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COMMENDATIONS

Center for Energy and Environment Research

PROGRAMS

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& CENTER FOR ENERGY AND ENVIRONMENT RESEARCH

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Center for Energy and Environment Research

PROGRAMS

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COMMENDATIONS

Abstracts of letters related to CEER activities from federal and local Government Agencies and from members of the University of Puerto Rico President's-CEER Senior Advisory Committee are included in this publi

Also because of its importance the address given by Dr. A.

?Trivelpiece, Director of the Office of Energy Research, U.S. Depart-

ment of Energy upon the pi

entation of the Exceptional Public Service

Award to CEER is reproduced here (9-13-82). This address list several

major accomplishments of CER.

January 1983,

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Dr. Alvin Trivelpiece

Director, Office of Energy Research

Presentation of the Department of Energy Exceptional

Public Service Award to the Center for Energy and

Environment Research

September 13, 1982

It is @ personal pleasure for me to be able to take part in National Hispanic Heritage Week by honoring the distinguished work done for the Department and the Nation by a very special organization -- The Center for Energy and Environment Research , known #8 CEER, located at the University of Puerto Rico. On behalf of the Secretary and the Department | would like to welcome the Director of CEER, Dr. Juan A. Bonnet to Washington. I am going to briefly describe CEER, its role, and some of its accomplishments in energy and environmental research.

Something About Its Origin

In 1957, with support provided by the Atomic Energy Commission, under President Eisenhower's Atoms for Peace Program, the University of Puerto Rico established the Puerto Rico Nuclear Center. This new

center carried out many important programs and activities in nuclear science and engineering, nuclear medicine, and environmental and health effects research. 'A whole generation ?of Latin American nuclear scientists received their initial training in nuclear energy and related research at the Center. In 1976, in recognition of the need. to establish ® broadened and comprehensive energy program to support National and Puerto Rico needs, the Nuclear Center was renamed. the Center for Energy and Environment Research. At that time, Research and education programs were initiated in biomass, Solar thermal and Photovoltaics, wind and ocean energy, Waste recycling conservation Fesearch, and in the environmental and health impacts of alternate nergy systems,

Hirst

CEER is unique research institution located in an unparelieled

research environment. Few places in the world offer such a diversity of research opportunities as Puerto Rico. Puerto Rico has rapidly developed into an ideal laboratory for Caribbean and subtropical energy research. | CEER's unique bilingual and bicultural status has contributed to its ability to work on energy research and technology splicing with scientists from many neighboring Latin and South American countries.

Several of the major accomplishments of CEER for the last five or so years are:

(Q) Development of an internationally recognized research program in biomass, with specific emphasis on the use of tropical grasses and Sugar cane in both direct and indirect biomass conversion;

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(2) Discovery of a small snail indigenous to Puerto Rico that has the ability to eliminate the parasitic host which causes schistosomiasis, a dangerous tropical disease all over the world;

(3) Internationally recognized research on the effects of energy development upon tropical marine and rainforest ecosystems;

(4) Development of comprehensive research programs in the practical application of ocean thermal energy, and in the use of solar thermal systems for industrial and agricultural application;

(5) The education and training of hundreds of Latin and South American professionals in nuclear science, nuclear medicine, environmental research and solar energy fields; and

(6) Development of excellent bilingual energy education and training programs, which are now serving as models in several other states,

We believe that CEFR has become the most important Hispanic research center in the United States. We want to recognize the work and accomplishments performed by CEER during the past 25 years. Secretary Edwards will now present the DOE Award for exceptional public service -- to the Director of CER, Dr. Juan A. Bonnet, Jr. -- Mr. Secretary.

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United States

Department of Energy

Award for Exceptional

Public Service

Conferred upon

Center for Energy and Environment Research,

University of Puerto Rico

In recognition of its 25 years of distinguished service to the Nation in the fields of
Nuclear medicine, education, training, and research. Its continuing efforts to
enhance the medical, agricultural, environmental, and scientific research
capabilities in Latin America exemplify the highest commitment to the spirit of
international cooperation and the strengthening of ties with our Latin American
neighbors. This tradition of scientific excellence and dedication to achievement
has continued as the Center turns its attention to the future energy needs of the
Caribbean Basin.

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September 13, 1982

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November 2, 1982

"As a member of the CLER Advisory Committee it has been gratifying to see each year how the programs of CEFR have increased in technological depth and scope, and to observe the solid accomplishments that have been made despite the funding uncertainties that have beset the programs",

the accomplishments of Dr. Alexander's group in developing "energy cane" are particularly notable achievements in biomass production, and the pioneering work of Dr. Sasseor's group in exploring and demonstrating the outstanding promise of Puerto Rico site for ocean thermal energy production also deserves special recognition".

Dr. Wot, Avery

Director

Ocean Energy Program

The Johns Hopkins University

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September 12, 1962

CEER is 1 unique research institution located in an unparalleled research environment. Few places in the world offer such a diversity of research opportunities as Puerto Rico. Puerto Rico has rapidly developed into an ideal laboratory for Caribbean and subtropical energy research. CEER's unique bilingual and bicultural status has contributed to its ability to work on energy research and technology applications with scientists from many neighboring Latin and South American countries?

Presentation of Award

"We believe that CEER has become the most important Hispanic research center in the United States"

Dr. Alvin Trivelpiece

Director

Office of Energy Research

September 3, 1982

I am quite impressed with CEER's Terrestrial Ecology Division. The El Verde Field Station is an invaluable U.S. facility where both DOE and Privately supported environmental research can be conducted. Its location in the Luquillo experimental forest is of considerable historic importance because of the previous rain forest research completed there as part of the AEC program. A solid data base is available on the flora and fauna of the forest and the potential for comprehensive and synthetic research in a number of important areas is greatly facilitated. by Such a situation, Moreover, other rainforest sites are quickly being Perturbed beyond? recovery in the rest of tropical America; the location of the El Verde Station in the protected Caribbean National Forest

insures future researchers continued access to this unique ecosystem.

Dr. Michael R. witlig

Assistant Professor of Biology

Loyola University

New Orleans, LA 70118

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August 23, 1982

FY 1982 APPEAISAL OF BUDGET ACTIVITIES - CEFR

"Enclosed for your information is # copy of the subject appraisal for FY

1962. The appraisal reflects an overall rating of excellent for the per~

formance of budget activities by the CER staif?,

William R. Bibb, Director

Energy Progranis and Support Division

© Department of Energy

Oak Ridge Operations

22 de julio de 1982

"Agradecemos la cooperación de la agencia que usted dirige en el logro de los objetivos del Programa de Empleos de Verano para jóvenes. Su Participación en el programa ha sido de verdadero valor y significado y positivo en el desarrollo vocacional/ocupacional de la Juventud Capitalina?.

Hernin Padilla, M.D.

Alcalde

Municipio de San Juan

April 14, 1981

"This center represents to Puerto Rico and to San Juan, its capital
?city, fountain for leadership, policy formulation, regulation. legislative
action and economic decisions in our government?.

?I candidly support the Center request to continue its operation
resource for Puerto Rico as well as the United States".

Hernin Padilla,
Mayor

.D.

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31 de marzo de 1982

"Keetbinos la copia del Informe Anual de 1961 del Centro para Estudios
Energéticos y Ambientales de la Universidad de Puerto Rico, el cual
encontramos muy interesante y orientador?.

"Consideramos de particular interés para nuestras labores la parte relacionada con los estudios sobre conservación de energía en el campo de la transportación"

Fin y Obras Públicas

Apartado Postal 41269-Minillas Station

Santurce, Puerto Rico 00940

23 de febrero de 1982

Tel. (809) 724-7171

"Estamos convencidos de que el Centro realice un labor de importancia y trascendencia. Es para nosotros un placer colaborar con esta tarea y reiteramos nuestra disposición de asistirle en el futuro?."

Carlos T. Novoa, Director Ejecutivo

Oficina de Planificación y Presupuesto

Municipio de San Juan

San José 181-153-155

Apartado Postal 4355

San Juan, Puerto Rico

Nareh 9, 1982

"CEER has developed a highly marketable technical capability which should be attractive to private sector. In addition, the facility and staff will continue to be available as a resource to the UPR, with potential funding sources including the Government of Puerto Rico and DOE. For example, CEER may be utilized by the Government of Puerto Rico for certain tasks during the final phase of the Territorial Energy Assessment Project being conducted by the DOE, and mandated by P-L. 96-597. This effort is currently underway, and is to be completed by December, 1982",

Rich Neat

Executive Assistant

Intergovernmental Affairs

The White House

Washington, D.C.

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February 7, 1982

"The terrestrial program is in the forefront of research in the tropical rain forest areas. The application of this research will be useful throughout the Caribbean and Central American regions and should make Puerto Rico the central focus of rain forest knowledge".

"The marine program is off to a fine beginning. The kind of information that is being obtained is necessary to protect renewable resources while increasing the development of energy and other types of offshore activities",

Helen S. Cammon, Director

Ecological Research Division

EK-79 Office of Health and

Environmental Research

Office of Energy Research

Washington, D.C. 20545

January 28 and 29, 1982

"The Liomsss Program at CEER, as decribed by Alexander has been exceptionally successful in achieving its Initial objectives and the plunned scivities for the next year or two nre not only well designed, but execution has already begun.

the overall program, expanding from its initial limitation on tropical Grasses, into a broader group of tropical biomass resources, including not only fermentable carbohydrates and lignoeellulose towerd gas. and liquid hydrocarbon production is certainly the best in the Amerigas end probably one of the best in the "

UPR Senior Advisory Committee

on Energy and Environment

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Moy 14, 1981

"We believe that the excellent progress made by the Center over the last several years in developing strong programs in such areas as biomass and bioconversion, solar photovoltaics, conservation, and energy-related research has made the Center competitive with other research laboratories pursuing similar work. Increased efforts must be made, of course, to diversify the base of financial support for the Center including, where possible, increased support from the university itself, the Commonwealth Government, and from private industry. We believe that the Center's past and current accomplishments will significantly aid this diversification?"

N. Douglas Pewitt

Acting Director

Office of Energy Research

U.S. Department of Energy

20 de serge de 1981

Carta del Sr. Pedro Gelabert dirigide sl Hon. Carlos Quirés,
Coordinador Interagencial, La Fortaleza, San Juan, P-R.

"Consideré prudente, por lo tanto, dirigirme a usted ya que estimo que la Inbor que el Centro realiza es encomiable y necesaria pare continuar el funcionamiento de la Junta de Calidad Ambiental y otras agencias gubernamentales",

"En especial, tenemos sumo interés en desarrollar programas integrados en educaci3n, ambiental y en el desarrollo de estindares de calidad ambiental que tomen en consideruci3n les condiciones tropicales de nuestra Isla. Estos proyectos son de alte necesidad no solamente en Puerto Rico, sino en todo el Caribe.

Pedro A. Gelabort

Presidente

Junta de Calidad Ambiental

12 de marzo de 1981

Carta del Dr. Fred V. Soltero Harrington dirigida al Hon. Carlos Quirós, Coordinador Interagencial, La Fortaleza, San Juan, PR.

"Mi participación en este comité me ha permitido apreciar de cerca la muy efectiva labor del Centro para Estudios Energéticos y Ambientales

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(CREA) de la Universidad de Puerto Rico y de los logros obtenidos en la investigación sobre fuentes alternativas de energía de los aspectos ambientales de las mismas?

"Las funciones del CEEA son complementarias a las actividades del Departamento de Recursos Naturales y a las de otras agencias del Gobierno".

"La labor de investigación del CEEA es indispensable para la solución de bienestar de

nuestros. problem

nuestre Puerto

fenergéticos y ambientales y para

leo",

Fred V. Soltero Hasrington, Ph.D.

Svcreturio|

Departomento de Kccursos Naturales

Fepruury 20, 198)

"I want to congratulate you on the quality of work that Don Sasser
aud the Center for Energy and Environment have been deing on the Lan-
ding Craft Vulity (LCU) off the coast of Punta Tuna. ?The uninterrup-
ted supply cf seawater to the heat transfer monitors for the Biofouling
Cerrosion and Materials (BCM) Program has been notable in. OTEC
development?.

"The entire team are to be congratulated for finding @ way to implement your excellent and creative suggestions to Mr. F. Castellon".

William E, Richards:

Acting Director

Division of Ocean Energy Systems

US Department of Energy

10 de febrero de 1981

?Les felicitamos por la excelente labor realizada y les descamos continuados éxitos en sus programas".

Wilson M. Loubriel

Director Bjecutivo

Autoridad de los Puertos

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February 6, 1981

Letter from Dr. Melvin Calvin addressed to Dr. Alex G. Alexander,
Head, Biomass Division, CEER

"I have already told you how much we (the Committee) appreciated your
Presentation last month. How impressed we were at the progress you
have made toward the development of an energy cane (Sordan 11) and
the fact you are beginning a movement toward the operation of « bio=
mass fuel 300 MW power plant",

Dr. Melvin Calvin

Professor of Chemistry

University of California

and Nobel Prize Winner

9 de enero de 1981

?Les felicito por haber alcanzado varias de las metas en los programas de ecología y desarrollo de fuentes alternas de energía. Les exiorte a continua trabajando en busea de soluciones de los programas energete cos y ambientales de nuestra isla?.

Jenaro Collazo Collaxo

Secretario

Departamento de Servicios Sociales

Letter from the Department of Energy addressed to Dr. Ismael Almodsvor, President, University of Puerto Rico.

July 21, 1980

?Lot me say at this point how pleased we are with the substantial progress made by the Center during the past five years in developing and carrying out important energy research and development programs of relevance both to the Commonwesith Government and to the Depart ment?,

?I am also pleased to see that you ere proposing that future financial Support of the Center's core ?ectivities be provided jointly by the University and the Commonwealth. We have always viewed such support as essential to the future of the Center.

Edward F. Frieman

Director of Energy Research

US Department of Energy

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14 de julio de 1980

"Con relación a to Segunda Semana de la Conservación de Energia,
aprovechamos lo geasién para reiterarle nuestro agradecimiento por? si
Valiosa colaboracién en esta actividad, que ha sido de enorme utilidad
para todos".

Sra, Octavia Maldonado Pons

Coordinadora, Programa de Gobierno

Oficina de Energia de Puerto Rico

February 26, 1980

?Upon evaluating your preliminary report entitled "Research and Development Program Needs for Energy Alternatives in Puerto Rico" we agree that the Center role should appropriately redefined so as to enable it to perform the research and development program for attaining Puerto Rico's energy independence. We are aware of course that in order to fulfil this expanded role the Center will more probably require additional funding.?

Eng. José Marina, Director
Planning and Engineering
Puerto Rico Electric Power Authority

February 7, 1980

"I believe that an organization such as CEER devoted primarily to researching energy problems of the area, is vital, and should continue to exist in the future?.

Dr. Derek P. Gregory
Vice President

Engineering Research

Institute of Gas Technology

February 4, 1986

Letter from Prof. David M. Gates addressed to Dr. Gary H,
Toenniesen, The Rockefeller Foundation

"I have served for three and @ half years on the Advisory Committee to
CEER (Center for Energy and Environment Research), University of
Puerto Rico.

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They are dedicated...to resolve some of the environmental problems and
economic dilemmas of Puerto Rico at the same time.

"Their intent as a commonwealth is eventually to become energy self-
sufficient and at the same time to protect their environments a task
which is not easy nor until now has it been obvious how to accomplish
this goal. But a number of events have transpired which are signifi-
cant and "change the picture".

"They have off the shores of Puerto Rico at Punta Tuna the finest site
in the world for OLEC (Ocean Thermal Energy Conversion)

"...they have affiliated with CEER a USDA-supported plant physiologist by the name of A.G. Alexander who has been testing and breeding strains of sugar cane for energy production...He has had great success

"Puerto Rico also has one of the few tropical rainforests within U.S. territory, @ rainforest which has been much studied but which should be truly a national center,

?During the last year Dr. Laurence Tilly has joined CEER as Director of all ecological and environmental programs. He is a first-rate scientist with particular expertise in Limnology.?

Work in Puerto Rico are energy projects, agricultural projects, and environmental projects all together at one time.

Prof. David M. Gates

Professor of Botany

University of Michigan

February 4, 1980

?My Department of Energy colleagues are all impressed with the progress being made in many of the Key areas and we look forward to assisting you in the next phases of the Center's activities.?

Richard E. Stephens, Director

Division of Institutional Programs

Office of Energy Research

US Department of Energy

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19 de septiembre de 1979

"Esta Junta considera que el gobierno de Puerto Rico debe prestarle atención prioritaria a la problemática energética desde la perspectiva de la investigación científica. La investigación científica esté dirigida al desarrollo de fuentes alternativas de energía constituye la garantía y el arma más efectiva para continuar el desarrollo obtenido y alcanzar las metas de bienestar social. Entendemos que el CEEA esté llevando a cabo un gran esfuerzo de investigación con el propósito de buscar alternativas que permitan que Puerto Rico se libere total o parcialmente de la dependencia energética prevaiente.?

"Por Giltimo se les recomienda que se explore la alternative de que la Oficina de Puerto Rico aporte fondos 4 los programas de investigaci3n y esarrollo del CEEA.?"

Leco. Niguel A. Rivera Rios

Presidente, Junte de Plenificaci3n de P.R.

August 3, 1979

"As a result of our meeting and other discussion, members of the Oversight Committee have indicated satisfaction with? the progress made by the CEER during the current program year despite funding limitations,

und deferrals. We believe that e strong foundation has been laid for
future year accomplishments.?

Toni Grayson Joseph

Associate Director for

Field Operations Management

Office of Energy Research

US Department of Energy

October 10, 1978

"Good progress has been made in the last twelve months in developing
stronger, ?more comprehensive conservation RAD program focused ?on
specific Commonwealth needs and problems,"

"This (Solar Technology) remains a strong research area in the overall
program."

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"In conclusion, the Oversight Committee is again pleased to see the progress being made in the individual CEER research program,?"

Joe! Snow

?Associate Director for Research Policy

Office of Energy: Research

US Department of Energy

July 26, 197%

"We've been extremely pleased with the progress you and your colleagues have been making this year, and sincerely hope that the new funding level will at least allow continued, if not improved, progress next year.?"

Joe! Snow

?Associate Director for Research Policy

Office of Energy Research

US Department of Energy

March 20, 1978

"I am particularly optimistic for the prospect of the Center to become an international center of environmental research and training for Latin America."

Jeff Swinebroad, Manager

Environmental Programs

Division of Biomedical and

Environmental Research

US Department of Energy

December 1977

"...we are again pleased to see continuing progress in the evolution of the Center into a comprehensive energy research and education resource both for the University of Puerto Rico and the Commonwealth Government.?"

"...we are again pleased to see good progress continuing in the various Center programs and look forward to working closely with you and your associates throughout the transition period."

Joo! Snow

?Associate Director for Research Policy

Office of Energy Research

US Department of Energy

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