

The Thought Leader Interview: Fulvio Conti by Art Kleiner

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Photograph by Reed Young

Fulvio Conti: The Thought Leader Interview

The CEO of Europe's second-largest utility says that energy companies must adapt in a fast-changing global marketplace.

by Art Kleiner

Chief executives of energy companies face a paradoxical situation in 2008. On the one hand, their product is priced higher than it has been in living memory, and demand is growing fast. On the other hand, fuel is traded as a commodity in global markets, difficult to differentiate, with a raft of alternative fuels on the horizon. And its political and economic importance — as a factor in climate change, national security, and economic quality of life — is greater than ever. The result is an unprecedented set of competitive pressures, reshaping both the “upstream” energy industry — those companies involved in exploration and production of oil and natural gas — and the “downstream” retail businesses that sell electricity, heating fuel, and automobile fuel to customers.

Of the corporate leaders wrestling with these pressures, few are as articulate as Fulvio Conti. Conti is the chief executive of Enel SpA, the preeminent Italian electric and gas power company and the second-largest utility company in Europe, in terms of installed capacity. Enel is at the forefront of a transition affecting all power utilities:

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From their past as strictly regulated entities (often owned by governments), they are rapidly evolving into global energy enterprises operating in a variety of markets.

Only a few years ago, Enel sought diversification within Italy, buying local water companies and establishing a telephone company called Wind. When Conti became CEO in 2005 (he had been Enel's chief financial officer), the company shifted direction. Enel divested itself of Wind and other nonenergy businesses, and focused purely on energy, expanding into regions where it could find either customers or supplies of fuel. Enel now operates in 21 countries, including Spain, Portugal, and France; most countries in Latin America; the United States; Greece, Romania, Slovakia, and Bulgaria; and Russia. Enel also expanded from its baseline energy businesses — electric power and natural gas — into a variety of forms of energy production, including geothermal, nuclear, photovoltaic, wind, and coal. And it invested heavily in researching and promoting energy efficiency.

This is what it will take, Conti believes, to operate as an energy provider in the next decade. One

must be prepared for global growth, be ready to work with a variety of energy producers and technologies, and be focused on both customer and community needs.

Conti and others at Enel are also developing innovative new approaches to public engagement. In the book *Megacommunities: How Leaders of Government, Business and Non-Profits Can Tackle Today's Global Challenges Together*, by Mark Gerencser, Reginald Van Lee, Fernando Napolitano, and Christopher Kelly (Palgrave, 2008), Enel is featured for its efforts to develop a multistakeholder approach, especially in regions where it seeks to site new plants. These efforts began after an episode in 2005, when the company had to walk away from a joint venture with British Gas, a liquid natural gas processing facility in Brindisi, Italy, after protests, press criticism, and local government opposition stalled the project. To Conti, this episode represented a turning point; it showed that the established practices for community relations were no longer suitable and that global corporations needed to find new forms of local presence. The episode also led the company to create the Enel Endowment for En-

vironmental Economics, a new faculty position at Harvard University.

With *Megacommunities* co-author Fernando Napolitano — the managing partner of Booz & Company's Italian office and a member of Enel's board — *strategy+business* met with Fulvio Conti at his office in Rome, in May 2008. A few weeks earlier, in a speech made at the 11th International Energy Forum (a biennial gathering of energy ministers and industry executives), Conti had laid out an “energy equation”: four imperatives facing both government and business. His perceptions apply not just to the oil, gas, and electric power industries, but to any company struggling to form a global and local footprint.

S+B: You are one of the very few energy leaders, particularly in utility companies, speaking out in favor of the globalization of the electric power and natural gas industries and for global energy regulation. Why is that important?

CONTI: Let us start with the goal: abundant, sustainable, and cheap energy for everybody. Across the planet, electricity is steadily available for only 2 billion people. Another 2 billion have only occa-

sional access to it, and the remaining 2 billion do not have electricity at all. This affects the overall evolution of the global economy, and the overall welfare of the planet.

Then we must recognize that energy is, by definition, global. Local markets function only as part of a worldwide system. Something that occurs in the oil market in the Persian Gulf, or that affects coal production in Australia, can have an immediate effect here in Italy or anywhere else in the world. Thus, any move to provide 4 billion people with more energy will probably involve further globalization of the energy sector.

Then we need to take into account the realities of the industry. Energy projects require long lead times for construction, the deployment of intensive capital, and a strong commitment on the part of local governments.

Smaller energy companies cannot survive in an environment defined by these global factors. Therefore, the many locally oriented companies in the energy sector have to decide: Will they build their local presence into a global strategy? Will they consolidate themselves into larger operators? Or will they try to maintain their smaller market position and eventually be absorbed by someone else? The current evolution of the energy equation leaves no other choices.

S+B: Most power companies grew up as highly regulated local utilities. Is it plausible to expect change?

CONTI: Yes. Small utilities and power companies everywhere — from the Midwest of the United States to Europe to the Far East — face the same issues: dependence on fuels, the global project of combat-

ing climate change, and being part of an industry that has a fundamental need for scale. There may continue to be regulated markets in small communities. But the companies delivering services in just about every market will be increasingly integrated into global enterprises, superseding their former nationwide government sponsors. Already, macro-regional energy markets are forming, like Centrel in central Europe and Iberia in southwest Europe. Before long, we will have an integrated, reciprocal transnational market, in which many providers offer electric power, competing over a common global grid.

The paradox of the moment is that local regulators and local utility companies are still acting as if the world has not changed. Leaders of energy companies tend to feel that being in the cradle of stringent regulations will preserve their status as insulated, protected enterprises. Energy consumers similarly expect that local governments can preserve their access to enough energy to fulfill their needs. And governments in Europe, and in some other places, continue to think that they can maintain the dominance of their so-called national and local champions, their local energy companies.

But in my view, this is a shortsighted approach to the global energy sector. It will take very little, such as a further increase in the price of raw materials, to make the existing regulatory regimes tumble.

The New “Seven Sisters”

S+B: Why is this shift happening now? Why didn't it happen earlier?

CONTI: There are three basic forces, all interacting. First is the growing demand for energy, caused by the

accelerating needs of emerging markets. Oil is not an ordinary commodity; it's a vital tool for economic development. Prices are scaling up to reflect that real value. People are concerned about the crude oil price; US\$120 per barrel seems astronomical. But in my view, this is not true. The current price is slightly more, in real terms, than the price of oil in the 1980s. What was totally out of touch with reality was the price of \$10 per barrel that we enjoyed in the late 1990s. Mineral water is still more expensive than crude oil today, but it won't be for much longer. Other energy prices — like the price of natural gas — will also rise accordingly.

The ways that energy is used will also change as demand grows. Electric power in the future will be finely tailored for individual consumers. The consumer of the Western industrialized world has more sophisticated energy needs than the first-time energy user living in, say, an underdeveloped country in Africa. But you have to serve both. You need innovation for serving the former, and efficiency and size for serving the latter; and for both, you need prices that adjust to reflect the real market costs and type of service.

The second pressure is the evolution of the oil-producing countries. You might remember the days, years ago, when the “seven sister” oil companies — the past versions of Exxon, Royal Dutch Shell, BP, Mobil, Chevron, Gulf, and Texaco — dominated energy supply. These companies grew out of the colonial activities of the previous century. In 2007, the *Financial Times* identified the “new seven sisters”: Saudi Aramco, Gazprom (in Russia), China National Petroleum Corpora-

tion (CNPC), the National Iranian Oil Company (NIOC), Petróleos de Venezuela (PDVSA), Petrobras (in Brazil), and Petronas (in Malaysia). These are all state-owned or state-created natural gas and oil companies from energy-producing countries, emerging markets rich with natural resources. These companies are all looking to move into the consumer energy market and get a portion of the full value chain.

The pressure from these companies is so heavy that the regulatory walls are crumbling. It is absolutely normal in Europe or North America to go to a service station and fill your car with gasoline that bears the marketing brand of a Libyan, Saudi, or Venezuelan company. You'll find the product is as good as oil from a traditional multinational producer. The same will happen with other energy commodities. And for regulators or protected utilities that resist, the only impact will be incrementally higher pricing.

Some power companies from energy-consuming countries are reacting to this by going upstream: trying to control more sources of supply. These two waves of expansion are colliding with each other.

S+B: And the third pressure?

CONTI: That is climate change. You'd better believe that this is going to be a major issue, because it may be too late to resolve the problem later on. And environmental sustainability also happens to be a good business proposition. If you're an energy company, you have to work with this reality. You want to have the most diverse sourcing of your raw materials possible to effectively combat climate change.

The combination of these three elements brings a new level of pres-

sure to local energy markets. Large operators are already changing their behavior — they're entering new markets as rapidly as they can — and in the process, they're consolidating the industry. They see consolidation as one way of gaining scale, diversifying, and establishing the purchasing power they need to negotiate with large exporting countries. That's how they expect to deliver value over time to shareholders.

Companies that don't appreciate these pressures may be wiped out. But some "in-between" mid-sized energy companies are trying to develop an integrated way to serve the needs of the emerging markets along with the more mature energy markets that they already know well. Our own company, Enel, is one of these in-between producers trying to find a way through this new reality.

S+B: How rapidly has this geopolitical shift taken place? Is this a sudden or a slow transition?

CONTI: It has always been present, to some extent. It has been hidden in the shadows of governments that were protecting their local, "small garden" economies. But the new realities became evident, in my view, around 2003, when the oil price reached \$30 a barrel. From that moment on, diversity of fuels became paramount, and scale became important to the power sector. And this is now driving the industry to an accelerated program of investments in the next wave of power generation.

The Energy Equation

S+B: When you talked about these investments in your speech to the International Energy Forum, you

spoke of an "energy equation" of four interrelated moves that a large-scale, global energy company — or maybe an alliance of energy companies — should make. What are the four parts of the equation, and why those four?

CONTI: The first is helping to establish a transparent and efficient global market with a stable and symmetric regulatory framework. If you want to serve the growing demand for energy in places like Asia, Latin America, and the Africa of the future, you have to keep investing in long-term energy abundance. And to keep investing, energy companies have to have not only the right framework of regulation, but strong and reliable cash flows.

In Europe, the liberalization process has been most effective in the United Kingdom and Italy. In Italy, we've seen firsthand how a competitive market can boost investment and improve energy security and efficiency. All the generation companies and power operators have access to the market through the transmission networks; as the former incumbent power company, Enel has seen its market share reduced to about 30 percent. And about 30 gigawatts of incremental generation capacity, both greenfield and brownfield, have been installed. Italian generation technology is among the most advanced in Europe, and our company has kept energy prices relatively low, notwithstanding the growth in fuel prices (mostly gas). From 1996 to 2006, the generation costs attributable to fuel prices grew 150 percent, whereas the average electricity cost increased only 20 percent.

But Europe is not an integrated energy market yet. To achieve integration, it will be necessary to create

“The new realities became evident around 2003, when the oil price reached \$30 a barrel.”

a level playing field. We'll need harmonious regulations across the electricity and gas sectors; rules aligned with European best practices; improved interconnections among electricity transport networks; and a coordinated network of independent transmission system operators (TSOs), which are the companies that oversee the transportation of electricity from power plants to local distribution. The coordination of TSOs will be crucial for electric system security, for example, to prevent more blackouts like those in Germany in 2006 or in Italy and North America in 2003. At the same time, TSOs need to remain independent, to maintain competition.

The second part of the equation is sustainability.

S+B: Environmental sustainability?

CONTI: Yes, but also the ability to continue to operate as a power supplier over time. Old-fashioned fossil fuels will continue to provide 80 to 90 percent of the total demand for the immediate future. And bear in mind that we expect at least 55 percent growth in worldwide energy consumption over the next 15 to 20 years. That growth in itself will require massive investments; some

industry observers estimate it will take between \$20 trillion and \$30 trillion to provide that much energy.

This means that if we are not innovative in our projects, we will jam the planet with carbon emissions. For a company like Enel, sustainability means continuing to operate with the older carbon-based fuels on the one hand, while on the other hand, innovating with technologies that favor low emissions or no emissions. Some of these technologies would allow us to continue using coal, crude oil, and other fossil fuels such as methane or liquid natural gas with dramatically reduced or even no carbon emissions.

Innovation is the third part of the energy equation. As energy providers, we want the lowest cost possible for consumers. How can we do all these things — increase our scale, provide sustainable energy, and lower costs — if we don't invest in innovation and efficiency?

S+B: By efficiency, you mean energy efficiency?

CONTI: Yes, and also operational excellence. Getting more return out of less money is, naturally, important. Thanks to a general increase in system efficiency and a 30 per-

cent reduction in the fixed costs of generation and transport, we were able to keep our prices low this year. But other forms of innovation include diversification of the energy mix, as well as new infrastructures for energy production and transmission and for the import and export of raw materials. Today, for instance, Italian power generation depends on imported natural gas, most of which comes from Russia and Algeria. Having only one type of fuel and only two sources of supply increases our risks.

Thus, Enel is investing €7.4 billion [US\$11.5 billion] in new renewable sources worldwide as well as in new technologies. We're carrying out advanced research projects studying carbon capture and storage, the use of hydrogen in power generation, innovative solar thermodynamic technologies, and concentrated photovoltaic systems. We are also committed to developing nuclear power; we are exploiting several existing technologies and are participating in research on new nuclear technologies. And we are investing in fundamental infrastructure for transportation and logistics: pipelines, liquid natural gas facilities, and regasifiers.

S+B: Haven't power companies always had to innovate?

CONTI: Yes, but not with the same level of pressure and uncertainty. Investing in innovative projects means that you have to think ahead. You have to reserve as much as you can of your budget to promote innovation, knowing that for any given project, the prospects are uncertain. Research programs demand major financial resources and bear significant investment risks, both in their timing and in the amount of capital at risk.

S+B: And what is the fourth part of the equation?

CONTI: Energy partnerships among exporting and importing countries. As electric power companies like Enel try to meet growing demand, we need to cooperate with those who have access to the raw materials. And we should not be scared of having them take a portion of our market, because we're not deterred from going into their markets. This is part of globalization; it's similar to what happened in the crude oil business in the second part of the 20th century.

S+B: Why are partnerships with energy producers important?

CONTI: To avoid the security of supply being jeopardized by shortages and price increases. The European Union, for example, is strongly dependent on imported fuel. The import share of natural gas is expected to rise from 40 percent to 70 percent by 2030. This imported gas supply essentially comes from a few exporting countries; Russia and Algeria together account for more than 70 percent of the imports. Thus it is of paramount importance to establish effective partnerships

with companies like Gazprom. Indeed, Enel signed a supply agreement with Gazprom last year, and then entered the gas upstream sector, becoming the first foreign power generator and supplier vertically integrated in Russia. We launched a similar cooperation agreement with Egas, the Egyptian Natural Gas Holding Company, and we're working to develop further agreements with other upstream companies.

Of course, if Europeans really want to cope with the scarcity of access to oil and gas, then it should not fall to any one company — or country — to negotiate. It would be more appropriate to have a coordinated European Union effort, rather than 27 bilateral agreements. And from there it would be natural to see energy companies consolidate and develop global markets.

S+B: So you're proposing that electric power generation companies follow the model of the oil companies of the past: consolidating, becoming global, and no longer seeing themselves as local utilities.

CONTI: Exactly.

Acting Like an Asset

S+B: How does that fit with the other transition that Enel has been making in recent years — from a regulated monopoly to a shareholder-oriented company, and then to a community-oriented company?

CONTI: This is an integral part of our corporate strategy. You have to think globally and act locally. That's easy to say, but difficult to execute. Promoting investments in the energy sector means being able to educate your own local community to accept a new plant — a facility that

uses fossil fuel, that is regarded as invading the community, and that may be perceived as a massive stock of iron and concrete.

In the past, our industry's new developments were like those in China today, where there is one new power plant being opened every week. The energy industry could deploy its investments as it needed or as society demanded. The territory, whether closer to raw materials or closer to the final consumer, was made available for this.

In most of Europe and North America, this is no longer the case. Only limited space is available for energy facilities. And those sites that would otherwise be most attractive — because they are close to raw materials or located near a port, making them better for transportation and logistics, or because they are near an industrial district — are not acceptable as locations for energy plants to the local community.

Therefore, we need to engage the local community. Without being patronizing, we need to make a case to the population that we can do something that would favorably impact their economy and society.

In the past, we used to think that an energy facility investment would automatically be seen as an asset by local community leaders. But the feedback often says, "Not in my region. I want the service, but not the investment." And how do we propose reconciling this contradiction? By demonstrating that such an investment would not destroy the fundamental value of the community. And the only way to do that is to open our books, so to speak, to the wider community.

We can no longer take the stance of a wealthy investor willing to share a portion of the profits

“If Europeans want to cope with the scarcity of access to oil and gas, it should not fall to any one company — or country — to negotiate.”

from our economies of scale. Instead, we have to reverse the angle. We have to ask people: “What would be your ideal path, as consumers? What would it mean to be wise in energy? What would be your recommendation for promoting the local economy? And what would be the value, to you, of having this power source in place?”

S+B: How is this different from the kind of traditional community engagement that a power company would conduct?

CONTI: We now recognize that successful projects are fully accepted by the local population. This doesn't mean just a few people. It's the entire community, including the local authorities, opinion makers, and all local stakeholders. If we don't bring them on board at the beginning, we have no chance of making that investment fruitful.

We have had bad experiences in the past, particularly in countries with a high density of population or a NIMBY [not in my backyard] culture. I heard another acronym the other day: DADA. It stands for “design, approve, develop, and abandon.” And that's the dynamic for too many energy projects. That was

more or less what happened in the Brindisi case, which Fernando and his coauthors described in *Mega-communities*. We invested, with British Gas, in a terminal for regasifying liquid natural gas, to be located in an economically depressed area in southern Italy. We assumed that there would be popular support. The project would bring cleaner energy, short-term and long-term employment, and greater diversity of supply. We met all the legal requirements. But the community reaction was too great for us to continue. We sold our interest in the project to British Gas and abandoned it.

We learned from this experience and others like it. Developing an energy site requires a fundamentally open approach to all stakeholders. This is not just true for Italy; in most places throughout the United States and Europe today, you can encounter the same kind of objection.

The way we prepare now is not different from a technical standpoint. But it's very different from a project development standpoint. For example, right now we are proposing to renovate a coal plant south of Venice. This site has been

running for 40 years, with the best technology of 1968. Since then, technology has made a lot of progress: Our plan would improve the plant's efficiency from 38 percent to 45 percent and slash specific emissions — about 88 percent reductions for sulfur dioxide and dust and about 61 percent for nitrous oxide. Moreover, we are experimenting with frontier technology to run turbines off the hydrogen gas from a nearby refinery that would otherwise go to waste.

Technologically, our overall proposition is very logical: We replace an older site with a new investment that is more efficient and more acceptable from an environmental perspective. But we still have to convince local residents that we will not destroy their property, and that this will not affect life in their community.

Can we prove this just by publishing the scientific data — the results of emissions tests, for instance? No way; that wouldn't be enough. We have to go into the community, to the parish, the shop, the street. We have to bring people to other places where such plants are up and running. In particular, we have to talk to the local fishermen.

S+B: Because of the river water?

CONTI: Yes, a power plant uses water from the river and dumps water back into the river system. Clam and mussel farmers in the area want to make sure that the clams and mussels will not suffer. If we don't take the broader view of integrating this project within the community, we're bound to face resistance. And that would be difficult to overcome.

That is what brought us to the megacommunity idea. When we develop a new power facility, people whom we would not normally think of as being involved will be involved, whether we like it or not. We've learned to structure the project in a way that prevents local residents from automatically opposing it, because they can now recognize some of the reasons that the project is worthwhile. They have been involved in planning it and we know why they're concerned, and thus we have designed the project accordingly.

Attitudes and Impact

S+B: How do you manage this intense local activity at the same time that you've begun to do business at a global level?

CONTI: The more international our operations, the more reason there is for the local community to use that as an argument against the site: "If you're a global company, go somewhere else to make your energy." But we still need the power plants located near the energy consumers. And we need the plants near logistic hubs where we can import raw materials.

In the short term, that means working with megacommunities in all the areas where Enel is building

or maintaining facilities — and developing the general skill for that kind of engagement. That's what we are working toward now: learning to research the stakeholders in communities; to talk with them effectively; and to build a megacommunity approach that considers the environmental factors, the job issues, the power needs, and the security concerns all together.

S+B: To make this kind of approach work, how do people in a company like Enel have to change? What do they have to learn to do differently?

CONTI: A lot has to change. Think about the evolution of this company. Ten years ago, it was a government-owned utility — and a stubborn type of organization, unsailable. It had world-class engineering, but it was entrenched in its own philosophy.

Then it became a public company. And with the injection of a new breed of management coming from outside, there's been a major change in attitude. We borrowed experience from different parts of the market.

But that was not enough. We were still working as a domestic power company, a regulated and self-protected local utility, with no exposure to the outside world except for the low-cost commodities of fuel that we took in, and of electricity that we sold. With the globalization of the energy sector, it became evident that we needed a different approach. Electricity was no longer a single product, but many products. We needed more complete and deliberate integration among our people, a more open mentality for our management team, and no borders between departments. We needed people in power generation

to see how their efforts affected the distribution and the finalization of an offer to the end customer.

S+B: How did you go about achieving this change?

CONTI: Several ways. We set up local megacommunity-style projects within Enel, across departments. We recruited and promoted a different breed of manager, people who took responsibility for their part of the overall corporate objectives. We gave them accountability not just for margins or profits, but also for the way they related to colleagues in their own and other departments.

We also deliberately created an integrated management team and a networked management structure, in which people would share their experience and interact across boundaries. The final element was the internationalization of the management team. Our managers were active in 21 different countries, from Chile to Russia, with 17 languages spoken among them. And all of them needed to be exposed to a single set of values and equipped to learn from one another. Among other measures, we recently launched a custom program on leadership with Harvard Business School. We are sending our top talent there from around the world. This will expedite the integration, forging a new culture and creating a network among the best and brightest at Enel.

Our company's motto is, "Energy in tune with you." We are tuning ourselves — to the customer and our colleagues. That's the way management now has to evolve. +

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