
BOOK REVIEWS

Stuart Rosewarne

Contested Energy Futures: Capturing the Renewable Energy Surge in Australia

Palgrave Macmillan, Singapore, 2022, 424pp., \$195, paperback.

Reviewed by Mark Diesendorf

The energy transition, from fossil fuels to renewable energy, is under way in several countries and states/provinces, many towns and businesses, and billions of households around the world. Scotland already generates 97% of its annual electricity consumption by wind supplemented by hydro, and exports additional electricity to England and beyond. Denmark generates two-thirds of its electricity from wind supplemented by biomass residues from agriculture and a little solar photovoltaics; it expects to reach 100% renewable electricity generation by 2028. South Australia generates two-thirds of its electricity from wind and rooftop solar, and expects to achieve 100% by 2030 (Diesendorf 2022).

The energy transition is driven by concern about climate change and pollution, and by the low and still declining prices of wind and solar photovoltaic electricity. The excellent economics of these renewable energy technologies is determining the broad technological strategy, which is to replace fossil fuelled electricity with wind and solar ‘firmed’ up with storage, and to electrify transportation and combustion heating. Thus, a renewable energy future will be an electrical future (Griffith 2022).

So far, most of the energy transition has been occurring in electricity generation, although sales of battery electric vehicles are increasing rapidly in China and a few European countries, most notably in Norway. So far, very little action has been taken on electrifying combustion heating, although the war in Ukraine has recently triggered action in Europe. Globally and in Australia there is still huge potential for increasing the efficiency of energy use – unfortunately that too is lagging outside Europe.

This is the context for Stuart Rosewarne's important book, which addresses the struggle to grow renewable energy in Australia and its implications for energy democracy. Here, 'struggle' reflects the consistent efforts to hold back renewable energy by federal Coalition governments, which have been captured by the fossil fuel industry. This industry exercises political power by means of political donations, control of the major proportion of the media, and a 'revolving door' of jobs. Rosewarne points out that three of the senior staff of then Prime Minister Morrison were recruited from the Minerals Council of Australia and retiring energy ministers of both former Coalition and Labor governments were appointed to highly paid positions in fossil fuel-promoting organisations.

The book provides a strong critique of the Coalition's energy policies. It also mentions the half-hearted support for climate action pre-2022 by federal Labor governments which, with one hand, implemented several effective policies to develop renewable energy – notably, creating the Australian Renewable Energy Agency, the Clean Energy Finance Corporation and a short-lived carbon price – while, with the other hand, continuing to support the development of new coal mines and gas fields.

The early chapters of Rosewarne's book offer an excellent history and critique, from political science and political economy perspectives, of Australia's energy policies, from electricity market 'reform' or 'liberalisation' in the 1990s to 2021. The radical transformation of the energy market, described by its proponents as 'reform', was

initially driven by a conservative agenda for freeing the sector from the control of the state through a process of corporatising and then privatising state-owned utilities to form an ostensibly perfectly competitive free market, pave the way for private investment to modernise energy generation and creating a new source of accumulation.

But the market 'reform' did not take account of climate change. Indeed, the political power of the coal industry and the mining industry, together with the resistance of the electricity industry, have slowed the growth of renewable energy by shaping the electricity market and by direct influence on Australian governments.

Long before wind and solar became a commercial threat to fossil fuels, I experienced the power of the coal industry in holding back research and development on renewable energy. As a young CSIRO scientist in the late 1970s, I managed, despite resistance by the CSIRO Executive, to set up a small research program on integrating future large-scale wind power into

electricity grids. We obtained promising results that we published widely. In 1982, the Executive shut down *all* renewable energy research in CSIRO, including the organisation's R & D on solar hot water and passive solar housing, which were world leading, and on bioenergy and wind power. I was retrenched and for many years the only energy research in CSIRO was devoted to fossil fuels.

However, by the beginning of the 21st century the global and Australian renewable energy scenes had changed dramatically. There were growing markets for solar photovoltaics – for use on small, medium and large scales – and for large-scale wind power, and the costs of these technologies were falling rapidly. Despite continuing resistance by vested interests, the energy transition was under way and accelerating.

Rosewarne's analysis of the growth of household rooftop solar adds to the drivers of climate change 'a cultural transformation to enable residential Australia taking control of its energy destiny'. This is certainly a factor, although it will not become a substantial force for the democratisation of the energy sector until household batteries become much less expensive, so that many households can choose, or collectively threaten to choose, to disconnect from the grid. Nevertheless, the sheer size of household generating capacity is already having an impact on the operation of the electricity grid and on the economics of fossil-fuelled power stations. Among energy experts, it is widely recognised that the objective and rules of the National Electricity Market (NEM) must be changed, and so do the business models of existing energy corporations. The book examines closely and critically the institutions of the NEM.

Another positive development for energy democracy that is discussed is the growth of community renewable energy (CRE). This became a major force in Denmark, where it ended the local electricity industry's attempt, backed by the government, to introduce nuclear power, and subsequently played a major role in the development and global dissemination of large wind turbines (Mey and Diesendorf 2018). Australia's first CRE project was the Hepburn wind farm in Victoria, but nowadays most CRE projects utilise solar PV. Most of these projects are cooperatives, although the company structure is occasionally used, *e.g.* the Albany wind farm and the Sydney Renewable Power Company that funded the solar panels on the roof of the new Sydney International Convention Centre.

Despite the positive developments of household solar, where Australia is a world leader, CRE, and the continuing rapid growth of large-scale grid-

connected renewable energy, the fossil fuel lobby and its supporters in the Coalition and, to some extent, Labor governments have fought against the rising tide of renewable electricity. Now that King Coal has been dethroned, they are attempting to present gas as a ‘transitional fuel’. However, gas is too expensive for baseload (24/7) power and is being displaced by batteries for peak-load power. It will not be long before pumped hydro displaces gas for energy storage over periods of several days, for which batteries would be too expensive. There is no future for gas in electricity generation, although it will have a longer lifetime from use in industrial processes. Nevertheless, fracking for gas and mining for coal continue. Thus, I agree with Rosewarne’s conclusion that

The transition cannot be left to the market [*the vested interests that dominate the market: MD*], to waiting for those invisible hands to again work their way through the energy system, nor to the hopes of the Coalition government that a technological fix will be orderly or a prospective Labor government that is fearful of being labelled as anti-fossil fuel.

Therefore, community organisations must exert even greater pressure on governments and industry to ensure that the energy transition is completed rapidly and in a manner that increases social justice and democratic decision-making.

The book has a few minor glitches which do not affect the main conclusions: *e.g.* wholesale electricity prices are determined over 5-minute settlement periods, not 10-minute, and ‘solar voltaic’ should be replaced everywhere with ‘solar photovoltaic’.

Rosewarne’s book provides a major contribution to our understanding of the related issues of the struggle to speed up the energy transition in Australia, the role renewable energy can play in improving energy democracy, and the limitations of the present structure of the National Electricity Market. It is essential reading for everyone who is interested in the political economy of energy in Australia.

References

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Frank Stilwell, David Primrose and Tim B. Thornton
Handbook of Alternative Theories of Political Economy

Edward Elgar, Cheltenham, 2022, 506pp., \$393, hardback.

Reviewed by Matt Withers

Stilwell, Primrose and Thornton offer an authoritative consolidation of the project of modern political economy, here captured in a comprehensive but non-exhaustive volume of 32 chapters showcasing the plurality and interdisciplinarity of the tradition and its importance for analysing (and challenging) the processes of contemporary capitalism. The handbook aims to showcase the depth and breadth of theory constituting a mature political economy alternative and, with minor caveats, it is resoundingly successful in doing so.

In many ways, the handbook reflects concerns originating in the decades' long struggle for the teaching of alternative theories of political economy at the University of Sydney, which famously culminated in 2008 in a departmental split between economics and political economy (Butler *et al.* 2009). Proponents of the political economy faction, including Stilwell, championed the cause of fostering a broad church of dissident economic thinking. This ethos is placed front and centre in the handbook's introduction, which is quick to define the commonality of political economic approaches in their opposition to the inadequacies of neoclassical economics.

Unified in opposition to this orthodoxy and (slightly more optimistically) in an ontological commitment to open-minded plurality, modern political economy is thus seen as a coherent body of scholarship: a 'mainline' continuation of the classical political economy tradition that stands in contrast to the marginalist offshoot of 'mainstream' neoclassical economics. From here, we are given examples of the strengths that emerge from the diversity of approaches encompassed by political economy: the advantages of having a varied analytical toolkit that can be tailored to particular problems; the generative theorising that occurs at the interface of competing or complementary ideas; and the prospect of a productive synthesis between all these currents of thought.

At this stage, the reader might be forgiven for experiencing mild *déjà vu*, given the similar orientation of another major reference work edited by

Stilwell (along with George Argyrous) – *Readings in Political Economy: Economics as a Social Science* (2011). It's worth noting the distinctions. Whereas that volume curated a collection of classic and contemporary texts as a primer for prominent frameworks of political economy, the *Handbook of Alternative Theories of Political Economy* is more ambitious in scope. It is structured around an auditing of the current state of the art of political economy, quickly moving from a recap of foundational perspectives to more detailed contributions on the dynamics and socio-ecological underpinnings of economic systems, before addressing the value of interdisciplinary approaches and the matter of using theory to inform praxis.

Over the course of those sections, there is a general sense that we are being guided by the editors' discernment of how political economic theory broadens outward from core foundational approaches, leaving some room to quibble about what perspectives are (de)centred in the process (as will be discussed shortly). However, the volume does cover a lot of theoretical ground over its 506 pages, and moreover examines the potential for these approaches to confront the array of pressing challenges and more nascent crises that are mutually interlinked with the reproduction of capitalist societies. The unfolding ecological realities of climate change, in particular, are given due emphasis – as denoted by the excellent standalone chapter by Pirgmaier that accompanies the book's introduction.

This showcasing of Pirgmaier's work speaks to another strength of the volume, which is the inclusion of work from academics of all career stages, from PhD candidates through to Emeritus Professors. Though we encounter no shortage of 'big name' contributors writing in their areas of expertise, the perspectives of emerging scholars make a welcome addition alongside those drawing on more extensive bodies of work. Indeed, the editors do an excellent job of demonstrating continuity between established and emerging lines of thought to animate political economy as an evolving project. However, there is certainly room to accommodate greater diversity in authorship, with the few contributions being written within or relating to majority-world contexts feeling like a missed opportunity to give greater global reach to the analysis.

Though the editors openly discuss the curation of the volume's contents with no small degree of justification, some key omissions – whether self-acknowledged (*e.g.* Social Reproduction Theory) or not (*e.g.* Dependency Theories) – are hard to reconcile with certain inclusions. The devotion of

a chapter to Modern Monetary Theory, the central arguments of which are hard to disentangle from post-Keynesian thought and whose ‘flavour of the month’ popularity appears to be waning, seems a conspicuous example of this opportunity cost. Relatedly, tasking a solitary chapter with addressing the contributions of poststructural and postcolonial political economy (perhaps not abundantly intuitive bedfellows in themselves) conveys inadequate attentiveness to major branches of political economic thought that emerge from, and are explicitly attentive to, the questions of production and distribution in majority-world contexts. There are growing calls to decolonise economics beyond the platitudes of curriculum mandates (D-Econ 2019), several strands of which have important intersections with the concerns of modern political economy: whether by returning to imperialism and uneven development as a systemic process of capitalism (Patnaik and Patnaik 2017), recentring Southern intellectual traditions such as dependency theory (Kvangraven 2021), or by challenging the Eurocentric ontological moorings of political economy more broadly (Grosfoguel 2011). Griffin’s chapter does an admirable job of addressing some of these concerns, as too does the contribution by Bieler and Morton, but between them they do some heavy lifting for the volume. One cannot help but feel that majority-world perspectives have been pushed to the margins of the volume’s conceptualisation of a modern political economy approach.

These complaints aside, the handbook provides a thorough overview of the theories and approaches that can be housed within a broad church of political economy – ranging from various strands of Marxist thought all the way through to contributions from the Austrian school. In this regard, the editors deliver on the promise of a book that enables ‘the reader to make a more educated choice between schools of thought; and to form judgements as to if and how different approaches may be combined’ (p.8).

There is obvious value, then, for the advanced undergraduate or early postgraduate student looking to develop an understanding of the diversity of political economic approaches and how they might be used to inform analysis of a given research problem. I suspect it will be of no less use to academics of varying backgrounds who, given the increasing interdisciplinary reach of political economy, might find themselves wanting an entry point through which to bring their work into conversation with those approaches. Beyond these use cases, and the more obvious value of serving as a reliable reference for those working within the tradition already, there is also a practical value to the work.

The final section of the book, 'Making a Difference', is neatly organised around the ways in which modern political economy can reshape the ontology, epistemology, pedagogy, and praxis of our work. These chapters have salience for academics, but also activists and policymakers, looking to translate principles of political economy into processes of change.

In sum, the editors have compiled a valuable snapshot of the state of modern political economy as an alternative to the neoclassical 'mainstream' of economics. They convincingly map foundational approaches, connect these to the more complex dynamics of contemporary economic systems, identify prominent interdisciplinary junctures, and conclude by steering toward praxis. Given the ambition of this task, some oversights have inevitably been made, but these do not ultimately detract from the value of the handbook as an essential reference work emerging from the struggle for political economy in Australia and internationally.

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