

EU Energy

The future of

EUROPE'S VISION of its energy future looks like this: competitive internal energy markets, more renewable energy, reducing dependency on imports and securing supplies to avoid a repeat of the January 2006 gas crisis when a dispute between Russia and Ukraine interrupted deliveries to the EU.

This ambitious blueprint, outlined in the EU's Green Paper last year, is widely backed by industry leaders as a way to reform the EU's energy model and meet growing energy needs. The EU predicts that unless 1 trillion euro is invested in updating infrastructure and making domestic sources more competitive, Europe will have a tough time kicking its dependence on energy imports, forecast to reach 70 percent by 2030.

Leaders in the sector say the wish list is long as well as costly: upgrading electricity and gas interconnections, encouraging R&D, seeking technological advances to make fossil fuels more efficient and finding affordable ways to produce renewable energy sources while reducing greenhouse gases and global warming.

"We are in a new energy century. Demand is rising. Europe's reserves are declining. There is under-investment and our climate is changing. We must have an approach to

match this new reality - the EU can no longer afford 25 different and uncoordinated energy policies," warned European Commission President José Manuel Barroso back in March.

The EU's goal is to have consumers choosing their electricity provider from anywhere in the union before July 2007.

Industry leaders doubt EU countries will meet the deadline. They argue that without a wave of liberalizations, national interests and spotty implementation of EU regulations will bog down the transition to a single, sustainable market. They say to secure a place in the global market especially as demand rises from India and China, Europeans need to be in sync.

Take for example, the divisive issue of nuclear energy. France and Finland use it but it is controversial in other Chernobyl-spooked nations like Italy.

"We need a true European market dimension, with no barriers to competition, with existing transmission capacity across the borders, and above all, with a regulatory framework that makes trade across the borders easy, not difficult, which is not the case right now," says Claude Mandil Executive Director of the International Energy Agency (IEA).

are we ready for it?

Interconnections and deregulation, the key to Europe's energy future

Within the next years, Europe needs functioning regional markets

Strong winds off the Iberian coast churn Spanish turbines producing record amounts of electricity that could light up southern Europe. But under current conditions, only consumers in Spain benefit and what is left over is lost.

Pity, since Europe is in dire need of home produced energy sources that will help reverse the continent's dependence



Dr. José Penedos, CEO of Portugal's Rede Eléctrica Nacional S.A.-REN

on foreign imports that are expected to reach 70 percent by 2030.

"We have a joke here in Spain: There would be nothing nicer than to sell air to the French," says José Manuel Entrecanales Domecq, chairman and CEO of the Madrid-based energy company Acciona. He underscores a common problem in Europe: the inability of member states to effectively transport across seamless connections energy sources to others.

"In Spain, we have a huge problem as we are not interconnected," says Mr. Entrecanales, who describes the company as a pioneer in sustainable development. "With a well spread and connected grid, you'd be in a perfect position to be able to increase your wind capacity in Europe by a very, very large amount."

Wind energy represents one of the fastest-growing sources of renewable energy across Europe. Germany, Spain and Denmark have capacities of 17,000, 10,000 and 4,000 megawatts respectively

of installed wind energy.

To counter the problem, Portugal's REN energy company is expected to spend a billion euros during the next five years to build sub-stations and high level interconnections.

"Europe has a major deficit in inter-connection capacity and lack of ability to transport wind energy. These problems are most evident in the inter-connectors

between France and Spain as well as between Spain and Portugal," says Dr. José Penedos, CEO of Portugal's Rede Eléctrica Nacional S.A.-REN and President of UCTE, the association of transmission system operators in continental Europe.

Nevertheless, the large bottleneck between Spain and France is on

its way to being resolved. During a French-Spanish bilateral summit in Barcelona last November France's Prime Minister, Dominique de Villepin, reasserted the French government's commitment to raise interconnection between the two countries to 4000 Megawatts, as agreed in a previous 2001 summit.

But even in areas where there are interconnections, Europe's network grid is vulnerable.

Take the case of Germany recently when the grid overloaded and cut power supply to 10 million consumers across parts of Europe. The brief outage - which stranded trains and people - raised fresh questions about the reliability of Europe's inter-connected power grids and drew an immediate call for stronger coordination.

The outage "showed us that investments are necessary," urged France's Industry Minister Francois Loos during an interview with France Info radio.

For that to happen, the EU's Green

Paper states that among the initiatives required include an integrated European electricity grid and constructing gas and oil pipelines that will link the heart of the EU with North Africa, the Middle East and the Caspian Sea region.

As well intentioned as the Green Paper is, however, industry leaders worry that member states continue to protect national interests particularly with electricity and gas.

But this attitude is slowly changing and as Mr.



José Manuel Entrecanales, chairman and CEO of Acciona

Penedos points out, it has to in the long run. "It is necessary to reconsider the national energy infrastructures not in terms of individuality but in terms of a segment (a national contribution)

to the European energy grid. This is fundamental. Our investment efforts must take into consideration the need for cooperation between close neighbours and their respective markets. Countries like Portugal representing relatively small markets would risk their liquidity and their transparency if they think in individualistic terms."

Gas, too, has its challenges. While gas lines have been installed throughout Europe each grid operator charges a transmission fee, making gas more expensive for everyone concerned. Currently, about 50 percent of Europe's gas consumption comes from Norway, Russia and Algeria. If current trends continue, Europe's gas imports will increase to 80 percent over the next 25 years.

Willy Bosmans, president of Eurogas predicts a shortage in gas supplies of 20-25 percent by 2020. ➔

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"It should be possible to close the gap if the necessary investments are made in time."

Eivind Reiten, CEO of Norway's offshore oil and renewable giant Hydro, likens the infrastructure debate to that of a road system.



Eivind Reiten, CEO of Norway's offshore oil and renewable giant Hydro

"I keep arguing that (each) government needs to look at the grid systems more or less as they look upon roads," he said, adding that if the grid network, like a road network,

is in place energy companies will follow." Then you have to work with incentives depending on the capacity of the grid and so on, but too few governments have managed to make that switch."

Marcel P. Kramer, Chairman of the Executive Board and CEO of N.V. Nederlandse Gasunie agrees.

"Why is it, for instance, so easy to get a train ticket from Amsterdam to Rome and so difficult to get your gas from Amsterdam to Rome? Even if the pipelines are there, you still have to stop all the time at different places to buy a new ticket. As an industry, we have to make these things easier."

"To truly open up the market, making it global rather than regional", Mr. Paolo Scaroni of Italy's ENI points out, "it is necessary to invest in the seaborne transport of liquefied natural gas. This allows us to import gas from anywhere in the world - and is the only way of guaranteeing greater diversification of the sources of supply."

Mr. Fulvio Conti of Italy's ENEL describes a common view among the European players: "At the end it all has to evolve into one single market and you will see the same prices for the same commodity. In that scenario we will try to position our own operations in a truly European footprint."

ARGUMENT FOR LIBERALIZATION

All the talk about creating a European wide market rests on governments across the continent to liberalize their markets and

allow competition to bloom, just like the Norwegian government did 15 years ago.

"We liberalized the market before anyone else in Europe and we made the grid the full responsibility of a state owned company. Before that, it was almost chaos and we had to deal with a lot of inefficiency," says Hydro's Eivind Reiten.

That means that governments have to create the legal framework to invite competition without scrapping long-term contract agreements.

"You can very well have long-term contracts in a liberalized market; provided those contracts are concluded in a competitive basis or framework. That means there is competition, a tender, consumers can choose between several suppliers," said IEA's Claude Mandil.



Claude Mandil, Executive Director of the International Energy Agency

"Liberalization is not an event, but a process and there are still a number of concerns and restrictions in our market that don't yet allow us a fully liberalized market," commented Rafael Miranda Robredo, CEO of Spain's electric company Endesa and President of the Eurelectric union. "The reality is that now we have five different markets instead of a liberalized one."

"I believe that all the big European companies are in favor of liberalizing the internal market. Consequently, at the same time, they are in favor of a reasonable unbundling of the business," Mr. Miranda elaborates.



Rafael Miranda Robredo, CEO of Endesa and President of the Eurelectric union

Most players recognize that national efforts should, as Mr. Penados sums up, "serve the collective will of building a common infrastructure that ensures a transparent and liquid market in Europe."

Mr. Scaroni goes one step further

suggesting that Europe should unify its national gas grids into a Pan-continental gas transportation network regulated by a single European authority - one that supersedes national regulators. ■

Energy Efficiency in the EU

"The future of energy in the EU requires greater acts of efficiency by changing the strategic ways we behave in society," says Mr. José Manuel Entrecanales Domecq, Chairman and CEO of Acciona. "We believe that the largest source of renewable energy is the potential of saving energy."

While considerable energy is wasted on heating water, 40% of energy used in the EU is spent on heating and lighting buildings, so the potential of storing energy and re-using it represents an optimum solution for efficiency. "Regaining excess energy that would otherwise be wasted and then storing it has the capacity to reduce current consumption by an unparalleled amount as the overall efficiency of the processes is quite high," says Dr. van Wijk, CEO of the Econcern group.

Simple measures, such as containing heat in homes and buildings accumulated during the summer months to be used during the winter, could make a profound difference. Temperature differences between hot and cold can also be taken advantage of to generate electricity or provide cooling.

Technology will be key to extending energy services worldwide but also in making sure that this is done so efficiently and cleanly. The global "One Watt Initiative" which takes Energy Star ratings a step further, aims to reduce household and consumer appliances to a maximum standby mode consumption of one watt. Televisions and computers can presently consume up to 30W on standby. Low consumption light bulbs are also a fundamental contribution to increasing efficiency.

As Claude Mandil, head of the International Energy Agency points out, "although energy efficiency is just one of the tools" in reducing the emissions of greenhouse gases "it has a specific role because, with existing technologies, it is immediately available". ■

Diversification: The Future Energy Mix

Everyone agrees, there will not be one single source of energy supplying us in the future - it will be a mix.

As fuel prices climb and concerns intensify for the security of supply, momentum is building to diversify the way Europeans heat their homes, drive their cars and light their streets.

But while there is great public and private support for a diversified energy portfolio, it remains a challenge to define the best mix that resists price fluctuations, has little impact on the environment and reduces dependence on fossil fuels from regions of continued instability.

The options are many. Chief among them is the continued use of fossil fuels combined with a significant dose of renewable energy or a revival of nuclear power.

As Mr. Umberto Quadrino, CEO of Italy's Edison points out: "When talking about fuel-

mix issues, there are three parameters that need to be taken into account: cost, safety and environmental compatibility. No technology is problem free."

There is one point, however, on which everyone agrees: Europe must pay more attention to conservation with everything from switching off appliances to driving fuel efficient cars.

"The Western community is wasting enormous amounts of energy because we are unaware or unwilling to really economize on our energy consumption," declares Peter Tjan, secretary general of the European Petroleum Industry Association.

As public awareness over climate change grows, more and more countries are grappling how to efficiently generate renew-

able energy and simultaneously cut CO₂ emissions that produce greenhouse gases.

Europe's renewable energy sources represent just an average of 6 percent of the bloc's overall energy use, according to a report released by Climate Action Network-Europe at a U.N. climate change conference in Nairobi, Kenya, in November.

But more and more countries are reacting to the new scenario and are diversifying into renewables.

Italy, which was badly hit by the gas dispute between Russia and the Ukraine last year, is also working hard to increase the amount of renewable energy initiatives such as energy efficient construction and solar power.

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efficiency with a strong focus on renewables which we need to establish as a primary source of energy supply," says Italy's industry Minister, Pierluigi Bersani.

In Portugal the push is for renewable energy as the country has become too dependent on imports. "We are left with renewable energies only to consider," said Dr. José Penedos, CEO of Portugal's REN energy company.

"If we are to strengthen our national base to generate electricity we must bet on renewables, which means hydro, sun, biomass, wind energy and tidal or wave energy also. This is our challenge. We cannot rely on the volatile prices of fuel oil, or gas or coal.

We must rely on our natural resources and we must bet on the development of our technology."

But as with all renewable sources, there are advantages and drawbacks. More study and investment are needed to maximize their energy use and make them commercially viable. Thus far wind, solar and bio-fuels appear to have the best potential.

Europe produces ethanol from beetroot, an expensive method which has to be subsidized. It would be 40 percent cheaper

to import it from Brazil, where ethanol from sugar cane is widely used as fuel for cars. But it's an unpopular option as it could wreak havoc with the subsidies the EU hands out to the agricultural sector.

Such protectionist policies, say industry leaders, place Europe at a disadvantage in the global energy market.

For many governments, the more difficult task is convincing a fearful public of the benefits of using coal and nuclear power.

Coal, for example, is cheap and is in huge supply. The world's 1,700 coal-fired power plants are a cheap source of electricity, which figures prominently in a country's economic growth particularly in developing nations.

"Coal is present in countries where energy demand is the largest," says Preston Chiaro, the London-based president of the Coal Industry Advisory Board.

But it can be a nightmare for the environment.

"There certainly is technology available today to burn coal cleanly and to capture the carbon dioxide emissions and technology exists to sequester that carbon for very long periods of time," Chiaro said.

In Scandinavia, Canada and other countries there are "large quantities of CO₂ that are being captured and stored in geologic reservoirs."

The World Resource Institute encourages the Carbon Capture and Storage, or CCS, technology. But it cautions there are still barriers. "There are no widely approved standards for the monitoring of

CCS projects. Likewise, no widely accepted methodology exists to govern accounting of greenhouse gases stored in CCS projects," the institute says.

Nuclear power, which is viewed by proponents as economical and produces



**DONG Energy's CEO
Anders Eldrup**

no CO₂, has a bad name in Europe.

Nuclear waste, radiation fears and nuclear weapons proliferation particularly in unstable countries are concerns that may hinder

major investments. Germany and Sweden want to phase out the technology.

France, on the other hand, has 59 of the world's 442 power plants, generating 78 percent of its electrical needs, according to International Energy Agency statistics.

Countries such as Italy have banned the use of nuclear energy, but it doesn't mean Italian companies are snubbing it.

"If you cannot have it, you have to look if you can avail yourself of the technology somewhere else," says Fulvio Conti, CEO of ENEL. "So we found expansions on the nuclear side by going to Slovakia, France and possibly other countries."

At the end of the day, everyone agrees that for any particular mix to work, industry, government and the public have to be willing to make the switch. ■

Security of supply

Europe is approaching a severe energy import dependency, the solution needs to be approached from several directions

At a meeting of European Union heads of state in October, a top official predicted there will be 200 new nuclear power plants in the world in the next 20 years.

What was even more striking than the forecast was who delivered it: Javier Solana, the EU's foreign policy chief. His remarks in

Finland underscored that securing and protecting energy supplies is not just an issue for energy planners, but one that is increasingly becoming part of high-stakes diplomacy, mounting global competition for oil and gas and internal battles over the merits of nuclear power. Importantly, these com-

ments introduced a tone of urgency that hadn't been there before.

Made just days after meetings with Ukraine officials regarding the security of a single pipeline that delivers 80 percent of the EU's gas supply, Solana expressed confidence that there would be no repeat

of last year's gas interruption due to a disagreement between Russia and Ukraine, he was not so certain about a critical oil pipeline from Azerbaijan through Georgia to Turkey. "If anything were to happen there, we would have difficulties," he said.

Such discussions would indicate that we can expect fresh debates over nuclear power: potential political suicide in some EU governments following the 1986 Chernobyl disaster.

"Nuclear has to be part of the energy mix," said Claude Mandil of the IEA, which recommended nuclear power as an alternative energy source for the first time in its 32 year history.

The group now estimates nuclear generation will grow by at least 13 percent by 2030, and perhaps as much as 40 percent. This change of heart is primarily due to the finite supply of oil and gas and their continuing prices increases.

These scenarios leave Europe little room to maneuver, especially as it forges ahead with obligations under the Kyoto protocol, which mandates for a reduction in greenhouse gases to battle global warming.

The IEA said that global energy needs will surge by 53 percent over the next quarter-century and that crude oil prices could exceed \$ 100 a barrel by 2030 with a rise in oil demand from 84 Million barrels to 116 million barrels. Global carbon dioxide emissions, meanwhile, would more than double by 2030.

"The era of cheap and abundant con-

ventional sources appears to be coming to an end," according to a recent EU parliament policy report. "Moreover, this end will possibly arrive sooner than is currently being budgeted for by the EU member states. Maintaining supply will require, on the one hand, significant and timely investment in new and more expensive oil and gas production while, on the other hand, production costs and the concentration of conventional fossil resources in a small number of regions (the Middle East, Russia and the Caspian Sea region) will significantly increase."

Industry leaders point out that there is not one magic solution - at least not yet. Until technology discovers a new, renewable and clean energy source for Europe's 450 million people, the continent has to invest in renewable energy and use energy more efficiently.

Fulvio Conti, CEO of Italy's state-run ENEL, says officials learned their lesson last year when the Russian-Ukraine gas crisis literally threatened to leave Italy out in the cold.

"This is the reason we are investing in coal. This is the reason why we are diversifying, why we want to have a balanced mix of power generation. We do not want one single supplier setting the price," he said, adding that Europeans have "invested very little" in finding their own sources of energy and have become over dependent on suppliers from Russia, Norway and Algeria.



Pierluigi Bersani,
Italy's Industry Minister



Paolo Scaroni,
CEO of Italy's ENI

That means more investments in technology.

As Italy's Industry Minister Pierluigi Bersani puts it: "Europe should work on becoming the geopolitical and strategic leader in the world of energy. Europe has to take a leadership role in regards to energy generating technology as well as the area of renewable energy."

"Our natural resources demand more sophisticated technologies and we need to commit to this front," argues Dr. José Penedos, CEO of Portugal's REN energy company. "We must bet on new devices that guarantee and preserve the standards of the grid, which is my responsibility as the REN's CEO."

European dependence on gas grew as more and more countries abandoned the coal-fired plants considered the biggest emitters of CO₂, although technology is being tested to reduce the emissions.

Complicating Europe's dilemma is its ratification of the Kyoto protocol, which mandates a reduction in CO₂ emissions. That means "more gas, less coal," says Mr. Scaroni, CEO of Italy's ENI.

Preston Chiaro, Coal Industry Advisory Board president and CEO of Rio Tinto, a diversified mining company, looks at energy philosophically. "Society can't afford to let go of any of the existing sources of energy and what we have to do is to add all of them, but in a responsible way. There is no energy source without its challenges," explains Chiaro.

"The question is not to demonize any particular energy source, but rather to figure out how to unlock the potential from all of these energy sources."

Until that time, concludes Mr. Scaroni: "Europe's energy strategy should always be to develop a constructive, mutually beneficial relationship with producer countries."

Italian Minister Bersani agrees.

"Today one has to understand that security of supply can only be guaranteed in an EU dimension. It is an absolutely strategic issue that has to be solved in a friendly two-way relationship. We need a more profound relationship with our neighbours on a commercial, financial, industrial and economical level in the broadest sense." ■



M&A in the EU energy sector

A market in transition

The European energy sector is steering toward its goal of achieving a fully liberalized market by July 1st 2007, but “serious malfunctions” cited in a European Commission (EC) inquiry into the sector’s competitiveness make for a challenging road ahead. Case in point is the world’s largest utility merger between Spanish champion Endesa and German giant E.ON. The proposed merger has been beset by political intervention and the threat of legal action against the Spanish government by the European Union (EU).

The Spanish government intercepted the E.ON bid and began pushing a merger with local rival Gas Natural. When the EU gave the go-ahead to E.ON, Spain’s energy regulators imposed a list of conditions. Meanwhile, Spanish group Acciona bought roughly 20 percent of shares and further complicated the process. Spain finally retreated when the EC threatened court action. But it is still not clear whether the merger will go ahead. Similar intervention by the French blocked a merg-

er between Italy’s Enel and France’s Suez. Instead France will merge Suez with Gaz de France. And recently the second largest Spanish electricity producer Iberdrola confirmed interest in Scottish Power.

There can be no doubt that the future of Energy in the EU will include further tie-ups.

“I don’t think the German, Belgium, French or Spanish consumers will be better protected if the big companies are of the same nationality,” says Claude Mandil, executive director of the International Energy Agency, an intergovernmental policy advisor dedicated to preserving a reliable, affordable and clean energy supply. “They will be better protected if the regulator works hand in hand with government and legislation.”

Many EU members still equate energy with national security and remain protective of their national champions. There is the large gap in national policy from one member state to another as EU legislation is interpreted and applied differently, which is why a single European energy

regulator has been suggested. But Eurelectric, the electricity industry’s union, is formally against more regulation, which it sees as incompatible with an open market. “If you create another body, it means more regulation,” says Rafael Miranda, CEO of Endesa and the union’s president. It is the general consensus in the private sector, explains Miranda, that national champions are an old idea and political intervention marks a step backwards. Miranda wants to see open market prices and a coordinated European regulation.

One criticism is that as the market opens, monopolies will secure the upper hand. The liberalized market will simply reinforce the dominant position the big players with the financial strength and hence, hinder a truly open market.

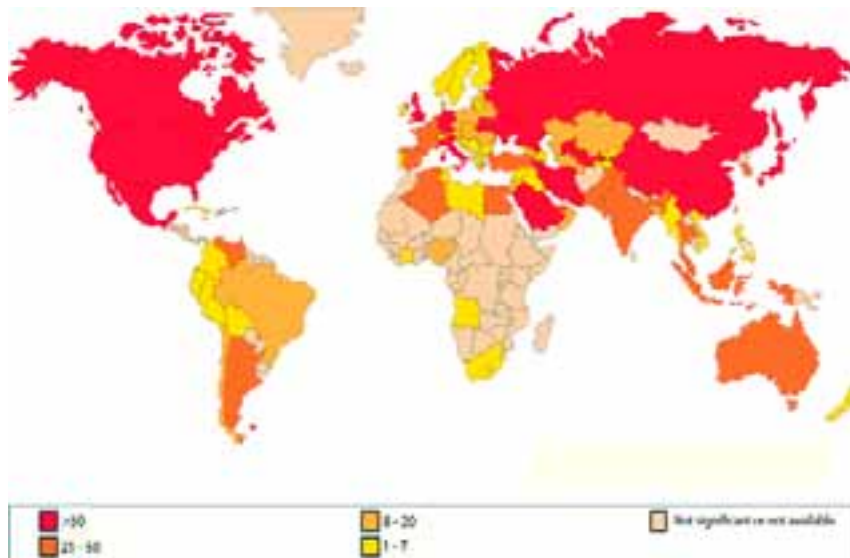
However, many experts believe that an open market with a super league of strong players is possibly the most attractive model for Europe. Only big players with high liquidity will be able to finance the necessary investments in infrastructure as well as negotiate with suppliers on an even playing field. In any case, numerous electricity and gas network projects are underway to bridge European interconnectivity essential for market integration.

Italy’s ENI for example, has just signed a ground breaking deal with Gazprom, securing gas supplies from Russia until 2035. The deal makes ENI the single largest customer of Gazprom. As its CEO, Paolo Scaroni points out:

“The whole process of liberalization in Europe started from a conceptual point of view that Europe had abundant supplies of gas. But the fact is that we do not have all the gas in the world at our fingertips.” Scaroni warns that “the continent is facing a situation whereby we will be increasingly dependent on two major suppliers”, namely “Gazprom and Algeria’s Sonatrach”, hence the need for strong European players.

However, Neelie Kroes, Competition Commissioner of the EC is confident that fair competition can be enforced in a liberalized European market. There may still be a long way to go, but there is no turning back. ■

Global Consumption of Gas in 2004



Cleaning up their act

Denmark calls on neighbors to adopt its energy strategy for a cleaner tomorrow

In an interview held in Finland a week prior to the release of the UK's somber Stern Report warning of imminent global climate changes, Denmark's Prime Minister Anders Fogh Rasmussen urged the European Union to replicate his nation's adoption of compulsory energy saving targets and encourage its private sector to think "renewable energy" to curb its growing dependence on fossil fuel.

While almost a third of EU's energy supply currently originates from Russia and forecasts predict its dependence on imports could more than double by 2030 if warnings are unheeded, the Danish Prime Minister called on his neighbors to implement his country's development of a common energy strategy.

"Denmark serves as an example that

we can succeed in reducing this dependence on imported energy," Mr. Rasmussen stated. The Danes are the only EU members to export more energy than they import, and to have proven that economic growth and energy demand can be mutually inclusive.

ENERGY-WISE: The Danes by the numbers
 □ **GAS:** non-reliant on imports since it only consumes about 65% of its annual production.

□ **RENEWABLE ENERGY:** Eighth biggest user of "renewables" in Europe

□ **OVERALL ENERGY CONSUMPTION:** 44% oil, 23% gas, 12% renewables, <1% waste

Source: European Environment Agency

Although the Danes - a mere 1.3% of Europe's 458 million inhabitants - may lack in numbers, they are key to leading

the way in energy efficiency, conservancy and education throughout the 25-nation bloc and beyond.

"We have to take initiatives now," Mr. Rasmussen said, speaking of the bloc's increasing dependency on imports.

In a letter sent in late October to EU Commission President José Manuel Barroso, the Danish leader called for binding energy targets of 1.15 % annually until 2017 for the entire Union and each of its states respectively. The resource saving scheme that trades certificates with obedient businesses has proven quite successful in Denmark, which also utilizes this reward system for the use of renewables in the private sector.

If the decreasing air pollution level in the Danish Capital of Copenhagen is a tell-tale sign on just how tough its government is on environmental issues, then Denmark must be the leader to follow as it relentlessly perseveres to clean up its act, save energy and pursue technological advances for a cleaner tomorrow. ■



DONG Energy A growing force on the European stage

DONG Energy's success is based on its wide experience - not only in all aspects of the energy chain, from production of power and natural gas to supply, but also in the breadth of the energy sources used, from coal and hydrocarbons to wind power and hydro power.

"Our strategy has always been to be part of the entire value chain," DONG Energy's CEO Anders Eldrup explains, adding, "the different parts of the value chain support each other, making us a fully integrated energy company."

Denmark has blazed a trail within Europe in opening up its energy sector. "The liberalisation of our power and gas market meant that we lost our monopoly, and with it market share," Mr Eldrup explains. "In response, we have focused on gaining in external markets what we lost at home".

Two thirds of energy sales are to countries outside Denmark, such as Sweden, Germany and the Netherlands. The company is also actively seeking to develop this international business even further to become a major participant in north-west Europe's energy sector, both as producer of clean coal power plants, wind farms

(offshore and onshore) and as supplier of power and gas.

Already a presence in the North Sea, DONG Energy has recently expanded its oil and gas production portfolio, signed long-term gas supply agreements, and is playing a major role in enhancing the European gas pipeline network.

"Our aim is to produce at least one third of our gas supplies ourselves, so that we rely partly on long-term contracts, but are also independent due to our own production," Mr Eldrup says.

DONG Energy is also helping to pioneer new methods for establishing gas sales, notably "two-way gas release" auctions. Committed to clean coal technologies, the company is helping to clean up emissions in other ways such as through CO₂ capture. The company is heavily involved in the thriving Danish wind power sector, whose success has made it a major export business.

While the Danish state will retain a majority interest in DONG Energy until 2015, an IPO scheduled for 2007 will enable others to take a stake, offering a chance for investment in one of the region's most innovative and dynamic companies.



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REN - Rede Eléctrica Nacional- the transmission operator of electricity in Portugal.

REN guarantees the standards of Portugal's electricity transmission network and helps in advancing a greater capacity of energy from renewable sources. Ultimately, the company contributes to make the European Internal Market a reality by further co-developing of the regional Iberian Electricity Market.

REN is now starting a new institutional era through the launch of an IPO that will enhance its ability to guarantee, both the transmission of electricity and transportation of natural gas.



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