



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 11

October 2008

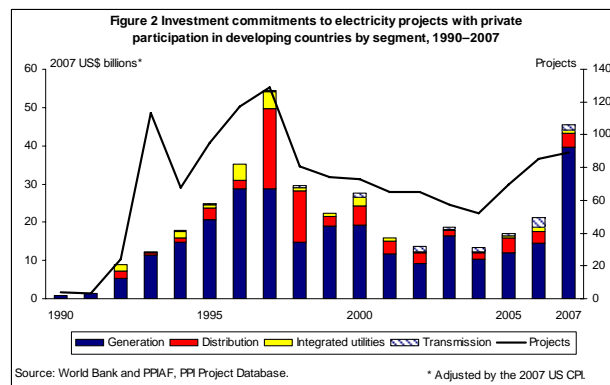
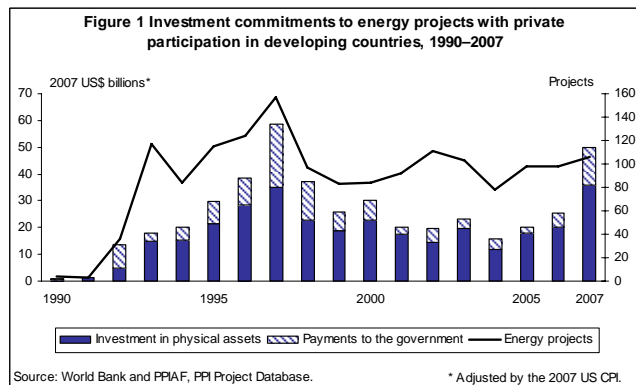
Investment commitments to energy doubled in 2007

In 2007 investment commitments to energy projects with private participation almost doubled in real terms compared with the activity in 2006, according to just-released data from the Private Participation in Infrastructure Project Database.¹ The number of new energy projects grew by 8%.

The 107 new energy projects with private participation that reached financial or contractual closure in 2007 involve investment commitments (hereafter, *investment*) of about US\$39.8 billion, in 30 low- and middle-income countries.² In addition, energy projects implemented in 1990–2006 attracted new investment of US\$10.2 billion, bringing total investment commitments to US\$50 billion.

The strong recovery was driven by investment in physical assets, which grew by almost 80% in real terms, to US\$36.2 billion, a new peak for 1990–2007 (figure 1). Payments to the government (such as concession or lease fees and divestiture revenues) grew to US\$13.8 billion, returning to levels not seen since the late 1990s.

Electricity investment accounted for most of the growth, rising by 110% to US\$45.7 billion, while natural gas investment remained at around US\$4 billion. Within electricity, generation had the largest share, attracting US\$39.7 billion (figure 2). Most of the remaining investment was directed to electricity distribution utilities (US\$3.6 billion), natural gas transmission (US\$3.5 billion), electricity transmission (US\$1.4 billion), integrated utilities (US\$0.9 billion), and natural gas distribution (US\$0.8 billion).



This note was produced by Ada Karina Izaguirre, infrastructure specialist, and Alfiya Mirzagalyamova, consultant, Finance, Economics, and Urban Development Department, Sustainable Development Network, World Bank.

¹ Energy includes electricity generation, transmission, and distribution as well as natural gas transmission and distribution. Other energy businesses are not included in the PPI Project Database.

² Data on energy contracts include primarily medium-size and large projects as reported by the media and other public sources. Small-scale projects are generally not included because of a lack of public information. Other contracts may have been omitted for the same reason. The Czech Republic and Estonia became high-income countries according to the 2007 World Bank country classification (released in July 2007) and therefore are excluded from the PPI Project Database.

The projects reaching financial or contractual closure in 2007 reflect a similar distribution, with 79 of the 107 contracts being for power plants. Of those contracts, 59 are for greenfield power plants (26 build-operate-transfer [BOT] contracts, 22 build-own-operate [BOO] contracts, 8 merchant projects, and 3 rental contracts), accounting for almost 17,000 megawatts (MW) and investment of US\$20.8 billion. The other power plant contracts are 19 divestitures, involving 32,000 MW and investment of US\$13.3 billion, and a concession for a 125-MW power plant.

The remaining contracts are for electricity transmission (2 BOT projects involving 500 kilometers [km] and a partial divestiture of Power Grid Corporation of India), electricity distribution (8 divested utilities with 3.5 million connections, serving a population of 7 million), natural gas distribution (7 concessions and 7 BOT projects, for US\$400 million), and natural gas transmission (a partial divestiture and 2 BOO projects, for a total of US\$3.6 billion).

Activity by region. New private activity was concentrated in a few countries in 2007. Two countries—the Russian Federation and India—accounted for half the investment and 25% of the new projects. The top five—with Brazil, the Philippines, and Romania added to the list—attracted 75% of the investment and 33% of the new projects. This concentration of investment is higher than in the previous four years, when the top five countries accounted for 60% of annual investment. The following paragraphs summarize new projects (see table 1 for a list of the projects).

In *East Asia* five countries saw new projects. China signed 28 contracts, involving investment of US\$2 billion. Of these contracts, 16 are for electricity generation (15 wind power plants and 1 waste-to-energy project, with a total capacity of 810 MW). Another 12 are for natural gas distribution, with 4 of these having a total population of 1.2 million in their service areas. Cambodia signed three BOT contracts—for two hydropower plants (313 MW) and an electricity transmission project (302 km). Indonesia began construction of a new, 200-MW coal-fired power plant under a BOO contract. The Philippines finalized the sale of two power plants (the Magat hydroelectric plant and Masbate power plant) and implemented a new coal-fired plant in Cebu Province, involving a total of 573 MW. Vietnam partially divested three power plants and implemented a BOT project for a hydropower plant—projects totaling 660 MW.

In *Europe and Central Asia* new projects were reported in six countries. Russia divested five generating companies with a total installed capacity of 25,000 MW and six electricity distribution companies, three of them serving 2.6 million connections and the other three having 7.1 million people in their service areas. Proceeds from the divestitures amounted to US\$11 billion. In addition, Russia implemented two power plants under BOO schemes with a total of 680 MW. Bosnia and Herzegovina began constructing the 410-MW Stanari thermal power plant. Bulgaria divested the 400-MW Ruse thermal power plant and Slanchev Briag Electricity Distribution Company, with 3,000 connections. Georgia divested its national electricity distribution company (including the Adjara region), which serves 875,000 connections, and nine hydropower plants with a total installed capacity of 409 MW. Romania sold through its local stock exchange 10% of Transgaz, the state-owned natural gas transmission company. Turkey implemented two new natural gas distribution projects (one in Gaziantep and the other in Trakya).

In *Latin America* eight countries implemented new projects. Brazil closed on financing for five new hydropower plants with a total capacity of 2,078 MW and investment of US\$3.4 billion. Chile secured financing for two projects: the 158-MW La Confluencia hydropower plant and a 204-km electricity transmission line. Colombia sold through its local stock exchange 20% of Isagen, its state-owned electricity generation company, and divested the 52-MW hidroprado hydropower plant. Guatemala began construction of the 94-MW Xacbal hydropower plant. Mexico did the same for the 450-MW Norte I power plant. Nicaragua secured financing for the 40-MW Eolico Amayo wind farm. Panama started construction of the 223-MW Changuinola hydropower plant and secured financing for the 81-MW Sante Fe wind farm. Peru implemented the 210-MW El Platanal hydropower plant.

In the *Middle East and North Africa* four countries saw new projects. Jordan divested 51% of the state-owned Central Electricity Generating Company and secured financing for the 370-MW Amman East Power Project. Iraq implemented Erbil Power Plant (500 MW). The Arab Republic of Egypt secured financing for the 88-km East Mediterranean gas pipeline from Al-Arish (Egypt) to Ashqelon (Israel).

Oman closed on financing for Barka II, a combined power plant (678 MW) and desalination facility (120,000 cubic meters a year)

In *South Asia* two countries had new projects. India closed on financing for 12 new power plants with a capacity of 8,609 MW and investment of US\$9.7 billion. The plants are to be located in several states: Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh, and Uttarakhand. India also sold, through its local stock exchange, 13.6% of Power Grid Corporation of India, the country's electricity transmission company. And the country ensured funding for the east-west gas pipeline. Pakistan closed on financing for five generation plants with a total installed capacity of 1,015 MW.

In *Sub-Saharan Africa* five countries had private activity reported. Gabon signed a rental contract for emergency power plants in Bellevue and Owendo with a total capacity of 30 MW. Ghana signed a 20-year concession contract for the 125-MW Osagyefo Power Barge. Nigeria sold a 51% stake in the 1,320-MW Egbin power plant to KEPCO. Sierra Leone signed a rental contract for a 15-MW emergency power plant in Freetown. Uganda closed on financing for the 250-MW Bujagali hydropower plant, for which a BOT contract was awarded in 2005 to a consortium led by the U.S. Sithe Global Power.

Potential new projects. Besides the 106 projects reaching closure in 2007, at least 55 other energy contracts were awarded, though they had not reached financial closure or been signed before the end of the year. East Asia had many of these: nine greenfield power plants (three for 1,060 MW in Indonesia, two for 108 MW in Lao PDR, and four for 4,400 MW in Thailand), a new 1,100-km gas pipeline in Indonesia, three power plant divestitures in the Philippines (the 600-MW Masinloc power plant, 600-MW Calaca power plant, and 175-MW Ambuklao-Binga power complex), and a 25-year concession of Filipino National Transmission Corp. (TransCo) with concession fees of US\$3.95 billion. The potential projects in Europe and Central Asia are the sale of a controlling stake in Electrica Muntenia Sud (Bucharest's electricity distribution company), a 3,000-MW greenfield power plant in Russia, and the merchant 919-MW Bandirma gas-fired power plant in Turkey.

In Latin America the potential projects are 10 greenfield power plants (two hydropowerplants for 3,140 MW in Brazil, a 9-MW wind power project in Costa Rica, two waste-to-energy projects in Mexico, a 54-MW hydropowerplant in Panama, and four hydropower plants for 720 MW in Peru) and three new transmission lines (one in Argentina and two in Brazil). In the Middle East and North Africa the potential projects are a 150-MW hybrid solar-gas plant in Algeria and a management contract for the 470-MW Ain Beni Mathar power plant in Morocco. South Asia's potential projects are nine new power plants (the 1600-MW coal-fired Krishnapatnam power plant and 4,000-MW Mundra Ultra Mega Power Project in India, the 300-MW Upper Karnali hydropowerplant in Nepal, and six power plants for 1,070 MW in Pakistan) and two power distribution franchises in India. The potential projects in Sub-Saharan Africa are 10 greenfield power plants: a 90-MW diesel plant in Angola, the 200-MW Memve'ele hydropower plant in Cameroon, the 14-MW Aja Fatou A Bojang power plant in The Gambia, a 90-MW diesel power plant at Kipevu in Kenya, a 90-MW wind power facility in Namibia, a 188-MW gas-fired power plant at Aba in Nigeria, a 50-MW gas-fired power plant in Rwanda, two power plants for 1,080 MW in South Africa, a 100-MW gas-fired power plant in Togo, and a rental contract for 50 MW in Uganda.

Canceled and distressed projects. In 2007 four private energy projects were canceled or became distressed, while two previously distressed projects became operational, bringing the total number of those canceled or distressed by 2007 to 90. These contracts represent 6% of all energy projects and 9% of investment commitments in 1990–2007. The share of projects canceled or distressed in that period shows no change from the share in 1990–2006, while the share of investment they represent declined by 3 percentage points.

Three contracts were canceled in 2007. Ecuador terminated a five-year management contract for CATEG, Guayaquil's electricity generation and distribution utility, signed in 2006. Mozambique terminated a 20-year concession to generate and distribute electricity in the rural areas of Inhambane and Sofala Provinces, signed in 2004, citing contractual violations. República Bolivariana de Venezuela

nationalized Sistema Electrico de Nueva Esparta, an integrated electricity system serving 90,000 customers on the islands of Margarita, Coche, and Cubagna, which had been divested in 1998.³

A project became distressed when Societe Generale, the shareholder of the divested Empresa Distribuidora Electrica Este, filed an international arbitration claim against the government of the Dominican Republic for alleged breach of contract. Two others left this status when Camuzzi and the government of Argentina discontinued an international arbitration case for Empresa de Energia de Rio Negro (divested in 1996) and Empresa Distribuidora Electrica Atlantica (divested in 1999).

Concluded projects. Four energy projects concluded in 2007: a two-year management contract for Jiro sy Rano Malagasy, the state-owned electricity and water utility in Madagascar; a three-year management contract for a power plant in St. Petersburg, Russia; a 12-year BOT contract for the Malitbog geothermal power plant in the Philippines; and a 10-year BOT contract for the Mahanagdong geothermal power plant, also in the Philippines.

³ República Bolivariana de Venezuela also nationalized the electricity utility Electricidad de Caracas in 2007. This company is not included in the database because it had been private since 1895, while the database includes projects that began in 1984 or later.

Table 1 Energy projects reaching financial or contractual closure in 2007

Note: .. = not available.

East Asia and Pacific										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Cambodia	Kamchay Hydropower Station	Construction	Electricity	Greenfield project (BOT)	100	280	193 MW	44	Sinohydro (100%, China)
2	Cambodia	Stung Atay River Hydropower Station	Construction	Electricity	Greenfield project (BOT)	100	255.3	120 MW	33	China Yunnan Corporation for International Techno-Economic Cooperation (100%, China)
3	Cambodia	Phnom Penh to Battambang Transmission Line	Construction	Electricity	Greenfield project (BOT)	100	113.4	302 km	27	Yunnan Southeast-Asia Economy and Technology Investment Industrial Company Ltd. (100%, China)
4	China	Luoyang Xin'an Xin'ao Company Limited	Operational	Natural gas	Concession	90	1.32	..	30	Xinao Gas Holdings Limited (90%, China)
5	China	Qingdao Xin'ao Jiaocheng Gas Company Limited	Operational	Natural gas	Greenfield project (BOT)	100	20	..	26	Xinao Gas Holdings Limited (100%, China)
6	China	Ningbo City Jinzhou District Gas Project	Operational	Natural gas	Concession	..	0	Xinao Gas Holdings Limited (..%, China)
7	China	Haerbin Zhongqing Gas Company Ltd.	Operational	Natural gas	Concession	48	62.8	890,000 connections	30	China Gas Holdings Limited (48%, Hong Kong, China)
8	China	Taizhou Gas Company	Operational	Natural gas	Concession	50	9.37	17,000 connections	30	China Gas Holdings Limited (25%, Hong Kong, China), SK Corp. (25%, ..)
9	China	Meizhou City Gas Project	Construction	Natural gas	Greenfield project (BOT)	50	6.58	..	30	China Gas Holdings Limited (50 Hong Kong, China)
10	China	Yulin City Gas Project	Construction	Natural gas	Greenfield project (BOT)	60	2.63	..	30	China Gas Holdings Limited (60%, Hong Kong, China)
11	China	Shenyang Sujiatun Gas Project	Construction	Natural gas	Greenfield project (BOT)	100	65.79	..	30	China Gas Holdings Limited (100%, Hong Kong, China)
12	China	Dezhou China Gas City Development Company Limited	Operational	Natural gas	Greenfield project (BOT)	51	28.19	..	30	China Gas Holdings Limited (51%, Hong Kong, China)
13	China	Baotou City Gas Company	Operational	Natural gas	Concession	80	19.34	..	50	China Gas Holdings Limited (80%, Hong Kong, China)
14	China	Hohhot China Gas City Gas Development Company Ltd.	Operational	Natural gas	Concession	50	105.26	240,000 connections	30	China Gas Holdings Limited (50%, Hong Kong, China)
15	China	Chongqing Yubei District Natural Gas Company Ltd.	Operational	Natural gas	Concession	97.6	15.13	94,000 connections	30	China Gas Holdings Limited (98%, Hong Kong, China)

16	China	Huanghua City Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	49	69.74	50 MW	20	AES Corporation (49%, United States)
17	China	Guohua Ruifeng Zhanhua Wind Farm Project Phase I	Construction	Electricity	Greenfield project (BOT)	49	63.16	50 MW	20	Hydro Tasmania (25%, Australia), China Light and Power Ltd. (25%, Hong Kong, China)
18	China	Guohua Ruifeng Hekou Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	49	75	51 MW	20	China Light and Power Ltd. (25%, Hong Kong, China), Hydro Tasmania (25%, Australia)
19	China	Guohua Ruifeng Lijin Wind Farm Project Phase I	Construction	Electricity	Greenfield project (BOT)	49	65.79	52 MW	20	China Light and Power Ltd. (25%, Hong Kong, China), Hydro Tasmania (25%, Australia)
20	China	Datang Ruifeng Xiangyang Wind Farm Project Phase I	Construction	Electricity	Greenfield project (BOT)	49	0	53 MW	..	China Light and Power Ltd. (25%, Hong Kong, China), Hydro Tasmania (25%, Australia)
21	China	Datang Ruifeng Datong Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	49	64.47	54 MW	30	China Light and Power Ltd. (25%, Hong Kong, China), Hydro Tasmania (25%, Australia)
22	China	Taipusi Shenhua Xiehe Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	50	52.24	55 MW	30	China Windpower Group Limited (50%, China)
23	China	Erliahaote Changfeng Xiehe Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	49	30.26	21 MW	30	China Windpower Group Limited (49%, China)
24	China	Fuxin United Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	50	47.96	41 MW	30	China Windpower Group Limited (50%, China)
25	China	Zhenlai County Wind Farm Project Phase I	Construction	Electricity	Greenfield project (BOT)	50	59.21	50 MW	30	China Windpower Group Limited (50%, China)
26	China	Bayanchuoer Wind Farm Project Phase I	Construction	Electricity	Greenfield project (BOT)	25	64.47	50 MW	30	Others (25%, ..)
27	China	Zhongjieneng Wind Power (Zhangbei) Company Limited	Construction	Electricity	Greenfield project (BOT)	40	211.18	200 MW	25	Hong Kong Construction (Holdings) Ltd. (40%, Hong Kong, China)
28	China	Bailingmiao Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	100	63.42	50 MW	50	Golden State Environment (100%, United States)
29	China	Gemeng International Energy Company Ltd.	Operational	Electricity	Divestiture	53	685	Korea Electric Power Company (KEPCO) (34%, Republic of Korea)
30	China	Taizhou City Dachen Island Wind Farm Project	Construction	Electricity	Greenfield project (BOT)	100	33.46	26 MW	50	Shanghai Hupo Energy Technology Company Limited (65%, China), Zhejiang Xingxing Group (35%, China)
31	China	Yangjiang Hailin Island Wind Farm Project Phase I	Construction	Electricity	Greenfield project (BOT)	100	28.17	22 MW	50	China Light and Power Ltd. (100%, Hong Kong, China)

32	Indonesia	Punagaya Power Plant	Construction	Electricity	Greenfield project (BOO)	100	200	200 MW	30	Bosowa Corporation (100%, Indonesia)
33	Philippines	Masbate Power Generation	Operational	Electricity	Divestiture	100	0	13 MW	..	DM Consunji Inc. (100%, Philippines)
34	Philippines	Magat Hydroelectric Plant	Operational	Electricity	Divestiture	100	530	360 MW		Aboitiz Equity Ventures (50%, Philippines), SN Power (50%, Norway)
35	Philippines	Cebu Coal-Fired Power Plant	Construction	Electricity	Greenfield project (BOO)	100	300	200 MW	..	Korea Electric Power Company (KEPCO) (60%, Republic of Korea), Salcon Bhd (40%, Malaysia)
36	Vietnam	Xiaozhong River Hydropower Station	Construction	Electricity	Greenfield project (BOT)	..	28.68	22 MW	..	China Southern Power Grid Corporation (..%, China)
37	Vietnam	Thac Mo Hydropower Company	Operational	Electricity	Divestiture	20	59	150 MW	..	Others (..%, ..)
38	Vietnam	Ninh Binh Thermal Power Company	Operational	Electricity	Divestiture	31.8	7.3	100 MW	..	Others (..%, ..)
39	Vietnam	Ba Ria Thermal Power Company	Operational	Electricity	Divestiture	20	12	388 MW	..	Others (..%, ..)

Europe and Central Asia										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Bosnia and Herzegovina	Stanari Thermal Power Plant	Construction	Electricity	Greenfield project (BOT)	100	800	410 MW	30	Energy Financing Team (EFT) (100%, United Kingdom)
2	Bulgaria	Ruse Thermal Power Plant	Operational	Electricity	Divestiture	100	117	400 MW	...	Mechel (49%, Russian Federation), Holding Slovenske Elektrarne (HSE) (51%, Slovenia)
3	Bulgaria	Slanchev Briag Electricity Distribution Company	Operational	Electricity	Divestiture	100	32	3,000 connections	..	Energie Versorgung Niederosterreich (EVN) AG (100%, Austria)
4	Georgia	Zahesi Hydropower Plant	Operational	Electricity	Divestiture	100	41	42 MW	..	Bonaser Trading Limited (100%, Georgia)
5	Georgia	Chkhori and Kinkisha Hydropower Plants	Operational	Electricity	Divestiture	73.9	1.9	6 MW	..	Bonaser Trading Limited (74%, Georgia)
6	Georgia	United Energy Distribution Company of Georgia (UEDC) and Distribution Company of Adjara (EDCA)	Operational	Electricity	Divestiture	100	138.8	875,000 connections	..	Energo-Pro a.s. (100%, Czech Republic)
7	Georgia	Energo-Pro Hydro Plant (Lajanuri, Rioni, Gumati, Shaori, Dzevrula, and Ats)	Operational	Electricity	Divestiture	100	276	361 MW	..	Energo-Pro a.s. (100%, Czech Republic)
8	Romania	Romanian Gas Transmission Company (Transgaz)	Operational	Natural gas	Divestiture	10	2,600	12,200 km

9	Russian Federation	Wholesale Generating Company OAO OGK-4	Operational	Electricity	Divestiture	70	5,700	8,630 MW	..	E.ON (70%, Germany)
10	Russian Federation	Wholesale Generating Company OAO OGK-3	Operational	Electricity	Divestiture	64.8	4,034	8,500 MW	..	Norilsk Nickel (65%, Russian Federation)
11	Russian Federation	Kozhukhovo Power Plant	Construction	Electricity	Greenfield project (BOT)	100	500	340 MW	49	The Zorlu Group (51%, Turkey), Invar International Inc. (49%, United States)
12	Russian Federation	Tereshkovo Power Plant	Construction	Electricity	Greenfield project (BOT)	100	500	340 MW	49	Invar International Inc. (49%, United States), The Zorlu Group (51%, Turkey)
13	Russian Federation	Kuzbass Energy Sales Company – KuzbassEnergoSbyt	Operational	Electricity	Divestiture	72	44	2,855,000 connections	..	Mechel (72%, Russian Federation)
14	Russian Federation	Sverdlov Energy Sales Company – SverdlovEnergoSbyt	Operational	Electricity	Divestiture	49	44.6	1,293,000 connections	..	Integrated Energy Systems Holding (IES) (49%, Russian Federation)
15	Russian Federation	Orenburg Energy Sales Company – OrenburgEnergoSbyt	Operational	Electricity	Divestiture	100	42.6	725,000 connections	..	Integrated Energy Systems Holding (IES) (100%, Russian Federation)
16	Russian Federation	Territorial Generating Company TGK-5	Operational	Electricity	Divestiture	75	450	2,467 MW	..	Integrated Energy Systems Holding (IES) (41%, Russian Federation)
17	Russian Federation	Nizhegorod Energy Sales Company – Nizhnovenergosbyt	Operational	Electricity	Divestiture	100	79	1,300,000 connections	..	Depository Clearing Company (DCC) (32%, Russian Federation), Transneftservice-S LLC (49%, Russian Federation)
18	Russian Federation	Kirov Energy Sales Company – OAO KirovEnergoSbyt	Operational	Electricity	Divestiture	100	12	640,000 connections	..	Wilmington Investments Limited (18%, Russian Federation), Integrated Energy Systems Holding (IES) (48%, Russian Federation)
19	Russian Federation	Perm Energy Sales Company – PermEnergoSbyt	Operational	Electricity	Divestiture	100	51	3,000,000 connections	..	Integrated Energy Systems Holding (IES) (36%, Russian Federation), Center Nadezhnosti (49%, Russian Federation)
20	Russian Federation	Territorial Generating Company-12 (TGK-12)	Operational	Electricity	Divestiture	57.9	304	4,407 MW	..	Siberian Coal Energy Company (SUEK) (44%, Russian Federation)
21	Russian Federation	Taimyrenergo OAO	Operational	Electricity	Divestiture	100	271	1,041 MW	..	Norilsk Nickel (100%, Russian Federation)
22	Turkey	Gaziantep Gas Distribution Company	Construction	Natural gas	Greenfield project (BOO)	100	60	..	30	The Zorlu Group (100%, Turkey)
23	Turkey	Trakya Gas Distribution Company	Construction	Natural gas	Greenfield project (BOO)	100	1.9	..	30	The Zorlu Group (100%, Turkey)

Latin America and the Caribbean										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Brazil	Foz do Chapeco Hydroelectric Power Plant	Construction	Electricity	Greenfield project (BOT)	51	1,258.1	855 MW	35	CPFL Energia (51%, Brazil)
2	Brazil	Estreito Hydroelectric Power Plant	Construction	Electricity	Greenfield project (BOT)	100	1,858.9	1,087 MW	35	Companhia Vale do Rio Doce SA (CVRD) (30%, Brazil), SUEZ (40%, France), Alcoa (26%, United States)
3	Brazil	Veneto Small Hydroelectric Plant	Construction	Electricity	Greenfield project (BOO)	100	61.1	28 MW	..	Bolognesi Group (100%, Brazil)
4	Brazil	Da Ilha Small Hydroelectric Plant	Construction	Electricity	Greenfield project (BOO)	100	56.8	26 MW	..	Bolognesi Group (100%, Brazil)
5	Brazil	Retiro Baixo Hydroelectric Plant	Construction	Electricity	Greenfield project (BOT)	51	150.3	82 MW	30	..
6	Chile	Charrua Temuco Transmission Line	Construction	Electricity	Greenfield project (BOT)	100	68	204 km	23	Alusa (51%, Brazil), Companhia Energetica de Minas Gerais (CEMIG) (49%, Brazil)
7	Chile	La Confluencia Hydroelectric Plant	Construction	Electricity	Greenfield project (BOO)	100	334	158 MW	..	Pacific Hydro Pty Limited (PHL) (50%, Australia), SN Power (50%, Norway)
8	Colombia	Hidroprado Hydroelectric Plant	Operational	Electricity	Divestiture	87	103.4	52 MW	..	Union Fenosa (87%, Spain)
9	Colombia	Isagen SA	Operational	Electricity	Divestiture	19.9	284.8	2,182 MW	..	Others (..%, ..)
10	Guatemala	Xacbal Hydroelectric Plant	Construction	Electricity	Greenfield project (merchant)	100	226.8	94 MW	..	Grupo Terra (100%, Honduras)
11	Mexico	Norte I Combined Cycle Plant	Construction	Electricity	Greenfield project (BOO)	100	400	450 MW	25	Union Fenosa (100%, Spain)
12	Nicaragua	Eolico Amayo Wind Farm	Construction	Electricity	Greenfield project (BOO)	100	95	40 MW	..	Centrans Energy Services (45%, Guatemala), Arctas Capital Group LP (45%, United States)
13	Panama	Santa Fe Wind Farm	Construction	Electricity	Greenfield project (BOO)	100	150	81 MW	..	Santa Fe Energy SA (100%, Panama)
14	Panama	Changuinola Hydroelectric Plant	Construction	Electricity	Greenfield project (BOO)	83	320	223 MW	..	AES Corporation (83%, United States)
15	Peru	El Platanal Hydroelectric Plant	Construction	Electricity	Greenfield project (BOO)	100	220	210 MW	..	Cementos Lima SA (60%, Peru), Cemento Andino SA (30%, Peru)

Middle East and North Africa										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Egypt, Arab Rep.	East Mediterranean Gas Pipeline Company (EMG)	Operational	Natural gas	Greenfield project (BOO)	90	469	88 km	..	Mediterranean Gas Pipeline Limited (28%, Arab Republic of Egypt), PTT Public Company Ltd. (25%, Thailand), Merhav Group (25%, Israel)
2	Jordan	Central Electricity Generating Company (Cegco)	Operational	Electricity	Divestiture	51	120	1,700 MW	..	Dubai Holding (34%, United Arab Emirates)
3	Jordan	AES Jordan PSC	Construction	Electricity	Greenfield project (BOO)	100	300	370 MW	..	Mitsui (40%, Japan), AES Corporation (60%, United States)
4	Iraq	Erbil Power Plant	Construction	Electricity	Greenfield project (BOT)	..	650	500 MW	15	
5	Oman	Barka II Power and Desalination Facility	Construction	Electricity, treatment plant	Greenfield project (BOO)	100	600	678 MW	..	SUEZ (48%, France), Mubadala Development Company (48%, United Arab Emirates)

South Asia										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	India	Nigrie Thermal Project	Construction	Electricity	Greenfield project (BOO)	100	1,250	1,000 MW	..	Jaiprakash Associates Limited (100%, India)
2	India	Alaknanda Hydro Electric Power Project	Construction	Electricity	Greenfield project (BOT)	100	375	300 MW	45	GMR Group (100%, India)
3	India	Kamalanga Thermal Power Plant	Construction	Electricity	Greenfield project (BOO)	100	1,053	1,050 MW	..	GMR Group (100%, India)
4	India	Shrinagar Hydro Electric Project	Construction	Electricity	Greenfield project (BOT)	100	517.25	330 MW	45	GVK Group (100%, India)
5	India	Teesta VI Hydro Electric Project	Construction	Electricity	Greenfield project (BOT)	74	750	500 MW	35	Lanco Group (74%, India)
6	India	Chuzachen Hydro Power Project	Construction	Electricity	Greenfield project (BOT)	74	112.19	99 MW	35	Gati Infrastructure (74%, India)
7	India	Teesta III Hydro Electric Project	Construction	Electricity	Greenfield project (BOT)	63	1,426.38	1,200 MW	35	Teesta Urja Limited (63%, India)
8	India	Rosa Thermal Power Project	Construction	Electricity	Greenfield project (BOO)	100	675.5	600 MW	..	Reliance ADA Group (100%, India)

9	India	Anpara C Thermal Power Station	Construction	Electricity	Greenfield project (BOO)	100	1,100	1,200 MW	..	Lanco Group (100%, India)
10	India	Ratnagiri Power Project	Construction	Electricity	Greenfield project (BOO)	100	1,125	1,200 MW	..	JSW Energy (100%, India)
11	India	Raj West Power Limited Phase I	Construction	Electricity	Greenfield project (BOO)	100	1,250	1,080 MW	..	JSW Energy (100%, India)
12	India	East-West Gas Pipeline	Construction	Natural gas	Greenfield project (BOO)	100	125	1,440 km	..	Reliance Industries Limited (RIL) (100%, India)
13	India	Power Grid Corporation of India Limited (PGCIL)	Operational	Electricity	Divestiture	13.6	728	67,000 km	..	Others (..%, ..)
14	India	Khandke Wind Farm	Construction	Electricity	Greenfield project (BOO)	100	67	50 MW	..	China Light and Power Ltd. (50%, Hong Kong, China), Hydro Tasmania (50%, Australia)
15	Pakistan	Attock General Limited Power Project	Construction	Electricity	Greenfield project (BOT)	100	148.6	165 MW	25	Attock Oil Company Ltd. (AOC) (100%, United Kingdom)
16	Pakistan	Foundation Power Company Daharki	Construction	Electricity	Greenfield project (BOO)	100	200	175 MW	25	Fauji Foundation (100%, ..)
17	Pakistan	Sapphire Power Project	Construction	Electricity	Greenfield project (BOO)	100	185	225 MW	25	Xenel Industries Ltd. (..%, Saudi Arabia), Sapphire Group (..%, Pakistan)
18	Pakistan	Saif Power Project	Construction	Electricity	Greenfield project (BOO)	100	200	225 MW	25	Saif Group (100%, Pakistan)
19	Pakistan	Atlas Power Project	Construction	Electricity	Greenfield project (BOO)	100	150	225 MW	25	Atlas Group (100%, Pakistan)

Sub-Saharan Africa										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Gabon	Aggreko Bellevue and Owendo Power Plant	Operational	Electricity	Greenfield project (rental)	100	0	30 MW	..	Aggreko Plc (100%, United Kingdom)
2	Ghana	Osagyefo Power Barge	Construction	Electricity	Concession	100	100	125 MW	20	Balkan Energy Company (100%, United States)
3	Nigeria	Egbin Power Plant	Operational	Electricity	Divestiture	51	280	1,320 MW	..	Korea Electric Power Company (KEPCO) (16%, Republic of Korea), Energy Resources Limited (36%, United Kingdom)
4	Sierra Leone	GTG Freetown 15-MW Emergency Power	Operational	Electricity	Greenfield project (rental)	100	1.18	15 MW	1	Global Trading Group NV (GTG) (100%, Belgium)
5	Uganda	Bujagali Hydro Project	Construction	Electricity	Greenfield project (BOT)	88.3	799	250 MW	30	Sithe Global Power (58%, United States), Aga Khan Fund (31%, Switzerland)
6	Uganda	Aggreko Mutundwe Thermal Plant Project	Construction	Electricity	Greenfield project (rental)	100	11.8	50 MW	3	Aggreko Plc (100%, United Kingdom)