

**TRANSCRIPT:
ENERGY DAY – PANEL 2:**

***ENERGY DEVELOPMENTS - COMPATIBILITY WITH SOCIAL EXPECTATIONS,
ENERGY REFORMS AND PUBLIC PERCEPTIONS***

**AT CGDC ANNUAL MEETING 2012
05-17-2012**

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Dafydd AB IAGO:

Hallo, thank you for that great introduction. It is also very nice for me to actually as a journalist based in Brussels one of the things that we sometimes encounter is a discussion whether there are more people on the podium then there are in the audience. So, it's nice to see that after lunch you did not take trouble to come here. We have some very distinguished guests here; I would like first to ask Mr. Alberto Pototschnig, who is the director of the Agency for the Cooperation of Energy Regulators first come to the floor. You are of course a very-very important man in the energy world, the director, and the leader of the Energy Regulators in Europe and a very key person in actually helping the EU to attain some of its important goals notably a single European energy market by 2014 you have a new legislation, you have to help in fist as a regulation, which gives the EU and ESA the task of monitoring markets to make sure that there are no underhand and sneaky things going on and, so with that I am more than happy to give the floor to you.

Alberto POTOTSCHNIG

Thank you very much. Good afternoon.

Ladies and Gentlemen,

I have immediately to apologize because almost inevitably my short introduction will be probably more technical than what you've heard this morning and this is because the role of the agency, which I represent and which I have the privilege of leading is a technical role. We don't do policy, we implement policy. But I will try to make my introduction at least as non-technical as possible in terms of the way in which I represent it. Now, I would like to focus on two aspects: one is perception and the other one is expectations, because when it comes to energy regulations, when it comes to energy developments I think there is first of all a communication exercise or effort that we need to put in place, we need to have citizens, consumers and citizens understand what's up, and also manage expectations. I think there was a bit of over expectation at the beginning of the liberalization phase in Europe, that liberalization itself would have resulted in lower energy prices and unfortunately for a while that was the case. So, this was an expectation which was confirmed, and then when the environment, when the economic environment and the energy sector environment changed and prices are not any more as low as it used to be, then people started to question whether the liberalization does work or not, which is not what we want.

I will focus on Europe clearly, and I will focus more on electricity and gas sector than on the sort of oil and other energy sectors. As I said, I will try to stay on non-technical ground, so apologies if sometime I have to use some technical terms.

Things are getting more complicated, I mean it was..., life was easier, at least our job, the job of regulators, and I think also the job of policy makers in the energy sector was easier 15 years ago, 10 years ago, cause at that time, there was just a single or a main objective of energy policy, which was trying to promote competition, which would have then delivered more efficient operations in the energy sector. So, prices lower than they would have been otherwise: not lower in absolute term, but in a compared with a world without a liberalized energy market, and you know, the road was fairly not easy, but at least well defined. That was the case, say 10, or 15 years ago. Well, in fact the process in Europe, the liberalization process in Europe started so mid 1990s in reality, thinking, started a lot earlier but the first concrete move, the first directive for the electricity sector was 1996, then gas - 1998. Now, over the last 15 years things have got more complex and now we have the three pillars of European Energy Policy, so we have also to deal with a sustainable future with the climate change challenge, I will come to that in a moment, and also security supply has become more of an issue and I think everyone in this room knows what I mean when I say security supply becomes an issue, I will try to go in more detail. So, it's a more complex and if you talk to consumers you have to explain to them that you know you have somehow energy policy has to reconcile these three objectives, these three pillars, and that they do not pull prices in the same direction. De-liberalization, the introduction of competition, was supposed to reduce prices, to get better terms for consumers, the other two pillars are likely to pull in the other way unfortunately, but supposedly there are benefits in pursuing these other two objectives.

If we get into the climate change challenge, I think there is awareness in the public at large about the climate change problem and the challenge. I think that has been conveyed and if you talk to most people not necessarily involving the energy sector, they are fairly aware, where there has been a discussion. It has hit different pages of the newspapers. In terms of how we implement it in Europe I think we have gain a three-way, or three policy objectives: We are trying to promote energy efficiency. This to me is one of the greatest mysteries in our European energy policy. Energy efficiency is something, which should easily deliver benefits at no cost. In 1995 European Commission, sorry, in 2005 sorry, European Commission issued a paper saying that probably there were 20 % savings in energy consumption without affecting the level of energy services provided, which could be achieved at zero net costs, which means that they would have repaid themselves. And yet we have still to see most of these benefits achieved. So why I will come to that if there is time in a moment, then we know that we want to cut greenhouse gas emissions and we know that we want to promote renewable. These are different, they are related, but they are different objectives. Again, here we have one of the three pillars, which is supposed to reduce costs and therefore reduce prices, energy efficiency, especially if there is a scope, as it seems, for significant energy

savings at zero or negative net costs. On the other hand we have two pillars, where for varied reasons, but we may end up having higher costs reducing greenhouse gas emissions or at least will obviously cost more, and also renewable at the moment even though their costs are coming down but at the level that Europe is committed to its probably going to increase the energy bill.

Why I am saying for very good reasons, because there are as in the case of security supply, which I mentioned before we see the higher costs but because we are only looking in very limited way at monetary cost. There are other benefits which are not internalized in monetary costs, which obviously justify the pursuit of these additional objectives. Now I am going to get a bit more technical and to show you what are the challenges. Challenges, which we need to share with European citizens and with European consumers, because they need to understand that these challenges are going to change quite dramatically the way in which we run the energy sector and this will affect them in some case for the better, in other case, unfortunately, with higher costs.

Renewables: I will try to go very fast through this, also because I don't want to take too much time after the discussion which is followed. The integration of EU was at the scale, which is, at the moment envisaged is quite a challenge. Achieving 20 % economy wide implies around 40, 35 to 40% for the electricity sector. This generation, here there is a map, which I have stolen from the European Network Transmission System Operators, it will be included in the next 10 year network development plan, the location of this generation, it is usually in a different place, it is either very far away from consumers center, or its spread, you know, in small units over the distribution grade. So, it is a different location, it has different characteristics, which means probably rethinking the whole network in Europe and there is a massive plan for investment over the next 10 years in the network to accommodate renewables. It may also give a chance for consumers to contribute, and I come to that in a moment to contribute, to support de-penetration of renewables. Renewables are going to be more volatile, or more intermittent, at least some of them. Wind and solar, which are going to play a major role in the new scenario, they are intermittent, they are not predictable over long term and there is not much that you can do if there is no wind, or if there is no sun. So, the profile can be quite variable, even over short period of time and this is a new characteristics, this is a new sort of, this would be a new characteristics to deal with: very different from the kind of traditional generation where you know a coal-fired plant, or a gas-fired plant start to stop, maybe sometimes it breaks down, but in the main, you know, its reliable, it's there when you need it. Here it's not obviously, you know, wind and sun would be there when you need it. So, there are challenges here as well and I think consumers may help, because demand response is something which so far has not been explored or exploited at the level that could be useful to have, could be a solution, it is probably the cheapest way, I come to that in a second.

Energy efficiency, I have already mentioned, it has been there around for a while, the reason why it has not been yet achieved, in my opinion, is information again. People are not explained what are the technological capabilities, the costs, etc. Financial constraints: there is an investment to be made today and savings to be achieved tomorrow, maybe that is also a problem and split-incentives. This is probably one of the main barriers so far to the extent at where tools, and instruments and schemes have been introduced in order to address mostly the split-incentive problem, but also the financial problems then you have achieved very, very good results or in fact you overachieve in most cases if the targets were overachieved. But so far this has been very much left to member states in fact, I would say to volunteer initiatives and now there is a proposal from the Commission being discussed in Parliament and in European Council, a proposal on, sort of, more mandatory approach to energy efficiency at European level. This proposal has attracted something like 1,600 amendments, so it's clearly a hot topic, where there are still a lot of different perceptions from the public and from citizens.

Security of energy supply – and then I'll probably stop here. It has several dimensions and again this in most cases having a secure energy supply is not the cheapest option in short term, but may become, you know, a reasonably priced option in the medium term. As I said there are different, at continental level we can see it in different ways, well first of all having a well diversified fuel mix or energy type portfolio and this is still not coordinated at the European level. You see it left at member states and in fact we have seen recently some dramatic change in energy mix taken by one member state without consulting everybody else even though obviously if you change this dramatically over very short period of time, then you create problems also for your neighbors.

Then there are some two directions, there is this external dimension vis-à-vis our energy partners outside Europe where security supply goes I mean requires diversification of sources and input rules and much of the debate at the moment on new infrastructure is exactly on to what extent we need to diversify both sources and input rules so that we don't put all our eggs in the same basket. But that's not all, there is also an internal interdependency when it comes to security supply. We want to make sure that there is enough solidarity among member states so that if there is a problem in one, or there is a problem with one specific energy source, which is particularly affecting one member state, then there are, you know, there is enough solidarity for the other member states to help. Obviously here you have some more solitary problems, you know, you can't bring solidarity to push solidarity to the level where member states become irresponsible in the energy choices and they privilege short term savings to some long term security. But this is clearly something that in Europe we still need to address properly. In any case energy security in Europe would be supported, will be improved by

stronger networks, and this part of the network development plan is aimed at providing a better infrastructure for promoting security supply and also market integration. What we want to have is adequate generation capacity in a resilient energy network, that we can stand also significant changes in the, sort of, energy security environment. So, I think, from there on, I will go to the third energy package, but maybe that's becomes a bit technical, maybe just to see what is there for consumers, because I think that's quite relevant and then maybe we can go back to... The debate about where the energy package comes in on this. I think there are current policies especially energy package but I would say... current energy policy should deliver benefits to consumers and citizens alike. For consumers the aim is to have better prices, as I said not lower prices in absolute term, but better prices which I mean, prices, which are lower, then they would have been in a world without liberalization and also more reflective of fundamentals. This is a challenge to have prices, which are probably more stable, but also more linked to fundamentals and not unduly affected by abusive behaviors of markets. Greater choice, competition: choice by itself is good, and usually that's also a competition also helps keeping the prices down and then hopefully having a greater participation of consumers – not just large consumers but also medium sizes and households – in the energy market. That I have already mentioned, that's the challenge that we now try... there is something, the proposed energy efficiency directive: this is the challenge that we now try to address; this is quite new, large consumers have been participating in markets in various ways, but participation by its more consumers may mean the cheapest way of integrating for example, or managing the system and support integration of renewables and sort of other objectives. Also, I think, we need to deliver benefits to European citizens, consumers and citizens... when it comes to energy consumers and citizens are almost the same cohort, but efficiency should spread beyond the energy sector. Most other industry use energy and therefore if we can have better terms in the energy sector, I think there would be benefits for everyone: sustainable development that's obviously a benefit for everyone. The energy sector is a key player in achieving the most sustainable development and then energy security again continuity of supply is key for well-being of everyone. So, I think I will stop here, I have other slides, which I may use in the panel debate, but I would like to thank the organizers for this opportunity. Thank you very much.

Dafydd AB IAGO:

Thank you, please sit down, thank you very much Alberto for the excellent overview of the challenges, which are really facing us in Europe, in terms of our future energy policy. Alberto has actually just taken a plane back from Montreal, so I put him first, the warning was that he might fall asleep, but obviously he has got a lot of stamina and there was no chance for that, I am sure. Anyway, our next speaker is Peter Vadasz, Major of Güssing. I was told

never to put a politician second in the speeches, he might be offended, but no, that's not the case. Peter, is, was, who is still European of the Week in 2007 he should, once upon a time, he should have been, this is my real opinion, he should have been the European of the Year because he has done something remarkable, something that we need to happen in Europe. In Europe we are spending around, I think some of the calculations are 300 billion in inputs of energy, oil, gas or whatever it is. In Güssing they have that same problem, ok it was a small scale of a small municipality of 27 thousand, but they were loose spending so much money on energy. Was it the 70 % of the population? Of the working population was commuting to Vienna to work, the town was losing its population; it was effectively in the same situation that the whole Europe is. Peter was instrumentally turning that around and how he did it I am sure he will explain, was turning to renewable turning to self- sufficiency and using that to drive the city to turn it around. Peter the floor is yours.

Peter VADASZ:

Thank you Dafydd for your introduction.

Ladies and Gentlemen,

First of all, I would like to thank the organizers of this Annual Meeting for inviting me and giving me the opportunity to show what the little town of 4 thousand three hundred inhabitants has achieved over the past 20 years. Now we have and we are living beside the Hungarian border and you know the Iron Curtain that was there for 45 years prevented economic growth in our region and when I became mayor in 1992 we set down in a kind of brainstorming and considered what we could do to change the situation. And in the wake of our discussion we said why not turn to renewable energy. Let's stop complaining about things we don't have and never will have, and lets think about things we do have and we said, we have about 43% forested areas in our district and we have agriculture, why not to turn to renewable. And,

Ladies and Gentlemen,

Energy is a topic very high on the agenda of many governments across the globe today and although many governments have produced and developed energy strategies when it comes to implementation you go down again to the community and to municipalities. And we said, lets become some kind of a show case of a model town. And we started out with this strategic plan in 1996 only one year after we joined the European Union and I frankly tell you without funding on the part of the EU national and the provincial government of Austria we would not have been able to achieve what I will present to you now. You need help with the investment. Once in operation not a single cent goes into one of these plans. And of course the main

breakthrough was our cooperation with the Technical University of Vienna, because we think and are deeply committed to research. Research plays a key role in the energy generation of our future and what we are doing today is very simple. We are using the sun, we are using the forest and agriculture to generate heat, electricity, synthetic natural gas, and in small quantity already fuels-gasoline and diesel. Now the technology invented at the University of Vienna, the Technical University was the key to all our endeavors and all our efforts that I am going to talk about, because we are producing a very-very clean gas from wood and this stream of gas can be diverted to produce electricity to produce synthetic natural gas as I said before in small quantities it proves that it is possible to produce fuels from this wood gas. And this has led to a situation, which I can show you on this graph. Today this small town of 4 thousand 3 hundred inhabitants produces about 50 million kilowatts of heat and that means that its 85% of the heat needed by households and the industry. We today produce 32 million kilowatt of electricity and that's 200% of what our small town needs. We have to deliver it to the grid now, because we are not allowed yet in Austria to sell it directly to the consumers. And we have a capacity of 8 hundred and 40 tons of very clean, high quality synthetic natural gas from our synthetic natural gas plant. And, of course, we are only at the very beginning of producing fuels and so it's one barrel a day. You may say it's not very much, but it's a beginning. And so, we are on our way on the road to self-sufficiency and this is the ultimate goal we want to tackle and we want to achieve in a couple of years. You may say well, maybe, you will never be so self-sufficient, but imagine 85 % of the heat, 200 % of electricity, 840 tons of clean synthetic natural gas and although in small quantities yet gasoline and diesel, fuels all produced and generated from renewable energies, which are growing in our vicinity. No long roads, no long pipeline over thousands of kilometers, and,

Ladies and Gentlemen,

we know that every region on earth or almost any region has renewable energies, and when people come to us to convince themselves what they have heard or seen is actually true and is working we always tell them to sit down at home and make an assessment of renewable resources they have in their vicinity in their region, because its our deep belief that the future of energy generation will not come from one single source: it will be a mix of various resources. It is the sun, it is the forest, it is the agriculture in Güssing, in other parts of the country its wind energy, it maybe hydro power, it maybe geothermal energy from the ground and what we are concentrating right now in Güssing is turning waste into energy, and

Ladies and Gentlemen,

I would like to remind you, that our large cities across the globe are producing 1000s of tons of waste everyday and we have found another technology to turn a large part of this waste into energy and this maybe another step towards self-sufficiency or a high degree of

self-sufficiency for our regions and for our cities. You may say, so what? Ok, I can show you we attracted business. The very moment you as a municipality can produce energy and can offer it to a reasonable price, you will attract business. Business will create jobs, jobs will bring people money and they will spend it again or at least large portion of it in the region, so you are creating an economic cycle and on the other hand you produce clean and affordable energy for your people. So it is a win-win situation. And we have created over one thousand one hundred new jobs over a period of 15 years, and although we ran into lots of opposition, we ran into lots of skepticism, even hostility at the very beginning nobody questions the way we are doing and generating energy in our town today, and if you look at the emissions, you see we cut them, we reduced them by 70 % another good option for a clean and a long lasting environment. So, wherever you are, it will be municipalities, it will be communities, which have to start going into the business of renewable energy. It is clean, it is affordable, it creates jobs and it keeps the environment clean. And one of our formal scientists said once upon a time: "Always remember: we have not inherited this earth from our parents we have borrowed it from our children. Keep this in mind and act accordingly."

Ladies and Gentlemen,

Thank you for your [Applause] attention. [Applause]

Dafydd AB IAGO:

Thank you very much that's an excellent speech. Just before he left office I interviewed another famous Austrian politician, who is also very much committed to the renewable and to energy efficiency, Arnold Schwarzenegger and you have his charisma and it's really nice that in this field we have people who are pushing renewable, efficiency and you have the charisma, something we don't have in Brussels.

Our next speaker is Elena Rybak, I hope I am pronouncing it correctly; she is the director of the European- Ukrainian Energy Agency a non-profit association established in 2009. She is working hard, very hard under exceptionally difficult circumstances to promote sustainable development, energy efficiency and environmentally friendly technology in Ukraine. These are issues that are the heart of our debate today energy development incompatible with social expectations. Elena is an expert on challenges that you face in environments with a legal situation, political situation is difficult and she will no doubt give us more information on that. Thank you.

Elena RYBAK:

It is my pleasure to be here even though as most of you can see from the program I am quite an unexpected addition to today's afternoon panel, but I am ... from listening to all these valuable opinions and challenging topics and discussions when I hear and see our today's afternoon panel "Social Expectations, Energy Reforms and Public Perception" when I hear these words I also think not just about business, not just about consumers or the governments either state or local governments, but also media and NGOs as the key drivers to the reforms. And it is the answers to some of our crucial questions discussed during the panels and presentations today are lying within the mix of interaction between all of these stakeholders, who obviously have their own individual interest. Business is looking for long term stability, transparency, investment, climate and obviously as heard today again the corporates' profit increases. Media, no offence to our media representatives, are inspired by scandals, crises, problems and decisions made by the authorities. NGOs are trying to make their contribution to the stable developments of their communities and encourage the needed reform. Which of them has to come first when we look at the media or NGOs? Media coverage of the relevant problematic issues that has to spur the NGO's activity or it is the other way round; NGOs looking at the local problems, human problems need to deliver the message through the media to the decision-makers. And obviously the experience of most of the countries shows the second option when it is NGOs that starting to move some of the processes and reforms in their communities. And then there are society people, those people who elect our politicians. They are looking for something very... being a little bit of tired of the political discussions and energy poverty and energy dependence, people are looking for the reliable service providers and comfort. And comfort being the only thing that becomes relevant only within the developed communities with certain income levels.

I would like to take some of us to a short journey from here Vienna starting in the neighboring country Austria oh sorry Berlin, Germany and Berlin. Energy turnaround in Germany has been discussed quite heavily during the recent months. There are ambitious targets of 80% renewable energies until 2050 from just some 10% that they are having in primary energy consumption in 2011. It's quite questionable to the question: Can they do it? If you listen to various international experts, who say well if there is someone in the world who can put as challenging task for the governments and at least get close to full-filling it, then Germany will probably be the one. Germany was the first one to introduce hidden tariffs successfully copied by number of other countries and their allocated budgets for the research in the field of renewable energy is 1.3 billion euro for the coming several years. They are looking into the renewable energy investment opportunities and job creations and expecting 22.9 billion euro investment until 2050. Employment in the renewable sector already increased since 2004 by 200,000 people coming up to 380,000 in total within the sector right now.

What's most surprising in this country and this is something that we have been discussing on the German Foreign Affairs Ministry trip organized just few weeks ago, is that the population there, there are not sensitive to the increase of the electricity values as much as a lot of other countries. When we are asking the questions how come you are putting so ambitious targets and obviously population has to pay for it or at least the question of affordability that the highest segments of the population the consumers that can afford renewable energy and paying for it in the end they are the ones installing the solar panels and the difference is covered including by the poor segments of the population. Surprisingly so far there is no at least to drastic extent debate within the society. Whereas, if we move for a second from Germany to a little bit distance corner of this world, Australia. Australia is actually a good example of where the price concerns have reached a level that there is no more tolerance for price increases to pay for renewable energy subsidies.

Australia has the target of 20 % renewable energy until 2020 and as also concerned by some of their local politicians this early romance with renewable energy has come to a pretty abrupt ending with big concerns about costs of renewable energy schemes in electricity bills. In Australia government as many of the other governments in Europe have generally paid for renewable energy sources, subsidies by increasing the tariffs for the population, for the electricity prices rather than funding programs out of general revenue and the results for an average consumer in Australia as of today is the average household bill for electricity increased for more than 1,600 euro per annum, despite the fact that whole sale price of coal fired electricity is only about 3 euro cents per kWh. And even though the population is supporting renewable energy including because also among others co-environmental reasons, this still is not sufficient in terms of their practical daily financial concerns. And the lessons that, or the message that I heard from the relevant government representatives in Australia is that Europeans, the lesson for Europeans is to be very careful to ensure that energy policy makers never lose sighted cumulative impact of policy interventions on retail energy prices.

And coming back to the European continent in the world, my home country Ukraine, which is one of the most energy intensive economies in the world I think we are beaten as of now only by Russian, Turkmenistan. Our energy intensity per GDP is some 2.3 times higher than the one in Germany. Energy efficiency is appeared, is the concept just relatively recently in 2006 and the hidden tariff was introduced in summer 2009. So, both efficiency and renewable markets are very new in Ukraine, nevertheless, the solar hidden tariff being one of the highest in Europe, amounting to 0.54 euro cents for PV plants. We have one company right now that's the biggest player and the most active one, who already invested 0.8 billion euro in solar power plants just in our markets Ukraine. Still 3 years ago if you talk to an average Ukrainian politician speaking about going into solar energy in Ukraine before the hidden tariff was

introduced, you could only see his sarcastic smile. So, even for the markets like Ukraine change is possible even though it's a long process and requires apart from political support also the market mechanism. On average the key and, I would say the most important, the biggest problem for Ukraine right now is that we are a country with the average energy saving potential of 50 % and according to our estimates like demand of the world bank for instance, we need 1 billion euro investment per year for the next 10 to 15 years only in housing communal infrastructure just one segment, not talking about energy efficiency in industries and many other segments in the economy.

Still as of now we have the smallest tariffs for the electricity in all the former Soviet Union countries which is 3.69 dollar cents in Ukraine per kWh in comparison to Russia being 7.27 dollar cents and the country like Moldova 12.6. All these examples are... I talk about them just to show, there was a question earlier today which of the countries reached all three of these aspects where the government, the population, and the business and the market in principle are happy, and if I could answer that question I would say from the countries at least in Europe that I see, that would probably be Germany because we were very impressed with at least the political statements from everyone from Bundestag to Ministry of Economy is saying that, "No, we do not have this debate within the population". Whereas, when you look at the growing interesting economy like Australia they still pacing their social issues and it has accumulated quite a few problems as now they also have to solve. Ukraine, I will not touch it right now we still have a very long way to go and very much need the international support and experience.

To conclude, we do see all of these various interests in the different stakeholders, still even the most successful government, neither the most successful government's reforms, nor the strongest interest of the business community can solely define the social expectations and social perceptions. Energy efficiency and renewables as well as energy sector developments in principal are the tasks for society, the trends for the climate and the opportunity for the economy. The question is obviously, the trust to the government, the trust by the population and in most countries people can and want perhaps to pay more, but it's just a question of transparency of the market and understanding where the money that they pay for the energy resources goes. I represent business, I represent a number of international companies who are trying to be active in the Ukrainian market or have already established business operations, most of them being global companies well-known worldwide. And I do see, oversee, all of us understand that business wants to make profits but at the same time what we have seen in Ukraine is the enormous understanding to instability to risks but most importantly also the desire to bring the global competence to the local market and help develop it. Business is ready to actively contribute to the market developments and become of this mix of

cooperation between government, society, civil society, and the consumers, sorry. This forum aims at practical support and actions as we heard this morning that organizers are willing to deliver. And there is one thing that I do think, that I do hope, most of us will be able to bring back to their own countries is the issue of energy usage is apart from the government policy in principal, a very much an individual choice. Attitudes shape the behavior but it is ultimately the behavior that affects energy usage. It is the energy culture, which in some countries defines the total energy consumption; it is the energy culture that needs to be changed in our respective countries. The job of those of us who are in this room and our colleagues and counterparts and partners is to ensure that we inspire as many people we can for making this personal choice towards better environment and economy growth. We need to start changing the energy culture and perception; we need to encourage the bottom up reform of our economies. And with this I thank you very much for the attention and look forward to further debates. [Applause]

Dafydd AB IAGO:

Thank you very much for that excellent overview. Now our next speaker was chosen specifically, because he has a reputation in Brussels of waking people up. It's Jan Willem Goudriaan who is from the European Federation of Public Service Unions. EPSU is the acronym in Brussels. He is an excellent speaker and he is taking a different perspective from that which we hear in Brussels. Myself as a journalists I am often bombarded with persuasive people inviting me to lunch or to diner to explain a certain cause and very rarely do we get the other side: so people working in the energy industries or those actually consuming energy products. The floor is yours, Jan may I just suggest, we have half an hour so I am hopefully we will have some time for a good debate afterwards as well. Thank you.

Jan Willem GOUDRIAAN:

Thank you, Dafydd. I do not know if it is true if I would wake you up but I do think it is true that I have a slightly different perspective sometimes not agreeing with some of the things which have been said. I think the first slide is already an indication of some of the comments which I will make. A little bit about EPSU. EPSU is the European Federation of Public Service Unions, that's a trade union federation. We represent 8 million public service workers in 275 trade unions about 47 countries in Europe and 60% of our membership are women. We are organizing 4 sectors in the health and social services in the Ministries, prison services, defense, environmental ministries, energy ministries. We organize local and regional governments. I was listening very attentively to the presentation heard about Güssing. There is a little bit of a trend in Europe to look at municipalities taking the role in energy provision. Last week

I was at the presentation of the mayor of Berchtesgaden in Germany. I believe you are a conservative politician, the mayor of Berchtesgaden was a social democrat so you see across the boards politicians and municipalities take things forward. I think that is very encouraging, and we also represent workers in the utilities- gas, water, waste and electricity. We have members in the European energy sector in all European countries including in Georgia, including in Russia, Ukraine, and Turkey. We organize gas and electricity sector and all fuels including a little bit, I have to admit, renewable, but also nuclear, hydro and so on, and also this generation transmission distribution and energy services. We organize workers in public and private companies, in municipal but also in large scale, large transnational companies, and we are recognized social partner in the electricity sector, some of you might know EURELECTRIC, our employer's side, and in the gas sector Eurogas, our employer's side. We are also the member of ETC, which is the European Union Trade Confederation and at global level we work together with public service international not talk about that.

A number of issues we do in the energy sector are internal market and its consequences already addressed by the speaker of the regulators, climate change, the public services, the European energy roadmap, social dialogue, the way we discuss the employers in our sector what we try to do looking at issues like smart meters, nuclear safety and so on. We have been very active in the South East European Energy Community and thanks to Mr Neykov; I think I have been invited to that platform because in Energy Community we have worked a lot with him and his colleagues and to promote social dimensions of the Energy Community. And as I have said, we work in energy companies, some of them probably quite known to you. In most of these companies we have established what we call European Works Council that brings together workers from different countries to talk with management about the issues which are important. Many of the issues are also related to finance as you can imagine.

I want to start off by taking a little bit of a global European perspective because austerity is not an issue in some parts of the world like Latin America, I think governments take a little bit of a different view of that. I will not start talking about raps oil but some governments have a bit of a different view in Latin America. In Europe we faced with austerity policies and that's our priority as trade unions so the public trade unions at the moment. As you can imagine many of my colleagues, many trade union colleagues in several countries are confronted with the consequences of austerity policies. What was said this morning seven hundred thousand public service jobs will disappear in the UK, and fifty thousand public service jobs in Greece, a quarter of million public service jobs in Romania, just to mention a few. And in this panel we talk about perception and I want to come back to that on a number of occasions. I speak very rarely for business audiences; I speak a lot for social movements. This is a little bit, the few we have about the situation if we talk about perception, about reform, and

this is a bit how we and many in the social movements see it. A system, which is completely derailed, a financial system which is gone dysfunctional that doesn't deliver; governments, which have been complacent in that. Some of you might have seen Michel Moore's video or documentary "Capitalism: A Love Story". In that documentary, in that movie there is a picture, a clip of a couple of lobbyists and a senate committee, the senate committee on financial regulation. They have about a meter of regulations before them, they have a very big how you call it... well, they are trying to destroy the regulations. One of them has a motor chain so to do that. And a couple of years later we are faced with an enormous financial crises because lots of the regulations that were there to protect that financial crisis have been gone and then the people are the ones who suffer.

The picture is not just about that, it is also about rising inequalities, which have appeared over the last years, which we think are underlying that. And one of the things I think we don't realize enough is the anger there is with many in the population and I can show you a lot of pictures like this, but I think this one is telling a protest in Bucharest. The government force to have austerity policies says, "Now we are going to privatize the health care sector", and the people spontaneously come on the street and prevented that from happening and that I think is a feeling which exists very much in many places in Europe. Not for nothing it was the Time magazine to choose in 2011 to make a protester, and not just the one of the Arab spring, which was significant, which was important, but think also of the Occupy movement, think of the Indignados, and think of the many trade union protests that have been over the last 2 -3 years: never since the Second World War have we seen so many protests in Europe. So, there is something there.

The anger I think which is felt by many in society is also clearly expressed in this interview with Bild-Zeitung, who does interview with European Central Bank President Mr Draghi, very much in the news recently again, in which he promotes the German Model. The German Model of the ILO-the International Labor Organization and that is governments, employers and trade unions actually say that this maybe not the model to follow, because that is based on wage moderation, wage inflation, growing inequalities and the low-wage economy. Germany has created a large low-wage economy over the years and the ILO says, "Well, that's maybe not the model to follow." And Draghi The European Central Bank President says, "maybe that is," and advises German people to keep it up. But the anger is in the middle parts where Draghi says, "The European Social Model, the European model of welfare state is that the model middle will benefit, the rights we have created over the years are that". And that, I think, is an arrogance you can hardly believe. This is an elected official, President of the European Central Bank saying such things. And I come to energy very similar as what Kenneth Lay the Chief Executive of Enron said a few years ago when he said that "imperfect market is better than a perfect regulator".

I don't know if the gentlemen of ACER Mr Pototschnig would agree with him I certainly don't. I had the privilege of being with Mr Lay a little bit after the problems in California started and I have been in contact with one of the regulators in California a democratic re-elected regulator, who had given me some information which indicated to the fraud which may be there and I confronted him with that and he said, "well I was talking", I think he said I don't know it's an Americanism or not, but he said, "I was talking a bull sheet." Well, we know how that ended and how he got conflicted.

The alternative view to that is that a dysfunctional market can impose infinitely more harm to consumers than regulators on their worse day and that's the view of the Consumers Federation of America and a few intents to share. I think the problem is in the fact that electricity is tried to be sold as washing powder and this is the CEO of the major European company saying to a group of a senior people as that their task is to sell electricity like selling washing powder. Again, a view I do not agree with. Electricity, as has been mentioned a few times in the podium also this morning, is an essential service, is a social good and, hence, also a government responsibility. I am not expecting you to read this, I'll tell you what it is: the whole vision of electricity deregulation we think is based on faulty economic theory. The lessons of Keynes have been ignored. Keynes' scenario, that's for you, that's the theory of deregulation of liberalization is based on the idea that competition will produce economic efficiencies, was mentioned a little bit earlier as well. And Keynes said that "the beauty and the simplicity of such a theory is so great that it is easy to forget that it follows not from the actual facts but from an incomplete hypothesis introduced for the sake of simplicity". And in the end this quote: "More of many those who recognize that the simplified hypothesis does not accurately correspond to the fact" and I conclude, nevertheless that it does represent what is natural and therefore ideal. They regard the simplified hypothesis as held and further complication as decrease. That's also a little bit the view of the European Commission, who pushes us on to more competition to the internal market without ever defining what should be on the stage of that. It's never enough, I reckon, after the third package which has been mentioned we can expect the fourth package to come.

Well, one of the consequences of the internal market deregulation has been that the number of jobs have been lost as you saw from the quick slide going. Over three hundred and thirty thousand jobs is what we estimated the European Commission in this study the employment impact of opening of electricity and gas market estimates thirty thousand jobs over 10 years. I must admit recently we see an uptake of jobs in the electricity sector we have touched rock bottom due to the developments as has been presented earlier with renewables we see an uptake of jobs in the sector again. But the electricity restructuring has cost massive, the electricity liberalization, the gas liberalization have caused massive restructuring, outsourcing,

an impact on pay, and conditions. Our colleagues in the distribution sector we have been worst affected, but also those with lower education, the elderly in the sector and so on. The study does conclude that it is possible, I think that is relevant for our discussion and it actually has been mentioned by the Minister of Montenegro earlier this morning that restructuring can be done, the study talks about responsible restructuring that is not certainly done. I would use but it can be done with respect to trade union rights, with respect to the collective bargaining, with respect to social dialogue and the Minister mentioned that based on the negotiations with the unions; certainly, also supportive action of the public authorities.

Now, you might think that the problems I have sketched for the European Union are only related to the European Union, I mean there are many problems in many other OECD countries, again I am not asking you to read this, this is just an overview. And these problems also continue in the European Union, they will continue in countries in the Energy Community, will continue in countries with also start with the experiment of deregulation. Now, I remind you the I shouldn't say that, the credo I hope that's English, of capitalism, the credo of, if you want, liberalisation. The United States has taken a very different road as Europe rather than force everybody in deregulation in the United States- States in the US can choose themselves and after the end of embargo quite the few of the US States have actually stopped the experiment of deregulation in their State. And I think that has been turning out not bad, especially for the public utilities, the municipal utilities, many of whom have lower rates than the private sector companies. Perception is also important in a related topic which is how we address global warming a quote here from Maurice Strong the initiator of the Earth Summit in 1992, who indicates that 2012 might well be the last opportunity we have to achieve ambitious but necessary goals before the risks we face become irreversible: the risk of global warming, the possibility that we can't stop rising global temperatures. And I think the current projections are that at the end 2100 global temperatures will increase with 4 degrees leading to climate chaos. And the negotiations about an international treaty are about trying to limit temperature increases because already we will face at least 2 degrees.

One of the things important in this discussion for us is that there needs to be a social dimension: social dimension to make the energy changes acceptable. One of the things we have been pushing for as trade unions come back to that, is that social dimension in the European Roadmap 2015 with success. We have done that together with our employers. We have a joint statement both for the gas employers, both for the electricity employers and that are social dimension to the energy roadmap is important. It is important that social dimension also recognized by the European Commission because the electricity prices as have been mentioned will increase, they will go up. On the trade union side we see the energy transition as being part of a more general transition I think other speakers have mentioned that as well. I will not say, I am not about this.

One of the things, as one of the previous speakers Elena mentioned that we also see as trade unions a key role for energy and resource efficiency including at the workplace and for us this is an appeal also to our businesses, our employers to have these discussions and the workplace how these issues can be addressed for us that includes also what does it mean in terms of rights of workers, workers representatives, to information about these issues in the workplace. At EU level we are standing for binding energy efficiency targets. In the presentation earlier we saw that the targets are not binding and we are supporting the European Parliament in its effort to get binding targets. Also to ensure that workers and the unions and the workplace get involved.

Energy poverty has been addressed this morning at European level we are working with the European anti-poverty network to make that an issue. As I have said earlier, we have been successful, the European Commission has recognized the importance of the social dimension in the energy roadmap, the importance of trading, the importance of social dialogue and that is something we will be working on. I will not say a lot about this, just to conclude also to allow a little bit of time for debate: we are saying that Europe 's coordinated austerity is not a sustainable policy, will not bring us forward, we have to look at growth, something which is now recognized, as you can imagine we see the election of London as a sign of hope, as a sign of expectation and I am quite well aware that it still has to deliver on its promises, that's will not be so easy, but the austerity is proving to be non-sustainable, and many in Europe's population are now expressing that also in the ballot box. There are alternatives available.

2nd conclusion: Electricity deregulation has negative consequences and that would cause problems for acceptability, but would also cause problems for the acceptability of transition. Our alternative is to move for public service solutions. And one thing we are very much in agreement is that we need to address global climate change but on an approach which we call based on just transition and descent work, social dialogue, training, involvement of trade unions, workplace representatives in making in transition, and that is the share I like to conclude.

QUESTION AND ANSWER SESSION PANEL 2

Dafydd AB IAGO:

Thank you very much Jan Willem for that excellent and very different viewpoint. We do not have too much time for discussion so as a journalist I always have questions but I would like to ask the floor if there is someone, who has a question if you do you could raise your hand otherwise I hope, Do I see any for the questions? Ok, or maybe I could ask you a question.

Does anybody in the audience know what demand-side management is? If you do, could you put your hand up? Is that mean nobody knows what demand-side management is? Ok, then I will turn to Alberto, perhaps he knows..., do you know what demand-side management is? Could anyone tell me, is it important and how we are going to achieve it?

Alberto POTOTSCHNIG:

Demand-side management I was referring to it beforehand is basically trying to manage the demand side in order to solve, or to help solve some of the problems that I referred to beforehand. In fact I will go beyond that I would sort of split into or go beyond in the sense of to talk about demand participation in a sector, which is much more organized as market.

Dafydd AB IAGO:

So this is me as a consumer. Actually saying I am not going to wash my cloths now, but I am going to wash them later.

Alberto POTOTSCHNIG:

Exactly. If you know for example that the price now is or the price, yes, 5 o'clock in the afternoon, is usually when the pick is and then you may shift your demand later on that. That's one aspect, which is the most traditional sub meaning of demand-side participant.

Dafydd AB IAGO:

How much it's worth to me, how much money can I gain or not spend?

Alberto POTOTSCHNIG:

Well, if you are... It depends what are the terms on which you are receiving energy. If you are exposed, and this is part of the issue of challenge of smart meters, etc. the fact of or empowering consumers to make the right choice with the right information. So, if you know, I mean, today in Europe almost all member states have power exchange that set prices for their head. So, today you know, from this morning you know the price of tomorrow and I think we should be optimal higher prices meaning more..., a tighter relationship between demand and supply. So, at the moment most consumers are not exposed to higher prices and not exposed to prices at all. I mean they have a tariff, sometimes this tariff is indexed, but they only see at the end of the month or the two months what has happened. Why not trying to change and why not trying to do even better because as I have mentioned with a massive increase of renewable

we need to assist them which is able to react in a much quicker way than we are used to. Why not ask demand also to respond. So, demand responds which means, I mean, there is a lot of appliances around in households, it's more businesses and medium businesses that can be disconnected for an hour without any significant problem, you can have your fridge disconnected for an hour and nothing will happen then.

Dafydd AB IAGO:

There seems to be a lot that have been promised from the European Commission, from the EU, from the Parliament in terms of energy efficiency, demand side management is part of that, renewable, but the whole tendency is that it doesn't leave up our expectations, our social expectations in terms of affordability. Energy efficiency, renewables is that going to cost us more, Elena, Jan?

Elena RYBAK:

I guess when it comes to demand, in Ukraine we call it demand-driven development just to finalize the previous part of the question and in Ukraine since 2006 demand-driven development has been promoted as the key country priority by the Swedes. Swedish International Development particularly, and in Ukraine probably in most of our countries it means different things. But what it meant always for Ukraine is that when Swedes come and look at the project of investing 15 million euro into the heat fund knowing that 40 to 50 % of the energy is going to be lost prior to reaching consumer this is definitely not the demand-driven development. So, for Ukraine it would go to households, into their buildings, install these substations say from 15 to 25 % of energy, change the pipes to pre-insulate it say 30 % at least of losses in the pipes and only then I upgrade the boiler, because only then you know what needs to be a supply and this is what it would mean in Ukraine and that's the efficiency, the energy that saved. This is the benefit for the consumer, because this is the energy we don't have to pay for when there is totally the opposite today in our country at least.

Dafydd AB IAGO:

Jan, smart meters, what you think of those, I mean how much will they save us when we are looking at demands for general smart meters in Europe. Isn't that something that the companies that are selling them, or that is something that is going to save us money as consumers?

Jan Willem GOUDRIAAN:

Well, we don't think smart meters for domestic households will give us a lot of returns. I mean you have to pay for them, you have to pay also for the updates of the software, so smart meters do not come without costs for domestic households, so and it's not for nothing that in the number of countries board coalitions of unions, of environmental groups, of consumer groups are opposing the introduction of smart meters for domestic households. Business, large, medium size companies that is something different, but for domestic households the introduction of smart meters we don't think will bring a lot of benefits for them, rather they could bring costs. I think, the picture, which was sketched about having your electricity supply interrupted- you are sitting in front of the television with your kids at 7 o'clock in the evening that many households do and maybe not with all the kids with the whole family, but you have your family and then your electricity goes out, what is that for an image? We protect I mean at that hour the electricity prices are the highest if you have to do the dishes the washing with your family at that time, I don't think that is a very realistic picture to see the use of smart meters. Alternatively we think it's much more effective, much more efficient especially for households to actually invest in insulating the house, look at energy efficiency measures, subsidize those investments because that is a difficult issue. I think it was even said by Mr Chichester this morning somebody do, I normally do not agree with that but that is an important point I think he raised. It is very important to do these investments for consumers.

Dafydd AB IAGO:

Alberto, I see your finger pointing that you would like to come in. Perhaps you feel, you know, you are defending the EU policies.

Alberto POTOTSCHNIG:

Well, not just because of the EU policies, but I think we are moving towards a system, which would be, or a frame, which would be completely different from the one we know now. Obviously when we talk about demand participation, we are not talking about shedding load, black outs, of cutting power to household. In fact, we are talking about voluntary scheme, voluntary participation where you chose whether to play less and have a bit more flexibility in the way which you use your electricity without any impact on your standard of living. The fact that you run your washing machine at 8:00, 9:00 or 10:00 or 11:00 or 12:00 at night doesn't really change your life. I mean you will find your laundry ready the next morning. So, it's not..., all the fact that you know, where in all those countries where you use electricity to heat water in fact you know your water heater is stopped for couple of hours during the

night, but you have the hot water in the morning, again it is not changing your life. So, that's the first thing: so, it's voluntary and in order to do that you need to be exposed to prices, it could be done in different ways but basically you need a smarter technology than we have today. And the other part where it will become more valuable, the reason that it will become more valuable, is because we are going towards a system, which as I mentioned and all of us agree with a much greater penetration of renewables and in order to accommodate that we need to have a more flexible system. Now, I think the cheapest way of deliver flexibility is from demand. The alternative is to build a lot more generating stations.

Dafydd AB IAGO:

Peter a question. So, Güssing that's a great model. You know, always in Brussels when we have discussions, we have the Swedes, and Danish they come and say look we are doing like this, it's great; it's wonderful we have..., so wonderful. They talk about energy taxation or whatever it is, they are great. You know Güssing: it sounds like you are a great example, but have you been safe to start to small municipalities of the same size say in Bulgaria or Romania or even I suppose now in Spain, which you know, are struggling to pay their workers, how can they do what you have done? It doesn't seem possible?

Peter VADASZ:

When we talk about renewable energy many people stand up and talk about the costs. Yes, there are costs, but I am convinced that if we do not act in the face of climate change our costs of devastation caused by storms, by floods, by drafts and other disasters will be a lot higher.

Dafydd AB IAGO:

But you pay the bill a lot later, yes?

Peter VADASZ:

That's right, but act now and you know what Güssing does? Not Güssing, but it is science, it is research- it offers solutions. It offers solutions in a decentralized way of generating energy.

Dafydd AB IAGO:

But one thing that we would need in what you said that was, it would not have been, or if I understood you properly, it would have not been possible without the investment.

Peter VADASZ:

It would have not been possible without subsidies from the European Union and I am still convinced and I am deeply committed to the way we went on 20 years ago, because I think we should demand from the EU and from any other government legislative framework and subsidies to empower communities and municipalities to act on their own. This is a very, very concrete point of view and I think it will be over decentralized energy generation that we will come up with solutions small and tale mate for municipalities and for communities. So, let's not only talk about statistics and diagnoses, but let's talk about solutions and here is one that can be implied by many municipalities and by many regions.

Dafydd AB IAGO:

Thank you, I don't know if you saw me moving my hands there, but I negotiated 5 minutes and another opportunity to ask the audience if they would like to ask anything. Do I see a hand moving, no? Ok, another question, perhaps for Alberto to start off, but perhaps I will show your come in is a... for me as a journalists I know what are the things I have to deal with is the financial legislation, but I just don't understand it. It's surely complicated but I know the impacts on the energy sector we are looking at the higher capital requirements, we are looking at all types of mechanisms but my assumption is that you don't have the people, and you don't have the means to police the market and that perhaps is not your role and then perhaps to bring Jan William in and you mentioned that's wrong, that is the nightmare. It's also a nightmare for consumers obviously how do you think Europe is facing now, do we have the rules in place in the energy sector or are things getting slightly better or you feel that we will face a crisis?

Alberto POTOTSCHNIG:

Well, as somebody maybe in the audience knows as of last December there is a new piece of European Legislation in that of Regulation establishing a new system of market monitoring to ensure market integrity and transparency and that's exactly to address the problem that more markets, more well functioning market hopefully, but more complex markets may create risks of market abuse inside the trade and etc., but on the other hand the kind of legislation that we have for the financial sector is not adequate for the energy sector. The kind of risks that we are facing in the energy sector are of a different nature. It's not much a systemic risk, I mean Enron collapsed yes it created a havoc, but it did not bring the collapse of the whole system and Enron was in proportion to the energy system was quite a major player. We haven't seen the same... we have lost a very aggressive competitor, but there was

not the same turn-on in the energy sector that we saw recently few years ago for example with the device of the Lever Brothers. So, there is this new regulation, it gives the agency the task to monitor markets, energy markets. It is a challenging task, we are developing the infrastructure and we are recruiting the people. Obviously, we will have enough people, I don't know, we will do with what we have, we have been working already for 6 months we have been working with national regulators, we have been working with the regulators in the financial sector, because obviously now the two sectors are quite interlinked and we will have a shared task. So, yes I mean it's part of the scheme to try to have an internal market, not just an internal market but an internal market that functions well in which consumers and market participant can have confidence.

Dafydd AB IAGO:

Thank you. Jan, last word, quickly I see that we should be moving on.

Jan Willem GOUDRIAAN:

I wouldn't say that this would be the last word, but we are actually quite support of the regulators and if you create an internal market, if you create competition, what you do need is regulators. What you do need is powerful regulators indeed with the staff. I think as you indicated that's still to be seen. I think what we will see, is that we will have a further crisis; we will have further problems, maybe not of the systemic nature as you referred to. Not to forget that in California, the one city that didn't have problems was Los Angeles. Los Angeles had a municipal system of electricity and gas and the government had to step in major like in the UK when the nuclear sector went broke and the government had to step in to subsidize that sector. So the regulators are important they need to be well staffed, they need to be well resourced what we would say is that the regulator would and that's been the discussion with the regulators at the European level, that the regulator also needs to be democratic, that you have to have more influence, more how you should say, more input from environment, from trade unions, from consumer organizations, anti-poverty organizations and that is a problem. There is a big risk that the regulators are captured by big industry. So, that's something I would hope will change: possibly the 4th package, which will be forthcoming.

Dafydd AB IAGO:

Thank you very much for that. So, Alberto Pototschnig, Peter Vadasz, Elena Rybak and Jan Willem Goudriaan, thank you very much for joining us on the podium. Thank you very much.