dominant determinants of our energy regime, ‘down under’.

The NEM foundations of Labor's policy

A key plank of Labor's policy platform for the 2022 election was *Powering Australia*. The most substantial element of this program is *Rewiring Australia*; and we focus here on its origins and character. Doing so demonstrates the contradictions of Labor's approach to the energy transition and speaks to its broader commitment to neoliberalism. The origins of *Rewiring Australia* lie in the neoliberal project to supplant the role of state governments in energy system governance: this project has resulted in some households bearing a disproportionate share of the cost of transitioning to a low-carbon economy, while maintaining and expanding profits for private electricity generators, distributors and retailers. This has become more institutionalised with the announcement of the roll out of the National Capacity Investment Scheme. The Scheme guarantees providers will be compensated if energy prices fall below a floor and thereby seeks to incentivise providers to maintain supply (DCCEEW 2023d).

The contention that the establishment of a national energy market based on *laissez faire* principles would foreground competition and enhance efficiency to drive down the cost of electricity was popularised with the commissioning and release of the *National Competition Policy Review* in 1993. The conclusion drawn that market liberalisation would deliver energy at lower cost and more reliably has, however, proved fallacious: prices have skyrocketed, and reliability was compromised and stabilisation was imposed with the suspension of the *laissez-faire* guidelines (Richardson 2019).

Contrary to the free-market rhetoric used to justify the privatisation of the electricity system, the transformation of formerly-state-owned utilities and regulated markets into a 'national' competitive market has resulted in a highly regulated energy system. Power generation, transmission and distribution are dominated by oligopolistic international corporations. They are guaranteed minimum rates of return on their investments. The Australian Energy Regulator (AER) and the Australian Energy Market Operator (AEMO) sanction this arrangement, justifying this in terms of the generation, transmission and distribution stages in the supply chain being regarded as 'natural monopolies'. The neoliberal project to liberalise energy markets has had little purchase in fostering competition in these stages. Some states warmed to the promised benefits of unbundling state-

owned and operated enterprises, corporatising these divisions and then privatising them.

The progress in establishing a national energy market subject to the dictates of *laissez-faire*-ism was frustrated by the Commonwealth Constitution decree that energy is a state responsibility, as much as it was by the physical layout of the energy systems designed to service state economies. Constitutional responsibility meant both tiers of the state had an interest in deliberations over the form of the National Energy Market (NEM). Victoria and South Australia were the only state governments to act on the call to privatise state energy utilities, although New South Wales privatised generators and distribution and transmission infrastructure some twenty years later. The sovereignty of the states also meant that the states could exercise their ambitions regarding emissions governance, and state initiatives often conflicted with successive Coalition governments' reluctance to develop substantive energy and emissions policy.

Despite federal recalcitrance under the Coalition from 2013, state and territory governments set their own minimum emissions reduction targets. The ACT committed to 65 to 75% by 2030, while New South Wales, South Australia, Victoria and the Northern Territory announced that they were each intent on achieving at least 50% renewables by 2030. Victoria and New South Wales have since increased their target to 65% and 70% by 2030, respectively, while Queensland followed with a plan to invest \$19 billion in the state-owned energy system to set a bolder target of 70% by 2032. WA is the laggard state hoping to achieve a paltry 30% by 2050. The minority Liberal government in Tasmania counted itself as even greener, indicating that it would reach 200% of the reduction target while the Coalition government of New South Wales popularised its robust carbon abatement policy with a strong commitment to emissions reduction targets, which the Labor Party inherited when it was elected to office in NSW in March 2023.

Reimagining National Energy Market governance

Crucial to understanding the dynamics of climate policy formulation is recognising the catalyst that got the ball rolling on the modest decarbonisation to date. This was not so much the concern with the issue of emissions and the growing concentration of CO_{2-e} in the atmosphere, but rather the neoliberal project to dissolve the role of state governments

in energy system governance to create a 'national' energy market. The governance institutions established to progress the NEM's energy systems soon turned their attention to considering the need to invest in an infrastructure modernisation program that would occur alongside expanding renewable energy generation, transmission and distribution capacity. The well from which this program was drawn was the governance architecture that facilitated the establishment of the national energy market. This governance structure was based on three relatively autonomous agencies established to design the rules and regulations governing the market, enforce these rules and regulations and oversee the operation of the market. Investing in transmission and distribution infrastructure was to become the vehicle for hastening the integration of state-oriented energy systems into a national energy market (Rosewarne 2022).

Ironically, it was the machinations within the Liberal-National Party Coalition and the conservative faction's determination to block any moves for liberal reform of energy policy that created an impetus for change. The ascension of Malcolm Turnbull to the Prime Ministership temporarily broke the conservative faction's opposition to the development of energy policy. With some coal-fired power stations facing retirement, Turnbull realised that the Coalition could no longer sidestep the consequences of climate change for energy policy. Responding to the proactive initiatives of several state governments committing to robust emissions reduction targets, there was a consequential shift in the focus of debate within the Council of Australian Government (COAG) Energy Ministerial meetings. Anxious to expedite policy design, and with the backing of the COAG Energy Ministerial meeting, Turnbull established the Energy Security Board (ESB). Dr Kerry Schott, a highly regarded corporate director and senior state enterprise executive, was appointed as the CEO of the Board and assumed responsibility for projecting a more persuasive presence in the COAG forum. The ESB team very quickly changed the focus of Ministerial meetings and became an institutional force to be reckoned with. The COAG meeting commissioned the ESB and AEMO to prepare reports on the physical structure and organisation of the NEM that anticipated the future demand for energy and the capacity of the generation, transmission and distribution infrastructure to meet the nation's demand. This was to be modelled with respect to an ever-growing energy system that operated within the constraints of various emission reduction scenarios.

Before the reports were completed, Turnbull submitted an energy policy to the Coalition Party room. The *National Energy Guarantee* would legislate an emissions reduction policy in line with the Paris accord. This was initially accepted and then rejected. Demonstrating a surprising lack of political acumen, Turnbull submitted a watered-down version of the *Guarantee* which was also rejected. He had no alternative but to resign the leadership of the Liberal Party. The conservative Scott Morrison took on the Prime Ministership and National Party conservative Angus Taylor the energy and emissions reduction portfolio.

In the meantime, the ESB wasted no time outlining a *Strategic Energy Plan* (2019) that could progress and guide energy policy formulation. Schott and Audrey Zibelman, AEMO's CEO, continued working on the modelling of a national energy market that incorporated emissions reductions objectives for the COAG Energy Ministerial forum, leading to the development of the *Integrated System Plan* (2020). Commissioned on the assumption that the *ISP* would provide a biennial modelling of the energy economy in transition, the *ISP* marked a turning point in energy policy design and was to become the key reference for the framing of policy. The *ISP* took the lead from the modelling completed by Nicholas Stern (2005-2006) for the British Labour government and Ross Garnaut for the Australian Labor Party (2008-2011). The *ISP* mapped the changing governance and infrastructure demands that would arise in the context of a variety of emission reduction scenarios as they would be determined over time. In producing the reports, the debate on energy policy and climate change became framed by a technocratic focus that would concentrate on planning the organisation and structure of the NEM, and how it might achieve different decarbonisation scenarios.

In an interesting unfolding of climate politics, the Coalition wrestled with what to do about the technocratic framing of energy with respect to emission governance. Concerns that the technocrats had become too influential in the COAG Energy Council led to launching an inquiry into the operation of the Energy Council. In the interests of silencing criticism of Coalition policy, the Council was replaced by the Energy National Cabinet Reform Committee (Conlan 2020). The Minister for Energy and Emissions Reduction, Angus Taylor, launched a hostile and public critique of the *ISP*. When Schott and Zibelman stood by their modelling, having no qualms in defending their analysis and recommendations (Ludlow 2020), Schott paid the price with her position not being extended (Macdonald-Smith 2021). Zibelman returned to the USA.

Notwithstanding these developments, the *ISP* was quite firmly established as the most likely model for the future.

The metamorphosis of the Labor Party?

One of the first pieces of legislation passed by the Albanese-Labor government, after the 2022 election, was the *Climate Change Bill 2022*, which increased the federal emissions reduction target from 26-28 to 43% reduction on 2005 levels by 2030, and to net-zero by 2050. For the first time since the federal Labor Party was last in government, the liberalisation of the energy market was being linked to emissions governance. But it was a loose link. Labor's commitment to the 43% target was decidedly conservative compared to state Labor declarations and targets deemed to be in line with Australia's 'fair share' of scientifically necessary emissions reductions for either a 1.5 or 2 degree-warmed world (Climate Action Tracker 2022). Labor's position displayed a surprising degree of timidity, and tacit acknowledgment of the limitations to *Rewiring the Nation*.

One explanation for the conservatism is that a more-ambitious target could be weaponised by Labor's political opponents. The Gillard Labor government's proposed carbon price had excited a negative campaign that brought an end to her leadership – and now the Coalition was pushing this button again. The lack of unanimity – and instrumental links to fossil capital (Murray and Frijters 2022) – in the Party was another factor. The development agendas of the Labor governments in Queensland and Western Australia remained focused on the resources sector; and a more ambitious national target could have impacted on the future of these governments. The revelation that the Premier of Western Australia's Labor government had directed the head of the WA Environment Protection Authority to desist from mandating carbon target reductions suggested a reluctance to take seriously emissions reduction goals (Diss 2023; Bourke 2023a). The EPA intervention had followed the exposure of Chevron's failure to fulfil the terms of its North West Shelf LNG development approval to capture and store CO_{2-e} in spent oil wells. Queensland's Labor government was similarly vulnerable to criticism for committing to a 2050 zero-emissions target while simultaneously 'quietly' approving coal mine developments and gas extraction projects that estimates predicted could boost national emissions by 60% (Morris 2022). The Australian Petroleum

Production and Exploration Association (APPEA, now rebranded as the ‘Australian Energy Producers’) had established a foothold in the Coalition government, and then directed its lobbying toward Labor. APPEA had wielded considerable influence in making the case for gas as a transition fuel and its success is evidenced by Labor trumpeting its support for gas. Labor argued that gas was a cleaner source of energy than coal and which could ease the transition from coal; and this was written into Labor’s energy policy platform (Coorey 2021). This reflected the enduring commitment of federal Labor to fossil fuels. Another powerful example of is the proposed Middle Arm development south of Darwin. During the 2022 election campaign, the Coalition announced \$1.5 billion for this petrochemical precinct, which Labor quickly agreed to match – under pressure from lobbyists, including former Labor and Coalition ministers (Davies and Cox 2023).

The lack of unanimity within the Labor Party reflected the truncated nature of the NEM. The development of a national energy policy has been limited by the fact that the six states and territories operating on the basis that they enjoyed complete energy governance autonomy. More concretely, state energy governance was still very much the dominant force shaping the operation of energy markets; and there was a risk that an ambitious emissions target could test the reliability of markets to ensure the supply of electricity operations. This possibility became a reality in May 2022 when the AEMO intervened in the market, putting a cap on prices and then taking control of the wholesale markets and generation (Doran 2022; Belot 2022).

The 43% target was also regarded as a preliminary step with Labor asserting a bolder policy to distinguish the Party from the Coalition’s, irrespective of Labor state government targets which were in most cases more ambitious. The federal Party had been giving some thought to restructuring the NEM governance architecture. In preparing for the first COAG energy ministers forum to be held since Labor assumed office, the Party made the break, tabling a proposal to ‘integrate emissions reduction and energy policy in the national energy laws’ (Department of Environment, Energy and Water 2023b). The ESB was axed and the National Energy Transformation Partnership formed as an advisory body to forge a common emissions reduction objective of net-zero emissions by 2050 (Department of Environment, Energy and Water 2023b; Climate Change Ministerial Council 2022a 2023). The Partnership seems motivated by a desire within the Labor party to wrest back control of policy

design from technocrats. But this can also be seen to be the product of shadowing Labor's conservatism, which underscored the reluctance to impose too many constraints on capital, especially given the state support that is on offer to invest in renewable energy generation.

The contradictions in *Rewiring the Nation*

The decision to have AEMO provide the *Integrated System Plan* as a biennial review has transformed what would develop into an ongoing progress report that served as the foundation for *Rewiring Australia* and, in the future, a potential audit of the success or otherwise of that policy. The *ISP* captures a snapshot of the structure and organisation of the NEM and evaluates the projects that would be required to deliver the requisite increase in renewable energy delivered from the main renewable sources. These vary according to the different scenarios, each contribution based on least cost, net market benefit principles. The *ISP* modelled the required change through the lens of four different scenarios: (1) Slow Change; (2) 'Progressive Change' that would involve ratcheting up emissions reductions over time; (3) a Step Change which the report proposed should serve as the Optimal Development Path as the foundation for *Rewiring the Nation*; and (4) a scenario in which a Hydrogen Superpower would emerge as a corollary of global forces pushing for optimising development.

The *ISP* anticipates that the transition from an economy fired by fossil fuels to one that draws on nature's 'free gifts' will make a substantial call on new capital, as infrastructure foundations are modernised. Investment to meet the additional infrastructural requirements needed to generate sufficient power from renewable sources to meet the anticipated increase in demand will be essential. The key finding is that:

Without coal, this will require a nine-fold increase in utility-scale variable renewable energy [generated intermittently by harnessing solar irradiance and the force of wind turbines,] [...] dispatchable batteries, pumped hydro or alternative storage to manage daily and seasonal variations in the output from fast-growing solar and wind generation [and] [...] the generation and feed-in capability of millions of individual consumer-owned solar PV systems [coordinated in virtual power plants, and] [...] a trebling of firming capacity, which will draw from increased storage capacity, adapt the network and install 10,000 kilometres of high-voltage towers to more systematically integrate the NEM (AEMO 2022: 6-10).

In an ESB survey of the preferred scenario, industry participants indicated a preference for the Step Change approach. This would call upon a substantial flow of capital through time, but AEMO neither quantifies the magnitude of capital that will finance the transition nor identifies the source/s of that capital, though modelling pursued elsewhere in a similar scenario to AEMO's 'hydrogen superpower' model indicates up to \$1.5 trillion of investment would be required over the next decade (Net Zero Australia 2023). One premise was that the Commonwealth and state governments were expected to assume the lead and partnering to meet the cost of new infrastructure.

The *ISP* provides an unambiguous case for reinvigorating accumulation based on the energy sector, especially via the electrification of the economy; and *Rewiring the Nation* affects that plan. As much as it marks out new territory, it also rehearses some of the policy shortcomings of the past. For a start, the *ISP* and *Rewiring the Nation* show a reluctance to have the big polluters bear some proportion of the costs they are imposing on the world. Instead of recognising the existence of economic costs associated with environmental externalities and imposing penalties that would have encouraged the polluters to explore low-carbon technologies, the *ISP* flags the power generation activities that should be backed, while *Rewiring* indicates the scale of the financial backing that will be made available. Indeed, the federal and state governments continue to subsidise polluting industries, the \$1.5 billion subsidy to the Middle Arm gas-exporting hub in Darwin being a case in point (Campbell *et al.* 2023). This in effect amounts to solace for the polluters failure to pursue less carbon-intensive production techniques as they should have been.

A similar argument applies to the Emissions Safeguard Mechanism which requires the 215 facilities that each produce 100,000 or more tonnes of CO₂-e annually – and account for 30% of all emissions in Australia – to ostensibly reduce their emissions. Facilities must agree to setting thresholds or baselines that reflected their output and commit to reducing emissions step by step (RepuTex 2022; Armistead *et al.* 2023; Clean Energy Regulator 2023). The Safeguard Mechanism does little to challenge capital's polluting tendencies because it provides a relatively inexpensive means of meeting benchmarks as the polluters can meet their baselines by buying and surrendering carbon offsets (Armistead *et al.* 2023). Most recently, market analysis by Reputex (available only to paying customers of this small consulting firm) demonstrated that the Safeguard Mechanism would not lead to direct emissions reduction until late in the

decade (Tilly 2023). *Powering Australia* signalled the intent to conduct a review of the scheme with a view to addressing its weaknesses, including setting emissions baselines much higher than was warranted to avoid any constraints on production. Indeed, with an expanding array of carbon abatement units being certified for their carbon offset properties, competitive pressures likely deflate the price at which the offsets can be purchased, so that recourse to offsets becomes a less expensive option and discourages enterprises investing in technologies to mitigate emissions. Meanwhile, the right to surrender carbon offsets to meet baselines has also been called into question because some of these instruments lack integrity (Macintosh *et al.* 2023; Hemming *et al.* 2021).

What is abundantly clear in the making of *Rewiring the Nation* is that engaging capital in the transition is primarily based on the provision of incentives, and not extra-economic penalty measures, thereby deepening the state's role in funding the transition.

The *ISP*, as an ongoing biennial assessment of the NEM, will provide an appraisal of the energetic fecundity of the NEM but, because it will be looking forward, it will not be providing an audit of *Rewiring the Nation* expenditures. This is a fundamental shortcoming in *Powering Australia* because the project's costing is already demonstratively short of the mark. Given the scale of the project, and with the forecast need to add 10,000 kilometres of transmission capacity in the near future (Westerman 2023), it is inconceivable that the transition from an energy system based on fossil fuel to one based on renewable energy sources will come in on budget. A question for further research is to what extent a mature renewable electricity market can actually accrue profit. Certainly, questions around profitability loom large in investment decisions, when relying on the market to drive the necessary energy transition. *Rewiring the Nation* is an extremely costly venture and one in which the state carries much of the cost and the risk. That cost and risk will then be shifted to energy consumers, who will ultimately carry the cost of the state's intervention to shore up supply energy as a sphere of accumulation.

The Integrated System agenda

The ambitions of the *Integrated System Plan* are twofold: to continue to progress the integration of the NEM; and to bring the energy system into line with emissions reduction targets.

The NEM agenda also emphasises the benefits of scaling up generating and transmission capacity as an essential feature of the modernisation of the energy system. Scaling up was regarded by AEMO as crucial to minimising the risk arising from a shortfall in capacity to meet peak load demands. But it was also based on private capital's confidence in expanding the size of undertakings resulting in economies of scale. As Clayton Utz energy economist, Suzie Taylor, contended, the benefits would be multiplied with this modernisation because it would allow energy users to take 'advantage of transmission technology such as inverters, inertia and high-capacity storage batteries allowing more efficient and less polluting power production' (Taylor 2023). But the development was envisaged as entailing a more grandiose scenario in which the investment in modernising the system went beyond ensuring that there was sufficient capacity to meet demand. Rather, as Taylor observed: 'The grid can only accommodate this new reality if expanded and enhanced' (Taylor 2023). The rationale for scaling up investment was based on a supply-led dynamic: increasing supply would anticipate and avoid demand not being met. An expanded footprint was regarded as critical to establishing the competitive foundation of the industry and into the future.

The viability of these mega-generating projects must be questioned. For example, the Marinus Link project, designed to export Tasmania's renewables surplus to the mainland, is designed to enhance energy security and supply reliability. But there is no guarantee that there will be sufficient effective demand to consume this expanded capacity, as Victoria has approved a host of scaled-up renewable energy projects, including offshore banks of wind turbines (DCCEEW 2023c). Victoria assures the public that it can leverage investment off the project. There is a strange logic at work here, reminiscent of Say's Law in expecting that additional supply will spawn additional demand. Advocates of the mega-sized projects contend that these investments will provide the additional generating capacity to enable the electrification of the economy, transitioning from coal-fired power to clean energy.

None of these transition elements come cheaply; and there has been an extraordinary blow-out in the cost of the transition. For example, the construction of Snowy 2.0 has experienced a 500% escalation in the costs, and the end of the inflation is still not in sight (Macdonald-Smith 2023). Moreover, this does not include the additional costs of building the high-voltage transmission lines to deliver the power to where it might be

consumed. There has been a similar blow-out in the cost of the Marinus link. Originally estimated to cost between \$3.3 and \$3.8 billion, the cost has increased by \$1.7 billion, despite halving the planned capacity as a cost-saving measure (Langenberg 2023). These costs are significant and, due to the current private organisation of the NEM, they will be borne by consumers.

Conclusions

The Albanese government's *Powering Australia* seeks to foster a new regime of accumulation, with energy as the current focus. That development agenda is premised on the objective of expanded capital accumulation. This makes for an intrinsic contradiction in the strategy of reducing emissions. The idea that we might 'cut with both arms of the scissors' and engage in any kind of demand-side management of emissions is never broached (Green and Denniss 2018).

Although the *ISP* does not contend that the state will be the premier source of capital, the evidence points in this direction. The *ISP* elected to nominate the Step Change model as reflecting the sentiment of the nation, and this is regarded as having already shaped the focus and pace of the concrete examples of the transition's momentum. The budget for *Rewiring the nation* quantifies the allocations that will contribute to meeting a proportion of the costs in modernising the transmission network and supporting the different forms of renewable energy generation.

The list of budget commitments is not exhaustive. Indeed, it is far from complete, and the magnitude of funding has to be qualified by the variable time frames over which funds will be expended. The initial allocation for the National Reconstruction Fund, for instance, was set at \$5 billion, with the remaining \$10 billion to be invested in instalments over the next decade (Joyce and Stanford 2023: 39). After 2030, the Fund is anticipated to generate enough revenue from existing investments to support new projects, imitating the marketised management of the CEFC to date. The state governments are also contributing to fund *Rewiring the Nation* projects. New South Wales, Victoria, and Tasmania will be meeting a proportion of the costs of interconnectors: some \$3.1 billion, \$2.25 billion and \$1.79 billion respectively. Governments attribute the significant increase in energy costs to international developments, such as the Russian assault on the Ukraine and post-COVID supply chain hiccups. However,

the extraordinary cost of the transitioning and its impact on price inflation cannot be willed away. Nor the ability of the corporations to game the system be denied. But the standout from this analysis is that capital, particularly those energy corporations dominating generation and transmission, are the beneficiaries of the asymmetry in power relations underwritten by the state. Put plainly, it is households and small businesses that are bearing the brunt of the transformation to a low-carbon economy, *but this need not be so*. An alternative approach could prioritise decentralisation and de-commodification of energy, but the interests of private energy corporations are currently taking priority.

Crucially, any progress being made in the decarbonisation of the NEM, however contradictory, is vulnerable to being undermined by the continued dominance of the fossil-fuel extraction, production and export industry. Energy- and emissions-intensive industries are recorded as having resulted in a 17% increase in emissions levels since 2005 (Clean Energy Regulator 2023). Indeed, emissions reductions that have been achieved in NSW and Victoria are completely offset by increased emissions in WA and the NT, due in large part to the expansion of the gas industry (Campbell and Ryan 2023). As we talk about tens of billions being deployed within the east-coast electricity grid, \$473 billion have been invested in oil and gas production in Australia since 2010 (APPEA 2022) – and from the vantage point of fossil capital, those investments must see returns. The production and sale of that gas will result in many billions of tons of greenhouse gas emissions, locking in a terrifying future.

The two energy futures being contested through the Australian state would appear to be a struggle between fractions of capital: an emergent renewable capital and ‘green’ finance sector on one hand, and fossil capital repositioning to exploit gas and carbon commodity frontiers on the other. But there are elements within current ALP policies that open the door to other possible socioecological relations – relations more decentralised and possibly de-commodified. These policies are the ‘Household Energy Upgrades Fund’, and the ‘Community Batteries for Household Solar’ component of the *Powering Australia* policy suite. Western Australia’s installation of off-the grid solar power systems in remote First Nations communities are proving to be an economic solution to reducing emissions ‘free from government operated energy providers’ (WA Offgrid solar 2023). While small, these schemes seem to present what Erik Olin Wright (2010: 4) called ‘real utopias’: ‘utopian destinations that have accessible waystations, utopian designs of institutions that can inform our practical

tasks of navigating a world of imperfect conditions for social change'. Energy transitions are, after all, fundamentally questions of power. Griffith (2023: 25), in laying out his 'protopia' for a decentralised, electrified, and renewable energy regime in Australia, indicates the stakes:

The losers will be the centralised (fossil-fuel) energy companies selling coal, gas and oil. The winners will be in the localised, decentralised energy economy, where many more people own the technologies for generating and storing energy, much of it produced locally in their communities.

Put simply, the current liberalised National Energy Market is very profitable for major (fossil fuel) generators and distributors: Origin Energy made \$1.4 billion in profit in 2023, while AGL made \$1.3 billion (Origin Energy 2023; AGL Energy 2023). The key question is whether sufficient power can be brought to bear on/through the ALP to foster a more democratic and less commodified energy future.

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