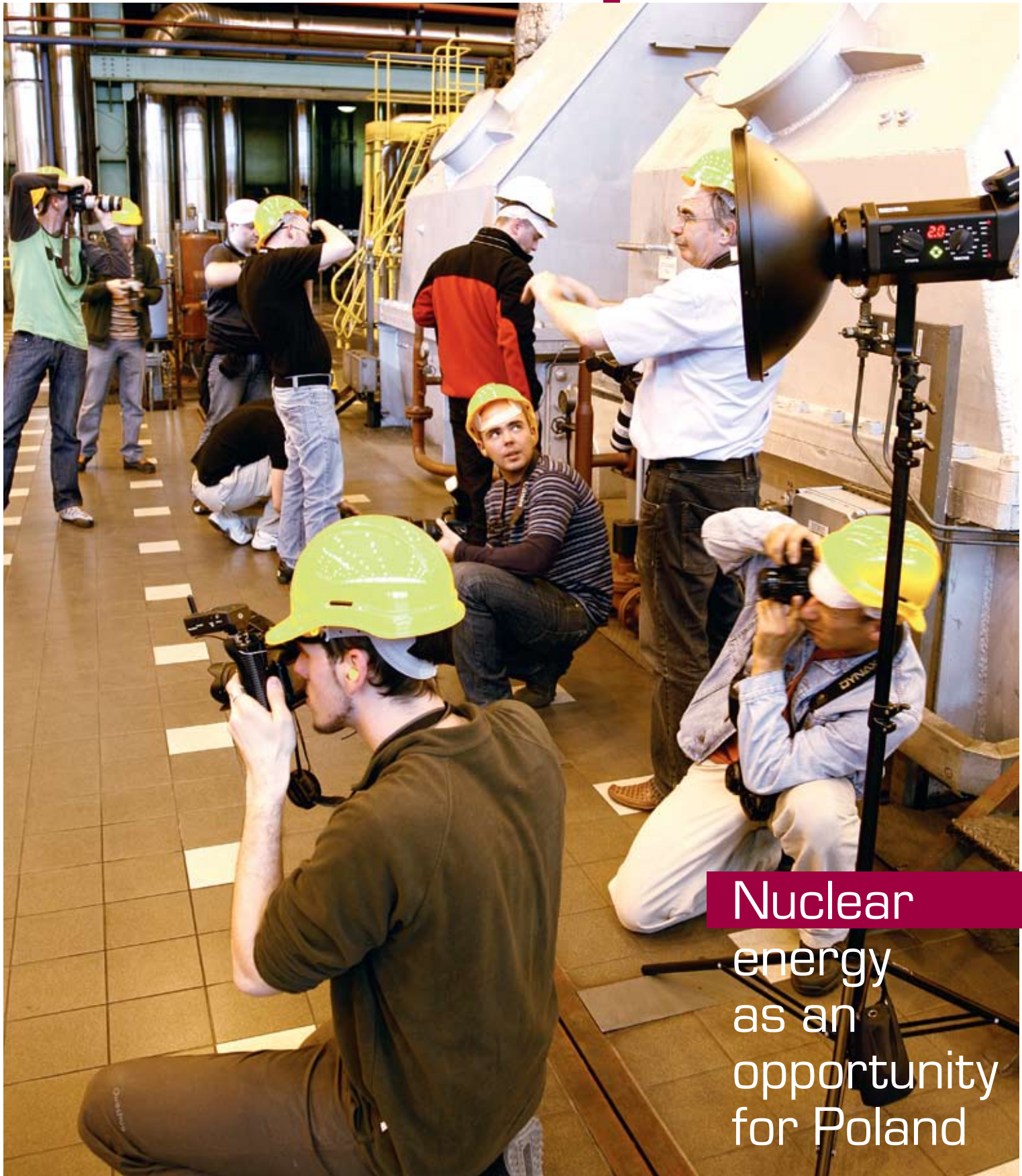


POLSKA ENERGIA



Nuclear
energy
as an
opportunity
for Poland

NUCLEAR ENERGY AS AN OPPORTUNITY FOR POLAND

In the latest issue of „Polska Energia“ we feature an interview with Hanna Trojanowska, Polish government’s Nuclear Energy Plenipotentiary and Vice-Minister of Economy. Currently, the most important task of the Plenipotentiary is to draw up the Polish Nuclear Energy Plan. This document will determine the desired scope of development of this type of energy in Poland, as well as its social, environmental and economic benefits. It will also point out actions that will allow the necessary organizational and institutional infrastructure to be created. The next stages of preparations for constructing the first nuclear power plant will also be determined in the Plan. On this basis, the investor selected by the government will choose the technology, suppliers, determine the contract conditions and the method of financing the investment. There will also be regulations that will lay down the rules of burnt-out

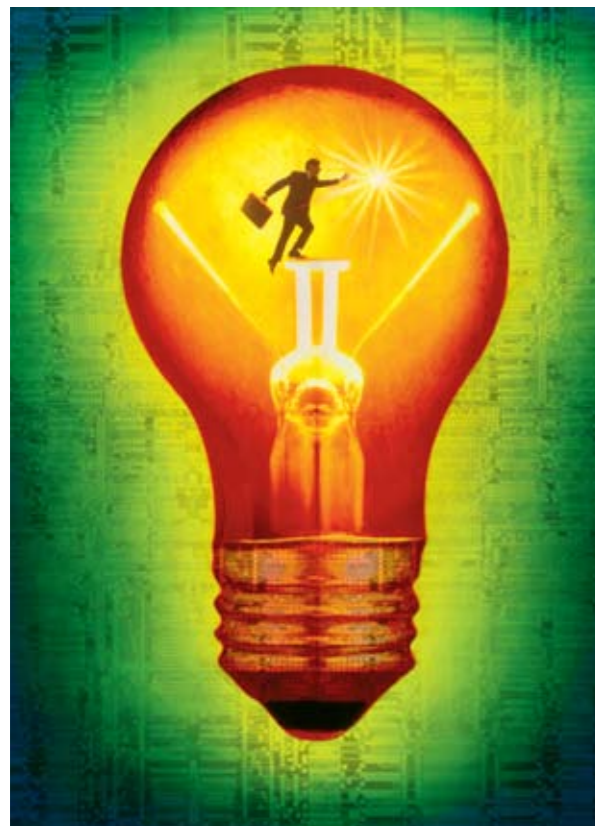


PHOTO: ABC

nuclear fuel and radioactive waste management. The first power plant is to be constructed in our country already in 2020. This is a very ambitious schedule that requires a huge involvement on the part of the government. Hanna Trojanowska predicts that works on

the Program project will last for 10 to 12 months. After public consultation, the document may be discussed by the Council of Ministers in the second half of 2010 r. The results of nuclear energy industry development in Poland can only be positive. Poles will notice a decrease of energy prices growth rate – in the third decade of the 21st century, producing one megawatt hour of electricity might cost, in case of a coal power plant, over twice as much as in nuclear power plants. New jobs will be created and new technologies will be developed. Investment costs in the nuclear energy industry are high, but they are compensated by the effectiveness of electric power production. They will also be arranged in installments for subsequent blocks built in Poland. **Interview with Hanna Trojanowska. „Nuclear energy as an opportunity for Poland”, M. Lauer and A. Opala, s. 6–7.**

A VISION OF THE EUROPEAN ENERGY SECTOR



We also recommend an article about the vision of the European energy industry sector – Project 2050. According to the Intergovernmental Panel on Climate Change (IPCC), by the half of the century, CO₂ emissions should be lowered in industrialized countries by 80–95 per cent compared to the 1990 level. Eurelectric (European Electricity Industry Association) prepared its own report describing its vision of the electric power sector development, with a working name “Project 2050”. This vision of development will concentrate on achieving, by the half of this century, the ability to produce electric power in a way that would be neutral in terms of carbon dioxide emissions (carbon neutral). What should be understood by this is producing electric power for which the associated carbon dioxide emission does not exceed 100 kg for 1 MWh. This number is an average value for the whole European Union. Eurelectric decided to begin work on investigating the ways in which the technology development should go and costs necessary to achieve such a goal. Keeping in mind previous actions, it was decided that the most promising of analyzed areas will be developing in the next 20 years the „electricity role” scenario from „The Role of Electricity” report. „Project 2050” will be a kind of a roadmap showing the optimal ways of developing the electric energy industry sector in Europe and the necessary investments. The document might become an important argument during political discussions about the future shape of the EU’s energy industry.

Energy in the EU, „A vision of the European energy sector” – Projekt 2050, S. Tokarski, J. Janikowski, p. 20 – 21.



CAN COAL BE A BRAND PRODUCT?

Can coal have a brand? This question is answered in an article by Jacek Srokowski. Marketing specialists have understood a long time ago that it’s the brand that sells the product, not the other way around. The brand is a combination of real product features and a kind of a European aura. Energy producers can build a whole set of positive associations around their companies – they can produce energy based on modern, environment-friendly technologies, can build up the reputation of a good employer, as well as a generous patron of the social surroundings (sport, culture, charity). However, electricity sold in Poland by the company is not any more ecological than



the competition’s, because coal energy dominates in the producer’s offer. Coal does not have a good brand in Poland, even though Poland owes much to this fuel. Coal companies lead

very limited marketing campaigns, because they see no need to intensify such campaigns. But the history of marketing shows successful actions of the coal industry in terms of brand creation, marketing and promotion. The companies do not appreciate the dangers coming not only from the surroundings but also from the public opinion. The latest Greenpeace actions against opening a new strip in the Konin Brown Coal Mine, are actually a campaign against the entire coal industry in Poland. The increase of environmental consciousness among Poles, especially the social elites, may have far-reaching consequences for the coal industry, and thus to energy as well. And even though energy, with difficulty, but can actually switch coal to other fuels, the coal companies do not have such alternatives. This is why a national promotional campaign for coal as a fuel of the future, as a modern brand, seems so much needed. New technologies, such as IGCC or CCS, and later the ability to obtain the fuel of the future – hydrogen – make coal an attractive resource in every way.

Image management, „Can coal be a brand product?”, J. Srokowski, p. 24 – 25.

SUBSIDIES PROPEL SOLAR POWER

The solar power industry is developing rapidly. The European Union is the world leader in this regard, especially Germany and Spain. In Poland, this form of obtaining heat and electricity is in its infancy. The quantity of produced heat and electricity depends on insolation. Assuming a yearly exposure of 1500 hours a year and an average energy stream density of 600 to 800 W/m², a solar collector with a 1 m² surface is exposed to 900-1200 kWh of energy. The power of solar power plants is utilized in 9 to 24%. A power plant with the power of 1 MW can produce from 790 to 2100 MWh yearly. Despite such poor results, solar power keeps being promoted, especially in the 15 countries of the so called “Old Union”. Photovoltaics has its advantages and disadvantages. First of all, despite the prices of the devices dropping, it is still an expensive energy source, even more expensive than wind. PV installation operating time is estimated to be 20-35 years. Estimated production costs vary and depend on how a given device is constructed. In case of 1 MW silicon modules, it’s an expense of ca. 3–3.6 thousand euro. Production costs depend on the insolation. Another problem is low module efficiency, although there’s been a substantial progress in this regard. Today, the efficiency of flat silicon panels is 12–18%. Half a century ago it was ca. 5%. This year Fraunhofer ISE, a German solar power institution, announced the construction of a module that converts 41.1% of solar power to electricity. Maybe the technological development will make the dream about an inexhaustible energy source come true.

Facts and myths, “Subsidies propel solar power”, W. Kwinta, p. 26 – 27.



PHOTO: GE



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