

As politicians have to take tough decisions on allocating recovery budgets, the ability to quantify the expected impact of green policies on employment and GDP is crucial. But good data are hard to come by. The EU sees net positive effects, but they will not come easily.

'Let's not kid ourselves, the transition towards a low-carbon economy will entail certain adjustments'

| by Hughes Belin

Ever since American president Barack Obama promised his people 5 million green jobs, the words are on everybody's lips, as soon as anyone talks about the transition to a low carbon economy. In his book, The Green bubble, the American economist Robert Bell predicts that the frenzied move to renewable energy over the next few years will stimulate a new industrial revolution and create many jobs.

Vladimir Spidla, EU Commissioner for employment & social affairs, sounded a more cautious note during a conference on the 'Impact of climate change on employment' in Brussels last June. 'Let's not kid ourselves, the transition towards a low-carbon economy, even if positive, will entail certain adjustments, particularly in terms of employment, which may be painful, at least in the short and medium term', he said.

But the question is, exactly which jobs are we referring to? The first problem when talking about green jobs, is to define them in such a way that it is possible to count them. At the moment, the definitions used by politicians are very vague, allowing them to say more or less what they want.

The United Nations Environment Program (UNEP) puts forward perhaps the most exhaustive definition in the context of its Green Jobs Initiative: 'Green jobs reduce the environmental impact of enterprises and economic sectors, ultimately to levels that are sustainable. Specifically, but not exclusively, this includes jobs that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonize the economy; and minimize or altogether avoid generation of all forms of waste and pollution.' The Green Jobs Initiative is a joint initiative

by UNEP, the International Labour Organization (ILO), the International Employers Organization (IOE) and the International Trade Union Confederation (ITUC) to assess, analyze and promote the creation of "decent" jobs resulting from environmental policies.

Torsten Henzelmann, one of the authors of a study on Greentech innovation in Germany for Roland Berger Consultants, is convinced that the switch to green jobs has a 'net positive effect on employment'. He takes a broad view of what green jobs are. 'When we are talking about new green jobs, it is always in relation to the entire environmental technology sector: mobility, power generation technology, energy efficiency, water management, material efficiency and waste management recycling.'

Henzelmann believes that the environmental technology sector 'is a new market and does not form destructive competition' which will result in job losses in other sectors or industries. The only sectors where there will be job losses are existing environmental sectors where huge changes will take place, such as energy, transport and energyintensive industries. As far as the costs of green policies are concerned, he notes that government subsidies mostly go to renewable energies (solar, wind, biomass etcetera), which make up only about 10% of the total environmental technology market.

Climate sceptic

The European Commission recently unveiled its own study on 'the impact of renewable energy policy on economic growth and employment in the European Union'. This study claims that policies supporting renewables 'give a significant boost to the economy and the number of jobs in the EU'. If the target of 20% of renewables in the final energy consumption by 2020 can be achieved, the study predicts a net result of about 410,000 additional jobs and a 0.24% increase in gross domestic product (GDP). In other words, GDP and employment would be stimulated, albeit to a rather limited extent, by EU renewables policy.

The added-value of the renewable energy sector would increase from \in 58 billion in 2005 to between \in 99 and \in 129 billion by 2020 if the targets are met. But the study emphasises that in order to maintain this positive balance in the future 'it will be necessary to maintain and improve the competitiveness of European renewable energy technology manufacturers and to reduce the cost of renewable energies by exploiting their full learning potential.

It follows, therefore, that policies which promote technological innovation in renewable energy sources and lead to a continued and rapid reduction of their costs will be of major importance.'

'What counts is that economic losses from the traditional energy-intensive, high carbon sectors are substantially lower than the gains of new jobs through clean technologies' says WWF in an recent report on low carbon jobs for the future. According to WWF, sectors affected negatively will be energy extraction and refining, the power sector, and energy-intensive industries like steel, aluminium, paper, and cement. The auto industry and aviation will also be affected negatively. In compensation, numerous sectors would benefit from other productive activity that would no longer take place as a result of the state directing resources to windmills or solar panels', Alvarez points out. He concludes that for each renewable energy job created by the Spanish government, 2.2 other jobs are supressed or destroyed. However, the Spanish government has rejected the outcome of this study and has said that the data and methodology were flawed.

For Henzelman, the more important point for business to consider is that companies simply have to invest in "greentech" out of their own self-interest. If they don't, they will run risks both in terms of costs and revenues. 'On the cost side we see, for example, rising costs for energy and resources, linked to the cost of CO_2 emission allowances. Companies are forced to

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a greener economy: renewable energy, transport (green cars, rail, urban transport), energy efficiency (buildings, household appliances, lighting, CHP). WWF also notes that the majority of job losses in the energy-intensive industry are due to automation, market and liberalisation contracting-out practices, not to climate policies. The study concludes with 'conservative figures', that the climate policy would double the current 3.4 million direct green jobs in the EU, with 5 million more indirect jobs. However, the WWF study does not assess the impact of the renewable energy policies on GDP.

A study carried out in Spain in March 2009 by climate sceptic Dr. Gabriel Alvarez from King Juan Carlos University on 'The effects on employment of public aid to renewable energy sources', is critical of the supposed job-creation effect of renewable energy policies. 'If the government decides to spend taxpayer money on windmills or solar panels, the unseen cost would be any manage these developments by investing in greater production efficiency. In addition, green products are going to become more and more popular. Companies which are not able to adapt to the change in customer demands will lose valuable market share due to a lack in competitiveness.'

On a less hopeful note, the UNEP report on green jobs points out that 'a major impediment to greening economies and jobs is that unsustainable business practices are still prevalent and often remain more profitable'.

Delayed impact

Whatever the effects of green policies on jobs, it appears that such policies do not lead to new jobs as quickly as many would hope for in this time of crisis. 'Money spent on reducing carbon has a delayed impact on employment in comparison to money spent on more traditional sectors such as building, roads and health care', says Christoph Rühl, Chief economist at BP, commenting on his annual BP Statistical Review of World Energy. Political decision-makers, therefore, need to strike a balance between the need to reduce greenhouse gases and the short-term recovery of the economy. This probably explains why the various recovery plans of the European Commission and the member states devote only a small fraction (\in 42 billion or less than 9%, according to WWF) to "climate protection measures".

Few of the optimistic forecasts of green jobs take account of an entirely different problem: the lack of qualified persons to fill the new posts. For example, one of the major bottlenecks in implementing the Directive on the energy performance of buildings is the lack of qualified people to monitor its application. 'The success of this transition will depend primarily on training', EU Commissioner Spidla has said.

Henzelmann concurs: 'There is a problem of quality and quantity of skilled workforce within the green tech sector.' The renewal rate of engineers is now below one and is shrinking every year, he explains, 'and engineers are a key driver in high tech'. He also predicts problems at the level of skilled jobs, e.g. among electricians and machinists. This will most likely result in a "war of talent" with industries in all sectors competing to attract human resources. 'Companies in the greentech sector tend to be small and bigger, more international industries are better placed to award talent.'

Christine Evans Kolock, Director at the Skills and Employability Department of the International Labour Organisation (ILO) warns that 'an emphasis on the high end of skills would be misplaced, as "green-collar" jobs are just as necessary'. Jacques Terrenoire, French expert and international consultant on restructuring and company change, who works with local authorities to implement the transition towards a low-carbon economy, points to another problem: the lack of professional mobility in Europe. 'It would be wrong to imagine that we can persuade workers to change country or even to move to another area in the same country, it's not part of our culture.'