



1 February 2018

Comments on the Existing EBRD Energy Sector Strategy from 2013

1. Introduction and overview
2. Our view on the EBRD's lending 2010-2016
3. The 2013 strategy's main themes and priorities
4. Fossil fuel financing
 - a. Gas as a transition fuel
 - b. Coal-heavy utilities
5. Renewables, Sustainability and Resilience
6. Human rights, Transparency and Democracy
7. Other recommendations
8. Conclusion

1. Introduction and overview

Our comments are structured as follows. First we take a look at the EBRD's energy lending during the Strategy period (and a few years beforehand for comparison), as outlined in more detail in our December 2017 analysis.¹ We then use this lens to look at the text of the bank's 2013 Energy Strategy and what needs to be continued and strengthened and what needs to be changed. We also zoom in on some priority issues – fossil fuel financing, sustainability and resilience of renewables, as well as issues around human rights, transparency and democracy in the energy sector in the EBRD's countries of operation that need to be taken into account in developing the next energy strategy.

¹ <https://bankwatch.org/publication/the-weakest-link-the-ebrd-s-energy-lending-2010-2016>

Our starting point is the Paris Agreement. If the Paris goal of limiting climate change to 1.5 degrees Celsius is to be achieved, no more fossil fuel electricity generation facilities can be built at all after 2017, according to a 2016 Oxford University study.²

These findings are supplemented by an Oil Change International study that finds that not only can no new fossil fuel power stations be built, but also no new fossil fuel infrastructure as well. This is because the potential carbon emissions from the oil, gas, and coal in the world's currently operating fields and mines would already take us beyond 2 degrees Celsius of warming, and even excluding coal, the reserves in currently operating oil and gas fields would take us beyond 1.5 degrees.³

As a step towards limiting global climate change, we welcomed the strict limitation introduced by the EBRD in the 2013 Energy Strategy on coal generation financing. During the strategy implementation period, however, we noted a policy loophole allowing for corporate-level investments in companies whose portfolios contain a large percentage of coal assets, for example Elektroprivreda Srbije, BEH in Bulgaria or Samruk Energy in Kazakhstan. EBRD corporate loans could be a useful catalyst for transition to more sustainable and diversified utilities, if they included an enforceable commitment by the companies to reduce their coal operations. However, without strong commitments on behalf of EBRD clients to decarbonisation, these investments cannot contribute to the low-carbon transition.

We also welcomed that the 2013 Energy Strategy was built around energy efficiency and we acknowledge the role the EBRD plays in renewables development in its countries of operation. We hope that sustainability of the energy sector will continue to be the central pillar of the bank's strategy with two areas that require attention. First, the renewables portfolio in the last period was not geographically balanced, with EU countries, like Poland, getting the lion's share. Second, the hydropower reliance of several EBRD countries makes them vulnerable to climate change impacts and calls for resilience measures, while greenfield hydropower in sensitive areas cannot be in line with sustainability principles as such projects always have significant impacts.

The concept of a coal-to-gas switch in the EBRD Energy Strategy needs to be challenged in view of the increased competitiveness of renewable energy and the recent developments in climate policy. During the One Planet Summit in December, 2017 the World Bank Group announced that it will no longer finance upstream oil and gas from 2019. Moreover, the African Development Bank and Asian Development Bank both already have restrictions in place on fossil fuel exploration finance. Even though none of these steps are sufficient in view of the need, outlined above, to halt construction of new fossil fuel infrastructure, the EBRD is still lagging behind in this regard.

² Alexander Pfeiffer, Richard Millar, Cameron Hepburn, Eric Beinhocker: The '2°C capital stock' for electricity generation: Committed cumulative carbon emissions from the electricity generation sector and the transition to a green economy, Received 11 September 2015, Revised 16 February 2016, Accepted 18 February 2016, Available online 24 March 2016, <http://www.oxfordmartin.ox.ac.uk/publications/view/2119>

³ Oil Change International et al: The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production, September 2016, <http://priceofoil.org/2016/09/22/the-skys-limit-report>

The need for changes in the EBRD's approach is being masked by the bank's carbon accounting methodology, which not only guides its investments in the energy and natural resources sector, but also underpins the bank's Green Economy Transition Strategy. To name just some of the problems with the methodology, it does not systematically include Scope 3 emissions in the calculations, it is unclear about the baseline used for comparison, and it uses a too low Global Warming Potential for methane (see below). The revision of the bank's energy strategy is a good opportunity to develop more robust methodologies for assessing climate impact and GHG emissions reductions, in the energy sector as well as across the EBRD's portfolio.

In line with the EBRD's political mandate and new transition methodology, the new energy strategy needs to take into account the deepening governance crisis in many of its countries of operation. While reforms have stalled or reversed in countries that used to be seen as models of democracy and good governance, like Poland, the deteriorating situation with human rights in countries like Azerbaijan calls for a new strategic approach with democracy and human rights benchmarks that must not be compromised for proclaimed energy security objectives.

2. Our view on the EBRD's lending 2010-2016

Overall, we found that the EBRD's energy-related lending in the period exhibited mixed trends. For several years there was a positive trend of rising investments in renewable energy, which tailed off in 2016. At the same time, the EBRD's annual fossil fuel financing actually *increased* between 2010 and 2016, from EUR 600 million to EUR 774 million. According to our analysis, around 41 percent of EBRD energy-related lending in 2010 to 2016 (EUR 4.05 billion) supported fossil fuels, staying roughly constant for most of the period, but increasing markedly in 2016.

This does not include projects which support fossil-fuel heavy utilities where it is hard to say what the money was used for, e.g. Elektroprivreda Srbije (EPS), Bulgarian Energy Holding (BEH) in Bulgaria, and Samruk Energy in Kazakhstan.

An increase in fossil fuel lending might have been expected because of the bank's expansion to the oil and gas-heavy southern Mediterranean. But as the bank hasn't made any new investments in Russia – another fossil fuel-heavy country – since July 2014, it should have been able to reduce fossil fuel investments overall.

In fact, most EBRD fossil fuel investments took place in Central Asia, Eastern Europe and the Caucasus and the EU during this period. There has at least been a general downwards trend in EBRD fossil fuel financing within the EU since 2010. However, the bank still invests in fossil fuels in the bloc, which we find particularly unacceptable as the EU claims itself to be a global climate leader and does not have as many financial constraints to energy transition as other countries.

Renewable energy doing better in the electricity generation sector

One area where the EBRD has made some progress in moving away from fossil fuels is in support for new or additional electricity generation capacity. In 2010-2016 fossil fuel projects

made up 24 percent of financing while 65 percent went to renewables. Fossil fuel financing in this sub-sector peaked in 2012 but has been relatively low since then. It's not clear whether this is the result of the bank's 2013 Energy Strategy or rather changing market conditions.

The fact that such a high percentage of electricity generation investments supported renewable energy is generally welcome. However, not all of the projects can be regarded as sustainable - see below in the *Renewables Sustainability and Resilience* section.

Nevertheless, it's alarming that there was a fall in EBRD support for renewable energy in 2016. In 2015 support peaked at EUR 489 million but in 2016 it was down to EUR 222 million. We assume this is partly related to the increasingly unfavourable environment for renewable energy in Poland,⁴ where the EBRD had previously supported several projects.

Wind dominates the EBRD's renewable projects, with nearly 68 percent of the investments. The main change within the last few years is the appearance of geothermal and solar in the mix. Solar grew from virtually nothing in 2006-2011⁵ to make up more than 11 percent of renewables investments in 2010-2016, presumably due to dropping prices and increased EBRD investments in the Mediterranean countries. This is a welcome development and should be continued in the next Strategy period.

There also appears to be a much smaller percentage of financing for small hydropower plants than in the 2006-2011 period, when it made up 17 percent of renewables financing according to our methodology.⁶ However this is difficult to confirm as some projects may have been financed through commercial bank intermediaries and would therefore not show up in the statistics. If there is indeed a reduction, this is a positive development, given their high environmental impact.⁷

Geographical distribution of renewables investments

EU countries have received most support for renewable energy. The EU accession countries have received very little, although our monitoring suggests that this is not due to a lack of willingness from the EBRD but rather due to barriers within the countries. Some renewables support has taken place in Turkey and the Mediterranean but it has been heavily exceeded by fossil fuel investments.

Energy efficiency

Due to the dispersed and intersectoral nature of energy efficiency investments we were not able to analyse them in the time available for the previous strategy period. We believe the EBRD has done a lot of work in this area and suggest that the bank finds a way to publish a list of energy efficiency projects financed which would enable easier analysis of this area of the bank's work.

4 <http://uk.reuters.com/article/poland-energy/interview-ebrd-cuts-financing-for-polish-renewables-as-regulations-tighten-idUKL8N1HK4KD>

5 <https://bankwatch.org/sites/default/files/EBRD-energy-tug-of-war.pdf>

6 <https://bankwatch.org/sites/default/files/EBRD-energy-tug-of-war.pdf>

7 <https://bankwatch.org/publication/broken-rivers-impacts-european-financed-small-hydropower-plants-pristine-balkan-landscapes>

3. The 2013 strategy's main themes and priorities

We welcome the fact that “*The (2013) Energy Strategy is built around energy efficiency*” (p.3). This should continue to be a priority in the next strategy period, for both investment and technical assistance, especially with an emphasis on the demand side (p.44-46). For the supply side, distribution losses remain unacceptably high e.g. in the Western Balkans, and need further attention from the bank. Potential investments in efficiency in energy production involving fossil fuels should only be made if they do not contribute to the expansion of fossil fuel energy or prolonging the lifetime of facilities.

Energy saved should be considered as a source of energy equally to other energy supply investments, in line with the Energy Efficiency First principle. The principle implies considering the potential for energy efficiency solutions in all decision-making related to energy, to be able to make informed investment choices, by comparing energy efficiency and energy supply solutions and only approving projects which would make sense in an energy efficient world. Applying the principle requires identifying all decision-making points in the energy system where energy saving solutions might be overlooked or undervalued. Public banks have a particular position in this system: they should take into account risks to their project portfolio but also anticipate societal demands.

The EBRD should systematically compare projects in the energy sector with a standard energy savings project and downgrade the project's rating in case of poor performance. It should compare, where realistic, power generation projects with possible alternatives including the launching of actions and policies aimed at energy saving instead of increasing the energy demand and production. This comparison should be systematic and applied to all projects in the energy sector, and poor performance in this test should negatively affect the green economy transition rating of the project.

The seven pillars on which the Strategy is built (p.4) are generally reasonable and in line with the EBRD's mandate. However some aspects of them need to be adjusted:

Diversification of economies (p.4, p.36-7): “*In those countries of operations which are significant energy producers EBRD will also help diversify local economies and promote the prudent management of those countries' endowments.*” We welcome this in principle, but wonder if the EBRD has evaluated its success in this field?

The EBRD's most recent Transition Report 2017-2018 discusses the risk of stranded fossil fuel assets, “*a situation that could lead to the unanticipated closure of production and the devaluation of assets, with assets potentially becoming net liabilities*”. It notes that in the EBRD region, Azerbaijan, Egypt, Kazakhstan, Mongolia, Russia, Turkmenistan and Uzbekistan are particularly exposed to stranded asset risks, and that “*Kazakhstan's recent experience offers a cautionary tale in this regard*”.

The report suggests that revenue losses could be offset by new sectors and revenue sources linked to the green economy, “*such as increases in the output of green firms or revenue from environmental taxes such as carbon pricing*”. However, if Azerbaijan is taken as an example, the

EBRD's disproportionate support to oil and gas extraction and transportation begs questions about the role the bank sees for itself and the strategic indicators it should set to ensure that its investments and policy dialogue are supporting diversification rather than "stranding" the country further in carbon assets.

In Azerbaijan, the EBRD even now continues to invest heavily in the hydrocarbon sector, despite the country's heavy reliance on oil and gas for exports and their high share of GDP. Under the current Energy Strategy, EBRD has provided EUR 897 million in financing for the Southern Gas Corridor and the Shah Deniz Gas field. Another EUR 500 million are proposed for the TAP section of the Southern Gas Corridor, to a company where the Azerbaijan government is a 20 percent shareholder. Currently, 75% of all of EBRD's loans in Azerbaijan are directly related to natural gas extraction and transport for the Southern Gas Corridor. This is in a country where oil and gas accounted for around 90 percent of all exports and three quarters of government revenue and GDP from 2006-2014 and which has suffered since then from its overdependence on these commodities as their price fell.⁸ The International Monetary Fund continually recommends Azerbaijan to diversify its economy⁹ and yet EBRD's loans continue to entrench Azerbaijan in the hydrocarbon economy. Supporting the oil and gas sectors, whether in extraction, transportation or infrastructure, does not in any way promote economic and energy diversification as stipulated in the Energy Strategy.

Similarly, the EBRD has decided to invest in a company servicing Turkmenistan's oil and gas sector. Turkmenistan is heavily dependent on oil and gas, which amount to over 90 percent of its exports, and over half of its GDP¹⁰. The country's energy consumption is heavily fossil fuel dependent. In 2015 total energy production consisted of 16% oil and 84% gas, with consumption 34.6% oil products and 58% gas.¹¹ Even though the country has 300 sunny days per year and huge wind energy potential equal to that of its fossil fuel reserves¹², the EBRD continues to indirectly invest in the development of fossil fuels in Turkmenistan. This is despite the fact that the current Turkmenistan Country Strategy excludes financing of the oil and gas sector due to governance concerns.

The CMI Offshore project provides a EUR 16.951 million¹³ loan to purchase vessels that service oil rigs in Turkmenistan. The transportation routes for these vessels cross into the Hazar Nature Reserve, a Wetland of International Importance protected under the RAMSAR Convention. While this project is categorized as Transportation, it is in fact a critical component of a larger Natural Resources operation.

⁸ <https://www.weforum.org/agenda/2016/05/which-economies-are-most-reliant-on-oil/>,

<http://www.imf.org/en/Publications/CR/Issues/2016/12/31/Republic-of-Azerbaijan-2016-Article-IV-Consultation-Press-Release-Staff-Report-and-44269>

⁹ <https://www.imf.org/en/News/Articles/2016/09/15/NA091516-Azerbaijan-Opportunity-to-Reboot-Diversify-Economy>

¹⁰ See <http://documents.worldbank.org/curated/en/887311468111849090/pdf/ACS12651-WP-P148086-OUO-9-Box391453B.pdf>

¹¹ <http://www.iea.org/statistics/statisticssearch/report/?year=2015&country=TURKMENIST&product=Balances>

¹² https://www.unece.org/fileadmin/DAM/ceci/documents/UNDA_project/PPP_Assessment_Turkmenistan.pdf

¹³ Conversion from 21 million USD on 29 January 2018.

This is not the only such example of fossil fuel financing labelled as transportation: Bankwatch recently identified 11 EBRD projects signed 2010-2016, mostly in Kazakhstan, which were labelled as transport projects but in fact predominantly serve the oil and gas industry, for example rail companies which transport almost exclusively oil and gas.

The low carbon transition. Page 38 of the Energy Sector Strategy refers to the low carbon transition. The EBRD's Transition Report 2017-2018 points out that the countries in the EBRD region are still among the most carbon-intensive in the world, with GHG emissions per capita and per US dollar of GDP remaining around 20 percent higher here than in comparator countries. More than 70 percent of GHG emissions in EBRD countries originate in the energy sector, as "*many countries' energy sectors are still among the most carbon-intensive on the planet*". This means that the low-carbon transition in the EBRD region needs to be intensified. It also needs to be a *sustainable and resilient* low-carbon transition, not just low carbon, an issue which we will follow up below.

As we saw above, if the Paris Agreement's goal of limiting climate change to 1.5 degrees Celsius is to be achieved, not only can no new fossil fuel power stations be built, but also no new fossil fuel infrastructure as well.¹⁴

The 2013 strategy (p.39) used the IEA 450 Scenario, identified as the level consistent with a 50% probability of meeting the global 2 degrees C goal, as a reference point for the Bank in identifying those areas which have a key role to play in the low carbon transition and thus in shaping its operational approach. This is no longer sufficient given the Paris Agreement's recognition that limiting global climate change to 1.5 degrees C is necessary.

Additionally, the bank needs to change its approach to assessing the climate impacts of its projects, as the current methodology has several deficiencies which skew the results (see below in *Fossil fuel financing* section).

Beyond supporting countries to implement their Nationally Determined Contributions (NDCs) agreed in the Paris Agreement, the EBRD should support countries with their long term planning for 2050. If longer term energy planning is not considered, there is a risk of asset stranding and investing in fossil fuel infrastructure that must be closed before the end of its economic lifespan in order to meet long term climate goals.

As part of its commitment to a low-carbon and green economy transition, the EBRD should support countries of operation to elaborate and put in place development pathways consistent with EU's 2050 low-carbon economy roadmap. The roadmap suggests that, by 2050, the EU should cut its emissions to 80% below 1990 levels through domestic reductions alone (i.e. rather than relying on international credits). The EU's adjacent Roadmap for energy¹⁵ shows that decarbonising the energy system is technically and economically feasible. In the long run, all

14 Oil Change International et al: The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production, September 2016, <http://priceofoil.org/2016/09/22/the-skys-limit-report>

15 <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/2050-energy-strategy>

scenarios that achieve the emissions reduction target are cheaper than the continuation of current policies. In the absence of a long term ambitious target, countries of operation carry the risk of being faced with stranded assets in the fossil fuels energy infrastructure, which would have to be closed before their economic lifespan.

Relying on the countries' National Determined Contributions (NDCs) until 2030 is not only unambitious, but for some countries it actually translates in an increase of their GHG emissions compared to the 1990 baseline. One such example is Serbia, whose pledge to cut emissions by 9.8% until 2030 – measured against 1990 levels – is contradicted by official figures¹⁶ which show that this involves an increase of at least 15.3% in the country's emissions by 2030, due to the fact that Kosovo's emissions were calculated in the baseline and that heavy industry emissions fell by 25% already in the 90's, as the industry collapsed.

The Executive Summary also refers to a 'move to prices that reflect all costs, including those of externalities'. EBRD uses a shadow carbon price for some project decisions but this is at the low end of the range recommended by the recent High Level Commission on Carbon Pricing¹⁷ and should be updated. The EBRD applies a slower rate of increase to its carbon price than the EIB, and the carbon price used does not rise at an increasing rate over time like the EIB's. The shadow carbon price used should be periodically updated to account for changing science in understanding climate risks.

Cleaner energy production and supply. The Strategy states that *“The EBRD will support the cleaner production and distribution of energy through greater energy and resource efficiency, for example by reducing gas flaring or investing in cleaner transport fuels or fuel switching from coal to gas. In the case of coal-fired generation, the low-carbon transition necessitates a fundamental shift away from coal as a source of electricity and heat. Accordingly the Bank will not finance investment in this sector except in rare and exceptional circumstances, where there are no feasible alternative energy sources.”* (Also p.58 on coal/gas fired generation)

We welcome the moves made in the Strategy towards halting coal financing. However we caution against relying on a switch from coal to gas as a strategy for cleaner energy. See the section below on Fossil Fuels for more details on the climate impact of gas.

Recommendations on main themes and priorities for the new Energy Strategy:

- Demand-side energy efficiency should be the main priority. The bank should find ways to make this more measurable and visible as part of its overall energy lending.
- The EBRD should apply the Energy Efficiency First principle, for example comparing power generation projects with possible alternatives including the launching of actions and policies aimed at energy saving instead of increasing energy demand and production.
- The EBRD must phase out investments in fossil fuels, including transport projects that benefit directly the oil and gas industry, and instead concentrate on supporting countries

¹⁶ http://www.klimatskepromene.rs/uploads/useruploads/Documents/FBUR_rezime.pdf

¹⁷ <https://www.e3g.org/library/how-are-development-banks-performing-on-shadow-carbon-pricing>

to diversify and address “stranded asset” risks through policy dialogue, technical assistance and investments in non-carbon sectors.

- The EBRD should support countries of operation to elaborate and put in place development pathways consistent with EU’s 2050 low-carbon economy roadmap and the goals of the Paris Agreement.

4. Fossil fuel financing

4.a. Gas as a transition fuel

The climate impacts of gas should not be diminished by stating that it is better than coal, as it is still a fossil fuel and as we have seen above, no new gas and oil infrastructure can be built if we are to meet the goals of the Paris Treaty. Apart from the fact that gas is an imported fuel in many countries, including most European ones, and thus can be subject to price or political issues, in some cases it is also no cleaner than coal in terms of GHG emissions due to fugitive emissions of methane.

This depends on what percentage of the gas leaks as fugitive emissions along the gas supply chain. Studies carried out by Alvarez et al. (2012)¹⁸ and Howarth (2014)¹⁹ and the IEA World Energy Outlook of 2017 (IEA 2017),²⁰ establish a fugitive emissions percentage beyond which gas stops having any climate benefit compared to coal. These studies also evaluate extraction and transmission gas supply chain operations. Alvarez et al. find this percentage to be 3.2 percent, whereas Howarth establishes it at 2.8 percent. In the case of the IEA, this threshold has been established at 3 percent.²¹

Therefore, if natural gas leakage amounts to even 2.8-3.2 percent, it is the same with respect to GHG emissions as burning coal. While fugitive methane is difficult to calculate, in 2009 the US Environmental Protection Agency reported national leakage from extraction and transportation to be at 2.4%.²² And this is in the US, with relatively accountable and efficient systems.

In Azerbaijan, for example, where corruption reigns and fossil fuel production fails international accountability standards such as EITI, one can only guess what the fugitive methane levels may be. The EBRD’s investments in Azerbaijani natural gas cannot be considered clean, and the Southern Gas Pipeline is not a bridge towards renewables. In fact, investments in new

18 Ramón A. Alvarez, Stephen W. Pacala, James J. Winebrake, William L. Chameides and Steven P. Hamburg: Greater focus needed on methane leakage from natural gas infrastructure, PNAS 2012 April, 109 (17) 6435-6440. <https://doi.org/10.1073/pnas.1202407109>

19 Howarth, R.W., 2014. A bridge to nowhere: methane emissions and the greenhouse gas footprint of natural gas. *Energy Science & Engineering*, 2(2), pp.47–60. Available at: <http://doi.wiley.com/10.1002/ese3.35>.

20 IEA World Energy Outlook 2017 (Webinar) <http://www.iea.org/newsroom/news/2017/october/commentary-the-environmental-case-for-natural-gas.html>

21 For more discussion of this point in relation to the Southern Gas Corridor, see <https://bankwatch.org/wp-content/uploads/2018/02/smoke-mirrors-SGC.pdf>

22 <https://blogs.scientificamerican.com/plugged-in/methane-leakage-from-natural-gas-supply-chain-could-be-higher-than-previously-estimated/>

hydrocarbon infrastructure lock in both the producer country, and user countries into fossil fuel energy use for decades. New fossil fuel infrastructure cannot be considered transitory; it is permanent. By investing, both politically and financially into projects such as the Southern Gas Corridor, the EBRD and other IFIs are only furthering continued dependence on fossil fuels. Instead, investing an expected EUR 7 billion of public money in energy efficiency and clean, renewable energy, would tremendously further the effort to fight climate change.

The bank's current Strategy states that methane has a global warming potential 21 times greater than CO₂ over a 100-year time horizon.²³ Its newer protocol for assessment of greenhouse gas emissions also says that "*Emissions of non-CO₂ GHGs are expressed as CO₂-equivalent based on their 100-year global warming potentials, as provided by the IPCC 2004.*"²⁴

However, the bank needs to update the global warming potential (GWP) indicator it uses for methane to 86, in line with the latest IPCC report 5.²⁵ Use of the GWP 21 is outdated for two important reasons:

- It corresponds to an obsolete figure from the 1996 IPCC Assessment Report;
- It is based on an inappropriate 100-year timescale while methane has an atmospheric lifetime of only about 12 years.²⁶

Using the shorter 20-year timescale suggested by the IPCC therefore is much more relevant given that the world is already on track for 2.9 to 3.4°C degrees warming²⁷ and risks breaching the 1.5 and 2 degrees limits within the next 20 years.²⁸

This should lead to the use of an 86 GWP figure - four times higher than what the EBRD is currently using - with all the implications this can have in terms of measuring climate impacts.

Secondly, the methane emissions of the total lifecycle of natural gas (from extraction to consumption) are much higher than was thought for a long time.²⁹ Scientific knowledge on methane emissions has progressed rapidly over the past few years, driven in part by the precipitous rise of shale gas development in North America. For conventional fossil gas, the scientific community commonly agrees that between 3.6% and 5.4% of the lifetime production of gas wells is emitted to the atmosphere, including both leaking and venting at the well site and during storage & delivery to consumers.³⁰ As a result, a 2016 study in *Nature* concluded that total fossil fuel methane emissions are in reality 60 to 110% greater than current estimates.³¹

23 Page 74, footnote 72

24 www.ebrd.com/documents/admin/ebd-protocol-for-assessment-of-greenhouse-gas-emissions.pdf

25 https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf

26 https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf

27 <http://web.unep.org/emissionsgap/>

28 <https://www.carbonbrief.org/analysis-only-five-years-left-before-one-point-five-c-budget-is-blown>

29 For example IPCC Climate Change 2013: The Physical Science Basis, <http://www.climatechange2013.org/>

30 Miller et al, 2013, <http://www.pnas.org/content/early/2013/11/20/1314392110.abstract>, Brandt et al, 2014, <http://www.sciencemag.org/content/343/6172/733>

31 Stefan Schwietzke et al: Upward revision of global fossil fuel methane emissions based on isotope database, *Nature* volume 538, pages 88–91 (06 October 2016) <https://www.nature.com/articles/nature19797>

Also from a long term perspective, investing in new fossil fuel infrastructure (energy production, fossil fuel production and transportation) is simply irrational from an economic and climate policy point of view. Such infrastructure operational lifetime exceeds 40 years, the time when energy systems will have been decarbonised. This infrastructure will simply not be needed, remaining as stranded assets.

With regards to Transition in the energy sector (p.36), moving from public to private oil and gas sector (p.46-47, 49, 57) and infrastructure bottlenecks will in the end make very little difference - we should be phasing out oil and gas altogether, public or private. Technology can be an issue, but it is a question whether public money should be used to make improvements in hydrocarbon projects and thus prolong the life of fossil fuel facilities instead of focusing on fossil fuel phase out as a priority. Similarly, environmental improvements and energy efficiency gains must not be combined with supporting production increase.

We agree that addressing energy subsidies is an important issue (p.41-42), however it should be clear that both production and consumption subsidies are important and that subsidies are not only direct handouts or tax breaks by the state. According to the WTO, IFI loans are also in this category, and should therefore be used highly selectively.

Recommendations on gas as a transition fuel:

- The EBRD must phase out investments in oil and gas, including indirect support through oil and gas transportation projects.
- The EBRD needs to develop a new methodology for GHG emissions accounting and introduce tools for assessing the alignment of its energy sector lending (and entire portfolio) with the Paris Agreement's goal of limiting climate change to 1.5 degrees Celsius.

4.b. Coal-heavy utilities

Regarding coal (p.56), we welcomed the EBRD's strict limitation on coal generation financing. This should also be extended to coal mining. The existing policy also has a loophole concerning corporate-level loans for companies whose portfolios contain a large percentage of coal assets³². In principle, EBRD corporate loans could be a useful catalyst for transition if they included an enforceable commitment by the companies to reduce their coal operations. However we have not seen much sign of this in the cases we are familiar with, such as EPS in Serbia. An update of the company's 2009 Green Book was part of the restructuring loan, but so far we have not seen any signs of this, and it is unclear whether the EBRD has managed to encourage the company to reduce its coal exposure and how this reduction can be measured.

³² A database on coal companies and information on their business share of coal can be found here: <https://coalexit.org/>

Recommendations regarding coal-heavy utilities:

- Corporate level finance for utilities whose portfolios contain a large percentage of coal assets should be conditioned on clear and enforceable commitments by the client on transition away from coal.

5. Renewables sustainability and resilience

Hydropower (p.50) The bank needs to be more selective about its support for greenfield hydropower. The text in the existing strategy is reasonable, but in practice we have seen the bank supporting projects which we do not believe are in line with EU and sometimes even national legislation. On the environmental impacts of hydropower we will comment more specifically in the Environmental and Social Policy revision, but here we would like to emphasise the need to take account of the impacts of the changing climate on hydropower and its implications for the resilience of energy systems in its countries of operations.

In southeast Europe, Croatia, Montenegro and Albania all generate at least half of their domestic electricity from hydropower – all of it in the case of Albania. Georgia too generates most of its electricity from hydropower. Already now hydropower generation in these countries is proving to be very vulnerable to climate fluctuations, an issue which is only expected to get worse in the future. However even countries with a smaller share of hydropower like Bosnia-Herzegovina, with 35% electricity generated from hydropower in 2016, have already suffered from serious losses in production due to drought.

All these countries plan to continue their reliance on hydropower to a large extent, but this is becoming more and more risky given the changing climatic conditions. Generation per year is already fluctuating heavily. In the Western Balkans, 2010 was an excellent hydro year, 2011 and 2012 were very poor,³³ as was 2017, which resulted in losses in production and income for electricity companies in Bosnia-Herzegovina, Montenegro, Albania and Croatia.³⁴

From an environmental point of view, any size of hydropower plant can be damaging if badly designed. However, what we have noted in the Western Balkans is that in spite of the large number of small hydropower plants built across the region in the last few years, and the accompanying environmental impact,³⁵ they are not contributing much to the electricity supply. Around 57 large hydropower plants and 387 small hydropower plants now operate across the Western Balkans, however the 387 small plants together generate only 3 percent of the region's

33 <https://www.wbif.eu/content/stream/Sites/website/library/WBEC-REG-ENE-01-BR-1-Role-of-hydropower-04.12b.pdf>

34 <https://balkangreenenergynews.com/albania-launches-procedure-for-electricity-import-due-to-drought/>, <https://seenews.com/news/bosnias-epbih-expects-to-turn-to-net-loss-of-111-mln-euro-in-2017-594558>, <https://seenews.com/news/montenegros-hydro-power-output-nearly-halves-in-jan-aug-590982>, <http://vijesti.hrt.hr/403429/zbog-suse-znatno-pala-proizvodnja-struje-iz-domacih-hidroelektrana>

35 See for example <https://bankwatch.org/publication/broken-rivers-impacts-european-financed-small-hydropower-plants-pristine-balkan-landscapes>

electricity from hydropower, making for a particularly unfavourable generation to environmental damage ratio.³⁶

In Georgia the EBRD has invested in several large hydropower projects, like the Dariali and Shuakhevi HPPs, and is currently preparing an investment for the Nenskra HPP. These projects are meant to ensure the energy security of Georgia, however, they have run into a number of problems. For example a mudflow from the Devdoraki glacier disrupted the Dariali project construction, resulting in fatalities, as well as increased project cost and delays. In the case of the Shuakhevi project, the construction phase finished in June 2017, but since August tunnel problems³⁷ and on-going inspections are raising questions about the viability of this huge investment.

Due to this problematic track record of large hydropower projects, affected communities in the case of the Nenskra HPP are justified in being concerned about the adequacy of the project's hydrogeological risk assessments. Biodiversity loss is another major concern, as the project has caused the reduction of the "Svaneti" Emerald site, which has led to insufficient protection of a number of species and habitats in the Alpine region of Georgia³⁸.

Wind (p.51) – The EBRD had been making good progress in increasing its wind investments in the years up till 2016 when the situation in Poland decreased investments. In the 2013 strategy the EBRD had correctly assessed that some countries in the region were getting to the point where subsidies were becoming expensive and that this was starting to have an impact on RES growth. The question is what the bank will do on this issue in the next period to help ensure that wind and solar development do not become blocked or continue to be blocked in its countries of operation?

Biogas and biomass (p.51) – The EBRD committed in 2013 that its support to biomass projects will be subject to "stringent environmental and social guidelines", however, its investment in the MHP Biogas Plant in Ukraine exposed important shortcomings with regards to public consultations and cumulative impact assessment. It showed that climate action should not be used as a trump card in projects that lack social licence and the EBRD should play better role in helping its clients to address social concerns and conflict in the development of renewable energy.

Geothermal (p.51) can be a useful source only in cases where CO₂ emissions are not high. This needs to be assessed in advance given that geothermal plants in Turkey have brought with them unusually high CO₂ emissions by geothermal standards, comparable even to coal-fired power plants.³⁹

36 <https://www.wbif.eu/content/stream/Sites/website/library/WBEC-REG-ENE-01-BR-1-Role-of-hydropower-04.12b.pdf>

37 Company statement: http://www.agl.com.ge/view_news.php?id=155

38 According to the final conclusions of independent experts at the biogeographical seminar in Tbilisi in November 2017.

39 <https://pangea.stanford.edu/ERE/db/GeoConf/papers/SGW/2017/Layman.pdf>

Recommendations regarding renewables development:

- The EBRD should continue to support the development of sustainable and resilient renewable energy in its region through ambitious investments, technical assistance and policy dialogue.
- The EBRD's new energy strategy should give special attention to the sustainability of renewables, hydropower in particular.
- The EBRD should assist its countries of operation and clients in addressing social concerns in the development of renewable energy and avoiding social conflict through best practice in informed and participatory decision-making.
- Climate resilience of hydropower projects and of hydro-dependent energy systems should underpin EBRD investment decisions, to ensure that projects are viable in the long-term and the share of hydro does not expose countries to large electricity fluctuations resulting from water shortages and droughts resulting from climate change.

6. Human rights, Transparency, Democracy

The EBRD has an important political mandate that overarches its entire lending framework. Article 1 commits the Bank to work with countries committed to and applying the principles of multiparty democracy, pluralism and market economics.

In line with its mandate, the current Energy Strategy stresses the EBRD's commitment to transparency and good governance of natural resources, and fully supports the Extractive Industries Transparency Initiative as the global standard in evaluating good governance of natural resources.

"The EITI principles and requirements have remained the reference for the disclosure of payments in the extractive industries, as the rules for the application of the EITI have evolved, most notably in 2013. A smaller set of clearer requirements were developed, with a stronger focus on national ownership of reform efforts. The participation of civil society organisations and companies, through the establishments of national multi-stakeholder groups which decide how their EITI process should work, has remained a core function of the EITI. The Bank is committed to adhere to best governance, transparency and revenue management standards by requiring its clients to implement the principles and requirements of the EITI. The Bank will continue to adapt its approach as improvements are made to the EITI principles and criteria and to engage actively with the EITI Secretariat to contribute to improving the EITI principles and requirements from the inside."

Unfortunately, the EBRD has been structuring loans that contradict both its own mandate and EITI decisions. International interest in Azerbaijan's hydrocarbon reserves continues to fuel the atmosphere of repression and violation of human rights in the country. It is no coincidence that on the day before the first contract for the development of the Shah Deniz gas fields was signed on December 17 2013 with the BP led consortium, Anar Mammadli, a prominent human rights

defender, was arrested. This was the first time a human rights defender was arrested in Azerbaijan since its independence, and in this way President Aliyev sent a strong signal that human rights were to be traded for energy. This disdain for the rule of law and ongoing violation of human rights in the country must change.

Azerbaijan's Shah Deniz natural gas field is currently the only gas source for the Southern Gas Corridor. Azerbaijan's rich reserves of oil and gas have been fueling President Aliyev's utter disregard for human rights, widespread corruption, and intolerance of independent civil society. Reporters Without Borders has ranked Azerbaijan 162 out of 180 countries⁴⁰ on its World Press Freedom Index, and Freedom House has continuously ranked it Not Free for over a decade.⁴¹ There are at least 100 political prisoners now in Azerbaijan, and the number keeps growing. For example, Ilgar Mammadov, leader of an opposition movement and a member of the advisory council of the Natural Resources Governance Institute, remains in prison after almost four years despite the ruling of the European Court of Human Rights in his favor. In 2017, President Aliyev renewed his clampdown on freedom of expression, shutting down access to the last remaining independent media sources such as websites of Radio Free Europe/Radio Liberty's Azerbaijan's Service, Meydan TV, Turan TV and others.

The highly restrictive political environment in Azerbaijan has obstructed civil society's ability to independently monitor transparency and accountability of the government. In March 2017, the Extractive Industries Transparency Initiative, a multilateral standard to promote transparency and accountability in the oil, gas, and mining sectors, suspended Azerbaijan for failure to meet the requirement of the Civil Society Standard.⁴² Following this, President Aliyev left the EITI altogether, underscoring the government's blatant disregard for public accountability and open governance. Azerbaijan's newly formed national Commission on Transparency in the Extractive Industries is not an independent body with accountability mechanisms, but, rather, is under the State Oil Fund and headed by its Executive Director, Shahmar Movsumov. In turn, the State Oil Fund, SOFAZ, established to manage Azerbaijan's hydrocarbon profits, is controlled solely by the President, and not by the Ministry of Finance. The Open Government Partnership, an initiative aimed at promoting good governance likewise designated Azerbaijan inactive last year due to governance concerns.⁴³ Despite this blatant disregard for international norms and standards, however, the EBRD continues to finance Azerbaijan's extractive industry activities.

A recent expose of corrupt in Azerbaijan underscored the issue. According to the Organized Crime and Corruption Reporting Project (OCCRP),⁴⁴ Azerbaijan has laundered over USD 2.9 billion in European banks, using the money to bribe European officials for influence. With such rampant corruption at the highest levels of the Azerbaijan government, which has reached even European institutions and government officials, the EBRD cannot assure that its loans will be

40 <https://www.meydan.tv/en/site/news/22565/>

41 <https://freedomhouse.org/country/azerbaijan>

42 <https://eiti.org/news/azerbaijan-withdraws-from-eiti>

43 <https://www.opengovpartnership.org/stories/media-briefing-azerbaijan-made-inactive-open-government-partnership>

44 <https://www.occrp.org/en>

used in a transparent and accountable manner. Azerbaijan continues to violate the fundamental freedoms enshrined in the European Convention of Human Rights, refusing to implement the rulings of the European Court of Human Rights.

Recommendations regarding human rights and democracy:

Given the economic and political importance of investments in the energy sector and consistent with our demand for the EBRD to stop investing in fossil fuels, and with the EBRD's transition and democracy mandates, we have the following recommendations:

- The EBRD should support policy reforms and use its leverage to improve governance, democratic processes and respect for human rights through investments in non hydrocarbons energy sectors and energy efficiency.
- The bank should improve the due diligence on its energy investments and should develop tools for addressing governance gaps, threats to critical voices and Human Right Defenders, informed public participation and inclusion of marginalised groups, such as the poor, minorities and women.
- When considering energy sector investments, the Bank should evaluate the governance transition aspects and Article 1 of its Agreement, including multi-party democracy, pluralism and human rights, and refrain from investing in countries that do not meet such requirements.

7. Other recommendations

The EBRD should not finance **unconventional fossil fuels** (p.57). Regarding technical assistance to CCS, given its lack of progress and its negative impact on energy consumption, it should no longer be a priority.

The EBRD has had an important role in the sphere of nuclear safety through managing several donor funds, such as the Chernobyl Shelter Fund, as a key task of the EBRD is the decommissioning of Soviet-era nuclear facilities and equipment. However, apart from the donor funds, the EBRD invested in the Nuclear Safety Upgrade Programme in Ukraine that allowed the extension of the country's old reactors' lifetime, thus undermining the EBRD's objective of decreasing nuclear risks in the region. This investment also exposed the limited leverage the bank has in ensuring the timely implementation of loan conditions for development of an in-country system of nuclear safety regulatory regime, decommissioning funds allocations, and proper radioactive waste management system.

The current energy strategy suggests that the bank can be involved in projects for 'safety improvements of operating plants'. We believe this practice is a departure from the older strategies that were based on the concept that any involvement in the financing of nuclear reactors should lead to their earlier and safe closure. Therefore we recommend that:

- The new strategy should make it clear that investment in the nuclear industry should be done to ensure faster and safer closure of the plants and management of radioactive heritage they leave.
- The EBRD should narrow down its investments into the nuclear sector to safe closure and decommissioning, as well as for the safe and secure management of radioactive waste and spent nuclear fuel, to exclude any basis for the bank to support the further expansion of nuclear energy.

8. Conclusion - summary of priority issues for the new strategy

To summarise, the main challenges we think need to be prioritised in the new Energy Strategy are:

- Low carbon transition and move away from fossil fuels:
 - Utilities with high share of fossil fuel assets especially coal must undertake clear and measurable decarbonisation commitments
 - Gas cannot be regarded as a substantial improvement on coal
 - The EBRD's GHG emission reduction methodology needs to change
- Sustainability and resilience of renewable energy, especially hydropower, bioenergy and high-CO₂ geothermal sources.
- Continued commodity dependency of some countries.
- Human rights violations, democratic and governance deficit in hydrocarbon-rich countries.