Impact of 2020 strategy on energy, water and waste sectors in eastern neighbourhood and enlargement countries

by

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# Summary

* The accession and enlargement countries of the western Balkans, and the countries of the eastern neighbourhood, consist of 13 countries with a total population of 97 million, nearly all of which are middle income countries in transition.
* The EU 2020 strategy creates a new annual ‘semester’ of economic planning for EU member states, based on central ‘integrated guidelines’ relating to economic growth and employment . It includes 5 headline targets and 7 flagship initiatives, and also a new tighter regime for monitoring compliance with the fiscal rules of the EU.
* The cycle requires governments to consult with ‘local/regional authorities and relevant stakeholders’, and so creates new mechanisms in which unions can participate. In the accession, enlargement and neighbourhood countries, the effects of the 2020 strategy will be felt through existing mechanisms such as the EU neighbourhood policy, the European Community Treaty (on energy), and the activities of development banks including the EIB and the EBRD, as well as influencing the sectoral policies.
* The strategy includes 8 recurrent themes which potentially affect the energy, waste and water sectors in the region: climate change, resource efficiency, employment policies, innovation, fiscal policies, PPPs, and ‘structural reforms’. Of these, the policies on climate change and resource efficiency may stimulate employment in the waste sector, while reducing it in the electricity sector. The economic policy elements, especially fiscal constraints and PPPs, can be expected to have negative effects on employment in all sectors.
* In the waste sector in the region, there is currently considerable activity by the development banks supporting investment in new systems for refuse collection and especially disposal, which broadly supports local policies which give strong priority to waste management. The banks want to see more PPPs and in particular user charges in this sector, both of which are likely to hold back development. There is very little activity by multinationals in waste management in the region, however, and so PPPs are unlikely to grow.
* In energy, the Energy Community Treaty already effectively requires the EU’s internal market in energy to be applied in other countries. Virtually all countries in the western Balkans have already signed it, and the countries in the eastern neighbourhood are beginning to join. There is large-scale investment in networks by the banks, and the EU neighbourhood policy pays great attention to interconnection and full cost recovery. There is a mixed privatisation picture, with investments by local, Russian, EU, and USA companies.
* In water, privatisation has an extremely high failure rate in this region, and there is now little activity by the west European water multinationals, except for Veolia, which has received substantial investments from the public development banks EBRD and the World Bank. These investments are counter to the trend in policy of international bodies such as OECD and UNECE, which now favour regionalisation of public companies as much as PPPs.
* In conclusion, the (negative) employment effects of the tighter fiscal rules in the 2020 strategy will be felt most strongly in the accession and enlargement countries of the west Balkans. The indirect influence of sectoral policies will be mixed: support for PPPs conflicts with trends, support for cost recovery may have negative effects, but policies in favour of resource efficiency may support the development of waste management services.

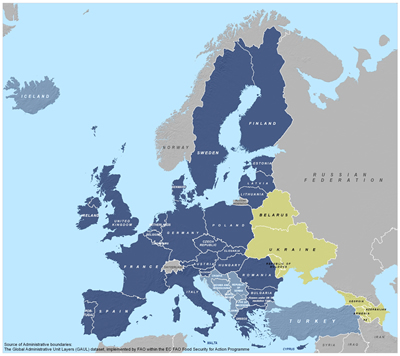
# Introduction

## Countries

The countries covered are defined as “Enlargement and Eastern Partnership countries”, a narrower definition than the Europe 2020 category of “candidate countries and our neighbourhood”. The paper thus covers eastern and south-eastern countries in these two categories:

* the ‘eastern partnership’ countries, i.e. the Neighbourhood countries in the east, marked yellow on the map below: [Armenia](http://www.eeas.europa.eu/armenia/index_en.htm), [Azerbaijan](http://www.eeas.europa.eu/azerbaijan/index_en.htm), [Belarus](http://www.eeas.europa.eu/belarus/index_en.htm), [Georgia](http://www.eeas.europa.eu/georgia/index_en.htm), [Moldova](http://www.eeas.europa.eu/moldova/index_en.htm), [Ukraine](http://www.eeas.europa.eu/ukraine/index_en.htm) (but not other ENP countries i.e. Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Occupied Palestinian Territory, Syria, Tunisia; nor Russia, which is outside the EP and ENP). None has yet applied for membership to the EU.
* Candidate and enlargement countries in southeast Europe: [Albania](http://ec.europa.eu/enlargement/potential-candidates/albania/index_en.htm), [Bosnia and Herzegovina](http://ec.europa.eu/enlargement/potential-candidates/bosnia_and_herzegovina/index_en.htm), [Croatia](http://ec.europa.eu/enlargement/candidate-countries/croatia/index_en.htm), [FYR Macedonia](http://ec.europa.eu/enlargement/candidate-countries/the_former_yugoslav_republic_of_macedonia/index_en.htm), [Montenegro](http://ec.europa.eu/enlargement/potential-candidates/montenegro/index_en.htm), [Serbia](http://ec.europa.eu/enlargement/potential-candidates/serbia/index_en.htm), Kosovo (but not Iceland or Turkey).

1. EU enlargement and eastern partnership countries



Code: Dark blue=member states; yellow = eastern neighbourhood; light blue = enlargement and accession countries

The total population of these countries is 97.5 million, of which Ukraine accounts for nearly half (45million).

They cover a wide range of economic development. The richest, by far, is Croatia, the only high income country, with a GDP per capita over $14,000, similar to Estonia or Hungary. This is about 10 times greater than the poorest, Moldova, whose GDP per capita ($1516) is below Egypt, Philippines, Honduras or Bolivia. Three other countries - Armenia, Georgia, and Ukraine - are also lower middle income countries with GDP per capita below $3,000 (lower than Tonga, Angola, Ecuador, El Salvador, Jordan, and China). [[1]](#endnote-1) The rest (Albania, Azerbaijan, Belarus, Bosnia, Macedonia, Montenegro, and Serbia) are upper middle income countries, on a similar level to Botswana, Jamaica, or Colombia. Ukraine is nevertheless much the largest economy, nearly twice the size of Croatia’s, because of its large population.

There are unions affiliated to PSI/EPSU in all these countries, but the coverage is limited in the energy sector in the Caucasus countries (Armenia, Azerbaijan, Georgia) and in energy and municipal services in Belarus.

1. Population, GDP, government spending and affiliated unions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Population (m.) | GDP per capita ($) | Income group\* | Govt expenditure as % of GDP | Currency | PSI/EPSU affiliates\*\* |
| Albania | 3.0 | 3808 | MU | 21.9 | Lek | EHMO |
| Armenia | 3.0 | 2826 | ML | 20.7 | Dram | HM |
| Azerbaijan | 8.3 | 4899 | MU | 19.0 | Manat | HMO |
| Belarus | 9.7 | 5069 | MU | 34.0 | Belarus Ruble | H |
| Bosnia and Herzegovina | 4.6 | 4525 | MU | 38.9 | Convertible Mark/Euro | EHMO |
| Croatia | 4.5 | 14222 | H | 34.7 | Kuna | EHMO |
| FYR Macedonia | 2.1 | 4515 | MU | 31.3 | Macedonian Denar | EHMO |
| Georgia | 4.6 | 2447 | ML | 29.1 | Lari | HMO |
| Moldova | 4.3 | 1516 | ML | 32.8 | Moldovan Leu | EHMO |
| Montenegro | 0.7 | 6635 | MU | - | Euro | EMO |
| Serbia | 7.3 | 5872 | MU | 38.3 | Serbian Dinar | EHMO |
| Ukraine | 45.4 | 2468 | ML | 37.3 | Hryvnia | EHMO |

Source: World Bank and PSI data, through PSIRU website[[2]](#endnote-2)

\*High, Middle-lower, Middle-upper \*\* Energy,Health, Municipal, Other

Most countries were badly hit by the economic crisis in 2009, but recovered in 2010, and are expected to continue to grow in 2011. This recovery mainly reflects the return to economic growth of Russia and Turkey, the main economies in the region.

1. Crisis and economic growth 2009-2011

|  |  |  |  |
| --- | --- | --- | --- |
| **Country** | 2009  (actual) | 2010  (estimated) | 2011  (forecast) |
| **Albania** | 2.5 | 3.0 | 3.7 |
| **Armenia** | -14.4 | 4.0 | 4.6 |
| **Azerbaijan** | 9.3 | 3.7 | 3.5 |
| **Belarus** | 0.2 | 7.0 | 6.0 |
| **Georgia** | -3.9 | 5.5 | 4.0 |
| **Kosovo** | 2.9 | 4.3 | 5.7 |
| **Macedonia, FYR** | -0.7 | 1.2 | 3.0 |
| **Moldova** | -6.5 | 2.6 | 3.0 |
| **Ukraine** | -15.1 | 4.3 | 4.0 |
|  |  |  |  |
| **Russian Federation** | -7.9 | 3.8 | 4.2 |
| **Turkey** | -4.7 | 8.1 | 4.1 |

Annual change in GDP at market prices (2005 US$). Source: World Bank 2011 World Economic Outlook 2011, Regional Annex, Europe and central Asia <http://siteresources.worldbank.org/INTGEP/Resources/335315-1294842452675/ECA-Annex.pdf>

## 2020 strategy: main elements and consultation

This strategy was adopted by the European council of ministers at meetings in March and June 2010.

The main webpage is <http://ec.europa.eu/eu2020/index_en.htm>

The core document is the report:

* Europe 2020: A European strategy for smart, sustainable and inclusive growth COM(2010)2020 03.03.2010 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>

A set of integrated guidelines for monitoring implementation of the strategy were set out in April 2010.

* Europe 2020 Integrated Guidelines COM(2010) 193 final 27.4.2010 <http://ec.europa.eu/eu2020/pdf/Brochure%20Integrated%20Guidelines.pdf>

In addition, a series of more specific reports have been issued. The most relevant for these sectors are:

* Europe 2020 Flagship Initiative Innovation Union SEC(2010) 1161 COM(2010) 546 6.10.2010 <http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf>
* Energy 2020: A strategy for competitive, sustainable and secure energy COM(2010) 639 10.11.2010 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0639:EN:HTML:NOT>

The strategy is linked to new stronger policy coordination and enforcement mechanisms for the fiscal rules of the growth and stability pact, set out in:

* Enhancing economic policy coordination for stability, growth and jobs – Tools for stronger EU economic governance - COM(2010) 367/2 30/06/2010. This and other related documents are available at <http://ec.europa.eu/economy_finance/articles/euro/2010-06-30-enhancing_economic_policy_coordination_en.htm>

### Key elements of the 2020 strategy

There are 5 ‘headline targets’, concerning employment, R&D investment, climate/energy targets, education, and poverty:

* 75 % of the population aged 20-64 should be employed.
* 3% of the EU's GDP should be invested in R&D.
* The "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right).
* The share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree.
* 20 million less people should be at risk of poverty.

There are 7 ‘flagship initiatives’:

* "Innovation Union" to improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs.
* "Youth on the move" to enhance the performance of education systems and to facilitate the entry of young people to the labour market.
* "A digital agenda for Europe" to speed up the roll-out of high-speed internet and reap the benefits of a digital single market for households and firms.
* "Resource efficient Europe" to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernise our transport sector and promote energy efficiency.
* "An industrial policy for the globalisation era" to improve the business environment, notably for SMEs, and to support the development of a strong and sustainable industrial base able to compete globally.
* "An agenda for new skills and jobs" to modernise labour markets and empower people by developing their of skills throughout the lifecycle with a view to increase labour participation and better match labour supply and demand, including through labour mobility.
* "European platform against poverty" to ensure social and territorial cohesion such that the benefits of growth and jobs are widely shared and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society.[[3]](#endnote-3)

### New annual cycle of monitoring, policy coordination and consultation

The Commission’s annual growth survey, presented each January, will review “overall progress achieved on the EU headline targets, as well as progress on the flagship initiatives and in removing bottlenecks in the single market and in the external aspects of the Strategy” [[4]](#endnote-4) The survey will focus on 4 issues, including ‘thematic’ developments on the headline targets, and 4 forward-looking issues, including “priorities in the area of structural reforms to advance the thematic part of the strategy”. [[5]](#endnote-5)

This monitoring is tied to a new set of ‘integrated guidelines’ of EU economic policy set out in April 2010, with six guidelines relating to economic growth – one of which concerns “Improving resource efficiency and reducing greenhouse gases emissions” - and four relating to employment, training and education. Under these guidelines: “Member States will draw up National Reform Programmes (NRPs) setting out in detail the actions they will take under the new strategy, with a particular emphasis on efforts to meet the national targets and on measures to remove the bottlenecks that constrain sustainable growth at national level.” [[6]](#endnote-6) The council will make an annual “overall assessment of progress achieved both at EU and at national level in implementing the strategy”, and will hold regular debates.[[7]](#endnote-7)

The monitoring is also integrated with the “reinforced macro-economic, budgetary and structural surveillance” introduced in June 2010 as part of the policy to strengthen enforcement of the fiscal rules of the stability pact in the post-crisis context. Under these new rules, member states have to draw up Stability and Convergence Programmes (SCPs). [[8]](#endnote-8)

There will thus be a combined annual cycle, the ‘European Semester of policy coordination’, starting with the Annual Growth Survey in January, followed by the NRPs and SCPs in April/May.

1. The ‘European semester’ economic policy cycle



Source: Governance, tools and policy cycle of Europe 2020 p.7 <http://ec.europa.eu/eu2020/pdf/Annex%20SWD%20implementation%20last%20version%2015-07-2010.pdf>

### Possibilities for union involvement

The ‘European Semester’ includes explicit provision for involvement of civil society organisations such as trade unions. The NRPs are expected to be prepared in partnership with “social partners and representatives of civil society, who shall contribute to the elaboration of national reform programmes, to their implementation and to the overall communication on the strategy”. [[9]](#endnote-9)

The governance document strengthens this by requiring governments to both state how they have consulted, what the results have been, and specifically experience on sharing good practice:

“The NRP should indicate how the national authorities plan to involve/have involved

local/regional authorities and relevant stakeholders in defining and implementing the

NRP and how they communicate (or plan to communicate) on Europe 2020 and on

their own NRP, and what the results have been. They will also be invited to report on

their experience with collecting, sharing and implementing good practices.”[[10]](#endnote-10)

The combination of a single annual cycle and formal consultation requirements means that all civil society organisations across Europe should be consulted at the same time by national governments.

The ‘European Semester’ does not, however, set out any requirements for formal consultations at EU level.

And there is no formal role in the cycle for enlargement or neighbourhood countries.

Unions could take advantage of the consultative processes at national level in various ways:

1. Ensure that unions are involved in national processes of developing NRPs. This could build on, or be used to strengthen, existing forms of social dialogue at national level.
2. Seek to coordinate these inputs across countries, so that some core principles and policies are being advocated in a common fashion: for example contesting the use of PPPs or private contractors
3. Focus on the employment implications of policies, including the importance of relevant guidelines (Guideline 7: Increasing labour market participation and reducing structural unemployment… Guideline 10: Promoting social inclusion and combating poverty’ [[11]](#endnote-11))
4. Take the initiative to submit proposals on public sector ‘innovations’ , for example to introduce participatory budgeting, rather than the usual ‘New Public Management’ prescriptions.
5. Advocate policies in specific sectors, for example opposing commercialisation or privatisation of water services

It may be easier for unions to take advantage of the national level consultations. Unions have not so far made much use of the consultative bodies associated with the European Neighbourhood Policy (ENP). The selection process for the civil society forum for the ENP Berlin November 2010stated that “The Civil Society Forum shall represent a wide range of Civil Society Organisations (CSOs): trade unions, employers' organisations….it is crucial to assure the involvement of all the major components of civil society”.[[12]](#endnote-12)

However, trade unions were not very strongly represented at the forum. There was no trade union or union centre at all from Ukraine or Moldova. The only unions from the ENP countries were:

* Union of Armenian government employees (not EPSU affiliated)
* Belarusian Trade Union of Workers of Education and Science
* Federation of Trade Unions of Belarus
* Georgian Trade Unions Confederation

The EU level organisations at the forum did not include the ETUC or any of the European sector federations. There were only two union federations from EU member states: the Polish union NSZZ “Solidarnosc", and the Swedish Confederation for Professional Employees. [[13]](#endnote-13)

## The sectoral and institutional impact of 2020 strategy

The strategy itself has no specific objectives for these sectors in these countries. Its impact, in particular on employment, thus needs to be assessed by looking at how the strategy affects the existing ways in which the EU influences developments in these areas. This can be done by examining the key channels through which the EU influences developments.

The first is the sectoral dimension: which core elements of the strategy affect existing trends and policies in the sectors of energy, water and waste. The second is the institutional dimension: what are the existing institutions whose activities affect these countries, how do their activities affect developments and employment in these sectors, and how will their activities be affected by the 2020 strategy.

The next two sections of the report examine each of these dimensions.

The actual existing trends and structure of each sector are then examined in the following three sections. These identify the main characteristics of the sectors in each country, in particular government or municipal policies, activities of development banks and others, and the role of private companies, both multinational and national. For the energy sector, this includes a complete mapping of the employers in the sector, by country (this is not done for water or waste, because there are thousands of individual local municipalities and municipal companies operating these services, as well as some private contractors).

The final section sets out some overall conclusions.

# Policy elements relevant for energy, water and waste sectors

The 2020 strategy and associated documents refer to the energy sector frequently, both in relation to climate change policies and energy security. There is no direct mention of either water or waste management in any of the documents, but the various ‘headline targets’, ‘flagship initiatives’, ‘forward-looking issues’ and themes of the 2020 strategy include reference to a number of recurrent elements which have relevance to all these sectors. The impact of these recurrent elements are considered one by one and then summarised.

Climate change – this element can be expected to have the greatest direct impact, through encouraging the use of renewable energy sources for electricity generation. The 2020 strategy basically reinforces existing commitments and tendencies to combatting climate change. The shape of the impact may depend on the mix and scale of new sources used eg wind from the North Sea and Atlantic, solar power from Africa, but existing employment in thermal power stations is likely to fall, and not be offset by a growth in renewables, which are less labour-intensive. In waste, there is likely to be increased demand for waste management sorting and recycling systems, including selling secondary materials, which can be expected to increase employment in the sector. The quality of that employment depends on the effectiveness of union organisation in combating the use of contractors, local or international, who employ workers on bad wages, bad conditions and without job security.

Resource efficiency – again, this element can be expected to have a significant impact, although the 2020 strategy may not add much to existing commitments and tendencies. In waste, the existing directives and policies already provide a framework for recycling and reuse, which tends to increase employment in the sector. In water, this could lead to more activity in reducing leakage, for example; or it is possible that this heading may be used to try and impose a stricter interpretation of full cost recovery, or commercialisation of bulk water resources, both of which may lead to a squeeze on labour. Energy efficiency reduces consumption of energy: this tends to reduce income of energy companies, public or private, and so may have a negative effect on employment in the electricity sector, though this should be offset by new jobs in building insulation and public transport.

Fiscal policies – the commitment to early ‘exit routes’, and the strict enforcement of the existing guidelines on debt and deficit, imply a risk of spending cuts in all sectors. This may be exacerbated by other elements of the 2020 policy - commitments to increased public spending on renewables, and on investment in energy transmission networks, for example, may increase the demand for cuts in other areas.

Employment policies – there is a specific reference in the integrated guidelines on the need for member states to: “stimulate creation of green jobs”, but no more detail. This could reinforce the prospect of more jobs in municipalities in areas such as waste management or even in functions such as leakage reduction in water. The 10th guideline - “to fight social exclusion, empower people and promote labour market participation, social protection systems, lifelong learning and active inclusion policies should be enhanced to create opportunities at different stages of people’s lives and shield them from the risk of exclusion” - may create the potential for improving the formalisation and protection of working conditions and employment rights, which is especially relevant for workers in the waste management sector.

PPPs – the 20020 strategy reaffirms the position of the commission’s 2009 paper that member states need to use “a combination of private and public finance, and in creating innovative instruments to finance the needed investments, including public-private partnerships (PPPs)”.[[14]](#endnote-14) PPPs have consistently negative implications for employment in all sectors, due to the privatisation of operations and of some employees, and the pressure for cuts in operating expenditure to compensate for the excessive cost of capital in PPPs. There are more general negative effects from creating inflexible contractual demands on public spending which mean that other services lose more when cuts are made.

‘Structural reforms’ – the central drive for ‘structural reforms’ is likely to lead to plans for more market opening and liberalisation. This can be expected to be a key aspect of impact on neighbourhood countries, where the 2020 objective of increasing access to markets for EU companies will intensify existing pressures for market opening and liberalisation in all sectors, including those – such as water and waste – not currently subject to EU internal market rules within the EU

Innovation – the innovation communication identifies the public sector as a key area for innovation, and states that ‘the Commission will support a substantial research programme on public sector and social innovation’, and also “will ask the social partners for proposals on how to develop a sectoral labour market strategy for the caring sector.” This is an opportunity for unions and others to propose new approaches to organising and running public services. However the paper envisages greater use of a European-wide use of new public management indicators: “it will pilot a European Public Sector Innovation Scoreboard as a basis for further work to benchmark public sector innovation”. In a global context, it states that “Europe must also develop its own distinctive approach to innovation which builds on its strengths and capitalises on its values … the EU must use the strong potential of the public sector in areas such as energy and water, health, public transport and education, to bring new solutions to the market”, which could imply strengthening of private or commercialised services which could then seek to expand in international markets, including accession countries and the eastern neighbourhood. At a more basic level, however, innovation could simply take the form of establishing a comprehensive service for the first time, and this may be of particular relevance for the waste management sector.

The table below summarises these judgments on how the different elements may impact on employment in the energy, water and waste sectors in eastern neighbourhood and enlargement countries. The estimated impacts clearly fall into two distinct categories.

It can be seen that the ‘substantive’ elements which affect the technological and operational aspects of the services have a potential positive effect on employment in waste management, largely neutral effects in water, and mainly negative effects in energy. The reasons for the negative effects in energy are simply that the use of renewable energy for electricity generation is less labour intensive than traditional thermal generation, and the reduction in demand for energy implied by resource efficiency targets also implies lower levels of activity than would otherwise be the case.

The impact of fiscal and economic policies, however, is expected to be negative across all sectors. Tighter fiscal constraints invariably result in direct or indirect reductions in employment or pay levels in public services; PPPs typically result in worse levels and standards of employment [[15]](#endnote-15); and ‘structural reforms’ involve privatisation and/or liberalisation which usually have similar effects.

1. Potential effects of elements on employment by sector

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Element | Energy | Water | Waste |
| Technological-operational policies | Employment policies | = | = | + |
|  | Climate change | - | = | + |
|  | Resource efficiency | - | = | + |
|  | Innovation | - | = | + |
| Fiscal-economic policies | Fiscal policies | - | - | - |
|  | PPPs | - | - | - |
|  | ‘Structural reforms’ | - | - | - |

# Institutional dimensions

The 2020 strategy is directly concerned with the economic and fiscal policies of the EU itself and member states. It does not set any targets or create any new mechanisms specifically for accession and neighbourhood countries. The strategy will thus affect these countries through existing institutions, and through affecting the activity of companies. This section identifies 4 categories of institutional influence:

* EU policies and legislation which affect the sectors
* the accession and enlargement processes, including the Energy Community Treaty
* the EU neighbourhood policy and bilateral agreements
* development banks and other institutions

## EU sectoral policies

EU sectoral policies on waste and energy are already having an impact in neighbourhood countries, for example through the inclusion of reduction and recycling in waste management policies, and the increasing inclusion of renewable targets in energy policies. The 2020 strategy includes initiatives and targets for reduced resource consumption and reduced emissions, and so can be expected to reinforce the influence of EU policies in these sectors. Market mechanisms are likely to provide further reinforcement of this trend. Companies developing technologies and products for EU countries following 2020 targets can be expected to try and market the same products and policies to neighbourhood countries.

Sectoral policies are less influential in water, except for an emphasis on cost recovery. The speed with which neighbourhood countries move towards adopting water quality standards and wastewater treatment requirements are likely to be most influenced by the availability of finance. For accession countries this comes through large-scale cross-subsidy of investments by the EU, while the private sector has demonstrated that it does not offer large-scale investments in the water sector.

## Accession, enlargement and Energy Community Treaty

For candidate and enlargement countries, the key impact mechanism will be through accession negotiations and the harmonisation of legislation to the ‘acquis communitaire’. This includes environmental legislation affecting the water sector and the waste management sector.[[16]](#endnote-16) For energy, the key element of accession is the internal market legislation for the electricity and gas sectors: adoption of this is accelerated under the terms of the Energy Community Treaty, which is specifically designed to establish an extension of the internal market in south-east Europe (see chapter on energy).

## EU neighbourhood policy (ENP), eastern partnership and trade policy

A key mechanism for the neighbourhood countries will be through the ENP and the bilateral agreements associated with it. The 2020 strategy paper specifically refers to this: “The Europe 2020 strategy is not only relevant inside the EU, it can also offer considerable potential to candidate countries and our neighbourhood and better help anchor their own reform efforts. Expanding the area where EU rules are applied, will create new opportunities for both the EU and its neighbours”.[[17]](#endnote-17)

This is linked to more general trade strategy including “on-going multilateral and bilateral trade negotiations” and “acting within the WTO and bilaterally in order to secure better market access for EU business”.[[18]](#endnote-18) The June council document reinforces this approach in stating that: “Full use should be made of the strategy's external dimension, notably via the trade strategy that the Commission will present by the end of the year.”[[19]](#endnote-19) The ENP, too, therefore, is likely to have its major impact through liberalisation, and privatisation, especially to EU-based multinational companies.

## Other institutions: EBRD, EIB, World Bank, OECD, UNECE

The impact of EU policies will also be felt through the activities of other international institutions in the region, in particular multilateral development banks, the OECD and UNECE. Only the EIB and EBRD are EU institutions, but the others coordinate their activities in the region with the EU, and thus may also act as transmission mechanisms for the 2020 strategy.

### European Bank for Reconstruction and Development (EBRD)

The EBRD was set up specifically to provide development finance for the countries of eastern Europe in transition from communist states to market economies. It has lent over €23billion to the southeast Europe and the eastern partnership since 1991, nearly 40% of its total lending. It has projects in all three sectors under study. [[20]](#endnote-20)

The EBRD has a long history, since the mid-1990s, of directly financing private sector projects by west European multinational companies in these sectors. It also actively promotes and supports PPPs. [[21]](#endnote-21)

### European Investment Bank (EIB)

The EIB is the development bank of the EU. It is the largest financier of infrastructure projects in the EU, especially road and rail transport, but also including projects in energy, water and waste sectors. It is active in the candidate and enlargement countries in the west Balkans, where it is the largest international financier, and the eastern neighbourhood, where half of its projects are in energy. [[22]](#endnote-22)

It has a strong policy of promoting PPPs: it finances many PPPs, creates special funds for PPPs, has set up a PPP Expertise sector, and runs EU projects to facilitate using PPPs with infrastructure funding. [[23]](#endnote-23)

Its operational plan for 2011-13 refers throughout to the 2020 strategy in framing the EIB goals. [[24]](#endnote-24) It states that “Pilot programmes will need to be developed and tested in support of the Europe 2020 strategy” . It increased the EIB’s budget for lending to pre-accession countries (including the west Balkan countries) by €5.7billion, because of the continued difficulties in accessing credit for these countries.

### World Bank group

The World Bank continues to take a strong policy interest in the region. A strategy paper in March 2010 discussed the impact of the crisis and concluded there was a need for a change of strategy with stronger intervention by the bank. [[25]](#endnote-25)

It identified structural weaknesses in the region including: inefficient and unsustainable public services; a lack of competitiveness, specifically problems with infrastructure and labour: “Infrastructure and a skilled labor force―a positive legacy of socialism―have now emerged as the tightest bottlenecks to the region’s competitiveness”; and inefficiently high energy consumption. It sees future policy as focussing on reforms for “improved investment climate….energy and transport infrastructure… Tightening fiscal constraints in ECA countries offer an opportunity to address longstanding structural issues in the social sectors”.

It envisages strong cooperation with the EU: “notably expertise on structural issues (key for Europe’s 2020 agenda), social sector reforms (outside the acquis communautaire), and implementation capacity (for effective use of EU funds)” It also emphasises cooperation with Russia. The World Bank proposes to ‘continue and extend’ long-established programmes including the promotion of commercialisation and privatisation through its ‘Energy and water strategy in Central Asia’, ‘SE Europe Wholesale Electricity Market’, focussing on regional ‘flagships’ including climate change, energy, and skills. It lists areas for funding including ‘sub-national finance/PPP’ (in Russia) and ‘PSP in infrastructure projects’ (Albania and Turkey), as well as private healthcare. There are World Bank projects in energy, water and waste sectors in these countries.

### OECD

The OECD Environmental division covers both water and waste sectors. It has actively promoted privatisation and PPPs in the water sector in recent years, and produced its most recent report on this sector for a meeting in January 2010 on ‘Private Sector Participation in water and sanitation in EECCA – Recent Experience and the Way Forward’.[[26]](#endnote-26) It has produced overview reports on ‘Environmental Management in EECA in 2004 and 2007, which were used as base papers for the ‘Environment in Europe’ ministerial conferences in those years. The OECD’s contributions are considered in more detail in the chapters on waste management and water.

### UNECE

Most generally, UNECE has been actively promoting PPPs throughout eastern European and central Asian countries, and has recently established a centre for the promotion of PPPs in a range of sectors including water[[27]](#endnote-27). The UNECE leads an ‘Environment for Europe’ process, which has included ministerial conferences and reports from the OECD on country strategies. The next conference is scheduled for Astana, Kazakhstan, in September 2011.[[28]](#endnote-28) UNECE also produces environmental performance reviews (EPRs). UNECE’s contributions are considered in more detail in the chapters on water and waste management.

# Sectoral trends: waste management

## EU

### EU sector policies

The impact on the waste sector of EU environmental legislation in member states has been to require higher investment and greater activity in collecting, processing and treating waste. It has improved public services and overall increased employment in this sector. There is no sector-specific legislation requiring increased privatisation, liberalisation, or competitive tendering. However, the growth in the sector has increased business interest, the greater use of incineration has led to a growth in PPPs – often linked to privatisation of ‘feeder’ refuse collection contracts, and the interpretation of EU procurement and internal market laws has put pressure on municipalities to open more work to tenders from the private sector.

The 2020 strategy itself expects that business opportunities in this sector, as in others, will be more open for EU-based companies. The nature of the sector makes this unlikely in the near future, as there is an urgent need for large-scale investment in new systems, which will only be provided by public authorities, governments and international development banks, because they are not profitable enough for private companies – the World Bank’s dream of ‘self-financing from charges and fees’ is certainly not achievable in this region. The danger may come from future PPPs being signed, which would be a very expensive way of borrowing money, coupled with long-term contractual commitments to pay large amounts of public money – either as municipal or government payments, or as ‘guarantees’ to make up inevitable shortfalls in user charges and fees.

### EU accession process and neighbourhood policies

For the accession and enlargement countries the key mechanism is the sectoral policies on waste (see PSIRU report).

The EU neighbourhood reports focus on the need to develop environmental laws more rapidly, without emphasising the role of the private sector.

The progress reports on neighbourhood policies with the eastern partnership countries - Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine - all include sections on environmental policies. [[29]](#endnote-29) These sections are far smaller than those on energy. There is no report on Belarus (no ENP agreement has yet been concluded); the report on Georgia makes no reference to waste management issues. None of the reports make any specific reference to privatisation or market opening.

The report on Armenia notes that some new laws have been introduced, including on ‘environmental fees’, but that legislation ‘continues to require further development’. The report on Azerbaijan says that the country has adopted in 2009 an “action plan on approximation of legislation with that of the European Union”, but that legislation has not yet been developed. It also refers specifically to the plan for developing a waste management strategy for Greater Baku (see below under the World Bank). In Moldova, new legislation is “still under preparation”. The Ukraine report refers to the country’s participation in the Danube-Black Sea Task Force, which aims to reduce pollution in the Black Sea, and says that as part of this “ a loan agreement for Mykolayiv water supply and wastewater treatment project was signed in February 2010 with the EIB”.

## Development banks

All quotes in these sections are taken from project documents available on the web pages of the banks specified in the tables.

### EIB

The EIB has only one project in waste management in any of these countries, a €27 million loan to support the construction of regional sanitary landfills in Montenegro. This is in addition to the $15.6m. loan by the World Bank (see above). This means Montenegro has received nearly €40 million loans for waste disposal, which is just under 1% of GDP, or approximately €60 Euros per inhabitant.

|  |  |  |  |
| --- | --- | --- | --- |
| Country | Project name | Date | EIB loan(€ m.) |
| Montenegro | [Montenegro solid waste](http://www.eib.org/projects/loans/2006/20060038.htm) | 24/11/2009 | 27.0 |

### EBRD

The EBRD has made remarkably few loans for waste management projects. The table below lists all three such loans.

1. EBRD projects in waste management in region

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Country** | **Project name** | **Sub project** | **Description** | **Sector** | **Portfolio Class** | **Year of signing** | **Total project value (€ m.)** | **EBRD loan (€ 000)** |
| Croatia | Zagreb solid waste management programme | - | Completion of two landfills. | Municipal and environmental infrastructure | State | 1998 | 47.6 | 24.0 |
| Georgia | Rustavi solid waste management | - | Improvement and expansion of solid waste management services in Rustavi and Gardabani. | Municipal and environmental infrastructure | State | 2009 | 4.0 | 1.6 |
| Serbia | Duboko Solid Waste | - | Finance for construction of the regional solid waste landfill. | Municipal and environmental infrastructure | State | 2008 | 12.1 | 5.0 |

* + 1. **World Bank group**

The World Bank continues to take a strong policy interest in the region. A strategy paper in March 2010 discussed the impact of the crisis and concluded there was a need for a change of strategy with stronger intervention by the bank. [[30]](#endnote-30) It identified structural weaknesses including: inefficient and unsustainable public services; a lack of competitiveness, specifically problems with inefficiently high energy consumption, infrastructure and labour:

“Infrastructure and a skilled labor force―a positive legacy of socialism―have now emerged as the tightest bottlenecks to the region’s competitiveness”;

It sees future policy as focussing on reforms for:

“improved investment climate….energy and transport infrastructure… Tightening fiscal constraints in ECA countries offer an opportunity to address longstanding structural issues in the social sectors”.

It envisages strong cooperation with the EU:

“notably expertise on structural issues (key for Europe’s 2020 agenda), social sector reforms (outside the acquis communautaire), and implementation capacity (for effective use of EU funds)”

It also emphasises cooperation with Russia. The bank proposes to ‘continue and extend’ long-established programmes including the promotion of commercialisation and privatisation through its ‘Energy and water strategy in Central Asia’, ‘SE Europe Wholesale Electricity Market’, focussing on regional ‘flagships’ including climate change, energy, and skills. It lists areas for funding including ‘sub-national finance/PPP’ (in Russia) and ‘PSP in infrastructure projects’ (Albania and Turkey), as well as private healthcare.

There are World Bank projects in waste sectors in most of these countries, with particularly large projects in Azerbaijan, Belarus, Bosnia and Ukraine.

1. **World Bank waste management projects in countries**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country** | **Project name** | **Approval date** | **Closing date** | **Value ($m.)** | **URL** |
| Armenia | Transaction Advisory Support for PPP for Solid Waste Management for Yerevan City | 15-Sep-09 | 31-Dec-11 | 0.59 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P118912> |
| Azerbaijan | ARP/II-Integrated Solid Waste Management | 17-Jun-08 | 30-Sep-13 | 41.5 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P110679> |
| Belarus | Integrated Solid Waste Management Project | 17-Jun-10 | 30-Dec-16 | 48.76 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P114515> |
| Bosnia and Herzegovina | Second Solid Waste Management | 25-Nov-08 | 28-Feb-14 | 43.5 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P107998> |
| Macedonia | Municipal Services Improvement | 26-Mar-09 | 30-Nov-14 | 25 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P096481> |
| Moldova | MOLDOVA REGIONAL DEVELOPMENT | 31-Jul-09 | 30-Jun-11 | 12.5 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P118405> |
| Montenegro | Environmentally Sensitive Tourist Areas Project (Montenegro) | 11-Sep-03 | 30-Jun-12 | 9.5 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P079116> |
| Montenegro | Additional Financing for Montenegro Environmentally Sensitive Tourist Areas Project | 20-Dec-10 | N/A | 6.1 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P120659> |
| Ukraine | Urban Infrastructure Project | 28-Aug-07 | 31-Dec-12 | 140 | <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P095337> |

The Azerbaijan project is focussed on waste services in the capital, Baku, and its metropolitan area (population 2.3 million), especially improving the waste management in the Absheron peninsula where there are many informal settlements, long-term industrial pollution from the oil industry, and underdeveloped municipal services. Its first aim is to finance the corporatisation of the city’s waste operation into a commercial company, by financing: “the legal, financial, and organizational corporatization and establishment; the operationalization; and capacity building of the new joint stock Solid Waste Management Company (SWMC)”. There is no detailed explanation offered for creating such a legal entity. It also includes investment to help expand the refuse collection service in outlying districts: “collection equipment for under-served Baku districts. It will help increase service quality and availability throughout the region, including areas that now lack effective collection, by financing urgently needed trucks, containers and bins to improve solid waste collection coverage and service efficiency in the most acutely underserved areas of greater Baku.” The project insists on cost recovery as part of this process: “The roll-out of waste collection to currently un-served areas and the optimization and continuation of waste collection in other areas can only take place if a fee is regularly collected. The current tariff also needs to be increased.” It also includes investment in landfill sites and an incinerator.

The Belarus project funds investment in waste-sorting equipment and processes for Grodno (Hrodna), the fourth largest city in Belarus, with a population of about 360,000, in order to improve recovery and recycling of dry waste. It also aims to build national capacity in dealing with persistent organic pollutants. The project documents state that privatisation is ruled out by the Belarus government and Grodno, but the bank insists that there may be initial management contracts: “The Government did not consider private sector participation in operating and managing the facility because the Belarus private sector is small, and international firms lack sufficient presence and experience in Belarus. Grodno preferred to understand the nature of integrated solid waste management and recycling from international experience, by using and improving on its own human and physical resources. Experienced international consultants and contractors

will be required to design, construct, and to manage the facility in the first years of its operations.”

The Bosnia project follows on a larger earlier project under which Bosnia started developing waste management systems based around inter-municipal landfills meeting EU standards, and creating inter-municipal waste companies. This second project aims: “to improve the availability, quality, environmental soundness, and financial viability of solid waste management services in participating utilities/regions.” It includes investment in landfill sites, and in capacity building, which may include inter-state cooperation. The project is concerned to make the service commercially viable so that users can be charged and the revenue limited to the waste business,: “In principal, the solid waste sector provides a revenue-generating service that has potential for commercial and financial viability of its operators but tariffs are generally too low to finance all waste management operations and many municipalities use waste revenues to cross-subsidize other services such as street cleaning and park maintenance.”. The project focuses on investment, cost-recovery from user fees, and inter-municipal operation, with no explicit mention of reducing operating costs, nor of privatisation.

The Macedonia municipal services project is 30% concerned with waste management. It aims to provide loans to municipalities for investment in “revenue-generating public services”, and “capacity building for municipalities and Communal Service Enterprises (CSEs) to improve performance in service provision”, and to provide further investment grants to municipalities “as an incentive and reward for implementation of reform initiatives aimed at performance improvements in service delivery”. All projects financed under the loan must be either “revenue earning” or “cost saving”.

No detail is yet available on the Moldova project.

In Montenegro, the World Bank has funded projects “to create ecological and commercially sustainable solid waste collection and disposal services in Montenegro coastal municipalities”, to help create a clean coastline for tourism. There is no reference to private companies. The project objectives include: “strengthening multi-municipal joint companies (MJC) that will be created to operate the two regional solid waste disposal systems.”

Waste management represents a small part (10%) of the £140 million project in Ukraine, agreed in 2007, which is mainly concerned with water and sanitation. Local governments asked for the loan for environmental reasons: “Consumers, non-governmental organizations (NGOs), mayors, local government officials and environmental specialists rank solid waste as an urgent priority because much waste now goes uncollected or is disposed of inadequately causing environmental damage. Mayors in Odessa and Kharkiv have specifically requested long-term financial assistance to start addressing solid waste problems.”. The project itself has a core objective : “of making utilities financially sustainable”, so that users can be charged fees on the basis of full cost recovery. It does not contain any explicit privatization objective.

### World Bank

The World Bank (which is much the most active development bank in this sector and region) has a clear ideological position that raising revenues from charges and fees is essential. This is reflected in the specific projects in Azerbaijan, Bosnia, Macedonia and Ukraine, which insist that waste management must become self-financing on the basis of these charges alone. However, the Bank acknowledges that elected municipalities regard investment in the sector as an urgent public priority (for example in Ukraine), and that the private sector is not willing to finance this investment. The Bank’s own projects are in effect an injection of international public finance. The projects also involve increased inter-municipal cooperation, or extension of municipal areas.

## OECD and UNECE

The OECD and UNECE note municipalities generally cannot afford a proper level of service, or the necessary levels of investment in this sector. They also note that the private sector interest in the sector is limited . They propose solving this by a mixture of greater public finance from central government, the introduction of user fees for collection, and inter-municipal cooperation to get economies of scale.

### OECD

The OECD Environmental division covers both water and waste sectors.

It has actively promoted privatisation and PPPs in the water sector, and produced its most recent report on this sector for a meeting in January 2010 on ‘Private Sector Participation in water and sanitation in EECCA – Recent Experience and the Way Forward’.[[31]](#endnote-31)

It has produced overview reports on ‘Environmental Management in EECA in 2004 and 2007, which were used as base papers for the ‘Environment in Europe’ ministerial conferences in those years.

The 2007 report noted that municipalities were often unable to afford investment in waste collection:

“Proper waste collection remains a challenge. Some major cities, such as Tbilisi and Tashkent, have recently invested in bins, collection trucks and transfer stations. In most EECCA countries, however, separation at the source of different kinds of municipal waste is not taking place. A particular problem is the lack of separate collect ion and disposal arrangements for hazardous waste in Armenia, Kyrgyz Republic, Moldova and Uzbekistan. There has been no measurable progress in recycling and recovery of municipal waste since the Kiev meeting. ….Safe land-filling remains a major issue. Municipalities still cannot afford major investments in waste management, and obstacles to intermunicipal co-operation remain.” [[32]](#endnote-32)

It also commented on the impact of donors and other institutions: “much of the progress [in policy reform] has taken place with some form of support from bilateral donors or international organisations”, and added that so far “EECCA countries lack the strong driver of EU legislation to make them invest in waste management systems.” [[33]](#endnote-33)

The 2007 report calls for mixed use of taxation and charges to finance waste management: “Provide co-funding from the central budget to cover the public good aspect of waste management. Progressively revise fees and charges for waste management services (collection charges, tipping fees) in order to apply the

polluter pays principle and cover the private good aspect of waste management. Ensure that those resources are invested in the waste system.” [[34]](#endnote-34)

The report also acknowledged the limits of privatisation in waste management: “The waste management sector has started to attract private operators. But service levels are generally not well defined, capital investment plans are not devised or followed through, and compliance with environmental standards is not thoroughly monitored and enforced.” [[35]](#endnote-35)

### UNECE

The UNECE leads an ‘Environment for Europe’ process, which has included ministerial conferences and reports from the OECD on country strategies. The next conference is scheduled for Astana, Kazakhstan, in September 2011.[[36]](#endnote-36)

UNECE also produces environmental performance reviews (EPRs): the most recent, in August 2010, concerned Georgia. [[37]](#endnote-37) This noted lack of progress in waste management generally, including the general lack of a refuse collection service in rural areas, but commented that the refuse collection system in the capital, Tbilisi, had improved since the creation of a single, centralised service for the whole city, instead of separate services carried out by each of the 6 municipalities in Tbilisi. The report also states that: “…..Among the main reasons for the worrisome waste management situation are limited financial resources for waste management at national and municipal level; insufficient information for decision-making and limited coverage of information technologies; relaxation of environmental requirements as a means to promote private sector (national and international) investment in industry or trade; frequent changes in ministers and ministries structures; limited public information and participation in decision-making; and lack of a vision of waste management’s potential for business development and innovation (recycling, energy production).”[[38]](#endnote-38)

## Multinational company activity

As of 2010 there has been little activity by in these countries by the main European waste multinationals.

FCC have a number of waste disposal business in the enlargement countries, and in Ukraine. Suez Environnement has no presence in any countries in these groups. The involvement of the international private sector is limited to some contracts held by Remondis/Rethmann and Veolia in Ukraine. The role of local companies appears only as small-scale contractors, or even self-employed scavengers, for refuse collection or disposal, as in many other countries.

1. Waste multinationals active in EP or enlargement countries

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** |  | Parent/website | **Operates in countries** |
| **Alba/Intersoh** | DE | Alba [www.alba-online.de](http://www.alba-online.de) | Bosnia |
| **FCC** | ES | FCC [www.fcc.es](http://www.fcc.es) | Bosnia, Croatia, Macedonia, Montenegro, Serbia, Ukraine |
| **Remondis** | DE | Rethmann [www.remondis.com](http://www.remondis.com) | Ukraine |
| **Veolia** | FR | Veolia  [www.veoliaenvironnement.com/](http://www.veoliaenvironnement.com/) | Ukraine |

### FCC

FCC has contracts in five Balkan countries and Ukraine. All of these are waste disposal activities, with no element of refuse collection.

### Remondis: Ukraine

Since 2008 Remondis/Rethmann operates in a number of cities in Ukraine. Kiev (2.7m.), Odessa (1.0m.), Zaporozhye (0.8m.), Cherkassy (0.3m.), Melitopol, Pawlograd[[39]](#endnote-39), Artemiwsk. It operates both as a refuse collection contractor, and through PPPs. The company says that it provides ‘solutions’ for municipalities faced with stricter regulation, more demanding consumers, and recycling requirements. Specifically, it claims that it uses sorting and recycling to raise new revenue and so enable improved collection services without increasing the costs to the councils or to households.

The Remondis operations are thus based on the company increasing its revenues by introducing charges and selling materials by recycling, but it is also clear that the investment in new sorting and recycling equipment comes from municipalities rather than the companies, so the revenues are used to support profits for the parent companies rather than reinvested. [[40]](#endnote-40)

### Veolia: Ukraine

Veolia has subsidiaries operating in Kiev[[41]](#endnote-41), Ternopil, Chernivtsi, and the Crimea. These were originally set up in the mid-1990s by the German firm Altvater, which Veolia acquired after a series of takeovers. Veolia report that in Ternopil the municipality decided to invest in waste sorting equipment, following local protests with demonstrations and pickets blockading the local landfill.[[42]](#endnote-42) Veolia also participated in a conference of Ukrainian municipalities held in Yalta in September 2010, which discussed the following issues: “reforming housing and communal services, the use of energy efficient technologies; cooperate and develop a joint position of public authorities and the Association of Ukrainian cities on the development of self-government, law reform, strategic planning and economic development and competitiveness of cities, etc.”[[43]](#endnote-43)

# Sectoral trends: Energy

## EU policies and instruments

### Energy Community Treaty

The Energy Community Treaty <http://www.energy-community.org> effectively extends the EU internal market on electricity and gas to countries on the south-east borders of the EU, thus requiring unbundling and liberalisation of energy systems in these countries. It covers Albania, Bosnia, Croatia, Kosovo, Macedonia, Montengro, and Serbia; Moldova joined in 2010, and Ukraine in February 2011.[[44]](#endnote-44)

### Energy Charter Treaty

The Energy Charter Treaty ( <http://www.encharter.org> ) is designed to provide legal protection for private companies investing in the energy sector and for international trade and transport of electricity and gas. Of the accession countries in this report, Albania, Bosnia and Croatia are signatories (Macedonia, Montengro, and Serbia are not); of the eastern partnership countries, Armenia, Azerbaijan, Moldova, Georgia and Ukraine have ratified the treaty, but Belarus has not (nor has Russia).[[45]](#endnote-45)

### 2020 energy strategy

There is a specific 2020 paper on energy policy, which devotes an entire section to the international dimension. [[46]](#endnote-46) It identifies the’ external dimension’ as one of the five key priorities, both because of the need for secure access to energy supplies, and because of market opportunities:

“New patterns of supply and demand in global energy markets and increasing competition for energy resources make it essential for the EU to be able to throw its combined market weight effectively in relations with key third-country energy partners. Europe should be in a position to rely on significant additional energy supply sources and routes by 2020….. Energy security is closely intertwined with EU's foreign and security priorities”

This policy involves major initiatives with north African countries in the southern neighbourhood, such as the Desertec project (see PSIRU paper), but Priority 5 of the 2020 energy strategy paper emphasises the importance of the eastern neighbourhood most strongly because of their importance as transit companies and new markets. The Energy Community Treaty is seen as the key way of extending not only the existing internal market but also, automatically, any future legislation:

“The Energy Community Treaty should be implemented and extended to all those EU neighbours who are willing to adopt the EU market model. In this context, market integration and regulatory convergence should be pursued through comprehensive EU agreements based on the EU rules in the countries covered by the European Neighbourhood Policy and the Enlargement process, in particular in the Mediterranean region and with transit countries such as Ukraine and Turkey. Moreover, the Energy Community Treaty should be deepened by extending new *acquis* to the signatories to the Treaty.”

“While pursuing diversification of import sources and routes, reinforced energy partnerships will be established by the EU with key suppliers and transit countries. They will aim at promoting key principles such as those contained in the Energy Charter Treaty (for example the freedom of transit, transparency, safety, investment opportunities as well as compliance with international law).”

## EU Neighbourhood policy

The progress reports on neighbourhood policies with the eastern partnership countries all include sections on energy policies, most extensively for Ukraine. [[47]](#endnote-47) These focus on a number of issues:

* interconnections for gas (Armenia, Ukraine) and electricity (Armenia, Azerbaijan, Georgia, Moldova, Ukraine );
* renewables and energy efficiency (Armenia, Azerbaijan , Ukraine );
* new generating capacity (Armenia, Azerbaijan , Georgia );
* Energy Community Treaty and convergence with EU internal market (Georgia, Moldova, Ukraine).
* increases in tariffs (Armenia, Georgia, Moldova, Ukraine);

The great emphasis on interconnection reflects the importance of the region for energy security policy of the EU. The concern for the internal market, and for tariffs, rather reflects policies concerned with liberalisation and commercialisation of the sector, and the persistent belief of the IFIs that full cost recovery is a necessary part of policy in the energy sector.

Climate change policies are of lesser importance in the ENP reports., but a specific fund for development of renewables and energy efficiency has been created, initially targeted at Ukraine: “The EU, Ukraine and bilateral donors launched, an Eastern Europe Energy Efficiency and Environment Partnership in Stockholm in November 2009. A multi-donor support fund is to be created with initial funding of approximately EUR 90 million. The partnership will initially focus on Ukraine and at a later stage on other EaP countries.”

The following extracts from the country ENP progress reports for Armenia and Moldova illustrate this emphasis.

### Armenia ENP progress report

The report on Armenia Armenia’s “In April 2009, Armenia raised gas and electricity tariffs following the increase of the gas price. It continued the construction of conventional electricity generation units (including hydro) and the rehabilitation of electricity and gas infrastructure. Armenia pursued preparatory work for additional electricity interconnections with Georgia and Iran. In March 2009 Armenia agreed with Turkey to export electricity once the grid has been upgraded. In May 2009, the Armenia-Iran gas pipeline became operational. The deal between the two countries aims to export gas to Armenia and electricity to Iran. In April 2009, Armenia and Iran confirmed their plan to construct an oil refinery. Armenia pursued the development of an energy efficiency and renewable energy programme.”[[48]](#endnote-48)

### Moldova ENP progress report

“In April 2009, negotiations were concluded on the Energy Community Treaty. In December2009 the Energy Community ministerial approved the accession which will be effective subject to the gas law complying with the EU *acquis* and subsequent ratification by the parties. In December 2009, the Parliament adopted new gas and electricity laws. The laws will contribute to strengthening the independence of the energy regulator. Complete compliance with the EU legislation relevant for the Energy Community will need to be ensured by the deadlines indicated in the Protocol of accession. In 2009, Moldova continued to improve bill collection rates. In November 2009, a study on heat tariffs for Chisinau was completed. As of January 2010, Moldova increased electricity, gas and heat tariffs. Moldova continued to study the conditions under which it could join, together with Ukraine, the interconnected electricity networks of continental Europe (ENTSO-e, European Network of Transmission System Operators for Electricity, the successor of UCTE)….In November 2009, the Government approved an Instruction "About changes to thecomprehensive action plan on the financial stabilisation of energy sector enterprises", which postpones previously planned energy prices increase for the households and other categories of consumers. Energy tariffs do not yet cover costs.” [[49]](#endnote-49)

## Development banks, OECD and UNECE

The operations and activity of the development banks and other institutions are strongly reflective of EU policies in this sector. The EIB provides substantial loans to finance network infrastructure. In Serbia, the EBRD is “assisting energy sector reform through conditionality linked to a €150 million corporate loan to Srbijagas, the national gas company”: the conditions include accelerated harmonisation with EU internal market, including unbundling of the company’s gas transmission, distribution and trading activities. [[50]](#endnote-50)

1. EIB projects in electricity in the region

|  |  |  |  |
| --- | --- | --- | --- |
| 2010 | Georgia | [Vardnili & Enguri Hydro Rehabilitation](http://www.bei.org/projects/loans/2008/20080079.htm) | 20,000,000 |
| 2010 | Georgia | [High Voltage Transmission Lines](http://www.bei.org/projects/loans/2008/20080080.htm) | 80,000,000 |
| 2008 | Ukraine | [Rivne-Kyiv High Voltage Line](http://www.bei.org/projects/loans/2006/20060447.htm) | 150,000,000 |
| 2010 | Serbia | [EPS Electronic Meters](http://www.bei.org/projects/loans/2009/20090527.htm) | 40,000,000 |
| 2009 | Serbia | [EMS Electricity Network Upgrading](http://www.bei.org/projects/loans/2007/20070244.htm) | 24,500,000 |
| 2008 | Montenegro | [Power Sector Reconstruction](http://www.bei.org/projects/loans/2001/20010558.htm) | 2,976,910 |
| 2007 | Croatia | [Plinacro Gas Pipelines II](http://www.bei.org/projects/loans/2007/20070176.htm) | 190,000,000 |
| 2007 | Bosnia and Herzegovina | [Electric Power Reconstruction II](http://www.bei.org/projects/loans/2005/20050452.htm) | 103,000,000 |

## Croatia

### Electricity

The total installed electricity capacity for Croatia is about 3.7GW. It gets about 60% of itys power from hydro and imports, much of the latter being its entitlement from its co-ownership of the Krsko nuclear power plant (632MW) in Slovenia.

The main company is Hrvatska Elektroprivedra (HEP)[[51]](#footnote-1), which owns all the major power plants including the stake in the Krsko plant, except for the Plomin 2 coal-fired plant (210MW) which it jointly owns with RWE. In 2009, it employed 14,197 employees. HEP is a holding company with several subsidiaries:

* The generation assets are mainly owned by HEP Proizvodnja;
* The transmission system operator is HEP Operator priejenosnog sustava;
* The distribution system operator and retail supply for tariff consumers is carried out by HEP Operator distribucijskpg sustava;
* Retail supply is for the competitive market is HEP Opskrba.

In theory, the electricity market has been fully open since 2008, but in practice, there is no real competition in either generation or retail. There have been various proposals to privatise HEP but these were not being actively pursued in February 2011. The electricity and gas regulatory body is the Croatian Energy Regulatory Agency (CERA).[[52]](#footnote-2)

**Supply of electricity for Croatia 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 5326 |
| **Coal** | 2495 |
| **Oil** | 1985 |
| **Gas** | 2459 |
| **Renewables** | 61 |
| **Net imports** | 6577 |
| **Total** | 18903 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=HR>

### Gas

About two thirds of the gas available in Croatia is produced from national sources and distributed by 20 locally companies, which were originally municipally owned but are now mostly privately owned. The main import and production company is INA, which is jointly owned by the Hungarian company, MOL (47%), the Croatian state (45%) and private investors (8%).[[53]](#footnote-3) It is active in the oil and gas sector, in Croatia and abroad. The INA group employs about 16,000 employees. In January 2011, MOL was unsuccessful in buying shares from private investors to make it majority owner.[[54]](#footnote-4) The transmission system is owned and operated by Plinacro, a fully state-owned company employing 266 workers.[[55]](#footnote-5)

The natural gas market has been open to all consumers since 2008 but in practice, there is little retail competition.

**Supply of gas for Croatia 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 102080 |
| **Net Imports** | 19855 |
| **Final consumption** | 77560 |
| **Industry** | 26333 |
| **Commercial** | 5999 |
| **Residential** | 25533 |
| **Non-energy use** | 18917 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=HR>

## Serbia

### Electricity

The main electricity company is Elektroprivreda Srbije (EPS)[[56]](#footnote-6). This was established in 2005 and is a fully integrated state-owned company. In 2009, its installed capacity was 8.4GW and it employed about 35,000 employees. EPS is the largest producer of lignite in Serbia. The IMF has urged Serbia to privatise EPS and the gas company, Sribijagas, but the government is resisting this pressure.[[57]](#footnote-7) There is no scope for wholesale or retail competition in Serbia. The electricity and gas regulatory body is the Energy Agency of the Republic of Serbia (AERS).[[58]](#footnote-8)

**Supply of electricity for Serbia 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 10109 |
| **Coal** | 26622 |
| **Oil** | 172 |
| **Gas** | 415 |
| **Renewables** | 0 |
| **Net imports** | 73 |
| **Total** | 37391 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=RS>

### Gas

Sribijagas spun off from the integrated oil and gas company, NIS, in 2005.[[59]](#footnote-9) It employs about 3900 employees. Most of the gas consumed is imported from Russia and there is significant political concern about Croatia’s overdependence on Russia for gas.

**Supply of gas for Serbia 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 9975 |
| **Net Imports** | 83149 |
| **Final consumption** | 66070 |
| **Industry** | 46633 |
| **Commercial** | 7079 |
| **Residential** | 3024 |
| **Non-energy use** | 6141 |

<http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=RS>

## Macedonia

### Electricity

The main generator is the state-owned ELEM company[[60]](#footnote-10). It generates about 96% of Macedonia’s electricity, employing about 3600 employees.[[61]](#footnote-11) MEPSO, also fully state-owned is the transmission system owner and operator.[[62]](#footnote-12) The main distributor was ESM, in which EVN, the Austrian company, EVN took a 90% stake from the Macedonian state in 2006, renaming the company EVN Macedonia.[[63]](#footnote-13) Since 2006, there has been a long-running dispute between ELEM and EVN Macedonia about the sale of electricity from ELEM to EVN Macedonia.[[64]](#footnote-14) There were 9 consumers eligible to choose their electricity supplier in 2008.[[65]](#footnote-15) The electricity and gas regulatory body is the Energy Regulatory Commission of the Republic of Macedonia (ERC).[[66]](#footnote-16)

**Supply of electricity for Macedonia 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 840 |
| **Coal** | 5289 |
| **Oil** | 182 |
| **Gas** | 0 |
| **Renewables** | 0 |
| **Net imports** | 2733 |
| **Total** | 9044 |

<http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=MK>

### Gas

All gas is imported and virtually all of it is used by industry with none used by residential consumers or for power generation.

**Supply of gas for Macedonia 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 0 |
| **Net Imports** | 4529 |
| **Final consumption** | 1460 |
| **Industry** | 1421 |
| **Commercial** | 29 |
| **Residential** | 0 |
| **Non-energy use** | 0 |

<http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=RS>

## Montenegro

### Electricity

Total generation is 2679GWh with net imports of 1050GWh. The main company is Elektroprivreda Crne Gore (EPCG)[[67]](#footnote-17). It is a joint stock company, 55% owned by the State. Most of the rest of the stock is owned by the Italian company A2A, which acquired 43.7% of the stock in 2009. Its installed capacity is 868MW, nearly 80% of which hydro and it employs nearly 3000 employees. The market is to be opened in two stages with all non-household consumers given choice in 2009 and household consumers to be given choice in 2015. The electricity and liquid fuels regulatory body is Energy Regulatory Agency of the Republic of Montenegro (ERA).[[68]](#footnote-18)

### Gas

No natural gas is used in Montenegro.

## Kosovo

### Electricity

Electricity supply is 5275GWh per year of which 413GWH is imported. Of this, 98% is generated from fossil fuels with the rest hydro. The main company is the vertically integrated Korporata Energjetike e Kosovës (KEK).[[69]](#footnote-19) It is state-owned by the Kosovo government is under strong pressure from the IMF to privatise it with the distribution business planned to be first to be sold. The electricity regulatory body is the Energy Regulatory Office (ERO).[[70]](#footnote-20)

### Gas

No natural gas is used in Kosovo.

## Bosnia & Herzegovina

### Electricity

Three vertically integrated companies control generation, distribution and retail: Elektroprivreda BIH Sarajevo[[71]](#footnote-21), Elektroprivreda HZHB Mostar and Elektroprivreda RS Tribinje. Elektroprivreda BIH Sarajevo, the largest of the three employing more than 5000 workers is 90% owned by the State and 10% owned by other shareholders. Elektroprivreda HZHB Mostar is state-controlled and has 1500 employees. Elektroprivreda RS Tribinje is state controlled[[72]](#footnote-22)

Transmission is carried out by Elektroprenos Bosne i Hercegovine.[[73]](#footnote-23) The market is to be opened in two stages with all non-household consumers given choice in 2008 and household consumers to be given choice in 2015.

The electricity and gas regulatory body is the State Electricity Regulatory Commission (SERC).[[74]](#footnote-24)

**Supply of electricity for Bosnia & Herzegovina 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 4552 |
| **Coal** | 8536 |
| **Oil** | 173 |
| **Gas** | 0 |
| **Renewables** | 0 |
| **Net exports** | 1650 |
| **Total** | 11611 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=BA>

### Gas

The gas sector is small. BH-Gas Sarajevo is the main wholesale supplier operating 68% of the gas pipelines.[[75]](#footnote-25) It is state-owned employing 38 people but is being prepared for privatisation with the assistance of the World Bank. There are 4 distribution companies, but the largest, Sarajevogas Sarajevo, with 307 employees, accounts for 94% of gas sales.[[76]](#footnote-26) The company is 97.75% state-owned. There are no firm plans to open the gas sector to competition.

**Supply of gas for Bosnia & Herzegovina 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 0 |
| **Net Imports** | 16422 |
| **Final consumption** | 13269 |
| **Industry** | 10839 |
| **Commercial** | 344 |
| **Residential** | 2086 |
| **Non-energy use** | 0 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=BA>

## Albania

## Electricity

Albania’s electricity supply is met entirely by hydro and imports of power. In the past, Albania has exported power but it is currently suffering from shortages of power. The main company is the state-owned Albanian Power Corporation (KESH), which used to be a fully integrated company. It still has a monopoly in power generation. The transmission system operator. OST, was unbundled in 2004 but it remains a subsidiary of KESH. The sole distribution company, OSSH,which has 1.1m customers, was privatized in October 2008 (the deal was not formally completed until June 2009), with CEZ taking a 76% stake for €120m, the government retaining the rest of the shares.[[77]](#footnote-27) The company is now known as CEZ **Shpërndarje**.[[78]](#footnote-28)

From 2010, all consumers were eligible to choose their electricity supplier but only one customer has exercised that right. The regulator for the electricity sector is the Albanian Energy Regulator (ERE).[[79]](#footnote-29)

**Supply of electricity for Albania 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 3797 |
| **Coal** | 0 |
| **Oil** | 0 |
| **Gas** | 0 |
| **Renewables** | 0 |
| **Net exports** | 2434 |
| **Total** | 6231 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=AL>

### Gas

Albania produces a small amount of gas (335TJ) but all of this is used by the energy industry and none supplied to final consumers.

## Armenia

### Electricity

The state regulatory body claims there are 79 generation companies, four of which are state-owned, although Armenia only has 11 power stations only five of which are of a significant size.[[80]](#footnote-30) The Metsamor nuclear power plant, which supplies about 40% of Armenia’s power, is state-owned. It used to have two units each of 440 MW, but one of these was permanently closed in 1989. Since 2003 and until 2013, the plant’s output will be sold by the Russian company Inter RAO to pay for past debts. In 2010, an agreement was signed with Russia for the supply of a 1000MW reactor to replace Metsamor with Russia providing 20% of the investment needs.[[81]](#footnote-31) The Hrazdan thermal power plant (using mainly gas with oil as back-up), 1100MW, is owned by Hrazdan Energy Company[[82]](#footnote-32), which is owned by the Russian Federation. The state-owned Yerevan Power Plant originally had a capacity of 550MW burning natural gas but by 2009, it was only operating at 50MW. It was reconstructed with Japanese finance with a capacity in combined cycle of 272MW and re-opened in 2010.[[83]](#footnote-33)

The hydroelectric plant is mostly owned by the International Energy Corporation[[84]](#footnote-34) which has a total capacity of 559MW. The company was owned by Inter RAO UES until December 2010, when it was taken over RusHydro.[[85]](#footnote-35)

The distribution company, Electric Networks of Armenia[[86]](#footnote-36), is owned by Inter RAO UES. It bought these rights in 2005 for US$73m.[[87]](#footnote-37) The transmission grid is owned and operated by the state-owned ArmEnergo.[[88]](#footnote-38) The electricity and gas regulatory body is the Public Services Regulatory Commission of Armenia (PSRC).[[89]](#footnote-39)

**Supply of electricity for Armenia 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 1797 |
| **Coal** | 0 |
| **Oil** | 0 |
| **Gas** | 1510 |
| **Nuclear** | 2461 |
| **Renewables** | 4 |
| **Net exports** | 24 |
| **Total** | 5748 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=AM>

### Gas

IEA statistics show no residential consumption of gas, but a large amount is categorized as unspecified and this seems to include residential supply. The network is owned by ArmRusgasprom.[[90]](#footnote-40)

**Supply of gas for Armenia 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 0 |
| **Net Imports** | 83769 |
| **Final consumption** | 63163 |
| **Industry** | 39101 |
| **Commercial** | 0 |
| **Residential** | 0 |
| **Non-energy use** | 0 |
| **Other unspecified** | 17075 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=AM>

## Azerbaijan

### Electricity

The main electricity company in Azerbaijan is the integrated company, Azerenergy, owning 6400MW of plant.[[91]](#footnote-41) It is also the largest distribution company and it owns the transmission network.[[92]](#footnote-42) It is a state-owned joint stock company employing 19746 workers.

The electricity and gas regulatory body is the **Tariff (Price) Council of the Republic of Azerbaijan.[[93]](#footnote-43)**

**Supply of electricity for Azerbaijan 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 2232 |
| **Coal** | 0 |
| **Oil** | 1565 |
| **Gas** | 20078 |
| **Renewables** | 0 |
| **Net exports** | 596 |
| **Total** | 23279 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=AZ>

### Gas

The gas distribution company is the state-controlled Azerigaz.[[94]](#footnote-44) Ownership of this was transferred to the state energy company, SOCAR in 2009.[[95]](#footnote-45)

**Supply of gas for Azerbaijan 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 636091 |
| **Net Exports** | 204814 |
| **Final consumption** | 152676 |
| **Industry** | 27023 |
| **Commercial** | 1985 |
| **Residential** | 120085 |
| **Non-energy use** | 3115 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=AZ>

## Belarus

### Electricity

The main electricity company is the state-owned integrated company, Belenergo, which owns most of the 8247MW generating capacity. Six ‘republican unitary electricity enterprises’ (RUE ‘Oblenergo’), which are part of Belenergo, carry out the distribution of electricity.[[96]](#footnote-46)

There is no electricity and gas regulatory body.

**Supply of electricity for Belarus 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 39 |
| **Coal** | 10 |
| **Oil** | 959 |
| **Gas** | 33958 |
| **Renewables** | 82 |
| **Net imports** | 1840 |
| **Total** | 36888 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=BY>

### Gas

The state-owned Beltopgas carries out gas distribution and retail sales to final consumers.

**Supply of gas for Belarus 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 7840 |
| **Net Imports** | 813418 |
| **Final consumption** | 218350 |
| **Industry** | 82959 |
| **Commercial** | 1681 |
| **Residential** | 55732 |
| **Non-energy use** | 53685 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=BY>

## Georgia

### Electricity

Total generating capacity for Georgia is 2.6GW, 70% of which is hydroelectric and about half of the country’s generation comes from the 1300MW Enguri dam, which is state-owned.[[97]](#footnote-47)

There are three distribution companies: Energo-Pro Georgia, Telasi and Kakheti Energy Distribution. The Czech company, Energo-Pro, bought the distribution companes, United Energy Distribution Company, and Ajaria Power Company, plus six hydroelectric plants (362MW) in 2007 for US$132m.[[98]](#footnote-48) [[99]](#footnote-49) Its service area covers 70% of Georgia, and they supply 860,000 customers. Telasi, which supplies 450,000 consumers including Tbilisi was sold to the US company, AES, in 1998, who sold it on to Inter RAO UES in 2003.[[100]](#footnote-50) Inter RAO UES owns 75% of the shares with the Georgia state owning the rest. Kakheti Energy Distribution is owned by the Georgian company TBC Energy and has a total of 111,000 costumers. TBC bought the company in 2006 for US$5.1m

The electricity and gas regulatory body is the Georgian National Energy and Water Supply Regulatory Commission (GNERC).[[101]](#footnote-51)

**Supply of electricity for Georgia 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 7162 |
| **Coal** | 0 |
| **Oil** | 0 |
| **Gas** | 1279 |
| **Renewables** | 0 |
| **Net imports** | 117 |
| **Total** | 8324 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=GE>

### Gas

SOCAR (Azerbaijan) bought 22 Georgian gas distribution companies in 2008, giving it a dominant position in gas supply to Georgia[[102]](#footnote-52), although the Tbilisi distribution company is owned by a subsidiary of Kazakhstan's Kazmunaigaz

**Supply of gas for Georgia 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 502 |
| **Net Imports** | 49488 |
| **Final consumption** | 28301 |
| **Industry** | 8331 |
| **Commercial** | 2512 |
| **Residential** | 8960 |
| **Non-energy use** | 3391 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=GE>

## Moldova

### Electricity

There are four main power plants, three thermal power plants and one hydroelectric plant. The largest generation company is Moldavskaya GRES, which is a subsidiary of Inter RAO UES and owns the gas-fired Kuchurgan plant (2520MW), much the largest plant in Moldova.[[103]](#footnote-53) The transmission operator is state-owned Moldelectrica. The largest of the three distribution companies covering Central and Southern Moldova including Chisinau is majority owned by the Spanish company, Union Fenosa, RED Union Fenosa Moldova[[104]](#footnote-54). It purchased the company in 2000 for US$25m. The European Bank for Reconstruction and Development holds a minority stake (19%). The other two, RED Nord and RED Nord-Vest are state-owned. There were plans to privatise RED Nord and RED Nord-Vest in 2005, but these were abandoned and have not been re-started. The retail market is 100% open.

The electricity and gas regulatory body is the National Energy Regulatory Agency (ANRE).[[105]](#footnote-55)

**Supply of electricity for Moldova 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 82 |
| **Coal** | 76 |
| **Oil** | 0 |
| **Gas** | 3468 |
| **Renewables** | 0 |
| **Net imports** | 2958 |
| **Total** | 6584 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=MD>

### Gas

Moldovagaz is the monopoly gas supplier for Moldova. It is majority owned by Gazprom, which bought 50%+1 of the shares in 1998 in lieu of debt repayment.[[106]](#footnote-56)

**Supply of gas for Moldova 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 0 |
| **Net Imports** | 92257 |
| **Final consumption** | 24716 |
| **Industry** | 9311 |
| **Commercial** | 3893 |
| **Residential** | 10597 |
| **Non-energy use** | 0 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=MD>

## Ukraine

### Electricity

According to the electricity regulatory body, the National Electricity Regulatory Commission of Ukraine (NERC)[[107]](#footnote-57), there 40 electricity generators, 36 retail companies and a single transmission company, the state-owned Ukrenergo.[[108]](#footnote-58)

About half the generation comes from the nuclear power plants, which are owned by Energoatom[[109]](#footnote-59) and controlled by the Ministry of Fuel and Energy of Ukraine. The four largest fossil fuel generators are Donbassenergo, Zakhidenergo, Tsentrenergo, and Dniproenergo, with a total capacity of 29670MW. The state owns a majority share in these companies and all other energy holdings through the National Joint Stock Company, Energy Company of Ukraine (EKU)[[110]](#footnote-60). There have been various attempts to privatise them, the latest scheduled for the second quarter of 2011.[[111]](#footnote-61) Donbassenergo owns 3.7GW of plant and the state owns 85.8% of the shares; Zakhidenergo,[[112]](#footnote-62) 70% state-owned, owns 4707MW of plants; Tsentrenergo, 78% state-owned, has 7550MW of plant[[113]](#footnote-63); Dniproenergo, 76% state-owned, owns 8185MW of capacity.[[114]](#footnote-64) The hydroelectric plants are owned Ukrhydroenergo, 100% owned by the Energy Company of Ukraine[[115]](#footnote-65) but there are no plans to privatise this company.

1. *Electricity distribution companies in Ukraine*

**Energo Consumers Owners (%)**

Kyivoblenergo 763,000 AES (75)

Rivneoblenergo 383,000 AES (75)

Zhytomyroblenergo 525,000 VSE (75.6)

Sevastopolmiskenergo 137,000 VSE (70)

Khersonoblenergo 594,000 VSE (65)

Kirovogradoblenergo 479,000 VSE (51)

Zaporozhyeoblenergo RAO UESR, EKU (60)

Luganskoblenergo RAO UESR, EKU (60)

Lvovoblenergo RAO UESR, EKU (27)

Nikolaevoblenergo RAO UESR, EKU (70)

Poltavaoblenergo RAO UESR, EKU (25 + 1)

Prikarpatyeoblenergo RAO UESR, EKU (25)

Sumyoblenergo RAO UESR, EKU (25 + 1)

Ternopoloblenergo RAO UESR, EKU (51)

Chernigovoblenergo RAO UESR, EKU (25 + 1)

Odessaoblenergo EKU (25)

Vinnitsaoblenergo EKU (75)

Volynoblenergo EKU (75)

Zakarpattyaoblenergo EKU (75)

Dniproobleenergo EKU (75)

Khmelnitskobleenergo EKU (70)

Krymenergo EKU (70)

Kharkhivenergo EKU (65)

Donetskoblenergo EKU (65)

Cherkassyoblenergo EKU (46)

Chernovtsyoblenergo EKU (70)

Ivano-Frankiskoblenergo

Note: EKU ownership was as at the time of its establishment in June 2004.

There were 27 existing distribution companies, 25 supplying regions (‘oblenergos’) and two ‘energos’ supplying the cities of Kiev and Sevastapol. Six of these have been privatized and a number of the others partly privatized. The largest distributor is Kyivenergo, in which the state owns 50%+1 shares[[116]](#footnote-66), which also owns 1200MW of thermal plant. Private fuel and energy holding DTEK increased its stake in Kyivenergo to 24.9% in 2010. It is planned to attempt to privatise Kyivenergo in 2011. In 2009, it employed 13970 workers.

AES owns two distributors, Kyivoblenergo and Rivneoblenergo[[117]](#footnote-67). In 2001, it paid about US$45.9m for the 75% stake in Kyivoblenergo and US$23.2m for the 75% interest in Rivneoblenergo. The remaining 25% interests in both companies are either publicly traded or owned by employees.

Vychodoslovenske Energeticke Zavody (VSE), bought majority stakes in four oblenergos, Zhytomyroblenergo, Sevastopolmiskenergo, Khersonoblenergo and Kirovogradoblenergo. In March 2002, VSE transferred the shares to a subsidiary, VS Energy, registered in Netherlands in which it has a 90% stake. In January 2004, Vacuna International was negotiating to buy this stake, but the deal was not completed. In 2002, RWE, the German utility, acquired a 49% stake in VSE and subsequently Slovak law was changed to allow a majority stake to be taken in VSE (and the other Slovak distributors). It is expected RWE will take up this opportunity.

In November 2003, the state-owned Russian electric utility, RAO UESR, announced it had taken stakes of at least 16 in 10 oblenergos, although generally the stakes were less than controlling ones. It also said it planned to increase these stakes by buying the government holdings in these companies to gain controlling stakes, but Ukraine refused to allow this while a majority of shares in RAO UESR were held by the Russian government.

**Supply of electricity for Ukraine 2008 (GWh)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Hydro** | 11512 |
| **Coal** | 68466 |
| **Oil** | 687 |
| **Gas** | 22035 |
| **Nuclear** | 89841 |
| **Renewables** | 45 |
| **Net exports** | 6730 |
| **Total** | 185856 |

Source: <http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=UA>

### Gas

The main company importing and exporting gas is Naftogaz[[118]](#footnote-68) employing 175,000 people. The state owns most of the distribution networks in Ukraine, but regional gas distribution companies operate them. Distribution pipelines are operated by regional distribution companies, ‘oblgases’, which are partly privatized. The largest distributor is SC Gas of Ukraine, which is a subsidiary of Naftogaz.

Ukrtransgas, also owned by Naftogas, carries out the entire scope of operations relating to natural gas transmission and storage in Ukraine, including gas deliveries to customers, transit of Russian gas to Europe and Turkey, as well as the gas transport infrastructure operating maintenance and construction.

**Supply of gas for Ukraine 2008 (TJ)**

|  |  |
| --- | --- |
|  | **Supply** |
| **Production** | 836745 |
| **Net Imports** | 2051633 |
| **Final consumption** | 1481510 |
| **Industry** | 440656 |
| **Commercial** | 25354 |
| **Residential** | 643160 |
| **Non-energy use** | 223621 |

Source: <http://www.iea.org/stats/gasdata.asp?COUNTRY_CODE=UA>

# Sectoral trends: Water

## EU policies

The 2020 strategy core documents do not mention the water sector. The ENP also has little to say on water: one of the few references in the progress reports is from Moldova: “A new environment framework law and laws on environmental impact assessment, water and waste management are still under preparation. A convergence plan on water was elaborated”. [[119]](#endnote-51) The EU policies and legislation may have an indirect influence, but it is weakened by the cost constraints on the economies of the region.

## Development banks

### EIB

The EIB is investing in water in FYR Macedonia, Georgia, Moldova, Bosnia, Montenegro and Ukraine. In every case, the loans support municipal utilities and aim to improve technical standards, including future compliance with EU water and sanitation standards.

1. EIB projects in water and sanitation in the region

|  |  |  |  |
| --- | --- | --- | --- |
| 2010 | FYROM | [Water Supply And Wastewater Collection](http://www.bei.org/projects/loans/2008/20080446.htm) | 50,000,000 |
| 2010 | Georgia | [Water Infrastructure Modernisation](http://www.bei.org/projects/loans/2009/20090718.htm) | 40,000,000 |
| 2010 | Moldova, Republic of | [Moldova Water Sector Project](http://www.bei.org/projects/loans/2008/20080144.htm) | 10,000,000 |
| 2010 | Bosnia and Herzegovina | [Water And Sanitation Rs](http://www.bei.org/projects/loans/2008/20080556.htm) | 50,000,000 |
| 2010 | Montenegro | [Montenegro Water And Sanitation](http://www.bei.org/projects/loans/2005/20050221.htm) | 16,500,000 |
| 2008 | Bosnia and Herzegovina | [Water And Sanitation Federation Bih](http://www.bei.org/projects/loans/2006/20060272.htm) | 60,000,000 |
| 2008 | Montenegro | [Montenegro Water And Sanitation](http://www.bei.org/projects/loans/2005/20050221.htm) | 5,000,000 |
| 2010 | Ukraine | [Mykolayiv Vodokanal](http://www.bei.org/projects/loans/2007/20070347.htm) | 15,540,000 |
| 2006 | Montenegro | [Montenegro Water And Sanitation](http://www.bei.org/projects/loans/2005/20050221.htm) | 0 |

### EBRD: public finance and private water companies

The European Bank for Reconstruction and Development (EBRD) finances water operations through loans to both public and private sectors, including equity investments in private water companies.

The EBRD has for many years provided strong support for private companies (see below), but recent developments suggest that, like OECD and UNECE, it is changing its view, and is now ready to support regionalisation under public sector operation. In Georgia, for example, it abandoned a planned €12m. loan for a PPP in a region of the country: they system is now being developed under a public water company,[[120]](#endnote-52)

In Moldova, the EBRD is providing a €10 million sovereign loan to finance the upgrade and extension of the water and wastewater systems in towns outside the capital, Chisinau, and focuses on the regionalisation of water services. [[121]](#endnote-53)(This loan is also an example of coordination between the EBRD, EIB and the EU’s Neighbourhood Investment Facility (NIF), each of whom are providing €10m. towards the total cost of €30m.). In this loan, and more recent similar ones in Armenia and Bosnia, it nevertheless explicitly expects full cost recovery by the public utilities.

1. EBRD public projects in water and sanitation in the region

|  |  |  |
| --- | --- | --- |
| 14 Jan 2011 | Armenia | [Armenian Small Municipalities Water Project](http://www.ebrd.com/english/pages/project/psd/2011/40718.shtml) |
| 19 Apr 2010 | Bosnia and Herzegovina | [Sarajevo Canton Water and Wastewater Project](http://www.ebrd.com/english/pages/project/psd/2010/39960.shtml) |
| 23 Feb 2010 | Moldova | [Moldova - Water Utilities Development Programme](http://www.ebrd.com/english/pages/project/psd/2010/40267.shtml) |

The EBRD agreed in 2009 to invest €80 million in shares in a joint venture with FCC’s Aqualia, called Aqualia New Europe. FCC/Aqualia will own 51%, the EBRD 49%. FCC commented that: “This project will increase Aqualia's foothold in the Eastern and Central European water sector”. [[122]](#endnote-54)

The EBRD has made similar equity investments in Veolia Voda, Veolia’s operating company in central and eastern Europe, since 2007. The cumulative value of these equity investments is now £175m. The World Bank’s private sector arm, the IFC, has also invested in Veolia Voda, as well as Veolia’s other international water operations. (see below).

The EBRD has also financed other private water companies’ operations in central and eastern Europe. It financed the United Utilities commercial ventures in eastern Europe (now part of Veolia), including equity investments; it financed ventures by Suez, who negotiated a ‘multi-project’ loan, tied to Suez, in 1996. In addition, Veolia has benefitted from EBRD finance for its operations in energy services (Dalkia) and transport (Connex).

The table below shows that the cumulative total value of this financing has been €496 million, of which €272 million consists of equity stakes.

1. EBRD finance for private water, 1991-2009 € million

|  |  |  |
| --- | --- | --- |
|  | EBRD finance 1991-2009 | Of which equity investments |
| FCC/Aqualia | 80 | 80 |
| Suez | 42 | 0 |
| United Utilities (now Veolia) | 111 | 17 |
| Veolia | 263 | 175 |
|  |  |  |
| *TOTAL* | *496* | *272* |
|  |  |  |
| *Veolia – non-water*  *(Dalkia, Connex)* | *208* | *141* |

Source: EBRD investments 1991-2009 <http://www.ebrd.com/downloads/research/annual/invest09.xls>

These EBRD equity investments in water represent an extraordinarily high percentage of all EBRD equity stakes in in private companies in all sectors. Equity stakes in private water ventures account for 27% of all EBRD equity investments – despite the fact that the water sector is a much smaller part of the economy, and that the majority of it remains in the public sector. These figures suggest that the water companies have found very effective mechanisms for convincing the EBRD of their need for public finance.

1. EBRD equity investments1991-2009: heavily weighted to water

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | € million | % of total |
| TOTAL EBRD equity investments 1991-2009 |  | 10021 | 100.0 |
| of which | All municipal infrastructure | 426 | 42.5 |
| of which | Water | 272 | 27.2 |

Source: EBRD investments 1991-2009 <http://www.ebrd.com/downloads/research/annual/invest09.xls>

The International Finance Corporation (IFC) has also made substantial equity investments, in two different subsidiaries of Veolia. In June 2010 it announced it would acquire 9.5% of the shares of Veolia Voda through:

“an equity investment of up to €100 million via a new share issue in Veolia Voda, Veolia Water’s Eastern European arm.  The capital will be used to support the expansion of Veolia Voda’s operations into new markets in Central and Eastern Europe, including Russia, Turkey, Ukraine, and the some of the Balkans.” [[123]](#endnote-55)

IFC had previously invested $25million as equity in Veolia AMI, the company’s subsidiary aimed at Africa, Middle East and India.

## OECD/UNECE: Eastern strategy

The EBRD decisions to finance FCC and Veolia are a clear encouragement to the companies to expand eastwards. Other international institutions - the OECD and the UNECE - have also been actively promoting the possible markets for water privatisation in eastern Europe and central Asia (EECA - i.e. the former Soviet Union) for the last few years. An OECD conference at the start of 2010 received a detailed report both on the existing cases of privatisation and the potential for future private enterprise in each country (see annexe), and the institutions have subsequently supported regional consolidation under the public sector as a policy preference, though continuing to promote full cost recovery as a central objective.

## Multinationals active in region

The overall record of water privatisation in this region shows an extremely high failure rate. In the table below, 6 contracts were terminated prematurely.

Veolia is the only multinational which is active to any significant extent in these regions. This forms part of the activities of its subsidiary Veolia Voda, which has received significant finance from the EBRD and the IFC (see above). However, even Veolia has few contracts in this region: at the end of 2010, it held a lease contract in Yerevan. The other company financed by the EBRD , the Spanish company FCC, has not yet obtained any business here.

There is little significant activity in these regions by other west European water companies. Some treatment plant BOTs or short-term consultancy or management contracts, have been obtained by German and Austrian public sector firms, including EVN, Gelsenwasser and Berlinwasser. Apart from the contract of Veolia in Yerevan (and the short-term management contracts in Armenia), the other privatised water operations are owned and run by private companies based in, or connected to, the country of operation: for example Multiplex Systems, which operates the water service in Tbilisi, Georgia.

# Conclusions

The impact of the 20202 strategy on these sectors depends on reinforcement of existing policies and mechanisms.

The fiscal and economic policies reinforced most strongly by the 2020 strategy all have negative impacts – tight fiscal constraints, ‘structural reforms’ and in particular PPPs, which are currently being strongly promoted by the development banks and other agencies. The stronger fiscal constraints will be felt most strongly by the accession and enlargement countries: in the eastern neighbourhood they will impact most strongly on countries subject to the conditionalities of IMF packages, including Ukraine and Belarus.

However, the effect on PPPs will be limited by real trends in the sectors: the review of these sectors has shown clearly that in both waste and water there is currently very little activity by multinational companies, even by the water companies with capital injections from the EBRD. Without this corporate activity, the possibilities for PPPs will be limited, though it is clear that some potential private investors exist within the countries. In energy, there is more corporate involvement in privatisations, but the impact is likely to be small compared with the sectoral policies.

These sectoral policies for energy reinforce the large amount of lending for energy networks and new generation and storage facilities, as well as for renewables. The 2020 strategy also supports the vigorous liberalisation of the energy sector, but the greatest driver for liberalisation in the region is the Energy Community Treaty. In waste, the strategy is likely to strengthen the impact of higher standards and reinforce the trends to develop improved waste management systems, driven by local and national policies, as well as the lending of IFIs. In water, the strategy offers nothing, and the dominant trends in this sector in the region remain the dismal record of privatisation and the reluctance of multinationals to operate even when funded. The employment effects of these factors are policy-specific.

1. Privatised water operations in EECA

Source: OECD, December 2009 [www.oecd.org/dataoecd/1/32/47755323.pdf](http://www.oecd.org/dataoecd/1/32/47755323.pdf)

| Operator | Owner of operator | Service territory | Population | Ground for selection of operator | Contract description | | | | Investments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of contract | Contract start year | Contract end year | Expected contract period |
| **Armenia** | | | | | | | | | |
| Yerevan Water, CJSC | Veolia Water | Yerevan and 32 neighboring rural settlements | 1100 | Competition | Lease agreement | 2006 | 2016 | 10 | Plan: Euro 9.1 million of Operator’s own funds within the contract period |
| Armenian Water and Sewerage Company, CJSC | SAUR | 37 towns and 280 rural settlements | 619 | Competition | Contract for management | 2005 | 2010 | 4 + 2 | n/a |
| Lori Water Sewerage , CJSC | Consortium of  MVV Decon, MVV Energie, and AEG Service | 1 town and 16 rural settlements | 375 | Competition | Contract for management | 2009 | 2012 | 3 + 1 | n/a |
| Shirak Water Sewerage, CJSC | 2 towns и 35 rural settlements | n/a |
| Nor Akunq, CJSC “ | 2 towns и 9 rural settlements | n/a |
| **Georgia** | | | | | | | | | |
| АО “Tbilvodokanal” | Veolia Water | Tbilisi | 1093 | Competition | Lease agreement | 2001 | Agreement is early terminated | 5 | n/a |
| Georgian Water and Power | Multiplex Solutions | Competition | Privatization | 2007 | WSS facilities have been privatized | | Plan: USD 350 million |
| **Kazakhstan** | | | | | | | | | |
| ТОО “Water resources – Marketing” | ТОО “Water Resources – Marketing” | Shymkent | 534 | WSS facilities owned by Operator | | | | | n/a |
| The “Oskemen-Vodokanal” governmentally owned enterprise | "IR-Group" | Ust-Kamenogorsk | 287 | Competition | Trust management agreement | 2004 | Agreement was early terminated in 2007. | 25 | n/a |
| The “Almaty Suy” Joint Venture | Vivendi Water | Almaty | 1200 |  | Concession agreement | 2001 | Agreement has been terminated | 30 | Plan: USD 100 million from all sources of funding |
| **Ukraine** | | | | | | | | | |
| Infoxvodokanal | Infox, LLC | Odessa | 1001 | Owner’s decision | Lease agreement | 2004 | Agreement was early terminated in 2008. | 49 | Plan: Euro 44 million during the agreement validity period, including Euro 19 million in 2006-2008 Fact: Euro 9 million in 2006-2008 (47% of planned investment) |
| Water Services, LLC | Water Services, LLC | Kirovograd | 258 | Owner’s decision | Lease agreement | 2006 | Agreement was early terminated in 2008. | 49 | n/a |
| Lugansk Water Company, LLC | Rosvodokanal, LLC | Lugansk Oblast | 2409 | Competition | Concession agreement | 2008 | 2033 | 25 | n/a |
| **Kyrgyzstan** | | | | | | | | | |
| The City of Kant Vodokanal | ООО “Marketing-Service” | Kant | 23 | Owner’s decision | Lease agreement | 2007 | 2007 | 3 | n/a |
| **Uzbekistan** | | | | | | | | | |
| The “Suvokova” Bukhara city industrial state enterprise | Veolia Water | Bukhara | 247 | Competition | Contract for management | 2003 | Agreement was early terminated in 2007. |  | Plan: USD 62.3 million during the contract period |
| The “Suvokova” Samarkand city industrial state enterprise | Samarkand | 412 |

# Notes

1. See <http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29_per_capita> [↑](#endnote-ref-1)
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6. Europe 2020 - Integrated guidelines for the economic and employment policies of the Member States 06.05.2010 <http://ec.europa.eu/eu2020/pdf/Brochure%20Integrated%20Guidelines.pdf> [↑](#endnote-ref-6)
7. EUROPEAN COUNCIL Brussels, 26 March 2010 EUCO 7/10 CO EUR 4 CONCL 1 P.4 <http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/113591.pdf> [↑](#endnote-ref-7)
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9. Europe 2020 - Integrated guidelines for the economic and employment policies of the Member States 06.05.2010 p.7 <http://ec.europa.eu/eu2020/pdf/Brochure%20Integrated%20Guidelines.pdf> [↑](#endnote-ref-9)
10. GOVERNANCE, TOOLS AND POLICY CYCLE OF EUROPE 2020 p.6 <http://ec.europa.eu/eu2020/pdf/Annex%20SWD%20implementation%20last%20version%2015-07-2010.pdf> [↑](#endnote-ref-10)
11. Europe 2020 - Integrated guidelines for the economic and employment policies of the Member States 06.05.2010 p.4 <http://ec.europa.eu/eu2020/pdf/Brochure%20Integrated%20Guidelines.pdf> [↑](#endnote-ref-11)
12. **The CSF Steering Committee selected** [Civil Society Organisations for the second meeting of the Eastern Partnership Civil Society Forum](http://www.eeas.europa.eu/eastern/civil_society/forum2010/docs/csf_selection_eap_en.pdf) **(Berlin, 18-19 November 2010.** [↑](#endnote-ref-12)
13. **A** [list of Civil Society Organisations](http://www.eeas.europa.eu/eastern/civil_society/forum2010/docs/organisations_en.pdf) **invited to participate in the the second meeting of the Eastern Partnership Civil Society Forum** [↑](#endnote-ref-13)
14. P.20 [↑](#endnote-ref-14)
15. See the PSIRU report ‘Protecting workers in PPPs October 2008 <http://www.psiru.org/reports/2008-11-PPPs-workers.doc> [↑](#endnote-ref-15)
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20. EBRD Annual report 2010 <http://www.ebrd.com/downloads/research/annual/ar10e.pdf> [↑](#endnote-ref-20)
21. EBRD Annual report 2010 <http://www.ebrd.com/downloads/research/annual/ar10e.pdf> [↑](#endnote-ref-21)
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24. The EIB Group Corporate Operational Plan 2011-2013 <http://www.eib.org/attachments/strategies/cop_2011_en.pdf> [↑](#endnote-ref-24)
25. World Bank 2010 Europe and Central Asia: Post-Crisis Strategy for ECA 2010 Regional Strategy Update Feb 2010 SecM2010-0080 <http://www.wbif.eu/attached_documents/9963/3292/World_Bank_ECA_Strategy_Apr_2010.pdf> [↑](#endnote-ref-25)
26. <http://www.oecd.org/department/0,3355,en_2649_34343_1_1_1_1_1,00.html> [↑](#endnote-ref-26)
27. <http://www.unece.org/press/pr2011/11ecid_p02e.htm> [↑](#endnote-ref-27)
28. <http://www.unece.org/env/efe/welcome.html> [↑](#endnote-ref-28)
29. Implementation of the European Neighbourhood Policy in 2009 Progress Reports Armenia, Azerbaijan, Georgia, Moldova, Ukraine 12/05/2010 SEC(2010) 513-525 [↑](#endnote-ref-29)
30. World Bank 2010 Europe and Central Asia: Post-Crisis Strategy for ECA 2010 Regional Strategy Update Feb 2010 SecM2010-0080 <http://www.wbif.eu/attached_documents/9963/3292/World_Bank_ECA_Strategy_Apr_2010.pdf> [↑](#endnote-ref-30)
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    Tel.: +380 93 3424566

    Fax: +380 44 4992103 [↑](#endnote-ref-39)
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41. Altvater Kiev

    25/2 V. Zhitomirska str.  
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    E-mail : [info@veolia-es.com.ua](mailto:info@veolia-es.com.ua)   
    Website : [www.veolia-es.com.ua](http://www.veolia-es.com.ua) [↑](#endnote-ref-41)
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