CEE bankwatch network

Where the grass is less green

Public funding for energy in the European Neighbourhood Policy

April 2016

Authors list
Klara Sikorava, CEE Bankwatch Network
Manana Kochloadze, CEE Bankwatch Network
Samir Aita, Président du Cercle des Economistes Arabes
Iryna Holovko, National Ecological Centre of Ukraine
Noura Lajimi, L'Observatoire Tunisien de l'Economie
Amena Sharaf, Egyptian Center for Economic and Social Rights

Acknowledgements
David Hoffman, CEE Bankwatch Network
Anelia Stefanova, CEE Bankwatch Network
Marc Piper, CEE Bankwatch Network

Editing
Greig Aitken

This publication has been produced with the financial assistance of the European Union. The content of this publication is the sole responsibility of CEE Bankwatch Network and can under no circumstances be regarded as reflecting the position of the European Union.

Contents

Introduction

Since 2004 the EU has been offering its neighbours "a privileged relationship, building upon a mutual commitment to common values (democracy and human rights, rule of law, good governance, market economy principles and sustainable development). The level of ambition of the relationship depends on the extent to which these values are shared. The ENP includes political association and deeper economic integration, increased mobility and more people-to-people contacts."

Later in its 'A New Response to a Changing Neighbourhood. A review of European Neighbourhood Policy (2011)', after the Arab spring, the EU claims that "A new approach is needed to strengthen the partnership between the EU and the countries and societies of the neighbourhood: to build and consolidate healthy democracies, pursue sustainable economic growth and manage cross-border links". However, despite the rhetoric and financial instruments deployed during the 2004-2014 period the situation in the region is far from ideal, both in terms of social-economic development, as well as in terms of deep democracy and human rights protection.

CEE Bankwatch Network, with its partners in the MENA and EaP regions, in the present series of research examines EU financing for the energy sector in 16 countries of the European Neighbourhood between 2007 and 2014 and its impact on the region in light of ENP commitments. The various pieces of research logically overlap with each other and reveal the complex picture of the EU neigbourhood region and its energy trends.

EU money for the energy sector in ENP countries

The analysis "EU money, the energy sector and the European Neighbourhood Policy" focuses on financing from the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), the Neighborhood Investment Facility (NIF), INOGATE and the European Atomic Energy Community (Euratom). The goal of the analysis is to compare the support for unsustainable sources of energy (such as fossil fuels and nuclear power) versus that of renewables and energy savings and provide a reality check about the extent to which the EU's decarbonisation goals are – or are not – being promoted within the ENP region.

The research reveals that between 2007-2014 the EU financed at least EUR 9 billion in energy projects in the neighbourhood region. The EBRD and the EIB contributed with EUR 8.4 billion, 94% of the total EU financing examined. The EBRD financed 105 projects at a cost of EUR 2.8 billion , while the EIB provided the largest amount of financing: EUR 5.6 billion for 51 projects. However, the financing was spread unevenly between fossil fuels and renewable sources of energy and energy savings.

Oil, gas and coal absorbed nearly three times more financing by volume than renewables and energy conservation. The EU provided over EUR 4.2 billion in financing to hydrocarbons in contrast to the EUR 1.5 billion awarded to alternative sources of energy and energy efficiency projects. Egypt with EUR 1.5 billion, Tunisia with EUR 954 million and Ukraine EUR 510 million were the top borrower countries for oil and gas-related development from the EIB and the EBRD.

In addition, the hydrocarbon rich countries have received disproportionately less financing for exploiting renewable sources of energy than for fossil fuels extraction, and related infrastructure and power generation. Tunisia obtained only EUR 7 million in investment for energy efficiency, while in Egypt the EU public banks' support for renewables amounted to 74 million, that is 7% of the size of financing for oil and gas.

The contrast between financing for fossil fuels versus renewables and energy efficiency is most pronounced in the EIB's lending portfolio. Renewables and energy efficiency projects received four times less (EUR 780 million) than fossil fuels (EUR 3.2 billion).

EIB lending to the energy sector in the ENP region totalled EUR 5.6 billion in 2007-2014, double that of the EBRD. The EIB financed 17 fossil fuel projects worth EUR 3.2 billion between 2007-2014 – nearly three times more than the EBRD – most of which were gas projects.

The EBRD has been widely supporting a contrasting mix of fossil fuels and renewable energy, including greenfield hydros, and energy efficiency projects, as well as supporting nuclear energy. It provided EUR 991 million to fossil fuels, while seven mostly gas-related projects were financed in 2014 (EUR 557 million). The shift towards gas investments is being continued given the EBRD's recent approval of a EUR 500 million loan to Lukoil for the extraction of gas in Azerbaijan.

EBRD support for nuclear power is restricted to the financing of nuclear safety measures, mainly upgrade at existing units. These however enable the lifetime extension of expired units for up to 20 years beyond initially projected lifespans. The EBRD and Euroatom were lead financiers of EUR 600 million for nuclear investments in Ukraine in the period researched.

The EU and energy in the Arab countries

The second analysis in the series, 'The EU and energy in the MENA region', developed by the Arab NGO Development Network, looks at energy investments by the EU in the Southern Mediterranean region and the impacts on the social, economic and environmental rights of citizens and communities by highlighting the compliance of these activities with the values of democracy, human rights and economic development for Egypt, Morocco and Tunisia. It also assesses the type of the investments that would be beneficial both for host countries as well as for the EU.

The region currently faces an acute energy crisis due to rapid population growth and rural-urban migration, as well as high energy intensity which has doubled since the 1980s and stands at three times the world average. This creates structural impediments for economic growth.

The Middle East is a major CO2 emissions contributor worldwide, second only to south-east Asia, while its share of renewables in the energy mix is the lowest. Subsidised energy (electricity, transportation, heating and so on) creates no incentive for energy efficiency, representing simply a way of buying social peace in times of turmoil, as the necessary investments for efficient construction and equipment are significantly high compared to subsidising living cost.

The study clarifes that the need of comprehensive energy sector reform plans are needed to improve energy efficiency and intensity and must run in parallel to targeted social programmes. The potential for saving with energy efficiency is enormous. Depending on scenarios, primary usage of energy could be reduced from 27 to 56% by 2030. However, EU energy investments in the MENA region are focused on the EU's energy security while the region itself experiences a fully-fledged energy crisis due to increasing energy demands.

In addition, the EIB and the EBRD have financed a number of projects in the MENA region where energy infrastructure projects impact negatively on the social, economic and environmental rights

of local communities. The environmental impact assessment processes do not always guarantee risk mitigation for local communities in terms of air and water pollution. Additionally, issues of land acquisition are often opaque processes and lead to involuntary resettlements without proper compensation.

For example, in Egypt, in an effort to cope with the electricity gap, the government has been developing the North Giza Power Plant II, a 1500 MW natural gas-fired power plant, since 2011. North Giza II is funded by the EIB and the World Bank with around USD 1.1 billion and managed by the Egyptian Electricity Holding Company. The project covers 72 acres of fertile agricultural land of the Nile Delta, even though due to water scarcity agricultural land constitutes only 3.5% of Egypt's territory. The project has seriously affected local communities who have raised concerns related to water and land rights, environmental pollution, loss of livelihood, inappropriate compensation and involuntary resettlement, both with the government as well as with project funders. The World Bank Inspection Panel acknowledged in 2013 that the project had resulted in harm to the community.

It should be stressed that Egypt has huge potential for solar energy, but the share of solar in the country's current energy production is only 0.14%. Regardless, 97% of the EIB's investments – over EUR 1.6 billion between 2007 and 2014 – went to gas power projects, while the viability of these new gas power stations is questionable. Close to 80% of Egypt's electricity is currently generated with natural gas. Yet, gas production has lagged behind in recent years as political unrest and mounting government debts have discouraged foreign energy firms from developing new gas fields.

In 2014, the Egyptian government cut the gas supply for a number of agricultural and industrial facilities in order to ensure an adequate amount of gas would be pumped into electric power plants to momentarily calm the anger that had been rising due to the power shortage crisis. According to World Bank reports, the construction of the North Giza power plant is making progress at a slower rate than expected due to the lack of natural gas to test and commission the steam turbines. Other power plants financed by the EIB, such as the Damanhour power plant, also present structural problems in relation to environmental pollution and inadequate compensation for involuntary resettlement.

The EBRD too has been focusing on fossil fuel projects in Egypt. It has invested in the conversion of two existing power plants – Damietta West (500mW) and El Shaba (1000 MW) – to combined cycle technology with the potential to burn coal. If European public banks continue with their trend of financing fossil fuel investments in Egypt without addressing energy efficiency needs and the potential for renewable energy, it will only deepen the energy and economic crisis in the country.

Contracts over natural resources exploitation often allow minimal state revenues from royalties and taxes while granting fiscal advantages for the extractive industries, thus having negative implications on government budgets and promises of employment and growth. Issues of workers' rights and working condition including temporary contracts, intermediary agencies, low wages, as well as depletion of natural resources, especially water, paint a rather negative picture of the social, economic and environmental impacts of EU investments in the MENA region.

In the case of Tunisia, between 2007 and 2014 it received nearly EUR 1 billion in support for hydrocarbons from the EIB and the EBRD, and very little support for renewables (EUR 7 million). This has occurred despite efforts from the Tunisian government to develop renewable energies as a way of diversifying the country's energy mix, aiming at 30% by 2030, including 15% wind, 10% solar and 5% thermodynamic solar panels.

It should be stressed that the Tunisian energy sector, mostly the fossil fuel industry, already receives the most foreign direct investment (often supported by the state through tax benefits and regulations). Therefore there are some major question marks concerning the 'additionality' of the EU public banks' investments.

For example, in 2013 the EBRD provided a EUR 60 million loan for the extraction of fossil fuels by the international company Serinus Energy (parent company Kulczyk Oil Ventures Inc ("KOV") listed on Warsaw and Toronto stock exchanges) for the development of four exploitation sites for gas and oil (Sabria, Chouech Essaida, Ech Chouech and Sanghar). The project also proposes to undertake

a short-term development program in Tunisia including well-stimulation and horizontal wells in order to increase production. Shale gas extraction will have disastrous consequences in a country such as Tunisia which faces evere water shortages.

The project also has limited impacts on the state budget, and represents an unequal distribution of income in favour of the company compared to state revenue. The project does not increase employment in the region, while the non-qualified work force employed on a temporary basis (three months) are poorly paid (about EUR 500 gross/month).

The ENP's financial instruments are playing a limited role in responding to the needs of the local population in MENA. If EU financial interventions in the region continue on the same path, the whole region will be unable to solve the existing energy crisis and ensure the implementation of sustainable development goals.

Eastern Neigbourhood region and EU interest

The Bankwatch analysis "The EU and energy in the Eastern Neighbourhood" assesses how the EU's external energy policy cornerstone – energy security – impacts on the EU's relationship with the Eastern Neigbourhood region reflected in the 2009 Eastern Partnership (EaP) declaration and which has become the driving force behind the European Neighbourhood Policy.

It takes into account that the energy infrastructure in EaP countries is based on hydrocarbons and transmission – whether over land or water – giving each country a strategic significance, for even those completely lacking in oil or gas can have a role to play as transit countries. The region is heavily polluted due to leakages, waste and emissions from energy infrastructure, both in oil, gas and the nuclear industry (in Ukraine and Armenia), while hydropower causes coastal and river erosion, degrading water quality.

The EU's external energy policy, claiming to guarantee energy market operations and ensure energy supplies and promote environmentally sustainable and low carbon energy sources, is not achieving these goals due to the overarching focus on security of supply within the EaP region, where the EU is interested in diversifying energy sources. For EaP countries, ensuring diversity means consistently planning for new capacities according to their natural resources, costing economic, political and environmental capital, and pushing for the exporting of more energy. This leads to the development of traditional energy infrastructure (oil, gas, nuclear energy and large hydropower) while renewable energy and energy efficiency, despite being addressed by ENP Action Plans and the Baku Process, are playing a disappointingly negligible role in the regional energy mixes.

The research reveals that, during the 2007-2014 period, the EU financing institutions and programmes awarded at least EUR 3.5 billion to EaP countries for 170 projects. As in other countries, the EaP region received more for fossil fuels than renewable sources of energy. One characteristic aspect of lending in the EaP region is that funding for the construction of transmission lines exceeded financing for fossil fuels. Overall, traditional energy sources such as nuclear, gas and large hydropower were the priority for EU funding during 2007-2014.

A major investment in Azerbaijan during the period was the EUR 165 million loan from the EBRD for the development of the Shah Deniz gas field, the first stage of the Southern Gas Corridor (SGC). The SGC will stretch over 3,500 kilometres and cost up to EUR 45 billion. In 2015, the EBRD approved an additional loan of EUR 500 million for the second phase of Shah Deniz by investing in the Russian company Lukoil, and the EIB is expected to allocate around EUR 2 billion for the Trans-Adriatic pipeline, another part of the SGC. One of the major sponsors of TAP is SOCAR, the State Oil Company of the Republic of Azerbaijan. Exports of crude oil peaked in 2010 when they averaged around 908,000 bbl/d, and though oil exports have declined each year since then, it is expected that its exports will remain around 40 million tonnes per year.

As a result of cooperation on such energy projects, today the EU is Azerbaijan's main trading partner, with bilateral trade amounting to more than EUR 16.7 billion in 2014. While the 2014 EC progress report on Azerbaijan stressed that "there was good progress on the EU's Strategic Energy Partnership with Azerbaijan to improve European energy security and the diversification of energy

supplies“ , problems for ordinary Azeris are increasing.

President Ilham Aliyev has consolidated his authoritarian rule after a March 2009 referendum that eliminated presidential term limits. According to Freedom House, in recent years Azerbaijan has failed to improve its record and the country's status is again 'not free'. Between May and November 2014, Azerbaijan chaired the Council of Europe during which it continued to clampdown on freedom of expression, assembly, and association following elections in October 2013. In July 2014, the authors of a report on 98 political prisoners, Leila Yunus and Rasul Jafarov, were arrested on criminal and espionage charges. The list has increased with other prominent human rights defenders since then.

Azerbaijan claimed that it drastically reduced poverty from 50% in 2000 to 7.6% in 2011, due to increased oil revenues for the state budget. According to a report by the International Fund for Agricultural Development (IFAD) "more than half of Azerbaijan's poor live in rural areas where poverty is predominant among families with many children living in remote areas, as well as upland or mountainous areas." Despite rising wealth, public expenditures on education did not account for exceed more than 2.8% of the state budget in 2010, with health expenditures around 3.5%.

Azerbaijan has used oil revenues for pet projects such as the renovation of the Baku city centre, which led to the forced eviction of around 140,000 homeowners between 2008 and 2014 without proper compensation. The evictions became an even more problematic issue in 2012 when Baku began preparing for the Eurovision song contest and the inaugural European Olympic Games in 2015 which cost around USD 8 billion to host. According to some media reports, Aliyev's government allegedly cut public sector workers' salaries as an informal tax to pay for European Games.

While Azeri citizens have paid large sums of money in order to access basic services like health care, while resisting evictions and 'shadow' taxes, President Aliyev has lavished vast amounts of money on foreign cultural institutions with the hope of receiving support from the international community. Such investments include the renovations of the Strasbourg Cathedral and the Versailles Palace. Large amounts of money are also being spent to commemorate the president's father, Heydar Aliyev, with statues in different parts of the world.

The EU has been promoting electricity exports from the neighbourhood through existing transmission lines and support for new ones, and as well by directly and indirectly supporting related hydropower and nuclear developments in the region.

For example, the EBRD, the EIB, the Neighborhood Investment Facility and the German development bank KFW supported the construction of the Black Sea transmission line in Georgia. The project is supposed to increase the stability of the grid and cope with seasonal electricity losses by linking the future construction of 8000 megawatts of installed capacity from hydropower over the next decade.

These projects are supported by the EBRD and include a number of controversial aspects in Georgia's mountains. Partly a legacy of the Soviet Union, the construction of hydropower projects does not consider environmental or social consequences, while the involuntary resettlement of the people is viewed as a normal practice. This has led to the government using force in a number of cases.

The EBRD, EIB and NIF also support electricity export from Ukraine through the construction of EUR 650 million high-voltage transmission infrastructure to increase power exports from Ukraine to the EU. This continuous 750 kV corridor over 1500 kilometres should connect twelve nuclear reactors and two hydro pumped storage plants to the EU grid. In addition, the EBRD and Euroatom have contributed to the Nuclear Power Plants Safety Upgrade Programme, an essential element for the Ukrainian government's plans to extend the lifetimes of 12 nuclear reactors.

Meanwhile, Ukraine is critically dependent on imported energy resources (gas, nuclear fuel and now also coal) and suffers from highly inefficient energy use. Ukraine's energy intensity per capita is three to four times higher than in other EU countries. Yet only 15 per cent of EU support for the energy sector went to combating inefficient energy use or to developing local sustainable energy sources. The focus of EU financial support has remained fixed on 'traditional' sources of energy

and has thus increased the country's reliance on these.

Developing but infant areas that would be of the most benefit to the Ukrainian public, such as energy efficiency, the introduction of energy saving measures and small scale renewable energy, has received just 15% of total EU investments in Ukraine in recent years.

Meanwhile, these areas could bring the biggest public benefits to Ukraine by decreasing energy demand and the country's dependence on imported fuels. This is the only true solution to the energy crisis which the country currently faces.

Continuing business as usual with EU financing will only deepen the energy crisis and lead to government 'band-aid' solutions that ultimately will only increase the gap between Ukraine and the EU. The EU public financiers should clearly define as priorities in the energy sector energy savings and renewables, and closely pursue these rather than readily financing any bankable energy sub-sector. Such a step from the EU institutions would send an important message to the Ukrainian authorities that a solution for the country lays in utilising its vast energy efficiency and renewables potential.

Recommendations to the EU during the ongoing ENP review

The findings of this report clearly indicate that the EU's financing institutions and instruments favour fossil fuels and other unsustainable energy sources over new renewables and energy savings. The new ENP should be encouraged to ask for a phase-out of fossil fuels and other unclean sources of energy, and instead contribute to sustainable energy generation and energy conservation, while addressing the regional and country specific recommendations developed in this report.

The EU should ensure that comprehensive dialogue with 'neighbourhood' countries reflects the needs and demands of each country's population with significant increases of funds for renewables and energy efficiency as well as support for in country energy reforms and the elimination of energy subsidies through a comprehensive economic and social development approach. Increased transparency on all aspects of project development and ensuring appropriate use of environmental and social impact asseements is also vital. Equally, ensuring accountability for communities and population directly and/or indirectly impacted by EU funding is essential. Such directions are in line with the EU's long-term decarbonisation agenda and the UN's Sustainable Development Goals.

EU money, the energy sector and the European Neighbourhood Policy

Over the past decade, the European Union neighbouring countries in the east and south have experienced the development of their energy sectors. While multiple players have engaged in the process, the EU holds a prominent role as a catalyst of both energy policy reforms and financing. Through the European Neighbourhood Policy (ENP) the EU has advocated for changes to national energy frameworks and raised funds among its institutions and facilities for projects ranging from large infrastructure operations, such as a gas pipeline in Tunisia, to small community-based projects, such as energy saving measures at schools in Ukraine.

In March 2015, the European Commission initiated a review of the ENP. CEE Bankwatch Network would like to contribute to the discussion about the direction of the European policy towards its neighbours with this research on EU financing for the energy industry in the ENP region in the period 2007-2014.

The research explores the scale of financial support awarded to the ENP energy operations by the EU institutions over the time period as well as the distribution of financing to various energy subsectors. Primarily, the research seeks to compare the support for hydrocarbons and renewable energy sources and energy conservation. It is designed to serve as a reality check on whether EU decarbonisation goals are being promoted – and achieved – as part of EU financing in the eastern and southern neighbouring countries.

The motivation for this research stems from our commitment to sustainable development and transparent and accountable use of the EU public funds. We focus on energy because energy sector investments are very long-term and have major impacts on the environment and on political developments.

Definitions

For the purpose of this research, we have analysed the EU financing provided in the energy sector over the course of 2007-2014 in the 16 ENP countries. Specifically, the research covers Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Palestine, Syria, Tunisia and Ukraine.[i]

We have looked into projects that either received financing from the major EU financing institutions active in the ENP region or were awarded support from the EU energy cooperation programmes. Apart from the two public banks - the European Investment Bank (EIB) and the European Bank

for Reconstruction and Development (EBRD) – the research covers financing coming from the Neighbourhood Investment Facility (NIF), Inogate and the European Atomic Energy Community (Euratom). We recognise that the EU has other programs in place to finance energy development in the ENP, however we have decided to concentrate on these key programs.

The research covers projects for which a financing contract between any institution above and a client was signed within the period of 2007-2014.

Within this study, all the data analysed comes from the project overviews and databases publicly available on the websites of the examined institutions and facilities. The specific resources were used as follows:

- For the EBRD: cumulative bank investments as of December 31, 2014[ii]; online database of Project Summary Documents[iii];
- For the EIB: online database of finance contracts signed[iv];
- For Euroatom: the Commission decision of 24.6.2013 on granting a Euratom loan in support of the Ukraine safety upgrade program of nuclear power units[v]; the online overview of Euratom loans[vi];
- For Inogate: the online overview of INOGATE projects[vii];
- For NIF: the NIF 2013 Operational Annual report[viii]; the NIF 2014 Operational Annual report[ix];
- Complementary resources: online overview of ENPI projects[x]; online database of European Commission International Cooperation and Development projects.[xi]

For the purpose of this analysis, we used the data from the public databases to compile our own database of energy projects financed by the key EU institutions and mechanisms over the 2007-2014 period.

All projects were categorised according to Bankwatch's own methodology for energy projects which is presented below. Thus differences appear between the categorisation used by Bankwatch and by the institutions, in particular the EBRD and the EIB.

The major differences in the categorisation are:

- If a project causes increased overall energy use despite an energy efficiency component, its energy efficiency component is categorised in the same way as the main component (for example 'Fossil Fuel').
- If an energy efficiency project leads to the increased use of fossil fuels through an increase in the capacity of the installation or an extension of its lifetime, it is also not categorised as an energy efficiency project.

A similar approach is applied to investments in the extraction of fossil fuels. Energy efficiency projects in the exploration of fossil fuels are classified as 'fossil fuels' if they lead to an increase of the exploration rate per year or extension of a mine for new resources or extension of the lifetime of a field or mine.

- In addition, any energy efficiency component in the construction of a new fossil fuel fired power plant or unit is categorised as fossil fuel.
- We do not classify greenfield electricity and heat power plants (co-generation plants) as energy efficiency projects but, depending on the energy source used, they are classified either under the renewable energy category or as fossil fuel projects.

When reviewing the EU financed projects, we distinguish energy sector projects as operations which concern:

- Heat and electricity generation: thermal power plants, renewables, large hydro, nuclear power plants, waste incineration with energy recovery (though the latter was not financed by the EU institutions during the period concerned)
- Energy storage, including pumped storage plants
- Fossil fuel extraction

- Fossil fuel transportation and storage: pipelines, LNG terminals, gas and oil storage
- Electricity transmission lines
- Production of fuels: refineries, biofuel refineries, uranium enrichment facilities, biogas production
- Energy efficiency projects[xii]
- Carbon funds
- Rehabilitation and improvements in energy projects
- Equity investments in energy companies
- Projects in research and development in the sectors above
- Energy policy.

Within the sector, we distinguish the following categories:
- Fossil fuel (FF)
- Renewable energy sources (RES)
- Energy efficiency (EE)
- Large hydropower (LHPP over 10 MW)
- Nuclear
- Transmissio
- Unclear

Sub-categories:
- Renewables (wind, solar, biomass, biogas, biofuel, geothermal, small hydro – up to 10 MW)
- Energy efficiency/Renewables (RES/EE financed through commercial banks and funds)
- Energy efficiency (district heating)
- Fossil fuels (gas, oil, coal, LNG, oil and gas mix).

Throughout the research we faced several challenges connected in particular with access to information and with discrepancies in data taken from different sources.

The public banks often finance a combination of small renewable and energy saving projects through credit lines to domestic private banks and special purpose funds. Although the banks have started disclosing aggregate data, it is often impossible to identify the ultimate beneficiary projects. This means that the information in this research cannot be seen as comprehensive.

The results may also suffer from slight distortion due to the regional scope of some of the projects. Since the regional projects cover more than one of the ENP countries (and in some cases include countries outside of the ENP region) we decided not to attribute them to a specific country but rather to categorise and analyse them under regional loans. This is primarily the case with Inogate's operations which receive rather small financial support. This also concerns the EIB's lending for renewables and energy efficiency through dedicated regional funds.

Contract signing dates, financing volumes and project description were incomplete for several projects. There were also slight differences in years of contract signing and financing figures between different sources of information.

Due to the political developments in Ukraine, the status of the relevant projects might have changed. For instance, some of the district heating projects were cancelled and then subsequently restarted.

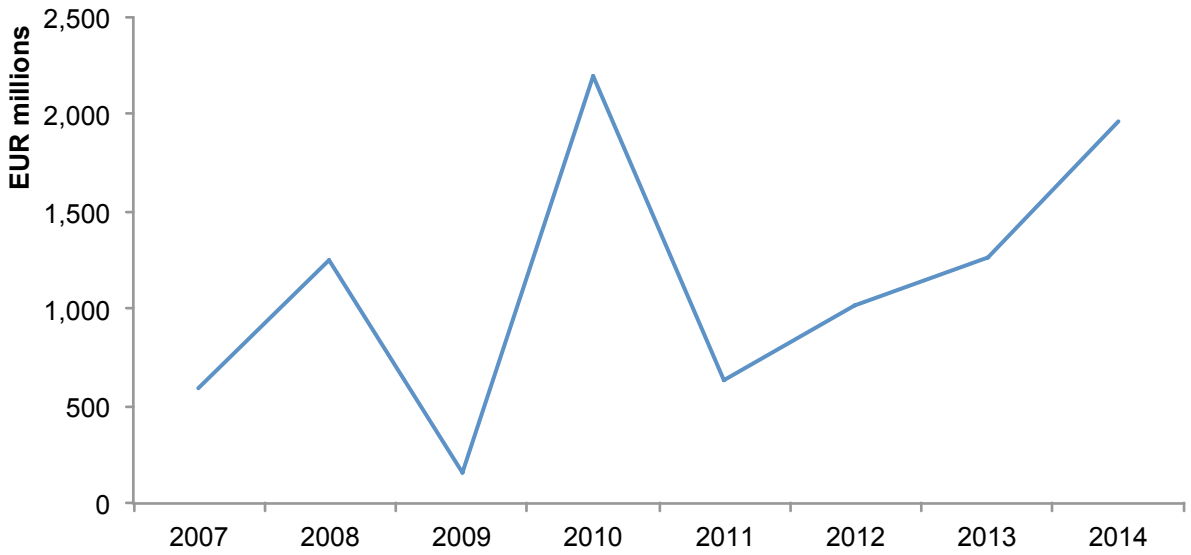
In spite of these small irregularities, we are convinced that the research gives an indication of the trends in EU energy financing for the Neighbourhood in 2007-2014.

Summary of findings

- In the 2007-2014 period, the EU financing institutions and programmes awarded EUR 9 billion to 205 energy projects across the EU's eastern and southern neighbours.
- The EBRD and the EIB contributed with EUR 8.4 billion, which is 94% of the total volume of the EU financing examined in the research.
- The EBRD was the most important actor in terms of the number of energy operations financed (EUR 2.8 billion for 105 projects), while the EIB provided the largest amount of financing by

volume (EUR 5.6 billion for 51 projects). The EIB tends to finance fewer projects with higher investment costs per project involved than the EBRD.[xiv]

- Ukraine is the top recipient country of the EU energy financing by volume (EUR 2.5 billion), followed by Egypt (EUR 1.8 billion) and Tunisia (EUR 1.1 billion) and Morocco (EUR 1.1 billion). Together, these four countries absorbed nearly three quarters of the total EU financing.
- Overall, the financing was spread unevenly between the fossil fuels and the renewable sources of energy. With the exception of 2009, 2012 and 2013 the financing has historically benefitted fossil fuels investments (mostly oil and gas) over clean energy sources in terms of the volume of financing.
- Oil, gas and coal absorbed nearly three times more financing by volume than renewables and energy conservation. The EU provided over EUR 4.2 billion in financing to hydrocarbons in contrast to EUR 1.5 billion awarded to alternative sources of energy and energy efficiency projects.
- The contrast between the financing for fossil fuels and renewables and energy efficiency is most pronounced in the EIB's lending portfolio. Renewables and energy efficiency received four times less in financing (EUR 780 million) than the EIB awarded to fossil fuels-related projects (EUR 3.2 billion).
- The biggest share of the overall financing for fossil fuels came from the EU public banks. The EIB provided three times more financing in support of fossil fuels (EUR 3.2 billion) than the EBRD (EUR 991 million). The vast majority of the EIB fossil fuels investment went to the support of gas-related projects.
- The hydrocarbon-dependent countries received disproportionately less financing for exploiting renewable sources of energy than for fossil fuels extraction, and related infrastructure and power generation. While Tunisia received nearly EUR 1 billion in support of hydrocarbons, it obtained only EUR 8 million in investment for renewables and energy efficiency. In Egypt, the EU banks contributed with EUR 1.5 billion to hydrocarbons. Their support for renewables amounted to 74 million, a mere 5% of the financing for oil and gas.
- It is notable that while NIF had a minimal contribution to fossil fuels, renewables and energy efficiency constituted nearly three quarters (EUR 201 million) of its total financing volume.
- The EBRD and Euroatom provided financing of EUR 600 million for the safety and lifetime extension of nuclear power plants in Ukraine.
- Both the EU public banks supported rehabilitation of existing large hydropower plants across the ENP countries with water power potential. The EBRD was the sole player to invest in greenfield large run-of-river and dam hydropower projects. All the new large hydropower plants which the EBRD backed are located in Georgia.



EU support for the ENP energy sector in 2007-2014

In light of these findings, the EU's public financing in the ENP energy sector needs to be reviewed because it significantly supports environmentally unsustainable sources of energy, primarily hydrocarbons and nuclear. We are convinced that the EU should scale up its decarbonisation efforts abroad.

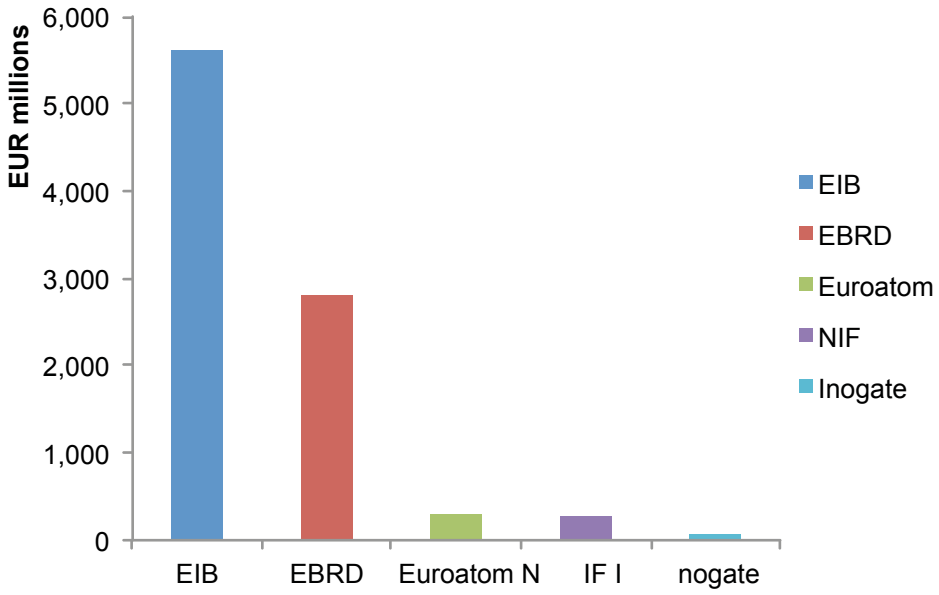
The EU's support for the ENP energy sector in 2007-2014

In the 2007-2014 period, the EU's key financing institutions and mechanisms awarded over EUR 8.9 billion to 203 energy projects among its eastern and southern neighbours. In 2014 EU energy financing in the ENP countries nearly doubled when compared to the previous two years. In 2014 the EU institutions provided EUR 1.8 billion in energy investment.

Ukraine ranked as the country hosting the highest number of operations (56 projects), followed by Georgia (25 projects) and Moldova (19 projects). Ukraine, Georgia and Moldova combined hosted nearly 50% of the projects. The high number of operations among the top three recipient countries did not automatically translate into the highest amount of financing by volume. In terms of the size of the financing by volume, Ukraine absorbed EUR 2.5 billion, followed by Egypt (EUR 1.8 billion) and Tunisia (EUR 1.1, billion) and Morocco (EUR 1.1 billion).

While the EIB provided the largest amount of financing by volume (EUR 5.6 billion for 51 projects), the EBRD was the most important actor in terms of the number of energy operations financed (EUR 2.8 billion for 105 projects).

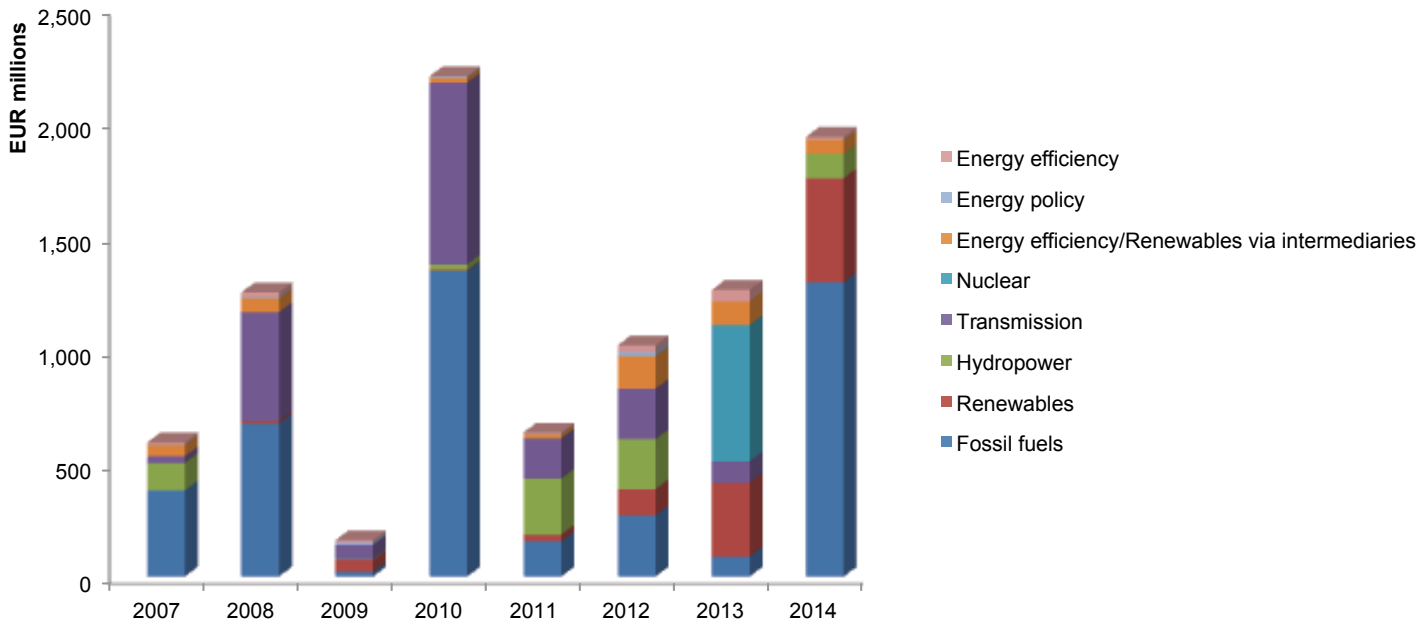
Euratom supported one project with EUR 300 million, Inogate financed 19 projects with EUR 68 million and NIF awarded EUR 277 million for 29 projects.



EU support for the ENP energy sector 2007-2014 – distribution by institutions

On the one hand the EU's energy operations portfolio diversified from 2007 to 2014 and incorporated support for renewables and sector reforms (energy policy). On the other hand, however, the EU provided continued support to unsustainable energy sources. Fossil fuels financing was constantly present in EU financing over the 2007-2014 period. With the exception of the years 2009, 2012 and 2013, fossil fuel financing dominated over support for renewables and energy conservation. 2013 did in fact mark a giant pendulum swing in support of renewables and energy efficiency which received 479 million in financing contrasting with EUR 86 million support for fossil fuels. 2014

swung back in turn, with fossil fuels receiving twice more support than clean energy sources and energy conservation.

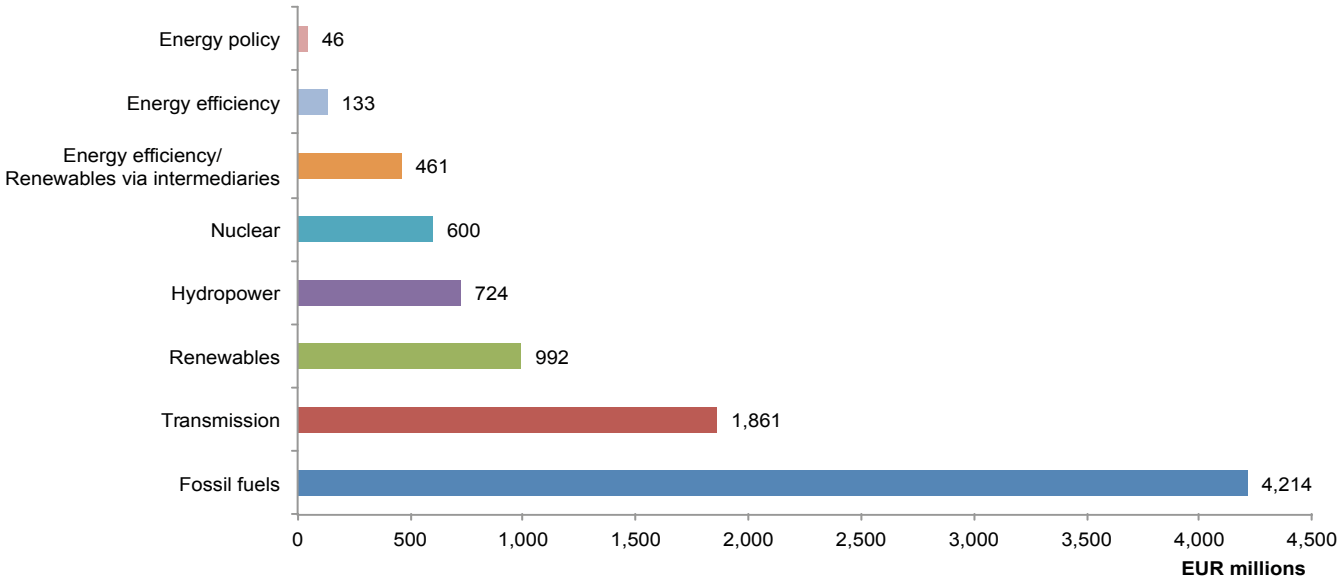


EU support for the ENP energy sector 2007-2014 – distribution by subsectors over the timeline

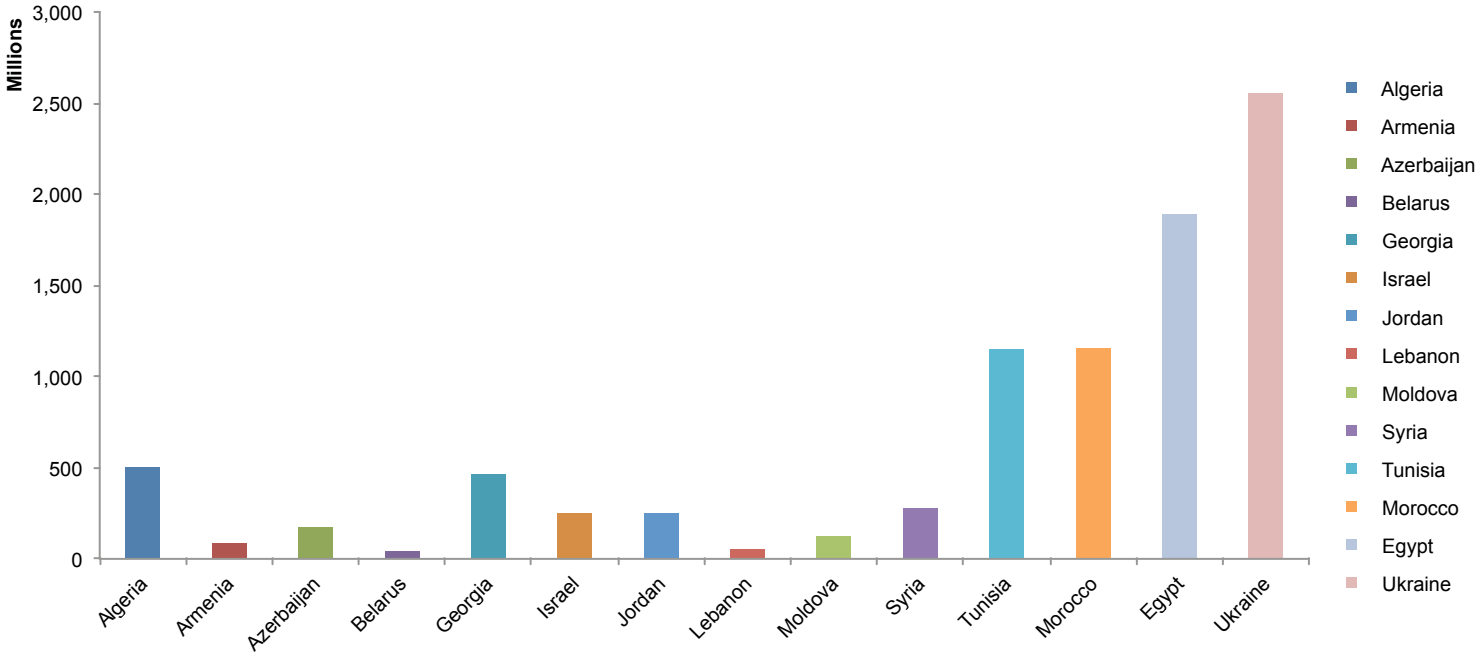
While the EU supported nearly two times more renewable and energy efficiency operations (102 projects) than fossil fuels ones (47 projects), oil and gas and coal absorbed nearly three times more financing by volume than renewables and energy conservation. The EU provided over EUR 4.2 billion in financing to hydrocarbons and EUR 1.5 billion to alternative sources of energy and energy saving projects.

As for the other subsectors, the EU contributed to the development of transmission infrastructure (EUR 1.8 billion), the rehabilitation of existing and the construction of greenfield large hydropower plants (EUR 724 million) and nuclear power plant operations in Ukraine (EUR 600 million).

EU support for the ENP energy sector 2007-2014 – distribution by subsectors



The EU public banks' support for the ENP energy sector 2007-2014 – distribution by countries



The EU's public banks

The EU's house bank, the EIB, together with the EBRD, where EU countries and the EU itself hold around 60% ownership, are the most active financing institutions in the ENP region's energy development. They jointly provided financing to 76% of the operations examined in this research – 156 projects out of 205 financed projects overall. EIB and EBRD investments into the energy sector in the ENP region amounted to EUR 8.4 billion. The EIB and EBRD contributed with 94% of the total volume of the EU financing examined in the research.

The EBRD and the EIB co-financed several large-scale energy projects, mostly in the transmission subsector such as the Black Sea Energy Transmission Line in Georgia or the Rivne Kyiv High Voltage Line in Ukraine.

The major destinations of the EIB and EBRD's lending were: Ukraine (48 operations), Georgia (22), Moldova (16), Morocco (11) and Armenia (9). With EUR 2.2 billion, Ukraine ranks also as the main recipent country in terms of the volume of financing, followed by Egypt (EUR 1.8 billion), Tunisia (EUR 1.1 billion) and Morocco (EUR 1 billion).

Renewables and energy savings

With EUR 703 million in direct investments, the EIB exceeds the EBRD (with EUR 133 million) by nearly sixfold in the overall volume of direct financial contribution to renewables. While the EIB's lending concentrated on solar and wind, the EBRD's lending for renewables was more diversified, covering also biogas, biomass and small hydropower projects.

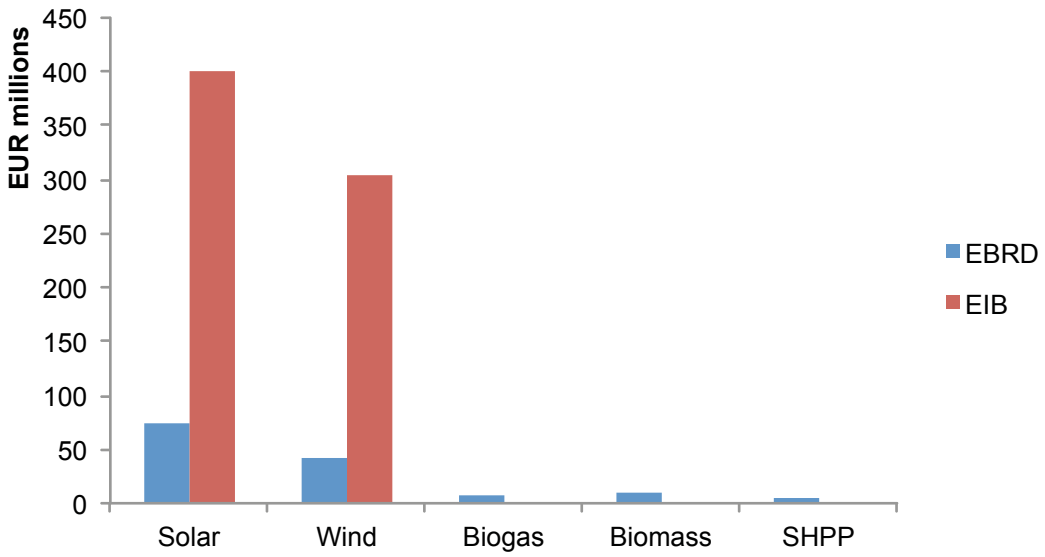
Both the EBRD and EIB also supported a combination of small scale renewable sources of energy and energy efficiency through financial intermediaries such as commercial banks and dedicated funds.

With EUR 335 million, the EBRD was at the forefront in financing for renewables and energy conservation via credit lines to commercial banks. In comparison, the EIB dedicated EUR 50 million for indirect financing for renewables through commercial banks. In addition, the EIB invested EUR 27 million into private funds dedicated to the promotion of renewables and energy efficiency.

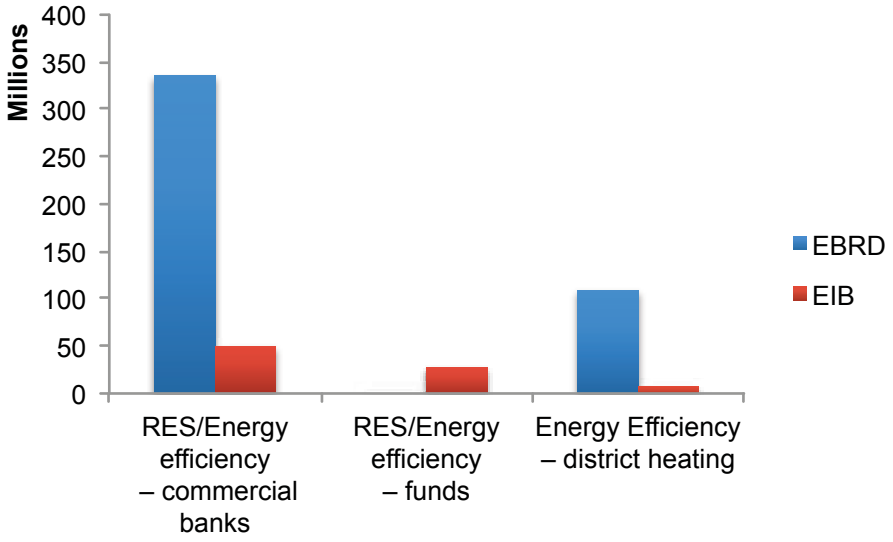
In contrast to the EIB, the EBRD was also active in financing energy efficiency in district heating, contributing more than EUR 100 million, mostly to projects in Ukraine.

The overall EBRD and EIB contributions for renewables and energy efficiency amounted to EUR 578 and 787 million respectively.

EU public banks' support for renewables subcategories in ENP in 2007-2014



The EU public banks' support for renewables and energy efficiency through intermediaries and district heating energy conservation in ENP in 2007-2014



Fossil fuels

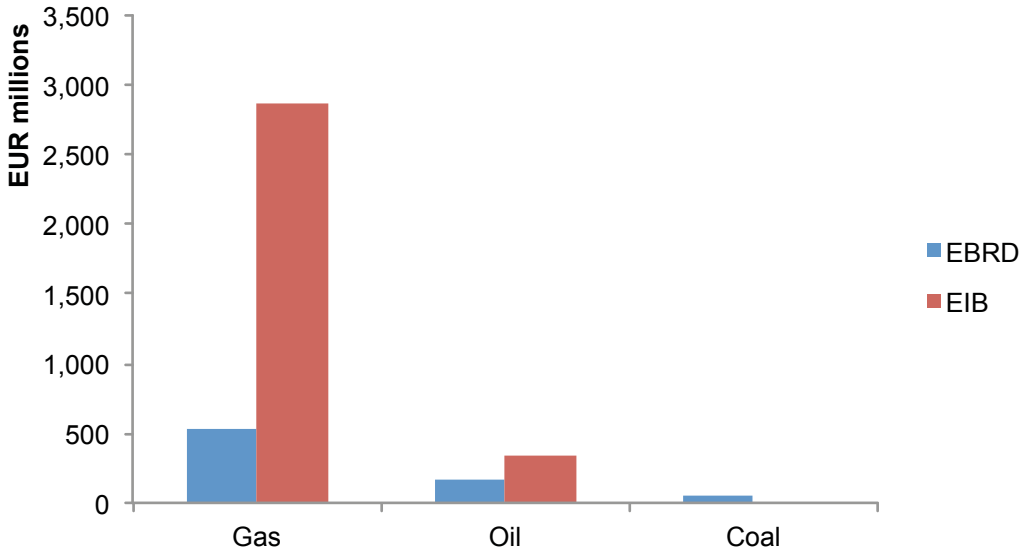
Overall the financing was spread unevenly between fossil fuels and renewable sources of energy. With the exception of 2009 and 2013, the EU public banks' financing benefitted oil and gas investments over clean energy sources.

While the EIB limited its financing for oil to one project (the ERC refinery in Egypt), it provided heavy support to gas-related operations. The EBRD was active in oil, gas, mixed gas and coal-related projects.

The EIB provided nearly three times more financing in support of fossil fuels (EUR 3.2 billion) than

the EBRD (EUR 991 million).

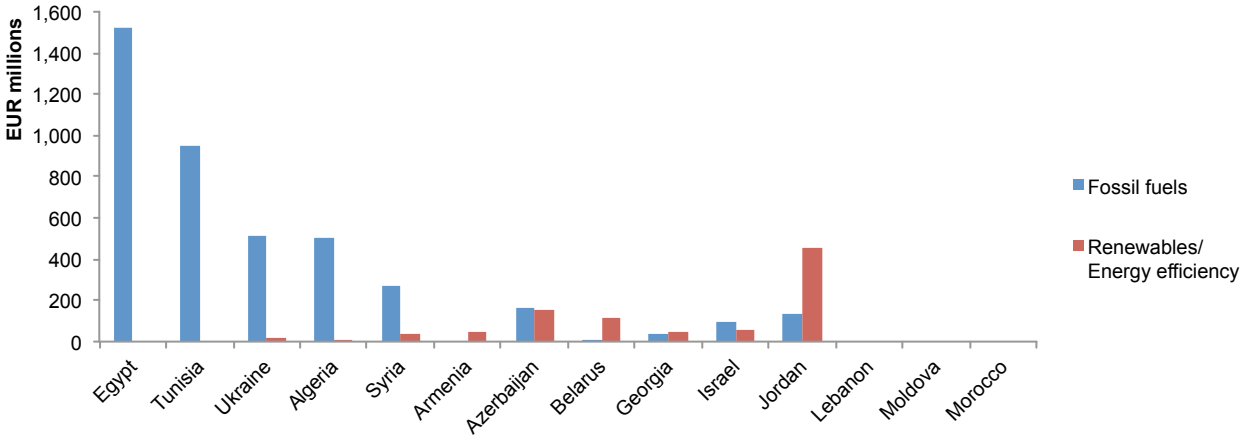
The EU public banks' support for fossil fuels subcategories in ENP in 2007-2014



In 2007-2014, the EIB and EBRD jointly provided EUR 4.2 billion in financing for hydrocarbons in the ENP countries as opposed to EUR 1.3 billion invested in renewables and energy efficiency. The banks' contribution to renewables comprises one third of their financing support for hydrocarbons. Egypt, with EUR 1.5 billion, Tunisia with EUR 954 million, and Ukraine with EUR 510 million were the top borrower countries for fossil fuels-related development.

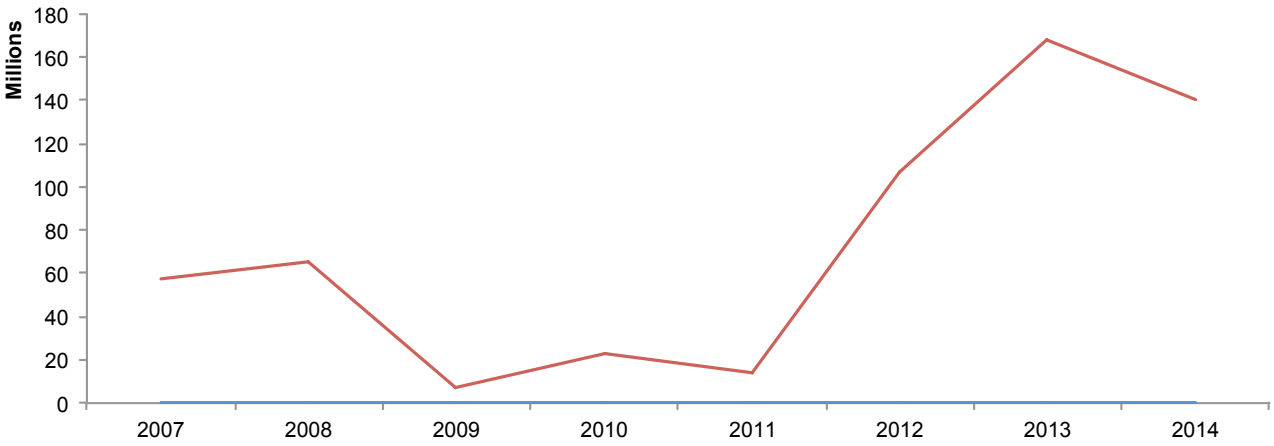
The hydrocarbon-rich countries received disproportionately less financing for exploiting renewable sources of energy than for fossil fuels extraction, related infrastructure and fossil-fuel-based power generation. While Tunisia received nearly EUR 1 billion in support of hydrocarbons, it obtained only EUR 7 million in investment for energy efficiency. In Egypt, the EU public banks contributed EUR 1.5 billion for hydrocarbons. Their support for renewables amounted to 74 million – that is 7% of the financing for oil and gas.

The EU public banks' support for fossil fuels versus renewables and energy efficiency in ENP in 2007-2014



European Bank for Reconstruction and Development

The EBRD lending in energy in the ENP region has grown steeply over the last three years, reaching a peak of more than EUR 800 million in 2014. The financing growth reflects the expansion of the bank's activities in the MENA region, specifically the approval of its first investments in Jordan, Tunisia, Morocco and Egypt in September 2012. From 2007 to 2014 the EBRD provided EUR 2.8 billion in financing to 105 energy operations in the region.

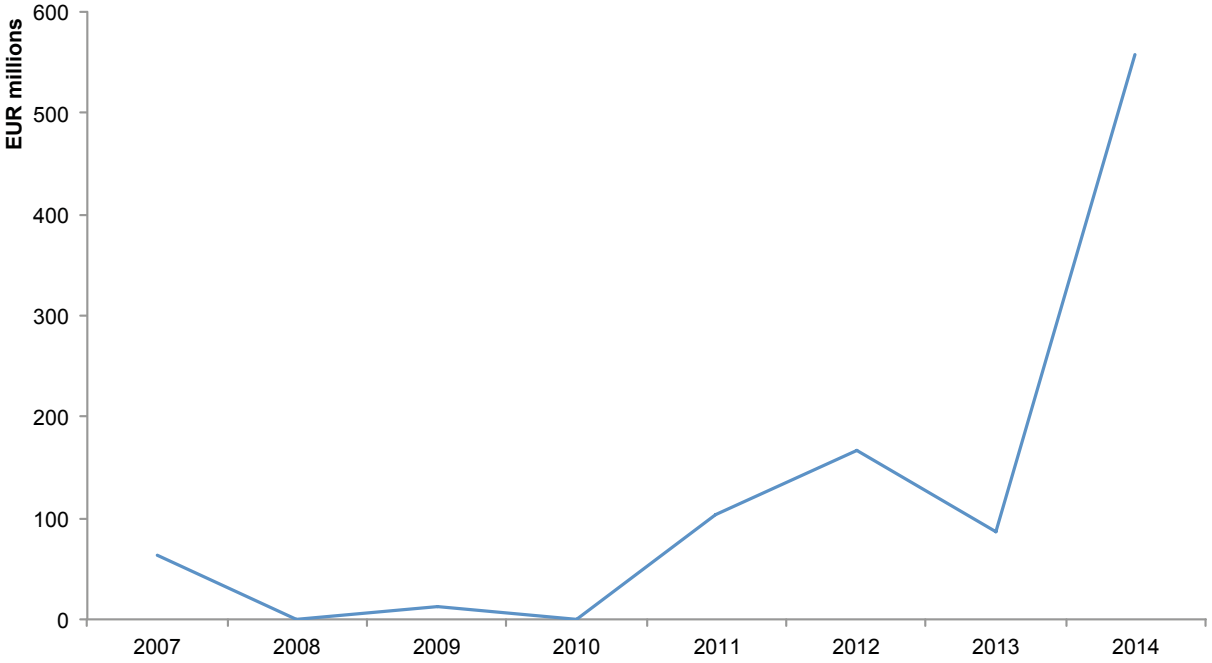


EBRD support for ENP energy in 2007-2014

Fossil fuels

The EBRD's lending portfolio is formed by a contrasting mix of fossil fuels and renewable energy and energy efficiency projects, demonstrating that the EBRD is a long way from phasing out its financing for hydrocarbons. Despite the bank's lending for carbon intensive energy operations hitting zero in 2008 and 2010, and also recording a decline in 2013, its support for fossil fuels in the ENP countries underwent an unprecedented increase over the past year.

EBRD support for fossil fuels in the ENP in 2007-2014



Between 2007 and 2014 the EBRD provided EUR 991 million in financing for fossil fuels in the ENP region. Gas investments consumed over EUR 500 million – nearly 54% of the bank's total support for hydrocarbons. Support for oil and mixed oil and gas projects amounted to 17% and 24% respectively. The remaining 5% went in support of coal-related projects.

In 2014, the EBRD's lending for gas and oil extraction, related infrastructure and fossil-fuels based generation projects in the region recorded a historical maximum of EUR 557 million. The financing was awarded to a record number of eight operations, most of them gas-oriented. The tendency to shift to gas investments is expected to continue given the EBRD's recent approval of a half billion euro loan to Lukoil to extract gas in Azerbaijan.

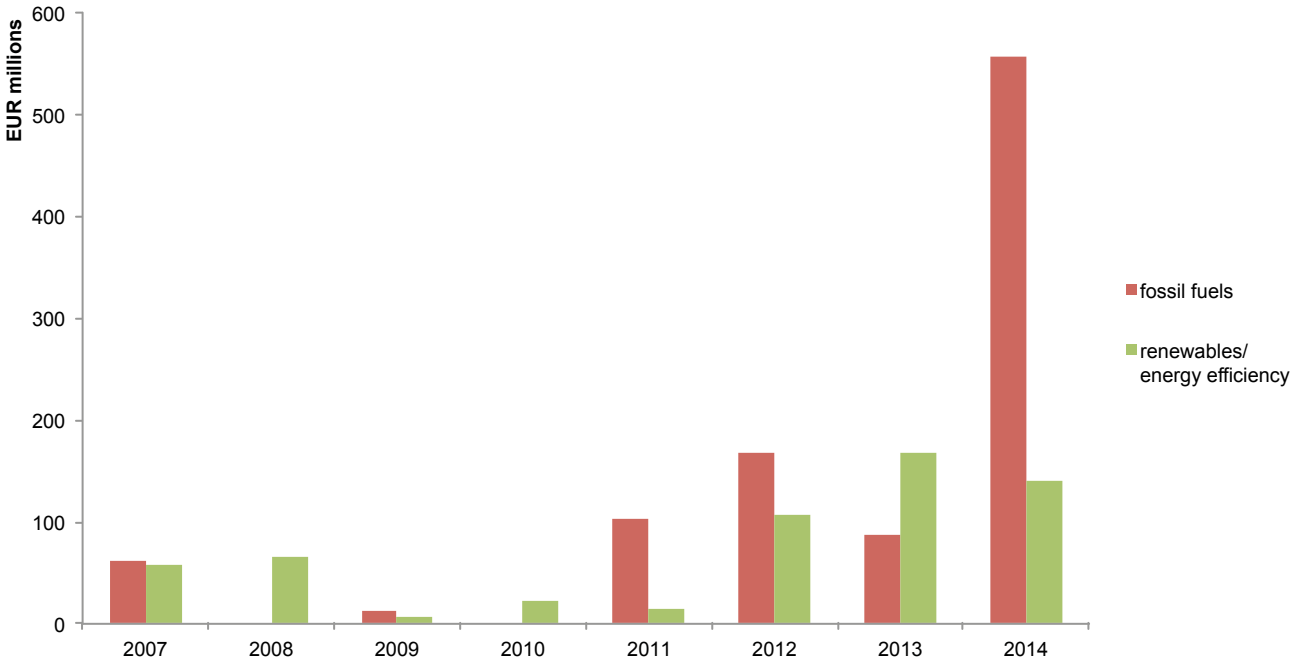
Renewables and energy efficiency

After the initial investment operations in 2007-2008 and the stagnation period in 2009-2011, the EBRD made a steadily increasing contribution to renewable sources of energy and energy efficiency in the region. The joint volume of financing that the EBRD awarded directly to wind, solar, biomass, biogas and small hydropower projects, and indirectly to small renewable and energy conservation projects and energy efficiency in district heating across the ENP, has amounted to EUR 582 million over the past eight years.

While the EBRD's financing for renewables and energy conservation through financial intermediaries was continuous, with the exception of a stall in 2009, the bank began direct financing of renewables in the region only in 2012. This direct financing for renewables increased four and fivefold in the following two years, reaching EUR 66 million in 2014.

In 2007-2014, the EBRD provided EUR 137 million in direct lending for renewables in ENP. The size of financing for small renewables and energy efficiency through financial intermediaries reached EUR 335 million over the same time period. The volume of financing for energy efficiency in district heating amounted to EUR 109 million.

Despite the increasing efforts to finance renewable energy sources and energy efficiency, the EBRD's support for renewables and energy conservation is seriously lagging behind its contributions for hydrocarbons in ENP. Overall, renewables and energy efficiency received EUR 409 million less in financing from the EBRD than fossil fuels over the 2007-2014 period. 2014 marked the sharpest contrast between financing for fossil fuels and renewables and energy savings. The EBRD invested



EBRD support for fossil fuels and renewables and energy efficiency combined in ENP

EUR 557 million in fossil fuels as opposed to EUR 140 million in renewables and energy conservation.

The EBRD financed renewable energy operations both directly and indirectly through financial intermediaries. The top recipient countries of direct support for renewables were Ukraine (9 projects), Jordan (4 projects) and Georgia (1 project). The EBRD is the leading financier of energy conservation and renewables awarded to smaller clients through dedicated credit lines to private banks in the ENP region. However, there is a general transparency concern linked to the lending through financial intermediaries. It is impossible to track where the money lent through credit lines actually ended up due to the commercial confidentiality between the banks and the clients.

When we combine the number of direct and indirect renewables and energy efficiency operations, Ukraine ranks as the top borrower with 25 projects; Moldova (12 projects), Georgia (8 projects) and Armenia (6 projects) follow.

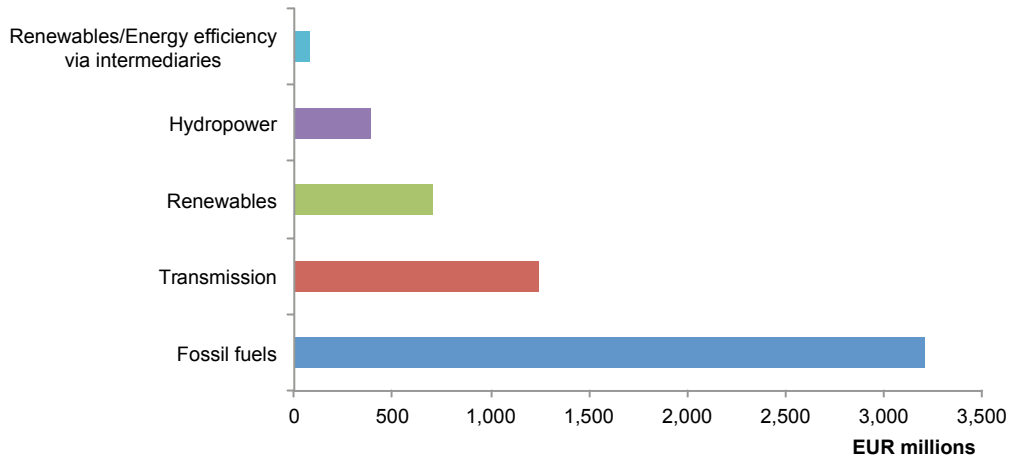
Hydropower

The EBRD is one of the key promoters of hydropower in the ENP region, concentrating its direct financing on the construction of greenfield large hydropower plants and the rehabilitation of existing large scale hydropower operations. The only recipients of lending for hydropower rehabilitation were Armenia and Ukraine. Out of the EU institutions and mechanisms, the EBRD was the sole player investing in greenfield run-of-river and dam hydropower projects exceeding a capacity of 10MW. The three new plants that the EBRD backed are located in Georgia, turning the country into a hotspot of large hydropower construction.

Georgia and Ukraine also received direct support for the construction of small hydropower plants. It is likely that the EBRD supports the development of small hydropower plants in the region through credit lines to commercial banks; it is, however, difficult to track down the beneficiary projects due to banking confidentiality.

Nuclear

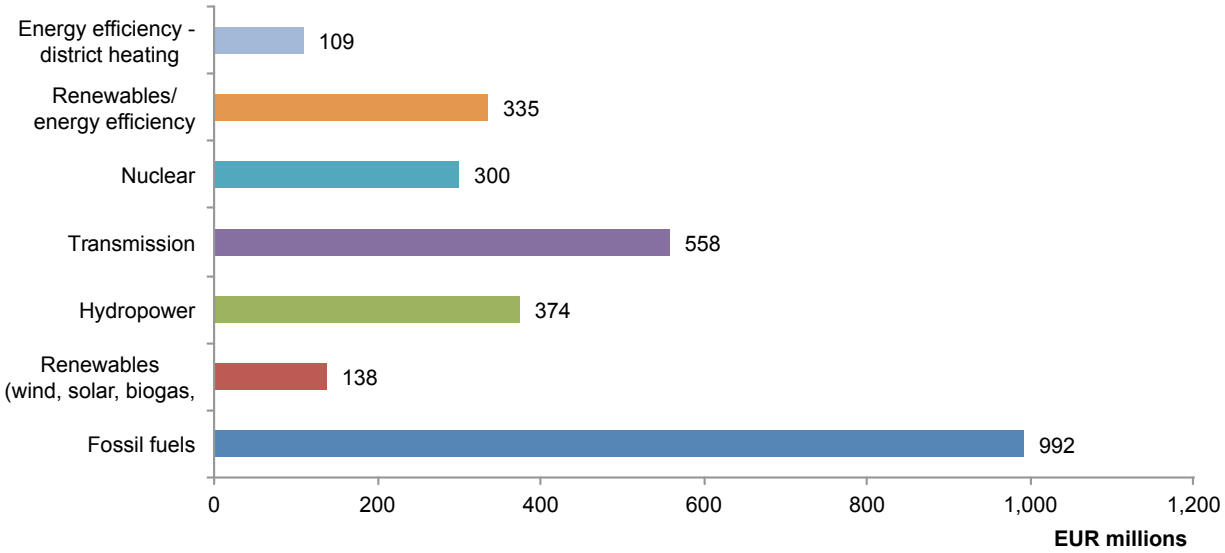
The EBRD's support for nuclear is restricted to financing in support of nuclear safety, mainly safety upgrades at existing units. These, however, enable lifetime extensions for expired units for up to 20 years beyond their initially projected lifetimes. Within the ENP region, the EBRD signed a EUR 300 million loan for an upgrade programme for operating nuclear power units in Ukraine in 2013.



EBRD support for energy subsectors in the ENP in 2007-2014

European Investment Bank

The EIB's lending to the ENP energy sector amounted to EUR 5.6 billion in 2007-2014 – double the EBRD's financing volume over the period. In comparison to the number of operations supported by the EBRD (105 projects), the EIB invested in fewer, larger operations (51 projects).



EIB support for ENP energy in 2007-2014

The EIB's lending pattern in the ENP region has increased steadily over the last three years following a series of declines repeating every two years, and reached a little over EUR 1 billion in 2014.

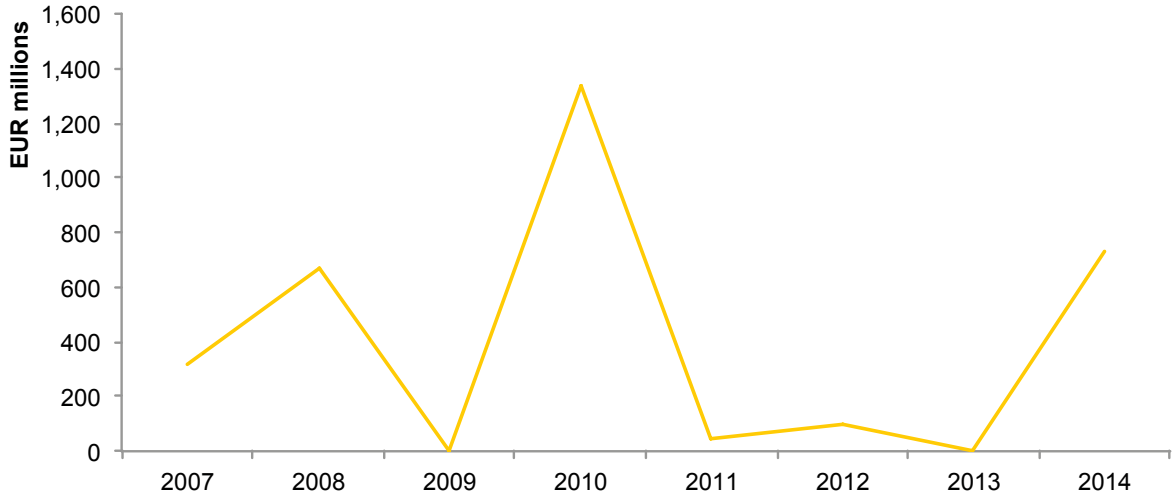
With a volume of EUR 1.5 billion in investments, Egypt is the main ENP recipient of EIB energy financing. Tunisia and Morocco follow with EUR 1 billion and EUR 956 million in financing respectively.

Fossil fuels

In terms of investments in fossil fuels, the EIB has concentrated its financing mostly on gas in the ENP region. The EIB's financing for fossil fuels-based operations amounted to EUR 3.2 billion over the period 2007-2014 – almost three times more than the EBRD's contribution over the same period of time. The EIB's fossil fuel financing was distributed among 17 projects in total. The bank financed directly only one oil-related project, the ERC refinery in Egypt.

Interestingly, the EIB boosted its financing for hydrocarbons after a three year period of near to

EIB support for fossil fuels in ENP in 2007-2014



zero investments in gas between 2011 and 2013. Egypt and Tunisia were the major destinations of the EIB's gas-related financing.

Renewables and energy efficiency

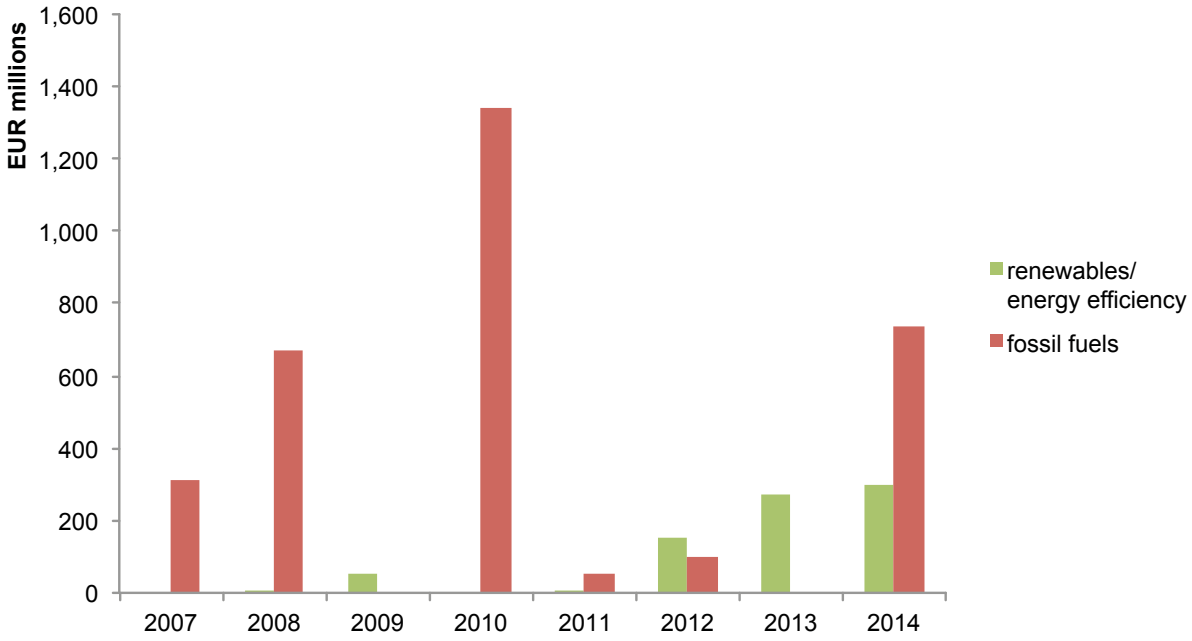
In the 2007-2014 period, the EIB provided EUR 780 million either directly or through financial intermediaries in support of renewable and energy efficiency projects.

The bank provided EUR 700 million in direct financing to 7 projects – wind and solar. Four out of these operations were located in Morocco.

As with the EBRD, the EIB has special purpose instruments for financing smaller renewables and energy efficiency projects. Similarly to the EBRD, the EIB contributes to national and international funds such as the Green for Growth Fund. In total, the EIB supported small renewables and energy conservation with nearly EUR 77 million in financing.[xiii]

The size of the EIB's renewables and energy conservation financing (EUR 780 million) in ENP was however disproportionately lower than the size of its financing for fossil fuels (EUR 3.2 billion). Renewables and energy efficiency received four times less in financing than the EIB awarded to fossil fuels-related projects.

EIB support for fossil fuels and renewables and energy efficiency combined in ENP in 2007-2014



Hydropower

Unlike the EBRD, the EIB restricted its direct support for hydropower in the ENP region to the rehabilitation of existing hydropower plants. Overall, it provided EUR 391 million for the revamp of plants in Georgia, Morocco and Ukraine.

As is the case with the EBRD, the EIB may have contributed to the construction of small hydropower projects through lending via financial intermediaries. Due to commercial confidentiality, information about the ultimate recipient projects is publicly unavailable.

The Neighbourhood Investment Facility

The Neighbourhood Investment Facility (NIF) has established itself as a smaller financing instrument in the ENP energy. In the 2007-2014 period, the NIF provided EUR 277 million for 29 energy operations in the region. In its operations the NIF joins forces with other larger institutions, such as the EBRD, EIB, African Development Bank and Kreditanstalt für Wiederaufbau (KfW) .

The NIF's geographical scope is also smaller than that of the EU public banks with the NIF covering eight out of the 16 ENP countries. Morocco, Egypt, and Georgia are the top recipient countries of NIF support, jointly absorbing over three quarters of the institution's total financing.

It is notable that while NIF had a minimal contribution to fossil fuels, renewables and energy efficiency constituted nearly three quarters (EUR 201 million) of its total financing volume. Morocco was the leading recipient of NIF's financing for renewables.

Inogate

Inogate is the smallest of the EU financiers and instruments in the ENP energy sector. Its total volume of financing of EUR 68 million was distributed among 19 projects in the 2007-2014 period. Inogate provided no financing in 2013-14. Inogate financed primarily energy policy-related initiatives with a broader regional scope, often covering the Central Asian republics.

European Atomic Energy Community

The European Atomic Energy Community, Euratom, has a mandate to finance projects improving nuclear safety in the EU non-member states. Euratom granted a EUR 300 million loan to the Rovno Power Plant Unit 4 in Ukraine and the Safety Upgrade Program of Power Units of Nuclear Power Plants in Ukraine in 2013.

Recommendations to the EU

- Phase out financing for fossil fuels and other dirty sources of energy.
- Step up financing for sustainable renewable energy generation and energy conservation, especially in fossil fuels-dependent countries with so far little or zero contributions such as Tunisia.

Notes

i The EU has also provided support to the Russian energy sector either through stand-alone projects or within multi-country programmes. However, the research focuses solely on the 16 ENP countries and excludes Russia as it is not part of the ENP.
ii http://www.ebrd.com/documents/comms-and-bis/ebrd-investments-19912014.xlsx
iii http://www.ebrd.com/work-with-us/project-finance/project-summary-documents.html
iv http://www.eib.org/projects/loans/list/index.htm
v http://ec.europa.eu/transparency/regdoc/rep/3/2013/EN/3-2013-3496-EN-F1-1.PDF
vi http://ec.europa.eu/economy_finance/financial_operations/investment/euratom_loans/index_en.htm
vii http://www.inogate.org/projects?collection=ongoing&lang=en
viii http://ec.europa.eu/enlargement/neighbourhood/pdf/key-documents/nif/20150731-nif-operational-annual-report-2013.pdf
ix http://ec.europa.eu/enlargement/neighbourhood/pdf/key-documents/nif/20151022-2014-report-optimised-final.pdf
x http://www.enpi-info.eu/list_projects_east.php?
xi https://ec.europa.eu/europeaid/projects-ground_en
xii Both the EIB and the EBRD support a combination of small renewables and energy efficiency projects through financing via intermediaries. Since the character of the ultimate projects financed through the intermediary loans is not known due to commercial confidentiality, the research in this report includes all the RES/EE lending without distinction of the nature of energy efficiency. The RES/EE subcategory introduced later in the text thus covers intermediary loans with the energy efficiency projects inside as well as outside of the energy sector (i.e. energy conservation in public and residential buildings). Due to the EBRD's significant contributions to energy efficiency in district heating, the direct lending for municipal heating revamp is covered under the separate energy efficiency subcategory.
xiii This is in line with the banks' 'business models' – the EIB usually does not finance projects under EUR 25 million whereas the EBRD minimum for direct financing is approximately EUR 5 million.

The EU and energy in the MENA region

Here we provides a reality check on the energy situation in the Middle East and North Africa (MENA) region, as well as EU energy investments in the region and their impact on the energy sector. It examines the link between EU energy investments under the framework of investment-related provisions (e.g. ISDS) and the tightened policy and regulatory space of governments in the region.

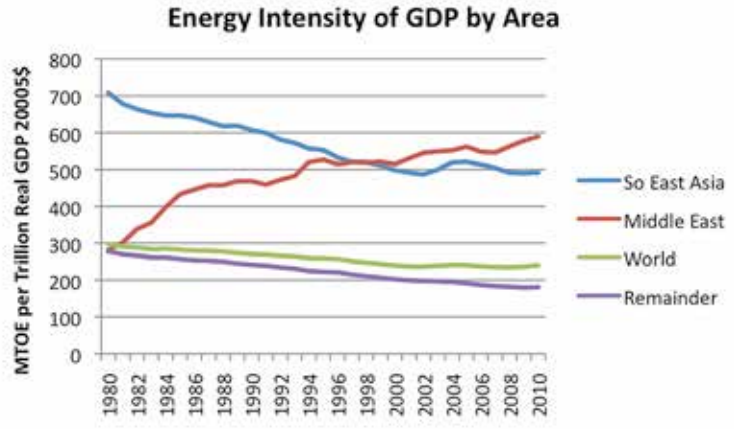
There is an assessment of the coherence between EU external energy policy and European Neighbourhood Policy (ENP) / EU foreign policy stated goals of achieving close political association, economic integration and a stable and secure neighbourhood based on democracy, the rule of law, respect for human rights and social cohesion[i]. Also addressed are the type of investments that would be beneficial both for host countries (Egypt, Morroco, Jordan and Tunisia) and the EU.

Energy issues in MENA countries

MENA countries face a significant energy challenge. They make up the fastest growing region in the world in terms of energy consumption and usage[ii], at rates much higher than those of energy production (77% increased consumption compared to 37% increased production previsions for 2035[iii]) and GDP growth.

Contrary to the global tendency, energy intensity[iv] in Middle Eastern countries has doubled since the 1980s[v]. Nowadays, it is estimated to be three times higher than the global average. These numbers suggest large scale energy inefficiency in consumption and constitute a structural impediment for economic growth.

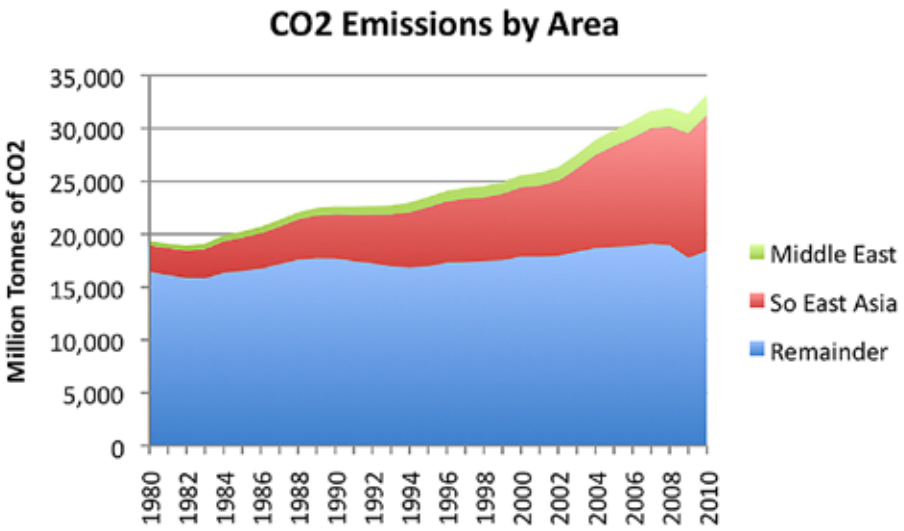
Energy Intensity of GDP by Area, based on BP Statistical Data regarding Energy Consumption in



Barrels of Oil Equivalent, and USDA Economic Research Data regarding real GDP – Gail Tverberg

This also indicates that the Middle East is an increasingly major contributor to the global increase in CO2 emissions, combined with an extremely small share of renewable energy in the region's overall energy mix.

Carbon dioxide emissions emitted in year, as shown by three major areas, based on BP statistical data – Gail Tverberg



By 2035 demand for oil in the region is set to increase by 55% while oil production is expected to grow by only 22%, thereby eroding oil exports. On top of these numbers, the contribution from renewable energy in electricity production is the lowest in the world, mainly due to the lack of hydroelectric potential[vi] but also to the slow development of other renewable sources of energy.

Current trends indicate that Arab countries will face a serious energy transition crisis. This is the already case for net importing countries (NICs) but is also expected to apply to net exporting countries (NECs): Saudi Arabia has already risen to be the world's sixth largest consumer of oil and natural gas in the world, with a total population averaging 30 million.

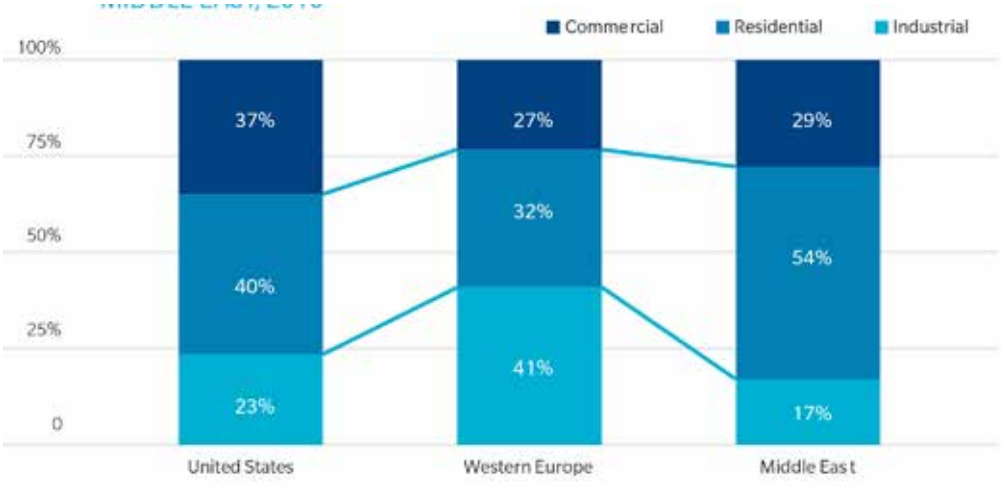
Electricity production in the region has historically been based on oil liquids. However, since the 1970s oil shock, gas usage developed quickly, particularly through using gas associated with oil production instead of flaring it. Most of the newly installed production facilities in the region were based on natural gas or on combined cycle.

The share of oil liquid derivatives nevertheless remains particularly high with indications it could return to a dominant position. Regionally produced gas has a tendency to be exported out of the region while the development of pipelines and interconnections lack significant investments and face increasing pressure from geopolitical challenges[vii]. This situation has pushed several states towards using coal as an alternative[viii].

Electricity demand is increasing rapidly due to population growth and accelerated migration to urban areas. The average annual increase rate is estimated at 7%. Most new demand comes from residential neighbourhoods as well as from newly created energy-intensive industries[ix].

The increasing occurrence and higher-paced growth of peak demands is problematic. For example, it exceeded 15% yearly in Jordan in 2010. The use of air conditioning has changed the consumption patterns and peaks' occurrences with most Arab countries experiencing power cuts, NICs or NECs alike, and including Saudi Arabia.

Comparison of energy usage – USA, Europe and the Middle East, 2010[x]

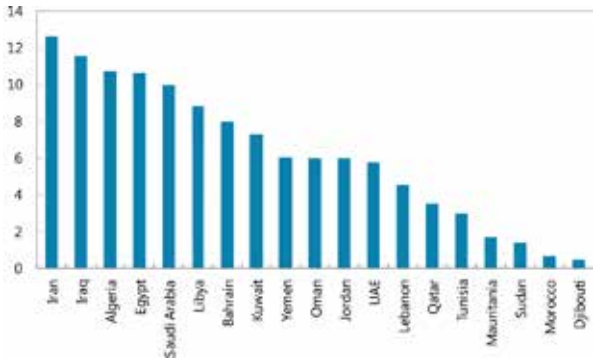


Many Arab countries are looking towards nuclear and renewable energies in order to cope with their energy transition crisis. Yet transition towards renewables is being conducted at a very slow pace, despite IMF numbers emphasising that the MENA region holds 45% of the world's total potential from all renewable sources[xi].

Energy efficiency is another pressing challenge for all Arab countries, particularly when considering the energy consumption of households. On the one hand, energy subsidies (electricity, transportation, heating, etc.) are hampering any incentives to develop efficiency, but, on the other, subsidisation is buying social peace in times of turmoil, and the necessary investments for energy-efficient construction and equipment are significant compared to the cost of living. This is valid for NECs and NICs alike which are facing this difficult dilemma.

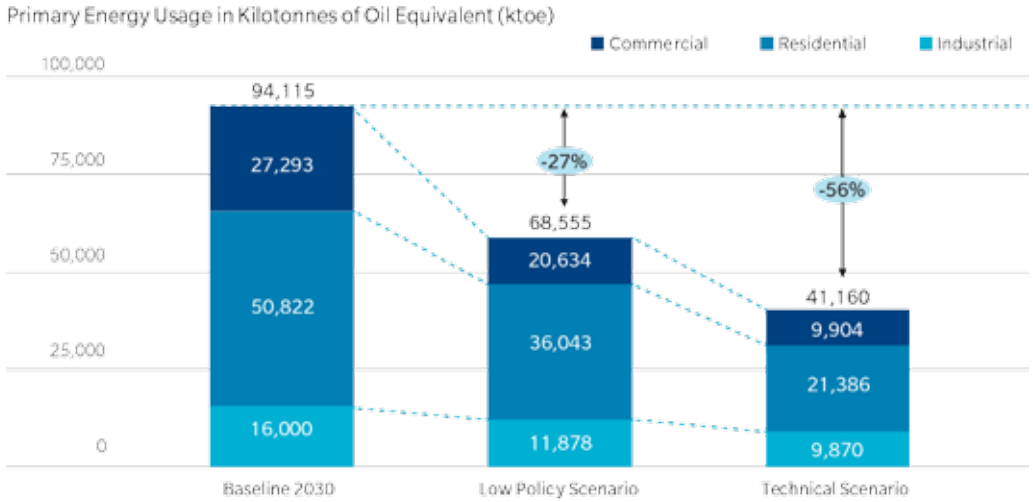
The total cost of energy subsidies for the MENA region has been estimated by the IMF at USD 237 billion in 2011 or 8.6% of regional GDP. It accounts for 22% of governments' spending in the region and 48% of global energy subsidies[xii].

MENA pre-tax energy subsidies, 2011 (measured as the difference between the value of consumption at world and domestic prices)



Difficult reforms to improve efficiency in energy usage are necessary, requiring comprehensive energy sector reform plans in particular and targeted measures to compensate subsidies with a comprehensive social program. The potential for saving through better energy efficiency is enormous. Depending on varying policy scenarios, primary energy usage could be reduced by a minimum of 27% and up to 56% by 2030 (See next figure).

Energy efficiency potential in the Middle East, Hormann et al.

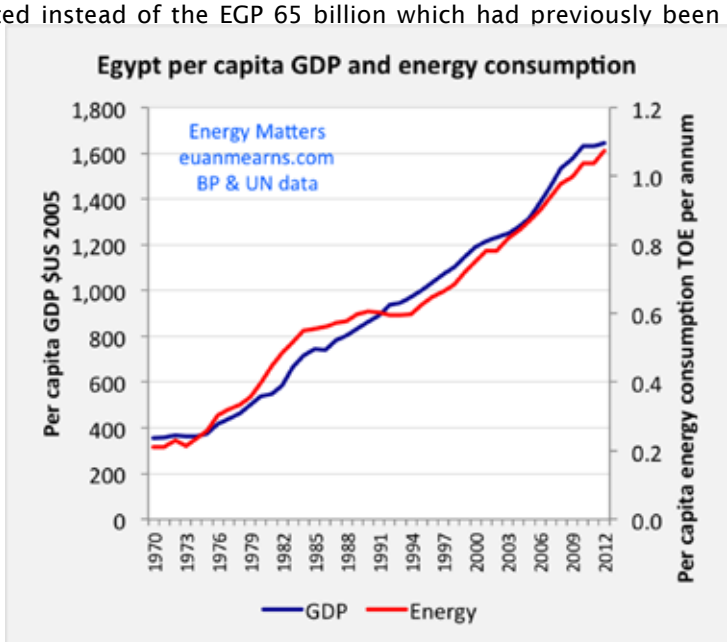


Energy needs in Egypt, Tunisia and Morocco

Egypt is a major producer of oil and gas. It has nevertheless seen its own production decline since 2008, which, combined with rapidly increasing local consumption, has led to a decline in exports. The installed capacity for electricity production went from 23.5 GW in 2008/2009 to 30.8 GW in 2012/2013 (yearly average increase of 1.8 GW) yet the reserve margin is tight and the country experiences regular electricity cuts.

Over the past five years, and despite the economic slowdown following the 2011 uprising, Egypt's annual energy production has grown by 1% on average while annual average consumption has grown by 5.3%, increasing the gap between supply and demand[xiii]. The electricity cuts have affected both residential neighbourhoods and industrial facilities, leading to difficulties in maintaining production and economic activities.

Currently, 66% of electricity is produced from gas, 18% from hydro and 16% from oil. The government plans the installation of an additional 15 GW for the period 2012-2017. In 2007-2012, EGP 103 billion were invested instead of the EGP 65 billion which had previously been approved (respectively



around EUR 12.1 and EUR 7.6 billion)[xiv]. Some of the new power plants will run on coal. In 2013, fuel subsidies accounted for 7% of GDP (of a total government deficit of 12% of GDP)[xv].

Hydro generation contributes 8.1% of production, while wind share is at 0.77% and solar at 0.14%. Total installed renewables capacity reached 550 MW in 2012, with solar accounting for only 15 MW.[xvi]

Morocco

Total installed capacity in Morocco reached 7.3 GW in 2013 compared with 5.3 GW in 2008 (an average increase of 0.4 GW per year)[xvii]. In 2013, 38% of electricity production was from coal, 19% from natural gas, 14% from oil and 11.5% from renewables (the latter accounting for 31% of installed capacity). Local electricity production is not sufficient to cover consumption, with around 17% of energy needs covered by imports from Spain. The increase in demand is substantial (around 6.5% annually), putting considerable stress on the issue of energy production mix and usage. Energy subsidies are much lower than in the other countries of the region[xviii].

Tunisia

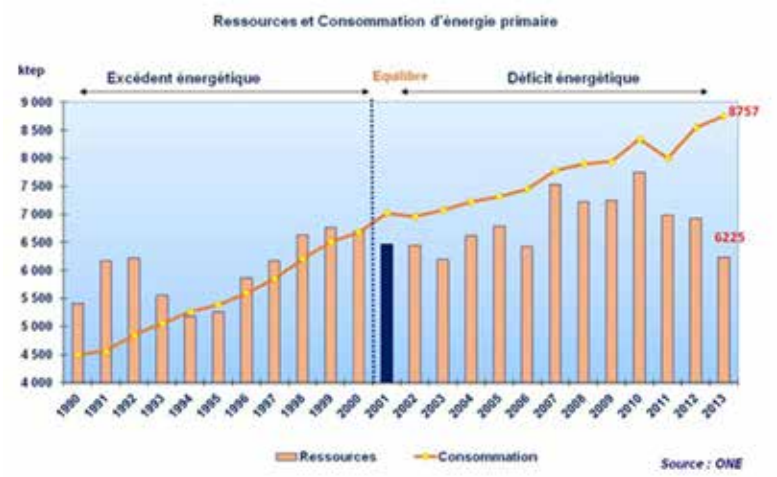
Tunisia produces oil and gas yet has also experienced a steeper increase in demand than in production, changing the status of the country from a net exporter to a net importer. The total deficit in the balance of primary energy has gone from 1.7 Mtoe[xix] in 2012 to 3.07 Mtoe in 2014[xx].

Total installed capacity in electricity rose from 3.3 GW in 2008 to 4.2 GW in 2012[xxi]. Natural gas makes up 90% of electricity production, with 7% coming from heavy fuels, and 3% from renewables (0.4% hydro and 2.6% wind after the commissioning of the Metline-Kechabta wind farm). Tunisia plans to increase the renewable share of its energy production from 5% to 9%[xxii] by 2020, and further to 30% (excluding hydropower) by 2030: 15% wind, 10% photo-voltaic and 5% concentrated solar plant.

Gas fields in Tunisia are small to medium, and require large investments to be developed. They deliver less than 45% of Tunisian gas needs. The remaining part is obtained in the form of royalties from the Trans-Mediterranean pipeline linking Algeria to Italy, or purchased directly from Algeria at international prices. In 2014, local production declined as did the amounts of royalties obtained through the Trans-Mediterranean pipeline.

Subsidies also pose a significant burden on the Tunisian budget, amounting to 9% of GDP in 2012[xxiii].

Growth in energy consumption and resources' production in Tunisia[xxiv]



EU energy investments and policies in the Southern Mediterranean region

No data is available on global EU foreign direct investments (FDIs) in the Arab countries. Nevertheless, it has been observed that FDIs flows to the MENA region have dropped significantly in the past

few years (-52% in 2013 compared to 2008). This trend is contrary to what has been observed in other developing regions such as Latin America or Sub-Saharan Africa[xxv].

Saudi Arabia and the UAE have been the main recipients of FDIs. Fossil fuels (coal, oil and natural gas) and real estate were the industries most benefitting from FDI inflows both in the Gulf countries and the Arab countries "in transition" (Egypt, Jordan, Tunisia, Morocco). For southern Mediterranean countries, the share of EU investments in FDI is very low overall with the exception of Morocco.

The total sum of FDIs to the region amounted to USD 45 billion in 2013. This amount must be put in perspective compared to the USD 106 billion per year that, according to the World Bank, is needed to cope with infrastructure and maintenance needs alone[xxvi]. If such investments were made, 2.5 million infrastructure-related jobs could be directly and indirectly created[xxvii]. The annual investment and maintenance needs to cope with energy demands are estimated to be around 3% of GDP for NICs such as Egypt, Jordan, Morocco or Tunisia. However, a gap has been observed in NICs between these investment needs and actual spending in the last decade.

The instruments of the Neighbourhood policy

The EU has made available several financial instruments to assist the development of southern Mediterranean countries, with a particular focus on building infrastructure and energy projects.

In 2002, the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) was created within the European Investment Bank (EIB) to stimulate economic growth in the South Mediterranean region. Since then, the EIB has provided EUR 17.6 billion of loans to the region (up to December 2014) and has planned the availability of EUR 9.6 billion for the period 2014-2020.

Specifically, EIB/FEMIP provided:

- Over EUR 6.5 billion in loans to Egypt. The energy sector was the largest beneficiary with EUR 3 billion. The EIB regional office in Cairo opened in 2003 (the first outside Europe)[xxviii].
- Over EUR 4.6 billion in loans to Tunisia[xxix].
- Over EUR 2.6 billion in loans to Morocco. The energy sector received EUR 840 million, with an increasing share for renewable energy[xxx].
- Over EUR 940 million in loans to Jordan (since 1978). EUR 135 million went to the energy sector, mostly for transmission and distribution projects and for the construction of a regional gas pipeline[xxxi].

In 2006, the Neighbourhood Investment Facility (NIF) was created as a key instrument of the ENP. It represents the blending mechanism that provides grants and/or risk guarantees to support the lending operations led by European multilateral and bilateral development finance institutions (such as the EIB, the EBRD, the German KfW and the French AFD). The aim is to support key investments for infrastructure projects in the transport, energy, social and environment sectors as well as to support private sector development (in particular SMEs). Energy, environment and job creation are set as priorities.

The NIF combines two sources of funding: the European Community Budget and Member States' direct contributions. Concerning the EC Budget, the Commission committed to contribute a total amount of EUR 700 million for the NIF during the period 2007-2013, to be equally divided between East & South. Member States complement NIF resources with voluntary direct contributions.

By the end of 2013, 36 projects had obtained support in the South (46 in the East) with a total of EUR 408 million (EUR 345 million for the East) NIF resources allocated. EUR 4.9 billion in financing was leveraged from the European financing institutions in the South, for a total value of projects of EUR 11.8 billion[xxxii]. Energy took a significant share of NIF support (26.7%)[xxxiii].

The European Bank for Reconstruction & Development (EBRD) started its activities in 1991. Egypt and Morocco joined as shareholders from the beginning, but have not been considered as countries of operation per se. In May 2011, following the uprisings in Tunisia and Egypt, the G8 summit launched the 'Deauville Partnership' to back democratic transitions and sustainable growth in

these countries as well as in Jordan and Tunisia.

Out of this the EBRD received a mandate to play a key role in supporting financing operations that are "driven by projects elaborated by partnership countries themselves", and been part of a coordination committee including several international financial institutions (IFIs). A transition fund was launched in this context, but it did not finance any energy project[xxxiv].

Energy projects in southern Mediterranean supported by the EU

NIF

NIF totalled EUR 35 million in grants and technical assistance for Egypt, EUR 4 million for Jordan, EUR 60 million for Morocco and EUR 1 million for Tunisia. EUR 22.5 million was dedicated to regional projects. All were assumed to constitute blending financing to foster loans for the energy sector in the concerned countries.

The EIB

In Egypt, the EIB financed EUR 260 million for power transmission and EUR 555 million for power generation. The latter concerned the Giza North Power plant of 2x750 MW (combined cycle) and the conversion of the Al Shabab gas turbine to a combined cycle increasing generating capacity from 1000 to 1500 MW.

In the 2007-2014 period, the EIB has only partially financed Egyptian needs for only one year of additional electricity generation capacity. No EIB financing was dedicated to renewables or to energy efficiency, except for the improvement of the Egyptian grid.

It should be noted that the Giza North Power plant was a category A project and an environmental and social impact assessment[xxxv] was carried out, while as for the category B Al Shabab plant[xxxvi] an environmental and social data sheet was prepared.

In Morocco, the EIB financed EUR 180 million for the transmission network, EUR 200 million for 450 MW wind generation, and EUR 250 million for a solar plant. Concerning wind energy, three wind generation plants were funded: Midelt (150 MW), Tanger II (100 MW) and Jbel Lahdid (200 MW). These 450 MW wind farms constitute the second phase of the Moroccan wind energy plan seeking to implement a total generation capacity of 850 MW. Thus the EIB contributed to a major share of the wind energy program of Morocco (total installed capacity in 2013: 495 MW). Environmental and social data sheets were prepared for these projects, in keeping with the Category B status.

The EIB also financed a concentrated solar power (CSP) project (500 MW). The Ouarzazate CSP represents part of a national plan to implement 5 CSPs with a total capacity of 2000 MW by 2020. The first phase of the project benefited from a EUR 30 million grant under NIF and a EUR 100 million loan from the EIB to construct a 125 to 160 MW solar thermal plant. The second phase, a parabolic trough plant of 200 MW, has received an additional EUR 200 million loan from the EIB. During the third phase of CSP development, the EIB financed a 150 MW capacity through a EUR 50 million loan. Environmental and social data sheets were prepared for these projects[xxxvii-xl]. The EIB strongly influenced Morocco's renewable solar energy plan implementation, as the project size almost covers the new needs of generation capacity.

In Tunisia, the EIB contributed EUR 194 million for transmission networks and rehabilitation, a EUR 380 million loan for the development of a gas field and its gas transport pipelines (370 km), and a EUR 194 million loan for generation. The latter included a 400 MW combined cycle plant at Sousse for the public operator STEG. The EIB therefore contributes to the coverage of new needs through new generation capacity. The three projects have been subject to environmental and social impact studies[xli-xlviii]. No renewable energy projects were financed.

EBRD

EBRD financing in Egypt was focused on the exploitation of fossil fuel resources (EUR 270 million),

with one project (EUR 190 million) dedicated to energy efficiency which includes the conversion of two existing open cycle power plants to combined cycle: Damietta West (500 MW) and El Shaba (1000 MW, also financed by the EIB)[xlix]. EBRD participation to help satisfy electricity demand in Egypt was limited.

In Morocco, the EBRD contributed mainly to rural electrification (EUR 77 million)[l] and to the connection to the grid of a mining company[li]. The EBRD's contribution to address the problems of Morocco's energy sector has been very limited.

In Tunisia, the EBRD awarded a USD 60 million loan for an oil and gas development project.

Analysis of two case studies

The Giza North power plant in Egypt[lii]

The Giza North is a 3x750 MWe combined cycle power plant. The financing was provided by the EIB (EUR 350 million), World Bank (USD 750 million), OPEC (USD 30 million) and Al Ahli Bank (E£ 3000 million). The Cairo Electricity Production Company (CEPC), the operator of the plant, invested USD 426 million. The project was launched in June 2010, just before the Egyptian uprising[liii].

The construction of the plant was delayed due to a number of difficulties, including the delivery of gas, the direct actions of local communities and the departure of foreign experts during the Egyptian uprising.

The Giza North plant is situated in the fertile Khairallah Basin in the delta of the Nile (see Figure 14). From the outset, there were concerns about how the 72 acres of land for the project were acquired. The contract was not available to the public, with the land being sold to the Egyptian Electric Holding Company at USD 85,000 per acre by the Saudi Prince Khaled bin Sultan, at a time when the land was valued at USD 25,000 per acre.

Furthermore, "residents have claimed that during the construction of the project a large number of acres have been illegitimately seized, a portion belonging to private individuals and a portion belonging to the state"[liv]. This is why "one of the main social violations resulting from the project is the dismissal of the land tenants who resided and worked in the land for up to four decades. Those tenants were evacuated without proper compensation"[lv].

A socio-environmental impact assessment study was undertaken[lvi] as well as public consultations at the request of local communities. However, local communities complained that only one village in the surrounding area was consulted. In July 2012, agreement between the operator and local communities was reached and a protocol was established. No follow-up mechanisms were included for local communities.

The local communities had concerns with the drop of the level of the water table, an issue not thoroughly assessed in the first EIA study performed for the World Bank. In fact, as a branch of the Nile River and channels surround the site, the water table is very shallow. Consequently, it was necessary to lower it locally for the foundations of the plant[lvii], an issue the local inhabitants complained about, as they live essentially from agriculture.

It was the estimated that these manipulations had "resulted in the degradation in quality of the underground water, which subsequently reduced the amount and quality of crops, and in some cases completely destroyed acres of agricultural land"[lviii]. It was additionally claimed that "the wastewater of the construction site is indeed polluting water resources in Khairallah basin, whether artesian water, underground water or in the El-Reyyah El-Beheiry canal, a catastrophic violation for an agricultural community".

The local communities and several NGOs sent a complaint letter to the World Bank Inspection Panel in May 2012 which led to a public consultation in July 2012, as well as to the revision of the protocol governing the socio-environmental assessment. Due to the lack of follow-up, in February 2014 the local communities and the NGOs sent a second letter to the Inspection Panel. Neither these letters

nor the World Bank's or EIB's responses were posted on the World Bank webpage on the project, leading to strong concerns that the complaint mechanism lacks transparency.

The Serinus project in Tunisia'[lvix]

On July 23, 2013, the EBRD decided to award Serinus Energy a loan of USD 60 million for the development of four oil and gas fields (Sabria, Chouech Essaida, Ech Chouech and Sanghar, see Figure 15). The development of the fields involved enhanced extraction and the drilling of new wells .

The EBRD justified the operation as "supporting further development of a small private independent company in Tunisia". However, the EBRD had already supported Serinus Energy in Ukraine. The company is a subsidiary of Kulczyk Oil Ventures Inc ("KOV") registered on the Warsaw and Canadian stock exchanges. The EBRD's choice for this investment is highly questionable, as KOV could finance itself through the market, local banks, or venture capital.

Similarly, the project had been decided in troubled times, just before the introduction of the new Tunisian constitution in January which stipulates that contracts for extractive industry projects should be submitted for approval to the parliament to ensure that the interests of the Tunisian people are guaranteed.

The contract between Serinus and the Tunisian authorities is opaque[lx], as the revenues for the State in form of Royalties and taxes are minimised (Figure 16). The contract shows the fiscal advantages granted to investors in the energy and resources sector in Tunisia, making the sector contribution reach 60% of the total of foreign direct investments (FDI's). At the same time, a recent study of the "Observatoire Tunisien de l'Economie" has shown that the fiscal advantages granted for this industry have negative implications on the government's budget and no significant positive impact on employment and growth[lxi].

Several social movements have been fighting the low wages and temporary contracts given by Serinus to Tunisian workers, as well as the depletion of natural resources by the government[lxii]. From the environmental point of view, the use of hydraulic fracturing in a country facing a severe lack of water resources, and especially in the desert area where Serinus' concessions are located, could lead to an increasingly worrying scenario. Indeed, Serinus expressed interest in developing shale gas in these same concessions. These concerns were sent by Tunisian CSOs and Bankwatch to the EBRD on July 2, 2013. Nevertheless, the EBRD had classified the project as category B, thus not requiring a comprehensive Environmental and Social Assessment study. It should be also be noted that this project is the only energy project funded by the EBRD in Tunisia.

Conclusions

EU policies in the southern Mediterranean have been focused on securing energy imports for the EU. At the same time, these countries are experiencing a sharp increase in their own demand and face a fully-fledged energy crisis.

The three countries studied (Egypt, Morocco and Tunisia) face serious problems in securing their needs in primary energy resources to keep up with this rapidly growing demand. The issue is particularly salient for Morocco. Currently heavily reliant on imports, it has become increasingly important too for Tunisia to move from the status of net exporter to net importer. For Egypt, it is failing to deliver the gas it had committed to neighbouring countries and now faces energy supply problems for its own industries and cities.

All three countries face difficulties in implementing the necessary electricity generation capacities at the right pace, to significantly increase the share of renewable energy, to reduce their striking energy inefficiency, and to get rid of subsidies burdening their budgets by replacing them with more efficient social protection systems.

EU financing mechanisms have played a limited role in helping these countries face their respective, readily identifiable energy challenges.

For the five year period studied, the overall EU contribution to new generation capacity amounts roughly to a single year of new needs for the region, and only in Morocco has there been a strong focus on renewable energy. EIB financing has been more directed to electricity networks and generation, with a gradual move towards renewable energy; the EBRD has kept up a strong commitment to the production and transportation of primary resources.

If retained at their current pace, EU contributions are not expected to assist these countries in solving their energy crisis in an efficient manner, and they are already struggling to cope with their sustainable development goals.

The Giza North power plant in Egypt shows that local communities and civil society organisations have little means of voicing their concerns and documenting the social, economic and environmental impacts of a project financed by European instruments. And even in the case where an impact study is performed for the concerned project, there is little room to voice criticisms and complaints on such studies so as to ensure minimal impact on local communities. The two letters of complaints written by local communities and civil society organisations have not been published, and neither have there been answers to these complaints . Finally, land acquisition for the projects severely lacked transparency.

The Serinus project in Tunisia shows a controversial choice being taken by the EBRD for its only development project in the Tunisian energy sector. The regulatory and taxation issues of oil and gas extraction projects that could be financed by the market or local banks remain a serious problem. The lack of a social, economic and environmental impact study, not to mention the lack of responses to civil society complaints, only adds to the lack of transparency.

Despite the increase in EU investments following the Arab uprisings, the European approach to energy security does not seem to be changing. A failure to significantly take into account the medium and long-term strategic needs of the Arab Mediterranean countries remains. Some of the projects seem to have actually exacerbated the energy crisis and do not address the past failures of EU neighbourhood policies.

Recommendations

In light of the above analysis and the case studies on Egypt and Tunisia elsewhere in this report, the following recommendations have been formulated:

- The EU institutions should establish a comprehensive dialogue between the EU and the Arab Mediterranean countries where primary energy supply and security of the Arab Mediterranean countries is a major focus and have the same priority as Europe's primary energy supply and security. Such a comprehensive approach should constitute a cornerstone element of the neighbourhood policy, and would be a welcome move away from considering the Arab Mediterranean countries as a supply route of energy to Europe. It should lead to a revision of the current European approaches differentiating Gulf countries and Arab Mediterranean countries, as well as to a revision of the policies towards Iran and Turkey.
- The EU institutions should establish a comprehensive dialogue between the EU and the Arab Mediterranean countries to assist the latter in accelerating the path of developing their electricity production capacities to cope with rapidly growing demand, to increase significantly the share of renewable energies and to reduce the salient inefficiencies in the use of energy. Such an effort should constitute a cornerstone of a European neighbourhood policy aiming at providing economic and employment perspectives for the 'youth bulge' which the Arab Mediterranean countries are experiencing now, and which would reduce the inevitable instability and massive migration flows to Europe.
- CSOs should pressure the EU institutions to increase the financial amounts dedicated to the neighbourhood financial instruments for the South in order to reach a level compatible with the energy sector development which corresponds to the needs of the countries and their population. This level should grow from around 20% of investment needs in the energy sector to at least 50%.
- CSOs should pressure the EU institutions to embed the elimination of energy subsidies burdening

the budget of Arab Mediterranean countries in a more comprehensive economic and social development approach. The elimination of energy subsidies has always constituted a major axis of the IFIs policies for Arab Mediterranean countries, especially in times of high oil prices. The current drastic drop in oil prices, and the consequent reduction of the burden for energy subsidies, offers an opportunity to push medium term development strategies focused on enhancing infrastructures and modern social security structures, while taking into account the prominence of the informal economy in the Arab Mediterranean countries.

- CSOs should pressure EU financial institutions to increase transparency on all aspects of project development, to systematically perform a social, economic and environmental impact study, and to respond to complaints formulated by CSOs and local communities. The answers to the complaints should be published with full transparency.
- CSOs should pressure EU institutions to establish a comprehensive dialogue between EU and Arab Mediterranean countries in order that all projects financed by EU financial instruments follow the respective countries' regulations in addition to standards involving proper taxation regimes, especially in the case of resources' development and interconnection projects. Such standards should avoid the impunity of investors through investor-state settlement mechanisms.
- CSOs should pressure EU institutions to impose a systematic Territorial Economic Contribution (TEC) study to the benefit of local communities and the region where projects are implemented. Systematic TEC studies would alleviate the inevitable impact of any major project on local communities, allowing the development of local infrastructure and jobs. They would contribute significantly to the empowerment of regional institutions and reduce the inter-regional development gap.
- CSOs should pressure EU institutions to impose systematic impact studies on water resources and the environment for all projects. The Arab Mediterranean countries drastically lack water resources for a population that will soon equal that of Europe. The preservation of water resources and of the environment in general is a key development concern in these countries. These studies should be subject to public scrutiny, complaint and discussion mechanisms, with full transparency.

Notes

i. http://eeas.europa.eu/enp/
ii. http://ec.europa.eu/enlargement/about/directorate-general/index_en.htm
iii. BP Energy Outlook 2035, www.bp.com/energyoutlook
iv. BP Energy Outlook 2035, www.bp.com/energyoutlook
v. That is, the amount of energy consumed per unit of real GDP.
vi. Gail Tverberg: Thoughts on why energy use and CO2 emissions are rising as fast as GDP, November 30, 2011, http://ourfiniteworld.com/2011/11/30/thoughts-on-why-energy-use-and-co2-emissions-are-rising-as-fast-as-gdp/
vii. Laura El-Katiri: A Roadmap for Renewable Energy in the Middle East and North Africa; OIES paper: MEP 6, January 2014, The Oxford Institute for Energy Studies; on the basis of World Bank World Development Indicators Database, 2013.
viii. Morocco has invested in coal fired power plants, while neighboring Algeria exports large amounts of gas to Europe, through Moroccan territory. The Arab gas pipeline originating from Egypt has barely delivered the forecasted quantities to Jordan & Syria. The gas never reached Lebanon, drastically lacking energy.
ix. Besides Morocco, Egypt and UAE are planning new coal fired electricity plants.
x. Economist Intelligence Unit: Securing MENA's electric power supplies to 2020; 2011.
xi. Marc Hormann, Joern Carlos Kuntze & Jad Dib: Delivering the energy efficiency promise in the Middle East; Oliver Wyman, Marsh & McLennan Co.; 2012.
xii. Booz & Co.: A new source of power. The potential for renewable energy in the MENA region; 2009.
xiii. IMF: Energy subsidies in the Middle East and North Africa: Lessons for reform; March 2014.
xiv. Amena Sharaf: North Giza Power Plant: Funded by EIB, paid for by Egyptians; study prepared for this project; 2015.
xv. http://www.egelec.com/mysite1/pdf/report%20E.pdf
xvi. https://energypedia.info/wiki/Egypt_Energy_Situation#cite_note-http:.2F.2Fwww.rcreee.org.2Fsites.2Fdefault.2Ffiles.2Fegypt_fact_sheet_re_print.pdf-6

xvii. http://euanmearns.com/egypt-energy-population-and-economy/
xviii. http://www.one.org.ma/FR/pdf/Depliant_Statistiques_2008.pdf and https://energypedia.info/wiki/Morocco_Energy_Situation
xix. Mtoe: million of tons of oil equivalent.
xx. See the Tunisia country study in this report.
xxi. US Energy information system.
xxii. http://www.oitsfax.org/files/AApresentationHDR20140323.pdf
xxiii. https://energypedia.info/wiki/Tunisia_Energy_Situation
xxiv. http://africanmanager.com/tunis-aucun-des-projets-inities-par-l%C2%92anme-n%C2%92est-bloque-assure-son-dg/
xxv. OECD: Recent FDIs trends in the Mena region; December 9-11, 2014.
xxvi. World Bank: Infrastructure and Employment creation in the Middle East and North Africa, 2013.
xxvii. The above study estimates the annual investment and maintenance needs to cope with demand at 3% of GDP for oil importing countries, such as Egypt, Jordan, Morocco or Tunisia. It observes a gap between this investment need and actual spending over the last decade.
xxviii. http://www.eib.org/attachments/country/egypt_2015_en.pdf
xxix. http://www.eib.org/attachments/country/tunisia_2013_fr.pdf
xxx. http://www.eib.org/attachments/country/femip_10years_morocco_fr.pdf
xxxi. http://www.eib.org/attachments/country/jordan_2013_en.pdf
xxxii. However, a gap between amounts signed and disbursed started to appear in 2013.
xxxiii. NIF Operational Annual Report, 2008-2013.
xxxiv. http://www.ebrd.com/deauville-partnership.html
xxxv. http://www.eib.org/attachments/pipeline/20100121_nts_en.pdf
xxxvi. http://www.eib.org/infocentre/register/all/49477446.pdf
xxxvii. http://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Morocco_-_Ouarzazate_Solar_Power_Station_Project_II_-_ESIA_Summary.pdf
xxxviii. http://www.eib.org/attachments/pipeline/20100242_eis_fr.pdf
xxxix. http://www.eib.org/infocentre/register/all/50058884.pdf
xl. http://www.eib.org/infocentre/register/all/53830098.pdf
xli. http://www.eib.org/attachments/pipeline/20080182_eia_fr.pdf
xlii. http://www.eib.org/infocentre/register/all/54267108.pdf
xliii. http://www.eib.org/infocentre/register/all/54267110.pdf
xliv. http://www.eib.org/infocentre/register/all/54267106.pdf
xlv. http://www.eib.org/infocentre/register/all/54267104.pdf
xlvi. http://www.eib.org/infocentre/register/all/54267112.pdf
xlvii. http://www.eib.org/infocentre/register/all/49387332.pdf
xlviii. http://www.eib.org/attachments/pipeline/20090293_eia_fr.pdf
xlix. http://www.ebrd.com/work-with-us/projects/psd/power-sector-energy-efficiency-project.html
l. http://www.ebrd.com/work-with-us/projects/psd/one-rural-electrification-and-smart-metering.html
li. http://www.ebrd.com/work-with-us/projects/psd/compagnie-miniere-de-seskaoua.html
lii. Amena Sharaf: North Giza Power Plant; 2015, op.cit.
liii. http://elbadil.com/2013/08/21/%D8%AA%D8%A3%D8%AE%D8%B1-%D8%AF%D8%AE%D9%88%D9%84-%D9%83%D9%87%D8%B1%D8%A8%D8%A7%D8%A1-%D8%A7%D9%84%D8%AC%D9%8A%D8%B2%D8%A9-%D9%84%D9%84%D8%AE%D8%AF%D9%85%D8%A9-%D9%84%D8%AA%D9%88%D9%82/
liv. Amena Sharaf: North Giza Power Plant; 2015, op.cit.
lv. Amena Sharaf: North Giza Power Plant; 2015, op.cit.
lvi. All studies can be found at http://www.cairoepc.com/giza.html.
lvii. See the report of Cairo University on the issue, http://www.cairoepc.com/PDF_files/cairouni.pdf.
lviii. Amena Sharaf: North Giza Power Plant; 2015, op.cit.
lix. Tunisia country study for this project, op. cit.
lx. Tunisia country study for this project, op. cit.
lxi. http://economie-tunisie.org/fr/observatoire/visualeconomics/couts-incitations-investissements. It shows that the fiscal advantages correspond to 70% of total taxes collected from companies.
lxii. https://www.opendemocracy.net/hannah-pannwitz/%E2%80%9Cwinou-el-p%C3%A9trole%E2%80%9D-oil-and-accountability-in-tunisia

The EU and energy in the Eastern Neighbourhood

The EU developed a number of special programs already in the early 90s after the collapse of the Soviet Union, actively seeking the development of both oil and gas in the former Soviet republics. Ties between the EU and the EU's Eastern Neighbourhood region were significantly strengthened in 2004 following the first wave of enlargement of the EU and the establishment of new borders in Europe.

The development of the Caspian region's oil and gas resources was one of the major target of the EU and for this the support of the international financial institutions (World Bank, EBRD etc.), as well as special EU programs such as INOGATE, were used. This gave European companies access to the Caspian region's oil and gas resources. The first project was the development of the Azeri-Guneshli Ghiraq Oil field (Azerbaijan) and connected pipelines – the Baku-Supsa pipeline (1998) and, later, the Baku-Tbilisi-Ceyhan oil pipeline (2006) were supported by the EBRD and IFC. This was followed with the South Caucasus Gas pipeline bringing gas from She hah-Deniz field (Azerbaijan) through Azerbaijan and Georgia to Erzurum in Turkey in 2006.

Since 2008, after the Russian-Ukrainian-European gas crisis, the EC embarked on a strategy aimed at enhancing the EU's gas security of supply architecture, which includes not only an enhancement of the EU's internal energy market through gas interconnection between its member states, but also diversification of gas supply through the so called Southern Gas Corridor to bring gas from the Caspian and Middle Eastern producing countries[i].

As a result, the concept of energy security as one of the cornerstones of the EU's foreign policy has been reflected in the Eastern Partnership Initiative (EaP) declaration (2009) making it the driving force for ENP. The EU planned to include the Nabucco gas pipeline[ii], the flagship of EU energy policy for a number of the years, but this project has never materialised owing to competing pipelines such as the White Stream pipeline[iii] and others. The EU's recent flagship project, the Trans-Adriatic Pipeline, is also intended to bring natural gas to Europe from the Shah Deniz offshore gas field in Azerbaijan.

In addition to the oil and gas sector, the EU started promoting and backing the export of electricity[iv] from the neighbouring countries through already existing transmission lines, as well as by backing the construction of new lines, especially around the wider Black Sea area[v].

Programs such as INOGATE and the Trans-European Networks allow and even encourage electricity

exporters to benefit from loopholes and differences in environmental standards and to increase electricity export from the neighbouring countries to the EU. It is recognised that "Although there are some clear advantages in producing electricity locally there will always be regions in Europe, which could be net exporters of electricity due to a concentration of renewable-energy resources, such as hydro."[vi] There is also ongoing rhetoric that "To facilitate such exports, transmission systems need to be maintained and built, however this must only be done when environmental and social standards comply or are in line with those in the EU".[vii]

In practice, however, investments in the energy sector are rather increasing problems within the given countries, while supporting the development of unsustainable energy.

Eastern Partnership and the EU's energy security

The EaP countries include the countries of the former Soviet republics. The bulk of their infrastructure is based on old fashioned hydrocarbons (extraction in Azerbaijan) and transmission – whether over land or water – gives each country strategic importance, even those completely lacking in oil or gas reserves. The region is heavily polluted through leakage, waste and emissions from energy infrastructure, both by oil and gas and the nuclear industry (in Ukraine and Armenia), as well as environmental damage such as coastal and river erosion from hydropower, with water quality also diminishing. Almost all countries have ambitions to become net exporters of electricity or to extract or transit oil and gas resources.[viii]

All EaP countries have substantial hydro energy and other renewable energy potential, but their endowment with fossil energy resources differs widely. Armenia possesses hardly any fossil fuels (about 90% of all primary energy needs to be imported). Georgia's energy imports amount to approximately 70%, but natural gas prices are lower as transit fees for crossing gas transit pipelines are paid in-kind in natural gas. In contrast, Azerbaijan is well endowed with oil and natural gas reserves. Thus, there is no surprise that these resources contribute massively (about 98%) to the country's total primary energy supply (TPES). Respective exports are even 3.6 times higher than national consumption levels. Meanwhile Ukraine has large coal reserves, which account for more than 90% of the country's fossil fuel reserves. Although the capacity of the coal and power sectors is well in excess of domestic demand, Ukraine is a net energy importer. The cost of gas imports from Russia has risen substantially in recent years. Gas accounts for almost 40% of Ukraine's energy usage[ix].

It should be noted that the enlargement processes in 2004 and 2007 played an important catalysing role in the development of the EU's energy policy. New member states were signi□cantly depending on Russia's energy supply and energy security challenges became part of the political agenda. The EU ensured the formalisation of its own internal energy policies, and also elaborated a comprehensive external energy policy. This was a priority for the EC during the 2004-2007 period. The major instrument for implementation of this policy was the European Energy Community, established in 2006 speci□cally for western Balkan countries and later enlarged to the EaP region.

The Eastern Partnership Initiative program (2009) de□ned energy security as one of its major cornerstones. The EaP aims to further the acceleration of political association and deeper economic integration between the EU and the six partner countries both through bilateral and multilateral tracks as well as the creation of the forum on free trade, a visa free regime and energy security. Energy security represented one of the major priorities both for bilateral as well as multilateral dimensions, as stressed in the Joint declaration: "The Eastern Partnership aims to strengthen energy security through cooperation with regard to long-term stable and secure energy supply and transit, including through better regulation, energy e□ciency and more use of renewable energy sources".[x]

The EaP Platform 3 was dedicated to energy security and, along with the regulatory framework and approximation of the EaP neighbours' energy policies to the EU Aquis, includes the "development of electricity, gas and oil interconnections and diversification of supply"[xi] as a major goal. The Platform includes support to projects of common strategic importance in oil, gas and/or electricity sectors that have a direct and substantial impact on the energy security of at least one EU member state and one partner country.

Platform 3, together with INOGATE, aims to ensure the presentation and review of the projects in the presence of the international financial institutions (IFIs). Existing EU instruments, such as the Neighbourhood Investment Facility (NIF), the Eastern European Energy Eficiency and Environment Partnership (E5P), and the Eastern Partnership Technical Assistance Trust Fund (EPTATF) are also considered possible financing sources for given strategic projects.

According to research the EU external energy policy rebalances the priorities of EU energy policy, which claims to equally ensure operation of the energy market, ensuring energy supply and promoting environmentally sustainable and low carbon energy sources, with an accent on the security of supply goal.[xii] Within the EaP region the EU sets a wider goal through multilateral dimension work which involves all countries of the region and includes diversifying energy sources, their country of origin, as well as country of transit. In the case of bilateral dimensions, the EU focuses on Ukraine and Azerbaijan due to their transit as well as energy supply capacities.[xiii]

As a result of the EaP, since 2010 Ukraine and Moldova were admitted, subject to conditions, to accede to the Energy Community Treaty, while Georgia and Armenia have become observers; since 2013 Georgia has been involved in ongoing negotiations to become a member of the Energy Union.

In the case of Moldova, positive steps include the joining of the Energy Community and commitments to the EU energy acquis which will result in creating a favourable economic and legal framework of energy market functioning and attracting investments in this area in safe, competitive and environmental protection conditions.

The situation in other countries is not so easy, because for Ukraine, Georgia, Armenia and Azerbaijan ensuring diversity means consistently planning for new capacities according to their natural resources, which costs economic, political and environmental capital to achieve, and a push for the exporting of energy. It results in the development of old traditional energy infrastructure (oil, gas, nuclear energy, large hydro) while the result is that renewable energy, energy efficiency and other laudable aims, despite being addressed by ENP Action Plans and the Baku Process[xiv], are still playing a negligible role in the region.

EU related investment in EaP countries' energy sectors and its impact on the region

A Bankwatch study[xv] has detailed that during the 2007-2014 period, the EU's financing institutions and programs awarded at least EUR 9 billion to 220 energy projects among its eastern and southern neighbors, with EUR 3.5 billion going to the eastern region for 170 projects. All across the neighbourhood region "the financing has been spread unevenly between fossil fuels and renewable sources of energy." However, a major characteristic for the EaP region is that investments for transmission lines construction exceeds financing for fossil fuels. The research also clarifies that providing electricity and gas from the EaP region through the development of old, traditional energy sectors – including nuclear, gas and large hydro – to bring energy to the EU was a major priority for EU funding during 2007-2014. In the EaP region power transmission lines construction attracted approximately EUR 935 million, while fossil fuels investment is around EUR 724 million, large hydro accounts for EUR 602 million, nuclear energy for EUR 611 million, while energy efficiency/renewables funding accounts for only EUR 368 million and renewables – solar, biomass, wind, biogas – was up to EUR 87 million.[xvi] Support for energy policy reforms accounted for EUR 46 million from the EU over the period.

The research also clarifies that importing electricity and gas supply represented the major priority to the EU, including the promotion of the exporting of electricity[xvii] from the neighbourhood countries through already existing transmission lines, as well as by promoting the construction of new ones (Georgia, Ukraine), despite the evident "lower environmental and social standards of the generating facilities"[xviii].

The development of old, traditional energy sectors including nuclear, gas and large hydro dominates the EU's energy financing in the EaP region over the 2007-2014 period. For this purpose the EU supports a number of projects such as the Southern Gas Corridor, Ukrainian and Georgian Electricity Transmission lines, and Ukrainian nuclear.

The EU's support to the Southern Gas Corridor

The Southern Gas Corridor (SGC) is a term used to describe the planned infrastructure projects currently being proposed to improve the EU's energy security through the diversification of natural gas supply to Europe. The is one of the most complex chain of pipelines that is planned to stretch over 3,500 km, cross seven countries and is comprised of several separate projects with total required investments estimated at up to EUR 45 billion[xix]. It includes the second phase of the Shah Deniz field and expansion of the Sangachal terminal in Azerbaijan, the extension of the South Caucasus Gas pipeline in Azerbaijan and Turkey (SCPX), the Trans Anatolian Pipeline (TANAP) in Turkey, the Trans Adriatic Pipeline (TAP) in Greece, Albania and Italy, the expansion of the Italian gas transmission network and further connections with south-eastern, central and western Europe.

Project 1: Shah Deniz Gas Field development, Stage II and extension of the SCG pipeline

In 2014-2015, the EBRD supported the development of the Shah Deniz Gas Field through an investment of EUR 674 million in Russian oil company Lukoil, securing a 10% share. The project includes the construction of two bridge-linked offshore gas platforms, 26 subsea wells, 500 km of subsea pipelines, the expansion of a gas plant at the Sangachal Terminal and the South Caucasus Gas Pipeline expansion in Azerbaijan and Georgia[xx]. It is expected that the Asian Development Bank will also allocate EUR 500 million for the same project.

It should be noted that the EBRD decision to support the Shah Deniz project goes against Article 1 of the Agreement on the EBRD's establishment which that states: "Under the EBRD Agreement, the parties must be committed to human rights, multi-party democracy, rule of law and pluralism." Over the last two decades the Aliyev family regime in Azerbaijan has relied on autocratic and dictatorial means, but has never committed to human rights or multi-party democracy.

Following Russia's 2014 annexing of Crimea, Lukoil – along with other Russian companies – has been placed on both US and EU sanction lists that restricts Lukoil's access to capital markets. However, according to the EBRD's documents, its loan was provided to Lukoil Azerbaijan, not a Russian company alas but one registered in Azerbaijan. However, as a matter of fact, the EBRD's funding decision certainly helps alleviate the impact of US and EU sanctions for Lukoil[xxi]. Already in September 2014, Lukoil requested the Russian government for access to unallocated oil fields in Russia in order to ease the impact of sanctions[xxii], as a joint venture between Total and Lukoil will be affected by the sanctions[xxiii], and Lukoil has sought various loans due to the credit squeeze caused by sanctions on certain Russian banks.[xxiv]

Project 2: The Trans Anatolian Pipeline (TANAP)

TANAP will connect the South Caucasus Gas pipeline with the Trans Adriatic pipeline. The construction of the pipeline began formally in March 2015 and is expected to be completed in 2018[xxv]. As the project represents the strategic interests of Azerbaijan, TANAP will be operated by the State Oil Company of Azerbaijan (SOCAR) which owns 58% of the project. Turkey's pipeline operator BOTAS owns 30%, and BP acquired a 12% stake in the project on March 13, 2015.[xxvi]

Project 3: The Trans Adriatic Pipeline (TAP)

TAP will bring Caspian natural gas to Europe, starting at the border of Greece and Turkey, where it will connect with TANAP. It will then cross northern Greece, Albania and the Adriatic Sea to southern Italy, where it will connect to the Italian gas transportation grid.

The Trans Adriatic Pipeline AG company has been established to plan, develop and build the TAP natural gas pipeline. TAP's shareholding is comprised of BP (20%), SOCAR (20%), Statoil (20%), Fluxys (19%), Enagás (16%) and Axpo (5%).

TAP is expected to be constructed with the support of the EIB as the project is part of the European Commission's list of 33 priority energy security projects of common interest. According to the EIB, "The European Commission in its positive decision to grant exemption to the pipeline from

third-party access highlighted the "overall positive impact for the EU of this investment as it is responding directly to the Security of Supply objective of diversification of gas sources, routes and counterparties" and therefore it is widely thought that the EIB will allocate around EUR 2 billion – its largest ever single investment – in project support.[xxvii]

Power transmission lines and related infrastructure

Another EU interest includes the promotion and backing for the export of electricity[xxviii] from the neighbourhood countries through already existing transmission lines, as well as by promoting the construction of new ones (Georgia, Ukraine), despite the evident "lower environmental and social standards of the generating facilities"[xxix]. This also involves direct and indirect support for related hydro and nuclear development in the region.

EU support to hydro development

The EU supports the Black Sea Transmission Line construction project in Georgia through the EBRD, the EIB, NIF and KFW funds. The Black Sea Transmission Line was supposed to increase the stability of the grid, to diminish seasonal electricity losses and help export surplus hydro energy in the summer period.

However, the line has a capacity of up to 1,000 MW, excessive for Georgia's current demand, but its construction was undertaken in light of the further construction of 8000 MW installed capacity hydropower in the next decade[xxx]. The ongoing and planned projects include several highly controversial large hydro cascades mainly in the mountainous areas of Georgia, including Dariali HPP (109 MW) and the Adjariskali Cascade (331 Mw) already financed by EBRD, as well as the Nenskra cascade (438 MW), which is being considered for finance by the EBRD and the ADB.

In general, following Soviet practice, major hydro construction is not considered to be infrastructure that produces environmental or social consequences, while considering the involuntary resettlement of the people as normal practice. However, such major hydro projects are being extensively supported by the EBRD, the International Financial Corporation (the World Bank's private lending arm) and the Asian Development Bank in spite of numerous flows due to a weak EIA system and non-existent public participation in decision making, that is neither in compliance with the requirements of the Aarhus Convention nor with relevant EU directives, not to mention the practice of exempting companies from their EIA obligations, or starting construction without environmental permit, as in the case of the Dariali HPP, funded by the EBRD[xxxi].

The projects in question have serious negative impacts on the environment and cultural heritage, which has resulted in the local population organising strikes and direct actions against the investor and authorities, in turn resulting in the government using police forces in some cases.[xxxii]

In addition, it has emerged that the Build, Own, Operate (BOO) model promoted by the Georgian government for the construction of the HPPs will not benefit the country's budget in any way sufficient to justify the total change of landscape and the devastation of the environment, to say nothing about the thousands of people that will be forced to resettle[xxxiii]. As a result, the public protests in recent years have drawn attention to these problematic investments and the poor governance involved has eventually been acknowledged by EU decision-makers. In its resolution for approval of the EU-Georgia Association Agreement, the European parliament recognises the need "to monitor closely the Georgian authorities in their investment programme for the construction, rehabilitation and reconstruction of hydropower plants, urging them to comply fully with EU standards and norms".[xxxiv]

Taking into account the weak EIA policies and practices that prevail still in Georgia today, the construction of small hydropower plants has also brought significant environmental and social devastation. For example, sccording to a scheme[xxxv] approved in 2009 by the Armenian government, over 300 stations are to be built in Armenia, half of which are already in existence, mainly due to the support of IFIs such as the EBRD, the IFC and KfW.

The EBRD has supported the construction of 14 hydro projects through the Armenian Renewable

energy Program (AREP)[xxxvi] and has given a direct loan to Bazenc HHP in the Vayouts Dzor region, while KfW has supported the most controversial Argvichi HPP[xxxvii], while considering support also for Daranak SHPP in the buffer zone of the Sevan National Park.[xxxviii]

As of 2012,[xxxix] there were more than 110 commercial size small hydropower plants (SHPP) operating in Armenia and about 60 of these have been developed and constructed in the past decade[xl]. The construction of these SHPPs has not been the result of a well-developed strategic environmental impact assessment and developed river basin management plants.

Environmental flow is calculated rigidly as 10% of the river flow, without consideration of the long term monitoring and seasonal fluctuation data, not to mention climate change considerations. According to Armenian experts, the hydro power plants are turned in pipelines and two thirds of the country's rivers have dried[xli], as the SHPPs can operate without any limitations for water intake. According to governmental decision 927 (30.06.2011), "the sanitary flow is determined with the minimum course within the selected 10 days of the driest year"[xlii]. This in fact means that if the river experienced a drought the sanitary flow can be estimated as zero. This type of hydro development represents a threat not only for biodiversity and protected areas, but directly threatens those local villagers that are excluded from decision making at the public hearings and mostly stay without drinking and irrigation water in the driest months of the year, which has raised protest and increased tension all over the country.

The SHPP projects do not consider the impact on communities, while often depriving them of their meadows and pastures, irrigation and recreation zones, and the development of local tourism and local agriculture. The local communities do not benefit from the projects as they are not a part of the income sharing from the project, nor do they receive cheaper energy from the neighbouring HPPs.[xliii]

As a result of the development of SHHPs, Armenia is commencing the construction of a transmission line to link with Georgia. The project consists of the construction of a new back-to-back station in Ayrum (Armenia) close to the Georgian border and a power transmission line linking the two countries. The project is being supported with a EUR 85.2 million loan from the lead financier KfW Bankengruppe on behalf of the German government[xliv], a EUR 10 million grant from NIF[xlv] and own resources of Armenia (EUR 1.5 million) and Georgia (EUR 6.6 million).[xlvi] It is designed to provide secure and economically efficient coverage for the growing electricity demand.

The EU's support to transmission lines and nuclear energy in Ukraine

The EBRD, the EIB and NIF have been major players in the construction of high-voltage power transmission infrastructure (up to EUR 650 million), designed with the ultimate goal of realising a continuous 750 kV transmission corridor spanning over 1500 kilometres from east to west which will connect three Ukrainian NPPs (totaling twelve nuclear reactors) and two hydro pumped storage plants, enabling increased power exports from Ukraine to the EU. In addition, the EBRD and Euroatom have contributed to the Nuclear Power Plants Safety Upgrade Programme (NPP SUP), the essential element for Ukrainian government plans to extend the lifetime of 12 nuclear reactors.

By 2020, 12 out of 15 nuclear reactors in Ukraine will reach the end of their design lifetime and are to be closed and decommissioned. The Ukrainian government, despite failing to accumulate any funds for decommissioning, decided in 2004 to approve a plan to extend the lifetime of reactors[xlvii] for another 10 to 15 years. The most costly component of the lifetime extension program is the modernisation of old and worn out equipment, and such modernisation measures are envisaged within the Complex (Consolidated) Nuclear Power Plants Safety Upgrade Programme (NPP SUP).

In 2010 the EBRD and Euratom announced their intension to finance NPP SUP. The EBRD describes the aim of the program as "safety upgrades only, at all 15 operating nuclear power units in Ukraine to bring them in line with internationally accepted safety standards and the Ukrainian requirements."[xlviii] It is a seven year program with a noble objective: safety upgrades, but these upgrades will enable Energoatom, Ukraine's state operator of NPPs, to prepare old reactors for lifetime extension.

However, ample evidence supports the concept that when operating nuclear reactors beyond their

intended lifespan, the number of incidents rises sharply in line with the age of the units.[xlix]

Although the EBRD denies its involvement with the lifetime extension of the reactors, the Ukrainian side has no problem with admitting that the SUP measures are a necessary component of lifetime extension.[l] The other part of the problem is that Ukraine's nuclear electricity is perceived to be cheap. The tariff is kept low (currently it's about 2 euro cent) by the National Electricity Regulatory Commission (NERC) and covers neither safety upgrades and modernisation costs, the cost of spent nuclear fuel treatment and utilisation, nor the full cost of decommissioning.

In March 2013 the EBRD and Euratom each approved a EUR 300 million loan for NPP SUP. Both loans became effective as of January 2015 and the first disbursement was made in summer 2015 despite European NGOs actively calling[li] on EU institutions to halt further proceedings with both the EBRD and Euratom loans because, in addition to the above-mentioned problems, Ukraine was found to be in non-compliance with Espoo Convention requirements by not preparing an EIA in the case of nuclear units life-time extensions and not consulting it with neighbouring states[lii]. In July 2015 also a group of MEPs addressed the European Commission and the EBRD with a request to suspend the loans until the country complies with the relevant international legal obligations[liii].

EU support for Armenian nuclear energy safety

The EC strongly supports the shutdown of the Metsamor Nuclear Power Plant (NPP) as soon as possible. Through the Instrument for Nuclear Safety Cooperation (INSC), since 2007 several projects have been launched and are still ongoing, involving monitoring, research, radiation protection and inspection, with an overall budget of more than EUR 7 million.

These projects include the "Boron Concentration & Neutron Flux Monitoring Systems, Metsamor, Armenian NPP" project (budget of EUR 1.8 million), the "Radiation Protection System Upgrade for Armenian NPP" project (EUR 1.3 million), and the "Primary Circuit In-service Inspection – Medzamor NPP" project (EUR 750,000).

The INSC's priority has been the integrity and safe decommissioning of the Medzamor NPP, first with a budget of EUR 350,000 for a Pipe Integrity design, and recently with a new tender for Nuclear Materials Accountancy and Control[liv]. Based on stress test[lv] results undertaken with EU support since 2012, the EU has called on the Armenian government in its monitoring report 2014 to work "towards the earliest possible closure of the Medzamor nuclear power plant and adopting a detailed decommissioning plan, taking into account the results of stress tests; meanwhile increasing the safety standards of the nuclear power plant;"[lvi] essentially to shut down the Metsamor nuclear power plant.

Conclusions

Its clear that the EU, within its energy policy priorities focuses on security of supply, and this major consequences for countries, including ignorance of the need for market convergence as well as ensuring environmental sustainability.[lvii]

Currently no EaP country has undertaken and committed to the deep and comprehensive energy sector reform that is clearly visible from the country achievements listed by the INOGATE Secretariat in its 2012-2014 report.[lviii] The commitment to joining the Energy Community by Moldova and Ukraine, and hopefully also by Georgia in the near future, is a definite step forward. However, such commitments by themselves clearly do not shift energy policies and strategies towards sustainable energy.

The EU approach, through the use of the EU's political action and its financial instrument ENI, has been based on the strategy of broadening energy and economic ties with the countries of the region; it is believed that presence in these countries will ensure broadening and intensification of human rights dialogue, the support and promotion of regional cooperation, enhance involvement of EU institutions including the EIB and the EBRD. While, in theory, such an approach looks attractive, in practice it has quite a number of deficiencies and shortcomings, as outlined above.

It should also be kept in mind that EU support through the NIF not only attracts and mobilises investment money not only from the EBRD and the EIB, but also from financial markets. For Ukraine alone, the EUR 23 million NIF funding ensures the mobilisation of funds from different institutions, including IFIs, which is worth approximately EUR 4.2 billion.

Despite the huge mobilised investments in the energy sectors of countries in the EaP region, none of these countries has fully pledged to make reforms in the sector. The EU's scarce support for energy policy work, accompanied by the mobilisation of large funds for energy supply and transportation, makes clear that of the three components of the EU's energy policy, the prioritisation of security of supply overrides market convergence and environmental sustainability and continues those trends which existed before the ENP and EaP, making it more difficult to meet the EU's own decarbonisation goal for 2030.

Notes

i. Second Strategic Energy Review – An EU Energy Security and Solidarity Action Plan, EC, 2008, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0781:FIN:EN:PDF
ii. Nabucco Gas pipeline – In the Trans-European Networks - Energy (TEN - E) programme, the Nabucco pipeline is designated as a project of strategic importance. An objective of the project is to connect the European Union better to the natural gas sources in the Caspian Sea and the Middle East regions. The project has been driven by the intention to diversify its current energy supplies, and to lessen European dependence on Russian energy – the biggest supplier of gas to Europe.
iii. White Stream: Known as the Georgia-Ukraine-EU gas pipeline was a proposed pipeline project to transport natural gas from the Caspian region to Romania and Ukraine with further supplies to Central Europe. The company developing the White Stream project had received co-funding for studies under EU's TEN-E programme.[5] The first TEN-E grant was supported by the Government of Romania. The second grant was supported by the Governments of Romania, Poland and Lithuania.
iv. http://www.eu-energy.com/fs-import-final.pdf
v. A CORRIDOR THROUGH THORNS: EU ENERGY SECURITY AND THE SOUTHERN ENERGY CORRIDOR, Oscar Pardo Sierra http://www.dtic.mil/dtic/aulimp/citations/gsa/2010_168393/184463.html
vi. Ibid
vii. Ibid
viii. Armenia has limited energy resources plans to construct a new nuclear power station, Azerbaijan develops both oil and gas resources, as well as electricity generation sector, Georgia relies heavily on hydro development, Ukraine on gas transit, nuclear and hydro development.
ix. Economist Intelligence Unit, Energy Report Ukraine.
x. EaP, Joint Declaration, Prague, May 2009.
xi. http://eeas.europa.eu/eastern/platforms/docs/work_programme_2014_2017_platform3_en.pdf
xii. European Energy Policy: An Environmental Approach, edited by Francesc Morata, Israel Solorio Sandoval, 2012, published by Edward Elgar Publishing Limited, UK
xiii. IBID
xiv. The "Baku Initiative" was launched on the occasion of the Energy Ministerial Conference held in Baku on 13 November 2004 with the participation of the European Commission and the Black Sea and the Caspian Littoral States and their neighbours, namely Azerbaijan, Armenia, Bulgaria, Georgia, Iran (observer), Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation (observer), Romania, Tajikistan, Turkey, Ukraine and Uzbekistan.
xv. K bankwatch.org/sites/default/files/ENP-energy-exec-summary.pdf
xvi. This data does not include the allocations from regional funds
xvii. http://www.eu-energy.com/fs-import-final.pdf
xviii. http://www.eu-energy.com/fs-import-final.pdf
xix. http://bankwatch.org/our-work/projects/southern-gas-corridor-euro-caspian-mega-pipeline
xx. http://www.ebrd.com/work-with-us/projects/psd/lukoil-shah-deniz-stage-ii.html
xxi. LUKoil Chief Says Sanctions Affecting Russian Energy Companies, RFERL, 26 June 2014, http://www.rferl.org/content/lukoil-chief-says-sanctions-affecting-russian-energy- companies/25436027.html and
xxii. Facing Western Sanctions, Russia's LUKoil Asks Government for Oil Fields. By Alexander Panin. Moscow Times. 25 September 2014. http://www.themoscowtimes.com/business/article/facing-western-sanctions-russia-s-lukoil-asks-government-for-oil-fields/507826.html

xxiii. Sanctions Force France's Total to Freeze Shale Oil Project in Russia, The Moscow Times, 23 September 2014 http://www.themoscowtimes. com/business/article/sanctions-force-france-s-total-to-freeze-shale-oil-project-in- russia/507673.html
xxiv. Eg. USD 300 million from Promsvyazbank, Katya Golubkova: Promsvyazbank benefits as sanctions force Russian companies to raise finance at home, Reuters 22 September 2014 http://www.reuters.com/article/2014/09/22/ us-ukraine-crisis-russia-promsvyazbank-idUSKCN0HH25220140922
xxv. http://www.hurriyetdailynews.com/turkey-azerbaijan-to-start-work-on-new-mega-gas-pipeline.aspx?pageID=238&nID=79790&NewsCatID=348
xxvi. http://www.tasam.org/Files/Icerik/File/how_can_turkey_bring_itself_to_a_regional_power_status_in_south_caucasus_and_how_this_will_affect_its_relationship_with_eu_bae6dc5e-d906-432f-977f-56ff5f2d0ef2.pdf
xxvii. http://www.eib.org/projects/pipeline/2014/20140596.htm?media=rss&language=en
xxviii. http://www.eu-energy.com/fs-import-final.pdf
xxix. http://www.eu-energy.com/fs-import-final.pdf
xxx.http://www.gse.com.ge/new/?p=3719&lang=en
xxxi. Second fatal landslide in Dariali valley http://bankwatch.org/news-media/blog/second-fatal-landslide-georgian-dariali-valley
xxxii. http://dfwatch.net/police-beat-villagers-for-norwegian-hydro-power-in-georgia-66987-26969
xxxiii. Off Balance – Georgia Energy Sector, Green Alternative, 2013, http://greenalt.org/wp-content/uploads/2013/04/Georgian_energy_sector_web.pdf
xxxiv. http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2014-0110+0+DOC+XML+V0//EN
xxxv. http://www.generation-c.org/armenia-an-unsustainable-road-to-energy-security/
xxxvi. A USD 7 million loan from EBRD to AREP was supplemented by a USD 5 million facility from the Armenia Renewable Energy and Energy Efficiency Fund and USD 3 million from the Cascade bank.
xxxvii. http://www.ecolur.org/en/news/water/german-kfw-development-bank-replied-on-argitchi-shpp-problem/5559/
xxxviii. http://www.ecolur.org/files/uploads/pdf/smallhppenglish.pdf
xxxix. SHPP in Armenia is up to 30 MW
xl. http://www.ener2i.eu/page/34/attach/0_Armenia_Country_Report.pdf
xli. https://iwpr.net/global-voices/armenias-greens-take-hydro-schemes
xlii. www.e-gov.am/u_files/file/decrees/kar/2011/06/11_0927.pdf
xliii. SHHPs Under Umbrella of International Financial Institutions, Ecolur, Yerevan 2013, www.ecolur.org
xliv. https://www.kfw.de/KfW-Group/Newsroom/Aktuelles/Pressemitteilungen/Pressemitteilungen-Details_249920.html
xlv. May 2015, http://www.eib.org/infocentre/press/releases/all/2015/2015-056-eib-supports-high-voltage-interconnection-of-armenia-and-georgia.htm
xlvi. IBID
xlvii. Complex Lifetime Extension Programme for operating blocks of nuclear power stations, approved by Cabinet of Minister's decree from 29.04.2004
xlviii. http://www.ebrd.com/english/pages/project/psd/2011/42086.shtml
xlix. Meyer, N., D. Rieck, and I. Tweer. Alterung in Kernkraftwerken. Greenpeace, Hamburg, 1996 (revised version 1998).
l. Complex (Consolidated) Nuclear Power Plants Safety Upgrade Programme in Ukraine, page 14.
li. Letters to the EBRD President and EU Commissioners from CEE Bankwatch Network, Greenpeace, FoEE; Open appeal from about 40 European NGOs: http://bankwatch.org/publications/appeal-stop-european-commission-supporting-ukraine-violating-international-law
lii. Letter to Ministry of Environmental Protection of Ukraine from Implementation Committee of Espoo Convention, dated March 25, 2013: http://www.ecoclubrivne.org/files/Espoo13.pdf
liii. http://bankwatch.org/publications/letter-members-european-parliament-ebrd-and-euratom-regarding-nuclear-power-plant-safet
liv. http://www.eufoa.org/uploads/EUAid.pdf
lv. In response to the 2011 Fukushima nuclear accident, risk and safety assessments ("stress tests") have been carried out on all EU nuclear power plants. Neighbouring countries have been also associated and Switzerland and Ukraine participated fully. Beyond that, the European Commission encouraged and cooperated with nuclear regulators around the world to perform similar exercises. The aim of the assessments was to check whether the safety standards used when specific power

plants got their licenses were sufficient to cover unexpected extreme events. Specifically, the tests measured the ability of nuclear facilities to withstand damage from hazards such as earthquakes, flooding, terrorist attacks or aircraft collisions. https://ec.europa.eu/energy/en/topics/nuclear-energy/nuclear-safety/stress-test

lvi. http://eeas.europa.eu/enp/pdf/2015/armenia-enp-report-2015_en.pdf

lvii. No EaP country has improved its own environmental legislation

lviii. http://www.inogate.org/documents/IMAR_2015_ver_WEB.pdf

Case study: Azerbaijan

Since 2004 the EU neighbourhood policy has included Azerbaijan, as part of the South Caucasus. The region is one of the most complex and unstable regions of the former Soviet Union. In the late 1980s, when socio-economic upheavals took place all across the territory of the former Soviet Union, the South Caucasus countries were not unique in terms of their economic crises. However, in addition to the acute political crisis, as a result of civil war and ethnic conflicts, a large number of refugees and internally displaced persons significantly affected the economic development of these countries. The Nagorno-Karabakh conflict resulted in war between Armenia and Azerbaijan, ongoing since 1988.

Bordered by Russia, Turkey and Iran, the South Caucasus countries represent the crossroads between the east and the west. However, the major interest of the EU, as well as the US, has been Azerbaijan's oil and gas resources, considered substantial enough to be alternative supplies of gas that would avoid Russia.

Azerbaijan's proven crude oil reserves are estimated at about 7 billion barrels. The country's main hydrocarbon basins are located offshore in the Caspian Sea, particularly in the Azeri Chirag Guneshli (ACG) fields. The country's proven natural gas reserves total approximately 991.086 billion m³ (EIA, 2014).[i]

Since the mid-nineties, oil and gas development in Azerbaijan has been largely supported by the international financial institutions (IFIs) which have worked extensively to ensure private investments and political risk mitigation.

According to the World Bank, total investments for Caspian oil and gas exploitation stand at approximately USD 140-200 billion, and the private sector has been the main source of these funds. Therefore the work undertaken by the IFIs includes reducing risk through institutional, policy and legal reforms, as well as through "the involvement of public sector agencies, which can give a unique degree of protection to private investors – for a so-called 'halo effect' that, according to IFIs should have 'particular value' … in the Caspian region, where capital market access is fragile and relations with foreign governments are highly important for geo-strategic reasons."[ii]

The development projects of the ACG oil fields as well as the Baku-Supsa (1998) and Baku-Tbilisi-Ceyhan (BTC) pipeline (2006), with capacity to carry more than 50 million tonnes of oil per year, are viewed more as political projects rather than commercially viable ones. The IFC and the EBRD proposed the BTC pipeline as a model of development and poverty alleviation – a tool to improve human rights protection in the region. The promises pledged by both IFIs and banks have failed.

Horrendous testimonies, coming from places adjacent to the pipeline route, reveal thousands of cases of unpaid compensation, and underpayment, intimidation and damage to land and property, increased prostitution and trafficking; commitments to reduce poverty and create quality jobs have never materialised.

Crude oil exports peaked in 2010 when they averaged about 908,000 bbl/d and oil exports have declined each year since then; it is expected that they will remain around 40 million tonnes per year.[iii]

Shah Deniz, the largest gas field in Azerbaijan, contains 1 trillion cubic metres of gas. The first phase of field development began in 2006, supported by a USD 110 million EBRD investment in 2004. The construction of the South Gas Corridor pipeline from Baku to Erzrum is taking place in parallel to the BTC pipeline.[iv] Gas production has risen by 5% compared to 2013, reaching 18.7 cm of marketable gas. Proven gas reserves were reported to have risen to 2.3 trillion cubic metres.

The second phase of Shah Deniz development was announced by BP at the end of 2013 and is planned to be operational in 2018. The European Commission has welcomed the news.[v] The Shah Deniz consortium awarded contracts valued at some USD 9.6 billion and expansion works got under way in Azerbaijan and Georgia in 2014.[vi]

Similar to many other oil-rich countries, Azerbaijan established a State Oil Fund in December 1999. The Fund accumulates part of the oil export revenues and transforms them into financial assets which shoud generate perpetual income for current and future generations. In addition, the Fund also finances strategically important infrastructure and social projects of national scale, including oil and gas projects, meaning too the Azerbaijani share in the new Southern Gas Corridor Project.

The EU and Azerbaijan

EU-Azerbaijan relations have been governed by the Partnership and Cooperation Agreement (PCA) since 1999. After inclusion in ENP, in 2006 a joint EU-Azerbaijan Action Plan was adopted by the EU-Azerbaijan Cooperation Council. Ties between the EU and Azerbaijan significantly strengthened in 2006 after the signature of Energy Memorandum.

“By the EaP Vilnius Summit in 2013, Azerbaijan’s European integration aspirations were visibly reduced and Baku expressed an interest in replacing the AA with the Strategic Modernisation Partnership Agreement. The country’s interests changed from European aspirations (inserted in the text of the European Neighbourhood Policy (ENP) Action Plan under public pressure) and a wide agenda of integration into the ENP action plan of 2006 into an interest in cooperating in sectors such as economic development, energy, communications, and migration.”[vii]

The EU remains Azerbaijan’s main trading partner with bilateral trade of more than €16.7 billion in 2014. Thus it is impossible to consider the major tool of ENP, “more for more”, towards Azerbaijan making an impact on a “country whose daily income from oil revenues during the heyday of the oil boom often exceeded the annual reward for the successful implementation of reforms.[viii]

In the 2007-2010 period the European Commission’s National Indicative Program (NIP)[ix] for Azerbaijan prioritised legislative and economic reform in the energy sector, with a view to improving the completeness of Azerbaijan’s economy and alleviating poverty. As a result, EUR 14 million was granted as Budget Support for an ‘energy reform support program’.

The launching of the EaP initiative, and the subsequent joint declaration on the Southern Gas Corridor between Azerbaijan and the European Commission (2011), changed the priorities of the energy sector reforms.

EU Energy Commissioner Oettinger stressed that “the participation of Azerbaijan in the Eastern Partnership is a historic milestone and by signing the Southern Corridor Declaration in Prague, Azerbaijan has confirmed its critical role and commitment to building bridges to the EU. We are following closely the award of gas from Shah Deniz-2. The Commission has long underlined its interest in a strategic allocation of gas from Shah Deniz-II that allows the Southern Gas Route to develop.”[x]

The National Indicative Program for 2011-2013 in the sphere of energy reprioritised the strengthening of energy security and allocated funds "to enhance the energy security of the EU and Azerbaijan and the role of the Azerbaijan as both an energy production and transit country" [xi]. As an outcome, "the aims of market convergence, namely energy efficiency and use of the RES only appeared as the last points in the above mentioned priority of of energy security strengthening priority The fact that the major interest of the EU towards Azerbaijan is its potential to contribute further to the Southern Gas Corridor is also evidenced in the European Commission's 2014 progress report on Azerbaijan. According to the report, "There was good progress on the EU's Strategic Energy Partnership with Azerbaijan to improve European energy security and the diversification of energy supplies. The commitment to implementing the Southern Gas Corridor continued to be of utmost importance for EU-Azerbaijan dialogue."[xii]

In 2015, the EU backed Shah Deniz development and resource mobilisation via EBRD and EIB financing.

It is notable, of course, that the 2014 European Commission progress report itself acknowledges that "Azerbaijan became one of the top 20 countries on the ease of starting a business in the annual ranking of the World Bank 2015 Doing Business Report. Nevertheless, foreign direct investment remained largely limited to the energy sector, where activities soared in 2014 after the conclusion of the Shah Deniz II Final Investment Decision and the formal launch of the southern gas corridor in September."[xiii]

Oil and gas development's impacts on human rights and democracy

Azerbaijani civil society already in 2006 expressed its increased concerns after the signing of the EU-Azerbaijan Energy Memorandum that the overarching of the EU's energy cooperation agenda will cover over democratisation and human rights protection. Some predictions were made, for example the following: "The current blemishes – problems in the area of democratisation – did not seem to affect the emerging priorities in the bilateral relations [EU-Azerbaijan] in the coming five years."[xiv] Such have been proved to be right.

In addition, full support has been provided by the EU and the US to Azerbaijan's President Ilham Aliev, who they see not as a "dictator" but rather as "the leader of a country with an emerging democracy that has a long way to go to become a healthy democracy"[xv]. This has lead to the situation where President Aliyev has consolidated his authoritarian rule as a result of the March 2009 referendum which eliminated presidential term limits.

Named as Corruption's Person of the 2012, President Aliyev's efforts to obtain western support is working out well. The vote down of report on political prisoners in Azerbaijan at the Parliamentary Assembly of the Council of Europe (January 2013) was considered to be a victory of 'caviar diplomacy' by Azerbaijani human rights groups and has opened opportunities for the Azerbaijani authorities to further crack down on and arrest political activists, including the presidential candidate, as well as the introduction of restrictive laws with respect to freedom of expression, association and assembly. According to the Freedom House, over the last few years Azerbaijan has failed to improve its record and the country's status was again "not free"[xvi] According to a recent report by the Committee to Protect Journalists (CPJ), Azerbaijan ranks among the ten most censored countries in the world, trailing behind nations such as Eritrea and North Korea[xvii].

From May to November 2014 Azerbaijan chaired the Council of Europe and the period was a further harsh continuation of the clampdown on freedom of expression, assembly, and association following the 9 October 2013 elections. In July 2014, Mrs Leila Yunus[xviii] and Mr. Rasul Jafarov[xix], the authors of a report on political prisoners (who at that time totalled 98), were arrested on criminal charges[xx]. This was continued with other prominent human rights defenders: the lawyer Intigam Aliyev[xxi], who has submitted more than 200 cases to the European Court of Justice, was jailed on charges of tax evasion, engagement in illegal business and abuse of authority. The well-known RFE/RL investigative journalist Khadija Ismayilova, who has investigate corruption cases associated with the Aliyev clan over the last decade, was charged with driving someone to attempt suicide.[xxii]

Aside from multiple arrests, since the start of the year law enforcement agencies have frozen the bank accounts of more than 20 local and foreign non-governmental organisations.

Several prominent NGO figures, such as the Institute for Reporters' Freedom and Safety Director Emin Huseynov, Women's Crisis Center Director Matanat Azizova, International Media Support Manager Gulnara Akhundova, and Center for National and International Studies President Leyla Aliyeva have also had to leave the country after facing the threat of arrest on criminal charges.

The situation has become so harsh that in September 2014 the US president Barack Obama specifically pointed out that "In places like Azerbaijan, laws make it incredibly difficult for NGOs even to operate."[xxiii] In parallel, and almost simultaneously, the European parliament passed a statement describing how the human rights climate had worsened over the last five years in Azerbaijan. Some MEPs even called on the European parliament to apply "targeted sanctions against those responsible for human rights violations" in Azerbaijan. The numerous statements on human rights cracks down were made on behalf of the Commissioner for Neighbourhood S. Fule and the High Representative of the Union for Foreign Affairs and Security Policy, Baroness Ashton.

However, in spite of the high level criticism on human rights crackdowns, their impact was increasingly hollow, as engagement with the Azeri government over energy projects continues. Moreover, as a response to criticism from the US and the EU, Azerbaijan arranged parliamentary hearings on 15 January 2015 to look into a number of civil rights issues in the US, including panels on ethnic, racial and religious discrimination, violations of free thought and freedom of the press, and whether lawmakers were applying double-standards in the ongoing Nagorno-Karabakh conflict. Ilham Aliyev himself tweeted that "attempts to tarnish, sully and belittle Azerbaijan, a country that enjoys great authority in the international arena today, are all in vain.[xxiv]"

Huge oil revenues were supposed to result in the flourishing of the Azerbaijani state. However, due to the high level of corruption, the inequity of the income distribution and the dictatorial trends, the situation in Azerbaijan for ordinary people has never improved.

Azerbaijan has claimed that it drastically reduced the national poverty rate from 50% (2000) to 7.6% (2011) as a result of the increased oil revenues in the state budget.

Yet, according to an IFAD report, "More than half of Azerbaijan's poor live in rural areas where poverty is predominant among families with many children living in remote areas, as well as upland or mountainous areas. Rural communities generally have access to sufficient food, but productivity tends to be low and is often exacerbated by rising food prices; poor basic infrastructure, including inadequate irrigation and road access; unreliable drinking water, gas and electricity supply; and declining health and education services."[xxv]

It should be noted that despite the rising wealth the public spending on education has not exceeded 2.8% of the state budget (2010), while national health expenditure is around 3.5% and out of pocket health expenditure accounts for around 89.7%.[xxvi]

Azerbaijan fanfares its oil development through the renovation of the Baku Center. Between 2008 and 2012, as a result of an urban renewal campaign in Baku, thousands of homeowners were evicted from their houses in many parts of the city to make way for parks, business centres and elite residential areas.[xxvii] These evictions became more problematic in 2012 when Baku was starting to prepare for the Eurovision Song contest, and later for the preparation of the first European Olympic Games of 2015.

Thousands of people remain without proper compensation and have lost their properties. As a norm, according to testimony, during the demolition process, "workers typically remove furniture, household goods, and other personal property, placing items on the street or in some cases taking them to a warehouse for owners to recover later. Property owners complained that many of their belongings were damaged, destroyed, or lost during the evictions. Some homeowners were unable to recover personal property that remained in the building as it was demolished." Further, "Dozens of homeowners filed complaints with the courts, but the authorities' repeated failure to appear for hearings has caused these proceedings to be delayed for months at a time. In several cases the

authorities have demolished homes."[xxviii]

According to the Institute of Peace and Democracy[xxix], 60,000 people were deprived of their property during the period 2008-2012, while around 80,000 people were expecting the same fate to befall them from 2014[xxx]. In spring 2014 there were a number of citizens' demonstrations held by people forced out of their houses without adequate compensation.[xxxi]

Against this background, in 2015 Azerbaijan hosted the first European Olympic Games which cost a total of approximately USD 8 billion, while the costs of staging the Eurovision Song contest in 2012 are thought to have been between USD 277 million and USD 721 million, although the announced costs were USD 75.5 million.

According to some media reports, the Aliyev government has allegedly docked the salaries of public sector as an informal tax to pay for the European Games.[xxxii] EurasiaNet.org reported that "Some economists, who spoke on condition of anonymity, allege that the government is forcing employees at some state agencies, such as the tax ministry and State Customs Committee, to take pay cuts to meet these costs. One former Customs Committee employee told EurasiaNet.org that employees already have lost a monthly bonus, an unofficial payment that topped up mid-level officials' salary of 670 manats ($637) per month. The reason cited, he alleged, was the European Games. The payments supposedly will resume after the Games are over, he said."[xxxiii]

While citizens of the country have to pay large sums of money in order to use basic services, such as health care, and resist evictions and shadow taxes, President Aliyev throws vast amount of money at foreign cultural institutions to receive the continuing support of the international community. Such Azeri government beneficence abroad includes the renovation of Strasbourg Cathedral and the Versailles Palace[xxxiv]. A lot of money has also been spend to commemorate Heydar Aliev (Ilham's father and Azerbaijan's first post-Soviet president)[xxxv] through statues in different parts of the world.[xxxvi]

Conclusion

The worsening of the human rights record and the clampdown on human rights and civil society activists in Azerbaijan has continued against the background of expanding cooperation with the EU. This cooperation only supports and strengthens the Aliev regime, while depriving local people of receiving the socio-economic benefits of cooperation with the EU.

The EU, as the Azerbaijan's top trading partner, is the most powerful external actor in the country and should therefore exercise its political leverage towards Azerbaijan by:

- Suspending any type of funding to the Azeri government, whether via the European Neighbourhood Instrument, the European Investment Bank or the European Bank for Reconstruction and Development, until the situation with respect to human rights has improved and those arrested due to political motivations are released.
- Ensuring that any visa facilitation agreement includes measures to ban from entering the EU those directly involved in the harassment of civil society organisations.
- Following up on the instances of harassment by the Azeri authorities on human rights and CSO activists in order to ensure their legal protection.
- Introducing trade and economic conditionalities in dealings with the Azeri government to ensure that the fundamental rights of Azeris are protected.

Notes

i. That is 35 trillion cubic feet. http://www.eia.gov/countries/cab.cfm?fips=AJ
ii. Caspian Oil and Gas mitigating Political risks for Private participation, http://lnweb90.worldbank.org/eca/eca.nsf/Attachments/Caspian+Oil+and+Gas/$File/prague2000a.pdf
iii. http://www.eia.gov/beta/international/analysis.cfm?iso=AZE
iv. http://www.bp.com/en_az/caspian/operationsprojects/Shahdeniz/SDstage1.html
v. JOINT STAFF WORKING DOCUMENT Implementation of the European Neighbourhood Policy in

Azerbaijan Progress in 2014 and recommendations for actions , Implementation of the European Neighbourhood Policy in 2014 ,/* SWD/2015/0064 final *, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015SC0064

vi. http://www.bp.com/en_az/caspian/press/pressreleases/New-contract-for-Shah-Deniz.html

vii. Food-for-thought paper: Azerbaijan, Leila Alieva is an Academic Visitor at St Antony's College, University of Oxford. She was previously a political analyst based in Baku, Azerbaijan.http://www.ecfr.eu/article/commentary_azerbaijan3023

viii. IBId

ix. http://eeas.europa.eu/enp/pdf/pdf/country/enpi_nip_azerbaijan_en.pdf

x. http://europa.eu/rapid/press-release_SPEECH-10-402_en.htm

xi. https://ec.europa.eu/europeaid/sites/devco/files/nip-azerbaijan-2011-2013_en.pdf

xii. Joint staff working document Implementation of the European Neighbourhood Policy in Azerbaijan Progress in 2014 and recommendations for actions, SWD/2015/0064 final *, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015SC0064

xiii. http://eeas.europa.eu/enp/pdf/2015/azerbaijan-enp-report-2015_en.pdf

xiv. http://www.ecologic-events.eu/hertie-school-2008/reading_lists/download/Aliyeva_eu_south_caucasus.pdf

xv. in 2012 to Matt Bryza, an official with the U.S. Department of State, stated that US " We don't see Ilham Aliyev as a dictator. We see him as the leader of a country with an emerging democracy that has a long way to go to become a healthy democracy. http://www.ibtimes.com/azerbaijan-repressive-corrupt-country-west-loves-there-must-be-oil-704066

xvi. https://freedomhouse.org/country/azerbaijan

xvii. http://www.voanews.com/content/human-rights-crackdown-intensifies-in-azerbaijan/2730309.htmlThe husband of Leila Yunus was also arrested and charged for 8.5 years in August 2015

xviii. Rasul Jafarov, founder of the Human Rights Club and the organiser of the 'Sing for Democracy' campaign during 2012's Eurovision song contest in Baku was sentenced to six and a half years in jail.

xix. http://eap-csf.eu/assets/files/List_of_Political_Prisoners_AZ-(2)-(1).pdf

xx. In April 2015 Intigam Aliyev has sentence to seven and half year in prison.

xxi. The Reporting That Jailed Khadija , http://www.rferl.org/content/azerbaijan-corruption-investigator-khadija-ismayilova/27138496.html

xxii. http://www.meydan.tv/en/site/news/3191/Obama-mentions-Azerbaijan-in-his-speech.htm

xxiii. http://foreignpolicyblogs.com/2015/01/20/azerbaijan-to-us-what-about-human-rights/

xxiv. http://www.ifad.org/operations/projects/regions/pn/factsheets/azerbaijan_e_web.pdf

xxv. World Bank data, http://data.worldbank.org/country/azerbaijan

xxvi. HR report, "They Took Everything from Me"

xxvii. Forced Evictions, Unlawful Expropriations, and House Demolitions in Azerbaijan's Capital, https://www.hrw.org/report/2012/02/29/they-took-everything-me/forced-evictions-unlawful-expropriations-and-house

xxviii. IBID

xxix. Led by Leyla Yunus

xxx. http://kavpolit.com/articles/bakinskaja_politsija_presekla_aktsiju_protesta-1279/

xxxi. http://kavpolit.com/articles/bakinskaja_politsija_presekla_aktsiju_protesta-1279/

xxxii. http://www.ibtimes.co.uk/baku-2015-azerbaijan-government-docking-staff-pay-fund-bloating-european-games-costs-1505670

xxxiii. http://www.eurasianet.org/node/73216

xxxiv. http://platformlondon.org/2013/05/16/even-oil-dictators-need-a-social-license-to-operate/

xxxv. Heydar Aliyev, ruler of Soviet Azerbaijan and former head of the KGB became president for a decade following a coup in 1993.

xxxvi. Turkey, Georgia, Egypt, Iraq, Uzbekistan, Kyrgyzstan, Russia, Ukraine, Serbia, Romania and Moldova. https://goo.gl/q3fGgp

Case study: Egypt

Since 2010, Egypt has suffered from a shortage of electricity, a shortage that has caused large losses in production. Over the past five years, Egypt's annual energy production grew on average by 1% compared to annual average consumption growth of 5.3%, constituting an increasing gap between supply and demand. Egypt also has a population growth average of 2% per annum and a rate of 2.2% in 2014. Predictions based on BAU (Business As Usual) scenarios predict that Egypt's domestic demand will reach 287.566 GWh to 2030 compared to 150.000 GWh in 2014. Despite a slowdown in economic growth in 2011-2013, the rise in demand was mainly driven by high rates of population growth and distorted price signals.

On top of the energy shortage, Egypt is facing food insecurity and may soon have close to 100 million people struggling to meet their basic needs for food and water[i]. In 2013, fuel subsidies in Egypt accounted for 7% of GDP (with a total government deficit of 12% of GDP)[ii].

The North Giza Power Plant II was first proposed in June of 2011 as part of the effort to fill this gap. Funded by the European Investment Bank and the World Bank, and managed by the Egyptian Electricity Holding Company, the application of Combined Cycle Gas Turbine technology is claimed to be energy efficient, eco-friendly and community inclusive. But these are claims which the local community and the field surveys strongly dispute.

Investments in Egypt from the EIB

The involvement of the EIB – among many others – has gained a great deal of momentum since the Arab Spring and the countless uprisings that took place in several countries in the region. The bank's increased involvement was considered a part of the European Union's attempts to support democratic and social transitions in southern neighbouring countries. Yet European involvement has been uncoordinated and inconsistent.

Some of these investments were made in Egypt during a transitional period in which the government was an unelected government of military nature, continuing at a time of a controversial theocratic government and they have persisted during an alleged military coup and a totalitarian government. Those investments, although free of political affiliation and only intended to support economic growth and democratic transition, are nonetheless constantly and systematically used to rally and support oppressive governments. Moreover, based on their core content, objectives and methodology, these investments are also worthy of criticism. Even though the mandate of the EIB includes "to achieve social and environmental goals beyond the financial bottom line", the bank has actively taken part in investing in a number of very controversial projects which have had great

implications on the environment and the local communities, the North Giza Power Plant project being one of them.

Egypt has huge potential for solar energy[iii], but currently the share of solar in energy production is only 0.14%. In the period 2007-2014 the EIB invested EUR 1.6 billion, with 97%of this total supporting fossil fuel projects. Other power plants financed by the bank, such as the Damanhour power plant, also present structural problems in relation to environmental pollution and inadequate compensation for involuntary resettlement. Another public institution in which the EU has a substantial influence, the European Bank for Reconstruction and Development (EBRD), has also focused in Egypt on fossil fuel projects and has invested in the conversion of two existing power plants to combined cycle with the potential to burn coal: Damietta West (500mW) and El Shaba (1000 MW).

Viability of the power plant

Combined Cycle uses natural gas as a source for powering the station, and although rich in natural gas reserves, Egypt has struggled to find investors willing to extract gas from the reserves since 2011. An issue that raises serious concerns is the effectiveness of the power station and the amount of energy that will be produced in reality compared to the 1500 MW that is planned from the power station.

In fact, in 2014, the Egyptian government cut the gas supply from a number of agricultural and industrial facilities to ensure an adequate amount of gas would be pumped into electric power plants to momentarily calm the anger that had been rising due to the power shortage crisis. According to World Bank reports, the first part of the power plant was completed in February 2015 but could not operate for some time due to gas shortages. Now commissioned turbines are operating on both solar, oil and natural gas to provide peaking power[iv]. Furthermore, the projected rising prices of natural gas are steadily causing inflation in the prices of basic goods and commodities, which makes the decision to continue using natural gas questionable to say the least.

Khairallah Basin

The Khairallah Basin land, spread over 250 acres, lies within the borders of the villages of Atta and Abou, both in the Imbaba district in the Giza governorate, one of the poorest governorates in north Egypt. It is surrounded by the Rosetta canal from the east and by the El-Reyyah El-Beheiry canal. The location is very rich in water resources, one of the main reasons the location was picked for the project. For its vast wheat farms, Khairallah Basin was historically called 'The Lake of Gold'. As signs of life and prosperity, land as far as the eye can see is filled with all kinds of produce: mangos, corn, grapes and oranges. The people of the Khairallah Basin depend on agriculture for their bread and butter, not only as a source of income, but also as their main food source.

Acquiring the land

The project covers 72 acres of fertile agricultural land in the Nile Delta, even though due to water scarcity agricultural land constitutes only 3.5 per cent of Egypt's territory. A real estate agent working on behalf of Prince Khaled Ibn Sultan sold the land to the Egyptian Electric Holding Company in 2009. The contract is not available to the public, however, some of the residents of the area, especially those directly linked to the land, claim that the land was sold for $85,000/acre at a time when the land was valued at $25,000/acre. The land was chosen based on its proximity to freshwater, which is vital for the cooling system in the power plant.

European funds and Egyptian regulations

The North Giza Power Plant, much like all Egyptian projects funded by European and foreign entities, is subject to Egyptian environmental regulations, which are extremely lenient compared to European standards. In practice, the absence of an effective executive law means that these regulations are feeble in the case of violations. Since the beginning of the project, residents in the area flagged issues related to water and land rights, environmental pollution, loss of livelihood, inappropriate compensation and involuntary resettlement, both with the government as well as

with the project funders. The environmental impact assessment (EIA) however, conducted by the Engineers Consultants Group (ECG), does not reflect any of those impacts. It also does not reflect the EIB's transparency policy.

"The EIB is committed to open communication and encourages constructive stakeholder input regarding its activities." EIB website.

The policies of the EIB were set forth to protect vulnerable communities in developing countries to ensure the sustainability of development projects. But, in reality, the residents of Khairallah Basin say the procedures for issuing the EIA were in fact manipulative and misleading. According to statements from the area's residents, the ECG only involved the residents of El-Katta village who are not directly affected by the project – the subjects for community engagement were specifically selected according to their remoteness to the project and its impacts. Furthermore, when contacted by the affected community, two meetings were arranged between the residents of the area and the Egyptian Electric Holding Company, where residents presented their case and some negotiations took place. On July 21, 2012, a decision was made to draft a new protocol to regulate and structure the process of assessing the social and environmental impacts of the project for the community.

Soon after, representatives from the entities operating the project, who were in direct contact with the community, were no longer communicating with or accepting input from the residents. As a result, there was no follow up on the protocol.

The World Bank Inspection Panel acknowledged in 2013 that the project resulted in harm to the community and recommended that these impacts be addressed and resolved by the World Bank's management. The case was left open for further investigation should new evidence be presented. Thus far, affected communities state that their concerns have not been adequately addressed and that the harm suffered has not been properly compensated.

Environmental and social impacts

As previously mentioned, the Khairallah Basin is a community that is rich in resources. However, the EIA describes the aquatic environment in the area as that of 'fair water quality'. It also completely overlooks artesian water, even though artesian water is a crucial source of water in the area. Moreover, the artesian water has already been exploited in the construction process, which is a severe violation of the Land and Environmental law, considering the project is only permitted to use water from the El-Reyyah El-Beheiry canal.

The exploitation of artesian water has already resulted in the degradation of underground water, the main source of irrigation for a notable group of farmers in the area – this subsequently reduced the amount and quality of crops and in some cases completely destroyed acres of agricultural land. In addition to the losses in crops and water resources, the residents that mainly rely on agriculture will endure great costs to restore the quality and productivity of their land.

Furthermore, residents have claimed that during the construction of the project a large number of acres were illegitimately seized, a portion belonging to private individuals and a portion belonging to the state. The tall fence built around the construction has severely harmed the land surrounding the project due to the blockage of sunlight for the land and wind channels that facilitate the pollination process. The agricultural drainage channel has also been taken over and used with complete disregard for the regulating provisions for its use, resulting in the retention of agricultural waste water, a crucial process that maintains the acidity of the soil and substantially affects the quality of the soil and the crops. It is worth noting that the latest official World Bank Resettlement Plan (Vol. 04) mentions that the project will not require any forced relocation of community members, a statement that has clearly been refuted by the state and its treatment of some community members who have had to physically relocate.

Finally, the residents of the area, mainly farmers, are highly sceptical about the estimated environmental degradation resulting from the project in the operations phase. Expected emissions are in fact higher than is claimed by ECG and there are also concerns regarding the location and

the health and environmental impacts of the electricity transmission lines. Finally, even though the project clearly states the presence of a wastewater treatment plant, the wastewater of the construction site is indeed polluting water resources in the Khairallah Basin, whether artesian water, underground water or in the El-Reyyah El-Beheiry canal, a catastrophic violation of agricultural community rules.

The aforementioned violations have, naturally, resulted in outrage from a community whose main resources are being unsustainably drained for the sake of the grid.

One of the main social violations resulting from the project is the dismissal of land tenants who resided and worked on the land for up to four decades. These tenants were evacuated without proper compensation.

The EIB is subject to the standards set forth by the European parliament, which are clear and decisive. What the EIB lacks, in substantial measure, is transparency and accountability. The European parliament is said to have limited prerogatives to guide the bank and ensure its operations do in fact correspond to key European policy objectives. And even though EU citizens act as direct investors in the EIB through tax payments, accountability towards EU citizens is under fire for being too weak, let alone accountability towards affected communities.

The EIB's transparency policy and the World Bank's Environmental and Social Framework both include generic guidelines. Those guidelines, although necessary, are ineffective due to a lack of executive regulations. The EIB's Transparency Policy includes the following guidelines; "Openness" and "Willingness to listen and engage". Article 2.2 states:

"Transparency also contributes to increasing the efficiency, effectiveness and sustainability of the Group's operations, reinforcing its zero-tolerance approach on fraud and corruption, ensuring adherence to environmental and social standards linked to financed projects, and promoting accountability and good governance."[v]

And the World Bank's Environmental and Social Standard Framework includes similar articles that lack executive force; article 12 in the Pollution Prevention section states:

"12. To address potential adverse project impacts on existing ambient conditions, the Borrower will consider relevant factors, including, for example: (a) existing ambient conditions; (b) the finite assimilative capacity of the environment; (c) existing and future land use; (d) the project's proximity to areas of importance to biodiversity; and (e) the potential for cumulative impacts with uncertain and/or irreversible consequences."[vi]

Projects funded by the World Bank more often than not defy those two articles, and both the EIB's transparency policy and the World Bank's Environmental and Social Framework. This is an issue that will persist as long as the funding institutions pass the burden of application of the regulations on to local partners without due supervision.

Community efforts to combat the violations

Since the beginning of the construction phase of the project, the community in Khairallah Basin, together with some of local NGOs, has exerted an enormous effort to voice its concerns and to bring attention to the violations which have occurred in their local community.

A letter was sent to the World Bank in May 2012, informing the bank of the violations that had already occurred and of the fear that has nested in the Khairallah Basin about the possible impacts of the project on their community. As previously mentioned, a meeting took place in July 2012, in which a new protocol emerged to regulate and structure the process of assessing the social and environmental impacts of the project on the community. After the absence of a follow up mechanism for the protocol, a new complaint was submitted in February 2013 to the World Bank with the help of a number of civil society institutions. Yet no changes took place in the Khairallah Basin and the request lodged in the last complaint for an inspection committee was overlooked.

The community is now left to face the violations without assistance from the EIB, the World Bank or the Egyptian government.

Khairallah Basin, one of many

The case of the affected communities in Khairallah Basin is representative of that of many marginalised communities in Egypt. These communities are only considered as result of their vital resources and their rights to their local resources and ecosystems are neglected. The government stands helpless in the face of major investment projects and the vital need to fill the energy gap. The government's passive position in this case and in many similar cases raises the question of government sovereignty vis a vis international funding institutions, and in fact raises important questions about the efficiency of the social and environmental regulations.

One of the most glaring issues is the lack of community involvement in decision-making. Even though EIAs are required to involve the local community, more often than not institutions conducting EIAs use dishonest measures to fabricate said reports. A strict follow-up system for community involvement is a necessary measure to ensure community involvement in the process of initiating projects and assessing their real impacts on local communities.

The role of the Environmental Ministry and affiliated entities, including the Egyptian Environmental Affairs Agency, needs redefining and strengthening. Overlapping executive powers and a lack of coordination between different governmental institutions – as in the case of Khairallah Basin – eventually lead to ineffectiveness in the face of the established entities that are often the cause for such violations.

Another issue raised concerns resource management policies in Egypt. At a time when water resources are rapidly depleting, and food security and sovereignty is becoming an increasingly troublesome issue, a change in the resource management strategy is crucial if the government's economic and sustainable development strategies are to be successfully and fairly pursued.

Notes

i. See more at: http://www.futuredirections.org.au/publications/food-and-water-crises/1826-death-on-the-nile-egypt-s-burgeoning-food-and-water-security-crisis.html#sthash.eNYRJ6Gf.dpuf
ii. http://www.rcreee.org/sites/default/files/egypt_fact_sheet_re_print.pdf
iii. Egypt's profile includes direct normal radiation at 2200 and 2400 kWh/m2 which is more than double the direct normal radiation estimated as between 800 and 1000 kWh/m2 in Germany, where 5.3% of the consumption of 560 TWh in 2013 equivalent to 29.7 TWh was generated from photovoltaic systems.
iv. The World Bank Implementation Results Report EG-Giza North Power Project (P116194)
v. EIB Group Transparency Policy, European Investment Bank, 2015. Accessed from: http://www.eib.org/attachments/strategies/eib_group_transparency_policy_en.pdf
vi. World Bank, World Bank Environmental and Social Framework, World Bank, 2014. Accessed from: http://www.worldbank.org/content/dam/Worldbank/Event/ECA/central-asia/environmental-and-social-standard-framework-en.pdf
vii. Archives of field visits conducted by the Egyptian Association for Collective Rights in Khairallah Basin, 2012-2014.
viii. Bankwatch, EBRD and EIB Energy Investments in Egypt review, Bankwatch.
ix. Egyptian-German Joint Committee on Renewable Energy, Energy Efficiency and Environmental Protection Impact, Impact of Energy Demands on Egypt's Oil and Gas Reserves, JCEE and gtz, 2010. Accessed from: http://www.jcee-eg.net/libdetails.asp?typeID=2
x. Engineers Consultancy Group, Environmental and Social Impacts Assessment, Egyptian Electricity Holding Company, May 2011. Accessed from: http://www.eib.org/attachments/pipeline/20110096_nts_en.pdf

Case study: Tunisia

Since 2000 Tunisia[i] has had a structural deficit in its energy balance. It increased from 1.7 Mtoe[ii] in 2012 to 2.5 Mtoe in 2013 and totalled 3.07 Mtoe in late October 2014, which reflects the inability of natural resources to meet the energy needs of the country's population.

This deficit is due to several reasons, especially decreased gas and oil production, strong industrialisation and an increased quantity of household equipment driving energy demand up by 11% from 2012 to 2013.

The Tunisian energy mix[iii] depends strongly on fossil fuels, which represents its largest share in primary energy consumption[iv] at 97%.[v]

In 2014, Tunisian crude oil production covered 65% of the demand for fossil fuels in the country, and the remainder was imported.

The oil sector remains sensitive to global price changes, given that Tunisian oil production is small and requires significant investments for its development. The fall in oil prices from USD 110 to USD 60 in November 2014 (a decline of over 45%) had a significant impact on the sector.

The gas sector, meanwhile, is the most significant, and sometimes the exclusive, energy source used by power plants. More than 96% of Tunisia's electricity is produced by natural gas.

Domestic natural gas production only covers 45% of the demand. The rest comes from Algeria, 49% of which is purchased natural gas (part of which is imported from Algeria at international prices) and the tax package in kind from the Trans-Mediterranean Pipeline from Algeria to Italy via Tunisia. Five percent of the supply comes from a tax levy in kind supplied by the oil companies to the state as compensation for the operation of natural gas leases. This[vi] demonstrates a strong dependence on natural gas from Algeria.

Compared to 2013, 2014 domestic natural gas production fell with lower payments in kind and imports from Italy, which forced the state to look for new investments in research and development for new extraction operations, especially in unconventional hydrocarbons such as shale oil and gas.

The share of renewable energies for total energy production increased from 2% at the end of October 2013 to 3% at the end of October 2014 because of the start-up of the second phase of the "Mateline-Kchabta" wind farm. But production remains low.

Forecast for 2030

The Tunisian strategy is to increase the share of renewable energies (excluding hydro) for electricity production from around 2% in 2010 to 30% by 2030 (excluding hydro), compared to a baseline scenario of 5%. The renewable energy mix will include wind (15%), photovoltaic (PV) (10%) and concentrated solar power (CSP) (5%)[vii, viii]. The fossil fuels will include natural gas, oil and coal (American).

The EBRD's entry into Tunisia

Starting in 2011, the European Bank for Reconstruction and Development (EBRD) decided to expand its activities to the Southern and Eastern Mediterranean; its shareholders approved the expansion of the bank's mandate to four countries belonging to the Southern and Eastern Mediterranean (SEMED) region: Egypt, Jordan, Morocco and Tunisia. Two years later, Tunisia was granted the status of Country of Operations, and, in June 2013, a permanent EBRD office was opened.

Of the investment projects embarked upon so far by the EBRD in Tunisia, projects in the energy sector make up 21% of the total EUR 280 million invested by the bank up to January 2014[ix,x].

On 23 July 2013, the EBRD decided to grant a loan of USD 60 million to Serinus Energy. The EBRD supported Serinus's multi-year investment program in Tunisia for the development of four exploitation sites for natural gas and oil that were acquired in 2013. The financing consists of two loans:

- a USD 40 million senior loan
- a USD 20 million convertible loan that can be converted into company shares based on performance targets.

This loan provides financing for the development of four natural gas and oil exploitation sites in Tunisia (Sabria, Chouech Essaida, Ech Chouech and Sanghar) between 2013 and 2017. It will finance an ongoing drilling program over several years, including the stimulation of existing wells and the drilling of new production wells, guaranteeing the availability of drilling platforms and dedicated maintenance. The objective is to effectively increase production and consolidate the company's position among the other major players in Tunisia's oil and gas sector.

This financing follows earlier EBRD financing of Serinus in Ukraine. The EBRD justifies this financing thus: "supporting the continued development of a small private independent company in Tunisia". Yet this is far from being the case.

Serinus Energy, the company receiving the loan,is presented in the Project Summary Development (PSD)[xi] of the EBRD as a medium-sized "private independent company". It was formed by the reorganisation of Kulczyk Oil Ventures Inc ("KOV"). During the first quarter of 2013, Kulczyk Oil reported doubling its net profit. Serinus could therefore obtain financing from the market or local banks. This demonstrates the improperness of this loan from the EBRD, which is after all a development bank.

The Serinus project is also in total contradiction with the EBRD's strategic priorities in Tunisia, which are to support the development of energy efficiency and sustainable energies.[xii] It does not provide any real support for renewable energy, and the bank continues to support projects that aim to strengthen capacities and the security of energy supplies to Europe.

The Serinus project is the only project financed so far by the EBRD in the country's energy sector; in Tunisia its support has so far been focused on the financial sector, on European companies located in Tunisia or on Tunisians creating jobs in Europe.

The investment provisions of the project give rise to negative consequences for economic, social and environmental rights, all of which are described in this report.

Political situation

After the revolution, which caused the overthrow of the dictator Zine El Abidine Ben Ali, a National

Constituent Assembly (NCA) was formed to write a new constitution to answer the call for the freedom and equality of the Tunisian people. Article 13 of the new Tunisian Constitution, adopted in January 2014, gives a say to the Assembly of the Representatives of the People (ARP) on contracts related to natural resources. Contracts must be submitted to the Energy, Natural Resources, Basic Infrastructure and Environment Committee to ensure the people's sovereignty over the nation's natural resources and to work towards social justice through the equitable distribution of income between regions.

Article 13 states: "Natural resources belong to the people of Tunisia. The state exercises sovereignty over them in the name of the people. Investment contracts related to these resources shall be presented to the competent committee in the Assembly of the Representatives of the People. The agreements concluded shall be submitted to the Assembly for approval."[xiii]

In July 2014, deputies used this constitutional article and the Energy Committee rejected two oil contracts that had been awarded to two multinationals (Perenco and British Gas). According to a report by the Court of Auditors, the companies in question did not meet their contractual obligations.

EBRD financing is involved in a project that is controversial and includes the exploitation of shale gas. Several demonstrations and protests have also been held in Tunisia protesting the allocation of a license for the exploration and exploitation of shale gas in the region of Kairouan (Centre) by Shell. A sit-in even took place in front of the Ministry of Industry and Commerce[xiv] as well as a protest at the National Constituent Assembly (ANC) in Bardo.[xv]

Several demonstrations[xvi] have taken place at the National Constituent Assembly to oppose the exploitation of shale gas as well as unconventional hydrocarbons in general. The issue was debated at the plenary session of the National Constituent Assembly in 2013 and 2014. A draft law on hydraulic fracturing was proposed by deputies on 7 February 2014[xvii], with the support of civil society, to prohibit the exploitation of shale gas by hydraulic fracturing.

However, under the guise of an economic emergency and the energy deficit that would burden the state, the Tunisian government has twice tried to reform the hydrocarbon code in order to introduce provisions to allow hydraulic fracturing. Nevertheless, given the importance of the issue, careful consideration must be undertaken and that should include all aspects.

Socio-economic impacts

Taxation of the energy sector and the tax revenues of the Serinus project for the Tunisian state

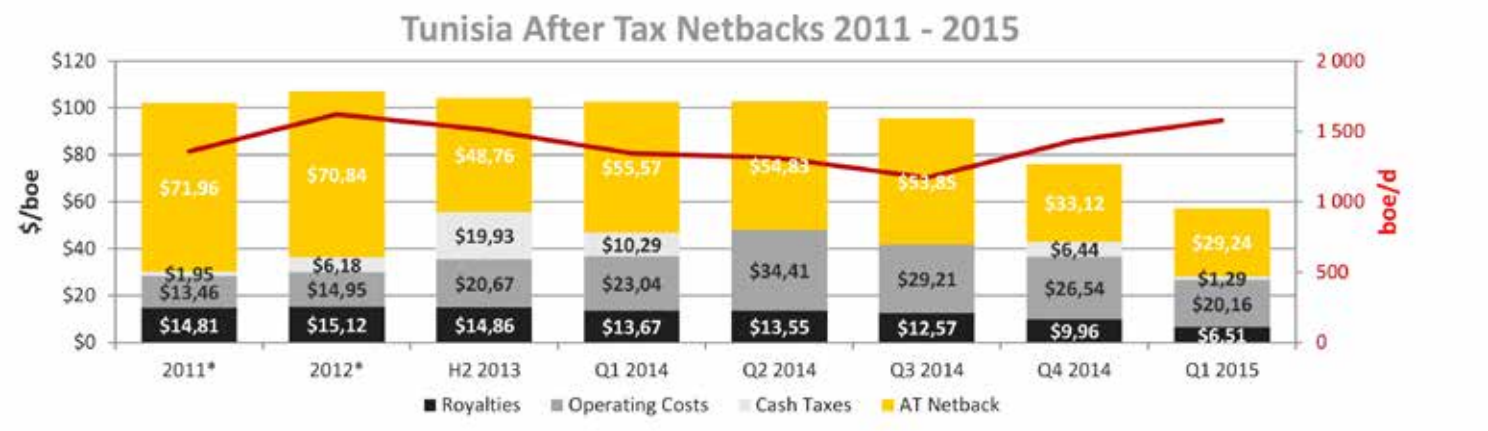
The concessions involved in the Serinus' development project for which the EBRD has provide funding are listed in the following table (characteristics of concessions as of May 2015)[xviii]:

Working interest	Expiration date	Type of production	Oil/liquids royalty	Gas royalty	Income tax
45% (55% to ETAP[xix])	09/2028	Oil and gas	2%-15% (based on R-factor)	2%-15% (based on R-factor)	50%-75% (based on R-factor)
100%	12/2027	Oil and gas	15%	15%	35%
100%	05/2022	Oil	15%	15%	35%
100%	01/2022	Oil	12.5%	12.5%	55%

The Sabria concession, the only concession shared between Serinus and the Tunisian Company of Petroleum Activities (ETAP), follows a specific tax regime specific to production sharing which sets the income tax rate and the fee based on the factor-R. This ratio represents the profitability of the site and is calculated by the ratio of net income and net cumulative project expenses. So, the more profitable the project is, the more the state's income increases. However, the company

continues to own up to 100% of three fourths of the concessions (Sanghar, ChouechEssaida and EchChaouech), which has a concession tax regime with the payment of royalties at a low and fixed percentage, regardless of profitability and the price of oil.

The graph[xx] on the tax netbacks of Winstar, the previous owner of the concessions in 2011 and 2012 as well as Serinus from 2013, clearly shows the unequal distribution of income in favour of the operating company compared to the state. We see no real benefit to Tunisia since three quarters of the concessions covered by the EBRD loan are up to 100% owned by Serinus which pays a low rate of royalties and income taxes. Low profits have been recorded by the Tunisian state given the very favourable tax conditions granted by the hydrocarbons code. It is therefore not necessary to encourage investments in this sector due to its economic attractiveness.

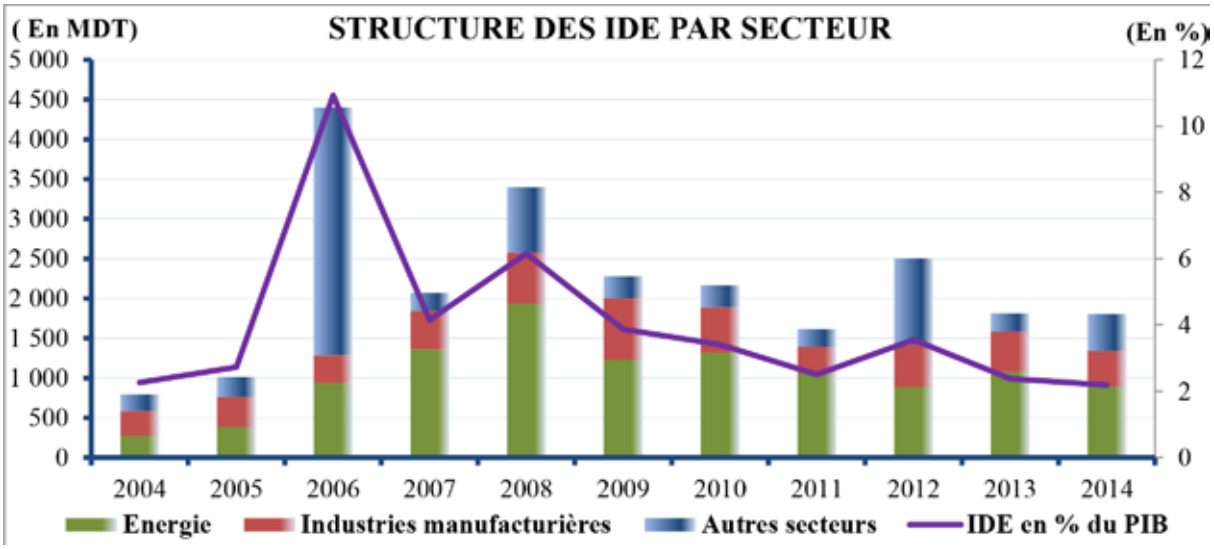


Job creation assessment

Foreign Direct Investment (FDI) in the energy sector constitute the largest type of investments in Tunisia and represent 60% of FDI for 2013.[xxi] The EBRD investment represents 11% of the usual FDI flows in the Tunisian energy sector in 2013.

An article by the Observatoire Tunisien de l'Economie[xxii,xxiii] revealed that incentives in the mining sector are the highest and they have no significant impact on growth, employment or investment.

Foreign direct investment flows into Tunisia by sector[xxiv]



Similarly, the workforce employed is not qualified and has an unstable employment situation. For

example, employment contracts for the Sabria concession, which are only temporary contracts, fall under the framework of an exploration campaign or other campaigns lasting only a few months (three months) and are poorly paid (about EUR 500 gross per month).

Several social movements were organised by the Tunisian trade union UGTT with two southern Tunisian concession owners[xxv,xxvi]. Sit-ins were reported by the employees of Sabria and its surroundings[xxvii] as part of a campaign called "Winou El petrole"[xxviii] demanding more transparency from the state regarding natural resources and the equitable distribution of income. The EBRD strategy in Tunisia, which aims to provide financing to private companies for job creation, is not being respected. It is permissible to question the project's impact on job creation in Tunisia, which does not in fact appear to be one of the EBRD's priorities.

Environmental impact

The EBRD announced on its website the works financed by its loan. However, it somehow neglected to mention the presence of shale gas discoveries by the four concessions they financed. Indeed, a potentially significant source of non-conventional shale was identified. In September 2012, a resource evaluation of the different concessions by Nutech Energy Alliance, Houston showed that the Tannenzuft formation that belongs to the four concessions contains shale gas that is equal to or better than other shale gas formations in the United States.[xxix]

It should also be noted that KulczykOil – owner of Serinus – is already active in hydraulic fracturing in Ukraine.[xxx] KOV had even proposed to undertake a short-term development program in Tunisia including well stimulation and horizontal wells in order to increase production.[xxxi]

Shale gas extraction, however, could have disastrous consequences in a country like Tunisia, which faces severe water shortages[xxxii]. Furthermore, one of the concessions is located in a sensitive area that is the only potential hydrological source in the region (Algeria, Tunisia, Libya) and has been recommended to UNESCO[xxxiii] for inclusion on its list of World Heritage Sites. The development of hydraulic fracturing could cause irreversible damage to the region's groundwater. Shale gas is extracted using hydraulic fracturing. This highly controversial technique is banned in some countries such as France[xxxiv] and Bulgaria as well as in New York State. A moratorium on the production of shale gas by hydraulic fracturing has been put in place in Canada[xxxv], Germany, Romania and the Netherlands[xxxvi].

It is clear that a project involving hydraulic fracturing can have extremely dangerous repercussions on plants, animals, water quality and public health in the region as well as for the country.

Despite the concerns voiced and letters addressed by Tunisian civil society and Bankwatch on 2 July 2013[xxxvii] to the bank's board of directors challenging the loan, the EBRD validated the loan and deemed it to be a Category B project. This project category means that potential impacts are not considered serious enough to necessitate an environmental or social impact study.

Conclusions and recommendations

The investments made by the European public banks the EIB and the EBRD in the energy sector from 2007 to 2014 have focused exclusively on cost-effective projects that support the development of fossil fuels, as is the case for the Serinus project.

The Serinus project is the only project financed by the EBRD in the energy sector, and its support for Tunisia is moving towards the development of fossil fuels. This is in total contradiction with its strategic priorities that it established in Tunisia to support the development of energy efficiency and sustainable energies. The bank has not shown any real desire to support sustainable energy. The European financial institutions continue to support projects aimed at capacity building and the security of energy supply to Europe, which imports more than 60% of its gas and over 80% of its oil[xxxviii].

It has been shown that in Tunisia the energy sector – chiefly the fossil fuel industry – receives the most FDI and this FDI receive support from the state through tax benefits and regulations.

However, this sector does not provide a large added value in terms of job creation and instead only creates unstable and short-term employment. For this reason, the financial impact of these banks on job creation in Tunisia should be called into question. The revolution in Tunisia was triggered by the desperate gesture of a jobless citizen. It is therefore key that European development banks respond to this demand and finally provide financing to projects that will have a real impact on society and job creation in areas such as agriculture, the service industry and energy types which will create qualified jobs.

Furthermore, negative environmental impacts can result from oil and gas projects, as is the case with the Serinus project financed by the EBRD. Tunisia, which is one of the driest countries in the Mediterranean, suffers from high water scarcity. The national economy depends heavily on irrigation-based agriculture, which represents 30-40%[xxxix] of total agricultural production, which uses around 80% of available water resources. This fact strongly links food security to the availability of water for a continually growing population. Thus, authorising the exploitation of shale gas and developing hydraulic fracturing could have disastrous consequences on the availability of water and pollute the abundant groundwater in the drilling areas.

Given these concerns, we recommend a change of strategy which includes the European public banks investing more heavily in the renewable sector and making it a priority. This will help Tunisia and the Tunisian government will reach its energy objectives, support the diversification of the country's energy mix, reduce CO2 emissions, shrink dependence on fossil fuels (mainly gas) and promote decentralised energy.

Notes

i. All figures given in this section are the official figures provided by the Tunisian Ministry of Industry, Energy and Mines in its annual publication Energie (December 2014): http://www.tunisieindustrie.gov.tn/upload/download/revue_energie/revue-energie-dec2014-fr.pdf
ii. Mtoe: Million tons of oil equivalent, unit of measure.
iii. The energy mix is the share of each primary energy source in the production of final energy (which is involved in the coverage of the final energy demand).
iv. Primary energy source = unrefined energy like oil, gas, coal and renewable energy (wind, sun, water, biomass) and final energy = an energy source that has undergone a transformation to be ready to be used by the consumer as electricity, fuel, bottled LPG, city gas, etc.
v. Observatoire Tunisien de l'Economie http://economie-tunisie.org/fr
vi. Observatoire Tunisien de l'Economie http://economie-tunisie.org/fr
vii. http://www.anme.nat.tn/fileadmin/user1/doc/DEP/Rapport_final__PST.pdf
viii. Observatoire Tunisien de l'Economie http://economie-tunisie.org/fr
ix. http://economie-tunisie.org/fr/observatoire/infoeconomics/2012-2014-premier-bilan-berd-en-tunisie
x. Observatoire Tunisien de l'Economie http://economie-tunisie.org/fr
xi. Project Summary Document: http://www.ebrd.com/work-with-us/projects/psd/serinus-energy.html
xii. http://www.ccmm.qc.ca/Documents/presentations/2013_2014/02-04-14_1_vision_strategique_et_occasions_d_affaires_en_tunisie.pdf
xiii. http://mjp.univ-perp.fr/constit/tn2014.htm
xiv. http://directinfo.webmanagercenter.com/2012/11/07/manifestation-contre-le-gaz-de-schiste-a-tunis-photos/
xv. http://www.tunisienumerique.com/tunisie-manifestation-devant-lanc-contre-lextraction-du-gaz-de-schiste/148895
xvi. http://www.businessnews.com.tn/Tunisie-%E2%80%93-La-soci%C3%A9t%C3%A9-civile-r%C3%A9clame-un-moratoire-sur-l%E2%80%99exploitation-du-gaz-de-schiste-(vid%C3%A9o),520,34431,1
xvii. http://www.facebook.com/MabroukaMbarek/photos/a.478875662155430.98975.275166829192982/701529449890049/
xviii. http://media.serinusenergy.com/file/mediakit/701094/6c/sen_corporate_presentation_may_2015.pdf
xix. ETAP: Entreprise Tunisienne d'Activité pétrolière

xx. http://media.serinusenergy.com/file/mediakit/701094/6c/sen_corporate_presentation_may_2015.pdf
xxi. http://www.bct.gov.tn/bct/siteprod/documents/Balance.pdf , page 25.
xxii. http://economie-tunisie.org/fr/observatoire/visualeconomics/couts-incitations-investissements
xxiii. http://economie-tunisie.org/fr/observatoire/analysiseconomics/bilan-incitations-investissements-tunisie
xxiv. http://www.bct.gov.tn/bct/siteprod/documents/Balance.pdf , page 28.
xxv. http://www.stockhouse.com/news/press-releases/2015/06/01/serinus-energy-inc-tunisia-operational-update-at-sabria-field
xxvi. http://www.winstar.ca/documents/2013/News%20Releases/WIX-2013-05-09.pdf , page 1.
xxvii. https://blogs.mediapart.fr/blog/dianerob/230715/l-extraction-petrogaziere-dans-le-sud-tunisien-visite-el-faouar
xxviii. https://www.opendemocracy.net/hannah-pannwitz/%E2%80%9Cwinou-el-p%C3%A9trole%E2%80%9D-oil-and-accountability-in-tunisia
xxix. http://www.ogj.com/articles/2012/09/winstar-sees-gas-potential-in-tunisian-hot-shale.html
xxx. http://www.platts.com/latest-news/naturalgas/London/Polands-Kulczyk-completes-first-ever-Ukraine-8538924
xxxi. http://www.winstar.ca/documents/2013/News%20Releases/WIX-2013-04-25.pdf
xxxii. http://economie-tunisie.org/fr/observatoire/analysiseconomics/mensonges-sur-le-gaz-de-schiste-les-catastrophes-environnementales
xxxiii. http://whc.unesco.org/fr/listesindicatives/5385/
xxxiv. http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000024361355&dateTexte=&categorieLien=id
xxxv. http://www.radio-canada.ca/regions/Quebec/2012/09/20/002-martine-ouellet-moratoire-complet-gaz-de-schiste.shtml
xxxvi. http://www.institut-thomas-more.org/upload/media/notebenchmarckingitm-14.pdf page 5 et 6
xxxvii. http://bankwatch.org/sites/default/files/letter-EBRDSerinusEnergy-02Jul2013.pdf
xxxviii. http://www.touteleurope.eu/les-politiques-europeennes/energie/synthese/perspectives-de-la-politique-europeenne-de-l-energie.html
xxxix. http://www.futurepolicy.org/food-and-water/water-users-associations-rules-in-tunisia/

Case study: Ukraine

Twenty three years after gaining its political independence, Ukraine remains heavily dependent on some of its neighbours, and this is especially true for the energy sector. Ukraine's economy depends heavily on imports of all sources of energy, and at the same time the country is among the world worst when it comes to ineffecient energy use, and low income.

Ukraine's energy intensity per capita GDP is 3-4 times higher than in the EU countries (two times higher than in Poland and more than three times than in Turkey). While the country has a traditional dependency on nuclear fuel imports from the Russian Federation (reaching 100%) and gas too (55-60% in 2013), currently Ukraine also imports coal and electricity. In terms of annual losses to the national economy from energy inefficiency, compared to the EU, energy consumption equals USD 15-17 billion.[i]

Ukraine's installed power generating capacities, as well as oil and gas transport infrastructure, has gradually worn out. No big power generating capacities have been connected to the grid between 2007 and 2014. Over 70% of thermal power plants in Ukraine have worked well beyond 200,000 hours, and undergone major retrofitting twice or even three times. Further lifetime extensions are technically complicated and economically unfeasible.

Twelve out of fifteen of the country's nuclear reactors will reach the end of projected lifetime by 2020 – four of those twelve have already exceeded that limit. In an attempt to maintain low energy prices for population, the tariffs, that have risen 50-85% over the period[ii], still do not cover the full cost of the plants' modernisation, externalities and expected future costs (such as the decommissioning of nuclear plants) and have not stimulated industry and the general population to mainstream the introduction of energy saving measures.

The development of renewable energy sources (RES) in Ukraine started with the 'green tariff' scheme introduced in 2009, but the share of RES still remains very small and was no higher than 1.2% of total electricity production in 2014[iii]. Conflicts caused by the low quality of implementation (especially in the small hydropower sector) as well as the perception of the 'green tariff' as being merely a 'feeder' for some oligarchs (especially pV solar)[iv] significantly damaged the reputation of renewable energy in Ukraine which has led to the currently ongoing attempts to cancel or at least reduce the amount of compensation under the 'green tariff' scheme, and to cancel the lifting of tax and customs fees for RES.

Research[v] shows that increases in energy efficiency up to the average level in the EU will lower Ukraine's energy consumption by 45.8%. The potential for energy savings in 2011 was 26.5 million

toe, equivalent to 30 billion cubic metres of natural gas. Utilisation of this huge potential has unfortunately never been a priority of any of Ukraine's governments. This is one of the reasons behind the current deadly crisis in the country. Making use of this potential would bring significant public benefit for Ukrainians both economically (the more efficiently energy is used the less people pay) as well as politically (decreasing the country's dependency on imported fuels means decreasing too the dependency on Russia).

Analysis of EU public investments in Ukraine's energy sector over the 2007-2014 period

During 2007-2014 Ukraine received from the EU public institutions over EUR 2.5 billion involving 56 projects in the energy sector. This is the highest amount of support in the energy sector among all ENP countries, both by volume and by number of investments. The EBRD and the EIB together allocated a little over EUR 2.2 billion during the period.

The level of investments into fossil fuels by these two banks prevailed over their investments into energy efficiency and renewables, the former receiving 1.5 times more money over the period. Between 2007 and 2013 several medium-size loans were granted to private companies operating in the area of gas extraction, petroleum production and retail and coal recycling, amounting to EUR 210 million which was less than the nearly EUR 314 million allocated to the renewables and energy efficiency sectors over the same period. However, with the EUR 300 million loan granted in 2014 to the state-owned NAK Naftogaz for retrofitting the Urengoy-Pomary-Uzhgorod gas pipeline, the picture changed dramatically.

It is important to note that this gas pipeline is a part of the gas transit route for Russian gas to the EU, and its approval was 'a carrot' for the Ukrainian government to align Ukrainian legislation in the gas sector with EU requirements. While Ukraine benefits from improved competition and transparency in its most troublesome sector – energy – over the last decade, there is a clear EU benefit from this particular investment into Ukraine as well.

Distribution of EBRD and EIB investments between fossil fuels and RES/EE in Ukraine, 2007-2014

The EBRD and EIB investments into renewable energy and energy efficiency in Ukraine amount to only 16% of total energy investments over the period (see Figure 2). A large portion of the rest went to high-voltage power transmission infrastructure (29%) and to nuclear energy (14%). Both the EIB and the EBRD invested EUR 650 million into the construction of several new high-voltage power lines, and in 2013 the EBRD approved a EUR 300 million loan to the state nuclear operator Energoatom for the safety upgrade program of operating nuclear power units.

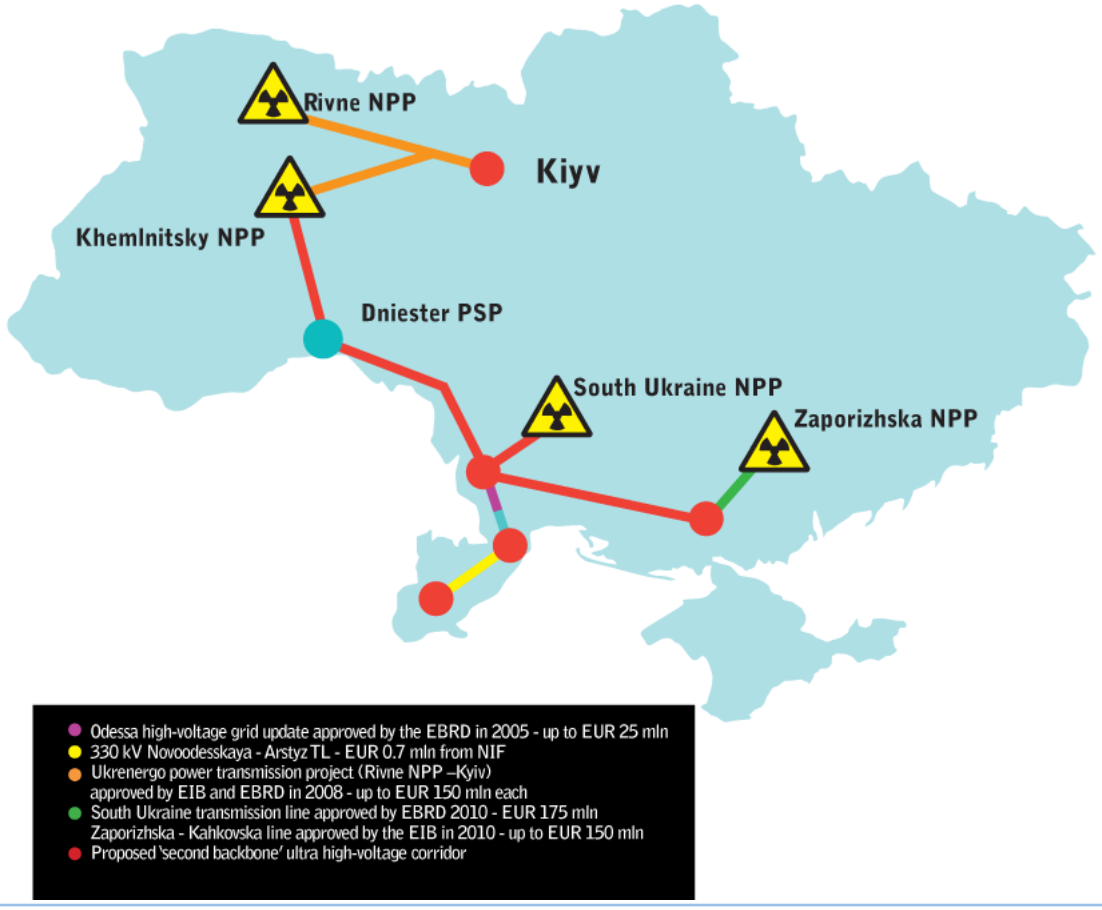
The EBRD claims that new transmission line projects aim to increase the overall stability of the grid system in Ukraine, as well as the quality, efficiency and reliability of the electricity supply in the Odessa and Kiev regions.[vi] However, they are less forthcoming about the ultimate goal of the construction of these new power lines.

Looking at the map below, it is apparent that once all of the planned[vii] transmission line projects are completed, a continuous 750 kV transmission corridor over 1500 kilometres in length from east to west will connect three Ukrainian NPPs (totaling twelve nuclear reactors) and two hydro pumped storage plants, enabling increase power exports from Ukraine to the EU.

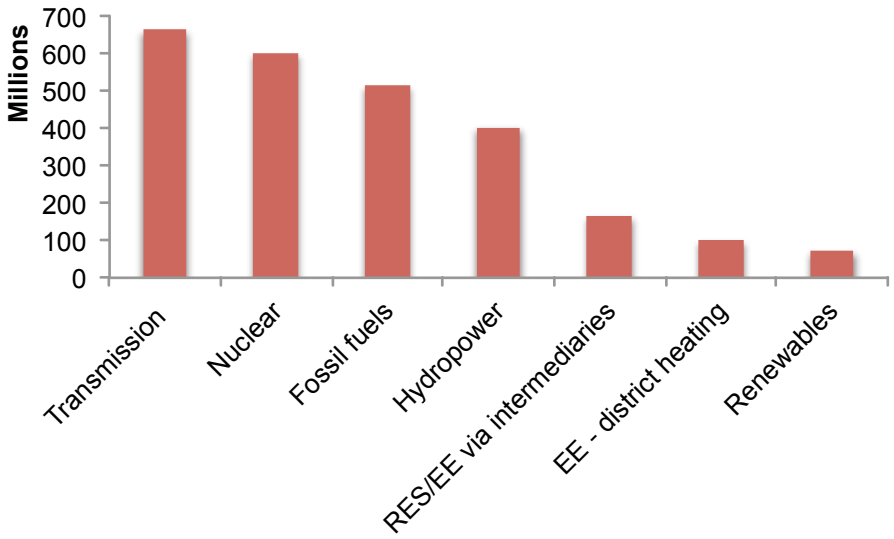
According to the Energy Strategy of Ukraine up to 2030 (elaborated in 2006),[viii] Ukraine plans to significantly increase electricity exports to Europe. Currently Ukraine exports electricity to the EU only from the Burshtyn Energy Island which is connected via direct current cables to the EU network, while export from other power plants (including nuclear) is limited because of a lack of necessary infrastructure and a "nuclear safety related embargo" which, according to the EBRD, limits Ukraine's ability to trade electricity with the EU.[ix]

The nuclear power sector enjoyed over one quarter (26%) of the total EU public money flow into Ukraine's energy sector in the 2007-2014 period. In parallel to the EBRD loan, the Euratom[x] Loan Facility granted another EUR 300 million loan to NEK Energoatom for a safety upgrade program at all 15 operating nuclear units, most of which will reach their projected lifetime already by 2020. These European loans are used to upgrade reactors to the safety level required by the state nuclear regulator for their further operation beyond projected lifetime.

The distribution of EU support over the period suggests that the major portion of the EU's millions (in the case of Ukraine, over EUR 1.77 billion[xi]) did not actually facilitate the transition to a more sustainable energy system but rather supported 'traditional dirty' sources of energy and the country's further reliance on them. For Ukraine this means nuclear energy, and imported natural gas and oil won out.



EU public money investments into Ukraine's energy sector, 2007-2014



The coal sector, the third traditional pillar of Ukraine's energy system, did not see much of the EU's support due to a number of obstacles, a key one being the keen interest in this sector from Renat Akhmetov and other politically exposed persons (PEPs), and the lack of success with restructuring the highly inefficient and heavily subsidised coal mining sector.

The EBRD and EIB role in supporting renewable energy and energy efficiency

Renewable energy and energy efficiency barely totals 16% of the two banks' total energy investments in Ukraine over the period, while the role of other financing institutions differs significantly.

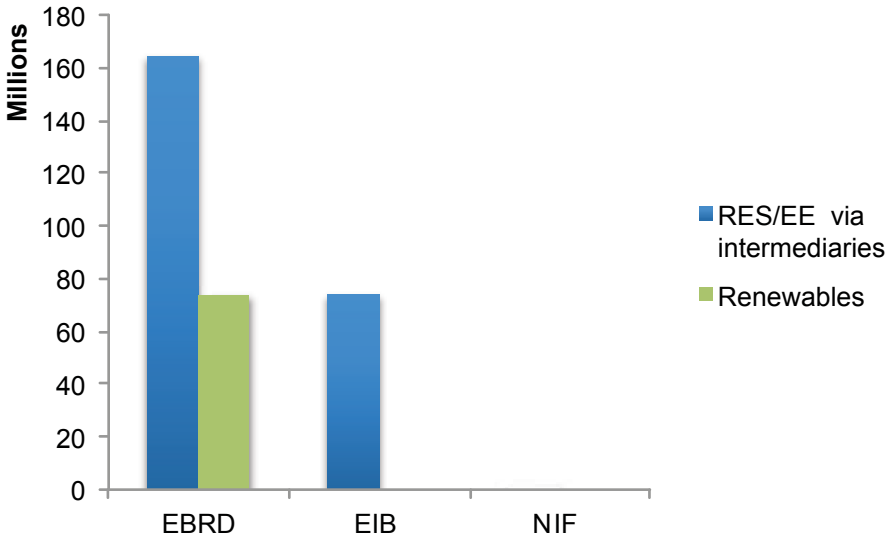
The EIB invested nothing at all in new renewables in Ukraine and merely a drop in the ocean for energy efficiency, allocating EUR 2.5 million in the Green for Growth Fund. NIF supported projects in Ukraine with a total amount of EUR 18.7 million but none of them in the renewable energy or energy efficiency sectors.

The EBRD invested EUR 72.6 million into eight solar, wind and biomass energy projects. The bank also worked with a number of municipalities and, as of 2014, five projects involving district heating systems modernisation were signed off by the bank[xii]. The EBRD also launched several credit lines (such as UKEEP) for Ukraine's private banks, mostly for energy efficiency measures for SMEs (see chart).

The EBRD played an important role in the development of Ukraine's renewable energy sector by allocating up to EUR 72 million in total, starting from 2012 when the first investments were made into new renewables after the EBRD's Ukraine Sustainable Energy Lending Facility (USELF) got off the ground. There was only one bigger investment in RES other than USELF – the Novoazovsky wind park financed in 2013.

Originally within the USELF the EBRD earmarked up to EUR 50 million[xiii] of commercial financing. By the end of 2014 the bank had approved projects worth only EUR 39 million for various reasons, one of which was a problem with the quality of proposed projects, including their environmental and social impacts. A sharp decline in the EBRD's investments into RES in 2014 is most likely attributable to the annexation by Russia of Crimea, where several RES projects were under preparation in 2014.

The EBRD, EIB, NIF investments in EE (via intermediaries) and RES in Ukraine, 2007-2014



The role of the Neighbourhood Investment Facility (NIF)

NIF granted over EUR 18.7 million to five projects in Ukraine's energy sector between 2009 and 2011, providing technical assistance to projects under consideration for receiving loans from the EBRD and the EIB. NIF financing went primarily to the support of two power transmission projects and into the rehabilitation of large hydropower plants.

Conclusions

Between 2007 and 2014 the amount of EU public money invested into fossil fuels projects in Ukraine took precedence over investments into energy efficiency and renewables, receiving in total 1.4 times more money.
The EIB and NIF invested nothing into the development of Ukraine's renewable energy sector.
The nuclear power sector enjoyed over one quarter of the total EU public money flow into Ukraine's energy sector.

The largest investments went to transmission and transit infrastructure (gas and power) – to projects with direct anticipated benefit for the EU itself but with less clear benefit for Ukrainians.

In general, EU financial support did not focus on the facilitation of the transition to a more sustainable energy system in Ukraine, but rather it supported 'traditional' for the country 'dirty' sources of energy and the country's further reliance on them.

The development of areas of prime benefit for the Ukrainian public – such as funds for improving energy efficiency, the introduction of energy saving measures and small scale renewable energy – has seen as little as 7% of total EU public investments into Ukraine's energy sector.

Recommendations

Ukraine is critically dependent on imported energy resources (gas, nuclear fuel and now also coal) and suffers from high inefficiency of energy use. The current EU focus on supporting large generation and transmission/transit projects does not seem to be the most beneficial for Ukrainians. It supports further reliance on Russian gas and Soviet-era nuclear power plants which also runs on Russian fuel, with the limited and still unclear diversification perspectives.

The EU has an important role in helping Ukraine to transform its highly inefficient and outdated energy sector. Financing instruments are the means at the EU's disposal to support the sector's transformation.

For the next funding period the EU should focus its financial aid to Ukraine on supporting programs and initiatives aimed at a substantial increase in the efficiency of energy use and the development of sustainable local energy sources. These are the areas that could bring the biggest public benefit in Ukraine by decreasing energy demand as well as the country's dependency on imported fuels. This is the only true solution to the energy crisis that the country is going through.

The EBRD and the EIB should also ensure that energy efficiency, energy conservation and renewables are priority areas and stop financing whatever happens to be 'bankable' in all of the energy sub-sectors.

Together with policy dialogue, this should send a clear signal to the Ukrainian government to prioritise the development (and facilitate the creation of necessary conditions for such development) of projects aimed at energy saving and the utilisation of Ukraine's vast renewable energy sources potential.

The consideration of any project in generating capacities or transmission infrastructure should involve its relation to the modern trends of energy sector developments in Europe, rather than the sole ability of the borrower to pay back the loan. This approach should make impossible the financing of old ideas that cement the centralised energy system of the past.

The Neighbourhood Investment Facility (NIF) should offer its resources to help develop energy efficiency projects, including at the level of city municipalities, as well as renewable energy projects. The lack of capacity and resources to develop good quality projects is one of the obstacles in the path of the renewable energy sector's development, especially for small- and medium-sized projects. It would also be important to improve the transparency of NIF's operations, including the provision of publicly available full lists of supported projects, selection criteria, as well as expected results with qualitative indicators.

Notes

i. Energy Efficiency Index of regions of Ukraine (2011) http://www.svb.org.ua/sites/default/files/uei_13_3.pdf
ii. The size of the increase depended on consumption level.
iii. The figure does not include large hydropower.
iv. The majority of installed solar pV capacities are associated with Andriy Kliuev, one of the businessmen occupying a high position in the state administration under the former Yanukovich regime, who has now fled abroad and is wanted by the Ukrainian prosecution office.
v. Energy Efficiency Index of regions of Ukraine (2011) http://www.svb.org.ua/sites/default/files/uei_13_3.pdf
vi. See the project summary documents of the Odessa High Voltage Grid Upgrade and the Rivne Kyiv High Voltage Line Project.
vii. The "Second backbone ultra high-voltage corridor" is under appraisal currently at the EBRD.
viii. Energy Strategy of Ukraine up to 2030: http://zakon.rada.gov.ua/signal/kr06145a.doc
ix. Project summary document for Ukraine NPP Safety Upgrade Program: http://www.ebrd.com/english/pages/project/psd/2011/42086.shtml
x. European Atomic Energy Community, established by EURATOM Treaty in 1957. Euratom's Loan Facility is managed by the European Commission.
xi. Investments in fossil fuels sub-sectors (including gas pipeline modernisations), nuclear and large power transmission infrastructure.
xii. Although these projects according to the EBRD's classification fall under the "Municipal and environmental infrastructure" sector, we count them in our calculations to get a more accurate picture of banks' investments connected directly with increased efficiency of energy use. The status of three more – in Lviv, Luhansk and Zhytomir – district heating modernisations are not clear but still included into the calculation of the total figures on EE/RES investments made by the EBRD.
xiii. Another EUR 20 million in concessional climate finance from the Clean Technology Fund and USD 8.45 million from GEF.

Notes

The hydrocarbon rich countries to the south and east of the EU have received disproportionately less financing for exploiting renewable sources of energy than for fossil fuels extraction.

CEE Bankwatch Network
Na Rozcesti 1434/6
Praha 9, 190 00
Czech Republic
E-mail: main@bankwatch.org
www.bankwatch.org

Arab NGO Network for Development
P.O.Box: 5792/14,
Mazraa: 1105 – 2070
Beirut, Lebanon
Tel: +961 1 319366
Fax: +961 1 815636
http://www.annd.org/
english/contactus.php