



2013

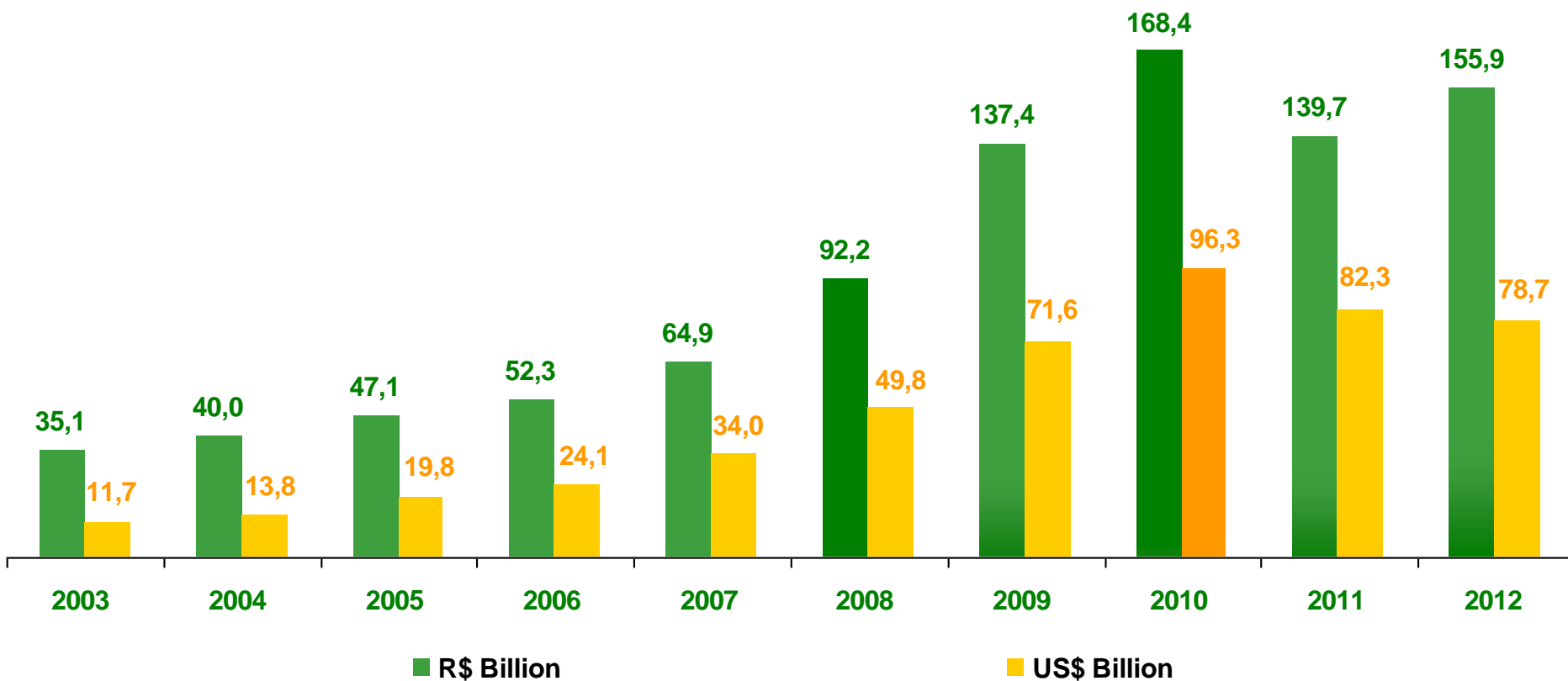
BNDES and Renewables



Annual Disbursements



Converted to US dollar on the disbursement dates



Average growth of 22% in disbursements during the 2008 – 2012 period

BNDES vs. Multilateral Banks



US\$ million	BNDES	IDB	IBRD	CAF	China DB
	<i>Dec 31st, 2011</i>	<i>Jun 30th, 2011</i>	<i>Jun 30th, 2011</i>	<i>Dec 31st, 2011</i>	<i>Dec 31st, 2010</i>
Total Assets	369.720	89.432	312.848	21.535	774.180
Shareholders' Equity	36.102	19.794	38.679	6.351	60.953
Net Income	5.354	20	930	152	5.618
Loan Disbursements	82.676	8.400	21.839	7.694	86.690
Capitalization	9,76%	22,13%	12,36%	29,49%	7,9%
ROA (%)	1,65	0,02	0,30	0,71	0,8
ROE (%)	23,12	0,10	2,40	2,39	9,5
Established	1952	1959	1945	1968	1994

IDB = Inter-American Development Bank

IBRD = The International Bank for Reconstruction and Development (World Bank)

(*) Unlike other institutions, 12-month fiscal year ends June 30th

CAF = Corporación Andina de Fomento

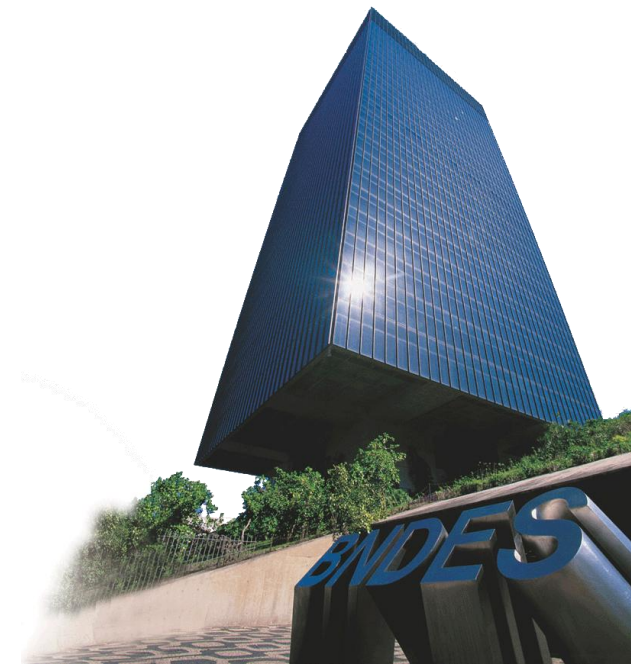
CDB = China Development Bank

Capitalization = Shareholders' Equity / Total Assets

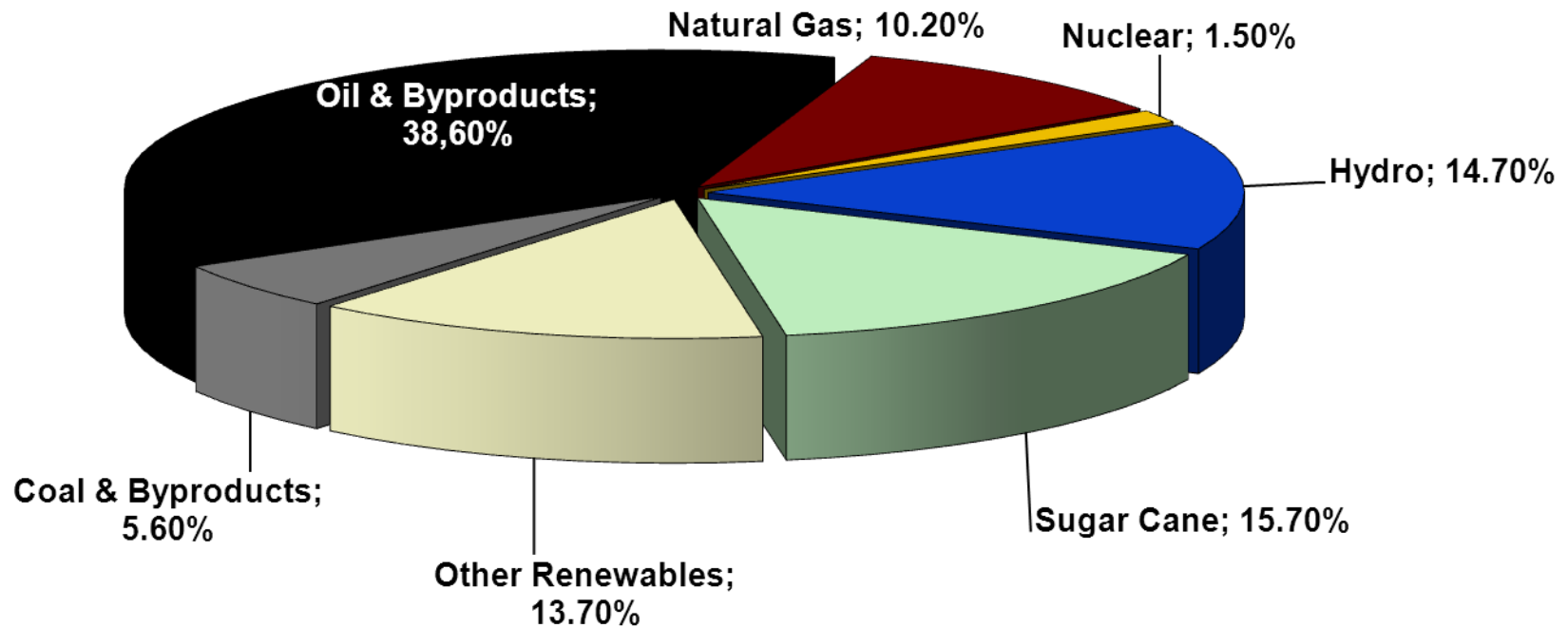
ROA = Return On average Assets

ROE = Return On average Equity

Brazilian Power Sector



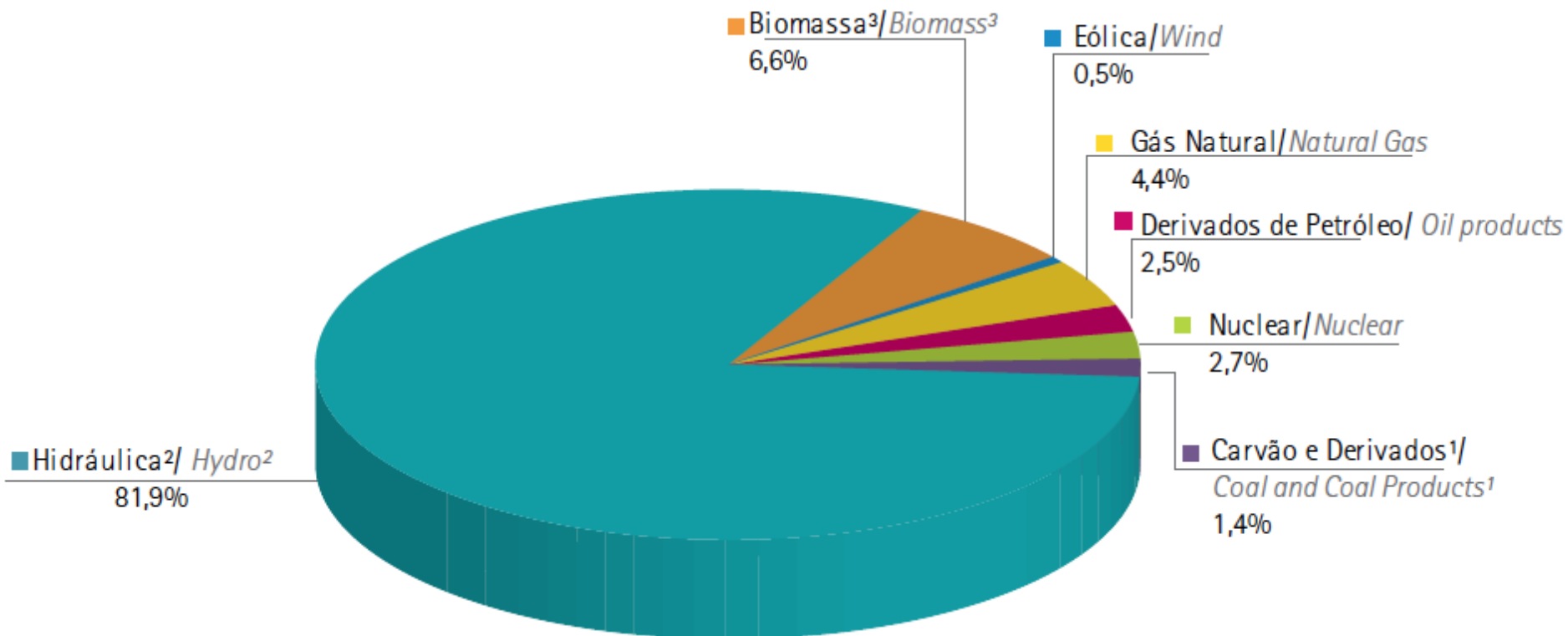
In Brazil, 49,7% of the domestic supply of energy comes from renewable sources, while the world average is 13% and the average of developed countries is only 6%.



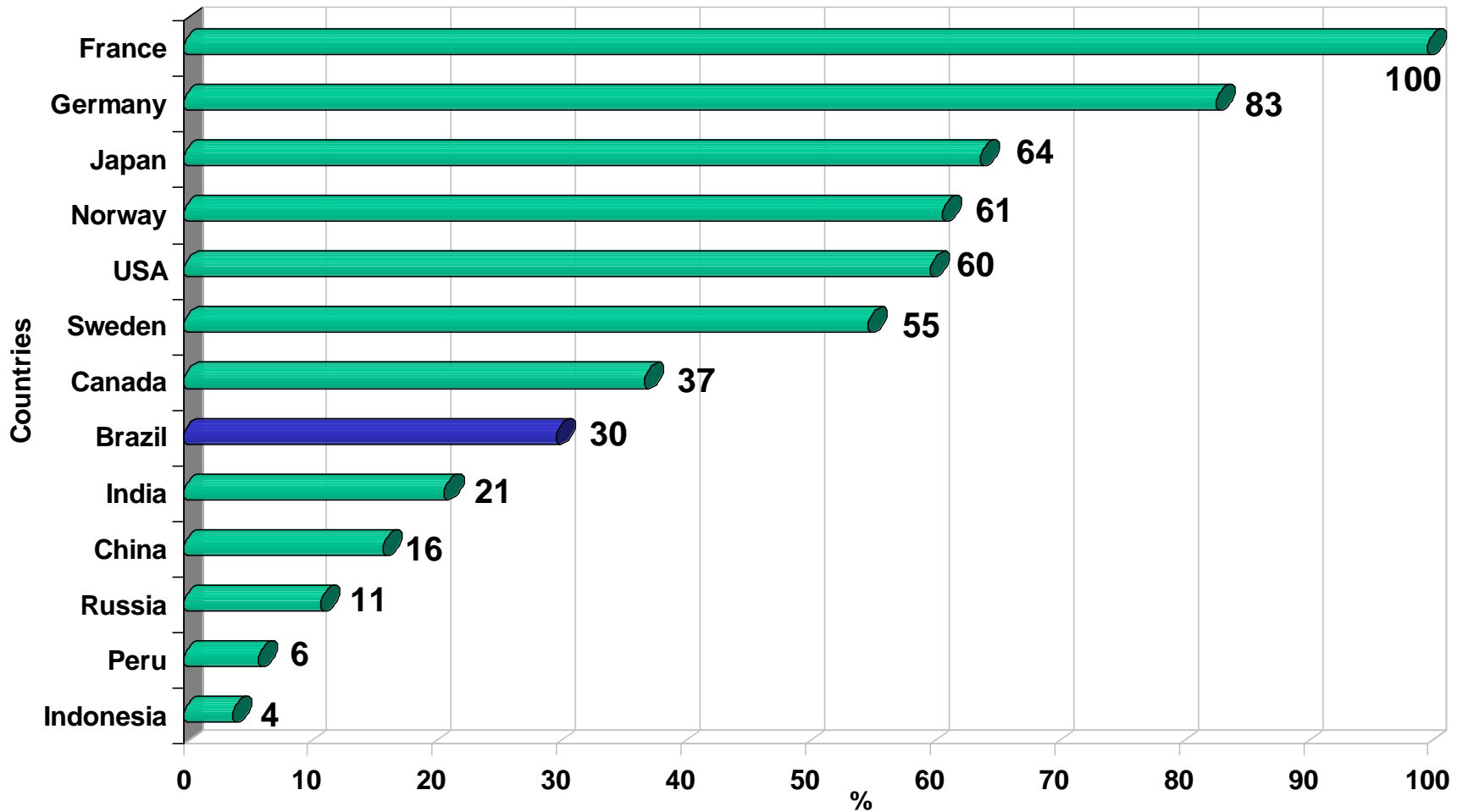
Source: Mining and Energy Ministry (Brazil, 2011)

Brazilian Power Capacity

Sources	Brazil 2011	World 2009
Renewables	89%	19.0%
Non-renewables	11%	81.0%



Hydroelectric Potential in the World (% of the potential in use)



Source : EPE

- Hydrothermal condominium system: its centralized operation is responsible for an economy of 20% of the total power capacity
- Long distance between centers of production and of consumption requires extensive transmission lines
- 69,5% of the reservoirs are located in the region of three states, in the basin of the rivers Grande and Paranaíba
- Existence of isolated systems at the Northern and Midwestern regions, covered by thermos
- Only about 1/3 of the hydro power capacity is in use until now.

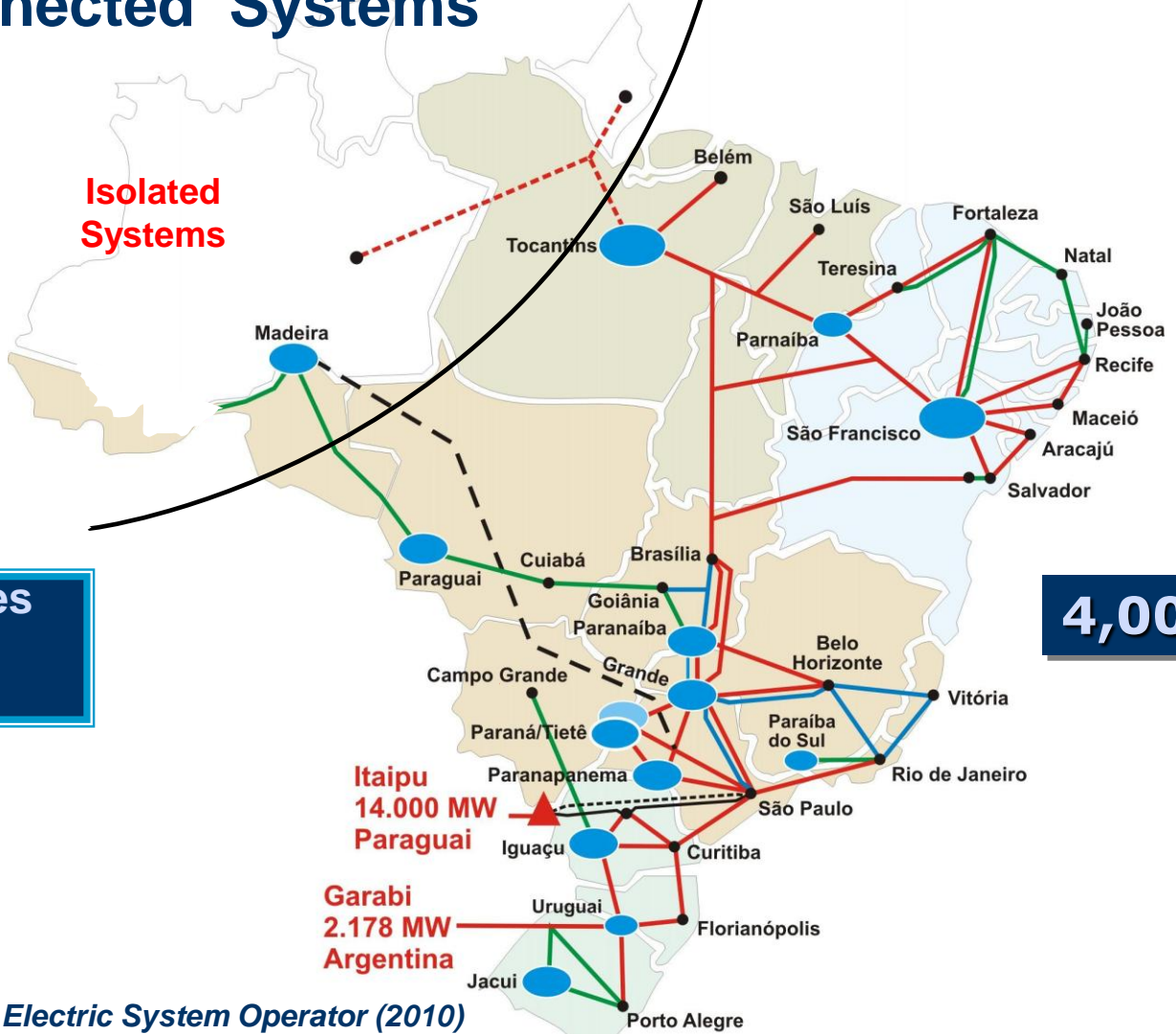
Interconnected Systems

Interconnected System

Isolated Systems

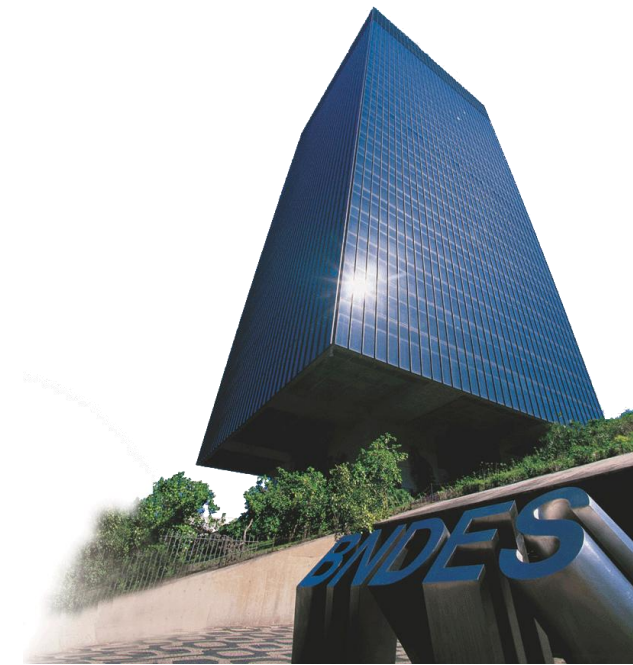
Transmission Lines
100.000 km

4,000 km



Source : National Electric System Operator (2010)

BNDES Support to Power Sector



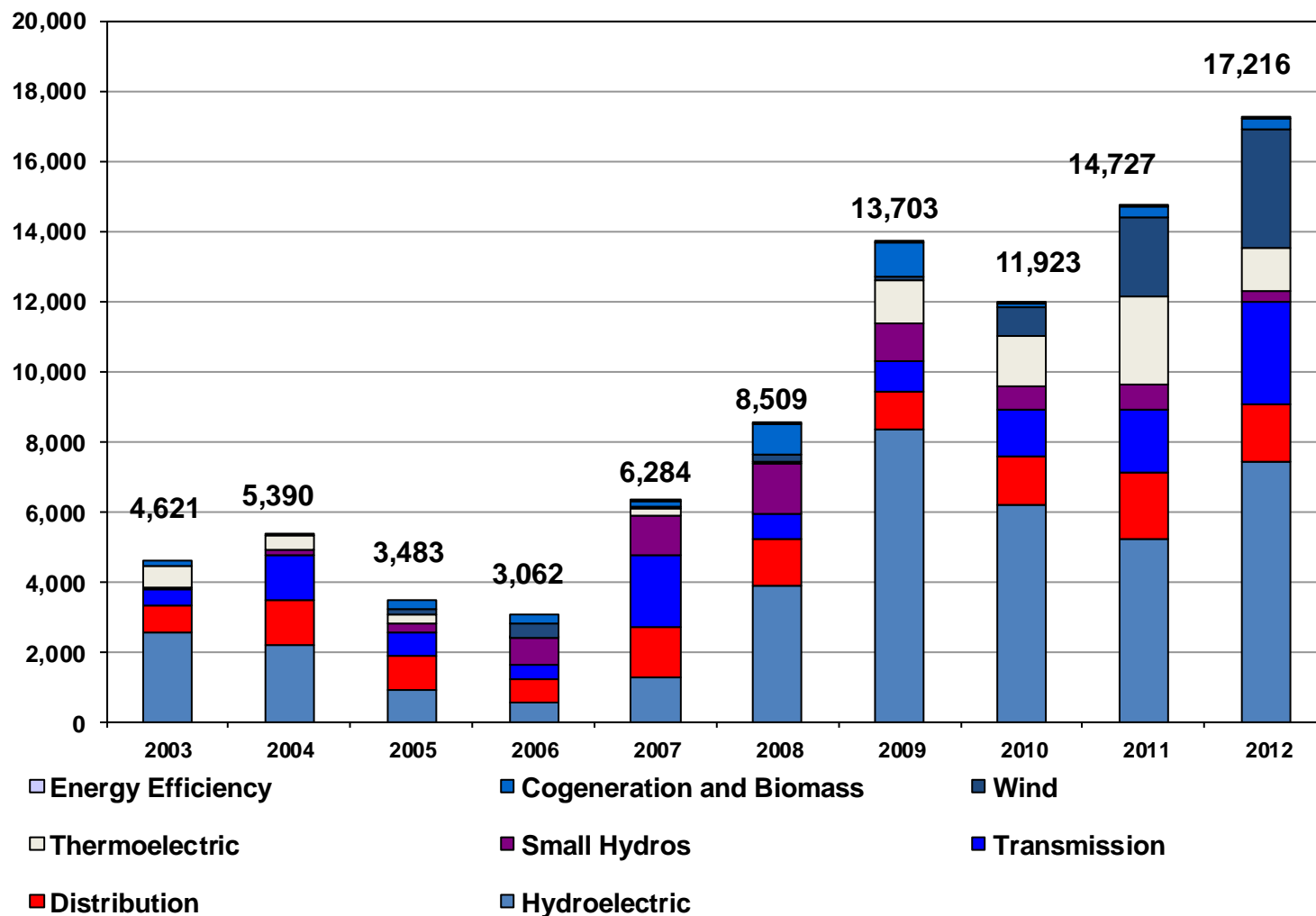
Electrical Power Industry: Approved Operations - 2003 to 2012



Segment	Capacity	Projects	BNDES R\$ Million	Investment R\$ Million
1. Generation (MW)	47,039	353	92,859	149,779
Hydro (>30 MW)	32,955	47	59,720	94,435
Thermal	6,056	16	12,737	24,237
Hydro (< 30 MW)	2,253	116	7,424	11,310
Biomass & Cogeneration	1,959	44	3,422	4,610
Wind	3,815	130	9,557	15,188
2. Transmission (Km)	26,922	86	14,858	29,845
3. Distribution		77	13,952	24,028
4. Energy Efficiency		19	101	133
TOTAL		535	121,770	203,786

Disbursements for Electrical Power Projects (2003 to 2012)

Figures in R\$ million



Largest Electrical Power Projects in BNDES (since 2007)



in R\$ million

Projects	BNDES Support	Investment	MW
Belo Monte	22,500	28,869	11,233
Jirau	9,545	15,702	3,750
Santo Antônio	8,129	17,813	3,569
Angra III	6,146	10,488	1,405
Estreito	2,661	3,607	1,087
Fóz do Chapeço	1,656	2,207	855
Simplício	1,034	1,667	334
Mauá	739	991	361
Serra do Facão	588	850	213
Caçu e Barra dos Coqueiros	543	694	155
Dardanelos	485	755	261
Salto	290	407	108
Salto do Rio Verdinho	250	342	93
TOTAL	54,567	84,391	23,424

Project Finance - Financing a specific project, not the company's business as a whole. Segregate the project costs, revenues and risks in a Special Proposed Company (SPC).

Requirements of a Project Finance:

- ✓ Creation of a Special Proposed Company (SPC);
- ✓ Different collaterals between the implementation and operational phases;
- ✓ Pledge of all future revenues to the loan providers;
- ✓ Project cash flow supports the loan installments - Debt Cover Ratio (DCR) greater or equal to 1.20;
- ✓ Shareholder's equity consistent with project's risk and return.



BNDES

*Brazilian
development bank*

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