OPINION

USING AID FOR ENERGY SAVINGS TO GENERATE DEVELOPMENT WINS IN JORDAN

Glada Lahn

Opportunities for financing energy access and other SDGs have opened up for some Arab countries as a result of humanitarian aid. With some changes in the way that electricity savings are accounted for and redistributed, governments could harness these to transform their building stock and in turn contribute to health and education as well as energy access goals.

Mass unplanned migration due to various conflicts in the Arab region has put additional stress on neighbouring countries' energy, water and other services, and nominally increased energy poverty. But it has also given way to international attention and new funding streams. In Jordan, as of 2014, the government has specified how aid should be channeled through the Jordan Response Plan – meeting both refugee needs and national development priorities. Energy sits alongside other priorities, with its own taskforce composed of government, NGO and UN parties to set out on a rolling basis where aid should be channeled. The 2018 – 2020 plan seeks USD 172 million for energy interventions with a focus on "utilizing RE&EE technologies and solutions to houses, private and public building, including schools and hospitals, as well as to provide adequate, secure and affordable energy to refugees and host communities." (more info available on http://www.jrpsc.org)

This approach has brought largescale legacy investments such as the solar power plants at Azraq and Zaatari refugee camps, funded by IKEA Foundation and German development bank, KfW respectively. It also attracts new urban approaches. The Norwegian Refugee Council accessed EU funding to install solar panels on 23 schools which have doubled their teaching time, and therefore utility costs, to accommodate Jordanian and Syrian pupils on a two-shift system.

Likewise, hospitals often face high diesel and electricity bills for basic needs such as hot water. The Moving Energy Initiative, funded by the UK Department for International Development (DFID), has upgraded Al Mafraq hospital's water system. Jordanian company Millennium Energy Industries has developed a solar thermal system to do

so, which is expected to save around 32,000 Jordanian dinar (USD 45,133) each year. Water was previously heated with diesel and the hospital manager is now able to redistribute the diesel budget. This money can be used to improve urgently needed health care facilities – the hospital has gone from taking 75 patients per day to over 130 since the refugee crisis and is desperately in need of more funds. Targeted humanitarian grant funding could radically reduce diesel use across all hospitals under pressure from the additional population whilst increasing health care for vulnerable people.

The problem of utilities deficit is one that weighs heavily on the Jordanian government's economic health. At the end of 2017, the debts of the National Electric Power Company (NEPCO) and the Water Authority of Jordan (WAJ), reached JD 7.2 billion – around 2.6 percent of total public debt. Unlike diesel, public sector bills may go unpaid by ministries, which means that while energy savings are great, they only reduce a deficit, rather than making a financial saving.

If year-on-year electricity savings were to be accounted for and ring-fenced either at the ministerial or municipal level (in view of Jordan's shift to decentralization), this money could target development priorities as well as vesting the interest in increasing energy efficiencies. In theory, the

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some JD 10 million that the Ministry of Education spends on electricity each year could be reinvested to help schools cope with their additional intake. The Norwegian Refugee Council (NRC) programme savings totalled JD 93,516 (USD 131,898) over 9 months. The incentive for public investment is clear: the average payback period for each school would be just three years.

The Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) is one existing government vehicle which can help galvanize these virtuous circles of transformation in public buildings. It is currently building on pilots done on schools to improve classroom conditions and heating. The Princess Alia Foundation and the NRC both continue to work on achieving workable models in the absence of payment for excess generation of solar electricity (at present net metering is the main option for public buildings). Two stumbling blocks to national level scale-up are the unclear costs and process for grid connection for solar systems, and an effective mechanism for redistributing at least some of the savings to the facility, thereby generating engagement and interest at the municipality and community user level.

If done sensitively with the needs of local people in mind, investment in public buildings on a national scale can galvanize a country's transition to sustainable energy future as well as reaping rewards for the fiscal balance. Many energy investments are feasible with the current tariff for public buildings so incentives to enable scale up should be explored. In the case of houses of worship which are responsible for their own bills, a project by the Jordanian NGO, Future Pioneers for Empowering Communities (FPEC) showed huge benefits if the mosques and churches could access local soft capital. A USAID pilot project has shown that investments in efficiency retrofits for public buildings are generally recuperated within one year. The Ministry of Information and Communication Technology has invested in some of the recommended actions, including renewable energy, from its own budget. Since the baseline measurements were conducted, it reduced its electricity bill by 20 percent in the first year – a saving of over USD 55,000. At this rate, the efficiency interventions paid back on initial investment in eight months. This will take four years for the solar PV system.

With Jordan's strong legal framework for energy and tariffs systems, there is an opportunity for the government to work with donors and multilateral banks now focusing on economic resilience to provide and unlock soft loans for public and non-profit entities – including the large humanitarian and development offices that sit in Amman – to make initial capital investments. They can also help to build revolving loans for sustainable energy investments at the municipal level.