

# Energy Magazine



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New Impetus for the Organization**
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Consolidate Integration in the  
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Replacing Oil - Sheikh Ahmed Zaki  
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## Editorial

The political will of the Member States of OLADE to reorient the Organization's action to meet the requirements of a globalized world and consolidate it as the most important regional forum for energy integration and cooperation was decisively expressed by the XXXI Meeting of Ministers of OLADE held in Asunción, Paraguay on October 13.14, 2000

The Meeting approved definitions of the Organization's mission, vision, and strategy and added new objectives and functions to its activities.

In this context, the official delegations adopted major decisions, while highlighting the progress in energy integration achieved by Latin America and the Caribbean, recognizing the work accomplished by OLADE in this area and reiterating their commitment to promote policies that favor regional integration.

The principal agreements and decisions adopted by the ministerial meeting are part of the present edition of the *Energy Magazine*.

This issue also includes an overview of the two meetings held by the Caribbean Energy Ministers, the first in Asunción, Paraguay, on

October 12, 2000, prior to the XXXI Meeting of Ministers of OLADE, and the second in Port-of-Spain, Trinidad and Tobago, on November 14, 2000, at which time they agreed to implement joint policies and actions to foster energy integration and development in the subregion.

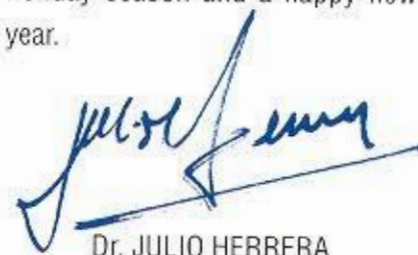
Among the actions agreed upon, establishment of the Caribbean Hydrocarbons Cooperation Commission, which is aimed at becoming a mechanism for horizontal cooperation between the Caribbean countries in order to facilitate policymaking for hydrocarbons and the participation of natural gas, is noteworthy.

The present issue also mentions the presentation made by OLADE at the Meeting of Ministers of Transportation, Telecommunications, and Energy of South America, held in Montevideo, Uruguay on December 4-5, 2000 regarding a proposal for the integration of this region's energy infrastructure. The proposal was submitted to the Meeting, which included a part of it in the Plan of Action to expand and modernize infrastructure in South America, whose operating aspects of the energy area will be channeled through OLADE in coordination with

the Plan's Technical Coordination Committee (IDB, CAF, FONPLATA).

Finally, there is an article by Dr. René G. Ortiz, former Secretary General of OPEC and former Minister of Energy and Mines of Ecuador, on the future of the oil and electric power industries, as well as one by Sheikh Ahmed Zaki Yamani, former Minister of Petroleum and Mineral Resources of Saudi Arabia and current President of the Centre for Global Energy Studies (CGES), on upstream sector opportunities in Ecuador, providing a valuable approach to technological progress and views on the prospects of oil being substituted for natural gas. The two articles were drawn from addresses delivered by the authors at the Ecuador Oil & Power 2000 Conference held in Quito in September 2000 under the auspices of OLADE.

As this is the last issue of the Magazine for the year 2000, we would like to extend to all of our readers our very best wishes for the holiday season and a happy new year.



Dr. JULIO HERRERA



# XXXI Meeting of Ministers of OLADE New Impetus for the Organization

**T**he XXXI Meeting of Energy Ministers of the member countries of the Latin American Energy Organization, held in Asunción, Paraguay, on October 13-14, 2000, adopted major decisions aimed at consolidating OLADE as the region's energy forum.

The ministerial meeting was inaugurated by the Minister of Public Works and Communications of Paraguay, Mr. Walter Bower. The official delegations elected the Vice-Minister of Energy and Mines of Paraguay, Mr. Helio B. Pereira, as Chairman of the Meeting, the Parliamentary Secretary of the Ministry of Environment, Energy and Natural Resources of Barbados, Senator Tyrone Barker, as Vice-Chairman,

and the Technical Secretary of the Technical Office of Energy of the Ministry of Energy and Mines of Peru, Ms. Iris Cárdenas, as Rapporteur.

Among the decisions adopted by the Meeting, the enlargement of the Organization's objectives and functions in order to enhance its political role and promote the analysis, discussion and decision making of issues of common interest for its 26 member countries is noteworthy.

## **Participating Country**

The Ministers and official delegates decided to establish the status of PARTICIPATING COUNTRY in

OLADE, for those countries outside the geographical area of Latin America and the Caribbean interested in entering into an agreement of participation; to do this, the Executive Secretary was empowered to negotiate and draw up agreements with the interested countries.

## **Forums**

The XXXI Meeting of Ministers of OLADE created three forums to promote the exchange of experiences, as well as the analysis, discussion, and fine-tuning of existing regulations for regional energy development:



- The Forum of Entities and Agencies Regulating Hydrocarbons Activities
- The Forum of Entities and Agencies Regulating Electric Power Activities.
- The Energy Sector Business Forum

Recognizing the pivotal role played by the energy sector in the development of the region's countries and the welfare of their population, the ministerial meeting agreed to issue a Joint Declaration, whose text is published in the present edition of the *Energy Magazine*.

## Chile

The Meeting elected Chile to preside over OLADE's Strategy and Programming Committee during 2001 and Costa Rica, Cuba, Ecuador, Mexico, Peru, and Trinidad and Tobago as members of the Committee.



*The presiding officers of the XXXI Meeting of Ministers of OLADE, from left to right: Iris Cárdenas, of the Peruvian delegation, Rapporteur of the Meeting; Senator Tyrone Barker, Parliamentary Secretary of the Ministry of Environment, Energy and Natural Resources of Barbados, Vice-Chairman of the event; Helio B. Pereira, Vice-Minister of Energy and Mines of Paraguay, Chairman of the ministerial meeting; and Dr. Julio Herrera, Executive Secretary of OLADE*



# Joint

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The Energy Ministers and Authorities of the member countries of the Latin American Energy Organization (OLADE), having met in Asunción, Paraguay, on September 13-14, 2000 and recognizing the pivotal role played by the energy sector in the development of their countries and the welfare of their population,,

## **hereby agree:**

- 1** To highlight the major progress made in the region regarding energy integration, which has led to the implementation of various interconnection and trade projects for both liquid fuels and natural gas and electricity.
- 2** To recognize the valuable work performed by the Latin American Energy Organization (OLADE) and its efforts to become the region's most important institutional forum for government exchanges regarding energy policymaking and the development of cooperation activities.
- 3** To reiterate their commitment to promote policies, in keeping with national legislation, that favor regional energy integration, overcome existing regulatory asymmetries that obstruct trade, and permit the complementation of energy resources, the optimization of supply security for users, and the development of open, efficient, and competitive markets, with nondiscriminatory conditions and practices in keeping with sustainable development principles.



# Declaration

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- 4** To support technological cooperation initiatives and human resource training programs in the region's countries, giving priority to the promotion of clean energy technologies, the exchange of information, institutional capacity building and the development of skills. These initiatives and programs should contribute to efforts to diversify energy matrices, improve energy efficiency, promote renewable sources of energy, and prevent and mitigate damages caused to energy infrastructure as a result of natural disasters.
- 5** To make progress in ensuring the compatibility of technical regulations in energy transport, interconnections, and fuel specifications in order to dismantle obstacles to energy trade and transit for its marketing.
- 6** To promote a permanent dialogue among the corresponding levels of the private sector involved in the energy sector to identify energy integration opportunities and difficulties.
- 7** To recognize that international oil price volatility exerts a negative impact on the economic development of the region's countries. As a result, they express agreement with policies that contribute to a stable oil market that supports the development of our countries.
- 8** To entrust the Permanent Secretariat of OLADE to incorporate the contents of this Declaration into its working programs and practices.



# Forums of

## The Regulators and Those

*The three forums created by the XXXI Meeting of Ministers shall be carrying out its activities in the framework of OLADE and shall interact through the Organization's Permanent Secretariat.*

- **The Forum of Supervisory Entities and Regulatory Agencies for Hydrocarbons Activities** is aimed at creating in Latin America and the Caribbean, and consolidating within the framework of OLADE, a space where existing regulations for the oil and natural gas sector can be reviewed, discussed and improved, as well as promoting the exchange of experiences in order to optimize the work of these institutions and support the establishment of agencies in the countries of Latin America and the Caribbean that require them, in order to contribute to the development of the subsector in the region.





## Being Regulated

- **The Forum of Supervisory Entities and Regulatory Agencies for Electric Power Activities** is aimed at creating in Latin America and the Caribbean, and consolidating within the framework of OLADE, a space where existing regulations for the region's electric power sector can be reviewed, discussed and improved, thus promoting the exchange of experiences in order to optimize the work of existing institutions and support the establishment of others in the region's countries that require them, in order to contribute to the development of the electric power subsector.
- **The Energy Sector Business Forum**, is aimed at facilitating the analysis and discussion of business opportunities, the identification of obstacles to investment, as well as the exchange of experiences among business associations, chambers of production, and private enterprise involved in energy development in Latin America and the Caribbean. Thus, this Forum shall be called upon to become a channel for a permanent dialogue between the public and private sectors and, as a result, to foster the integration, impetus, modernization, and transformation of the region's energy sector.

\* A form is included in the present edition of the *Energy Magazine* so that supervisory entities and regulatory agencies for hydrocarbons and electric power activities, as well as companies involved in the region's energy development, can obtain further information about OLADE's forums.



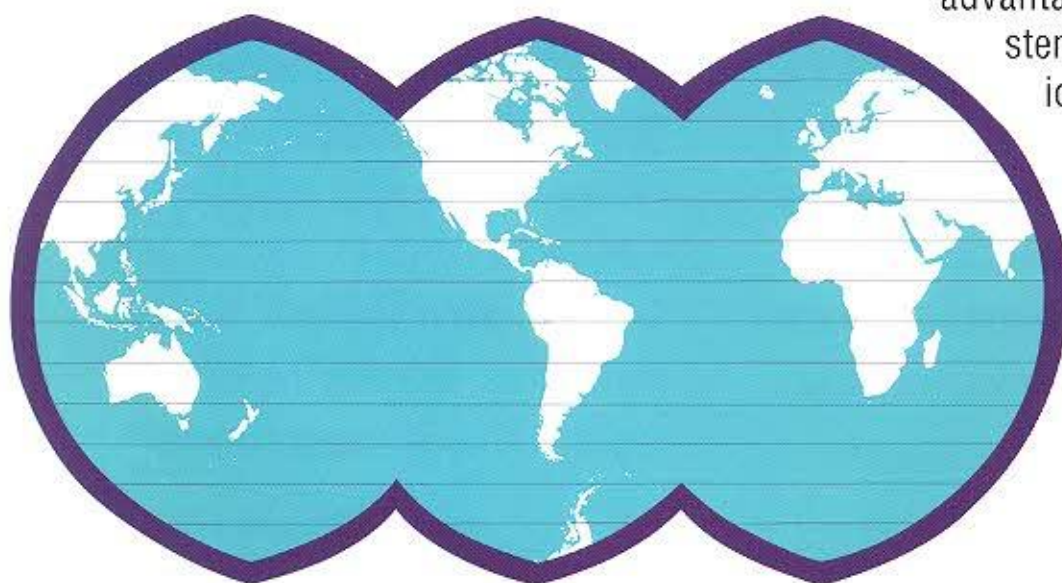
# PARTICIPATING COUNTRY IN OLADE

## New way of promoting regional energy integration in a globalized world

Among the most important decisions taken by the XXXI Meeting of Ministers of OLADE, there is the one providing for the establishment of the status of Participating Country in the Latin American Energy Organization for those countries located outside the geographical area of Latin America and the Caribbean.

The ministerial decision addresses the challenge that OLADE must face as a regional energy policy integration, cooperation, and coordination agency to meet the demands of its member countries that the Organization, owing to the transformations that they have undergone, promote the suitable insertion of the region in a globalized world, thus tackling the challenges, and taking full advantage of the opportunities, stemming from the economic and social development of Latin America and the Caribbean.

Decision XXXI/D/382 providing for the category of Participating Country in OLADE reads as follows:





**XXXI/D/382  
XXXI MEETING OF MINISTERS**

**CONSIDERING:**

**THE** proposal of Members Countries to allow the participation of countries located outside of the Latin American and Caribbean geographical area in OLADE's efforts to promote regional energy integration;

**THAT** the Strategy and Programming Committee analyzed such possibility and its advisability and recommended that the status of PARTICIPATING COUNTRY be created;

**THAT** the Meeting of Ministers has the authority to establish the status of PARTICIPATING COUNTRY, in the Latin American Energy Organization and that the time has come to do so;

In exercise of its powers,

**DECIDES:**

**TO ESTABLISH** the status of PARTICIPATING COUNTRY in the Latin American Energy Organization.

**TO CONSIDER** as PARTICIPATING COUNTRY any country located outside the Latin American and the Caribbean geographical area signing a participating agreement with OLADE.

**TO ENTITLE** the Executive Secretary to negotiate and enter into participating agreements with interested countries.

The participating agreements must include, at least, the following issues:

1. Terms for their participation in the different meetings of the Organization in which will be specified issues such as: right to speak in the official OLADE meetings where they participate, but without the right to vote. OLADE's regulations will be attached to the participation agreement and will be considered as part of it.
2. Determine an annual contribution of not less than 50% of the amount set for the largest contribution of any single Member Country.
3. The contributions of the PARTICIPATING COUNTRIES shall be allocated to the Organization's Voluntary Contributions Fund.
4. The PARTICIPATING COUNTRY commits to support training activities and cooperation programs in which it may be able to provide knowledge and technical expertise.
5. The PARTICIPATING COUNTRY commits to fulfill its responsibilities stemming from its affiliation to the Organization.
6. A termination clause in the event of noncompliance or as a result of unilateral decision by either parties to the agreement.

The PARTICIPATING COUNTRY shall inform the Executive Secretary of OLADE the names and positions of the persons designated as representatives and alternates. The Executive Secretary shall immediately report this information to all the Member Countries.

The agreements drawn up between the PARTICIPATING COUNTRIES and the Executive Secretariat of OLADE shall be considered at the following Ministers Meeting.



# ***Energy Policy in Latin America and the Caribbean: What We've Achieved and Where We're Going***

*Address delivered by the Executive Secretary of OLADE, Dr. Julio Herrera, at the opening ceremony of the XXXI Meeting of Ministers*

**I**t is a great pleasure to address a few remarks, aimed at highlighting two elements of the meeting. First of all, the pleasure of being here in the brotherly and hospitable Republic of Paraguay, which some of us already know quite well and others are discovering for the first time but who will be sharing the fine opinion and feeling of those of us who have already visited Paraguay many times.

Second, I am pleased that the XXXI Meeting of Ministers of OLADE will be focusing on the subjects we are developing today and tomorrow. I can assure you, Mr. Minister, that the Meeting of the Latin American Energy Organization being held here in Asunción will be a milestone in the Organization's history.

In the nineties and at the end of the eighties, Latin America and the Caribbean carried out political reforms to ensure transparency and broader participation of their citizens in their systems. It has also carried out economic reforms to provide macroeconomic stability to our countries, to build more predictable scenarios for investors, to lower deficits and curtail endemic inflation. We have carried out and we are carrying out social reforms

in education, health, and social welfare systems

International estimates and records indicate that, in the nineties, the governments of Latin America and the Caribbean channeled about half of their public spending to social investments, that is, 47%, which is a record figure in Latin American and Caribbean history.

We have also made progress in conducting energy sector reforms, which is the subject that has brought us here today and for which we have changed the approaches that were culturally well established in our societies. We have substituted the concepts of self-sufficiency and energy sector linkages to national security.

Today, our countries view energy as a strategic sector aimed at improving the competitiveness of their production sectors and improving the quality of living of their inhabitants.

We have substituted the concept of self-sufficiency for that of integrated economies and energy systems.

All of these transformations have not been easy and are not as yet complete; there is still much to be done but there





Dr. Julio Herrera, Executive Secretary of the Latin American Energy Organization

is no doubt that they yielded good results.

I would like to support my remarks by mentioning the following figures:

Per capita household electricity consumption in Latin America during these years of liberalization increased by 45% compared to previous years.

Electricity coverage rose from 74% to 88% during these years.

This means that our energy sectors have gathered momentum and have been offering more products, more goods, and more services at better prices to more people, which is also part of the strategy of the endless battle against poverty that Latin America and the Caribbean are waging every day and that their governments and population are continuing.

In the nineties, Latin America received, for the first time, investments in amounts that we can qualify as record-breaking. On average, 42% of the investments that were made in the energy sector in the world were for Latin America, with the highest amount being reached in 1997, when US\$46 billion were invested in the world, half of which, that is, US\$23 billion, was

made in our energy sectors. This was possible because we were able to address these debates and the approaches that I referred to earlier. We have become militants of sustainable development, in the political, economic, social, and environmental dimensions of this concept and in the definition of sustainable development.

There is no other area of the world that has made as many efforts over these years, and because of this we in Latin America and the Caribbean should feel very proud.

We have a challenge before us, that is, to continue these processes and obtain the same results and, if possible, improve them. It has been forecast that, over the coming years, on the basis of projects already existing in the world, investments amounting to US\$187 billion could be made. Our goal should be at least to repeat the performance of the nineties and secure about 40% or 42% of this figure and that would mean about US\$75 billion, which Latin America and the Caribbean could take for its own benefit, to give impetus to its economic activities and improve the living conditions of its people.

*“Today, our countries view energy as a strategic sector aimed at improving the competitiveness of their production sectors and improving the quality of living of their inhabitants”*



*“For OLADE, it is a Meeting that will be a historical milestone. Our agenda includes changes in the vision, mission and strategy of OLADE and the opening up of OLADE to new players in the energy sector”*

Mr. Minister, it is with these achievements and challenges in mind that OLADE is addressing this Meeting and its agenda.

For OLADE, it is a Meeting that will be a historical milestone. Our agenda includes changes in the vision, mission and strategy of OLADE and the opening up of OLADE to new players in the energy sector. We the States are not the only ones governing the destinies of the energy sector as when OLADE was born and the Lima Agreement was drawn up in 1973.

Today, the private sector, as indicated by the figures, plays a leading role in giving impetus to and expanding our energy systems.

Alongside the Energy Ministries, regulatory and supervisory entities have also appeared, and the present Meeting of Ministers will also be including them to facilitate the interaction between those holding political power with their regulatory entities and those that are being regulated.

We are also opening up our Organization to the participation of countries that today are not part of OLADE and countries that do not belong to our region. We will be enhancing our ties with other international organizations. A globalized world demands open organizations that have the capacity of enriching themselves; in today's world closed organizations tend to wither and die.

OLADE is alive in the thinking, spirit, and political will of the governments of Latin America and the Caribbean and because of this, at this Meeting, we will proceed to adapt ourselves to new times.

I would like to quote someone in the world of energy who played an important role, especially in the oil sector. Today, the issue of oil, its prices, its volatility, ups and downs, is a subject that is being analyzed by everyone,

from both producing and importing countries.

A few days ago, Sheikh Yamani, on occasion of a meeting held in Quito, Ecuador, sent us a letter, a paragraph of which I would like to quote to you by heart: Just as we switched from wood to coal and from coal to oil, oil is destined to be replaced by natural gas, not because of the depletion of oil, as some say, but because the oil era on its own is destined to be replaced by natural gas in about three decades. Thus the Stone Age ended, but not for lack of stones. The speculations about the depletion of oil are not at issue here, but rather technological and scientific progress in the world is requiring that we move on to the era of natural gas.

I would like to conclude by saying that when, in the seventies, we had an oil crisis with oil bills rising from US\$2 to US\$35 per barrel, many of our countries focused their efforts on building hydropower stations so that they could be less dependent on oil and thus ensure that a variable as important as oil for our economies would not affect us with the disruptions it triggered at that time. Today, we are probably in a similar situation. If natural gas accounted for a share of 10 percentage points more than what our countries currently have, that would be equivalent to paying US\$24 or US\$25 per barrel of oil and we would probably not have the debate we are having now.

Definitively, for the reasons given by Sheikh Yamani, because of current circumstances, Latin America and the Caribbean, a region rich in natural gas, since Venezuela, Trinidad and Tobago, Peru, Bolivia, Argentina, and many of our countries hold large gas reserves, we will be developing a strategy that is also aimed at modernizing the sector, favoring the environment, promoting competitiveness of production sectors, and basically contributing to our people's well-being.



# ***The Energy Sector of the Republic of Paraguay and Its Transformation in the Framework of Regional Integration***

*Address delivered by the Minister of Public Works and Communications of Paraguay, Mr. Walter Bower, at the opening session of the XXXI Meeting of Ministers*



*Walter Bower, Minister of Public Works and Communications of Paraguay*

**T**he Government of Paraguay is honored that our country has been selected to host this XXXI Meeting of Ministers of OLADE. The President of the Republic, Dr. Luis Angel González-Macchi, cannot be with us at this important meeting owing to previous official commitments requiring his presence abroad.

We are sure that, during the present event, the technical, economic, political, and financial problems affecting the energy sector will be studied in depth. Among the topics on the agenda, very important matters, such as energy integration in Latin America and the availability of energy for truly sustainable development, will be considered.

Historically, Paraguay has proven its commitment to integration with the commissioning of the stations of Itaipú and Yacyretá, which were built in the framework of a cooperation agreement between nations that have learnt to overcome difficulties stemming from their economic asymmetries and have

striven to reach a common objective, namely, adequately meeting their energy needs.

In the view of the magnitude of the technological progress and a growing and steady demand for all forms of energy, there is no doubt that, in all the countries of the world, attempts are being made to promote collaboration between the public sector and the private sector. Regarding this, the proposals for the regulatory frameworks of Paraguay's energy sector will be presented to the participants of the present Meeting in order to share experiences on this important subject.

Regarding this, the introduction and viewpoint of the Executive Secretary of OLADE, in his initial address, have been quite apt.

Some countries have adopted the theory that this sector should be completely transferred to private-sector organizations, with only regulatory functions remaining in the hands of the State, whereas other countries have



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not felt that this structural model for the energy sector is the most advisable for them. Therefore, in the near future our country will have to define a policy regarding this, and because of this the conclusions that are reached at the end of the present Meeting will merit special consideration.

For a country that is in the development stage that Paraguay is currently tackling and, basically, in view of its wide range of electric power supply, it is indispensable that all the aspects involving the participation of private-sector capital in energy development should be analyzed, also bearing in mind the technical facilities and human resources it has available so that whatever solution is adopted will bring the maximum amount of benefits for the country.

Within the fully democratic political framework now prevailing in Paraguay, the National Congress will have to take over the important responsibility of deciding which is the most appropriate course to adopt in the best interests of the country. In this context, the technical and legal aspects that permit developing the technical and economic feasibility of natural gas as an element building up the electric power and hydrocarbons subsectors in our country will have to be carefully examined.

The Executive Secretary of OLADE has very clearly described some indicators that highlight the importance of the impact of energy on the development of our people. Strategies, models, and structures must grow and keep pace with the potential and reality of our people, specifically, and our international community in more globalized terms.

Today, obviously, the bitter experience of polarizing development and energy

production in given products such as oil has made us all think. We are experiencing the same epoch, the same fears and concerns as in 1973, when the Yom Kippur war broke out. Therefore, in the face of this reality, it is evident that at this important Meeting the factors that contribute to striking a balance between the different models of generation and the wealth that nature has given us will be studied, because this is a topic of the utmost value for our countries. Above all, despite our efforts, despite the 45% increase in per capita consumption of electricity in Latin America and the Caribbean, as the Executive Secretary has told us, there is a reality that I would like to take the liberty of expressing frankly, namely, despite everything, we have not as yet overcome poverty.

The capacity and technical specialization of the participants of this Meeting guarantee the success and the fruitful conclusions that will be reached at the end.

I would like to reiterate that these conclusions will be highly useful in the framework of cooperation between the people of Latin America and the Caribbean.

As Minister of Public Works of the Republic of Paraguay, I am pleased to inform that the technical experts that have been trained over many years of efforts, studies, analyses, successes and errors in the energy sector, are now our pride in the eyes of the world and are participating with you at this Meeting.

Needless to say, we are opening up our hearts to you, giving the hospitality and friendship of our people, who are struggling as all of you do to find a better future and welcome all the friends coming to this land.



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**“O**LADE has contributed significantly to the region’s energy development. I take this opportunity to place on record my country’s gratitude to the Executive Secretary of OLADE, Dr. Julio Herrera, for his organization’s assistance to our country,” said the Prime Minister of Trinidad and Tobago, the Honourable Basdeo Panday, at the opening ceremony of the Caribbean Energy Ministers Meeting, held in Port-of-Spain, Trinidad and Tobago, on November 14, 2000.

In another part of his address, Primer Minister Basdeo Panday stated that “we, the Government of Trinidad and Tobago, acutely conscious that particularly at this time, when our Caribbean friends, neighbors and colleagues are facing an energy crisis and resultant eco-

energy producers and consumer countries alike. They have led to the reshaping of global energy policies.”

He also indicated that “energy integration and cooperation in the development of the Caribbean sub-region has been, and continues to be, a major goal of successive regional governments. But the process has taken too long and has left us too long at the mercy of global events. Still, I again stress my administration’s commitment to regional energy integration.”

“Today, the challenges in the energy sector continue, albeit on a larger scale and with greater urgency. My Government is therefore extremely supportive of this meeting’s aim to set up a Hydrocarbons Cooperation Commission for the Caribbean.”

structing a fourth LNG train totally dedicated to meeting the needs of the Caribbean.

“It is my firm belief,” he said, “that the Caribbean Energy Ministers and their advisers gathered here today will provide clear guidelines for a deeper energy integration movement within the Caribbean.”

“Please carry the message with you that Trinidad and Tobago will never let the Caribbean down, that we recognize our responsibilities to the region, and that we will carry them out in the best interests of all our citizens and all yours as well,” he concluded.

The Caribbean Energy Ministers held two meetings, one in October and the other in November 2000.

## **Caribbean Hydrocarbons Cooperation Commission is established**

# Caribbean Energy Ministers Consolidate Integration in the Framework of OLADE

nomic crisis, offer whatever assistance may be within our competence that will be of real value.”

“As Energy Ministers and officials, you are acutely aware of the far-reaching developments that have characterized the industry during the past few years. These developments have had their impact on

The Prime Minister said that Trinidad and Tobago is exporting natural gas to Spain, the United States and Puerto Rico. “Why should Trinidad and Tobago export LNG to these countries and not to the CARICOM states?” he asked. He asserted that he could not see any obstacle that should prevent Trinidad and Tobago from con-

The first took place on Thursday, October 12, 2000, in Asunción, Paraguay, in the framework of the XXXI Meeting of Ministers of OLADE, with the participation of Barbados, Cuba, Guyana, Haiti, Jamaica, and Trinidad and Tobago.

On that occasion, the following was approved:



## Agreement

*The Ministers and Heads of Delegation of the Caribbean member countries of the Latin American Energy Organization (OLADE) met in Asunción, Paraguay on October 12, 2000 and agreed that:*

- 1. OLADE is to be congratulated on its initiatives and programs to meet the special needs of the Caribbean countries.*
- 2. OLADE's assistance to the Caribbean should continue in accordance with the strategic lines of action set forth in the Energy Policy Document and subsequently amended and agreed upon.*
- 3. The document entitled "Incorporation of Natural Gas into the Energy Matrix of Central America and the Caribbean" be accepted and a full feasibility study for liquefied natural gas projects in the Caribbean be developed.*
- 4. The feasibility study on the use of liquefied natural gas include other countries such as Barbados, Haiti, Grenada and Guyana.*
- 5. The feasibility study on the use of natural gas be expanded to include an evaluation of the possibilities of marketing compressed natural gas in the smaller markets of the Caribbean.*
- 6. OLADE play the leading role in the formation and work of the*

*Subregional Hydrocarbons Cooperation Commission with the collaboration of ECLAC-Trinidad.*

- 7. A follow-up meeting, within framework of the Caribbean Energy Action Program (CEAP), be held before the end of the year and at which the establishment and definition of activities of the Caribbean Hydrocarbons Cooperation Commission will be a key item. The delegations present agreed that Trinidad and Tobago shall host the meeting.*

In compliance with the last item, another Caribbean Energy Ministers Meeting was held in Port-of-Spain, Trinidad and Tobago, on November 14, 2000, with the participation of the official delegations of the Bahamas,



*The Honourable Basdeo Panday, Prime Minister of Trinidad and Tobago (fourth from left), is with, from left to right, Mr. Godfrey Perkins, Permanent Secretary of the Ministry of Mines and Energy of Jamaica; the Honourable Geoffrey Da Silva, Minister of Trade, Tourism and Industry of Guyana; Mr. Vernon De Silva, Director of the Energy Planning Division of the Ministry of Energy and Energy Industries of Trinidad y Tobago; Dr. Víctor González, Permanent Secretary of Public Works, Transportation and Communications of Belize; Mr. Edward McKenzie, General Manager of the Development System of the Electric Corporation of the Bahamas; Senator Finbar K. Gangar, Minister of Energy and Energy Industries of Trinidad & Tobago; Dr. Julio Herrera, Executive Secretary of OLADE; Mr. Wilfredo González, Director of Energy of the Ministry of Economy and Planning of Cuba; Mr. K. Mohamed, Ambassador of Trinidad and Tobago to CARICOM; and Mr. Roy H. De Rooy, Advisor of the Ministry of Natural Resources of Suriname.*



Belize, Cuba, Guyana, Jamaica, Suriname, and Trinidad and Tobago.

At this Meeting, it was decided to approve the following:

### JOINT DECLARATION

*We, the Ministers and other Heads of Delegations at the Caribbean Energy Ministers Meeting held in Port-of-Spain, Trinidad and Tobago, on November 14, 2000 hereby decide:*

- 1. To thank the Trinidad and Tobago Government for the excellent arrangements made for the meeting.*
- 2. Taking into consideration the high dependence of the Caribbean*

*countries on petroleum and petroleum derivatives for the satisfaction of their energy needs and the development of the economies, to establish a Caribbean Hydrocarbons Cooperation Commission to enhance hydrocarbons policymaking and utilization in the region.*

- 3. To promote the diversification of the energy matrix of the Caribbean through the increased utilization of natural gas.*
- 4. To note Trinidad and Tobago's commitment to grant concessionary prices to Caribbean States which would be disposed to accept this facility, and any further details with regard to pricing arrangements could be worked out on a*

*bilateral basis under mutually agreed terms and conditions.*

- 5. To reinforce and broaden the Caribbean Energy Action Program (CEAP).*
- 6. To request OLADE to review the reporting mechanisms associated with CEAP and report to the Meeting of Energy Ministers within three months.*
- 7. To express to OLADE appreciation for the excellent work it has been doing with regard to the Caribbean and request the Organization to continue its support for energy development in the region through participation in the above activities and programs.*



*Senator Finbar K. Gangar, Minister of Energy and Energy Industries of Trinidad and Tobago*

By decision of the official delegations attending the two Caribbean Energy Ministers Meeting, Senator Finbar K. Gangar, Minister of Energy and

Energy Industries of Trinidad and Tobago chaired the two meetings. During the opening ceremony of the ministerial meeting held in Port-of-Spain, he underscored the need "to jointly determine what policies we should adopt in order to foster regional energy cooperation and protect the interests of the individual states in this region."

"In this context," he said, "the spirit of Caribbean cooperation, which was so pervasive in Paraguay, will prevail in Port-of-Spain. It will be the foundation upon which we will build a more secure energy future for the Caribbean."

"For this desired cooperation to be effective," he added, "we must all be committed to achieving a workable framework. This framework must be anchored in the new realities of the global environment, as well as the domestic situation of member states."



## CARIBBEAN HYDROCARBONS COOPERATION COMMISSION

### **OBJECTIVE**

To establish a horizontal cooperation scheme among the Caribbean countries to enhance hydrocarbon policy decision-making as a result of the joint analysis of the different options that are available in the sub-region or outside it with respect to the principal issues affecting the economy or the environment.

### **STRUCTURE**

The Commission will have the following characteristics:

- It will be comprised of one delegate from each of the following countries which may wish to be members: Antigua and Barbuda, the Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago
- Trinidad and Tobago be the Permanent Secretariat of the Commission and will fund the work of the Secretariat. The Secretariat will coordinate the activities of the Commission with technical assistance from OLADE.
- The Chairmanship of the Commission may be rotated every two years at the discretion of the Ministers. Trinidad and Tobago will chair the Commission for at least the first two years of its existence
- It will have technical advisors from subregional, regional and international institutions participating in the elaboration of specific studies determined by the Commission and its requirements.
- The Commission will be responsible for developing and implementing the work plan and considering the reports of activities that have been completed. The Commission will report to the Meeting of Ministers with responsibility for Energy in the Caribbean, which will be the supreme decision-making body.
- It is expected that the Commission will meet twice a year, for which purpose resources will be requested from the countries and from outside the region to cover costs so that the delegates can travel to the headquarters of the Permanent Secretariat.

### **FUNCTIONS**

- At its first meeting, the Commission will define the



agenda that is to be dealt with during the first six months of work, as well as those responsible for each activity and the resources for carrying them out.

- Attempts will be made to ensure that, to the extent possible, the activities will be carried out by country officials, without incurring the outlay of any professional fees for their participation.
- The participants in a specific activity will be in contact with each other to ensure follow-up of the different activities, which are to be carried out preferably in their own countries.
- The Commission will determine the studies to be prepared for and the matters to be discussed at the next meeting of the body.
- The Permanent Secretariat will forward to OLADE the preliminary documents of each task for review and comments, prior to the distribution of the final versions to the member countries.
- In addition to the technical assistance that OLADE will be providing from its Secretariat, it will be complemented by the

advisory services of specialists from other institutions such as ECLAC.

- The documents approved by the Commission will be remitted to the decision makers of each country for their consideration and possible implementation.
- The Commission will give effect, where requested, to Trinidad and Tobago's offer to provide technical advice and assistance to other countries with regard to petroleum activities.
- The issues to be studied must exert social, economic, and environmental impacts on the majority of the countries; among these issues, the most noteworthy are:
  - Petroleum product prices
  - Transport costs
  - Harmonization of fuel specifications
  - Possibilities for the use of natural gas
  - Hydrocarbons information system
  - Petroleum exploration activities with respect to maritime boundaries
  - Environmental protection





1st  
*Fair*

## ***Renewable Energy and Energy Efficiency***

**SAN PEDRO SULA, HONDURAS, C.A.**

**22 - 25 FEB 2001**

Dirección General de Energía,  
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DIRECCION GENERAL DE ENERGIA



**T**he Meeting of Presidents of South America held in Brasilia on August 31-September 1, 2000 reasserted the spirit of understanding and harmony characterizing the ties between the South American countries and guaranteed that the continent would start the new century strengthened by the progressive consolidation of its democratic institutions and its commitment to human rights, environmental protection, overcoming social injustices, economic growth, and expanding and deepening its integration process.

In this context, they observed that the integration and development of infrastructure are two lines of action that complement each other and that the formation of an enlarged South American economic area would depend largely on its capacity to identify, complement, and expand new projects and those that already exist in the energy, transportation, and communications sectors, on the basis of which economic and social integration and development hubs can be configured.

In compliance with one of the mandates of the Meeting of Presidents, the Meeting of Ministers of Transportation, Telecommunications, and Energy of South America was held on December 4-5, 2000 in Montevideo, Uruguay.

The purpose of this Meeting was to start working on consolidating a global vision of the actions needed to expand and modernize infrastructure in South America, taking into consideration the Plan of Action attached to the Presidential Communiqué of Brasilia.

This Meeting of Ministers was inaugurated by the President of the Oriental Republic of Uruguay, Dr. Jorge Batlle-Ibáñez, who highlighted the importance of the Meeting for regional integration and the development of each one of the countries.

The Minister of Foreign Affairs of Uruguay, Dr. Didier Operti, was in charge of formally presenting the meeting's agenda, at which time the Minister of Transportation and Pub-

Regarding the energy sector, the Meeting of Ministers made a commitment to expand and enhance integration and to complement resources of the South American continent in the areas of liquid and gas fuels and in fuel integration and trade and electric power interconnection, in order to improve environmental preservation and strive to dismantle unjustifiable barriers stemming from constraints and regulations in this sector.

## **OLADE is playing a pivotal role in the energy integration of South America**

lic Works of Uruguay, Mr. Lucio Cáceres was elected to act as Chairman of the Meeting, and Mr. Jorge Rivero (ALADI), as Rapporteur.

The Inter-American Development Bank (IDB), the Andean Development Corporation (CAF), and the Financial Fund for the Development of the River Plate Basin (FONPLATA) presented the Plan of Action, as well as the Sector Integration Axes and Processes that were identified.

In this context, the Executive Secretary of the Latin American Energy Organization, Dr. Julio Herrera, submitted a proposal from OLADE for the Integration of the Energy Infrastructure of South America.

### **OLADE's Proposal**

The provisions of the Meeting of Presidents of Brasilia regarding the framework and new conditions for the integration and development of



physical infrastructure constitute the background for this proposal.

These new conditions require that progress be made in complementing and expanding existing projects and that new projects be identified, not only for integration infrastructure but also for national infrastructure, oriented and supported by the principle of sustainable development. In this context, the relevant inter-related dimensions of this principle that have been identified are: political liberty, economic well-being, social equity and protection of natural resources, among which the environment, and their application in space and over time.

These infrastructure projects should have the capacity of attracting national and extra-regional capital and generating intra-regional multiplier effects, enabling progress to be made for the benefit of inte-

gration, creating an impetus that should be encouraged.

OLADE's proposal also concurs with what was stated by the Presidents in Brasilia regarding the driving force of energy for the integration of the countries of South America and recognizes that the implementation of integration infrastructure projects must be complemented by the adoption of standard-setting and administrative schemes that facilitate energy system interconnection and operation.

The integration and complementation of the liquid and gas fuel resources of the South American continent, in terms of fuel integration and trade, such as natural gas and electric power interconnections and energy companies, constitute a focal point for the coming together of the region's countries, which should be expanded and enhanced

alongside environmental preservation and the dismantling of unjustifiable barriers stemming from constraints and regulations in this sector.

### **The role given to OLADE to promote energy integration**

Regarding the energy sector, the Meeting of Sector Ministers reached a consensus that regulatory or standard-setting frameworks are a fundamental element to keep in mind and that they must be harmonized in order to favor intra-regional trade.

They also decided that the respective operating phase for the Plan of Action approved by the Ministers would be channeled through OLADE in coordination with the Plan's Technical Coordination Committee, which is comprised of IDB, CAF, and FONPLATA.



*The President of the Oriental Republic of Uruguay, Dr. Jorge Batlle-Ibáñez (fifth from left) with the presiding officers at the opening ceremony of the Meeting of Ministers of Transportation, Telecommunications and Energy of South America (from left to right): Dr. Enrique García, Executive Chairman of CAF; Dr. Sergio Abreu, Minister of Industry, Energy and Mining of Uruguay; Mr. Enrique Iglesias, President of IDB; Dr. Didier Opertti, Minister of Foreign Affairs of Uruguay; Mr. Lucio Cáceres, Minister of Transportation and Public Works of Uruguay (Chairman-elect of the Meeting); Ambassador Juan Francisco Rojas Penso, Secretary-General of ALADI; and Mr. Genaro Sánchez, President of FONPLATA*



**New Sources of Energy will be Replacing Oil**

# **"The Stone Age did not come to an end because of a lack of stones"**

**Sheikh Ahmed Zaki Yamani\***

## **Upstream window of opportunity**

**I**t is a huge step for a country to adopt the currency of another state, especially if it is the mighty dollar, which has been gaining in value against the Euro, the yen and the sterling. No longer can Ecuador expect to improve its trade balance by devaluing its currency, making its imports more expensive and its exports more competitive. On the other hand, neither will Ecuador be susceptible to devaluation-induced inflation. Moreover, in so far as Ecuador imports goods from Europe and Japan, it will benefit from the dollar's strength against these currencies.

What is significant is that oil is one of Ecuador's principal exports and that it is priced internationally in U.S. dollars. Having the dollar as a currency will make it easy from now on for Ecuador to see exactly what its oil exports are worth in local terms and what these exports can buy internationally. What is also important to note, however, is that

Ecuador's oil production is stagnating, if not actually falling, while its consumption of oil products is growing at over 3% per annum, and this at a time when oil is commanding very high prices in the world market. Should these trends continue, Ecuador's oil surplus will gradually diminish and its balance of oil trade eventually go into the red. Ecuador needs to boost its oil production and curtail its oil consumption, and this is a matter of national priority.

There are also other, less parochial, reasons why Ecuador cannot afford to waste a moment in reviving its upstream oil industry. I fear that the oil industry as a whole has another three decades of reasonable prosperity to count on before it begins to fade away into history like other fuels before it. This is not because we shall run out of oil, as some argue, but because technology impels the world to move on to other sources of energy, as has





always been the case. Wood gave way to coal. Coal, in turn, gave way to oil, and oil is destined to yield to natural gas and perhaps renewable sources of energy. After all, as the saying goes, the Stone Age did not come to an end because of a lack of stones.

The march of technology is inexorable, but it often heads in unexpected directions. Who can tell what discoveries and inventions lie ahead of us? Just as the discovery of the internal combustion engine in the nineteenth century underpinned oil's dominance in the twentieth, technological breakthroughs could undermine oil's current preeminence. In fact, there are developments already under way that could worsen oil's prospects on the demand side in the near future.

Hybrid gasoline/electric vehicles are no longer confined to the engineers' drawing boards; they are here already and being offered for sale in

the showrooms of a company like Toyota. They are too expensive at the moment for a mass market, but economies of scale will surely bring down their ticket price and allow their penetration rate to become significant, since their fuel economy is much greater than that of conventional vehicles.

Around the corner, so to speak, are fuel-celled vehicles. These promise even greater fuel efficiency than hybrid vehicles and are entirely nonpolluting, although we must remember that they need hydrogen to function and, in so far as they derive hydrogen from oil, they will be reliant on oil itself to some degree. Fortunately for oil, fuel-celled vehicles are nonviable at the moment, but I am told they are likely to be a commercial proposition before the end of this decade, if not a lot sooner. In other words, oil product demand for personal road transportation will probably grow at much lower rates in the future

*"The march of technology is inexorable, but it often heads in unexpected directions. Who can tell what discoveries and inventions lie ahead of us? Just as the discovery of the internal combustion engine in the nineteenth century underpinned oil's dominance in the twentieth, technological breakthroughs could undermine oil's current preeminence"*



*“...I also need to mention the possibility of gas-to-liquids processes becoming commercially viable in the next two or three years”*

because of the huge efficiency gains offered by these new technologies.

Oil's gradual departure from the scene over the next 30 years is likely to be hastened by concerns about global warming. Despite many misgivings about whether the available scientific evidence supports the anthropogenic nature of global warming, over 100 nations have signed the Kyoto Protocol. As you know, this international agreement ties the developed nations to a program of gradual reduction of CO<sub>2</sub> emissions by 2008-2012. If fully implemented, the Protocol would necessitate, according to our calculations, a reduction of 13 million barrels per day (MBPD) in OECD oil consumption between now and 2010. I think such a target is unattainable, and let it be noted that no member country of the OECD has ratified the Protocol as yet; nevertheless, it represents a serious potential threat to oil demand's prospects.

Incidentally, I also need to mention the possibility of gas-to-liquids processes becoming commercially viable in the next two or three years. This development is also a threat to oil, for it promises to deliver remote gas to customers in the form of oil liquids like high-quality diesel. You can therefore surmise for yourselves that, based on all these considerations, the global demand for oil is unlikely to grow at the 1.8% per annum of the last four to five years, which is hardly a particularly exciting rate of growth anyway.

When to declining rates of oil demand growth, followed eventually by falling demand, we add the likelihood of abundant supplies of oil, both from existing oil-bearing areas

and new discoveries, we have a recipe for intense competition and low prices in the oil industry in the future. In these circumstances, it is surely in Ecuador's best interests to develop its oil resources as rapidly as possible. Other better-endowed oil-producing nations are probably contemplating a scenario like the one I have outlined above, so Ecuador has no time to lose.

As you well know, the countries of the Middle Eastern Gulf possess 65% of the world's known reserves, and this oil is the cheapest oil in the world. Take a Gulf country like Iraq, which is currently constrained by UN sanctions. It has the potential to produce an additional 3 MBPD from oil fields that have been identified already and await development. Once Iraq is allowed to exploit these new fields, it could extract this extra oil within three or so years. Furthermore, a major study of Iraq's oil prospects done by the Centre for Global Energy Studies contends that Iraq's yet-to-discover oil is likely to push Iraq's oil reserves up to more than 200 billion barrels, from the 112-billion level today.

Other Gulf countries wish to expand their oil-producing capability too, notably Iran, which has invited foreign companies to help develop both its gas and its oil resources. Even Saudi Arabia is opening up its upstream sector to foreign capital, although it must be emphasized that this "opening" refers only to nonassociated gas, oil remaining off limits to the international oil companies. The common reason for the change in a policy that hitherto had shunned foreign capital is the desperate need for investment funds.



Decades of excessive spending and general economic mismanagement have caused key Gulf countries to become seriously indebted. Further borrowing to fund upstream investment in these countries is undesirable, hence the need to encourage foreign direct investment. Local capital markets, however, are either underdeveloped or nonexistent, leaving only one alternative: the international oil companies. In their case, not only do they have abundant financial resources, but they also possess technical expertise, which is always most welcome.

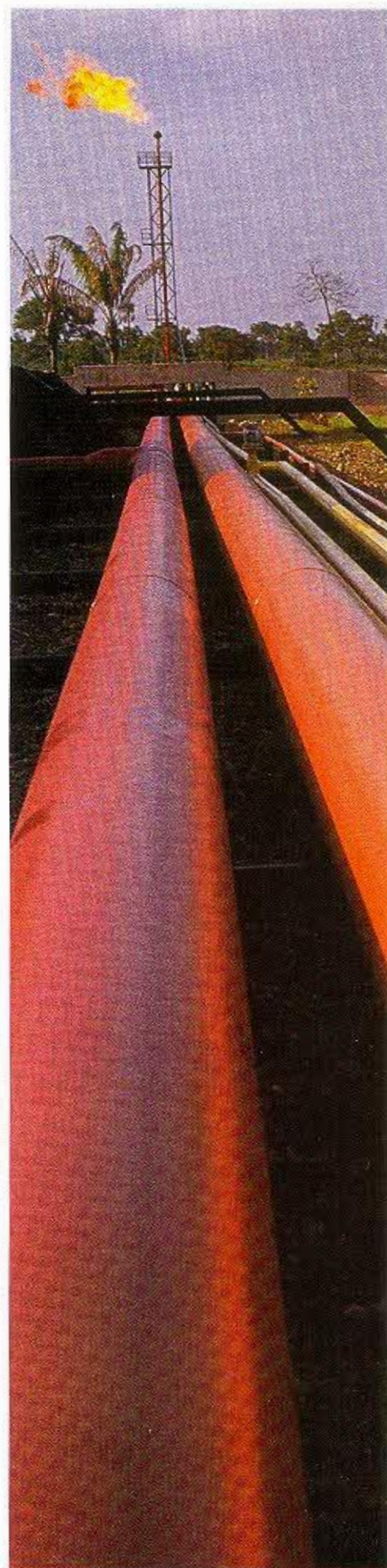
It is not only the Middle East that is attracting the companies' interest. Other hot spots of upstream investment over the last decade have been the Caspian region and West Africa, particularly offshore. As a result of exploration and development in these areas, they are expected to add considerably to the world's oil supplies. The Caspian region should yield an additional 1.8 MBPD by 2010 and West Africa, another 2.3 MBPD over the same period. This amount of new oil is hardly insignificant, representing as it does almost half of Saudi Arabia's current production.

By now, you will have gathered what I am really saying to you. There is a window of opportunity lasting perhaps a decade or so during which Ecuador can revitalize its oil industry to good effect. Boosting its oil reserves by new discoveries and the further development of existing fields will yield great benefits to the Ecuadorian economy in this period. Note, however, that this will have to be done in a weak oil price environment, due to the abundant new supplies likely to be available internationally.

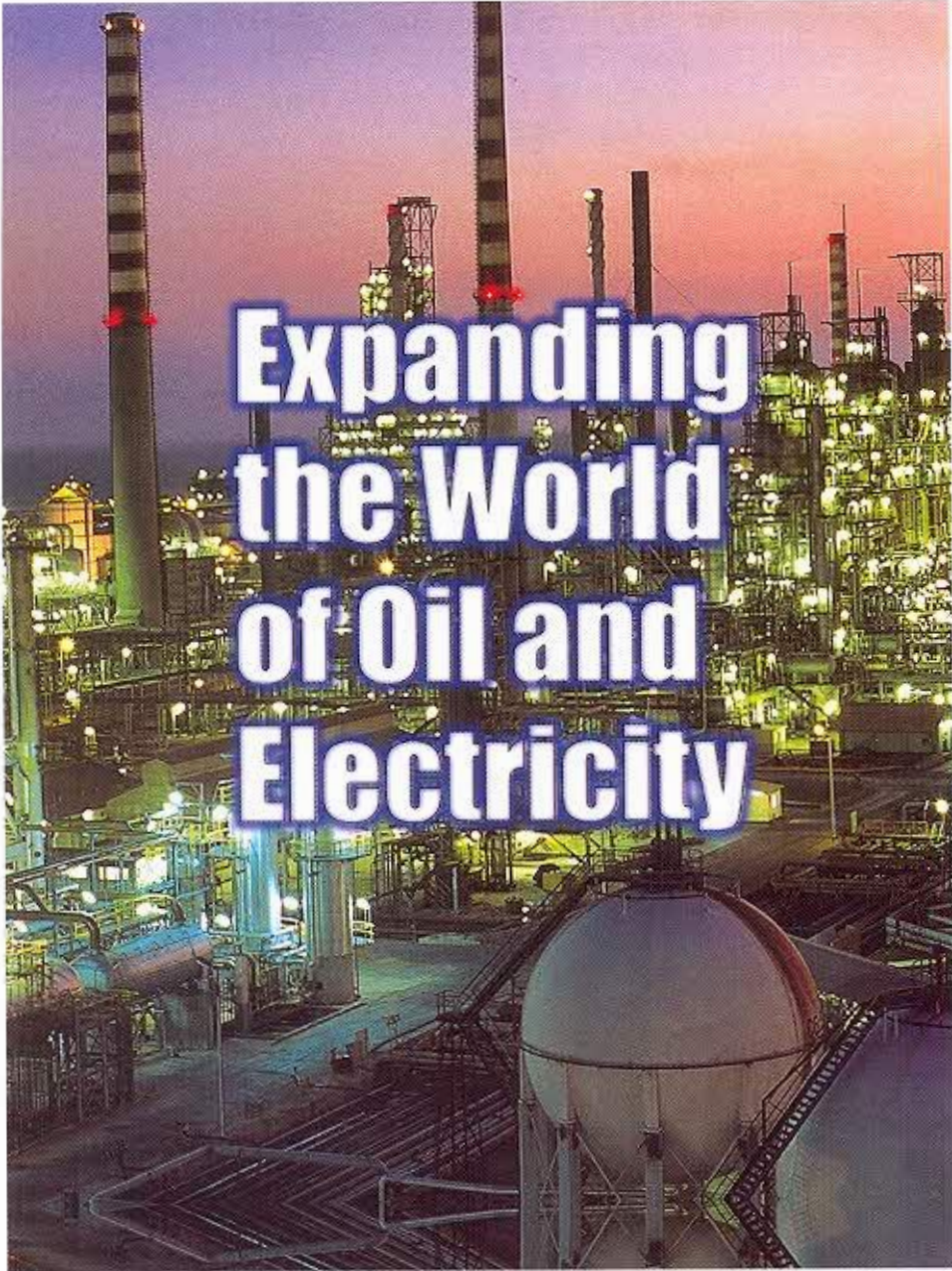
If Ecuador can manage to revive its oil industry on its own, so much the better, but it is more likely that it will need help, financial and technical, from abroad. To entice foreign companies to invest in Ecuador, as opposed to other regions where the prospects might be better or the tax environment more favorable, requires a careful matching of reward to risk. I do not have to remind an audience like this that the poorer a country's oil prospects are, the more lenient its tax regime should be. May I add that it is not just the tax rates that have to be favorable; the whole business climate should be helpful, too. In the current circumstances, a country wishing to attract foreign upstream investment must jettison all vestiges of oil nationalism. It is difficult enough to persuade hard-headed businessmen to consider investing in a project without adding political risk to financial uncertainties.

All that remains for me to do is to wish Ecuador every success in its endeavors and to remind you what Demosthenes, the Athenian orator, said: "The circumstances of the times do not wait for our tardiness."

- \* Sheikh Ahmed Zaki Yamani was Minister of Petroleum and Mineral Resources of Saudi Arabia. At present Sheikh Yamani is President of the Centre for Global Energy Studies (CGES) in London, England. The present article is a summary of the message he sent to the Ecuador Oil & Power 2000 Conference that took place in Quito, Ecuador in September 2000 under the auspices of OLADE.







# Expanding the World of Oil and Electricity



*René G. Ortiz\**

whereas now with modern technology more oil can be extracted from the ground more optimally.

It is also taking place in the downstream sector, in the oil pipelines, refineries, and the trade of oil products, where the international demands of the United Nations for environmentally friendly fuels and the reduction of emissions of gases that pollute the atmosphere would disqualify existing refineries owing to technological obsolescence and the national production of fuels for their failure to comply with quality standards and specifications for use in new-generation motor vehicles and/or for electricity generators. Today there is new technology.

That is how the world is and that is how it will be in the future. No one, no country should be excluded from this shift of technology for any reason whatsoever.

Moreover, scientific and technological research on renewable sources of energy, that is, wind, sun, and all kinds of hybrid combinations, is

"**E**xpanding the world of oil and electricity" is the general topic of the Ecuador Oil & Power 2000 Conference and it deals with the future, technology and the environment associated to the oil and power industry.

It deals with the energy industry and economic and social development in a globalized world.

It deals with the future, since the past has stayed behind as a lesson and a reference.

In this context, technology and the progress made in the energy industry, especially in the oil industry, since the two energy crises of the seventies, are simply spectacular.

It is not only taking place in upstream activities, that is, in the exploration and production of hydrocarbons, where old, obsolete production techniques would have prevented Ecuador from extracting more than 50% of its reserves and would have deprived the country of benefiting legitimately from the production of this natural resource,



taking giant strides, and innovations and applications are increasingly competitive and commercial.

All this change that is taking place in the current energy mix is a reality that no one can or should dare ignore. Ignoring it would be like absurdly "blocking sunlight with a finger." In this third millennium, with all the technological progress that has become apparent and available to everybody, providing ideological reasons for standing still for whatever pretext is like conspiring against human development.

We cannot permit that attempts be made to obstruct the path to knowledge and the progress of science and technology.

It must be admitted that, despite the efforts made since the seventies to disassociate the world's economic growth from energy growth, the true is that our contemporary world and, even more so the future world, will continue to be a voracious consumer of energy.

The difference between previous experiences and the present is that, in the future, energy consumption mix and the market will be such that consumers will be buying electrons and will have the opportunity to choose what they want to purchase.

The consumer will be a buyer of fossil, oil, gas or coal-based electrons or a buyer of nuclear-based electrons or a buyer of renewable energy-based electrons.

*"All this change that is taking place in the current energy mix is a reality that no one can or should dare ignore"*





If this is what it is being predicted for the future, then it is important to appreciate the value of future energy consumption scenarios to take decisions.

Of the many energy scenarios that are available, there is one that I presented last year in Bogotá on occasion of the Colombian Petroleum Congress.

This energy consumption scenario asserts that, even when energy consumption (all forms of energy available on the market) continues to grow between 2030 and 2040, oil demand will remain static and will not grow. The most important thing to note for energy policymaking, on the basis of these circumstances, is that, as of the year 2040, oil consumption will start declining even though energy demand will continue to grow.

It should be understood that this change cannot and should not take place unnoticed. The substitution of oil for other energy sources is a reality.

There are countries in the industrialized world that openly suggest to its citizens that they avoid using oil.

At the Conference, we will be speaking of petroleum, not only out there in the external world but also in our own country; we will also talk about electricity and its importance for development. We will deal with the most important aspects of modernization in order to make up for lost time, and we will speak of the emerging industry of Internet as yet another step in technological progress applied to the energy industry.

I will conclude my remarks by referring to a few phrases made by His Excellency Sheikh Ahmed Zaki Yamani, former Petroleum Minister of Saudi Arabia.

"The Stone Age did not come to an end because of lack of stones. There is no scarcity of oil," says Yamani. Historically, "wood gave way to coal. Coal, in turn, gave way to oil, and oil is destined to yield to natural gas and perhaps renewable sources of energy."

In another part of his address, he urges Ecuador to not waste a moment in reviving the upstream sector of its oil industry which is now stagnating and ends by reminding us what Demosthenes, the ancient orator of Athens, said: "The circumstances of the times do not wait for our tardiness."

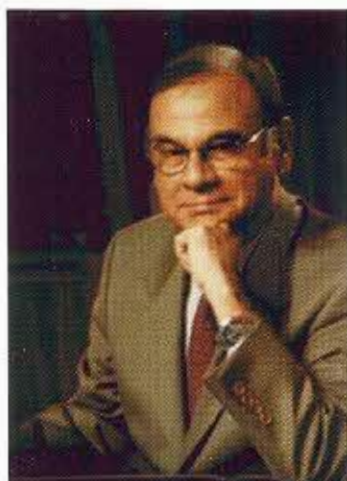
\* Dr. René G. Ortiz was Secretary General of the Organization of the Petroleum Exporting Countries (OPEC) and Minister of Energy and Mines of Ecuador. The present article is a summary of the address Dr. Ortiz delivered to the Ecuador Oil & Power 2000 Conference that took place in Quito, Ecuador in September 2000, under the auspices of OLADE.

*"The consumer will be a buyer of fossil, oil, gas or coal-based electrons or a buyer of nuclear-based electrons or a buyer of renewable energy-based electrons"*





## MINISTER OF ENERGY AND MINES OF VENEZUELA DESIGNATED TO BE SECRETARY GENERAL OF OPEC



Dr. Ali Rodríguez Araque,  
Secretary-General of OPEC  
2001-2003



**T**he 112th Extraordinary Meeting of the Conference of the Organization of the Petroleum Exporting Countries (OPEC) held in Vienna, Austria, on November 12-13, 2000, designated the current Minister of Energy and Mines of Venezuela, Dr. Ali Rodríguez-Araque, to act as Secretary General of OPEC for the period 2001-2003.

Dr. Rodríguez-Araque graduated from the School of Law of the Central University of Venezuela and studied economics at the University of the Andes. He worked as an attorney specializing in labor, civil, and commercial law until 1983.

He is a member of Parliament of the Republic of Venezuela since that same year, and as such was Chairman of the Energy and Mines Commission of the House of Representatives of Parliament from

1994 to 1997. He has also been member of the Energy and Mines Commission of the Latin American Parliament.

He has been a lecturer on topics focusing on policy and energy and has published many articles on energy policy. His latest publication deals with the *The Process of Oil Privatization in Venezuela*.

Before his designation as Secretary General of OPEC, Dr. Ali Rodríguez-Araque, as Minister of Energy and Mines of Venezuela, was Chairman of OPEC's Ministerial Conference.

Dr. Rodríguez-Araque, who is replacing Dr. Rilwanu Lukman of Nigeria, will be coming into office on January 10, 2001 for a three-year term.



# OLADE AT 7<sup>TH</sup> INTERNATIONAL ENERGY FORUM IN SAUDI ARABIA

*“...the group of large oil-producing and consuming countries met in Riyadh to continue the dialogue started in Paris in 1991, in the search of permanent, long-term world economic stability...”*

Once again, the group of large oil-producing and consuming countries met in Riyadh on November 17-19, 2000 to continue the dialogue that started in Paris in 1991, in the search of permanent, long-term world economic stability and energy market restructuring, bearing in mind the repercussions of climate change and the importance of technology in this entire process of change.

OLADE was invited to this important event by the Minister of Petroleum and Mineral Resources of the Kingdom of Saudi Arabia, His Excellency Ali I. Al-Naimi, and was represented by the former Secretary General of OPEC and former Minister of Energy and Mines of Ecuador, Dr. René Ortiz.

The meeting, which took place in Saudi Arabia, a nation that has relied on its oil earnings over the last 30 years and intends to sustain

these revenues in the future on the basis of its huge oil and gas wealth, which account for 20% of the world's reserves, was attended by the Prime Ministers, Energy Ministers, and Oil Ministers of large oil consuming and producing countries, international and regional organizations such as the World Bank, the International Monetary Fund (IMF), the European Commission (EC), the Organization of the Arab Petroleum Exporting Countries (OAPEC), the Latin American Energy Organization (OLADE), and private consultants especially invited to the event.

The result of the dialogue that took place under the heading “Energy Partnership for the New Century” was an acknowledgment that the world would continue depending very heavily on oil and natural gas, as well as the importance of technology in the process of implementing the Kyoto Protocol to





Crown Prince Abdullah bin Abdulaziz, Deputy Premier and Commander of the National Guard, attended the opening ceremony of the Forum with Prince Sultan bin Abdulaziz, Second Deputy Premier, Defense and Aviation Minister and Inspector General of the Kingdom of Saudi Arabia

reduce greenhouse effect stemming from the emission of gases into the atmosphere. As part of these two major topics, the current problem of high oil prices was viewed as a threat to the world's economic development, but both OPEC and the representatives of oil-producing countries have argued that the Organization has contributed to tackling the problem by agreeing on four production hikes this year in order to raise oil prices on the market to an average level of US\$25 per barrel. They also indicated that the problem is in the refining and the high taxes levied on oil products for sale to consumers. In this context, oil supply security should be accompanied by greater security for the investments that are needed to

increase oil production and refining capacity in the world.

The Crown Prince of the Kingdom of Saudi Arabia set the tone for the Forum when he argued, in his opening address, that the time had come to institutionalize this dialogue of producers and consumers by establishing an international organization for this purpose and offered that Riyadh be the host for its Secretariat General. The United States, through its representative, the Secretary of Energy, Bill Richardson, indicated that the idea should be seriously considered.

The next meeting of the International Energy Forum is to be held in two years, in Japan.

*“...oil supply security should be accompanied by greater security for the investments that are needed to increase oil production and refining capacity in the world”*



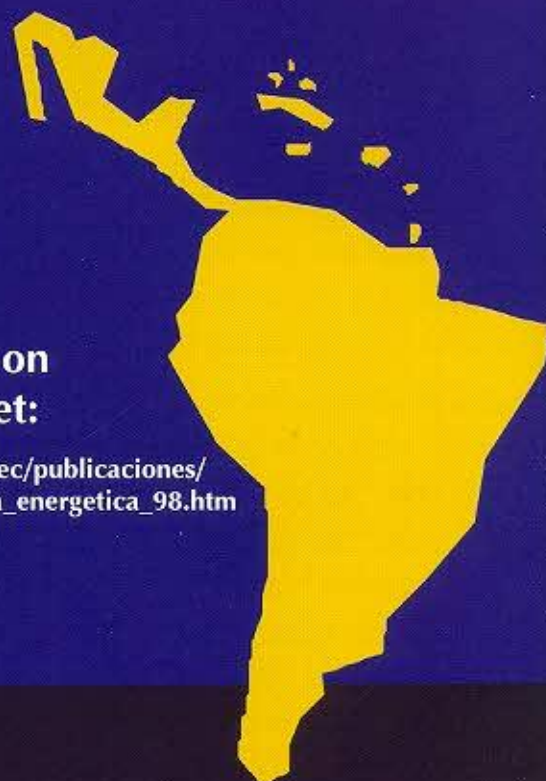
# Energy Magazine

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# BARRIERS TO REGIONAL ENERGY INTEGRATION ARE ANALYZED IN SEMINAR

In the framework of the Project on Energy and Sustainable Development that OLADE, the Economic Commission for Latin America and the Caribbean (ECLAC), and the German Technical Cooperation Agency (GTZ) have been conducting jointly, a seminar focusing on barriers to energy integration in Latin America and the Caribbean was held in Quito, at OLADE's Permanent Secretariat headquarters on September 25-26, 2000.

The objective of the event was to learn about and exchange experiences between countries and international organizations of Latin America and the Caribbean, as well as those of the European Union, regarding problems affecting energy sector integration.

## SUGGESTIONS TO DISMANTLE BARRIERS TO INTEGRATION

The participants in the Seminar-Workshops provided suggestions regarding actions that could help to dismantle barriers to regional energy integration, among which the proposal to implement an agenda for the harmonization of energy policies in Latin America and the Caribbean is highly noteworthy. The principal topics of this agenda are indicated below:

### 1. Market liberalization

If a regional energy market is to be created, it is necessary to promote com-

petition by ensuring open markets, and this depends on the political will of the countries.

### 2. Harmonization of regulatory frameworks

In order to promote energy integration, it is necessary to harmonize the regulatory frameworks of the countries in all the subsectors (electric power, gas, etc.).

To do this, the analysis should include specific issues such as: technical specifications, specifications of products and transmission lines, technical standards for building gas pipelines and the transport and storage of products, etc. Asymmetries in taxes and customs duties between the countries should also be analyzed.

### 3. Open access

The free trade of energy seems to be a basic requirement to ensure authentic competitiveness.

### 4. Price setting on the basis of economic costs.

### 5. Reciprocity and nondiscriminatory treatment.

### 6. Regional environmental policy facilitating environmental conservation.





## LINKAGES BETWEEN ENERGY AND SUSTAINABLE DEVELOPMENT

# OLADE, ECLAC AND GTZ ARE CONDUCTING A SERIES OF SUBREGIONAL WORKSHOPS ON ENERGY POLICYMAKING

"If the sustainable development proposal is viewed, in general, as an inescapable responsibility to be shared by all players of society, then it seems to be well matched to a democratic system of government. Whereas the latter provides a political mechanism for social coexistence in a framework of freedom, sustainable development promotes a balance in meeting social needs to guarantee this coexistence," said the Executive Secretary of OLADE, Dr. Julio Herra, when inaugurating the series of subregional workshops on energy policymaking that are being held in the framework of the Project Energy and Sustainable Development in Latin America and the Caribbean, which OLADE, the Economic Commission for Latin America and the Caribbean (ECLAC), and the German Technical Cooperation Agency (GTZ) are implementing together.

As part of this series, by December 2000 three workshops had been held:

- For the Andean Community and Mexico, the workshop took place on September 11-14,

2000 in Quito, at OLADE's Permanent Secretariat headquarters.

- For Mercosur, Bolivia, and Chile, the workshop took place in Santiago de Chile, on October 31-November 3, 2000 at ECLAC headquarters. The opening ceremony was attended by the Executive Secretaries of ECLAC and OLADE, Dr. José Antonio Ocampo and Dr. Julio Herrera, respectively.
- For Central America, the workshop was held in Panama City on November 27-30, 2000 and was inaugurated by the Interior Vice-Minister of Commerce and Industry of Panama, Dr. Temístocles Rosas.

The workshop for the Caribbean subregion has been scheduled for the first quarter of 2001.

### WORKSHOP OBJECTIVES

The fundamental objective of the workshops is to help each one of the subregions in identifying com-

mon energy policies that favor sustainable development.

The operational part of these events is aimed at achieving two objectives: the first is to present the theoretical and practical contents of the *Guide for Energy Policymaking* that was developed as part of the OLADE-ECLAC-GTZ Project, and the second is to conduct a practical exercise for the use and management of the proposed methodology.

As a premise for the formulation of energy policies, it is agreed that the linkages between energy and the dimensions of sustainable development are complex and oftentimes difficult to perceive in the process of deciding energy policy.

It is considered advisable that the above-mentioned process adopt the following sequence:

- First, identify current problems that have not been resolved by the policies of the past, whether explicit or implicit.
- Second, insert the policy in a forecasting context that speci-



fies courses toward possible scenarios and where the objectives are to resolve the problems that have been detected.

- Third, build up the viability of the policies by opening up participation to all stakeholders so that the solution to the problems may have a better chance of being implemented.

There are many dimensions involving economic and social activities and natural resources, including the environment, that affect the decision-making process and orient

investments to exert an influence on the quality of living of persons. Therefore, the workshops analyze the above-mentioned impacts and orientations for the purpose of focusing briefly on considerations of great complexity that extend the issue of energy beyond those approaches limited to technology and the operation of energy systems.

It is expected that the results of these activities will contribute to ensuring that the impacts on the environment stemming from higher energy consumption as a result of greater development will be com-

pensated by an active energy policy that fosters the use of commercial sources of energy and more efficient and cleaner energy technologies that will make major contributions to the environment and quality of living of the population.

The implementation of rational and efficient use of energy, as well as the responsible production of natural resources, can contribute in many ways, including the environment, to consolidating the development process in Latin America and the Caribbean.



*Participants at the Energy Policymaking Workshop for the Andean Community and Mexico, held at OLADE's Permanent Secretariat headquarters, which started the series of subregional workshops on this subject conducted in the framework of the OLADE-ECLAC-GTZ Project on Energy and Sustainable Development in Latin America and the Caribbean*



# **OLADE, ARPEL AND THE EUROPEAN COMMISSION HOLD SEMINAR ON NATURAL GAS MARKET INTEGRATION**

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"Bolivia will be shifting from integrative rhetoric to the adoption of concrete measures such as the San Miguel-San Matías-Cuiabá gas pipeline, which will be benefiting Bolivia, Brazil, and Argentina, and the multi-purpose pipeline of Ilo, which will be consolidating binational energy integration with Peru," announced the Vice-Minister of Bolivia, Mr. Carlos A. Contreras del Solar, at the Seminar on Natural Gas Market Integration in South America, which took place in Santa Cruz de la Sierra, Bolivia on November 23-24, 2000.

The Seminar is part of the project that, under the same name, is being conducted by OLADE and the Regional Association of Oil and Natural Gas Companies in Latin America and the Caribbean (ARPEL), with funding from the Synergy Programme of the European Commission.

The event was attended by government officials from the oil and gas sector, as well as representatives from regulatory agencies and private enterprise involved in the gas development of South America, who focused on the following aspects:

- Policies for the development of natural gas in the countries of South America.
- Standard-setting and regulatory frameworks for natural gas activities.
- Current status and prospects of gas development activities in the region.
- Providing governments with the necessary information to promote and contribute to the natural gas market integration process and, thus, to promote gas integration on the continent.

The Seminar also analyzed the results of the study conducted on this topic by OLADE, ARPEL, and the French consulting firm BEICIP-FRANLAB, which was in charge of elaborating a Final Report that will be analyzed by the countries and companies that participate in the project.

## **THE PROJECT**

The objectives of the Project for Natural Gas Market Integration in South America are as follows:

- Significantly increase the share of natural gas in the energy matrix, providing a cleaner alternative resource and, at the same time, guaranteeing the sustainability of supply.
- This project has been assessing how the different gas pipelines that constitute the network connecting production fields and natural gas processing plants with consumption centers can be expanded, especially in the Southern Cone and what other pipelines should be built (among the possible alternatives that can be detected). To do this, the investments that will ensure a steady supply of natural gas over the long term are being taken into account, with consideration of optimal options from the technical and economic standpoint and bearing in mind the pace of privatization and gradual withdrawal of state protectionism.
- The issues to be addressed by the Study that is being conducted within the project are:
- Revision and update of growth that is forecast for natural gas demand in the Southern Cone.



- Analysis of natural gas supply sources from the subregion's area of influence and establishment of available volumes for the Southern Cone under different production profiles.
- Revision of the technical characteristics of the facilities of the existing network of gas pipelines in the subregion and in the area of influence.
- Establishment of alternatives to expand the capacity of existing facilities and their associated investments and incremental operating costs.
- Establishment of new interconnection projects (route, specifications, capacity, investment, and operating costs).
- Analysis of tax and customs schemes applicable to natural gas.
- Analysis and ensuring compatibility of technical norms of natural gas quality, transport, management, and marketing.
- Analysis of pricing policies applicable to natural gas.
- Analysis of the regulatory framework for natural gas and substitute fuels.
- Impact on the development of gas markets, as a result of the gradual withdrawal of state protectionism and the elimination of subsidies.
- Determination of investment needs for the sustainable development of natural gas markets.
- Determination of existing barriers to regional gas integration.
- Formulation of a transport model to optimize the expansion of existing gas pipelines and the definition of new gas transport lines for a 20-year period.
- Case studies for different alternatives.



*The presiding officers at the opening ceremony for the Seminar on Natural Gas Market Integration in South America, from left to right: Mr. José Félix García, Executive Secretary of ARPEL; Mr. Carlos A. Contreras del Solar, Vice-Minister of Energy and Hydrocarbons of Bolivia; Dr. Julio Herrera, Executive Secretary of OLADE; and Mr. Raúl Kieffer, President of the Bolivian Chamber of Hydrocarbons*



# OLADE-ACERCA AGREEMENT

**A**t the General Assembly of the Association Coordinating the Regulatory Agencies for Electric Power of Central America (ACERCA), held in San Salvador, El Salvador on December 1, 2000, a Cooperation Agreement between OLADE and the Association was signed.

Mr. Ernesto Lima-Mena, President of the Association and General Superintendent of Electricity and Telecommunications of El Salvador, signed the agreement on behalf of ACERCA, and Juan José Castro, Head of the Executive Secretary's Office of OLADE's Permanent Secretariat signed as representative of OLADE's Executive Secretary.

The OLADE-ACERCA Agreement is based on the fact that the two institutions have among their objectives the development of common topics such as: promotion of regulatory activities, facilitating and giving impetus to the common electricity market, coordination of regulatory policies, promotion of electric power sector competitiveness, support for

the autonomy and capacity building of regulators, and promoting energy policy among their members.

Both OLADE and ACERCA have received a series of requests from their member countries for the exchange of experiences, the development of studies, advisory services, assessment, and training in matters regarding the regulatory framework of the electric power subsector.

The Agreement provides a general framework for collaboration and advisory services from OLADE and ACERCA to the region's countries, which will be developed in line with the schemes indicated below:

- a. ACERCA will become an integral part of the Forum of Supervisory Entities and Regulatory Agencies for Electric Power Activities, regardless of whether its members are also individually participating in this forum.
- b. Designate specialized OLADE-ACERCA staff so that they can

provide specific technical assistance to the region's countries.

- c. Support the countries in organizing training events by including their technical experts as lecturers and speakers.
- d. Assess the possibility of developing a cooperation program in energy regulation, aimed at supporting the countries of the Central American isthmus in optimally developing their electric power system.
- e. In order to cover the costs involved in providing advisory services, the availability of financial resources in the two institutions will be evaluated. If funds are not available, OLADE-ACERCA will submit the necessary funding requests to multilateral financing institutions.

The Agreement will extend over a three-year period and may be renewed for periods of time of equal duration.



*Mr. Ernesto Lima Mena, President of ACERCA, signing the Agreement with the Representative of the Executive Secretary of OLADE, Mr. Juan José Castro*



# EVE OF SPAIN SEEKS TO CONSOLIDATE ITS TIES WITH OLADE



*The Executive Secretary of OLADE, Dr. Julio Herrera, receiving the representative of the EVE Group of Spain, Dr. Enrique Monasterio (left)*

**Dr.** Enrique Monasterio, in charge of projects in the International Department of the Basque Energy Entity (EVE), paid a visit to OLADE's Executive Secretary, Dr. Julio Herrera, in Quito, Ecuador on November 27, 2000 in order to transmit EVE's interest in building up its ties with the Latin American Energy Organization.

The Basque Energy Entity, since its establishment in 1982, has been supporting the energy policy objectives set by the Basque Government.

Regarding this, it has been a major promoter of progress achieved in areas such as energy efficiency improvement through energy savings and the incorporation of new and renewable sources of energy. It has also contributed to reducing oil dependence and diversifying consumption by upgrading the use of other energy sources such as natural gas.

The basic purpose of the Basque Energy Entity has been to improve energy systems on an ongoing basis using sustainable development criteria in order to meet energy needs, contribute to the development of the country's competitiveness, optimize the standard of living of its citizens, and conserve the environment.

Among its main objectives, EVE has underscored the optimization of benefits from international cooperation in the energy sector and the opportunities for developing international business and markets. To do this, it focuses on the following:

- To be an observer of international energy reality, with special emphasis on the follow-up of new organizational and legislative trends of the sector in the world.

- To collaborate with the European Commission in its energy-related programs.
- To attract international business in areas in which the EVE Group specializes.

The activities of EVE itself can be grouped largely under the following categories:

- Planning, research and resources
- Internationalization
- Saving, efficiency and technology
- Corporate services

EVE has been cooperating with OLADE over the last eight years in the Energy Conference of Latin America and the Caribbean (**Ener-lac**), whose fifth installment will take place in the year 2001. Nevertheless, the intention of the Basque entity is to broaden the areas of joint collaboration between the two organizations.



## XII WORKING GROUP OF SIEE ADVISORS



The XII Working Group of National Advisors of the Energy-Economic Information System (SIEE®) took place in Quito, Ecuador, at OLADE's Permanent Secretariat headquarters, on September 27-29, 2000.

The event conducted a follow-up of the experience of the Organization's member countries in the various uses of the SIEE® and its new developments. In addition, the progress achieved in implementing the National Energy-Economic Information Systems (SIEN) was reviewed.

During this meeting, representatives of the member countries evaluated the Internet version of the SIEE® and defined the complements for a new module on market management, indicating their interest in having it developed after approval by the Energy Ministries of their countries. Likewise, they evaluated the methodologies for monitoring the quality of SIEE® information, fossil resource forecasting and electric power station dispatch, for which they established criteria to be applied by OLADE.

### OLADE SPONSORS LATIN AMERICAN CULTURE SESSIONS

The 18 embassies of the countries of Latin America and the Caribbean to Ecuador held the First Latin American Culture Sessions in Quito, from October 19 to November 9, 2000, with the sponsorship of OLADE and the Ministries of Foreign Affairs and Education of Ecuador, as well as the Ecuadorian Cultural Center.

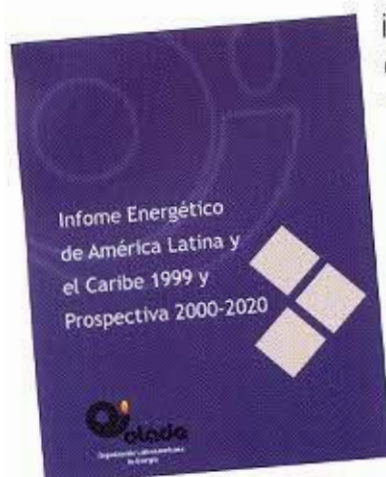
OLADE's Executive Secretary, Dr. Julio Herrera, participated as speaker for one of the panels that were set up for the Cultural Sessions focusing on the subject "Globalization, Integration and National Identities in Latin America."

The Sessions included, among other activities, a series of lectures to which eminent specialists from the region were invited. The speakers tackled various subjects dealing with Latin American events during the 21st century. Likewise, a video projection festival, the donation of a bibliographic collection, and the exhibition of a visual arts show where the participating countries had the opportunity to display samples of their most representative fine arts were a major part of the Sessions.

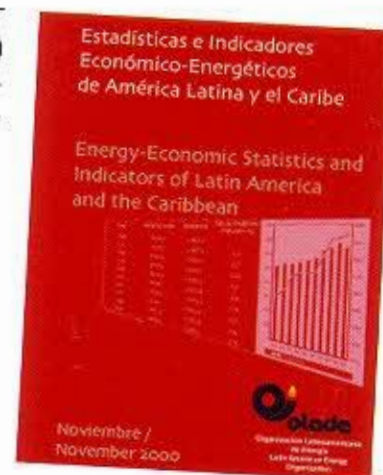


## NEW PUBLICATIONS

OLADE's Permanent Secretariat has published *Energy Report of Latin America and the Caribbean* corresponding to the year 1999 and including a forecasting overview, with the conceptual and qualitative elements characterizing the development of the region's energy sector up to the year 2020. This forecasting overview is provided in two studies prepared by OLADE consultants, Mr. Pedro Antmann, former Vice-Minister of Industry, Energy and Mining of Uruguay, and Mr. Alejandro Jadresic, former Minister-Chairman of the National Energy Commission of Chile.



The statistical compendium *Energy-Economic Statistics and Indicators of Latin America and the Caribbean* was also published by the Permanent Secretariat of OLADE. The contents of this publication, dated November 2000, were drawn from the Energy-Economic Information System (SIEE®) on the basis of data provided by the Member States of the Organization, public and private enterprises involved in energy production and distribution in the countries, international and regional agencies, and multinational companies.



With the *Report* and its statistics, it is possible to confirm that the region's energy sector recorded an increase in terms of supply and demand compared to 1998. The publication also analyzes the performance of different energy indicators in terms of sustainable development, and they indicate a positive evolution in the region, especially those indicators linked to social welfare, the adequate use of energy resources, and self-sufficiency.

The present book provides a detailed breakdown of the most important energy-economic variables in the countries of Latin America and the Caribbean so that the characteristics and evolution of the energy sector of each one of the countries, the different subregions or groups of countries, and the region as a whole can be appreciated easily and on the basis of a standard format.



### ENERGY AND ENVIRONMENT PROJECT

INVITATION TO SUBMIT CANDIDACIES FOR CONSULTANTS  
FOR THE MARKETING OF TRAINING PROGRAMS



In order to consolidate the success of the Master's Degree Program in Energy and the Environment, extend its scope to all countries of Latin America and the Caribbean, and identify funding sources in order to grant scholarships so that future students can study, OLADE and the University of Calgary (Canada) hereby invite individual or corporate consultants to submit their bids for implementing the following study: *Strategy Plan for Marketing the OLADE-University of Calgary Master's Degree Program in Energy and the Environment*.

The bid should be sent to OLADE headquarters by January 31, 2000, with the following:

- Curriculum vitae of the consultant or consulting firm, highlighting knowledge and experience in marketing training programs, preferably in energy and the environment.
- Proposal for a strategic plan to attain objectives, including agenda of activities, timetable, and cost estimates for each activity.

For further information and to send the bids, please contact: Training and Informatics Department, OLADE; phone: (593-2) 293-531; fax: (593-2) 595674, e-mail: [maestria@olade.org.ec](mailto:maestria@olade.org.ec)



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## Seminars

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