There are two processes going on. One is moving to renewables and other is privatization. How do they match?
The point about privatization is that if you believe you have to move away from fossil fuels the idea off competitive market won't work. Because if you want a competitive market you can't say to competing companies you can't do this and you can't do that, you need to leave the market to choose for itself. The dream the future was competitive privatized market has now disappeared. Selling your companies is wrong direction if you want to get away from fossil fuels.

Energy sector in Britain was privatized many years ago and you went towards market liberalization. What happened after?
Now we are progressively abandoning the market and going back to centrally planned system which will be determined by a government agency. The future will be that power stations we build will all have long term contracts to buy all their power by a government agency.
Increasingly the electricity sector will be planned by a government department rather than the market. If you are going to have that sort of planning, then it is useful to have some public sector involved to keep the private sector under control.
That's what we learned in Britain; if you don't regulate companies very closely they will simply cheat and lie because their business is to make as much profit as they can. What we find in Britain is that companies have regularly been fined by regulator for misleading consumers. All of the big six companies had big fines in the last 18 month for misleading the consumers and systematically not giving them right information about price and about terms and conditions.
Now we have a big query by competition authorities why the electricity market isn't working and the likely outcome is that companies will be broken up. Government will force companies to split in separate parts.

How did they cheat?
EU and Britain tried to introduce the wholesale market. That is justification for all the changes. The idea was that a competitive market would be more efficient then a monopoly. We have had a competitive market in Britain for 25 years but it is not used. Only one per cent of energy actually passes through that market, the rest is private deals, mostly internal deals.
We have vertical integration. You have a company that generates electricity and sales it to its retail division to sell it to consumers. That is very bad for competition because such an arrangement means that they don't want the wholesale market to work.

Do you think the market could work?
Vertical integration is bad for competition but is probably quite good for the security of supply. In theory if you have a properly working wholesale market there would be a lot of companies generating electricity and no companies responsible for keeping the lights on. They build a power station or they close a power station depending on a whether it is profitable. If power station loses money they will close it and if lights go off it is not their fault. It is now beginning to emerge around Europe that we have a lot of power stations that are closed down because they are not profitable and companies saying that lights are going to go off unless we give them money to keep the existing plants on-line.

This seems strange, because if plants are built to work for 40 or 50 years and if they are not profitable today, you can't say they won't be in five or ten years time.
If you lose money for five years you won't be around for 50 years to find that out. Electricity business has a lot of cash and you go bankrupt very fast. Ten years ago in Britain we had 40 per cent of power stations capacities owned by bankrupt companies. Because their cost were
too high. I can tell you why that happened.

Why?
Well, that 40 per cent of the plant were all that were not integrated companies. There was some overcapacity and what integrated companies could do was force the wholesale price down but the price they sold electricity to their own customers did not come down so they lost nothing. The independent generators just lost money and they went bankrupt. The largest owner of power stations in Britain at that time was a consortium of banks that have lend money to buy these power stations. It's no good saying you might need a plant in ten years because it is too long to absorb losses.

Prices for production of electricity are very low, but household bill are quite big because on that bill there are a lot off other costs.
The idea for electricity was to make it like any other commodity, just like selling coffee, beans or sugar. The reality of commodity markets is that the prices do go up and down. When you get a price signal prices are very high so you can make profits, everybody invests, that forces the price down, people go bankrupt, price goes up again. It's the market cycle. I don't think electricity could ever be a commodity market. In commodity market you don't have to match supply and demand every second. If there is more demand for coffee on the market than it can meet nothing much happens, but if electricity is out for a second light go off. You can't store electricity like you can store coffee. There are no substitutes for electricity, like you can drink tea instead of coffee.

How did privatizations work in other European countries?
Idea in creating a market depends on you having a lot of companies. In Britain we have six which is by European standards very good, but if you talk to British consumers they don't know anything about electricity market but they have all heard of the ‘big six’. They all know that they lie and cheat. There was a public opinion poll and the trust in electricity companies was even lower than in banks. In competition terms Britain looks quite good because other countries have only one or two companies which are no market at all.

They probably talk to each other a lot?
They don't even have to. The big six in Britain know that if one of them puts prices up the other five know they can put prices up too. They know that no new company can come and compete against them. So why would they not put their price up? They all know that if they start a price war all they will do is lose their profits.

I assume that profits are really high.
It is hard to tell because four out of six are foreign owned. One is French (EDF), two are German owned (RWE, EON) and Iberdrola is Spanish. Profits disappear overseas and they move profits around from division to division so it is really hard to tell.

Hiding and cheating?
Yes. That's why there is competition authority query into them. They are putting prices up and nobody can check if those prices are justified or not. Prices in Britain have doubled electricity in real terms in last ten years. Paying electricity bill is now a big political issue because a lot of people cannot afford to pay it anymore. Gas prices have gone up even more. In winter people’s health suffers because they are not keeping warm enough and they are not cooking meals because they are scared to use energy. And that's in Britain.
If I’m not mistaken around quarter of British households are in fuel poverty. That is a lot.
That’s a lot. I think a figure is that every ten per cent increase in energy prices puts another quarter of million people in fuel poverty. Now we have six or seven million consumers in fuel poverty. So if you expect electricity prices to double again then you are looking at maybe 35 or 40 per cent people in fuel poverty. The only way is energy efficiency. If you want people to still afford their energy services then you need to spend fewer kilowatt hours to have the same services. So you need better light bulbs, better fridges, cookers, washing machines, better insulated houses etc.
The worst thing in Britain is prepaid meters. When we privatized in 1990 we had just privatized the gas industry. Gas industry cut of all consumers that didn’t pay the bill and that was very unpopular. What happened with electricity, if people couldn’t pay their bills, you must give them prepaid meters. They are perfect for companies because nobody never owes you anything and they don’t have to disconnect anybody. Prepayment meter use something similar to a credit card. You go to a local shop and buy perhaps ten euros of electricity, when you run out you sit in the dark. And we have 18 per cent of users with this prepaid meters. But companies say that these meters are expensive and that these consumers must pay more. If you have this meter you are paying 20 to 25 per cent more than somebody like me who pays direct debit, runs account online and uses quite a lot of energy. So you are forcing these people to pay 25 per cent more, they can’t switch to another company because companies don’t want consumers who owe money. That’s what you get if you leave everything to the market. If you have a monopoly you would give them the same price, if they cost you more you would recover it from other consumers. And I don’t believe they cost more for one second, because they get paid in advance, they don’t have to send bills, they never have debt and they don’t have ability to go somewhere else. Sadly these consumers like this form of payment even though they know they are being cheated. People of don’t like to be in debt so they are happy that they will never receive a bill they can’t afford. Shame on the regulator who never said that is wrong. You must never allow prepaid meter in Slovenia unless you have really good regulator.

Who are the main players in Europe in energy sector?
There are five big companies. I wrote an article ten years ago about seven brothers. Idea was that there are seven big oil companies which are called seven sisters so I was wondering if there are seven companies in electricity sector. There were three big ones (RWE, EON, EDF) and four smaller ones. Now we have just five and they are all big as each other (RWE, EON, EDF, GDF Suez, ENEL). The next largest company is less than half the size of smallest of those. The big five are getting much bigger and more dominant. They are the only five that are operating outside their own countries. For instance the Czech company, CEZ, is probably tenth of the size in term of turnover as any of them.

Do they have national authorities and Brussels under control?
Yes. You can debate whether Brussels really want competition because what they really want is to control the energy market. If you want to control the energy market hundreds of competing companies is a nightmare. If you have only five companies you call them in your office and make a deal with them. This is much more comfortable for people in Brussels then a properly working market.
If you think the future is renewables they tend to be small scale. Big companies don't want small scale. You don't need to be a big company to build wind farms or solar, everybody can do that. If you want to build a nuclear or coal plant than you need to be big company. So they
want big renewable technologies like Desertec, solar power plants across northern Africa.

**What do the biggest players actually want?**
This is interesting question regarding privatization of energy companies in some European countries. If you look at the big five they have more debt than they can handle. Clearly they want to sell things not buy them. ENEL is selling its Slovak business, France has sold its German business and so on. If big five wouldn’t be buyers, so who would be? American companies are never coming back to Europe because they lost all their money here. If you are selling, nobody is going to buy it at least not for the right price. You could only sell it cheaply.

**Can we expect prices of electricity to go up, because the business is not profitable at the moment?**
It is profitable, it is just that some companies expanded too much, more than they can handle. Italian company needs to sell because its debt is too high, I think two German companies are losing the market because of renewables.

**We were talking about problems. What are the solutions?**
If you are going to have low carbon production of energy, whether it is renewables or nuclear, you can’t assume the market will do it, because the market can only choose the cheapest option. Governments are getting aware they need better control on who investments are made.

**In Slovenia we are facing the opposite process.**
If you don’t trust the big companies and there is no reason you should, then one good solution is to have publicly owned company which you hope won’t cheat, shouldn’t cheat. Even if they are cheating, you have the power to stop them. The other way is locally owned companies which longer tradition in Germany and Scandinavia. A city or a region can be very successful in bringing in renewables.