

# HOW CAN REGIONAL COOPERATION IN THE MEDITERRANEAN SUPPORT CITIES' ENERGY TRANSITION EFFORTS?

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## **1. Introduction**

The question “How can regional cooperation in the Mediterranean support cities’ energy transition efforts?” is a call for a breakthrough more than an iterative improvement of current practices because it requires all actors to tackle together the limits of regional cooperation in the Mediterranean, due to the existing divergences, the energy transition, the slowness of the process, and, last but not least, the local authorities with their own governance controversies.

The challenges today in Euro-Mediterranean cooperation remain similar to those of the early days: overweening ambitions with very limited resources, weak confidence among partners, elitism creating distance from society, and a scarcity of economic liberalisation (Martinez and Hibout, 1998). In the region, energy transition, while an economic necessity, is more considered an opportunity to attract investments than a paradigm change in resource management; independence of economic actors vis-à-vis policies has not yet been achieved. While raising the price of energy services can play a crucial role in creating incentives to stimulate energy transitions, Mediterranean countries continue to use energy subsidies as a populist policy. Few national actions exist to raise awareness or to provide support for local authorities in their energy transition. A small group of active local authorities has emerged that is interested in taking action, but they mostly suffer from weak planning and operating capacities due to limited access to financial and human resources. Moreover, any effort by local authorities suffers from the general controversies of local governance, such as internal political tensions between central and local authorities, as well as the dynamics of territorial power distribution in each country.

International donors have started to consider the area as a priority and are now dedicating support to those local authorities willing to undertake pilot solutions. In these circumstances, an intergovernmental organisation such as the Union for the Mediterranean (UfM) can find a way to go beyond all these challenges as it has the capacity to capitalise on existing efforts,

Supporting cities' energy transition efforts through regional cooperation is a breakthrough more than an iterative improvement of current practices.

eye effective actions, explore their replicability in different conditions, identify difficulties faced, report results to member states and advocate for regional policies.

This paper describes the pursuit of action that resisted all these challenges during four years of experience at the UfM Secretariat, with visits to projects, consultations with local actors (mayors, experts, officers) and cooperation with international donors. The original objective was to oversee the political and technical preparation process of a regional initiative for supporting local authorities' efforts in energy transitions. However, the conclusion reached was a humble regional cooperation for promotion of energy consumption measures, making local energy consumption visible, in which each member state can find its interest and participate.

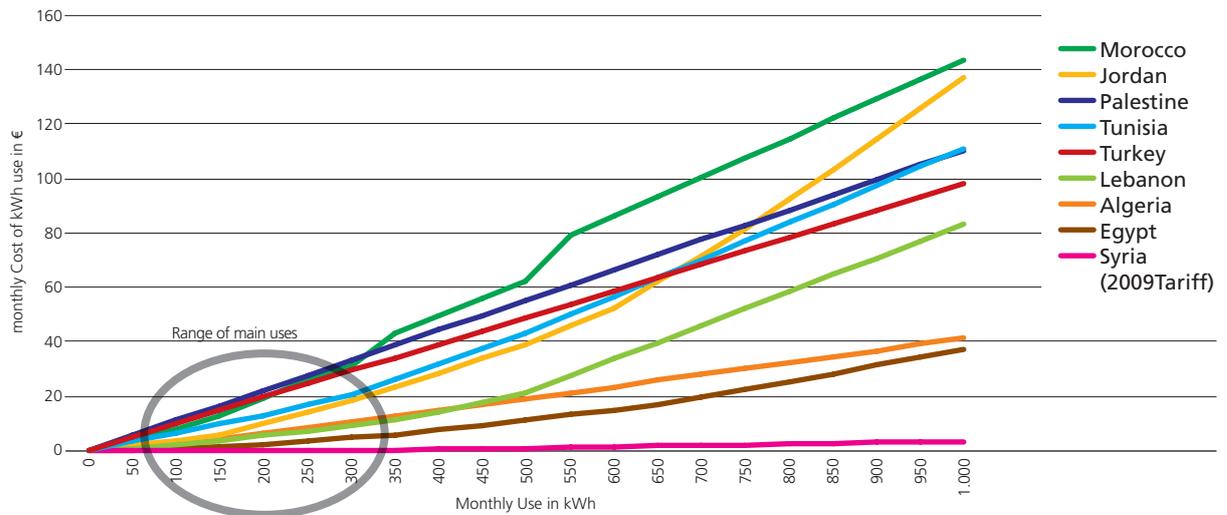
## 2. Energy transition in the Euro-Mediterranean

Energy management remains a hot issue for the Mediterranean region. Renewable energy investment is not substantial and there are not enough economic incentives for energy efficiency, as users' energy prices don't reflect primary energy's market prices, due to the high level of public subsidies.

Even in the most optimistic scenario, the Mediterranean region's energy demand is expected to increase by 7% over the next 25 years from today's level of 990 million tons of oil equivalent (Mtoe) up to 1055 Mtoe (ADEME, MEDENER and OME, 2014). Moreover, southern and eastern Mediterranean (SEMED) countries are facing energy scarcity – they are either now net energy-importing countries (e.g. according to the IEA, Morocco and Lebanon are importing more than 95% of their energy demand) or they have falling energy exports (e.g. Algeria and Egypt).

The energy transition, which requires a long-term structural change in energy systems for decarbonisation in SEMED countries (including multiple approaches, such as the development of renewable energy resources and the improvement of energy conservation and energy efficiency efforts, happening in parallel), represents an economic opportunity to attract investment or the selling of electricity to Europe, rather than just a non-mercantile commitment to climate change such as the Mediterranean Solar Plan Process launched in 2008 (Jablonski et al, 2012). Tunisia, one of the region's leaders, still produces only 13.6% of its electricity from renewable sources (ADEME, MEDENER and OME, 2014), while in Morocco renewable energy's share in total electricity production does not even reach 10%, instead sitting at 8.7% of total electricity production – almost the same level as the US (IEA, 2014). Some countries have announced ambitious objectives for the future to increase the current use of renewable energy. For example, the Algerian Program for the Development of New Renewable Energies aims to produce 22,000 MW for the needs of the national market over the 2015–2035/40 period (and more than 4,000 MW of this capacity is intended to be achieved by 2020), while that country's current share of renewable energy in total energy production does not exceed 5% today. And in both Algeria and Tunisia, the total share of renewables in the electricity sector is still very low, at less than 1% (MEDENER, 2014).

**Figure 1. The cost of monthly energy use in kWh in southern and eastern Mediterranean countries (October 2017, tariff exchange rate)**



Source: Cornut (2018)

Energy efficiency remained, until the Paris Declaration, an area mostly filled with good wishes. However, following that agreement some ambitious policies have emerged from UfM member states, and hence current energy intensity rates are very high. For example, Turkey's National Energy Efficiency Action Plan targets to save \$30.2 billion by 2033: nearly \$1 billion in savings would emerge from energy efficiency transformation in 1.7 million residences, while \$10 billion in savings is expected in the industrial sector. However, in 2017, Turkey was the only country with increasing energy intensity among IEA member states (IEA, 2017).

Tunisia was one of the first countries to develop a comprehensive energy conservation policy. In 1985, the country demonstrated its focus on the issue with the creation of the Agence Nationale de la Maitrise de l'Énergie (ANME), which included a special section dedicated to energy efficiency. In 2000, the country established a programme for the control of energy use, and the ANME was put in charge of developing a strategic plan on energy efficiency. Tunisia and Algeria have introduced thermal regulations for new buildings. Tunisia has also set up energy audits for dwellings, which brought a decrease in Tunisia's energy intensity rate (Res4MED, 2016). However, Tunisia's total final energy consumption has been growing at a constant rate since 1975, according to the IEA.

This contradiction emerges from not just governance vulnerabilities, but also controversial energy pricing policies. Despite progress made in the legal framework, not all governments have consolidated their governance structure for energy efficiency policies and programmes. In Turkey, although the Ministry for Energy and Natural Resources is meant to have responsibility for energy policy in all sectors, in reality competence for energy efficiency remains divided across several ministries. Morocco, which aims to reduce energy consumption by 12% by 2020, and by 15% by 2030 through energy efficiency, only set up an agency dedicated to energy efficiency in 2016 – the Moroccan Agency for Energy Efficiency – which has limited resources and a very small share of the national budget.

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Besides energy balance challenges, the graphics from a UfM Secretariat study above show there is no arithmetic correlation between countries' GDP or other economic indicators and the price of gasoline/diesel or electricity per consumer (Cornut, 2018). The IEA recommended the southern and eastern Mediterranean region to progressively remove energy price subsidies to improve energy efficiency (IEA, 2014). As a measure of comparison, in 2012 energy price subsidy compensation charges represented 106% of Morocco's investment budget, and 6.6% of the state budget (Jebari, 2016). It is also important to note that Morocco is among the first countries in the Middle East and North Africa region to cut fossil fuel subsidies. However, at a similar price level, there is a wide disparity among countries in electricity consumption per household (MEDENER, 2014).

Despite the dependence on energy imports and vulnerability in terms of the energy mix, the disparity between energy tariffs and the high level of energy subsidies makes the environment unsuitable for energy transition, whether at the local, national or regional level, despite growing energy demand challenges.

### 3. Local authorities in the Mediterranean region

The global issue of growing urbanisation also remains a challenge for the Mediterranean region, one of the most urbanised in the world, with around 60% of the total population living in urbanised areas, and a 45% increase in urban populations projected by 2030, according to the United Nation's World Urbanization Prospects (UN, 2014). However, local authorities' governance models and their technical and financial resources do not follow the same trend.

In the region, as there is no systematic definition of local governance systems or the way the head of local government takes office (i.e. by election or appointment), there is tremendous variety in the size of cities, competencies and roles in administration. The 80 million population of Egypt is divided among 243 local authorities that can undertake energy transition actions (26 governorates and 217 towns, plus Luxor's special status), while Turkey, with 73 million people, has more than 4,000 local authorities (81 special province administrations, 3,225 municipalities and 16 metropolitan municipalities) and the 31.2 million people in Morocco are divided into 16 regions, 49 provinces and 1,497 municipalities. The central governments retain substantial powers to intervene in local affairs, mainly through the position of governors. These officials are generally appointed either by the country's interior minister, another minister in charge of local authorities and municipal affairs, or directly by the head of state, such as the king or president (Bergh, 2010). In some countries, a council elected via direct suffrage assists the head of local authority. In the region, participation in local elections mostly fails to reach even 50% (e.g. the turnout at municipal elections was 45% in Morocco in 2017 elections and 43% in Lebanon in 2016). This makes local authorities even more vulnerable when it comes to considering undertaking the fundamental changes needed for something like energy transition.

The technical and human resources of local authorities constitute the second pillar of the capacity challenge. The main finance sources for local authorities in the SEMED region are not different to those of most OECD

countries, but the state of those funds is. These funds are mainly transfers from the central government and also some local revenue, such as rental and tax revenues from municipal real estate, taxes on property ownership, and taxes on industrial, commercial or professional establishments (e.g. a tourism tax). In some limited cases, extra revenue is also generated from the issuance of building permits and other licenses and fees, such as for water and electricity. However, unlike in OECD member countries, most local authorities in the region are unable to fully collect taxes and user fees from local residents and businesses. Whereas the local government's share of public expenditure tends to represent 20% of GDP in OECD countries, such expenditure averages only about 5% of GDP in Mediterranean countries – with a big part of this coming from central government subsidies and transfer. For example, in Jordan the total budget for all 99 municipalities amounted to \$161 million in 2006. The sub-national government's expenditure reached only 3.6% of GDP in Morocco and 2.1% of GDP in Tunisia, according to a 2014 OECD study. These limited financial incomes for local authorities constitute about €00 per inhabitant per year – in comparison the average level in France or Germany is above €000 per inhabitant per year. In most countries, local authorities don't have the legal autonomy to work with domestic commercial banks, international financial institutions, or other donors. (One exception is Turkey, where local authorities can make investments in cooperation with national and international banks – e.g. the Izmir Metro Project received a €0 million loan from the EBRD in 2017.)

As a consequence, local authorities are often unable even to pay their employees in a timely fashion. Moreover, their local employees largely consist of unskilled labour (e.g. cleaning staff and couriers). There is a lack of middle management civil servants with technical skills to the detriment of (productive) capital investments. In the absence of sufficient self-revenue from taxation and a lack of human resources to implement additional projects (such as energy transition or energy efficiency efforts), local authorities must opt to receive credit from state-owned municipal funds or banks, hope for grants from international donors, or collect voluntary donations from wealthy inhabitants. This dependence system creates a tendency towards poor planning and operating capacity in the region (Bergh, 2010).

#### 4. Technical solutions

Some bilateral efforts to technically support local governance and territorial development, as well as efforts in energy transition, can be identified. For example, the French Agency for Development (AFD) and the European Investment Bank (EIB) are involved in several programmes tackling the issue of urban cohesion and regional disparities. Similarly, the World Bank (WB) has since October 2015 developed the Maghreb Lagging Region Task Force, and has recently started the implementation of an operation to contribute to the development of Upper Egypt.

In the specific area of energy transition, besides the European Union (EU) and the US Agency for International Development (USAID), some bilateral cooperation agencies have also started technical support programmes. When the EU decided to globally expand the EU-funded Covenant of Mayors (CoM) programme, special technical support was proposed

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in the region for local and regional authorities that are voluntarily committed to the CoM convention. A local authority signatory of the CoM acknowledges that they will attempt to implement the EU's climate and energy objectives in their territory, which involves sharing a vision for making their cities decarbonised and resilient, making their cities places where citizens have access to secure, sustainable and affordable energy, and committing to developing sustainable energy and climate action plans to implement local climate change mitigation and adaptation activities. To support CoM signatory cities, the EU has recently implemented two regional programmes: Cleaner Energy Saving Mediterranean Cities (CESMED) and Sustainable Urban Demonstration Projects (SUDEP). A bilateral programme under the Instrument for Pre-Accession Assistance (IPA) is under preparation for Turkey as well. CESMED provided support to more than fifty cities for sustainable energy action plans. SUDEP provided, meanwhile, technical assistance to 12 municipalities across Lebanon, Palestine, Jordan, Israel, Tunisia and Morocco for the implementation of pilot actions responding to sustainable energy challenges – i.e. actions such as energy saving, energy efficiency and increased use of renewable energy sources. USAID has, since 2012, run the Building Alliance for Local Advancement, Development, and Investment (BALADI) programme in Jordan and Lebanon, while the Swiss government is supporting Tunisia's energy efficiency agency (ANME) in implementing the programme of the Cities Alliance for Energy Transition.

This international support creates pilot actions and starts energy planning in the region. However, it also creates a system of dependency on international aid, grants and funding, as they are not accompanied by national policies that might create an ecosystem for the multiplication of these actions and the development of long-term policies.

## 5. New forms of decentralised service delivery models

Within the limits of local governance, institutionalisation of energy transition at the local level is a must for ensuring the sustainability of efforts. Moving from a model of central provision to one of decentralisation to local governments is not a priority for most southern and eastern Mediterranean countries. For example Turkey, which is one of the OECD's most centralised countries, is still one of the most decentralised countries in the region (Houdret and Harnisch, 2017). Non-traditional actions like energy transition require creative thought, thus allowing new forms of decentralised service delivery models, such as public-private partnership (PPP) frameworks, to emerge.

There is no single widely accepted definition of PPPs. The World Bank's (WB) PPP Knowledge Lab defines a PPP as "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance" (World Bank, 2018). With this definition the WB underlines the fact that PPPs do not include service contracts or turnkey construction contracts – as they are delivered through the public procurement process – or the privatisation of utilities, meaning there is a limited ongoing role for the public sector.

The Sala Noor Corporation, the local development corporation (LDC) entirely dedicated to the public lighting management of the city of Salé in Morocco, gives a good illustration of the public-private partnership for implementing energy transition. This partnership between the Urban Community of Salé, the national public company of Société D'Investissement Strategic (SIE) and OKSA created the Sala Noor Corporation. This project benefits from the World Bank's Communal Infrastructure Fund (FEC) contribution to the financing of a share of the communal participation in the equity of the LDC and the support of the Ministry of Interior and the Ministry of Energy, Mines, Water and Environment. The Ministry of Interior and SIE are now considering building a public lighting management model to replicate this initiative in other cities in the country.

However, multiplication of these kinds of PPP models requires at first the improvement of a national legal framework for PPPs, and constant legal and technical support from an independent organisation dedicated to the local authorities' negotiations with a private company. For example, the OECD, who consider Tunisia's new legislation for PPPs very close to global best practices, recommends Tunisia make available a technical assistance fund to support the preparation and management of PPP projects, and create an independent institution to accompany public institutions in this process (OECD, 2017).

Considering existing examples, this special institution would need to have human resources with knowledge of all the legal and financial constraints affecting local authorities and be aware of technical details – as a local authority will likely not have among its own staff the specialists needed to create such a framework. For example, in France this role is held by the National Federation of Communities (FNC), with subordinate networks for water, energy, transportation, waste management, and so on. In Turkey, the Union of Municipalities (TBB), as the sole union for municipalities at the national level, assumes a similar role. In compliance with Article 20 of Law No. 5355 (2005), all 2,950 of Turkey's municipalities are natural members of the TBB, and the TBB provides municipalities with technical support on specific themes, like PPPs.

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## 6. Regional cooperation

Local authorities face several layers of challenges when they undertake actions. On the one hand, weak financial and human resources limit their ability to undertake actions in response to their energy transition needs (alongside a reticence about decentralisation). On the other hand, energy transitions do not usually contain all the necessary frames required to receive support from a national policy, instead relying on securing international funding. However, sustainable action requires an institutional frame that can draw the attention of the private sector, which is currently missing in the region. (Turkey is a notable exception here.)

In such circumstances, an intergovernmental organisation such as the UfM can be a convenient platform where project promotion can be used as a tool to ensure cooperation. For example, in the First UfM Declaration on Energy (December 2016), member states included a short statement on their willingness to launch determined common metrics and an effective unifying medium: "for those countries who are willing to explore

the possibilities, notably in the framework of the Covenant of Mayors, to better coordinate ongoing and future efforts by local authorities in promoting and deploying renewable energy and energy efficiency measures, in reducing greenhouse gas emissions and in addressing the adaptation challenges that a changing climate poses”.

This mandate raises the question of how regional cooperation in the Mediterranean could support cities' efforts in energy transitions, according to the UfM Secretariat's agenda.

The first immediate answer was by networking among active and willing heads of local authorities, such as mayors, governors and walis. However, political concerns about decentralisation, reticence regarding the larger ideology on the part of local elected figures hampered this approach. Any work in direct relation with heads of local authorities was first suspected to modify the power balance between local and central authorities. The second suspicion, which made slow work with local heads, surrounded the ideological differences that might exist between the central government's power and theirs. Any action that roused suspicions could become untenable.

Once those two political hurdles were overcome, then came the question of identifying the common interests for all member states – i.e. the ones which did not conflict with national policies. In this framework, the first path of action could hardly go beyond identifying existing efforts and giving them increased visibility, with the objective of promoting their replication.

But when it came to how to support actors and institutions interested in undertaking larger actions, other challenges emerged. To whom the institution would provide technical support and how to define that project selection criteria remained significant barriers. Therefore, the next step was not to provide direct technical support, but rather to make existing resources available for the entire region, consolidating easy access to the most useful information on the efforts of local authorities for energy efficiency and renewable energy through a database where reports, practical guides, methodological tools and evaluations could be found in an organised way.

However, none of these actions involved advocacy for the development of policies that could prompt a regional campaign on measuring how energy is spent at the local level. An energy consumption measuring campaign undertaken by cities – one consisting of measuring the energy expenses of cities, with detailed classifications linked to economic conditions, geography and climate – would give a better understanding about how energy is used by households. This data could help to identify potential savings with energy efficiency technologies, and to improve behaviour, both to support energy transition efforts and to further the often-stated goal of regional integration, without interfering with other political tensions.

A better understanding about how energy is used by households and decision-makers would help to identify potential savings via energy efficiency technologies and improved behaviour. Therefore, measuring campaigns on a sample of households and monitored demonstration

projects will be useful to provide evidence of these benefits. If measuring campaigns could be conducted in all member states at the same time, member states would have the possibility to compare their actions and evaluate their improvements. With that information, they could then decide on the required adequate energy tariffs, reasonable energy efficiency regulations and adequate financial support needed to treat their national condition.

## 7. Conclusion

When one sees actions undertaken by a small group of brave and entrepreneurial actors to reduce their energy consumption or produce electricity from renewables, all theoretical questioning on how much local authorities can implement actions despite their lack of capacity loses its meaning. Energy transition is now a local matter in the Euro-Mediterranean region. It is a rising trend, despite the scarcity of strong national political support. Now the question should be which institutions will accompany this trend, how they will do this, and what level they can reach.

This paper has outlined the limits on local authorities taking on energy efficiency transition efforts, highlighted their impact on ongoing actionable projects, and ended by proposing “measuring” as a common way of both overcoming these challenges and building up a common synergy for cooperation. Today in the region we are still far from reaching the level of self-confidence and willingness of state officials in, for example, California, who brazenly speak out and ignore their federal government’s efforts (under US President Donald Trump) to end policies targeting climate change (Davenport and Nagourney, 2017). Until the day that becomes possible, only regional and horizontal cooperation can make this movement wise, effective and sustainable across the whole of the southern and eastern Mediterranean region.

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Energy transition is now a local matter in the Euro-Mediterranean region. That it is a rising trend, despite the scarcity of strong national political support, is a given.

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