HAL
open science

Energy Transition and Urban Governance in the Arab World

Éric Verdeil

To cite this version:

Éric Verdeil. Energy Transition and Urban Governance in the Arab World. Eckart Woertz. "Wise Cities" in the Mediterranean? Challenges of Urban Sustainability, , pp.93-102, 2018, 9788492511570. halshs-01829664

HAL Id: halshs-01829664

https://shs.hal.science/halshs-01829664

Submitted on 17 Jul 2018

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Distributed under a Creative Commons Attribution - NonCommercial - ShareAlike 4.0 International License

ENERGY TRANSITION AND URBAN GOVERNANCE IN THE ARAB WORLD

Eric Verdeil

CERI-Sciences Po

1. Introduction

The 2015 Paris Agreement and the recent Quito New Urban Agenda both emphasised the need to empower cities in climate change policies, including energy policies that aim at energy transitions towards more energy efficiency and the use of renewable energies.

This call is often justified by the fact that cities now house more than half of the global population and are responsible for more than 75% of greenhouse gas (GHG) emissions. Economic activities and wealth are also mainly concentrated in cities. In addition, many studies point to the increased vulnerability of cities because of the rise in urban temperatures, which could make summer life in many Arab cities unbearable. Rising sea levels are also expected to threaten a number of maritime cities, among them many Arab capitals and large cities. Being both factors in and potential victims of climate change, cities have many reasons to act. Therefore, there is a need to examine how changes in urban governance could indeed address this necessity and the challenge cities have to face.

This issue has been addressed in many studies and plans for cities in the Western and advanced industrial world. These cities have not only undertaken various initiatives and implemented projects, they have also embarked on new diplomatic actions, creating networks such as the International Council for Local Environmental Initiatives, or more recently the C40 Cities Climate Leadership Group, which the mayor of Paris, Anne Hidalgo, currently leads. Its aim is to promote policies and share experiences and technological and administrative tools. Urban governance change is needed, not just new technologies.

Hodson and Marvin (2010) began to examine this issue in the case of world cities like London, San Francisco and New York a few years ago. They have insisted on several points: Firstly, instead of considering only climate change issues, they stressed the need to understand ecological pressures more widely, particularly the way global energy pressures, like peak oil threats or price increases have created energy stress for cities. Secondly, they also

underlined how privatisation trends and the ascent of transnational energy firms reconfigured energy regulation by sidelining public energy utilities and companies. Thirdly, metropolisation, the concentration of wealth and power in the big metropolises, transforms urban governance. The role of states in energy regulation is thus undermined and metropolitan coalitions are more diverse and open to private and as well as local urban interests. Green growth becomes a new market for private firms, and metropolitan governments compete for jobs and investments in the sector. At the same time, ensuring the continuity of energy supply or of other infrastructure is another goal for metropolitan firms and authorities. This leads to new agendas, including local policies of energy transition, which combine the promotion of renewable energies and energy efficiency with the shortening of energy circuits.

Green growth becomes a new market for private firms, and metropolitan governments compete for jobs and investments in the sector. This leads to new agendas, including local policies of energy transition.

However, several factors that are favouring these changes in energy governance seem to be specific to world cities and might not apply in other contexts. The increasing – albeit contested – political autonomisation of such cities in their relation to national states and their specific wealth are cases in point.

My goal in this chapter is to look at Arab cities, for which, at a first glance, energy transition initiatives seem difficult to identify. If we look at the map of the C40 network, we observe that only three Arab cities form part of it: Cairo, Amman and Dubai. Out of more than 1500 members, the ICLEI network of Local Governments for Sustainability includes only ten from the Middle East and North Africa, five of them being Turkish. As for the Organization of Islamic Capital and Cities, which brings together 141 cities, its goals barely mention environmental and sustainable development issues and the network seems to be asleep.[1] All of this suggests that metropolitan energy and environment initiatives do not abound in this region of the world. The objective here is to understand why.

My chapter draws on a wide collective analysis of urban energy transition policies in ten metropolises from emerging economies, including several Arab cities such as Amman, Beirut, Tunis and Sfax (Jaglin and Verdeil, 2017; Verdeil et al., 2015; Verdeil, 2014a; 2016; forthcoming), and on secondary literature about the United Arab Emirates. It aims to propose some preliminary observations and to raise questions to fuel the upcoming debate. I will not present case studies but rather identify policy issues and policy options that vary greatly according to context and, above all, according to the national availability of fossil energy such as oil and gas and the social contracts that govern the redistribution of this wealth in exchange for loyalty.

2. Global energy pressures rather than climate change

Changes in energy supply emerge as a primary concern for MENA governments. By comparison, other ecological pressures trail behind, such as increased threats of flooding because of exceptional rainfalls and sea-level rise or hotter temperature prospects, which have recently made the headlines in Gulf cities. However, this concern takes a different form in energy exporting and importing countries. In oil and

1. See: http://www.c40.org/cities; http://www.iclei.org/iclei-members/iclei-members.html?memberlistRegion=North+Africa%2C+Middle+East%2C+West+Asia; http://www.oicc.org/

gas-producing countries, threats of peak oil and resource depletion are surfacing in some cases, such as in Bahrain, Dubai or Tunisia. However, in most cases, it's not the depletion by itself that is a concern, but rather the fact that growth in demand consumes more and more of national oil production, which then cannot be sold on the international market. This results in reduced incomes, which in turn compromise the ability to finance the redistribution that is at the heart of the social contract. Lower oil prices since 2014 have aggravated this situation.

Net oil and gas importers in the MENA region experience energy pressures in a different way. In a context of growing demand for energy driven by population growth and the rise of middle class consumption patterns (individual cars, electric appliances) the hikes in energy prices at the end of the 2000s strongly inflated energy spending and created fiscal tensions, as higher energy costs have not been passed on to the prices of essential goods. Low oil prices after 2014 were a relief for governments in net importing countries.

It is noteworthy that both energy poor and, more surprisingly, energy rich countries have experienced recurring electricity shortages in the last decade, sometimes for long periods (as in Lebanon). In a context of rising demand and new uses, power cuts are the symbol of the vulnerability of energy systems in the region and prompt strong calls for improved energy supply. Hence, policies of securitisation and diversification are topping the energy agendas, as will be discussed in the last section.

In contrast to the world cities mentioned earlier, climate change concerns are much less visible in these countries and barely motivate policy discourse. As in many emerging and developing countries, this issue is not central in political agendas. There are several reasons for this. Firstly, in Arab countries green parties barely exist. Environmental movements may mobilise people, but normally around local or national stakes (pollution, land-use conflicts) rather than global ones (Karam, 2006). Global threats such as climate change and energy transition investments are understood as a consequence of colonialism or as neo-colonialist avatars and therefore as threats to national sovereignty (de Souza et al., 2018). In addition, national and metropolitan governments have often manipulated environmental policies to attract international capital without implementing them seriously or only to advance private interests – as in Tunisia or in Syria – thus undermining the credibility of new claims in the eyes of local environmentalists (Barthel, Clerc and Philifert, 2013).

3. Centralised vs metropolitan governance of energy regulation

The specificity of metropolitan governance in most Arab countries is also worth unpacking, as it highlights the differences between Arab cities and the trends that Hodson and Marvin describe. Because of colonial legacy, post-independence state-building policies and authoritarian regimes, cities and, even more so, metropolises and capital cities often remain under the rather strict tutelage of national governments (United Cities and Local Governments, 2008; Harb and Atallah, 2015).

Consequently, metropolitan authorities have little political autonomy and lack financial and human resources. Implementing innovative policies seem largely out of the scope of their agendas. Egypt is a case in point, hence the surprise to find Cairo within the C40 network, because its governor, acting on behalf of the government, hardly follows an autonomous agenda.

[In most Arab cities] metropolitan authorities have little political autonomy and lack financial and human resources. Implementing innovative policies seem largely out of the scope of their agendas.

Amman briefly offered a counterexample with its Green Growth Policy at the end of the 2000s under Mayor Maani. But the experience, supported and funded by the World Bank, was soon terminated by the government as it appeared that allegations of corruption and the influence of foreign consultants and funders provided the king with an easy scapegoat in the face of mounting protests associated with the Arab Spring and energy tariffs (Verdeil, 2014b).

The so-called city-states of the Gulf region differ from other Arab metropolises. Dubai, Doha, Kuwait, Bahrain and Abu Dhabi implement energy policies that are de facto metropolitan but at the same time national or quasi-national. This specific configuration is one of the rare contexts where innovative energy initiatives unfold, and requires further scrutiny.

Centralised state governance is even stronger when it comes to energy. In the Arab world perhaps more than elsewhere, energy (and oil above all) belongs to the sovereignty of the state. Hence, opening this sector up to privatisation and foreign investments is a sensitive issue that governments have carefully monitored. In the case of electricity, Arab countries have been reluctant to embrace privatisation, in contrast to global trends, which show that this sector has widely opened to public-private partnerships (PPPs) (Somma and Rubino, 2016). When this has happened in the Arab world, it has been partial and prudent. Investments in electricity have been limited to specific segments of the market, such as renewable energies. But governments have avoided wider privatisation of electricity utilities, especially of the distribution segment. Jordan, again, can be seen as an outlier, as private investors now control both generation and distribution there. In most other countries, privatisation of electricity remains a red flag, such as in Tunisia. In any case, state utilities still control the transmissions according to the model of the single buyer (meaning that direct purchases of power by final customers are not possible).

The states remain everywhere in charge of regulation issues, such as fixing the energy tariffs for electricity, gas, gasoline and diesel. In some cases, supposedly independent regulatory committees have taken over. However, their independence remains theoretical. In Jordan, for instance, between 2008 and 2014, the same engineer has successively occupied high-ranking positions in electricity firms and the regulatory committee before becoming minister of energy, contradicting the separation of these positions that the theory of the principal and agent requires.

In the Arab world governments have kept hold of the steering wheel, in contrast to the governance changes that have affected the energy systems in many other countries, especially in the West. Metropolitan entities in the MENA countries generally have little power and this is

paramount when it comes to energy issues.

4. Three policy options and political issues

This section describes three kinds of policy in the field of energy. I show that governments increasingly worry about what one can label an urban energy question. However, if it is possible to speak of an urbanisation of energy issues, nowhere can one observe a territorialisation of energy regulation at infra-statal scale similar to the metropolitanisation that happens in the world cities mentioned previously.

Securitisation

Governments have considered energy security a major concern for a long time, above all in relation to geopolitical troubles at the regional scale. Conflicts over energy transportation in and from the region, by ships or pipelines, regularly make the headlines. However, a series of independent events have concurred in shifting attention from the national supply to the supply of metropolitan areas.

In the Gulf countries, the end of the 2000s witnessed a frenzy of urban development and at the same time alarming electricity shortages resulting from the lack of power generation that left new buildings without grid connection for months if not years. Hence, they needed to run their own generators. It is well know that Baghdad and other Iraqi cities, as well as their Lebanese counterparts, have experienced daily rolling power cuts for many years because of bad management and reconstruction policy failures (Verdeil, 2016). Popular protests against the governments' mismanagement of electricity multiplied, even though they never coalesced into threats against the regimes. In Egypt, however, energy shortages, both of electricity and natural gas, fuelled popular protests. Many rumours have circulated that the military aggravated the magnitude of those shortages in order to increase unrest and mobilisations against the Morsi government in the spring of 2013 (Lakhal, 2014). In Tunisia, a blackout in September 2014, days before the elections, triggered rumours and fears.

In all these contexts, power cuts may be related to diverse failures in energy systems, bad management and corruption. However, growing demand from energy users, both households and companies, is another reason. In Abu Dhabi, for instance, air conditioning represented 57.5% of residential electricity consumption in 2016 (IRENA, 2016: 33). This use in on the rise everywhere. In Tunisia, STEG, the electricity utility, circulated figures showing that 37% of households relied on air conditioning in 2014. Other electrical appliances also contribute to the growing demand, not to mention industry and services sectors that develop because of policies of economic diversification, particularly in the Gulf.

The lack of reliable electricity has economic consequences, pushing firms and private actors' representatives to lobby governments in order to reform and improve electrical output. The concern for energy security is not in itself much different from what is seen in other contexts.

Governments respond by diversifying their energy resources and technologies to mitigate their dependency on existing energy systems dominated by fossil energy.

Energy projects mainly rely on foreign investments. Governments display ambitious plans, but national companies lack expertise and capital.

Diversification

The diversification of energy mixes in the Arab region is not a response to calls for climate change mitigation and a shift to low carbon energy systems. This is not to say that renewable energy projects have not increased recently. But in contrast to European countries where this is motivated by climate change objectives and, at a second level, as a policy to strengthen new industrial sectors, in the Arab world this recent push is mostly market-led and follows the rapid fall in prices of solar panels and other devices. This shift has been long in the making, but remains modest until now. Morocco, Jordan and the UAE are its frontrunners.

More striking have been the moves toward more intensive use of grid-based natural gas, for instance in urban networks in Egypt and Tunisia. A major reason advanced by governments and development institutions that are funding these investments is the need to slash subsidies associated with the use of gas canisters (Verdeil et al., 2015). With these measures governments seek to promote more efficient use of energy and to save public spending. Tunisia has managed to curb energy consumption growth in the wake of their implementation. Other countries seek to diversify energy sources. In Jordan, the government launched the development of its oil shale deposits, using technologies developed by an Estonian company with Chinese funding, which will provide base-load capacity at a cheaper price than diesel-based generation. The objective is to raise oil-shale-based electricity generation to 14% of Jordan's electricity mix in 2020.

MENA programmes to develop nuclear power plants also illustrate a will to secure base-load generation capacity that prevents the burning of oil or gas, despite the financial burdens and the technical challenges for small and capital-poor countries. In Abu Dhabi a nuclear power plant is already under construction. In Jordan and Egypt, governments chase investments from Russia and China to reach their objectives. A pre-deal was struck with Rosatom in 2012 in Jordan, but securing the funding has proven difficult and no final deal has been reached yet, despite continuing negotiations. In Egypt, the government plans to launch a nuclear plant in 2029 with 85% Russian funding.

In this context, energy transition takes on a very different meaning, as the paths followed are very different from those of Western countries. Environmental motivations are hardly found in the Arab contexts. Promoting a green growth agenda, as in Western or East Asian metropolises, in order to favour the development of local energy champions, is a strategy that Abu Dhabi has followed in developing solar technologies with Masdar City and the new Shams power plants complex. Saudi Arabia seeks to emulate this strategy with urban projects such as the Neom city development in the northwest of the country. Elsewhere, energy projects mainly rely on foreign investments. Governments display ambitious plans, but

national companies lack expertise and capital. Plans to develop green urbanism or smart cities remain rather anecdotal and underfunded (Barthel, 2016). Beyond a few attempts, urban green capitalism has not found a path to Arab cities.

The urban politicisation of tariffs

The politicisation of energy tariffs highlights the increasingly urban standards of life that favour higher energy demand. This also points to the potential political power of urban masses that governments have learned to fear in the last decade.

Energy governance is becoming a new concern in world cities and in the West. However, the lack of powers for mayors in Arab cities and the shyness of green capitalism put limits on energy governance there. One cannot speak of any territorialisation of energy governance, i.e. the emergence of locally driven energy policies. However, interrupted or expensive access to energy represents a political threat, leading to angry street protests against power cuts and tariff hikes, as already mentioned with the cases of Egypt, Jordan and Tunisia (Lakhal, 2014; Verdeil, 2014a). The politicisation of energy tariffs has therefore become a major element that affects energy governance in the major cities. This is why I proposed to speak of an urbanisation of energy governance.

The existing tariffs on energy for transportation, cooking gas and electricity remain highly subsidised. This mirrors both the social contracts by which governments have sought to exchange loyalty for access to modern standards of life and the reliance of current energy systems on fossil-fuel technologies that have experienced strong variations in prices since the end of the 2000s. In addition, the so-called Arab Spring protests have temporarily blocked governments' attempts at reforming the pricing systems.

In Jordan, Tunisia and Egypt many studies have shown the biases associated with energy subsidies. A large part of the subsidies is captured by the wealthiest segments of the population, because the middle and upper classes use individual mobility much more than lower-income classes (Sdralevich, 2014). The same goes for electricity, where the first blocks of progressive tariffs subsidise consumption of every category of the population, regardless of income. The first announcements of tariff reforms triggered important mobilisations during the years 2011–2013 in major cities in Jordan and Tunisia. They quickly convinced governments to give up or delay the reforms. Eventually, tariff hikes were implemented more gradually, in a more prudent way, either by exempting many users from paying more, or by implementing systems of cash transfers, as in Jordan for gasoline for instance. However, even if energy subsidies have decreased they remain a sensitive issue, with a tension between social justice and fiscal efficiency (El-Katiri and Fattouh, 2017).

The case of energy-producing countries is a bit different. The fiscal burden of low price or almost-free energy access has been felt more strongly since the recent drop in energy prices, which have reduced states' incomes. Therefore, tariff hikes have begun to be implemented, affecting foreign residents more heavily than nationals. Despite this move, hailed by international financial institutions such as the IMF, the money spent on subsidies remains a huge burden and is still inefficiently targeted. Any move seems difficult in a context of intense power struggles, such as in Saudi Arabia (Moerenhout, Vezanis and Westling, 2017).

The politicisation of energy tariffs highlights the increasingly urban standards of life that favour higher energy demand. This also points to the potential political power of urban masses that governments have learned to fear in the last decade. In this respect, energy has become an urban issue, but one that is still governed from above.

5. Conclusion

This chapter discussed the way the metropolises of the Arab world tackle energy transition challenges. Therefore, the analysis followed Hodson and Marvin's analytical grid and sought to identify the environmental challenges these metropolises are facing, the networks of public policies that emerge and frame the public issues, the policies that are put on the agenda and the governance of energy that unfolds.

In contrast to world cities and many Western cities, we find that Arab metropolises do not emerge as strong autonomy-seeking powers, and remain under central governments' oversight. These national and business elites do not care very much about global ecological pressures such as climate change, despite growing evidence that big cities face multiple threats. They are far more concerned with energy security in the face of shifting oil prices and growing energy demand. This is triggering policies of energy diversification that include renewable energies but as a minor part of diversified technologies that do not ban fossil solutions. Green tech and urban sustainable policies remain the exception: only very rich oil exporting countries have begun to consider them. However, despite the lack of territorialisation of energy governance at the level of cities, energy issues are more and more discussed in cities. They trigger social mobilisations that have proved powerful and prompted governments to consider cities as a factor that matters for energy governance.

References

Barthel, Pierre-Arnaud. "Morocco in the era of eco-urbanism: Building a critical and operational research on an emerging practice in Africa". *Smart and Sustainable Built Environment*, vol. 5, no. 3 (2016), pp. 272–288.

Barthel, Pierre-Arnaud, Clerc, Valérie and Philifert, Pascale. "La « ville durable » précipitée dans le monde arabe : essai d'analyse généalogique et critique". *Environnement Urbain / Urban Environment*, vol. 7 (2013) (online) [Accessed 9 Apr 2018] http://journals.openedition.org/eue/365

El-Katiri, Laura and Fattouh, Bassam. "A Brief Political Economy of Energy Subsidies in the Middle East and North Africa". *International Development Policy | Revue internationale de politique de développement*, vol. 7, no. 7 (2017) (online) [Accessed 21 Feb 2018] http://journals.openedition.org/poldev/2267

Harb, Mona. and Atallah, Sami, eds. *Local Governments and Public Goods: Assessing Decentralization in the Arab World* [online]. Beirut: LCPS and OSI, 2015. (online) http://www.lcps-lebanon.org/publications/1446627069-1443012809-decentralisation_latin_web.pdf

Hodson, Mark and Marvin, Simon. *World cities and climate change : producing urban ecological security*. Maidenhead: Open University Press, 2010.

IRENA. *Renewable Energy Market Analysis. The GCC Region*. Abu Dhabi: IRENA, 2016. (online) http://irena.org/publications/2016/Jan/Renewable-Energy-Market-Analysis-The-GCC-Region

Jaglin, Sylvy and Verdeil, Éric. "Emerging countries, cities and energy. Questioning transitions", in: Stefan Buzarovsky (ed.). *The Routledge Research Companion to Energy Geographies*. Routledge, 2017, pp. 106–120.

Karam, Karam. *Le mouvement civil au Liban: Revendications, protestations et mobilisations associatives dans l'après-guerre*. Paris: Karthala Editions, 2006.

Lakhal, Salem Y. "Morsi's Failure in Egypt: The Impact of Energy-Supply Chains". *Middle East Policy*, vol. 21, no. 3 (2014), pp. 134–144.

Moerenhout, Tom; Vezanis, Nikos and Westling, Chris. *Navigating Political Hurricanes in MENA: Energy Pricing Reform in Context of Changing Social Contracts*. New York: Columbia University. Center on Global Energy Policy, 2017. (online) [Accessed 12 Apr 2017] http://energypolicy.columbia.edu/sites/default/files/energy/Navigating%20Political%20Hurricanes%20in%20MENA%20Energy%20Pricing%20Reform%20in%20Context%20of%20Changing%20Social%20Contracts%20041117_0.pdf

Sdralevich, Carlo. *Subsidy reform in the Middle East and North Africa: recent progress and challenges ahead*. Washington, DC: International Monetary Fund, 2014.

Somma, Ernesto and Rubino, Alessandro. "Public-Private Participation in Energy Infrastructure in Middle East and North African Countries: The Role of Institutions for Renewable Energy Sources Diffusion". *International Journal of Energy Economics and Policy*, vol. 6 no. 3 (2016), pp. 621–629.

De Souza, Luiz E.V., Bosco, Estevao M.G.R.L., Cavalcante, Alina G., and Da Costa Ferreira, Leila. "Postcolonial theories meet energy studies: 'Institutional orientalism' as a barrier for renewable electricity trade in the Mediterranean region". *Energy Research & Social Science*, no. 40 (2018), pp. 91–100.

United Cities and Local Governments. *Decentralization and local democracy in the world*. Barcelona: UCLG, 2008.

Verdeil, Éric. "Securitizing urban electricity supply: a political ecology look at the cases of Jordanian and Lebanese cases", in: Yacobi, H. and Nsasra, M. (eds.). *Routledge Handbook on Middle East Cities*. London: Routledge, forthcoming.

Verdeil, Éric. "The Energy of Revolts in Arab Cities: The Case of Jordan and Tunisia". *Built Environment*, vol. 40 no. 1 (2014a) pp. 128–139.

Verdeil, Éric. "The Contested Energy Future of Amman, Jordan: Between Promises of Alternative Energies and a Nuclear Venture". *Urban Studies*, vol. 51, no. 7 (2014b), pp. 1520–1536.

Verdeil, Éric. "Beirut, metropolis of darkness and the politics of urban electricity grids", in: Luque-Ayala, A. and Silver, J. (eds.) *Geographies of the Electric City*. London: Routledge, 2016, pp. 155–175. (online) [Accessed 13 Apr 2015] https://halshs.archives-ouvertes.fr/halshs-00858126

Verdeil, Éric; Arik, Elvan; Bolzon, Hugo, and Markoum, Jimmy. "Governing the transition to natural gas in Mediterranean Metropolis: The case of Cairo, Istanbul and Sfax (Tunisia)". *Energy Policy*, no. 78 (2015). pp. 235–245.