



CHAPTER 1

Reframing Energy Transitions as Resolving Accountability Crises

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Abstract Using the concrete case of solar energy uptake in Portugal, Chap. 1 illustrates how energy transitions can be regarded as attempts to resolve crises of accountability. While Portugal is among the countries that lead globally on energy transitions, close attention to its apparently promising solar energy prospects reveals a paradox: progress has been slow and modest. Yet, there seems to be a major change on the horizon, and a potentially powerful explanation for these dynamics is premised on relations of accountability amongst stakeholders in Portugal's energy sector. Having argued that such a reframing of energy transitions has explanatory power, the chapter deconstructs accountability as an underlying relationship which is produced by various practices that manifest as legitimization. It argues for an analytical typology of legitimization.

Keywords Accountability crisis • Legitimation • Energy transitions • Solar • Portugal

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1.1 SUSTAINABLE ENERGY TRANSITION AS A RESPONSE TO AN ACCOUNTABILITY CRISIS

In terms of national performance on energy transitions, few countries are more remarkable than Portugal. Already among Europe's leaders on renewable energy, its carbon mitigation from 2017 to 2018 was 9 per cent, the highest rate on the continent and over thrice the European average.¹ This small and relatively isolated country bordering Spain in the western part of the Iberian Peninsula with ten million residents has, thus, exceeded expectations.

Solar energy uptake in Portugal poses a surprising paradox: despite Portugal's leadership on renewable energy in the progressive energy policy context of Europe, with strong wind and hydro power assets and some of the continent's best solar irradiation conditions for cost-competitive low-carbon generation (Krajačić et al. 2011), till 2019, it has only installed modest solar energy capacity. Combined with no fossil fuel assets to speak of as an importer of coal, oil and natural gas, it would seem a no-brainer for Portugal to capitalise on remarkable global decreases in the price of solar energy infrastructure and promote a rapid solar uptake to move towards a largely decarbonised energy sector (Fortes et al. 2019).

Empirical research and mainstream media reports have unearthed numerous barriers for solar energy uptake, such as the lack of policy visibility, a restrictive regulatory framework, limited licences, grid constraints and limited credit access. These explain the relatively modest increases in installed solar capacity and surface some narratives of frustration. Emerging studies and reports, most notably Portugal's National Energy and Climate Plan, convey a sense that eventually things will work themselves out and solar projects will increasingly go ahead (Coelho et al. 2017), especially at utility scale, meaning in the multi-million dollar range. There has been insufficient transmission grid capacity for the national energy regulator to allow very many new solar installation in the locations with highest irradiation down south; till 2019, guidelines on how existing grid capacity should be allocated were unclear; and when transparent guidelines did emerge it was into a context with a little informed public debate on such crucial priorities regarding the country's energy future and low-carbon transition

¹ Eurostat news release 81/2019, dated 08.05.2019. Accessed 24.05.2019 at <https://ec.europa.eu/eurostat/documents/2995521/9779945/8-08052019-AP-EN.pdf/9594d125-9163-446c-b650-b2b00c531d2b>.

(Sareen and Haarstad 2018; Vasconcelos 2018). Then, a scandal in another ministry ahead of a national election year led to a cabinet reshuffle. The emergence of a new ministry with a new minister of environment and energy transition, as well as European Commission mandates, prompted the launch of a national climate and energy policy and a national decarbonisation roadmap 2050 (Sareen *in review*). At the time of writing, Portugal had scheduled solar capacity auctions for over 2 Giga Watts during 2019, and adopted a newly ambitious target that includes a tenfold increase in solar energy capacity within a decade.

To those well versed with energy sector dynamics, ‘incumbency’ and ‘path dependence’ (Sovacool 2016; Lockwood et al. 2017) are terms that will suggest themselves easily given the particular trajectory up to 2019, and potentially also disruption to describe evolving circumstances (Winskel 2018). Portugal has a history of a veritable monopoly in its energy sector by Energias de Portugal (EDP). Like many other countries, it moved from electricity being a largely publicly held sector to increased privatisation during the past quarter century. EDP remains an outsize vertically integrated player in this sector but is multinational and privately held. A great deal of control over its own energy infrastructure has shifted out of Portuguese hands of late with sustained interest by Chinese investors (Pareja-Alcaraz 2017), not least during Portugal’s battle with economic recession and European Union pressure during 2009–2015.

The sector has changed, but the memory of a particular mode of functioning maintains a stronghold in the mind of decision-makers (Delicado et al. 2016). EDP is a major player in renewables—hydro and wind power in Portugal—but its solar energy assets are held abroad rather than in Portugal. Here, it has leveraged its presence in fossil fuel generation and protected investments in thermal plants in the hope that these will turn over a tidy profit for years hence. Timing is thus crucial in terms of who stands to benefit from Portugal’s solar energy transition (Sareen et al. 2018). It is perhaps not all that surprising that so far there has been no particular rush to implement a dramatic increase in solar uptake. After all, things are running smoothly, Portugal is meeting European targets on renewable energy, and a cash-strapped economy has competing priorities, so why mess with a good enough energy sector? And yet, with the announcement of solar auctions for summer 2019 by the government of Portugal signalling a clear pathway, EDP publicly stated its interest in participating and submitting bids.

It is crucial to unpack this tension between a ‘good enough’ status quo that has lingered for years and the promise of upcoming large-scale dynamism in order to understand the changing energy sector and the adaptive behaviour of various stakeholders. What is the underlying normative commitment—what suffices and why, and by contrast, what catalyses change and when? Does Portugal exemplify a sustainable energy transition underway? Or does it normalise something well short of reasonable action, simply because legal and discursive space permit it without sufficiently rigorous tests (Dansou and Langley 2012)? These questions approach the nub of the argument presented below: in the Portuguese case of gradual solar uptake as in most current energy transitions, we know what the problem is, we know a good deal about how to solve it and yet do little about it, and this disjuncture is a crisis of accountability (Mason 2008).

From the normative standpoint of decarbonisation, Portugal should be putting all the weight it can behind rapid, even exponential, solar uptake, dealing with its disruptive effects head-on in order to decarbonise quickly. Adding an equity dimension, it should be encouraging a vibrant public debate about how to ensure that such a sectoral transition enhances social equity or at least does not work against it. Till recently, these discussions barely existed, and as they emerge, they play out amongst ‘experts’ and those who often represent specific stakes in the sector (cf. West and Davis 2011). There has been at best a fringe discussion on various public stakes in energy transitions and the necessity for a solar energy transition to happen rapidly and to produce public benefits (Delicado et al. 2014; Sareen and Haarstad 2018)—both in terms of enhancing current social equity and by way of securing improved intergenerational equity through climate change mitigation.

What does solar energy have to do with social equity? Within Europe, Portugal has one of the highest national rates of energy poverty, a condition whereby people cannot secure adequate home energy services. Some 800,000 of the country’s ten million residents avail subsidised electricity tariffs. Yet, the current energy sector regime does not incentivise ‘prosuming’, or selling solar energy back to the grid. It mainly promotes self-consumption (Camilo et al. 2017), which does not appeal much to small households considering installing rooftop solar panels when they are usually not at home during peak solar generation hours. Nor does the national framework support community energy, and Portugal’s first solar energy cooperative in Lisbon has struggled to gain recognition as an electricity supplier in order to increase the benefits its members can access from the

addition of solar energy to the electric grid supply mix. Only solar developers installing solar capacity in the Mega Watts (MW), with each MW corresponding to close to a million dollar investment, find themselves able to turn a tidy profit by trading on the wholesale market. This does help in terms of climate change mitigation, as it enlarges the percentage of low-carbon energy sources feeding the electric grid, and thereby lowers the carbon emissions associated with electricity generation. But, current figures constitute nominal progress, gradual increments, that benefit a few private developers; Portugal is not witnessing some disruptive revolution in the energy sector that benefits tens of thousands of small households and communities and moves rapidly towards a democratic, low-carbon energy future (Camilo et al. 2017; Jaegersberg and Ure 2017; Sareen and Haarstad 2018; see also Jacobson et al. 2017).

So, we find ourselves in a peculiar, but comprehensible, situation. Solar energy is cost-competitive with dirtier energy sources, can be installed in large parts of a country that does not have fossil fuels and, yet, continues to struggle to comprise a significant chunk of Portugal's energy mix. What makes it understandable is the acceptance of a simple, horrifying fact: this is a crisis of accountability, one that flies under the radar even as we animatedly debate sustainable energy transitions within a global system that legitimates pathways of carbon capitalism (Mitchell 2011). Lisbon has hosted some of the most prominent global meetings on such matters, such as Sustainable Energy for All in 2018, and has even been awarded the label of European Green Capital 2020. Do such overt public displays of commitment to the ideal of sustainable energy transition serve as a spectacle that disguises or substitutes for a lack of ambition, action and implementation (Sareen and Grandin *in review*)? What other horrors lie in store if we extend our gaze to various energy transitions elsewhere, and would it help to call them out? What if we reframe energy transitions as a response to accountability crises? In order to do so, we must articulate how such accountability crises are upheld. What magic is this that keeps them going? I argue next that this 'magic' manifests as discrete practices of legitimization.

1.2 DECONSTRUCTING ACCOUNTABILITY INTO PRACTICES OF LEGITIMATION

I claim above that we know what the problem is, that we know how to solve it and yet do little about it, and that this disjuncture constitutes a crisis of accountability. Commenting on our contemporary efforts to

undertake energy transitions and meet the climate challenge at the United Nations High Level Political Forum 2018 in New York, Alex Steffen pointed out to the world that in this case, winning slowly is the same as losing (also see McKibben 2017), and underscored a predatory delay by powerful actors with entrenched interests, both commercial and political. Greta Thunberg addressed an audience of the rich in Davos stating that it is now time to panic. The IPCC released a special report on keeping global warming below 1.5 °C, showing that we have our work cut out and must make critical advances by 2030. The exponential climate action roadmap 2018 highlighted proven technological solutions that already exist and can cut our emissions by half every decade till 2050, pointing out policy, political will and other blocks as the chief barriers to overcome (Falk et al. 2018). But, how can dramatic action proportionate to current drastic circumstances be enabled, when those in corridors of power do not feel the same heat, when the privileged maintain the illusion of time while the poor burn in wildfires and suffer climate risk and uncertainty over already vulnerable livelihoods? The energy sector has long been regarded as technical, is often run bureaucratically and technocratically, and is financed in deeply entrenched ways that remain far from transparent (Szulecki 2018)—is the first step towards decarbonising this sector (for decarbonise it we must) to bring it into public discourse as something that concerns us all, as a sector that we all have a stake in steering together?

These questions have answers. They have long been discussed by environmental governance scholars as a matter of accountability in various cognate sectors and a range of academic disciplines. Who makes decisions about resource use and allocation, and how are they held to account (Kraft and Wolf 2018) and by whom? This is partly a question of formal institutional authority—in whom society has vested the power to decide. But the world is rarely limited to formal structures alone. Authority is often contested, raw power sometimes prevails and, sometimes, the powerful are simply too powerful to be held to account by the standards that might appease a moral philosopher (Sareen 2016). And yet, powerful actors and organisations always seek ways to legitimate their power to wider publics to create a new moral economy in which they can take on the roles of new institutional authorities (de Sardan 1999; Sareen 2017). This is not simply attributable to some assumed innate desire in these actors to be recognised as authoritative; the explanation is simpler. Authority makes it easier for power to endure without constantly battling resistance (Scott 1998; Sivaramakrishnan 2005).

Authority comes from legitimation; hence, it affords its bearer the practical privilege of being able to claim recognition as the one with the *right* to make important decisions. Ordinary actors have to organise themselves and contest against the odds to secure outcomes that go against a systematised norm—this is the stuff of public protest, legal appeals and riots on the streets. Institutional authority can claim to uphold the system in executing its decisions; it need only cloak them in the guise of what has *already* been deemed socially acceptable, what is already valid because it is an outcome of due process (Ferguson 1990). Power legitimated as authority freezes legitimacy as embodied in action by virtue of the doer, rather than as a property of the act itself. The onus is on ordinary actors to validate both their claims and an alternative morality in order to challenge particular acts, whereas authoritative institutions use a range of garbs to validate acts.

Such a *de facto* understanding of authority as not being limited to traditional formal structures complicates how one understands accountability. Emerging scholarship on polycentric climate governance has articulated some of the challenges—accountability cannot be construed as pertaining solely to the state along some vertical and horizontal relations within a centralised and delegated governance framework because this is not an accurate descriptor of how climate governance is, in fact, conducted (Jordan et al. 2018; Bäckstrand and Kuyper 2017). Rather, there are many actors in the folds, each hankering after their own version of what transitions to sustainability should look like. Intergovernmental bodies co-exist with city networks co-exist with aligned interests between business and politics co-exist with federated civil society organisations, each staking its claims (Coenen et al. 2012). Who is to be held accountable for what? Each would have its success measured along customised metrics that favour its ability to showcase progress on sustainability (Kramarz and Park 2016), which runs the risk of double counting many successes that actors see as low-hanging fruit while sidelining attention to intractable problems nobody wants to be held responsible to address (Osofsky 2013).

As with climate governance, so is the case with transitioning energy sectors, albeit these transitions more commonly concern national and regional scales rather than global ones. Fossil fuel actors have entrenched interests, usually complemented by deep political and financial reach, and many are transitioning into leveraged positions in the expanding renewable energy sector, which is also populated by new actors such as solar developers.

Traditional authorities like ministries are changing their names and structures, demonstrating a commitment to an energy transition or even an ecological transition, responding to and reshaping social imaginaries (Tidwell and Tidwell 2018). Regulatory bodies are grappling with more complex issues than ever before with the advent of the ‘smart grid’ and questions of big data, ownership and privacy alongside energy efficiency, dynamic tariffs and prosuming (Sareen and Rommetveit 2019). There is emerging excitement linked with energy storage and the prospects of a highly flexible grid where electricity can be stored at decentralised nodes, opening up options for massive shares of renewable energy sources to be integrated into the grid supply mix. This is as complicated and technical as it sounds, and traditional authorities do not readily have the expertise at hand to deal satisfactorily with these questions, let alone inform and consult the wider public affected by the outcomes of these complex decisions. This is the recipe for an accountability crisis if ever there was one—technology is changing fast, institutional authority is being reconfigured and the basis for public oversight is lacking across key aspects of sectoral evolution (Jasanoff 2018; Delina and Janetos 2018). Energy futures are being decided but by whom, and how do those who will be affected—namely, the public—hold someone accountable, when both decision-making processes and decisions themselves appear to be so fuzzy and fluid?

This book, like Kraft and Wolf (2018), suggests that a closer link between legitimacy and accountability will help. What the problem outlined above needs is a relational understanding of accountability that focuses on relations between entities rather than on essentialist, fixed definitions of entities themselves (Bouzarovski and Haarstad 2018). Such a relational ontology is suitable to the context of fluid authority over decision-making and the shifting population of actors described as characterising contemporary energy sectors. How, then, are these relations of accountability constituted? In the present definition, this production of accountability takes place through discrete acts of legitimisation. Practices of legitimisation thus become relational constituents of accountability. They are empirically observable and contestable, as signifiers and enablers of deeper changes in institutional authority. A repertoire of these practices legitimates new acts and inflects accountability relations. It thereby serves as an adjustment mechanism for more embedded institutional logics (e.g., modest solar uptake to claim a commitment to sustainability while continuing reliance on fossil fuels), or as a transformational moment that alters these logics (e.g., exponential solar uptake as a response to the

emerging new economics of the energy sector). To understand, and eventually influence, accountability in transitioning energy sectors, we must, therefore, attend to practices of legitimation that embody changing relations between entities. We can thus examine and reveal in what instances and to what extent they signify accountable modes of governance to enable sustainable energy transitions or not.

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