



BABSON
COLLEGE



PUERTO RICO
CONFERENCE
Entrepreneurship for Growth

2010

March 24, 2010 | Conrad San Juan Condado Plaza | 7:30 a.m. - 5:00 p.m.

P u e r t o R i c o C h a m b e r o f C o m m e r c e

Puerto Rico Conference: Entrepreneurship for Growth

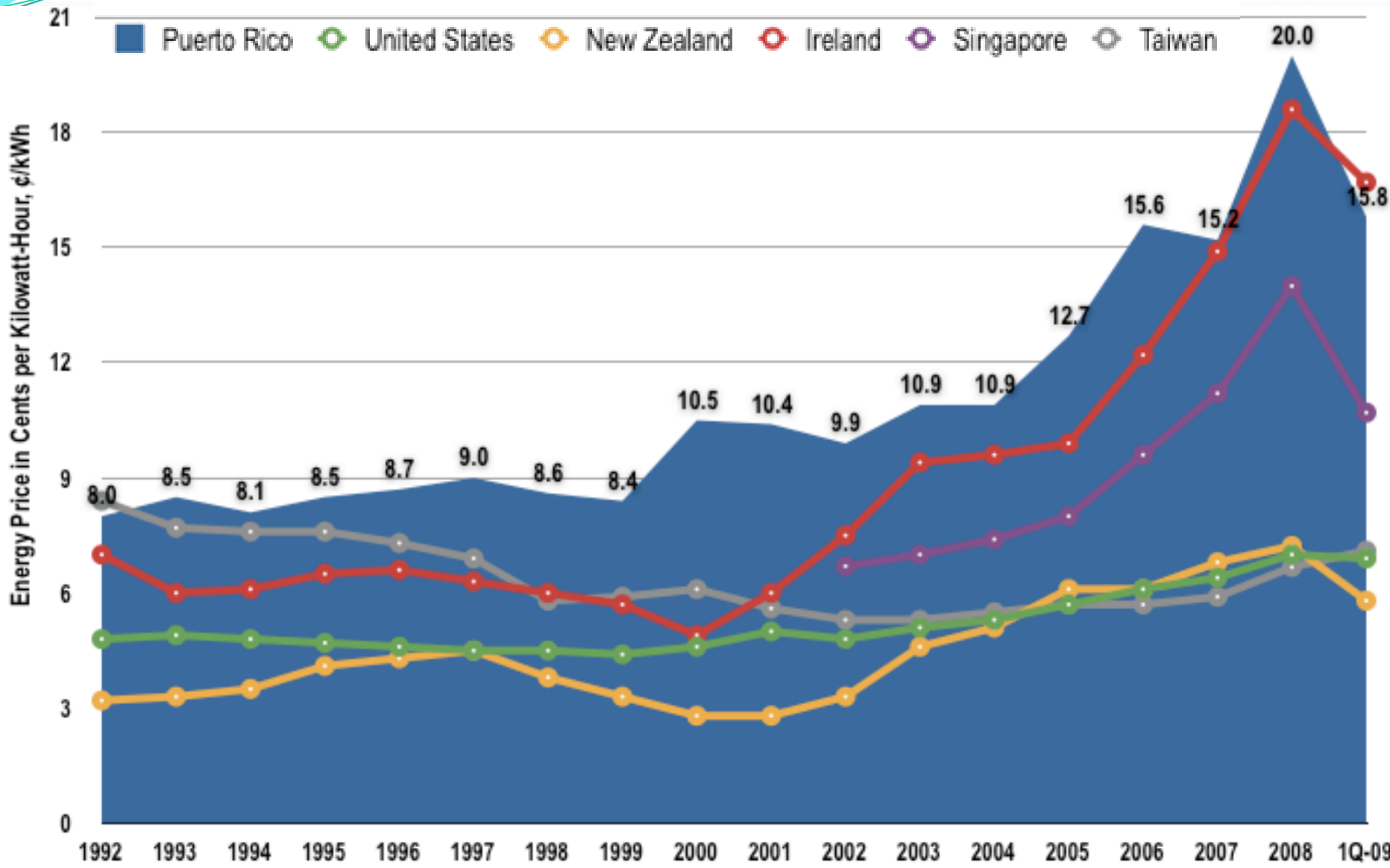


Josen Rossi
Chairman of the Board
Puerto Rico Manufacturers Association

March 24, 2010



Industrial Energy Price Gaps: Puerto Rico vs. Selected Countries, from 1992 to 1Q-2009



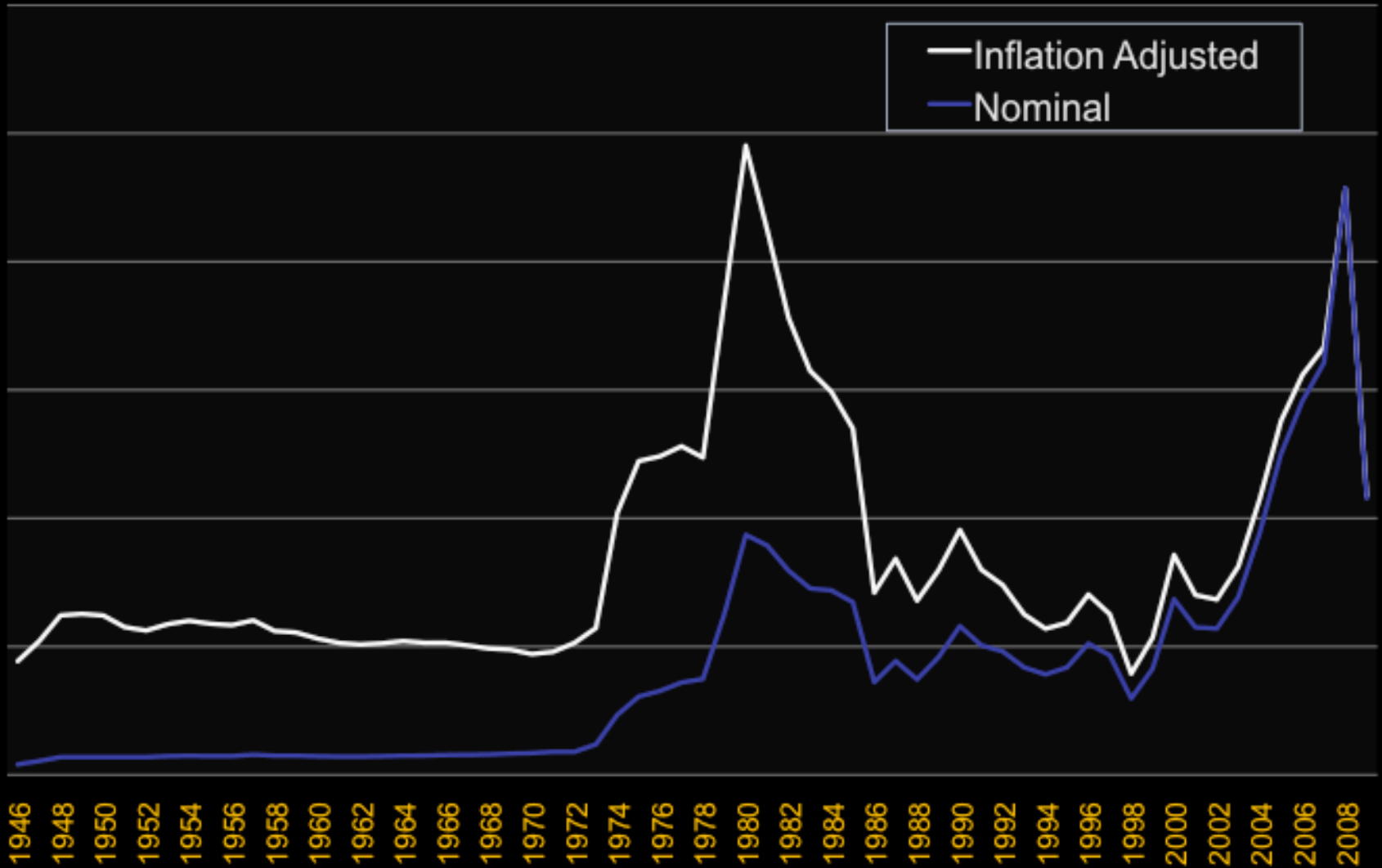
Sources: P.R. Electric Power Authority, U.S. Energy Information Administration, International Energy Agency

Why PRENEC?



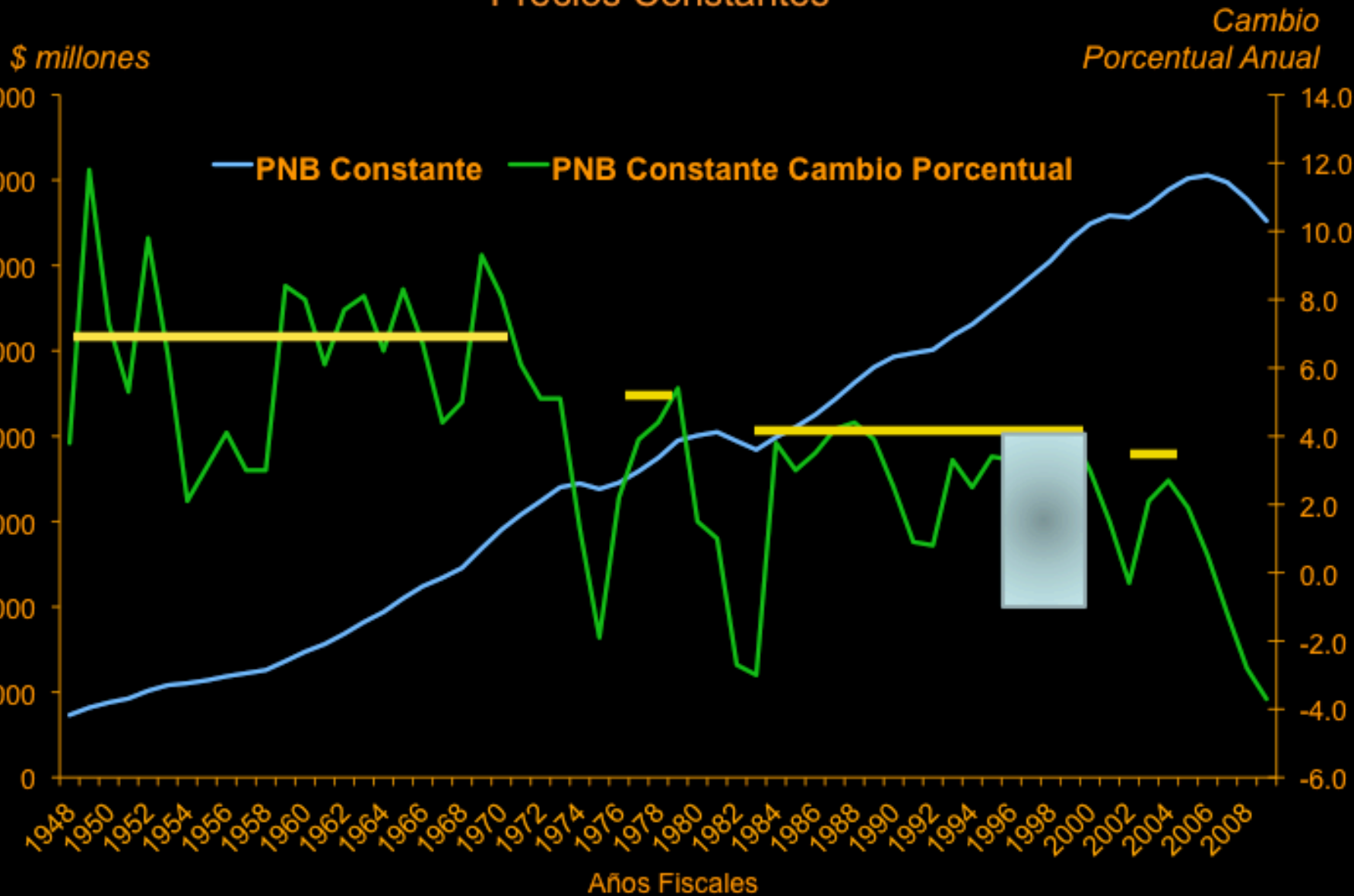
Precios Promedio Petróleo Crudo

1946- 2009



Producto Nacional Bruto

Precios Constantes



Selected Recent History of Electric Public Policy in Puerto Rico

- **1993** :: Local Energy Public Policy is renewed under the Administration of Energy Issues within the Dept. of Natural & Environmental Resources.
- **2008** :: Law 73 of Economic Incentives mandates wheeling in the electric system, and Law 248 provides tax credits for PV installation investments.
- **2009** :: (July) Governor's Executive Order instates an Energy Public Policy Committee (CPPE) to renew said policy; the CPPE "Comité de Política Pública Energética"

Current Issues

Electric Public Policy in Puerto Rico

- CPPE & Governor's Plans 2010
 - \$300m Green Energy Fund legislation (approx. 200 MW)
 - Wheeling Regulations
 - Independent Energy Regulator
- PREPA Plans 2015
 - Gas generation (Costa Sur & Aguirre)
 - 12% Renewables Portfolio 2015 (70 MW?)
 - 15% 2020?
- Legislative Projects:
 - **PC 1184** to form a regulatory entity for all public services
 - **PS 679** for green energy credits and standards

Why PRENEC?

- 2009 :: ARRA authorizes funding for both public & private energy efficiency, renewable energy and electric system initiatives.

Program Type	Authorized (\$K)
Energy Efficiency and Renewable Energy	16,763,908
Environmental Management	6,000,000
Electricity Delivery and Energy Reliability	4,495,152
Fossil Energy	3,396,445
Science	1,635,640
Advanced Research Projects in Energy	388,856
Departmental Administration	42,000
Western Area Power Administration	10,000
Energy Information Administration	8,000
Total	32,740,001

- Total awarded to Puerto Rico from formula grants: **\$119.2M**.
None (**\$ 0**) received in competitive grants vs. U.S. **\$16 B**

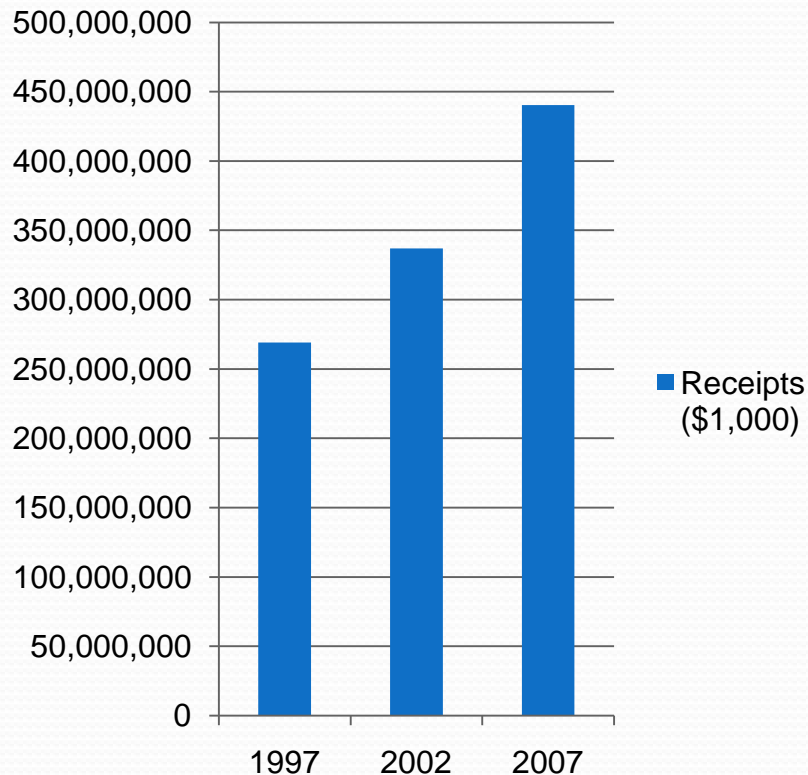
Why PRENEC?

- Green Jobs per Energy Type

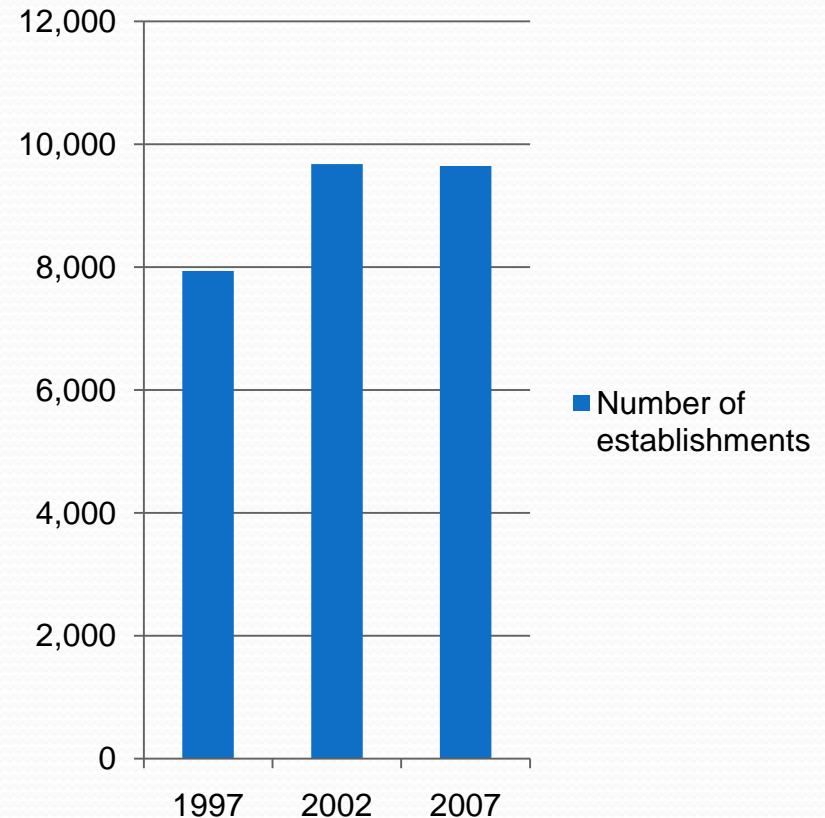
Energy Technology	Source of Estimate	Average Employment Over Life of Facility (jobs/MW _a)		
		Construction, Manufacturing, Installation	O&M and fuel processing	Total Employment
PV 1	REPP, 2001	6.21	1.20	7.41
PV 2	Greenpeace, 2001	5.76	4.80	10.56
Wind 1	REPP, 2001	0.43	0.27	0.71
Wind 2	EWEA/Greenpeace, 2003	2.51	0.27	2.79
Biomass – high estimate	REPP, 2001	0.40	2.44	2.84
Biomass – low estimate	REPP, 2001	0.40	0.38	0.78
Coal	REPP, 2001	0.27	0.74	1.01
Gas	Kammen, from REPP, 2001; CALPIRG, 2003; BLS, 2004	0.25	0.70	0.95

Telecommunications Industry

**Receipts
(\$1,000)**

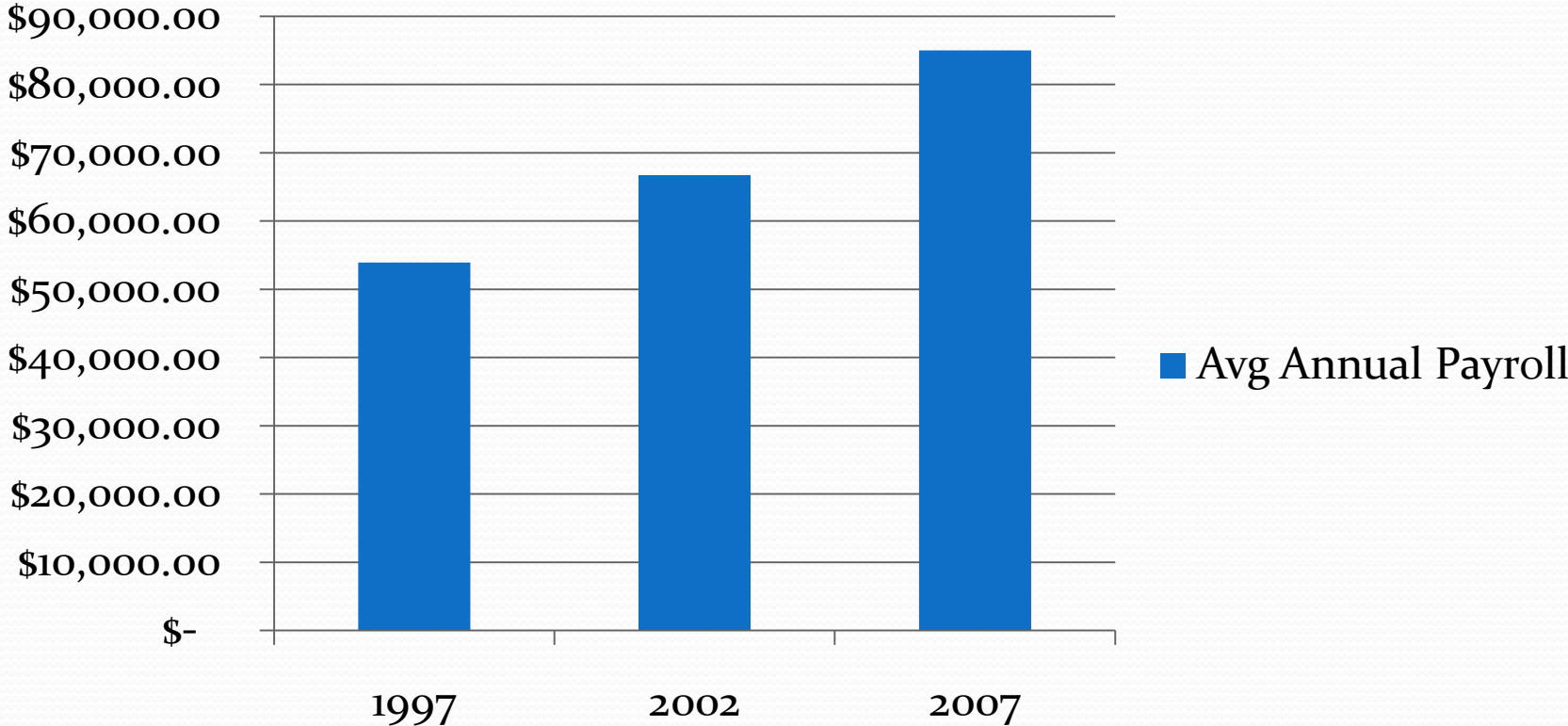


Number of establishments



Telecommunications Industry

Avg Annual Payroll



Clusters: A definition

Unlike an association or coalition, clusters are networks of production formed by organizations that include academia, government, manufacturing and services, linked to each other in a value-added production chain.

A cluster draws resources from its members to drive systematic industry change and growth through continuous innovation.

Main Distinctions between Cluster Characteristics and Networks

Enterprise Clusters

- Clusters have open membership.
- Clusters require competition.
- Clusters have collective visions, including public interest.

Business Networks

- Networks have restricted membership.
- Networks are based on co-operation.
- Networks have common business goals.

PRENEC

- Not-for-profit organization, funded in 2009 with PRMA \$8,000 grant
- Memberships and grants from the academia, government and private entities (\$100,000 projected)
- Committed to urgent formulation of expert and transparently fashioned electric energy industry legislation and regulations relevant to PR, with world class standards

Initiatives



Energy
Committee
(CCPR)



Energy
Committee
(CIAPR)



Wind
Alliance
(USGBC,
AAE)



CPPE
(DDEC,
AAE, AEE,
BGF)



PREC
(INTECO,
SUAGM)



PRIEN



**PUERTO RICO
ENERGY CLUSTER**

Members

- Aireko Construction Co.
- Puerto Rico Manufacturers Association
- Autoridad de Acueductos y Alcantarillados
- Caribbean Produce Exchange, Inc.
- Caribbean Project Management, PC
- Center for the New Economy
- Danosa Caribbean, Inc.
- Destilería Serrallés
- Deya Elevators, Inc.
- EcoEléctrica, L.P.
- Energios Corp.
- Energy Products & Engineering Corp.
- General Electric International, Inc.
- GFR Services, Inc. (Grupo Ferré Rangel)
- Gilbert Greene Group
- Glenn International
- Goldman, Antonetti & Córdova, PSC
- Grupo Guayacán, Inc.
- Hewlett-Packard Caribe, B.V.
- Honeywell International, Inc.
- INTEC Eólico de Puerto Rico, Inc.
- INTECO
- Lluch Fire & Safety
- Luis A. Ayala Colón Sucrs., Inc. (AYACOL)
- Luis Cintrón
- Mario Gaztambide
- Municipio de Bayamón
- MechTech College
- Multicultural Ventures, Inc.
- Nachman & Guillemard Law Offices
- Oriental Group
- Pevafersa América
- Pierluisi Law Offices, PSC
- Rafael J. Nido, Inc.
- Sistema Universitario Ana G. Méndez
- SunEdison
- UBM Engineering Services
- Validation & Engineering Group, Inc.
- Wal-Mart Puerto Rico, Inc.

Commitments

- Agrait Law Offices, PSC
- Alproem Engineering Services
- AZ Engineering
- Beta Group
- Cancio, Nadal, Rivera & Díaz, PSC
- CL&C Insurance Brokers
- Columbia College
- Commissioning Agents, Inc.
- CSA Group
- Desarrollos Metropolitanos
- Empresas Nidco
- Empresas VRM
- Fiddler González
- Generans Bioventures (William Lockwood)
- ICPR Junior College
- IEDIFIKO
- J. Saad Nazer, Inc.
- Master Product Group
- McConnell Valdés
- Municipio de Caguas
- Municipio de Carolina
- Novartis
- PACIV
- Prisa Group
- South American Restaurants Corp.
- Universal Solar
- Vernet, Inc.

“There is no energy crisis, only a crisis of ignorance.”

R. Buckminster Fuller

Contact Us

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