

ISOFOTON S.A.



1981-2006

Prepared to adapt to growth.  
Prepared to evolve.

Isofotón believes in economic and social improvement through models of sustainable growth. The current transformation of its institutions is solid proof.





WE MUST PREPARE  
OUR SOCIETY  
FOR THE ENERGY  
REVOLUTION

## 5.1 ENERGETIC CONTEXT

### 5.1.1 An energy model that is becoming exhausted

The world is at a crossroads about the future of energy. **Climate change**, the growing dependency on oil and other fossil fuels, and the steady and sustained rise in the cost of energy are making developed societies and economies revise their energetic models with urgency.

On one side are the prominent countries with enormous and vertiginous demand for energy, which represents a growth of roughly 10% in their economies. The environmental impact is not receiving the attention it deserves in these countries.

On the other are developing countries, accentuating the growing unbalance between rich and poor countries. These countries, condemned to shortages of energy, attempt to substitute it in the most accessible ways, usually turning out to be more harmful in the long run. Even so, this leaves more than 1.6 billion people without electric energy, and consequently, without the possibility of development.

The problems that were predicted in 1981 and that have continued to strengthen the corporate backing of the Renewable Energy sector continue to be the same, but perhaps 2006 is characterized by an even more important change, **the emergence of a collective consciousness on a world-wide level about the challenges of climate change**. In other words, as indicated in the "World Public Opinion" or "Globescan" studies, world public opinion shares, in large

part, the diagnosis: **that the current energetic model is costly, inefficient, and definitely unsustainable.**

This situation demands a complete and ambitious answer: **an energy revolution.**

We are going from a model of technical-scientific management of the challenges of global warming to a model in which it is the citizens who are gradually taking a leading role in the change. This new direction is what will cause the switch, over the years to come, from the rhetoric of sustainable development to the decisions. Decisions that are consistent and coherent with the urgency and the magnitude of the challenges we are facing.

### Towards a sustainable 5.1.2 energy model

This year we have begun to see a glimpse of positive signs of a new sensitivity in US policy with respect to climate change. But, in the absence of other, clearer leadership, **Europe is called upon**, for vocational and traditional reasons, **to lead the international movement in fighting climate change**, demonstrating how a conscious and shared energy policy can be combined with economic stability.

In this sense, 2007 began with a clear push by European institutions to modify the rhythm of the energetic model. Thus, the objectives of slowing the process of global warming, of guaranteeing the security of supply and of improving the competitiveness of the European Union economies have meant, in the conclusions of the European Council in Brussels in March of 2007, the basis of a new energy policy. This new policy for global action in the field of energy for the period of 2007-2009 combines the action of the member states, committing themselves to transform Europe into a highly efficient energy economy and with low greenhouse gas emissions.



The action plan establishes a number of very ambitious objectives with respect to energy efficiency, Renewable Energy, and the use of biofuels, and urges the carrying out of a European strategic plan for energy technology, including the capture and retention of carbon in secure environmental conditions, which will be studied at the European Council session of spring 2008.

The underlying message to society and to economic agents is that the energy model based on the combustion of hydrocarbons, which has dominated our economy and society for the last 250 years, is in the final phase of its long historic cycle. We must prepare our economy and our society for a (re)evolution geared towards the **decarbonization of the economy** by 2050.

### 5.1.3 The growth of the Renewable Energy industry

In 2006, Renewable Energy and low carbon technology industries set a new record with more than 100 billion dollars in financial transactions. Of this amount, 70.9 billion were new investments, which means a 43% increase when compared with 2005.

The profits for the Renewable Energy industry also saw an important growth of 36% in 2006- from 40 billion dollars in 2005 to 55 billion dollars in 2006-. Within this scenario, the Solar Energy sector (including modules, components, and installation) had profits of some 15.6 billion dollars.

According to analysts, the growth of the Renewable Energy sector is expected to continue to move forward, with profits in 2016 rising to four times that of today, to reach 226.5 billion dollars a year, with Solar Energy playing

the leading role, raising its annual profits to 69.3 billion dollars.

The Renewable Energy sector of the European Union, with a volume of business that grew to over 20 billion euros and 300,000 direct employees in 2006, is one of the most competitive and dynamic markets in the world, with a clear international leadership of its companies and a broad internationalization of its markets.

The solar sector is the third, after those of Biofuels and Wind Energy, in raising capital, both for technology and for the expansion of production capacity. Thus, of the 824 million dollars invested in the solar sector in 2006, 360 million were invested in technological development, which has placed solar energy at the head of these types of investments, while 464 million were used for increasing production capacity and generating assets. These activities demonstrate the investors' vision of the future with respect to the potential of Solar Energy.

In 2006, the investments in the Solar Energy sector were distributed between all of the technological options and services that the sector offers. The only clear trend that can be perceived between the different options is the constant growth in the investments in concentration technology, which in only one year grew from 4.8 million dollars to 40 million, with Isofoton being one of the most active companies in the research and development of this technology.