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Issue 07 - July 2015

Driving the EU forward

Maroš Šefčovič, Vice-President of the European Commission, underlines the inspiring principles of the new energy framework strategy

Building Bridges

Juan Carlos Varela Rodrìguez, President of the Republic of Panama, presents the results of the VII Summit of the Americas

Preserving *La Grande Bellezza*

The Italian government is planning a new territorial management strategy to preserve its landscape

07

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CESI
Trust the Power of Experience

Issue 07 - July 2015

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This issue of EJ *Magazine, our seventh, is being published during the opening of Expo Milano 2015, the theme of which is "Feeding the Planet, Energy for Life." It would be too simplistic to interpret this theme as applying exclusively to food. Expo Milano will close at the end of October, just in time to pass the baton to COP21 in Paris, where debate will extend to more specific environmental issues. Most importantly, COP21 will host international conferences that are expected to lead to a new climate change treaty.*

Therefore this issue of EJ *marks the start of an extremely important season for Europe, and we're paying the Old Continent special attention, choosing – as is opportune for a magazine like ours – to focus on energy policies the European Union is setting up. These policies may give Europe an edge that will prove vitally important if we are to continue to compete in the long term, anticipating the path that other countries will follow within an increasingly competitive global scenario, while respecting the principles of environmental sustainability we've willingly adopted. At the heart of these policies lies the concept that we need increased interconnection between member states in terms of infrastructure, technology, markets and regulations.*
It is interesting to note that this need for increased collaboration and exchange also emerged within an extremely young continent and in a markedly different context: the VII Summit of Americas, held in Panama last April.

Barack Obama and Raúl Castro sat at the same table after roughly sixty years of embargo, making that summit an historic event and in some ways overshadowing the collaboration agreements made and commitments signed by the 35 participant countries. We return to these in the article "Building Bridges," providing an overview of key contents and underlining energy and infrastructure choices that are, just as in Europe, oriented on establishing the highest amount of interconnection possible.

COP21 will undoubtedly contain a few surprises: we can expect new actors to emerge alongside the usual protagonists, demonstrating they're ready to play a role and make a significant contribution to the talks. The Middle East is focused on driving forward an energy development program based on renewables and the green economy. The second "World Green Economy Summit," held in Dubai, laid the groundwork for the entire MENA region to establish a new policy to combat climate change that takes into account specific territorial characteristics and paves the way for Middle Eastern countries to get directly involved in international treaties.

WE NEED INCREASED INTERCONNECTION BETWEEN MEMBER STATES IN TERMS OF INFRASTRUCTURE, TECHNOLOGY, MARKETS AND REGULATIONS

Finally, this issue of EJ *pays special attention to the theme of hydrogeological instability, which as everyone knows is directly connected with climate change. In particular we analyze its safety and economic impacts on Italy, a country CESI is intimately familiar with and whose beauty we feel obliged to safeguard as much as possible using our specific skills and technologies.*

| TOP STORIES |

Driving the EU Forward: the Energy Union

Maroš Šefčovič, Vice-President of the European Commission, in charge of Energy Union

THE FRAMEWORK STRATEGY FOR THE ENERGY UNION RECENTLY ADOPTED BY THE EU IS CONSIDERED THE MOST AMBITIOUS ENERGY PROJECT EUROPE HAS UNDERTAKEN SINCE THE 1950s, WHEN LEADERS SIGNED THE EUROPEAN COAL AND STEEL COMMUNITY PACT. AS MAROŠ ŠEFČOVIČ NOTED IN A SPEECH HE GAVE IN BRUXELLES ("MORE OR LESS EUROPE?"), THE MESSAGE "TO ALL EUROPEAN HOUSEHOLDS AND EUROPEAN BUSINESSES IS CLEAR: EUROPE IS SERIOUS ABOUT ENERGY TRANSITION."

In February 2015 the European Union adopted a framework strategy for the Energy Union. This framework is emblematic of the new ways this Commission will work: it is the result of intense effort on the part of the team of Commissioners that I coordinate and steer – what we call the project team: fourteen commissioners - all contributing decisively to this new holistic approach.

Why "holistic"? Because the Energy Union is not only about energy and climate policy, it also integrates transportation, research and innovation, industry, regional, trade, consumer protection, the digital economy, agriculture, employment and more. This strategy integrates all these important policies into a cohesive framework.

I think this is undoubtedly the most ambitious European energy project since the European Coal and Steel Community was established some 60 years ago. It has the potential to boost European integration the way coal and steel did in the 1950s, and it reminds citizens and our companies of the great potential of a single market.

Our strategy brings an important message to every European household and every European business: Europe is serious about a fundamental energy transition – an energy transition that is just and fair and will deliver affordable, secure, competitive and sustainable energy to all.

THE NEW FRAMEWORK STRATEGY FOR THE ENERGY UNION IS UNDOUBTEDLY THE MOST AMBITIOUS EUROPEAN ENERGY PROJECT SINCE THE EUROPEAN COAL AND STEEL COMMUNITY WAS ESTABLISHED SOME 60 YEARS AGO

We see this shake-up of our energy system as a 'triple win' strategy: it will benefit citizens, businesses and our environment. We aim to create an energy market that is:

- economically sustainable for our citizens and competitive companies,
- socially inclusive for our consumers and workers,
- sustainable for our climate, our air and our water.

How? And what is new? Let me highlight the four main features of the Energy Union.

First, the solidarity clause. The Energy Union, like the European project itself, is based on trust and solidarity. Over past decades, building upon the Coal and Steel Community, member states have come to rely on each other in numerous fields. It's time we apply this principle to our energy markets as well. Member states should know that they can rely on their neighbors under all circumstances, especially when confronted or threatened with supply disruptions or shortage.
In concrete terms, we will do this by developing new preventive measures and emergency plans at a regional and European level, building on the stress tests for the gas sector; we will also 'stress test' the security of electricity supply in the future. And we will reach out, in these efforts, to the energy community and to many other strategic partners in order to increase our energy security. After all, the Energy Union is not an inward looking project.

Second, the Energy Union should deliver the free flow of energy across Europe, as if it were a fifth freedom.
A century ago, when electricity grids were laid in Europe, they were built at a national level. We must now do the same at a European level. We will integrate the 28 European energy markets into one.
In concrete terms, this will require stricter enforcement of existing EU law; this must also apply when negotiating agreements with foreign energy providers. Therefore, we will come forward with a proposal that will ensure that intergovernmental gas contracts fully comply with EU law, and will increase transparency in commercial contracts.

EU WILL SPEED UP CRITICAL INFRASTRUCTURE PROJECTS AND MONITOR THEM MUCH MORE CLOSELY, BECAUSE WITHOUT THIS HARDWARE, OUR INTERNAL ENERGY MARKET WILL ONLY EXIST ON PAPER

We will provide new legislation to strengthen the European regulatory framework, and notably the Agency for Cooperation of Energy Regulators - a necessity if we want to continue to increase cross-border energy flows.
We will speed up critical infrastructure projects and monitor them much more closely, because without this hardware, our internal energy market will only exist on paper.
We will encourage and assist member states to phase out uncoordinated national policies that distort the functioning of the market.

And we will produce, every two years, a report on how energy prices are composed, creating more transparency and better market functioning. Energy prices are a real issue for our consumers, but equally for the competitiveness of our industry.

Thirdly, the Energy Union puts energy efficiency first. We have to fundamentally rethink energy efficiency and treat it as an energy source in its own right.
As we all know, the cleanest energy is the one we do not use.
The EU has set itself a binding target of reaching at least 27% energy savings by 2030.
We will provide new legislation for electricity market design; this will ensure that energy efficiency can compete on equal terms with generation capacity.
We will promote better access to financing instruments for energy efficiency in the transportation and building sectors, notably at the local level, and we will encourage member states to give energy efficiency primary consideration in their own policies.
Based on exchanges I recently had with some local mayors and local energy companies, I am deeply convinced that we can only build an Energy Union with the active contribution of citizens, local actors and cities: smart cities. We must literally plug our citizens in.
We will launch an initiative, "Smart Financing for Smart Cities," to facilitate local access to existing funding instruments.

And fourthly, the Energy Union will make our energy system fit for the future, fit for a low-carbon society that is here to last; an energy system that is driven by renewable energy sources and within which citizens, cooperatives and local communities can play a much more active role. Consumer empowerment is a key word in this regard.

Europe has all the right elements to be a global leader, a global hub for developing the next generation of technically advanced renewables.
We will better focus our research and innovation policy, for instance on storage and electro-mobility, and we will ensure better coordination between member states and EU innovation programs and financing.
Not only because it sustains our climate policy – the most ambitious in the world – but because it offers great opportunities for our industry, for growth and jobs here in Europe. New business sectors, new business models and new job profiles will emerge.

Finally, let me say a word on governance. We will need to monitor the progress of our action plan, on all the new initiatives proposed in our roadmap – and see where to speed up our work. Therefore, I will start developing, without delay, a streamlined and robust governance framework to deliver on its promises.
Before the end of this year, I intend to present the first edition of the annual State of the Energy Union, building on all the expertise we have in-house, the DGs and the Joint Research Center.

Together with my colleagues from the Energy Union project team, we will continue to engage with stakeholders, be they international, European, national, regional or local. A bottom-up process is very much needed to diffuse a sense of ownership on this key project. The main actors of this transformative process will be citizens, consumers, the industry, private investors, agencies and NGOs active in this field – all those with a vested interest in making the Energy Union a tangible reality.

This text is the result of an accurate selection extracted from Maroš Šefčovič's speech at the CESP conference "More or less Europe?" (Bruxelles, March 2015). The selection is based on the official text as published on the European Commission's website http://europa.eu

| IDEAS & VISIONS |

Real Effects of the Energy Union Package

Livio Giorgi, Consulting, Solutions & Services Division, CESI

THE SECURITY OF ENERGY SUPPLIES IS A CORNERSTONE OF EUROPEAN ENERGY POLICY, WHERE LEADERS ARE PUSHING INCREASINGLY FOR A TRUE EUROPEAN ENERGY UNION. TODAY DISCUSSION FOCUSES NOT ONLY ON GAS, BUT ON ELECTRICITY AS WELL. REINFORCING INTERCONNECTIONS IS A NECESSARY POINT OF DEPARTURE, BUT IF WE WANT TO ACHIEVE A TRULY EFFICIENT ELECTRIC ENERGY MARKET, SEVERAL MORE ISSUES MUST BE ADDRESSED.

The European Commission's declared objective for the Energy Union Package, published in February 2015, is to create *"a resilient Energy Union with an ambitious climate policy at its core …to give EU consumers - households and businesses - secure, sustainable, competitive and affordable energy."*
On one hand, this document underlines the European Union's priorities, first formulated in the 2006 Green Paper. On the other, it introduces important new elements, three of which deserve special attention: first, the document recognizes the central role European citizens will play during this transition phase; second, it underlines the need to define a roadmap based on the European work force for building energy systems of the future; and third, it places a strong emphasis on the concepts of solidarity and reciprocal trust between different member states. It's clear that the Energy Union Package should be viewed in a coordinated manner, with objectives set for 2020 and new, more recent objectives for 2030 approved by the European Council in 2014.

As an intermediate milestone towards the decarbonisation of the EU economy envisaged at 2050, the recently approved 2030 binding targets consist of:

- *at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990;*
- *at least 27% of renewable energy to feed the EU energy consumption;*
- *at least 27% of energy efficiency improvement compared to projections of future energy consumption based on the current criteria (this latter is only an indicative target).*

Another important new development is the fact that these objectives will have to be achieved collectively, by all member states in the European Community, and without the definition of rigid national targets.

Effects on the Electric Sector

In this new document, the EU reiterated the urgency and importance that each member state create, by 2020, a minimum level of interconnection capacity with other states of at least 10% of installed generation capacity. This is an objective that the European Council had already set in 2002, although the deadline agreed upon at the time – 2005 – has long since passed, and the interconnections have yet to be established. In fact, today a number of member states (11) are far from achieving the objective.

However the "2030 Climate and Energy Policy Framework" package already sets a more ambitious – though not binding – objective: interconnection capacity at 15% by 2030. Following release of the Energy Union Package, ENTSO-E (European Network of Transmission System Operators) published a position paper that outlines six key recommendations aimed at achieving these objectives:

1. Implement existing regulations;
2. Facilitate investment in infrastructures that are indispensible for transmission;
3. Facilitate a coordination policy among member states at both the regional and European levels in order to guarantee security of supply and an adequate "energy mix";
4. Improve coordination mechanisms in order to deal with insufficient energy situations;
5. Update the market design in order to guarantee security of supply and the best pricing for end clients;
6. Promote Research, Development, Demonstration and Deployment (RDD&D) for transmission networks.

EU CONSIDERS URGENT THAT EACH MEMBER STATE CREATE, BY 2020, A MINIMUM LEVEL OF INTERCONNECTION CAPACITY WITH OTHER STATES OF AT LEAST 10% OF INSTALLED GENERATION CAPACITY

Concrete Strategies

The recommendations set forth by ENTSO-E are undoubtedly worthy of consideration. But based on the experience CESI has matured in this sector, we believe it's important to add other kinds of interventions as well. These may prove even more decisive, and have to do in particular with the working mechanisms of electricity markets (the day-ahead market and dispatching services market), the development of interconnections, adoption of analysis and simulation tools, and the employment of innovative engineering solutions.

The Day-Ahead Market

Optimized management of interconnections with the efficient mechanisms of available capacity will undoubtedly go a long way toward facilitating energy flows, diminishing price differences at comparable transmission levels. Being able to rely on a pan-European coupling market with closure dates as close to real time as possible would undoubtedly make it possible to manage existing interconnection capacities as efficiently as possible.

The Dispatching Services Market

The existence of interconnection lines is a necessary condition, but is not enough on its own if market mechanisms fail to allow for trans-border service trading. For this reason, services will also have to extend to the ancillary or system services market (ASM).
According to research that CESI has been conducting for years on this issue, the equivalent "flexibility" of interconnections can greatly increase the functioning of the electric system in the presence of a high penetration of production from non-programmable renewable sources.
Increase in the production of non-programmable renewables requires an increase in the system reserves. However, at the same time, the priority for dispatching attributed to RES generation "displaces" dispatching from conventional units. Furthermore, it is extremely difficult to estimate how much reserves must increase: they depend on the expected variability of wind and PV production.
It is essential that we realize "forward" analyses in order to keep these problems from growing worse in the future.

THE DRIVE TO ACCELERATE THE IMPLEMENTATION OF A REAL ENERGY UNION STEMS FROM AN INCREASED CONCERN ABOUT THE SECURITY OF SUPPLY

For this reason, at the European level it is important to integrate not only energy market (DAM) functions, for example through the market coupling mechanism, but also the trans-border ASM, in such a way that it will be possible to take advantage of the "equivalent flexibility" provided by interconnections.

Interconnection Development

Obviously, while it is important to review market mechanisms with an eye to efficiency, it is equally essential that we develop hardware, in other words new transmission lines that eliminate bottlenecks within member states, in particular in Italy between the different bidding zones.
The development of new infrastructures requires considerable economic investment.
The most recent program document provided by the ENTSO-E (the "Ten Years Network Development Plan 2014"), estimates a total €150 BLN investment by 2030 for interconnection infrastructures between member states alone. It is extremely important that we quantify the benefits deriving from these investments, and in particular the Social-economic Welfare (SeW) associated with the development of these projects.
To this end, it is necessary to use precise calculation systems to effectuate market simulations at a European level in order to fully evaluate benefits derived from a project in line with the ENTSO-E methodology and ACER recommendations.

Security of Supply

The drive to accelerate the implementation of a real Energy Union stems from an increased concern about the security of supply. While the critical elements connected to the gas market are well known, it is important to underline that there is also a need for greater supply security in the electric sector. In this case, supply is influenced not so much by international political crises (for example between Russia and the Ukraine), but by several characteristics specific to the electric sector: electricity can be stored in limited quantities, and only indirectly (for example through water pumping plants or chemical batteries).

From an electricity point of view, two separate aspects must be taken into consideration when talking of security of supply:
- the availability of primary resources for electricity production;
- the availability of infrastructures and procedures that make it possible to deal with exceptional events.

Therefore, the Energy Union is also fundamental for dealing as effectively as possible with breakdowns in the transmission network, as well as with external issues (for example extreme weather events, which are increasing in frequency due to progressive climate change). Here, too, it is possible to quantify the improvement of security of supply following creation of new interconnections, thanks to advanced and innovative probability simulation tools.

Innovative Engineering Solutions

The Energy Union puts strong emphasis on the fact that European industries need to maintain and reinforce their leadership technology in order to develop and manage future electricity systems.
Within the electric sector, this means:
- developing systems with an increasingly high level of automation, and greater integration both at a trans-border level as well as between transmission and distribution phases;
- developing new engineering solutions.

Conclusion

The creation of an Energy Union aims to guarantee European citizens security of electric energy supply. However, this objective can only be achieved if we set out specific interventions within different areas of the market. The development of interconnections between member states is important, but not enough on its own if taken alone and without an efficient market context.
The goals of the Energy Union must be viewed as a continuation of the binding objectives set for 2020, and now for 2030 as well. While it is inevitable that regulatory elements will change and evolve depending on future developments, it is also necessary to make sure we maintain a minimum level of continuity that can guarantee additional investments in the sector.

Building Bridges

Juan Carlos Varela Rodriguez, President of the Republic of Panama
Statement at the closing ceremonies for the VII Summit of the Americas

HELD IN PANAMA, THE VII SUMMIT OF THE AMERICAS WAS A HISTORIC EVENT, AND NOT ONLY FOR THE PRESENCE OF US PRESIDENT BARACK OBAMA AND PRESIDENT RAÚL CASTRO OF CUBA AT THE SAME TABLE. AS JUAN CARLOS VARELA ROGRÌGUEZ, PRESIDENT OF THE REPUBLIC OF PANAMA, EMPHASIZED IN HIS SPEECH, THE MEETING WAS FOCUSED ON A NEED TO REINFORCE COLLABORATION AMONG THE 35 COUNTRIES IN THE AREA, ELABORATING SHARED, CONCRETE STRATEGIES FOR DEMOCRACY, INSTITUTIONS, POVERTY, ENERGY AND INFRASTRUCTURES.

It has been an honor for Panama to host the Seventh Summit of the Americas, which has just concluded.

(…) My thanks to the heads of state and government and delegates of the hemisphere's 35 countries for coming to our country, to this gathering which, I am sure, will usher in a new period of respectful dialogue and cooperation in our region. (…) Amid the diversity and political plurality that exists among and within our nations, we set the stage for a frank and respectful dialogue among the heads of state and government of our hemisphere. We have not sought unanimities, which are nothing if not impossible in plurality; rather, we have attempted to help build bridges in the midst of our differences and to spell out what unites us, and what divides us.

The summit has been both a wonderful multilateral occasion and, at the same time, an opportunity for bilateral meetings among different leaders. (…)

The theme of the summit, "Prosperity with Equity," has been at the forefront of the agenda and our discussions. We proposed the theme based on our experience and that of all countries in the Americas. We have grown strongly, but not all the population has benefitted sufficiently from that growth.

As the host country we proposed a document setting out mandates for action that would address the various core areas that underpin Prosperity with Equity: health, education, energy, the environment, migration, security, citizen participation and democratic governance.

After nearly four months of intense work, meetings in Panama and at OAS headquarters in Washington, D.C., and a great deal of bilateral consultation, agreement was reached on 90% of the mandates put forward (42 out of 48); the rest were left ad referendum for a small number of countries.

There was, however, complete agreement in recognizing that the right to education without discrimination and equitable access to a quality education are essential to the effort to achieve integral development, eradicating poverty and inequality.

We have therefore proposed increasing the coverage of our education systems and strengthening higher technical education, together with creating programs and new employment opportunities, in collaboration with the private sector, for the at-risk youth of our hemisphere.
In the area of higher education, we have proposed closer ties between universities and the public sector, so that our places of learning can provide the scientific, technical and social analyses, inspections, feasibility studies and proposals for the public infrastructure projects that communities need.
In addition, we applaud the proposal made at this summit for the creation of an Inter-American Education System to improve the quality of education in our hemisphere.

ENERGY IS A CENTRAL PILLAR OF SUSTAINABLE DEVELOPMENT, AND IN THAT AREA WE AGREED ON ACTIONS THAT WILL GUARANTEE ACCESS TO ENERGY FROM A RANGE OF SOURCES THAT ARE ENVIRONMENTALLY FRIENDLY, ECONOMICALLY AFFORDABLE, AND RELIABLE

Similarly, we supported efforts to ensure universal access to health as a basic human right.
Energy is a central pillar of sustainable development, and in that area we agreed on actions that will guarantee access to energy from a range of sources that are environmentally friendly, economically affordable, and reliable. In that context, and underscoring our shared concern regarding climate change, we agreed on mandates for the protection, conservation, restoration and correct stewardship of the environment.
Recognizing the relationship that exists between migration and development, and the contribution that migrants make to their countries of origin, transit, and destination, we agreed on actions to bolster cooperation among our states and to protect the human rights of migrants.

During the discussion of the document proposed by Panama, we spoke about concerns regarding terrorism, organized crime, and other threats to our citizens' security, and about the need to combine our efforts to combat them by strengthening cooperation among our countries and adopting measures to prevent crime and violence.

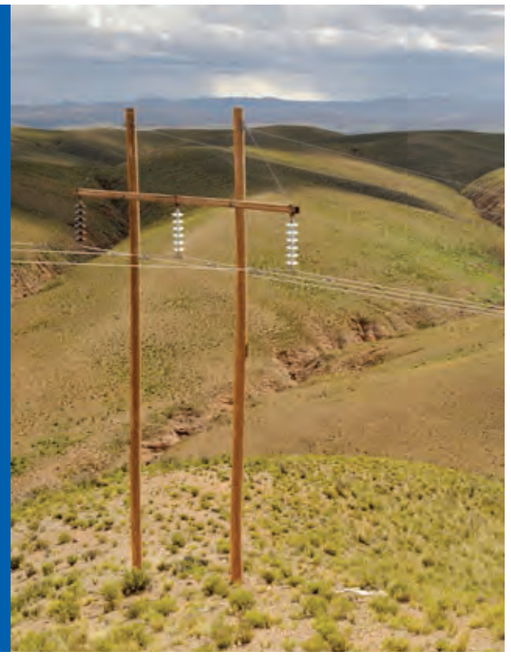
| Mandates for Action: Energy |

Recognizing that energy and access to energy are essential for improving our peoples' living standards, we, the Heads of State and Government of the Americas, agree on the following measures:

1. To call upon international financial institutions, in particular, the Inter-American Development Bank, the World Bank, the Development Bank of Latin America (CAF), the Central American Bank for Economic Integration, and the Caribbean Development Bank, to examine ways to optimize and facilitate funding mechanisms for projects in the energy sector, including those developed by the private sector, especially those that target improved efficiency, coverage, and quality of energy services; renewable-energy use; the adaptation of legal and regulatory frameworks; and promotion of regional integration.

2. To develop a system of indicators to provide countries with information for measuring energy efficiency and their progress therewith, so that they can adopt the measures needed to achieve greater coverage. We call upon the Economic Commission for Latin America and the Caribbean (ECLAC) to move forward with the development of such a system.

3. To welcome the Sustainable Energy for All (SE4ALL) initiative of the United Nations, which sets the goal of attaining universal access to modern energy services to satisfy basic human needs at affordable costs. We propose reaching this goal by the year 2022, and call upon the IDB, the World Bank, the Development Bank of Latin America (CAF), CABEI, and the Caribbean Development Bank to support the attainment of that goal.



Finally, and recognizing that democracy is essential for the social, political and economic development of our peoples, we agreed on a series of mandates to strengthen the rule of law, the separation of powers and the independence of branches of government, and respect for human rights, and thus we agreed on actions to promote and guarantee citizen participation in the formulation and implementation of public policies, together with citizen empowerment free of all discrimination on grounds of gender or race.

SUBSTANTIAL INCREASES MUST BE MADE IN INVESTMENTS IN INFRASTRUCTURE AND IN THEIR EFFECTIVENESS

Panama believes that the vast number of mandates on which agreements were reached can and must be overseen by the institutions of the inter-American system and other international agencies.
Our government will be conveying the mandates agreed on to the directors of the IDB, the World Bank, CAF, and other multilateral financial institutions in order to obtain funding and technical assistance.

And the same steps must also be taken with other multilateral organizations, such as the OAS, ECLAC and PAHO.

We also want to emphasize that in addition to the mandates agreed on, Panama proposed – and received the full backing of the countries for – substantial improvements, between now and the year 2025, in the population's access to drinking water and basic sanitation and in the coverage of broadband and of secondary and technical education. Similarly, and in accordance with each country's particular situation, substantial increases must be made in investments in infrastructure and in their effectiveness.

Accordingly, we applaud the proposal made at the private meeting of the heads of state and government for the creation of an Infrastructure Development Center to support the region's countries in those endeavors.

We call on multilateral organizations and multilateral banks to step up their efforts aimed at supporting our governments in the identification of projects, technical studies, and the conceptual designs of public infrastructure needed to improve services for the population and to attain our goals as states. (…)

Today the Americas are a hemisphere at peace. We have overcome the obstacles to peaceful coexistence among sister nations. Consequently, and to close the final chapter of armed conflict in the Americas, we applaud the major progress made in the peace talks in Havana, Cuba, between the government of the Republic of Colombia and the FARC. We recognize the great effort that the Republic of Cuba has made, as the host, in support of those talks. Never before have we been so close to bringing an end to this long conflict and to attaining peace in Colombia, which also represents peace throughout our hemisphere. We therefore hope that the government of Colombia and the FARC can swiftly reach an agreement this year, so we can all contribute to that which is of greatest importance to us: the implementation and consolidation of peace.

For a number of reasons, this has been an historic summit. Invitations were extended to the Americas in their entirety.

TODAY THE AMERICAS ARE A HEMISPHERE AT PEACE. WE HAVE OVERCOME THE OBSTACLES TO PEACEFUL COEXISTENCE AMONG SISTER NATIONS

The decision announced by the Presidents of Cuba and the United States to make progress toward a new approach in the relations between their countries created a legitimate expectation for the resolution of situations, both age-old and recent, that have heightened tensions in hemispheric relations.
This summit has served to build bridges in that direction.

This text is the result of an accurate selection extracted from President Rogriguez's speech at the VII Summit of the Americas (Panama, april 2015).
The selection is based on the official text as published on the Summit's website www.summit-americas.org

Sharing Bonds Across Borders

Interview with Enrico Valvo, First Counselor of the Italian Embassy in Germany, and Domenico Villani, Director Testing and Certification Division, CESI

ITALY AND GERMANY SHARE A LONGSTANDING BOND, ONE BUILT ON INTENSE, ONGOING RELATIONSHIPS IN INDUSTRY AND TECHNOLOGY. AS EUROPE INITIATES A PROCESS DESIGNED TO CREATE AN ENERGY UNION, THE ABILITY OF GERMANY AND ITALY TO FORM A UNITED FRONT MAY PROVE A VALID TOOL FOR OVERCOMING BARRIERS THAT CURRENTLY PREVENT THE MARKET FROM OPENING UP AND HINDER EUROPEAN INTEGRATION.

Enrico Valvo

Domenico Villani

Although operating in different areas, you are both experienced professionals who focus on collaboration between Germany and Italy, which gives you a privileged point of view. In what ways do you feel the two countries are contributing to the industrial and economic development of the European Union?

Enrico Valvo
I feel privileged to be given the chance to work in Germany, and I'm particularly grateful to Italy's Minister of Foreign Affairs and International Cooperation for having given me this opportunity… It's true that Germany and Italy share particularly intense relationships in every sector. Even if we limit ourselves to the area I deal with on a daily basis, it's enough to consider that Germany is Italy's number one commercial partner, with exchanges for more than €103 BLN in 2014, and production facilities in both countries are profoundly integrated. Within entire production lines, subcontracting fosters deeply interdependent relationships. This interdependency is reflected in the high level of reciprocal investments, often in key technological sectors. Italy and Germany share an economic structure in which industry still plays a fundamental role. As a consequence – above and beyond certain specific economic instruments about which the two nations do not always share the same views – Italy and Germany share strong interests in European policies that create conditions favorable to

| Certification as a path to increasing market value |

Germany is Italy's number one commercial partner, and in 2014 these two countries registered exchanges in excess of 103 billion euro. These exchanges took place at every level of the production chain, from finished products and subcontracting relationships to technological and strategic consulting services.
The wealth and intensity of these exchanges were made possible by a shared regulatory context guaranteed by specific certifications.

Extending the reach of this shared regulatory framework is essential in order to favor growth in commercial exchanges at a global level.
There is a need to prove that exported products meet foreign regulations, and non-transparent and discriminatory regulations can become effective protectionist tools.
The WTO (World Trade Organization) governs conformity assessment through its **Agreement on Mutual Recognition in Relation to Conformity Assessment**, signed at the beginning of this century.

The WTO is the sole international organization that handles the global rules of trade between nations.
Its main function is to **ensure** that **trade flows** as **smoothly**, **predictably** and **freely** as possible.
The conformity assessment is the demonstration that specified requirements relating to a product, process, system, person or body are fulfilled. The political agreements achieved within the WTO framework require infrastructures around technical agreements, and the **WTO TBT** (Technical Barriers to Trade agreement) is currently the answer to avoiding unnecessary obstacles to trade.

CESI is one of the conformity assessment bodies most actively involved in protecting the value of certifications, working to make sure they are not perceived as unpleasant or difficult impositions, or that they do not prove to be a factor for market distortion, but rather act as elements that promote market guarantees and solidity.

From left to right
Christian Specht, the mayor of Mannheim, Domenico Villani, Director Testing & Certification Division, CESI; and Enrico Valvo, First Counselor of the Italian Embassy in Germany, during the inauguration of the CESI's new Laboratory in Mannheim.

industrial development, as important levers for growth. These shared interests are based on a strong political-ideological foundation thanks to which both countries fully support European integration.

Domenico Villani
CESI has acquired two of the most important laboratories in the German electrotechnic sector, and integration of these laboratories with the company's laboratories in Milan has made it possible for us to best express a number of different, complementary skills that we currently offer clients all over the globe. From my point of view, the integration process was both challenging and enormously satisfying: sharing our managers' technical and managerial experiences was a factor for success that enabled us to overcome every obstacle. Electric energy sector is undoubtedly an area where Germany and Italy can produce value derived from their centennial industrial experiences. Today both countries are points of reference, thanks to the quality assurance of products they sell on the international market, and the CESI Group is recognized as a guarantor of this quality.

ITALY HAS PROMOTED A FUNDAMENTALLY DYNAMIC APPROACH TO RENEWABLE ENERGY SOURCES AND CAN RELY ON EXCELLENT INDUSTRIAL REALITIES IN THE SECTOR

Germany has initiated an ambitious transition project – Energiewende – that every country in Europe is watching closely. This project calls for extensive infrastructural renewal. Are there any analogies between the German approach and those adopted by other EU countries? During this phase of radical transformation, what spaces will open up for collaboration between European partners?

E. Valvo
Effectively speaking, many of the elements of German energy transition have been reworked with Europe in mind. They've contributed to the creation of ambitious European energy policies, thanks to contributions from other partners who share the same refined technological sensibilities and capacities. Italy is undoubtedly one of these partners, because like Germany, Italy has promoted a fundamentally dynamic approach to renewable energy sources (including additional growth opportunities in wind and solar power), and can rely on excellent industrial realities in the sector.
The action plans set up by the so-called "2030 Climate and Energy Framework" and the Energy Union project constitute an opportunity for the continent's industrial systems, promoting sustainable development models that are based on advanced technologies. The realization of the planned objectives will require considerable economic investment at a European level in infrastructures and R&D, which will in turn have positive effects on growth and employment.

D. Villani
Transformation of the network infrastructures is a fundamental step for the future. Germany is following a coherent strategy, with clearly defined objectives and steps. Having made the decision to abandon nuclear energy and, like other European countries, being required to respect the commitments it has made in terms of limiting emissions, Germany is betting on its best renewables: wind power. The country is building not only offshore generation facilities designed to capture wind energy in the North Sea, but also innovative and efficient HVDC links that make it possible to safeguard this energy wealth and quickly transport it to the country's production centers, where it is needed the most. CESI's timing was perfect, reinforcing the company's testing laboratory in Mannheim just as Germany was initiating this transformation, structuring the facility from a technological point of view based on the country's future needs, and furthermore offering this opportunity to others internationally.
Other European countries are also moving forward with interesting development plans not only for transmission networks, which will be interconnected between different regions and countries, but also at the level of distribution networks, through an intelligent management of demand. But local energy policies are not always well defined, and for some countries the lack of a clear energy strategy may weigh heavily on our future as a community.

The European Union's energy strategy is organized around the creation of an "Energy Union." In the words of Vice-President Šefčovič, this is an extremely important program, comparable to the European Coal and Steel Community pact countries signed together in the 1950s. Yet the path to realizing a single European energy market appears anything but simple. In your opinion, what are the main obstacles we will have to overcome?

E. Valvo
The Energy Union, which heads of state in the various European Union governments have decided to create, will guarantee competition within the European economic system, following a path of sustainable development, and grow energy security by completing the internal market and providing specific measures for more advanced collaboration.
The articulation of the Energy Union represents an efficient compromise not only between the various political priorities of the different member countries in the European Union, but also between the needs of their industrial systems and various energy requirements.
In order to create an increasingly secure and integrated energy market, we need to encourage the convergence of different systems and reinforce interconnections. For some partners, this implies transformations in the energy mix, and will require – as I emphasized earlier – significant investments. Basically, we're talking about a process that will require significant commitment, but will provide extremely important opportunities for production systems and businesses in return.

D. Villani
Most people believe that the interests of individual regions and nations continue to prevail within the EU, especially when it comes to the energy sector.
The experiences of recent years have taught us that the influence even minor events can have on the networks of an individual country can produce catastrophic consequences for their systems, and therefore for other countries as well. (I'm referring to the blackouts that struck the EU over the past 15 years.)

THE ENERGY UNION WILL GUARANTEE COMPETITION WITHIN THE EUROPEAN ECONOMIC SYSTEM, FOLLOWING A PATH OF SUSTAINABLE DEVELOPMENT

A number of important steps have already been made to integrate networks in terms of interoperability, but overcoming obstacles at an infrastructural level and harmonizing regulations will only be achieved through a long and patient process.

| FUTURES & TECHNOLOGIES |

Dubai: Capital of the Green Economy

Agnese Bertello

LAST APRIL DUBAI HOSTED THE SECOND WORLD GREEN ENERGY SUMMIT, THE FIRST EVENT TO BE HELD IN THE MIDDLE EASTERN AND NORTH AFRICAN REGIONS TO DISCUSS AND DEAL WITH THE ENERGY TRANSITION ISSUES AFFECTING THIS PART OF THE WORLD. THIS IS AN INCREASINGLY IMPORTANT EVENT FOR THE DEVELOPMENT OF A GREEN ECONOMY IN AN AREA WITH ENORMOUS POTENTIAL, AS H. E. MOHAMMED AL TAYER, VICE-PRESIDENT OF THE DUBAI SUPREME ENERGY COUNCIL, NOTED DURING HIS INAUGURATION SPEECH

With the first World Green Economy Summit, held in 2014, the United Arab Emirates laid all their cards out on the table. The Dubai Declaration, the document with which the summit concluded, set forth an extremely clear development vision and displayed an equally strong determination to see it realized.

IF THE FUTURE LIES IN RENEWABLE ENERGY, THE ARAB EMIRATES INTEND TO PLAY A PROTAGONIST'S ROLE

At the opening of the second edition of the summit, held in Dubai in April 2014, H. E. Mohammed Al Tayer, Vice-President of the Dubai Supreme Energy Council (DSCE) and ECO of the Dubai Electricity and Water Authority (DEWA) took an even stronger stand, emphasizing that the Emirates intend to play a significant role in the battle against climate change. If the future lies in renewable energy, the Arab Emirates intend to play a pivotal role. Inauguration of the WGES was a key moment for drawing up a summary of the results the kingdom has achieved in the sector, as well as to set the bar even higher for the future. This program aims not only at significantly increasing energy production from renewable sources, but at providing an integrated vision that includes specific interventions in different environments: efficiency, smart grids, smart cities, green jobs, e-transport, management of the water system and more…

"We have been developing strategies to promote sustainable development and green initiatives and partnerships, aiming to encourage innovation within key national sectors like renewable energy with the purpose of making our country a global hub for green economy," stated H. E. Mohammed Al Tayer. "Today, we expand our relentless efforts to achieve our goals of green economy and sustainable development. We previously set ourselves the goal of ensuring that 7% of our energy requirements were met by renewables by 2020. At the start of this year, we committed ourselves to raise our target to 15% by 2030."

Undoubtedly sensitive to the multiple themes of climate change, but traditionally less concerned about reducing consumption thanks to an exceptional availability of natural resources, today the Emirates are starting to think in terms of efficiency and reducing demand. There is considerable room for progress in these areas, especially when considering that buildings represent 70% of electric consumption.

"The Dubai Electricity and Water Authority (DEWA) also launched an operational plan to reduce energy demand by 30%, including eight major programs: specifications and regulations of green buildings, retrofitting of existing buildings, districts' central cooling, raise standards and efficiency of equipment and lighting, reusing treated water for irrigation, the efficiency of external lighting, loads management. The incremental costs of this strategic project would be almost 30 billion dirhams, while revenues will reach about 82 billion dirhams with net savings of up to 52 billion dirhams," noted H. E. Mohammed Al Tayer during his speech. Despite this, consumption of electricity in the region is projected to increase by 7% per year through 2018. Even during successive years, through 2030, growth will continue to be well above the global average, hovering around 3% per year: demand, in fact, will continue to grow by 6% per year during the period in question.

Naturally these results cannot be achieved in an autarchic manner. The need for events like the World Green Energy Summit is born precisely of an awareness of how necessary it is to make up for a lot of lost ground in terms of skills and technologies. Collaborations have been initiated with several of the main global centers for innovation in these areas, like the Copenhagen Clean Tech Cluster, the Danish State of Green and the Canadian Foundation for Circular Economy, while international commercial partnerships have been strengthened across the board, starting with planning and strategic consultancy and extending all the way to the concrete design and realization of infrastructures and facilities: today the Middle East is unquestionably one of the areas with the best investment perspectives in the sector.

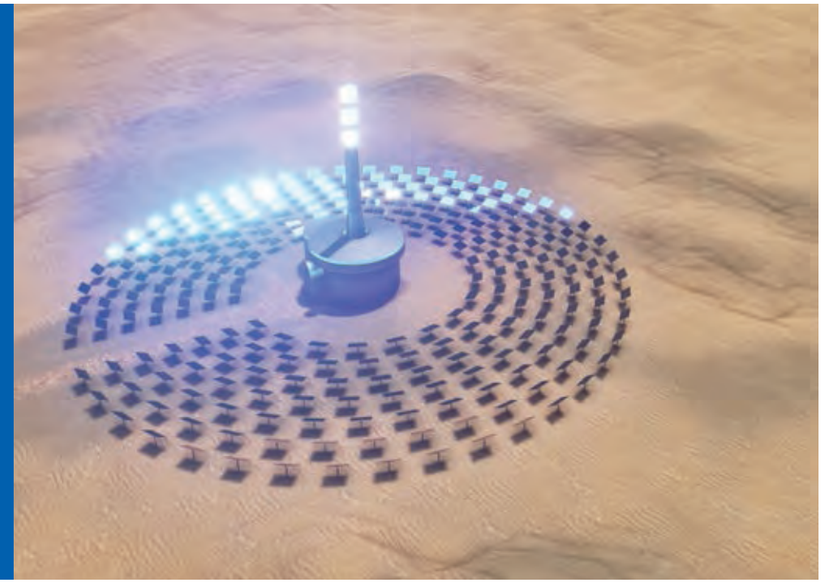
CONSUMPTION OF ELECTRICITY IN THE REGION IS PROJECTED TO INCREASE BY 7% PER YEAR THROUGH 2018

"In Dubai, and the wider UAE, conferences such as the World Green Economy Summit provide a platform for leading regional and international organizations to discuss green policy and initiatives and will provide an opportunity for the private and public sector to collaborate towards building a more green and sustainable future. Here arises the importance of encouraging green funding and investment in order to meet these goals. The investment required is both at an intellectual, and a financial level. We need to invest in partnerships between the private sector and the public sector, partnerships between governments and nations. In order to effect global climate change, we need a global approach," conclded H. E. Mohammed Al Tayer at the WGES.
The Emirates clearly intend to be part of the group of protagonists capable of determining that approach.

| Key Commitments of the Dubai Declaration |

The Dubai Declaration, pledged at the WGES as a long-term development platform, aims to establish Dubai as "Capital of the Green Economy." Key commitments in the Dubai Declaration include:

- Developing WGES as a key global green economy platform
- Establishing a Public-Private Partnership Platform to facilitate and showcase innovative projects, partnerships and technology
- Developing innovative green financing mechanisms
- Showcasing technological innovation
- Supporting a global agreement for climate change at COP21 through supporting "The Road to Paris"
- Developing the State of the Green Economy Report



Italy: Preserving *La Grande Bellezza*

Agnese Bertello

THE ITALIAN LANDSCAPE, REFERRED TO AS *LA GRANDE BELLEZZA*, OR "GRAND BEAUTY," IS BOTH UNIQUE AND PARTICULARLY DELICATE. 70% OF ALL LANDSLIDES RECORDED IN EUROPE TAKE PLACE IN ITALY. THIS IS DUE TO SPECIFIC GEOLOGICAL CHARACTERISTICS, AND HAS ONLY GROWN WORSE IN RECENT YEARS DUE TO THE EFFECTS OF CLIMATE CHANGE. FOR THIS REASON THE ITALIAN GOVERNMENT IS PLANNING SIGNIFICANT INVESTMENTS AND A NEW TERRITORIAL MANAGEMENT STRATEGY, BOTH OF WHICH WERE THE FOCUS OF A ROUNDTABLE CESI ORGANIZED IN ROME LAST MARCH

Italy is a country of extraordinary landscapes and a broad variety of ecosystems and microenvironments. But it is also a land of delicate balances that global transformations like climate change, as well as near-sighted environmental policies, has deeply compromised.

7% OF ITALIAN TERRITORY IS SUBJECT TO LANDSLIDE PHENOMENA, WHILE 12% OF THE TERRITORY IS CONSIDERED AT HIGH OR MEDIUM HYDROGEOLOGICAL RISK. ITALY'S FRAGILITY IS DETERMINED BY UNIQUE MORPHOLOGICAL CHARACTERISTICS

At the end of March, CESI organized a roundtable that brought together in Rome the directors of companies in the infrastructure sector and the heads of the new Mission Structure, dedicated specifically to hydrogeological risk management. This structure was instituted by the Italian government in order to focus on the current situation and identify possible intervention strategies that can help prevent crisis situations and promote careful management of the territory and landscape, starting from a detailed knowledge of the territory and reelaboration of an organic and continuously updated risk map.

The data, presented by Matteo Codazzi, CEO of CESI, at the beginning of the convention, paints a clear picture: in Italy, eight out of every ten municipalities are exposed to hydrogeological risks; over the last two years, Italian regions have declared states of emergency no fewer than 21 times, for a total financial outlay of roughly 2.3 billion euro. Overall, it is estimated that roughly six million Italian citizens live in potential risk areas.

According to data gathered by ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale, or Superior Institute for Environmental Protection and Research) – the institute that currently manages Italy's national database of interventions underway, as well as the most scrupulous and precise archives of territorial data – 7% of Italian territory (for an overall surface area of 21,182 km2) is subject to landslide phenomena (roughly 70% of the landslides registered in Europe have taken place on Italian soil), while 12% of the territory is considered at high or medium hydrogeological risk (36,544 km2). This fragility is determined by unique morphological characteristics that have been aggravated by decades of illegal construction, scarce maintenance and a total absence of long term planning.

ISPRA supplies a number of data on this phenomenon that gives everyone pause to think: in Italy, from the postwar period to today, land consumption has moved from 2.9% to 7.3%. In other words, for over the past 50 years an average of more than 7m2 of territory per second has been consumed: it is a 156% increase compared to the 1950s, and in stark contrast with a population increase of just 24%.

BETWEEN 2000 AND 2012, INUNDATIONS ACROSS EUROPE CAUSED AVERAGE ANNUAL LOSSES TOTALING ROUGHLY 4.9 BILLION EURO, A FIGURE THAT MAY RISE TO AS MUCH AS 23.5 BILLION BY 2050

Climate change has affected precipitation, which today tends to be so explosive that people speak of "water bombs": rainfall that discharges in a burst the same quantity of water that used to fall over the span of one or more months. These phenomena are increasingly frequent and intense, as has been amply forecast by climatologists the world over.
Italy is not the only country facing these challenges: in Europe, according to a coordinated study conducted by researchers at the Institute for Environmental Studies in Amsterdam, between 2000 and 2012 inundations caused average annual losses totaling roughly 4.9 billion euro, a figure that may rise to as much as 23.5 billion by 2050, taking into account the fact that the frequency of violent rainfall may increase by an average of once every 16 years to once every 10, affecting more than one nation at the same time.
Italy is not alone, but it must wage its own war of protection starting from specific conditions that are, as we have seen, natural and anthropic in origin, and which render interventions even more urgent than elsewhere.

With the creation of the Mission Structure to combat hydrogeological damage, Italy seems to have finally changed its approach. During his presentation at the CESI workshop, Erasmo D'Angelis, coordinator of the structure, pointed to actions that have been planned and those already underway. "For the first time in the history of the Republic," said D'Angelis, "our government has chosen the route it should have taken several decades ago, in other words that of prevention. There are no magic wands to wave, but rather lots of work and thousands of small and medium-sized worksites.

Over the past eight months we've opened or reopened 783 of these, investing 1,072 million of the 2.3 billion euro that have been recovered but not spent over the past 15 years. On 20 February 2015 CIPE earmarked the first 700 million of a 1.2 billion-euro investment plan for 14 special metropolitan areas identified by the Italian government. Today we finally have a national plan that calls for 7,152 interventions across every region in Italy, 90% of which still need to be planned; and we've defined expenses for a total of 9 billion in Italy that have never been financed in the past. This is the largest public works project the country needs right now, since Italy currently displays an hydrogeological damage that is entirely unacceptable for a modern, strong, advanced country that is focused on today and tomorrow.
Prevention requires structural interventions, an increased awareness of risk and appropriate behaviors, an end of amnesties and pardons, as well as the implementation of technical solutions for defense and self-defense that we have been talented enough to export outside Italy, and will now apply domestically as well through the first pilot projects between Genoa and Florence."

Accuracy and detailed data, sharing experience, an organic approach and involved coordination have all been identified as priorities by everyone involved, and in particular by the companies that build and maintain railway networks, roads and electric routes, which are always heavily damaged by heavy rainfall and landslides: ANAS, RFI, Autostrade (national highways) for Italy and Terna, present at the CESI event, all agree concerning the need to conduct maintenance activities throughout the Italian territory, with the possibility of including interventions on the infrastructure in a coherent manner.

ACCURACY AND DETAILED DATA, SHARING EXPERIENCE, AN ORGANIC APPROACH AND INVOLVED COORDINATION HAVE ALL BEEN IDENTIFIED AS PRIORITIES

Investments intended to recover security and usability conditions for these are in fact an increasingly important part of the budget, along with financing for extraordinary interventions. For example, in 2014 RFI initiated 250 interventions aimed at increasing security in territories neighboring railways for

a total of roughly 80 billion euro; an additional 430 are planned for 2015, amounting to nearly double the investment.

The country needs an increased capacity for forecasting and evaluating risks, and greater timeliness in communicating danger. The technology exists. The integrated approach proposed by CESI, based on three fundamental levers – forecasting activity, prevention and planning – serves the systematic planning of interventions in a complex territory like Italy. In fact, as Domenico Andreis noted, CESI's approach will make it possible for the Italian territory to "establish a correct and complete rating of the 'buildable-ness,' of the major works that will have to be realized in Italy in order to curb hydrogeological damage."

THE COUNTRY NEEDS AN INCREASED CAPACITY FOR FORECASTING AND EVALUATING RISKS AND GREATER TIMELINESS IN COMMUNICATING DANGER

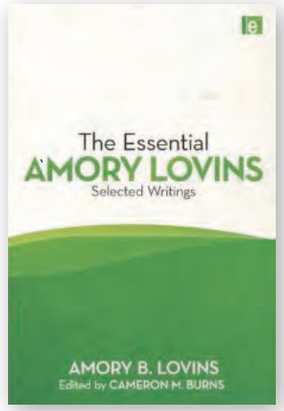
Through its predictive actions, the system CESI has set up utilizes the Lightning Strike network, a device that monitors the entire national territory twenty-four hours a day, registering every individual lightning strike. This system has proven particularly effective, and is being used to day for short-term and extremely short-term weather forecasts: a significant body of international scientific literature demonstrates the direct correlation between the quantity of lightning strikes that develop as the result of a thunderstorm and the intensity of precipitation. The extreme turnaround speed on the data gathered makes it possible to quickly set emergency procedures in place.

This "now-casting" action must be joined by efforts to constantly monitor the territory and major construction works in place: preventive action is developed through the activation of sophisticated automatic monitoring systems for hydrogeological damage phenomena (for example landslides and widespread territorial fragility), the reading and constant and continuous interpretation of data produced, and active control and monitoring, and decisional support for initiating eventual evacuation procedures from the territory in question in a timely manner.
This model is completed with the ANP, or Analytic Network Process system for construction planning that makes it possible to define a rating system for buildable projects, as well as identify the best design solutions, creating a true classification upon which the definitive choice of projects to build given the real, actual economic availability can be based.

It is a complete model, one that makes it possible to intervene on multiple fronts, developed thanks to skills that ISMES-CESI has matured working within the sector for over thirty years: "A system the predictive accuracy of which is the result of skills garnered in the design of interventions on dams, where it is necessary to be able to identify even the most microscopic movements in the mass of water pent up behind the dam," explained Domenico Andreis, director of the division. "Today these instruments are being used in Italy, including as tools that can help safeguard the historical, artistic and architectural patrimony of the country, as well as abroad, in environmental contexts considered extremely rich and variegated from a biodiversity point of view, for example in Guatemala."

| REVIEW |

The Essential Amory Lovins



Biography

Amory Bloch Lovins is an American physicist, environmental scientist, writer, and Chairman/Chief Scientist of the Rocky Mountain Institute. He has worked in the field of energy policy and related areas for four decades. He was named by Time magazine one of the World's 100 most influential people in 2009.
Lovins worked professionally as an environmentalist in the 1970s and since then as an analyst of a "soft energy path" for the United States and other nations. He has promoted energy efficiency, the use of renewable energy sources, and the generation of energy at or near the site where the energy is actually used. Lovins has also advocated a "negawattrevolution" arguing that utility customers don't want kilowatt-hours of electricity; they want energy services. In the 1990s, his work with Rocky Mountain Institute included the design of an ultra-efficient automobile, the Hypercar. Lovins has received ten honorary doctorates and won many awards. He has provided expert testimony in eight countries, briefed 19 heads of state, and published 29 books. These books include Reinventing Fire, Winning the Oil Endgame, Small is Profitable, Brittle Power, and Natural Capitalism.

Amory B. Lovins is one of the world's leading authorities on energy, integrative design, and their links with economy, environment, development, and security. This unique collection (34 essays, articles, white papers written between 1962 and 2010) brings together his most important and influential writings and forms an inspiring resource for anyone wishing to gain a deeper understanding of the issues which lie at the heart of sustainability and energy challenges.

The Essential Amory Lovins is divided into nine sections: "Into the Wildness: Mountain Climbing, Wales, and Fighting a Copper Mine"; "Resources and Energy: Efficiency, Analysis, Policy, Potential"; "Nuclear Power: Fission and Confusion"; "Vehicles and Oil: Goodbye Crude World"; "De Architectura: Building Better, Building Smarter"; "Energy Security and the Military: Blood and Treasure (and Opportunities)"; "Business and Climate: Making Sense, Making Cash, Making Good"; "Miscellany: Letters, and a Poem"; "Final Thoughts: Choosing the Right Path."

Featuring work from across his long career spanning energy, design, transport, climate, security, law, mountaineering, politics, proliferation, health, business, biotechnology, physics, and politics, the book explores the relevance of the ideas to the sustainability problems we face today – a relevance which is often evident. The collection also includes old and new personal essays on the environment and poignant letters to the editor. The selection shows Lovins' development as an expert in the complex technical fields of energy and resource policy as well as his simple love of the planet we call home.

Amory's greatest contribution has been to help turn "environmentalism" on its head—creating a new sort of enviro-rationalism that uses empirical and logical rigor to make a powerful argument for more environmentally benign paths. Many of the selections were written in the 1970s, when the environmental movement was rapidly expanding; the section "Resources and Energy," areas in which Amory made his biggest mark, accounts for roughly a third of the book. The strong emphasis on economy and security reminds us, too, that Amory's focus, like RMI's, spans many diverse concerns and opportunities beyond environment.

The book arms professionals with the visions and arguments they need to drive through policy and innovation, and is an inspiring read for anyone working in or interested in the field of sustainability.

Transmission Distribution Metering & Mutual Assistance Conference

Date > 4-7 October 2015
Venue > San Diego, USA
www.eei.org

CESI will be participating at Edison Electric Institute's TDM&MA Conference, the most important conference in USA that focuses on transmission, distribution and metering issues for the investor-owned electric utility community. It is the only conference developed specifically by utilities with a focus on the key areas EEI Member companies view as strategically important.

2015 INMR World Congress

Date > 18-21 October 2015
Venue > Munich, Germany
inmrworldcongress.com

Also in 2015 CESI will be present with his own booth at this major conference and exhibition that brings together over 120 international experts from within the electric utility industry, research & testing organizations, universities, manufacturers and industry associations.

XXIII SNPTEE 2015 - Seminário Nacional de Produção e Transmissão de Energia Elétrica

Date > 18- 21 October 2015
Venue > Foz do Iguaçu, Brazil
www.xxiiisnptee.com.br

The SNPTEE is the most important technical event in Brazil and will gather experts from local and international companies, universities and research institutes. Once again, CESI will be participating with his own booth.

Shaping a Better Energy Future

CESI is a leading global technical consulting and engineering company with over 50 years experience in several areas including: Transmission and Interconnections, Smart Grids, Power Distribution, Renewables, Testing, Certification and Quality Assurance. CESI also develops and manufactures advanced multi junction photovoltaic solar cells for both space and terrestrial (HCPV) applications.

With an annual turnover of more than €120 million, CESI operates in more than 40 countries around the world, with a total network of 1,000 professionals. The company's key clients include Governmental Institutions, Regulatory Authorities, major Utilities, Transmission System Operators (TSOs), Distribution System Operators (DSOs), Power Generation companies, Manufacturers, Financial institutions and International electromechanical and electronic manufacturers. CESI is a fully independent joint-stock company with main premises located in Milan, Berlin, Mannheim, Dubai and Rio de Janeiro.

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