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The European Green Deal (EGD) constitutes a three-legged strategy to transform the European economy through public investment, the redirection of private capital towards climate and environmental action, and guidance and regulation to avoid locking in carbon-intensive practices. This effort has been held up by the outbreak of the COVID-19 pandemic and member states' financial demands to prop up existing, carbon-dependent economies (Elkerbout et al., 2020). Nevertheless, at its launch in December 2019, the EGD appeared to be an ambitious effort to activate a transition to a different society that is compatible with our planet's limits. Its ambition of a just transition that leaves no one behind also came after a decade dominated by austerity measures that have led to declines in social services and healthcare, affecting mostly disadvantaged groups and increasing inequality (Stuckler et al., 2017). The EGD roadmap raised expectations about an entirely new approach to tackling the global environmental crisis.

Initial European Union (EU) policy documents published with the EGD suggested that the initiative is no game changer. Ursula von der Leyen, EU Commission President, confirmed that the EGD is a growth strategy - a growth strategy "that gives back more than it takes away", but a growth strategy nonetheless (EC, 2019b). The EGD seeks to square the circle of sustainable and inclusive growth (EC, 2019a), except growth cannot be sustainable because it continues to use resources and sinks. It cannot be inclusive because it exploits and excludes people while extracting capital from their labour (for a recent critique in the context of the American Green New Deal policy, see Mastini et al., 2021). Addressing global environmental challenges requires a fundamental reorganisation of current production and consumption systems, which means abandoning growth as the main strategy for achieving the wellbeing of humans and ecosystems. For many of us, the EGD is simultaneously a source of hope because of its generative potential in providing a new example of an ambitious green policy and a slap in the face as it renews the European commitment to a growth paradigm.

A lot of the effort in squaring this circle of green growth will be deployed in cities around Europe. The EGD recognises local authorities'

The EGD cannot be judged solely as a compendium of policy proposals and budget lines. Rather, it is a tool for thinking about possible futures and how change happens across society. role in preserving natural capital, improving buildings' energy performance and reviewing air quality guidelines (EC, 2019a). Local and regional governments will shape many other critical areas of the EGD, including facilitating collaborations with local industries, enabling the digitalisation of infrastructure, supporting multimodal transport, and delivering sustainable food systems and a sustainable hospitality industry. They will also be central to the negotiation and implementation of the European Climate Pact, which aims to facilitate citizens' inclusion in EGD policymaking and implementation (see García in this volume).

Local and regional governments have multiple capacities to address climate challenges alongside the Sustainable Development Goals. United Cities and Local Governments' report on the localisation of the Sustainable Development Goals (SDGs) has shown that transforming consumption and production goes hand in hand with eradicating inequality and poverty (UCLG, 2020). Localisation and proximity are critical entry points for solidarity-driven action that provides public services and protects local resources. Local experiences will be invaluable in delivering the EGD. However, local governments' capacities to implement sustainable policy have been compromised by austerity measures (Eckersley & Tobin, 2019). The COVID-19 pandemic has further exacerbated problems of service delivery at the local level. The EGD may find significant challenges to translating its promises into tangible impacts that are noticeable in people's lives and environmental outcomes.

This chapter explores some of those challenges and looks at the local delivery of the EGD goals in a context of uncertain urban change. The chapter focuses on one of the EGD's key objectives: delivering a clean energy transition. The first section is about the energy transition envisaged in the EGD. The second section questions the dominant ideas of change and how they fit the problem of transition. The third section warns against the inequalities created by green policies. The chapter concludes with a reflection on the unfinished nature of the EGD.

I. The sustainable energy transition in the EGD and the role of urban areas

As explained above, the EGD is first and foremost a growth strategy and as such represents the continuity of existing policies. This is in part because the EGD as a political project is still being constructed (Gaventa, 2019). New narratives need to be created that make it possible. The EGD cannot be judged solely as a compendium of policy proposals and budget lines. Rather, it is a tool for thinking about possible futures and how change happens across society. The EGD emerges within a given political and bureaucratic context, embedded in inertias that constrain change, if not preventing it entirely. Simultaneously, the EGD provides the framework to advance more radical proposals for action, subject as always to the fraught negotiations between the member states and the Commission.

Take, for example, the question of the sustainable energy transition and how it is approached in the general context of the EGD (see also Droege in this volume). The EGD speaks of profoundly transformative policies to "rethink policies for clean energy supply across the economy, indus-

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try, production and consumption, large-scale infrastructure, transport, food and agriculture, construction, taxation and social benefits" (EC, 2019a). The text also highlights that engaging consumers and enlisting the support of regions is central to the energy transition, pointing towards potential policy innovation in behaviour change and subnational governance. The transformative language alongside the focus on areas beyond the traditional remit of European energy policy suggests opportunities for negotiating a new political project around energy.

However, the latest report on the state of the Energy Union demonstrates that the EGD's energy objectives reproduce well-trodden policy terrain and do not challenge the consensus on what constitutes a workable transition to sustainable energy (see EC, 2020a). The key pillars of the current policy have been part of the EU's climate ambitions for decades:

- increase the share of renewables in energy generation;
- promote energy efficiency measures;
- ensure energy security; and
- stabilise the internal market.

The operation of energy policy at the European level depends on the negotiations between the Commission and the member states, as detailed in the communication to establish the "foundations" for an energy transition within the Energy Union (EC, 2019c). The communication assesses member states' first-ever submission of the national energy and climate plans (NECPs). The ambition is to demonstrate that NECPs can become an example of best practice in energy policy. NECPs are presented as innovative policy tools that for the first time break silos and consult with a wide range of stakeholders. However, those consultations are not necessarily radical or transformative. The Spanish NECP, for example, was drawn up by an expert team, following regulatory and policy concerns. The plan was open for public consultation from February 22nd to April 1st 2019. Public consultation is not the same as public participation. Communicating expert-led actions to the European Commission takes precedence over understanding cities' and citizens' needs.

However, there are some exciting ideas embedded in the EGD. For example, it explicitly states that fossil fuel subsidies should end, which amounted to €0 billion in the EU in 2018 (EC, 2019c). In the EGD the European Commission commits to collect accurate data on energy subsidies and to examine taxation practices, while proposing to reform the 2003 Energy Taxation Directive. Tax exemptions constitute de facto fossil fuel subsidies. The drive to end subsidies and tax exemptions for the fossil fuel industries could have an enormous impact. However, the socio-economic effects on the most disadvantaged people and their interactions with energy poverty still need to be evaluated.

The other eye-catching aspect of the EGD is the Just Transition Mechanism (JTM). This involves the redistribution of \textcircled 50 billion to support workers, companies and regional governments in fossil-fuel producing regions. The JTM acknowledges the social and economic consequences of a transition to clean energy and that the poorest sectors of society are likely to pay for it, making the EGD an environmental policy with a social heart.

The EGD seeks a radical change from one economic state to another and local and regional governments are seen as mediating agents of that change. However, this expectation relies on an urban policy fantasy. The dynamics of urban change should be examined in relation to efforts to plan and deliver such change. The role of cities in the energy transition remains open but unspecified. Cities are recognised as important, for example, because emissions are linked to classic urban sectors like energy efficiency in buildings and transport (EC, 2019c). Yet, the EGD lacks a sense of the importance of cities in the energy transition. Cities concentrate many activities associated with carbon emissions and drive the consumption patterns that shape those emissions. The transition to sustainable energy cannot be achieved by a change in technology alone (e.g. a shift to renewable energy). Rather, interconnected changes have to occur at different levels, affecting industries, public services, households and people. Cities reveal many of those interconnections. One example is the impact of energy taxation reform in everyday life.

Cities provide opportunities for decarbonisation. No single actor can deliver an energy transition. It requires insights from everyone: from private businesses, families, communities, industries, and of course, local governments. The energy transition will affect every aspect of our lives, and everyone needs to be on board. However, this commitment to inclusion does not imply that everyone has to agree on what the energy transition means and how it is going to be delivered. Rather than achieving a single, monolithic consensus, the transition requires multiple voices to be heard. Urban planners routinely face the challenge of integrating multiple voices and, thus, planning processes in cities may be points of entry to discuss and collaborate in a collective energy transition.

The energy transition depends on the involvement of citizens in shaping their energy futures. In the EGD, energy is a complex, technical problem that only experts can discuss. This framing hinders collective dialogue. Without dialogue, the EGD risks overlooking the needs of cities and citizens. Second-guessing their priorities is no longer good enough: they must be brought into decision-making.

II. Understanding the nature of urban change

One of the obstacles to urban climate governance is the nature of change in urban infrastructures. The EGD is in line with dominant narratives of environmental action seeking a transition: a reconfiguration of material and social relations following interventions with cascading consequences across multiple systems and institutions. This is "systemic change", because it will need to be so fundamental that it will simultaneously affect multiple aspects of our existence. The EGD's engagement with industrial sectors, renewable energy, toxic environments, ecosystems and biodiversity, food and mobility assumes that none of those systems operate in isolation. They depend, for example, on feedback loops related to institutional operation, consumption practices and changing generational cultures. The EGD is therefore presented as an integrative policy framework that seeks to move beyond single-intervention policies. The EU Commission's Communication on the EGD explains that this is part of its commitment to "deeply transformative politics" (EC, 2019a).

The EGD seeks a radical change from one economic state to another and local and regional governments are seen as mediating agents of that change. However, this expectation relies on an urban policy fantasy: the assumption that specific interventions, led by local or regional governments, can simultaneously transform the built environment, urban ecosystems and the ways urban environments are lived. This urban policy fantasy departs from the idea that the main challenge is to find and finance the right area of intervention, for example, by enabling the European Investment Bank to develop technical assistance programmes to allow local governments to establish fundable clean energy projects. The solutions are thought of as a ready-made package, which is already insufficient as on-the-ground local realities vary greatly across European cities. Proposals for the EGD rightly focused on the unintended consequences of climate and other green policies (e.g. Claeys et al., 2019). Other commentators identify "barriers" to the EGD as if there were levers everywhere that prevent progress (Tsakalidis et al., 2020). These proposals struggle to conceptualise the nature of urban change.

Instead, I propose that the dynamics of urban change should be examined in relation to efforts to plan and deliver such change. On the one hand, urban change has to wrestle with the fundamental heterogeneity of urban infrastructures and how infrastructures are reimagined continuously in place. On the other hand, urban change depends on recognising those changes: transitions are often incomplete, ambiguous and open to contestation and reversal. I explored these two challenges in my book Urban Energy Landscapes (Castán Broto, 2019), through an empirical analysis of the energy transitions that cities underwent during the 20th century. I focus on four cities whose trajectories challenged normative understandings of how energy systems should be organised and operated: Hong Kong (PR of China), Bangalore/Bengaluru (India), Maputo (Mozambigue) and Concepción (Chile). At first sight, it may seem that those cities' experiences have little bearing on what is happening in Europe with the EGD because the concerns that led to their energy transitions during the 20th century are very different from those that have motivated the EGD. Moreover, the geographical particularities of these energy transitions may not entirely fit European circumstances. However, my attempt was, specifically, to situate ideas of energy transitions in extraneous contexts to examine the fundamental assumptions we make about change in urban infrastructure.

The first assumption relates to the heterogeneity of urban infrastructures. Engagement with an analysis of how infrastructures work in multiple urban contexts has revealed that no single model of infrastructure provision works in every country or even in every city and that all infrastructure provision systems are constituted through an array of encounters between technologies, cultures, institutions and people's practices (Lawhon et al., 2017). In *Urban Energy Landscapes*, I approached this heterogeneity by examining the diverse characteristics that enable a city to govern energy, to allow energy resources and technologies to circulate and reach users, and to use it in choreographies shaped by the structure and history of the built environment. In part, this is the challenge the EGD faces: how to address the diverse urban characteristics, diverse urban histories and diverse modes of being urban that we find across the European Union.

However, the EGD follows a very different infrastructure provision model, one that assumes the dominance of centralised, capital-controlled utilities and their priority over fragmented service provision. This is also a model The EGD is an unfinished project, especially when considering the vagaries of implementation and the localised impacts of the proposal. that makes many sacrifices to deliver efficiency, for example, by reducing the means for people to participate in decision-making and question the utilities themselves. The focus on large investments and the reconfiguration of banking institutions overlooks the fact that a lot of transformative action occurs in fragmented ways and outside dominant systems of provision. It also minimises the role of civil society and communities in creating innovative solutions which are, for the most part, presented as the preserve of the private sector and – sometimes – the national government. Further, the model compromises the autonomy of less powerful and non-standard actors (such as social enterprises or actors within the innovation economy) to claim and provide resources and services.

The second assumption invites us to differentiate the instantaneous from the long-term. Braudel (1972) proposed that engagement with temporalities of change was key to transcending disciplinary boundaries towards an integrated understanding of human society that aligns with the EGD's objective to create systemic change. Braudel criticised shortterm analyses that give a perspective at the level of the individual, linking events to daily life within a short moment of awareness. The short term, Braudel argues, is deceptive and capricious. What seems palpable in the short term does not translate into a full-fledged analysis of historical change. He is also wary of cyclical analyses that focus on specific issues (such as housing bubbles or economic crises) without assembling a multidimensional social analysis. A true understanding of human realities requires dialogue with a long-term perspective, the longue durée. According to Braudel, this long perspective engages with "structure": something that refers to the forms of organisation that shape society, the degree of coherence of human institutions and the fixed relations between the realities of the world and people. Braudel provides an indelible example comparing the short-term analysis of the weather that we experience in everyday life with the climate's long-term structures. For Braudel, many aspects of human life, from the relation between ecosystems and the walking routes through them, belong to the longue durée.

Building on Braudel's reasoning, in my study of urban energy transitions I decided to engage with "landscapes". For me, urban energy landscapes represent the solidified aspects of human relationships with energy technologies and resources, as they are integrated into contemporary cities and settlements. Like Braudel, I was particularly interested in the slow - almost immobile -temporalities that shape the longue durée: the durability of the charcoal cookstove in Maputo's informal settlements; the persistence of firewood among deprived neighbourhoods in Concepción; the embedding of individual air conditioning system as the default cooling technology in Hong Kong; the persistent overlapping of water and energy services in Bangalore. These apparently immobile phenomena represent the constitution of landscapes in practices that link the shortterm temporality of the everyday with the long-term temporality of the longue durée. Those specific, context-located, immobile practices furnish our intuition of the *longue durée*. Such long-term perspective also entails that change is always ongoing and unfinished. If there is an urban energy transition at work, it is an open-ended one.

The EGD is therefore an unfinished project, especially when considering the vagaries of implementation and the localised impacts of the proposal. Seeing it as unfinished may at first create discomfort, but it could

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be a blessing in disguise. This realisation shifts our attention towards implementing the EGD over the long term, creating capacities that can be sustained to adapt policies to changing conditions. One lesson from the COVID-19 pandemic is that our societies are only equipped to deal with one crisis at a time: the need to respond to the public health crisis and the crisis of confidence that ensued has eclipsed the newly gained confidence in addressing climate change challenges displayed in the EGD (Colli, 2020). Perhaps the EGD is a tool whose value lies not so much in addressing climate change, but in recognising that the ongoing crisis of climate change is a consequence of a continuous mode of operation that is at odds with the people's and the planet's health and wellbeing. The EGD is about fostering a long-term culture of care for our environments. To do so, the EGD could soften some of its economic-driven discourse on green growth and focus instead on the kind of interventions that make a difference to ecosystems and wellbeing at the local level, seeking to change hearts alongside infrastructures. This would be an EGD that would move away from identifying "green opportunities", and look instead at envisioning and designing ways of living within the planet's limits.

Social innovation has a vital role to play in this kind of change. Community energy, new models of co-housing and infrastructure sharing, social enterprises, locally oriented industry collaborations, agroecology, and the social value of public spaces and natural capital are some of the areas in which local and regional governments can play central roles in advancing a longterm vision of sustainability that moves away from growth discourses. The forthcoming World Cities Report on the value of urbanisation proposes recognising the urban commons as a fundamental strategy to harness the environmental value in cities and settlements (UN-Habitat, 2020). The urban commons refers to cultural or biophysical resources accessible to everyone in the city that enable collective design processes. The pioneering experience of Bologna, Italy, a city that in 2014 adopted the Bologna Regulation on Civil Collaboration for the Urban Commons, is an example of a long-term vision to deliver sustainable cities and settlements. The Bologna Regulation involved a collaboration pact between citizens, the local government and any other interested organisations to provide care and regeneration actions in the city.

III. The recurrent challenge of urban inequality

The EGD contains attempts to address the elephant in the room: inequality (see Connolly in this volume). Unfortunately, the impacts of green economy measures on society's most disadvantaged sectors are evident (Rice et al., 2020). Movements such as the *gilets jaunes*, which followed fuel tax protests, have sparked anti-government sentiments. The EU and the member states must remain mindful of the EGD's impacts and how it aligns with collective visions of social change.

Green policies are not inherently good. Green gentrification and climate gentrification are terms that refer to the increasing realisation that green infrastructures and protection infrastructures to protect against climate change impacts lead to the expulsion of disadvantaged groups from urban areas (Gould & Lewis, 2016; Anguelovski et al., 2019; Connolly, this volume). Unfortunately, green policies are increasingly attracting

There is a promise in the EGD's commitment to "deeply transformative politics" which makes it something other than a tool for governments to reproduce themselves. It should bring a social renovation, a new political commitment to democracy. criticism because of their potential to exacerbate inequalities, especially within urban environments.

There is also a promise in the EGD's commitment to "deeply transformative politics" which makes it something other than a tool for governments to reproduce themselves. It should bring a social renovation, a new political commitment to democracy. For example, the EGD could help grapple with the energy divide: the massive disparities in energy access across the EU and how they translate into an epidemy of energy poverty (Bouzarovski & Tirado-Herrero, 2017). The energy divide refers to the deprived households in member states who are unable to meet their energy needs while facing increasing energy costs and the consequences of living in inefficient properties. The EGD tackles energy poverty head-on, focusing on household renovations and efficiency as its main strategy. However, the impact of these measures on disadvantaged populations are still not entirely understood.

The JTM explained above addresses some of these problems directly (EC, 2020b). It has a strong territorial focus and is sectoral in nature. It is also concerned with aligning multi-scalar processes and establishing close cooperation between national and local authorities (Sabato & Fronteddu, 2020). The JTM focuses on supporting carbon-intensive industries, fossil fuel-dependent countries and communities. There is less awareness about the enormous impacts the EGD will bring about.

The challenge of energy poverty runs deeper and relates to the need to open up energy planning and decision-making to citizens. Integrating citizens into decision-making through meaningful processes beyond consultation policies is essential to create feasible and broadly accepted energy policies.

Conclusion

The EGD shows ambition and commitment. However, its transformative aspirations do not automatically translate into concrete proposals that will make transformation a feasible political project.

The EGD must deliver a sustainable society at a human scale. Action at a human scale takes place in neighbourhoods and communities, connecting them in broader regions, but without losing track of the range of impacts green actions have on individual lives. Delivering an energy transition at a human scale requires citizens to be reconnected with the means of energy production, with the multiple dimensions that shape their energy systems from the natural resources that fuel them, the infrastructures that organise them, and the practices that depend on them.

However, the EGD is an ongoing, unfinished project that requires political commitment to be garnered. Prioritising a view on the diversity of urban infrastructures and the need to conceive the transition as an open-ended process is a strategy for recognising multiple intervention areas related to people's lives. Is there potential for a real transformation of our societies and our energy systems? It is too early to say. The EGD's impacts and results will only become apparent as its political project materialises.

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